Race to the Top—Phase Two

Application for Initial Funding

CFDA Number: 84.395A

APPENDIX

Iowa Department of Education

Des Moines, IA

BUDGET

and

BUDGET NARRATIVE

BUDGET PART I: BUDGET SUMMARY NARRATIVE

The state of Iowa's Race to the Top (RTTT) application sets forth a bold vision for the systemic transformation of public education. Building on a deep statewide commitment to education and an impressive foundation of policy infrastructure, fiscal support, educator development and high achievement, at the heart of this vision is the conviction that being good is not good enough. The demands of the 21st century global economy require the mastery of a demanding core of essential concepts and skills to prepare Iowa's children for collegiate success and career accomplishment. In 2001, state, regional and local leaders in education, business, technology, health, social services and economic development articulated and began the design of a shared vision for Iowa's future and the education system that would serve as its catalyst. The centerpiece of that system is the **Iowa Core**, which sets the state toward the transformation of current grade-level and course-based education into a student-focused **competency-based system of education** that supports higher level learning for all students.

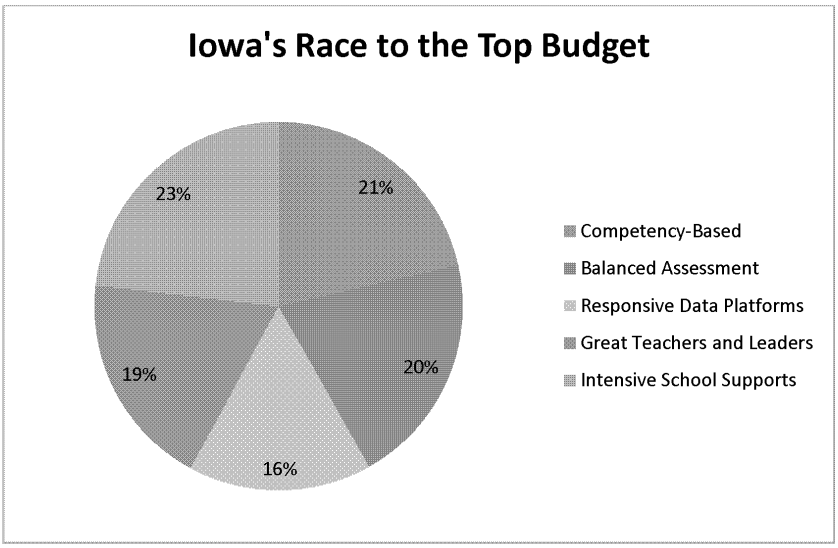
Iowa's RTTT budget request of **$174,999,477** is structured around the plan to systematize the type of collaboration out of which Iowa's shared vision for education transformation was conceived. The Iowa Department of Education (IDE) along with Area Education Agencies (AEA) and Local Education Agencies (LEA), teacher and administrator associations, institutions of higher education (IHE), other states and national experts is re-structuring the ways in which these critical stakeholders and partners work together to ensure the first rate education our children deserve. Organized around the four areas of reform articulated in RTTT and transformation to a competency based system of education, these partners will engage processes of research, design and development through a system of five **Centers for Collaborative Inquiry** (CCI). Each CCI, staffed with experts in educational transformation, content, policy, and leadership, will target the state's problems of policy and practice using collaborative research and development approaches.

Each CCI serves as the hub for a range of activities focused on capacity building, professional and infrastructure development, improved practice and school reform. The CCIs are the catalyst for the work in each priority area for reform as listed below:

- **State Success Factors** (Center for Collaborative Inquiry for Competency Based Education)
- **Standards and Assessments** (Center for Collaborative Inquiry for Balanced Assessment)
- **Data Systems to Support Instruction** (Center for Collaborative Inquiry for Responsive Data Systems)
- **Great Teachers and Leaders** (Center for Collaborative Inquiry for Educator Development and Support)
- **Turning Around the Lowest Achieving Schools** (Center for Collaborative Inquiry for Intensive School Supports)

The CCIs and all other efforts under RTTT will be administered by the Office of the RTTT Director. The office is supported by the **Coordinating Council**, comprised of the Race to the Top Director, the Director of Education, the project managers from each Center, the top Division Directors in the IDE, and a representative of the AEA chiefs. The Council's primary responsibility is to coordinate efforts across centers and across the state department, develop sustainability structures, identify and provide salient professional development on systems change, leadership, and implementation capacity to all center staff, and coordinate the management of fiscal, evaluation and reporting activities.

The graph below reflects the focus of expenditures detailed in the budget to follow.



As encouraged by the Race to the Top program, Iowa has leveraged and continues to explore varied streams of resources to support its systemic transformation. For example, toward the development of more responsive data systems, Iowa has invested $2.9 million of its own resources in building a data warehouse, called EdInsight. EdInsight enables LEAs to implement a comprehensive approach to data driven decision making with a role-based, web-accessible, point-and-click tool to make and track decisions that impact student

growth and achievement. It also provides teachers, administrators and district leadership with student data and resources such as lesson plans, exercises, and local assessments. In addition, Iowa has recently received an $8.8 million grant from the US Department of Education which will supplement the Race to the Top funds allocated to our data systems. Another example is that local school systems in Iowa will receive over $57 million from a settlement with the Microsoft Corporation. Recommendations from the Center for Collaborative Inquiry on Responsive Data Systems will include how to appropriately use those funds to support the acquisition of local instruction improvement systems.

In addition to these, Iowa has applied for or has received funding from several funding sources with which it will coordinate its efforts under Race to the Top, including programs and funding streams like:

- State allocated funds for STEM through Iowa Math and Science Education Partnership (IMSEP)
- State allocated Iowa Core Implementation funds
- Iowa's National Science Foundation funded Science, Technology, Engineering, and Mathematics (STEM) Equity Pipeline project
- ESEA Title I School Improvement Grants
- ARRA
- IDEA
- Teacher Quality Partnership grant

The IDE has established a plan of coordinated funding to cover staff salaries in the CCIs, using a combination of federal, state, and local funds to cover the current and new positions in the Centers. The fiscal planning and objective in the development of this application is to transition funding for all CCI staff from RTTT to other state and federal funds at the conclusion of the four-year grant period. When we are fully staffed under this grant, 40 % of these positions are covered by other federal and state program funds and 60% are covered by RTTT funds.

Summary Budget, Iowa's Race to the Top Application

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	2,302,426	4,132,386	4,250,243	3,595,601	14,280,656
2. Fringe Benefits	1,129,458	1,161,691	1,194,891	1,030,873	4,516,913
3. Travel	477,710	533,729	548,634	527,075	2,087,148
4. Equipment	700,120	255,716	225,461	30,991	1,212,289
5. Supplies	33,000	33,120	33,244	4,371	103,735
6. Contractual	6,849,977	7,607,061	7,544,370	9,161,494	31,162,903
7. Training Stipends	108,750	112,013	115,373	118,834	454,969
8. Other	497,500	512,425	527,798	543,632	2,081,354
9. Total Direct Costs (lines 1-8)	12,098,941	14,348,140	14,440,013	15,012,872	55,899,966
10. Indirect Costs*	534,781	629,127	1,637,688	1,834,098	4,635,695
11.Funding for Involved LEAs	-	-	-	-	-
12. Supplemental Funding for Participating LEAs	5,034,700	6,265,675	6,847,755	8,815,947	26,964,077
13. Total Costs (lines 9-12)	17,668,422	21,242,943	22,925,457	25,662,917	87,499,739
14. Funding Subgranted to Participating LEAs (50% of Total Grant)	21,874,935	21,874,935	21,874,935	21,874,935	87,499,739
15. Total Budget (lines 13-14)	39,543,357	43,117,877	44,800,391	47,537,852	174,999,477

(A) State Success Factors

Budget Part II: Project-Level Budget Table - Combined					
Project Name:	State Success Factors				
Associated with Criteria:					
(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	546,250	916,038	943,519	971,824	3,377,630
2. Fringe Benefits	164,098	169,020	174,091	179,314	686,523
3. Travel	32,500	46,570	47,967	49,406	176,443
4. Equipment	32,960	18,556	12,786	12,786	77,089
5. Supplies	4,000	4,120	4,244	4,371	16,735
6. Contractual	2,005,000	2,335,150	2,605,205	3,033,361	9,978,715
7. Training Stipends	-	-	-	-	-
8. Other	-	-	-	-	-
9. Total Direct Costs (lines 1-8)	2,784,808	3,489,454	3,787,811	4,251,062	14,313,135
10. Indirect Costs*	121,081	152,720	317,577	342,504	933,882
11.Funding for Involved LEAs	-	-	-	-	-
12. Supplemental Funding for Participating LEAs	1,198,700	674,675	674,675	974,675	3,522,725
13. Total Costs (lines 9-12)	4,104,589	4,316,849	4,780,063	5,568,241	18,769,742

Budget Part II: Project-Level Budget Table					
Project Name:	**Race to the Top Project Management and Program Development**				
Associated with Criteria:					
(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	304,000	313,120	322,514	332,189	1,271,823
2. Fringe Benefits	89,000	91,670	94,420	97,253	372,343
3. Travel	19,000	19,570	20,157	20,762	79,489
4. Equipment	24,980	8,576	8,826	8,826	51,209
5. Supplies	2,000	2,060	2,122	2,185	8,367
6. Contractual	1,280,000	1,588,400	1,836,052	2,241,134	6,945,586
7. Training Stipends		-	-	-	-
8. Other		-	-	-	-
9. Total Direct Costs (lines 1-8)	1,718,980	2,023,396	2,284,091	2,702,349	8,728,816
10. Indirect Costs*	74,536	88,652	100,112	118,515	381,815
11.Funding for Involved LEAs		-	-	-	-
12. Supplemental Funding for Participating LEAs	274,675	274,675	274,675	274,675	1,098,700
13. Total Costs (lines 9-12)	2,068,191	2,386,724	2,658,878	3,095,539	10,209,331

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

(A): Race to the Top Project Management and Program Development

1) Personnel

This office will have responsibility for the administration of the Race to the Top (RTTT) program and will coordinate all five Centers for Collaborative Inquiry, providing ongoing support for program and materials development. Under the leadership of the RTTT Director, it will be staffed by an instructional designer, an evaluation specialist, a communications specialist (funded by state dollars), and an administrative assistant. Subsequent years' inflation is charged at 3% per year. At the end of four years, these staff will be transitioned onto the state payroll.

1) Personnel

Personnel:	% FTE	Base Salary	Total per Year
RTTT Director	100%	$86,250	$86,250
Instructional Designer	100%	$83,000	$83,000
Evaluation Specialist	100%	$83,000	$83,000
Administrative Assistant	100%	$51,750	$51,750

2) Fringe Benefits
4.4%

3) Travel

The RTTT Director will be travelling very frequently, both within Iowa and outside. Travel is based on the typical annual costs for travel of a consultant in a similar position, which is $10,000. This travel is for national conferences, USED monitoring, professional development, research, technical assistance, and PR. The instructional designer, evaluation and communications consultant specialists are expected to travel half as often as the Director, mostly within Iowa, but also nationally, for $5,000 per year each. This travel is for national conferences and USED visits, and to capture student and teacher work on video and other media, and to provide professional development and training.

The state of Iowa currently reimburses 39 cents per mile for mileage and $50 per night for lodging.

4) Equipment

The state of Iowa does not have a rigid definition of equipment and follows the definition required by grant makers. Each staff member receives a laptop and docking station, and a Blackberry. An additional allotment is allocated for equipment in order to purchase necessary video, audio, and presentation equipment. The major work of the professional development designer, evaluation and communications specialists is to create material to be used by every center, to document/chronicle the Race to the Top program, and to support educators in using materials created. State of the art equipment is necessary. The IDE does have a new video room; this would supplement existing equipment. Subsequent years consider inflation and periodic replacement of portable equipment.

Equipment:	Cost of Item	Total
4 laptop computers and docking stations	$2,000	$8,000
Three specialized computers and multi-media equipment	$5,000	$15,000
Four Blackberry's and service fees	$660/year	$2,640/yr.

5) Supplies

In addition to regular office supplies, this office will require instructional and presentation materials. The estimates are based on the average unit expense on supplies within the IDE.

6) Contractual

This office will contract with specialists in implementation science, adaptive leadership, and systems change to help design, develop, and train Center staff and participants. Further, the office will conduct evaluation activities for the Race to the Top program in Iowa, conduct a public relations campaign in the last two years, professional development for staff in the unit, and specialized contractor advice as needed.

The state has not yet procured these services; upon receipt of the grant, the State will follow the procedures for procurement under 34 CFR Parts 74.40 -74.48 and Part 80.36.

Contractual:	Cost of Item per Year	Total*
Implementation Science, adaptive leadership, systems change	$1,000,000	$4,589,627*
Evaluation	$250,000	$1,451,907
Professional development, and other contracted services	$100,000 yrs. 1-2; additional $100,000 yrs. 3-4	$621,363
Public relations campaign (years2-3)	$100,000	$203,000

* Inflation is figured at 3% per year.

9) Total Direct Costs

Total Direct Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	1,718,980	2,023,396	2,284,091	2,702,349	8,728,816

10) Indirect Costs

Iowa's indirect cost rate is 4.4% for restricted budget items

12) Supplemental Funding for Participating LEAs

a) The IDE is providing supplemental funding to participating LEAs to ensure a minimum subgrant of $130,000 per LEA over four years.

Activity	Cost	Approx. # of LEAs	Total
Subgrant supplement to bring minimum up to $60,000 for four years	$274,675 per year total	66	$1,098,700

The rationale for the supplement to the subgrants is to give our small, rural districts enough resource to viably participate in Race to the Top.

SUPPLEMENTAL SUBGRANTS TO BRING LEAS TO A MINIMUM OF $60,000 OVER FOUR YEARS

AEA	County/ District	LEA	Title I, Part A Regular Allocation: Title I Allocation	Title I, Part A Regular Allocation: % of Total 08-09 Allocations	Total RTTT Funds $175 Million: Total District RTTT Funds $ 87,500,000	Minimum Sugrant $ 60,000	
					Guaranteed Subgrant	Supplemental Subgrant	Total Subgrant
10	57-0099	Alburnett Community School District	26,971	0.04%	39,121	20,879	60,000
267	12-0153	Allison-Bristow Community School District	29,834	0.05%	43,274	16,726	60,000
13	15-0252	Anita Community School District	41,018	0.07%	59,496	504	60,000
NW	18-0423	Aurelia Community School District	23,716	0.04%	34,400	25,600	60,000
11	50-0513	Baxter Community School District	27,406	0.05%	39,752	20,248	60,000
9	16-0603	Bennett Community School District	24,158	0.04%	35,041	24,959	60,000
10	57-1089	Central City Community School District	36,769	0.06%	53,333	6,667	60,000
267	12-1215	Clarksville Community School District	37,668	0.06%	54,637	5,363	60,000
14	87-1224	Clearfield Community School District	34,519	0.06%	50,069	9,931	60,000
11	85-1350	Collins-Maxwell Community School District	29,153	0.05%	42,286	17,714	60,000
GP	29-1602	Danville Community School District	39,302	0.07%	57,007	2,993	60,000
9	23-1675	Delwood Community School District	38,962	0.06%	56,514	3,486	60,000
267	09-1719	Denver Community School District	23,418	0.04%	33,967	26,033	60,000
14	80-1782	Diagonal Community School District	31,765	0.05%	46,075	13,925	60,000
13	83-2016	Elk Horn-Kimballton Community School District	21,513	0.04%	31,204	28,796	60,000
13	73-2113	Essex Community School District	22,774	0.04%	33,033	26,967	60,000
13	36-2205	Farragut Community School District	38,946	0.06%	56,491	3,509	60,000
8	46-2493	Gilmore City-Bradgate Community School District	25,274	0.04%	36,660	23,340	60,000
267	86-2502	Gladbrook-Reinbeck Community School District	30,879	0.05%	44,790	15,210	60,000
11	14-2520	Glidden-Ralston Community School District	32,897	0.05%	47,717	12,283	60,000
8	74-2556	Graettinger Community School District	28,793	0.05%	41,764	18,236	60,000
267	12-2664	Greene Community School District	19,278	0.03%	27,962	32,038	60,000
8	30-2846	Harris-Lake Park Community School District	26,690	0.04%	38,713	21,287	60,000

NW	75-2988	Hinton Community School District	27,566	0.05%	39,984	20,016	60,000
10	48-2766	H-L-V Community School District	28,389	0.05%	41,178	18,822	60,000
267	42-3033	Hubbard-Radcliffe Community School District	33,773	0.06%	48,987	11,013	60,000
267	07-3042	Hudson Community School District	28,954	0.05%	41,997	18,003	60,000
13	83-3168	IKM Community School District	39,081	0.06%	56,686	3,314	60,000
267	09-3186	Janesville Consolidated School District	13,803	0.02%	20,021	39,979	60,000
GP	54-3330	Keota Community School District	34,882	0.06%	50,596	9,404	60,000
GP	93-3705	Lineville-Clio Community School District	21,409	0.04%	31,053	28,947	60,000
10	57-3744	Lisbon Community School District	31,929	0.05%	46,313	13,687	60,000
10	52-3816	Lone Tree Community School District	24,393	0.04%	35,382	24,618	60,000
###	50-3906	Lynnville-Sully Community School District	24,872	0.04%	36,076	23,924	60,000
13	65-3978	Malvern Community School District	38,609	0.06%	56,002	3,998	60,000
11	14-4014	Manning Community School District	40,023	0.07%	58,053	1,947	60,000
NW	18-4068	Marcus-Meriden-Cleghorn Community School District	27,965	0.05%	40,563	19,437	60,000
GP	58-4509	Morning Sun Community School District	38,732	0.06%	56,180	3,820	60,000
13	65-4751	Nishna Valley Community School District	32,558	0.05%	47,225	12,775	60,000
267	34-4761	Nora Springs-Rock Falls Community School District	36,052	0.06%	52,293	7,707	60,000
8	81-4860	Odebolt-Arthur Community School District	38,132	0.06%	55,310	4,690	60,000
10	53-4905	Olin Consolidated School District	28,345	0.05%	41,114	18,886	60,000
8	13-5301	Pomeroy-Palmer Community School District	39,709	0.07%	57,597	2,403	60,000
14	02-5328	Prescott Community School District	25,250	0.04%	36,625	23,375	60,000
9	49-5337	Preston Community School District	24,001	0.04%	34,813	25,187	60,000
267	17-5616	Rockwell-Swaledale Community School District	18,588	0.03%	26,962	33,038	60,000
8	74-5724	Ruthven-Ayrshire Community School District	30,403	0.05%	44,099	15,901	60,000
8	55-5868	Sentral Community School District	28,482	0.05%	41,313	18,687	60,000
267	35-5922	Sheffield-Chapin Meservey-Thornton Community School District	34,417	0.06%	49,921	10,079	60,000
10	57-6138	Springville Community School District	25,494	0.04%	36,979	23,021	60,000
267	66-5751	St Ansgar Community School District	47,897	0.08%	69,474	-	69,474
14	69-6165	Stanton Community School District	7,378	0.01%	10,702	49,298	60,000
8	40-6246	Stratford Community School District	38,128	0.06%	55,304	4,696	60,000
8	30-6345	Terril Community School District	22,227	0.04%	32,240	27,760	60,000
8	55-6417	Titonka Consolidated School District	20,689	0.03%	30,009	29,991	60,000
13	78-6460	Tri-Center Community School District	41,211	0.07%	59,776	224	60,000
GP	54-6462	Tri-County Community School District	39,523	0.07%	57,328	2,672	60,000
267	09-6471	Tripoli Community School District	35,635	0.06%	51,688	8,312	60,000
8	46-6516	Twin Rivers Community School District	37,290	0.06%	54,089	5,911	60,000
11	08-6561	United Community School District	19,364	0.03%	28,087	31,913	60,000
267	17-6633	Ventura Community School District	16,387	0.03%	23,769	36,231	60,000

13	78-6750	Walnut Community School District	23,643	0.04%	34,294	25,706	60,000
8	74-6921	West Bend-Mallard Community School District	39,881	0.07%	57,847	2,153	60,000
10	16-6930	West Branch Community School District	33,076	0.05%	47,976	12,024	60,000
267	41-7083	Woden-Crystal Lake Community School District	15,374	0.03%	22,300	37,700	60,000
NW	97-7098	Woodbury Central Community School District	33,965	0.06%	49,266	10,734	60,000
		TOTAL DISTRICT SUBGRANTS	60,324,644	100.00%	$ 87,500,000	$ 1,098,700	$88,598,700

13) Total Costs

Total Costs	Year One	Year Two	Year Three	Year Four	TOTAL
Total Costs (lines 9-12)	2,068,191	2,386,724	2,658,878	3,095,539	10,209,331

Budget Part II: Project-Level Budget Table

Project Name: Center for Collaborative Inquiry on Competency-Based Education

Associated with Criteria:

(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	242,250	602,918	621,005	639,635	2,105,808
2. Fringe Benefits	75,098	77,350	79,671	82,061	314,180
3. Travel	13,500	27,000	27,810	28,644	96,954
4. Equipment	7,980	9,980	3,960	3,960	25,880
5. Supplies	2,000	2,060	2,122	2,185	8,367
6. Contractual	725,000	746,750	769,153	792,227	3,033,130
7. Training Stipends		-	-	-	-
8. Other		-	-	-	-
9. Total Direct Costs (lines 1-8)	1,065,828	1,466,058	1,503,720	1,548,713	5,584,319
10. Indirect Costs*	46,545	64,067	217,465	223,989	552,067
11.Funding for Involved LEAs		-	-	-	-
12. Supplemental Funding for Participating LEAs	100,000	400,000	400,000	700,000	1,600,000
13. Total Costs (lines 9-12)	1,212,373	1,930,125	2,121,186	2,472,702	7,736,386

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

(A): Center for Collaborative Inquiry on Competency-Based Education

1) Personnel

Personnel:	% FTE	Base Salary	Total per Year
Administrative Consultant	100%	$86,250	$86,250
4 implementation team members, each with different expertise related to competency-based education, coaching, leadership, and systems design and change	100%	$83,000	$332,000
Secretary	100%	$41,400	$41,400

Note, a sixth implementation team member of the Center team will be hired through contracted services.The IDE will work to reorganize so that the Center staff will come onto state payroll at the end of four years. AEAs participating in the Center and receiving staff must commit to the same.

2) Fringe Benefits: 4.4%

3) Travel

Administrative consultant will travel very frequently, both within Iowa and outside. Travel is based on the typical annual costs for travel of a consultant in a similar position, which is $10,000. This travel is for national conferences, USED monitoring, professional development, research, technical assistance, and PR. Each of the other five staff is expected to travel at a rate of $6,000 per year, mostly within Iowa, but also nationally. This travel is for national conferences and USED visits, and to work with participating LEAs, AEAs, and other Centers. The state of Iowa currently reimburses 39 cents per mile for mileage and $50 per night for lodging.

4) Equipment

The state of Iowa does not have a rigid definition of equipment and follows the definition required by grant makers. Each team member receives a laptop, a docking station, and a Blackberry in year one. Subsequent years consider inflation and periodic replacement of portable equipment.

Equipment:	Cost of Item	Total
Seven laptops and docking stations	$2,000	$14,000
Seven Blackberry's and service fees	$660/year	$4,620/yr.

5) Supplies

In addition to regular office supplies, this office will require instructional and presentation materials. The estimates are based on the average unit expense on supplies within the IDE.

6) Contractual

The sixth member of this team will be contracted from outside the IDE/AEAs. The Center will receive ongoing professional development around implementation science, adaptive leadership, and systems change, and their individual areas of expertise. Staff will take part in national professional associations. Further, the Center will conduct professional development with LEAs. The Center will specifically contract with experts on replacement units and other programs already underway to support competency-based promotion of students. The state has not yet procured these services; upon receipt of the grant, the State will follow the procedures for procurement under 34 CFR Parts 74.40 -74.48 and Part 80.36.

Contractual:	Cost of Item	Total*
Sixth implementation team member	$110,000	$460,199
Professional development, professional associations, and other contracted services	$40,000	$167,345
Contractors to provide professional development to LEAs	$375,000	$1,568,860
Consultants on replacement units and other competency-based programs	$200,000	$836,725

* Inflation is figured at 3% per year.

9) Total Direct Costs

Total Direct Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	1,065,828	1,466,058	1,503,720	1,548,713	5,584,319

10) Indirect Costs

Iowa's indirect cost rate is 4.4% for restricted budget items.

12) Supplemental Funding for Participating LEAs

The IDE is providing supplemental funding of $20,000 each to participating LEAs selected to take part in a competency-based pilot in years 1-2. In years 3-4, these 20 LEAs will have the option to stay in the work, and an additional 15 LEAs will join in year 4.

Activity	Cost	Approx. # of LEAs	Total
LEA competitive subgrants Year One	$20,000 each	5	$100,000
LEA competitive subgrants Year Two	$20,000 each (plus inflation)	20	$400,000
LEA competitive subgrants Year Three	$20,000 each (plus inflation)	20	$400,000
LEA competitive subgrants Year Four	$20,000 each (plus inflation)	35	$700,000

13) Total Costs

Total Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	1,212,373	1,930,125	2,121,186	2,472,702	7,736,386

(B) Standards and Assessments

Budget Part II: Project-Level Budget Table - Combined					
Project Name:	Standards and Assessments				
Associated with Criteria:					
(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	242,250	602,918	621,005	639,635	2,105,808
2. Fringe Benefits	254,750	262,393	270,264	278,372	1,065,779
3. Travel	120,300	123,909	127,626	131,455	503,290
4. Equipment	20,620	4,620	4,759	4,901	34,900
5. Supplies	-	-	-	-	-
6. Contractual	1,390,000	1,901,700	1,958,751	3,602,776	8,853,227
7. Training Stipends					
8. Other	60,000	61,800	63,654	65,564	251,018
9. Total Direct Costs (lines 1-8)	2,087,920	2,957,339	3,046,059	4,722,704	12,814,022
10. Indirect Costs*	90,961	129,920	440,989	684,081	1,345,951
11.Funding for Involved LEAs	-	-	-	-	-
12. Supplemental Funding for Participating LEAs	600,000	900,000	930,450	1,246,364	3,676,814
13. Total Costs (lines 9-12)	2,778,881	3,987,259	4,417,498	6,653,149	17,836,786

Budget Part II: Section (A), Center for Collaborative Inquiry on Balanced Assessment					
Project Name:					
Associated with Criteria:					
(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	242,250	602,918	621,005	639,635	2,105,808
2. Fringe Benefits	254,750	262,393	270,264	278,372	1,065,779
3. Travel	70,000	72,100	74,263	76,491	292,854
4. Equipment	20,620	4,620	4,759	4,901	34,900
5. Supplies		-	-	-	-
6. Contractual	150,000	154,500	159,135	163,909	627,544
7. Training Stipends		-	-	-	-
8. Other		-	-	-	-
9. Total Direct Costs (lines 1-8)	737,620	1,096,530	1,129,426	1,163,309	4,126,885
10. Indirect Costs*	31,548	48,044	163,077	167,969	410,638
11.Funding for Involved LEAs		-	-	-	-
12. Supplemental Funding for Participating LEAs	100,000	400,000	400,000	700,000	1,600,000
13. Total Costs (lines 9-12)	869,168	1,544,574	1,692,503	2,031,278	6,137,522

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

(B): Center for Collaborative Inquiry on Balanced Assessment

Inflation is charged at 3% per year.

1) Personnel

Personnel:	% FTE	Base Salary	Total/Yr.
Administrative Consultant	100%	$86,250	$86,250
Five implementation team members, each with different expertise related to competency-based education, coaching, leadership, and systems design and change	100%	$83,000	$415,000
Secretary	100%	$41,400	$41,400

Note, a sixth implementation team member of the Center team will be hired through contracted services.The IDE will work to reorganize so that the Center staff will come onto state payroll at the end of four years. AEAs brought into the center and receive staffing must commit to the same.

2) Fringe Benefits; 4.4%

3) Travel
A lead consultant will travel very frequently, both within Iowa and outside. Travel is based on the typical annual costs for travel of a consultant in a similar position, which is $10,000. This travel is for national conferences, USED monitoring, professional development, research, technical assistance, and PR. Each of the other six staff is expected to travel at a rate of $6,000 per year, mostly within Iowa, but also nationally. This travel is for national conferences and USED visits, and to work with participating LEAs, AEAs, and other Centers. The state of Iowa currently reimburses 39 cents per mile for mileage and $50 per night for lodging.

4) Equipment
The state of Iowa does not have a rigid definition of equipment and follows the definition required by grant makers. Each staff member receives a laptop, a docking station, and a Blackberry in year one. Subsequent years consider inflation and periodic replacement of portable equipment.

Equipment:	Cost of Item	Total
Eight laptops and docking stations	$2,000	$16,000
Seven Blackberry's and service fees	$660/year	$4,620/yr.

5) Supplies
In addition to regular office supplies, this office will require instructional and presentation materials. The estimates are based on the average unit expense on supplies within the IDE.

6) Contractual
The sixth member of this implementation team will be contracted from outside the IDE/AEAs. The Center will receive ongoing professional development around implementation science, adaptive leadership, and systems change, and their individual areas of expertise. Staff will take part in national professional associations. Further, the Center will conduct professional development with LEAs. The Center will specifically contract with experts on replacement units and other programs already underway to support competency-based promotion of students. The state has not yet procured these services; upon receipt of the grant, the State will follow the procedures for procurement under 34 CFR Parts 74.40 -74.48 and Part 80.36.

Contractual:	Cost of Item	Total*
Seventh implementation team member	$110,000	$460,199
Professional development, professional associations, and other contracted services	$40,000	$167,345

* Inflation is figured at 3% per year.

9) Total Direct Costs

Total Direct Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	737,620	1,094,270	1,135,596	1,169,336	4,136,822

10) Indirect Costs

Iowa's indirect cost rate is 4.4% for restricted budget it

12) Supplemental Funding for Participating LEAs

a) The IDE is providing supplemental funding of $20,000 each to participating LEAs selected to take part in a balanced assessment pilot in years 1-2. In years 3-4, these 20 LEAs will have the option to stay in the work, and an additional 15 LEAs will join in year 4.

Activity	Cost	Approx. # of LEAs	Total
LEA competitive subgrants Year One	$20,000 each	5	$100,000
LEA competitive subgrants Year Two	$20,000 each (plus inflation)	20	$400,000
LEA competitive subgrants Year Three	$20,000 each (plus inflation)	20	$400,000
LEA competitive subgrants Year Four	$20,000 each (plus inflation)	35	$700,000

13) Total Costs

Total Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	869,168	1,542,314	1,698,673	2,037,305	6,147,460

Budget Part II: Section (A), Smarter Balanced Assessment Consortium					
Project Name:					
Associated with Criteria:					
(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		-	-	-	-
2. Fringe Benefits	-	-	-	-	-
3. Travel	25,000	25,750	26,523	27,318	104,591
4. Equipment		-	-	-	-
5. Supplies		-	-	-	-
6. Contractual	120,000	123,600	127,308	1,716,390	2,087,298
7. Training Stipends		-	-	-	-
8. Other		-	-	-	-
9. Total Direct Costs (lines 1-8)	145,000	149,350	153,831	1,743,708	2,191,889
10. Indirect Costs*	6,380	6,571	22,305	252,838	288,095
11.Funding for Involved LEAs		-	-	-	-
12. Supplemental Funding for Participating LEAs		-	-	-	-
13. Total Costs (lines 9-12)	151,380	155,921	176,136	1,996,546	2,479,983

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

(B): Smarter Balanced Assessment Consortium

3) Travel
Several members of the CCI will be required to travel the state to provide training to LEAs as they submit and share assessment, instruction, and student and teacher work items. This figure provides for four consultants @ $6,250 per year. The state of Iowa currently reimburses 39 cents per mile for mileage and $50 per night for lodging.

6) Contractual
Membership fees in the SMARTER Balanced Assessment Consortium will be determined once the consortia are awarded Race to the Top Assessment Program funds. This line item represents the minimum it would take for Iowa to fulfill its commitment in this grant, were no other states in the Consortium to receive Race to the Top Funds. The multi-state SMARTER Balanced Assessment consortium will require specialized expertise in assessment design, psychometrics, curriculum, instruction, training, and professional development. Once Iowa receives its Race to the Top award, IDE will, within 30 days, present a detailed scope of work and budget for this work.

Contractual:	Year One	Year Two	Year Three	Year Four	Total
SMARTER Balanced Assessment Consortium	$120,000	$123,000	$127,308	$1,716,390	$2,087,298

9) Total Direct Costs

Total Direct Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	145,000	149,350	153,831	1,743,708	2,191,889

10) Indirect Costs: Iowa's indirect cost rate is 4.4% for restricted budget items.

13) Total Costs

Total Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	151,380	155,921	176,136	1,996,546	2,479,983

Budget Part II: Section (A), Iowa Core Assessment					
Project Name:					
Associated with Criteria:					
(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					-
2. Fringe Benefits	-	-	-	-	-
3. Travel		-	-	-	-
4. Equipment		-	-	-	-
5. Supplies		-	-	-	-
6. Contractual	1,000,000	1,500,000	1,545,000	1,591,350	5,636,350
7. Training Stipends		-	-	-	-
8. Other		-	-	-	-
9. Total Direct Costs (lines 1-8)	1,000,000	1,500,000	1,545,000	1,591,350	5,636,350
10. Indirect Costs*	44,000	66,000	224,025	230,746	564,771
11.Funding for Involved LEAs		-	-	-	-
12. Supplemental Funding for Participating LEAs		-	-	-	-
13. Total Costs (lines 9-12)	1,044,000	1,566,000	1,769,025	1,822,096	6,201,121

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

(B): Iowa Core Assessment

6) Contractual

Developing multiple measures of student achievement and growth to measure attainment of the Iowa Core will require specialized expertise in assessment design, psychometrics, curriculum, instruction, training, and professional development. This work will be done in conjunction with the SMARTER Balanced Assessment Consortium, piggybacking on their platform and generating economies of scale in the field. The full amount will not be known until the scope of SMARTER Balanced Assessment is known. This figure is based on a typical investment in a development process for multiple measures. Once Iowa receives a Race to the Top award, IDE will, within 30 days, present a detailed scope of work and budget for this work. The state has not yet procured these services; upon receipt of the grant, the State will follow the procedures for procurement under 34 CFR Parts 74.40 -74.48 and Part 80.36.

Contractual:	Year One	Year Two	Year Three	Year Four	Total
SMARTER Balanced Assessment Consortium	$1,000,000	$1,500,000	$1,545,000	$1,591,350	$5,636,350

9) Total Direct Costs

Total Direct Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	1,000,000	1,500,000	1,545,000	1,591,350	5,636,350

10) Indirect Costs: Iowa's indirect cost rate is 4.4% for restricted budget items.

13) Total Costs

Total Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	1,044,000	1,566,000	1,769,025	1,822,096	6,201,121

Budget Part II: Project-Level Budget Table					
Project Name:	**Assessment for Learning**				
Associated with Criteria:					
(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		-	-	-	-
2. Fringe Benefits	-	-	-	-	-
3. Travel	25,300	26,059	26,841	27,646	105,846
4. Equipment		-	-	-	-
5. Supplies		-	-	-	-
6. Contractual	120,000	123,600	127,308	131,127	502,035
7. Training Stipends		-	-	-	-
8. Other	60,000	61,800	63,654	65,564	251,018
9. Total Direct Costs (lines 1-8)	205,300	211,459	217,803	224,337	858,899
10. Indirect Costs*	9,033	9,304	31,581	32,529	82,448
11.Funding for Involved LEAs		-	-	-	-
12. Supplemental Funding for Participating LEAs	500,000	515,000	530,450	546,364	2,091,814
13. Total Costs (lines 9-12)	714,333	735,763	779,834	803,229	3,033,160

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

(B): Assessment *for* Learning

3) Travel

Facilitators, IDE/CCI staff, national experts, and consultants will travel very frequently for this special project. The state of Iowa currently reimburses 39 cents per mile for mileage and $50 per night for lodging.

6) Contractual

The Assessment for Learning project has been ongoing in Iowa for two years. The Race to the Top funds will allow us to contract for more time with our expert consultants and to do more things, including coaching training, the establishment of online professional learning communities, and online coursework. This further will allow for videotaped modules of actual teacher practice with formative assessment, the use of these modules in professional development and professional learning communities. The state has not yet procured these services; upon receipt of the grant, the State will follow the procedures for procurement under 34 CFR Parts 74.40 -74.48 and Part 80.36.

Contractual:	Cost of Item	Total*
Two consultants, plus materials development and dissemination	$120,000	$502,035

*Inflation is charged at 3% per year.

9) Total Direct Costs

Total Direct Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	205,300	211,459	217,803	224,337	858,899

10) Indirect Costs

Iowa's indirect cost rate is 4.4% for restricted budget items

12) Supplemental Funding for Participating LEAs

	Year One	Year Two	Year Three	Year Four	TOTAL
	500,000	515,000	530,450	546,364	2,091,814

13) Total Costs

Total Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	714,333	735,763	779,834	803,229	3,033,160

(C) Data Systems

Budget Part II: Project-Level Budget Table - Combined					
Project Name:	Data Systems				
Associated with Criteria:					
(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	969,726	1,346,105	1,380,374	639,635	4,335,840
2. Fringe Benefits	332,813	341,147	349,730	160,358	1,184,047
3. Travel	90,910	92,530	94,199	59,007	336,646
4. Equipment	610,620	224,620	199,759	4,901	1,039,900
5. Supplies	29,000	29,000	29,000	-	87,000
6. Contractual	1,458,750	1,217,800	1,201,494	706,772	4,584,816
7. Training Stipends	-	-	-	-	-
8. Other	-	-	-	-	-
9. Total Direct Costs (lines 1-8)	3,491,819	3,251,201	3,254,555	1,570,673	11,568,248
10. Indirect Costs*	180,103	162,327	315,554	227,037	885,021
11.Funding for Involved LEAs	-	-	-	-	-
12. Supplemental Funding for Participating LEAs	100,000	400,000	400,000	700,000	1,600,000
13. Total Costs (lines 9-12)	3,771,922	3,813,528	3,970,109	2,497,710	14,053,270

Budget Part II: Project-Level Budget Table					
Project Name:	**SLDS**				
Associated with Criteria:					
(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	727,476	743,187	759,369		2,230,032
2. Fringe Benefits	186,063	189,994	194,043		570,100
3. Travel	36,910	36,910	36,910		110,730
4. Equipment	590,000	220,000	195,000		1,005,000
5. Supplies	29,000	29,000	29,000		87,000
6. Contractual	918,750	551,600	515,308		1,985,658
7. Training Stipends		-	-	-	-
8. Other		-	-	-	-
9. Total Direct Costs (lines 1-8)	2,488,199	1,770,691	1,729,630	-	5,988,520
10. Indirect Costs*	136,851	97,388	95,130	-	329,369
11.Funding for Involved LEAs		-	-	-	-
12. Supplemental Funding for Participating LEAs		-	-	-	-
13. Total Costs (lines 9-12)	2,625,050	1,868,079	1,824,760	-	6,317,889

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

(C): SLDS

Federal Budget	%	July '10 - June '11	July '11 - June '12	July '12 - June '13	
Budget Categories	**Effort**	**Year 1**	**Year 2**	**Year 3**	**Total**
1. Personnel					
SLDS Program manager -New	100%	$98,435	$101,388	$104,430	**$304,253**
Data Stewards (10 SMEs on Data Governance Committee)	5%	$75,000	$77,250	$79,568	**$231,818**
IT Engineer - ITE contracting	50%	$38,355	$39,506	$40,691	**$118,551**
Business Analyst ± Early Childhood Bureau SMEs	25%	$17,147	$17,661	$18,191	**$53,000**
Help Desk - Anticipated additional calls	100%	$50,000	$51,500	$53,045	**$154,545**
SLDS Labor					
Cognos report writer	100%	$68,400	$68,400	$68,400	**$205,200**
DW ETL Engineer	100%	$68,875	$68,875	$68,875	**$206,625**
DW BI Developer	100%	$66,500	$66,500	$66,500	**$199,500**
Data Analysts					
Regents postsecondary	100%	$81,588	$84,036	$86,557	**$252,180**
CC College data integration	100%	$81,588	$84,036	$86,557	**$252,180**
Workforce-data integration	100%	$81,588	$84,036	$86,557	**$252,180**
Subtotals		$727,476	$743,187	$759,369	$2,230,032
2. Fringe Benefits					
SLDS Program manager - New		$26,577	$27,375	$28,196	**$82,148**
Data Stewards (10 SMEs on Data Governance Committee)		$20,250	$20,858	$21,483	**$62,591**
IT Engineer - ITE contracting		$0	$0	$0	**$0**
Business Analyst ± Early Childhood Bureau SMEs		$4,630	$4,769	$4,912	**$14,310**
Help Desk - Anticipated additional calls		$13,500	$13,905	$14,322	**$41,727**
SLDS Labor					
Cognos report writer		$18,468	$18,468	$18,468	**$55,404**

DW ETL Engineer		$18,596	$18,596	$18,596	**$55,789**
DW BI Developer		$17,955	$17,955	$17,955	**$53,865**
Data Analysts					
Regents postsecondary		$22,029	$22,690	$23,370	**$68,089**
CC College data integration		$22,029	$22,690	$23,370	**$68,089**
Workforce-data integration		$22,029	$22,690	$23,370	**$68,089**
Subtotals		$186,063	$189,994	$194,043	$570,100
3. Travel					
Annual Trip #1 (3 people)					
Airfare		$2,400	$2,400	$2,400	**$7,200**
Lodging (3 nights)		$1,620	$1,620	$1,620	**$4,860**
Transportation / Parking		$300	$300	$300	**$900**
Meals / Incidentals		$450	$450	$450	**$1,350**
Annual Trip #2 (3 people)					
Airfare		$2,400	$2,400	$2,400	**$7,200**
Lodging (3 nights)		$1,620	$1,620	$1,620	**$4,860**
Transportation / Parking		$300	$300	$300	**$900**
Meals / Incidentals		$450	$450	$450	**$1,350**
In state travel					
Project Team travel- Data quality, data literacy, IT administration		$10,000	$10,000	$10,000	
External Committee members' reimbursement		$15,000	$15,000	$15,000	**$75,000**
MEIC (5 people)					
Lodging (3 nights)		$1,620	$1,620	$1,620	**$4,860**
Transportation / Parking		$300	$300	$300	**$900**
Meals / Incidentals		$450	$450	$450	**$1,350**
Subtotals		$36,910	$36,910	$36,910	$110,730
4. Equipment					

Servers					
Servers Data Warehouse		$20,000	$20,000	$20,000	$60,000
Network Switches / Firewalls		$10,000	$10,000	$10,000	$30,000
Disk Storage		$10,000	$10,000	$10,000	$30,000
Student ID (eScholar - postsecondary)		$250,000	$55,000	$55,000	$360,000
DW Software (Cognos - User Licenses: research & public access)		$25,000	$25,000	$25,000	$75,000
SIF Student Locator Framework (SLF) - MEIC		$25,000	$50,000	$25,000	$100,000
SIF (NTC Estimate) P-20 Integration Platform		$250,000	$50,000	$50,000	$350,000
Subtotals		$590,000	$220,000	$195,000	$1,005,000
5. Supplies					
General Office Supplies		$4,000	$4,000	$4,000	$12,000
Training & meeting expenses - room rentals, materials, etc		$25,000	$25,000	$25,000	$75,000
Subtotals		$29,000	$29,000	$29,000	$87,000
6. Contractual					
RFP Writer		$15,000	$15,000	$15,000	$45,000
Iowa Testing Programs					
Metrics development - college readiness		$120,000	$123,600	$127,308	$370,908
Postsecondary SIF (NTC estimate)					
Portal ZIS & EFT expansion		$100,000	$20,000	$20,000	$140,000
ISCAC Data Store Adapter		$50,000	$10,000	$10,000	$70,000
IWD Data Store Adapter		$50,000	$10,000	$10,000	$70,000
ISU Data Store Adapter		$50,000	$10,000	$10,000	$70,000
UNI Data Store Adapter		$50,000	$10,000	$10,000	$70,000
U of I Data Store Adapter		$50,000	$10,000	$10,000	$70,000
National Clearinghouse Pilot		$40,000	$40,000	$0	$80,000
SWIS-access to integrate into SLDS		$30,000	$30,000	$30,000	$90,000
Etranscript - hookup private postsecondary (33 private IHEs)		$123,750	$33,000	$33,000	$189,750

Curricu-NET		$240,000	$240,000	$240,000	$720,000
Subtotals		$918,750	$551,600	$515,308	$1,985,658
7. Construction		$0	$0	$0	$0
8. Other		$0	$0	$0	$0
9. Total Direct Costs (lines 1-8)		**$2,488,199**	**$1,770,691**	**$1,729,631**	**$5,988,520**
10. Indirect Costs		$136,851	$97,388	$95,130	$329,369
11. Training Stipends		$0	$0	$0	
12. Total Costs (lines 9-11)		**$2,625,050**	**$1,868,079**	**$1,824,760**	**$6,317,889**

Personnel

There are more labor costs than contractual or equipment costs in this proposal, which is rarely the case, but warranted here. Many costs that might be classified contractual costs are classified as personnel costs. As the case was made, Iowa already has a foundational infrastructure: EdInsight, electronic transcripts, Iowa High School Repository, and SIF vertical reporting implementation at the LEA level coming soon. What Iowa needs is more labor to take advantage of this infrastructure and the knowledge developed in its core team so that Iowa educational entities that signed the ARRA assurances can generate reports for all the requirements of the SFSF and the America Competes Act.

New FTE and FTE portions

The grant would add short-term staff for four functional areas:

- EdInsight (data warehouse) team labor for additional ARRA reporting requirements. These individuals would be hired through the IDAS RSP process where prequalified information technology Human Resources vendors submit names of qualified candidates.

- One IWD and one Regents data analyst: These individuals will be employed by IWD and the Regents while be overseen by IDE staff. This is an attempt to configure the workforce in a manner amenable to FERPA with direct joint oversight.
- One community college data analyst to restructure the data architecture and collections and then serve as the SME to integrate certain data for analysis and provide SIF transitional support to districts. The community colleges are a division at IDE so this person will be an IDE employee and hired through the IDAS RSP.
- A portion of a business analyst to work with early childhood data. Early childhood data vary widely: they are either well organized, structured systems or they are haphazardly constructed as an afterthought. Some highly structured system access and data are to be integrated into the SLDS requiring some business analyst time. Also, it would be useful for some business analyst input to be given at the front end of the planned discussions on identifying and collecting additional early childhood data.

In-kind funding

IDE will still be providing the core project EdInsight team, minus one position - a report designer. The state funded report designer position is covered by a hiring freeze, so IDE was unable to fill it after a resignation. The team itself includes a .75 FTE business analyst, 1 FTE database administrator, 1.0 ETL developer, 1.0 director of data quality, and 1.0 report developer. With the 2009 IES grant, 1.0 developer FTE was added full-time and another was added through the RFP process. A third will begin work in January, but be housed at AEA 10. (This area education agency provides the Power School SIS server for zero footprint access to 60 districts and will play a major role in the SIF implementation.) Currently, SLDS project management is being provided by the two co-chairs who are the bureau chiefs of Information Technology (IT) Services and Planning, Research, Development, and Evaluation (PRDE). The division administrator is the executive sponsor and contributes a considerable and ever increasing amount of time to this project.

Travel

As is the case with most grants, two annual trips have been included in this budget for the administrative team who oversees the grant. Additionally, some travel money has been included to keep a larger contingent of the Iowa SLDS engaged in the MEIC dialogue. Earlier MEIC dialogues were the genesis for moving forward on the multi-state collaboration proposed in this funding. Moving forward on the student locator project can only be facilitated by an annual interaction.

New funding under ARRA and through the Institute of Education Sciences offers Iowa the opportunity to develop Iowa's statewide longitudinal database and incorporate additional preschool information that can help the state improve the education of its children birth through career.

This can be achieved by establishing concerted planning efforts with the Early Childhood Iowa Council, a Governor appointed alliance of stakeholders in Early Care, Health and Education systems that affect children age 0 to 5 in the state of Iowa. Its purpose is to support the development and integration of an Early Care, Health and Education system for Iowa, to identify early childhood data systems relevant to the tracking of educational progress, set priorities for their incorporation into the statewide longitudinal database, and take specific steps to do so. Elements of this plan related to early childhood include [with some implications for funding to be incorporated into grant]:

1. Including a representative from Early Childhood Iowa on the overall advisory group for the longitudinal statewide data system. [Administrative team duties]

2. Establishing a liaison from the longitudinal statewide data system to Early Childhood Iowa and its planning groups, with particular emphasis upon working with its data working groups. [Administrative team duties]

3. Staffing a cross-agency planning effort through Early Childhood Iowa to work to identify different statewide and community databases related to early childhood, assessing how they can be incorporated into the longitudinal data system, and establishing priorities for that work. [Travel expenses and some additional supplies cost]

4. Undertaking specific next steps to incorporate preschool data into the longitudinal statewide database, including the needed technical and administrative costs for this purpose with Shared Visions, Community Empowerment, and Head Start. [Business requirements FTE]

5. Supporting at least two community efforts, one in a rural and one in an urban school district, to both link additional data and to develop prototype reporting and evaluation systems that can use the information to inform further early childhood and school transition activities, with an emphasis upon data analysis down to a neighborhood level in the urban district.

Obviously, a major planning process with all the stakeholders involved lies ahead. While there are mandates, a general architecture, and potential solution packages, given the sensitive nature of data, and considering the federal statutes stipulating their care, legal, as well as technological nuances remain to be hammered out. Clearly, there will be many committees working in the planning stages, as well as ongoing coordination through existing data governance and advisory committees in which all stakeholders who share data will be included. There will be a considerable number of meetings with a considerable number of representatives, so there is money included for reimbursements and for meeting space and materials, including curriculum publication in various media.

Equipment & Contractual

Nearly all of these two categories goes toward institutionalizing two sets of linkages.

1. The continuum within Iowa - the prekindergarten (P)-workforce SLDS with IDE P-12 data, postsecondary data, Iowa College Student Aid Commission (ICSAC), and Iowa Workforce Development (IWD). This is done by leveraging the electronic transcript system (etranscript)/SIF infrastructure as a medium to flow data. The design will provide bi-directional integration between the P-12 data warehouse (EdInsight) and the ICSAC data warehouse, IWD, the Regent institutions, and private postsecondary in Iowa for the elements that need to be shared per ARRA. SLDS partner agencies would have portal access to EdInsight and be given security and privilege rights appropriate to their use. Under this architecture, EdInsight would now include additional postsecondary data. For instance, IWD would use Cognos (license access funded in the 2009 IES grant) to run reports and do analytics against the data as necessary. Once IWD has a bona fide data warehouse of their own, which is planned, they will require a tight bi-directional integration as the other institutions are ready for now. IWD obviously has unemployment insurance data (every employer pays this for every active employee) that could simply batch or FTP upload into the eScholar framework of EdInsight initially.

Additionally, to include private postsecondary in the exchange network they would need to be connected to the network, which is planned to leverage the electronic transcript system. A separate line item has been included for that.

2. The Interstate component of the SLDS. Money is included for programming necessary to undertake the MEIC student locator project. Money is included for eScholar services. Additionally, Iowa has included other monies for scholar templates, as Iowa is exploring postsecondary access to the unique ID system for generating a unique identifier for out-of-state postsecondary enrollees.

Monies have also been included for three ongoing data service costs. The first is to participate in the National Clearinghouse Pilot Project; the clearinghouse is adding unique student identifiers, this along with having the postsecondary social security number would provide a valuable crosswalk for ultimately providing continuous trend data for Iowa borne, breed, and educated workers. Participation in the pilot provides a robust data set, but it does not provide longitudinal data for inclusion in EdInsight nor does it meet all of the SFSF data requirements (e.g., number who complete one years of postsecondary credits within two years of graduating secondary school). So it will serve as an interim solution until interoperability for data exchange between K-12 and postsecondary and workforce exists; thus, this potentially ongoing cost will come to an end. The other ongoing costs are assessment and curriculum related. For early development, SWIS access would be paid for by Iowa LEAs and selected data items (there are a litany of office referral items) would be integrated into EdInsight for reporting. It would complete the existing and planned Diebels data. The other is the CurricUNET application for community colleges. This cost will at some point need to be transferred to the state system for the program to continue.

ITP is also being contracted to develop longitudinal business intelligence (BI) business requirements. The requirements would implement the research ITP is doing to support IDE and the ARRA educational assurances. For instance, ITP is performing theoretical research on how

its ITBS and ITED statewide accountability tests correspond to the ACT and predict college preparedness. This research could become applied in EdInsight so K-12 educators could make educational adjustments early in students' careers.

Construction

There are no construction costs associated with this RFA.

Other

There are no other costs associated with this RFA.

Indirect costs

IDE's indirect cost rate is 5.5 percent. The calculations in the detail budget reflect this ratio.

Training Stipends

IDE is offering no stipends, but is instead spending IES assistance money only on reimbursement of expenses, meeting expenses, and training materials.

Budget Part II: Project-Level Budget Table					
Project Name:	**Smarter Balanced Assessment Data Platform**				
Associated with Criteria:					
(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		-	-	-	-
2. Fringe Benefits	-	-	-	-	-
3. Travel		-	-	-	-
4. Equipment		-	-	-	-
5. Supplies		-	-	-	-
6. Contractual	250,000	257,500	265,225	273,182	1,045,907
7. Training Stipends		-	-	-	-
8. Other		-	-	-	-
9. Total Direct Costs (lines 1-8)	250,000	257,500	265,225	273,182	1,045,907
10. Indirect Costs*	11,000	11,330	38,458	39,611	100,399
11.Funding for Involved LEAs		-	-	-	-
12. Supplemental Funding for Participating LEAs		-	-	-	-
13. Total Costs (lines 9-12)	261,000	268,830	303,683	312,793	1,146,306

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

(C): SMARTER Balanced Assessment System Data Platform

6) Contractual

Iowa is participating in the cross-state consortium with 32 other states. Iowa will develop a data platform to house data from local assessment systems, building off the design of the Consortium's platform, which is in development. These costs will cover the development of a data platform that allows districts to upload measures of student achievement and growth and data on student performance and to download and manipulate reports. The state has not yet procured these services; upon receipt of the grant, the State will follow the procedures for procurement under 34 CFR Parts 74.40 -74.48 and Part 80.36.

Contractual:	Year One	Year Two	Year Three	Year Four	Total
SMARTER Balanced Assessment Consortium	$250,000	$257,000	$265,225	$273,182	$1,045,907

9) Total Direct Costs

Total Direct Costs	Year One	Year Two	Year Three	Year Four	Total
	$250,000	$257,000	$265,225	$273,182	$1,045,907

10) Indirect Costs

Iowa's indirect cost rate is 4.4% for restricted budget items.

13) Total Costs

Total Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	261,000	268,830	303,683	312,793	1,146,306

Budget Part II: Project-Level Budget Table					
Project Name:	**Iowa Core Assessment Platform**				
Associated with Criteria:					
(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		-	-	-	-
2. Fringe Benefits	-	-	-	-	-
3. Travel		-	-	-	-
4. Equipment		-	-	-	-
5. Supplies		-	-	-	-
6. Contractual	250,000	257,500	265,225	273,182	1,045,907
7. Training Stipends		-	-	-	-
8. Other		-	-	-	-
9. Total Direct Costs (lines 1-8)	250,000	257,500	265,225	273,182	1,045,907
10. Indirect Costs*	11,000	11,330	38,458	39,611	100,399
11.Funding for Involved LEAs		-	-	-	-
12. Supplemental Funding for Participating LEAs		-	-	-	-
13. Total Costs (lines 9-12)	261,000	268,830	303,683	312,793	1,146,306

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

(C): Iowa Core Assessment Platform

6) Contractual

Developing the data platforms to capture and help manage multiple measures of student achievement and growth to measure attainment of the Iowa Core will require specialized expertise in assessment design, psychometrics, curriculum, instruction, training, and professional development. This work will be done in conjunction with the SMARTER Balanced Assessment Consortium, piggybacking on their platform and generating economies of scale in the field. Once Iowa receives a Race to the Top award, IDE will, within 30 days, present a detailed scope of work and budget for this work. The state has not yet procured these services; upon receipt of the grant, the State will follow the procedures for procurement under 34 CFR Parts 74.40 -74.48 and Part 80.36.

Contractual:	Year One	Year Two	Year Three	Year Four	Total
SMARTER Balanced Assessment Consortium	$250,000	$257,000	$265,225	$273,182	$1,045,907

9) Total Direct Costs

Total Direct Costs	Year One	Year Two	Year Three	Year Four	Total
	$250,000	$257,000	$265,225	$273,182	$1,045,907

10) Indirect Costs

Iowa's indirect cost rate is 4.4% for restricted budget items.

13) Total Costs

Total Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	261,000	268,830	303,683	312,793	1,146,306

Budget Part II: Project-Level Budget Table					
Project Name:	**Center for Collaborative Inquiry on Responsive Data Platforms**				
Associated with Criteria:					
(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	242,250	602,918	621,005	639,635	2,105,808
2. Fringe Benefits	146,750	151,153	155,687	160,358	613,947
3. Travel	54,000	55,620	57,289	59,007	225,916
4. Equipment	20,620	4,620	4,759	4,901	34,900
5. Supplies		-	-	-	-
6. Contractual	40,000	151,200	155,736	160,408	507,344
7. Training Stipends		-	-	-	-
8. Other		-	-	-	-
9. Total Direct Costs (lines 1-8)	503,620	965,510	994,475	1,024,310	3,487,915
10. Indirect Costs*	21,252	42,279	143,509	147,814	354,854
11.Funding for Involved LEAs		-	-	-	-
12. Supplemental Funding for Participating LEAs	100,000	400,000	400,000	700,000	1,600,000
13. Total Costs (lines 9-12)	624,872	1,407,789	1,537,984	1,872,124	5,442,769

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

(C): Center for Collaborative Inquiry on Responsive Data Platforms

1) Personnel

Personnel:	% FTE	Base Salary	Total/Yr.
Administrative Consultant	100%	$86,250	$86,250
Five implementation team members, each with different expertise related to competency-based education, coaching, leadership, and systems design and change	100%	$83,000	$415,000
Secretary	100%	$41,400	$41,400

Note, a sixth implementation team member of the Center team will be hired through contracted services. The IDE will work to reorganize so that the Center staff will come onto state payroll at the end of four years. AEAs participating in the Center and receiving staff must commit to the same.

2) Fringe Benefits: 4.4%

3) Travel

Center staff will be travelling throughout the state to work intensively with LEAs as they attempt to use the developing data platforms. Because of the technical nature of the work and concerns about difficulties early on thwarting the success of the entire multiple measures project, staff in the Center will travel overall at higher levels than most staff in other centers. In addition to travel within Iowa, Center staff will travel nationally for conferences, USED monitoring, professional development, research, technical assistance, and PR. The state of Iowa currently reimburses 39 cents per mile for mileage and $50 per night for lodging.

4) Equipment

The state of Iowa does not have a rigid definition of equipment and follows the definition required by grant makers. Each staff member receives a laptop, a docking station, and a Blackberry in year one. Subsequent years consider inflation and periodic replacement of portable equipment.

Equipment:	Cost of Item	Total
Eight laptops and docking stations	$2,000	$16,000
Eight Blackberry's and service fees	$660/year	$5,280/yr.

5) Supplies

The estimates are based on the average unit expense on supplies within the IDE.

6) Contractual

The sixth member of this implementation team will be contracted from outside the IDE/AEAs. The Center will receive ongoing professional development around implementation science, adaptive leadership, and systems change, and their individual areas of expertise. Staff will take part in national professional associations. Further, the Center will conduct professional development with LEAs. The Center will specifically contract with experts on replacement units and other programs already underway to support competency-based promotion of students. The state has not yet procured these services; upon receipt of the grant, the State will follow the procedures for procurement under 34 CFR Parts 74.40 -74.48 and Part 80.36.

Contractual:	Cost of Item	Total*
Sixth implementation team member	$110,000	$339,999
Professional development, professional associations, and other contracted services	$40,000	$167,345

* Inflation is figured at 3% per year

9) Total Direct Costs

Total Direct Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	503,620	872,129	898,292	925,241	3,199,282

10) Indirect Costs

Iowa's indirect cost rate is 4.4% for restricted budget items.

12) Supplemental Funding for Participating LEAs

a) The IDE is providing supplemental funding of $20,000 each to participating LEAs selected to take part in a balanced assessment pilot in years 1-2. In years 3-4, these 20 LEAs will have the option to stay in the work, and an additional 15 LEAs will join.

Activity	Cost	Approx. # of LEAs	Total
LEA competitive subgrants Year One	$20,000 each	5	$100,000
LEA competitive subgrants Year Two	$20,000 each (plus inflation)	20	$400,000
LEA competitive subgrants Year Three	$20,000 each (plus inflation)	20	$400,000
LEA competitive subgrants Year Four	$20,000 each (plus inflation)	35	$700,000

13) Total Costs

Year One	Year Two	Year Three	Year Four	TOTAL
624,872	1,424,408	1,555,101	1,889,754	5,494,136

(D) Great Teachers and Leaders

Budget Part II: Project-Level Budget Table - Combined					
Project Name:	Great Teachers and Leaders				
Associated with Criteria:					
(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	242,250	602,918	621,005	639,635	2,105,808
2. Fringe Benefits	243,000	250,290	257,799	265,533	1,016,621
3. Travel	22,000	40,000	41,200	42,436	145,636
4. Equipment	17,960	3,960	4,079	4,201	30,200
5. Supplies	-	-	-	-	-
6. Contractual	1,056,227	1,074,211	1,092,735	1,111,814	4,334,987
7. Training Stipends	-	-	-	-	-
8. Other	437,500	450,625	464,144	478,068	1,830,337
9. Total Direct Costs (lines 1-8)	2,018,937	2,422,004	2,480,961	2,541,687	9,463,589
10. Indirect Costs*	67,946	86,297	292,919	301,707	748,869
11.Funding for Involved LEAs	-	-	-	-	-
12. Supplemental Funding for Participating LEAs	600,000	1,800,000	1,800,000	2,100,000	6,300,000
13. Total Costs (lines 9-12)	2,686,883	4,308,300	4,573,880	4,943,394	16,512,458

Budget Part II: Project-Level Budget Table					
Project Name:	**Center for Collaborative Inquiry on Educator Evaluation and Support**				
Associated with Criteria:					
(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	242,250	602,918	621,005	639,635	2,105,808
2. Fringe Benefits	243,000	250,290	257,799	265,533	1,016,621
3. Travel	22,000	40,000	41,200	42,436	145,636
4. Equipment	17,960	3,960	4,079	4,201	30,200
5. Supplies		-	-	-	-
6. Contractual	248,000	255,440	263,103	270,996	1,037,539
7. Training Stipends		-	-	-	-
8. Other		-	-	-	-
9. Total Direct Costs (lines 1-8)	773,210	1,152,608	1,187,186	1,222,801	4,335,805
10. Indirect Costs*	33,231	50,540	171,551	176,697	432,019
11.Funding for Involved LEAs		-	-	-	-
12. Supplemental Funding for Participating LEAs	100,000	400,000	400,000	700,000	1,600,000
13. Total Costs (lines 9-12)	906,441	1,603,148	1,758,736	2,099,498	6,367,824

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

(D): Center for Collaborative Inquiry on Educator Evaluation and Support

1) Personnel

Personnel:	% FTE	Base Salary	Total
Administrative Consultant	100%	$86,250	$86,250
Five implementation team members, each with different expertise related to competency-based education, coaching, leadership, and systems design and change	100%	$83,000	$415,000
Secretary	100%	$41,400	$41,400

Note, a sixth member of the Center team will be hired through contracted services. The IDE will work to reorganize so that the Center staff will come onto state payroll at the end of four years. AEAs brought into the center and receive staffing must commit to the same.

2) Fringe Benefits: 4.4%

3) Travel

A lead consultant will travel very frequently, both within Iowa and outside. Travel is based on the typical annual costs for travel of a consultant in a similar position, which is $10,000. This travel is for national conferences, USED monitoring, professional development, research, technical assistance, and PR. Each of the other five staff is expected to travel at a rate of $6,000 per year, mostly within Iowa, but also nationally. This travel is for national conferences and USED visits, and to work with participating LEAs, AEAs, and other Centers. The state of Iowa currently reimburses 39 cents per mile for mileage and $50 per night for lodging.

4) Equipment

The state of Iowa does not have a rigid definition of equipment and follows the definition required by grant makers. Each staff member receives a laptop, a docking station, and a Blackberry in year one. Subsequent years consider inflation and periodic replacement of portable equipment.

Equipment:	Cost of Item	Total
Seven laptops and docking stations	$2,000	$14,000
Six Blackberry's and service fees	$660/year	$3,960/yr.

5) Supplies

In addition to regular office supplies, this office will require instructional and presentation materials. The estimates are based on the average unit expense on supplies within the IDE.

6) Contractual

The sixth member of this implementation team will be contracted from outside the IDE/AEAs. The Center will receive ongoing professional development around implementation science, adaptive leadership, and systems change, and their individual areas of expertise. Staff will take part in national professional associations. Further, the Center will conduct professional development with LEAs and evaluations of the effectiveness of professional development supports. The Center will specifically contract with experts on replacement units and other programs already underway to support competency-based promotion of students. The state has not yet procured these services; upon receipt of the grant, the State will follow the procedures for procurement under 34 CFR Parts 74.40 -74.48 and Part 80.36.

Contractual:	Cost of Item	Total*
Sixth implementation team member	$110,000	$460,199
Professional development, professional associations, and other contracted services	$40,000	$167,345
Evaluation and improvement of the effectiveness of professional development supports	$98,000	$409,995

* Inflation is figured at 3% per year.

9) Total Direct Costs

Total Direct Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	713,210	1,088,006	1,120,646	1,154,266	4,076,129

10) Indirect Costs

Iowa's indirect cost rate is 4.4% for restricted budget items.

12) Supplemental Funding for Participating LEAs

a) The IDE is providing supplemental funding of $20,000 each to participating LEAs selected to take part in a balanced assessment pilot in years 1-2. In years 3-4, these 20 LEAs will have the option to stay in the work, and an additional 15 LEAs will join in year 4.

Activity	Cost	Approx. # of LEAs	Total
LEA competitive subgrants Year One	$20,000 each	5	$100,000
LEA competitive subgrants Year Two	$20,000 each (plus inflation)	20	$400,000
LEA competitive subgrants Year Three	$20,000 each (plus inflation)	20	$400,000
LEA competitive subgrants Year Four	$20,000 each (plus inflation)	35	$700,000

13) Total Costs

Total Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	843,801	1,535,065	1,680,377	2,018,789	6,078,032

Budget Part II: Project-Level Budget Table					
Project Name:	**Pay-for-Performance and Career Ladder Pilots**				
Associated with Criteria:					
(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		-	-	-	-
2. Fringe Benefits	-	-	-	-	-
3. Travel		-	-	-	-
4. Equipment		-	-	-	-
5. Supplies		-	-	-	-
6. Contractual		-	-	-	-
7. Training Stipends		-	-	-	-
8. Other		-	-	-	-
9. Total Direct Costs (lines 1-8)	-	-	-	-	-
10. Indirect Costs*	-	-	-	-	-
11.Funding for Involved LEAs		-	-	-	-
12. Supplemental Funding for Participating LEAs	500,000	1,400,000	1,400,000	1,400,000	4,700,000
13. Total Costs (lines 9-12)	500,000	1,400,000	1,400,000	1,400,000	4,700,000

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

(D): Pay-for-Performance and Career Ladder Pilots

12) Supplemental Funding for Participating LEAs

Supplement to LEAs	Year One	Year Two	Year Three	Year Four	TOTAL
	500,000	1,400,000	1,400,000	1,400,000	4,700,000

Year one is a design year, in which the CCI, IDE, a small subset of districts, and national experts and evaluators will research Iowa's previous pay for performance pilots and other national experiments. The pilot will commence in year two. Districts will compete to take part in the pilot. The costs are figured at $100 per student to cover supplements to teacher salaries for taking on extra responsibilities (career ladder) and/or for high performance.

13) Total Costs

Year One	Year Two	Year Three	Year Four	TOTAL
500,000	1,400,000	1,400,000	1,400,000	4,700,000

Budget Part II: Section (A), Project #4					
Project Name:	**Talent to Teach, Talent to Lead, Talent to Learn**				
Associated with Criteria:					
(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		-	-	-	-
2. Fringe Benefits	-	-	-	-	-
3. Travel		-	-	-	-
4. Equipment		-	-	-	-
5. Supplies		-	-	-	-
6. Contractual	351,477	362,021	372,882	384,068	1,470,448
7. Training Stipends		-	-	-	-
8. Other		-	-	-	-
9. Total Direct Costs (lines 1-8)	351,477	362,021	372,882	384,068	1,470,448
10. Indirect Costs*	15,465	15,929	54,068	55,690	141,152
11.Funding for Involved LEAs		-	-	-	-
12. Supplemental Funding for Participating LEAs		-	-	-	-
13. Total Costs (lines 9-12)	366,942	377,950	426,950	439,758	1,611,599

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

(D): Talent to Teach, Talent to Lead, Talent to Learn (TQ3)

6) Contractual

Iowa was awarded a Teacher Quality Partnership (TQP) grant. The IDE was also a partner on a second grant application for the TQP proposal that was not funded, the Talent to Teach, Talent to Lead, Talent to Learn project TQ(3). We have included one strand of that work in this proposal, as it is the strand that focuses specifically on recruiting candidates of color into teaching. Thus, one-third of the TQ(3) proposal funds are included in this budget.

Contractual	Year One	Year Two	Year Three	Year Four	TOTAL
University of Iowa	351,477	363,021	373,882	384,068	1,470,448

9) Total Direct Costs

Total Direct Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	351,477	362,021	372,882	384,068	1,470,448

10) Indirect Costs

Iowa's indirect cost rate is 4.4% for restricted budget items.

13) Total Costs

Total Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	366,942	377,950	426,950	439,758	1,611,599

Budget Part II: Section (A), Project #5					
Project Name: Iowa Leadership Academy/Superintendents Network and Principals Center					
Associated with Criteria:					
(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		-	-	-	-
2. Fringe Benefits	-	-	-	-	-
3. Travel		-	-	-	-
4. Equipment		-	-	-	-
5. Supplies		-	-	-	-
6. Contractual	437,500	450,625	464,144	478,068	1,830,337
7. Training Stipends		-	-	-	-
8. Other					
9. Total Direct Costs (lines 1-8)	437,500	450,625	464,144	478,068	1,830,337
10. Indirect Costs*	19,250	19,828	67,301	69,320	175,698
11.Funding for Involved LEAs		-	-	-	-
12. Supplemental Funding for Participating LEAs		-	-	-	-
13. Total Costs (lines 9-12)	456,750	470,453	531,445	547,388	2,006,035

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

(D): Iowa Leadership Academy/Superintendents Network and Principals Center

Funding to support development of principals and administrators is provided for four initiatives that span four years:

- **Iowa Leadership Standards**—Aligning Iowa's standards against new leadership standards and initiatives; creating an infrastructure of supports for evaluation of teachers and administrators against the standards; apply central office personnel descriptors to leadership standards and criteria evaluation processes ($250,000)
- **Training**— Revise the oversight of higher-education preparation program redesign; design programs for mentoring and induction of assistant principals; design programs for mentoring and induction of assistant superintendents ($850,000)
- **Creating Conditions for Reform**—Expand the School Administration Manager (SAM) initiative; provide additional data analysis supports to leaders; provide human and financial resource allocation supports to leaders; provide cultural competencies supports to leaders; facilitate clusters of schools' collaboration efforts; deepen and spread the governance/policy initiatives ($420,000)
- **Assessing, Documenting and Sharing Progress:** Assess the impact of training experiences, new evaluation requirements, and school administration managers; document behavior changes and results for superintendents based on their annual evaluation; study and document processes and outcomes in two districts that have reallocated resources to focus on student achievement; study the value-add of mentoring of new principals and superintendents; assess the impact of central office redesign efforts; track national promising practices and undertake benchmarking studies ($250,000)

6) Contractual	Year One	Year Two	Year Three	Year Four	TOTAL
Iowa Leadership Academy	437,500	450,625	464,144	478,068	1,830,337

9) Total Direct Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	437,500	450,625	464,144	478,068	1,830,337

10) Indirect Costs	Iowa's indirect cost rate is 4.4% for restricted budget items.

13) Total Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	437,500	450,625	531,445	547,388	1,966,958

(E) Supporting the Lowest Achieving Schools

Budget Part II: Project-Level Budget Table - Combined					
Project Name:	Supporting the Lowest Achieving Schools				
Associated with Criteria:					
(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	301,950	664,409	684,341	704,871	2,355,570
2. Fringe Benefits	134,798	138,841	143,007	147,297	563,942
3. Travel	212,000	230,720	237,642	244,771	925,132
4. Equipment	17,960	3,960	4,079	4,201	30,200
5. Supplies	-	-	-	-	-
6. Contractual	940,000	1,078,200	686,186	706,772	3,411,158
7. Training Stipends	108,750	112,013	115,373	118,834	454,969
8. Other	-	-	-	-	-
9. Total Direct Costs (lines 1-8)	1,715,458	2,228,142	1,870,627	1,926,745	7,740,972
10. Indirect Costs*	74,690	97,864	270,649	278,769	721,972
11.Funding for Involved LEAs	-	-	-	-	-
12. Supplemental Funding for Participating LEAs	2,536,000	2,491,000	3,042,630	3,794,909	11,864,539
13. Total Costs (lines 9-12)	4,326,147	4,817,006	5,183,906	6,000,423	20,327,483

Budget Part II: Project-Level Budget Table					
Project Name: Center for Collaborative Inquiry on Intensive Support to Schools					
Associated with Criteria:					
(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	242,250	602,918	621,005	639,635	2,105,808
2. Fringe Benefits	75,098	77,350	79,671	82,061	314,180
3. Travel	36,000	49,440	50,923	52,451	188,814
4. Equipment	17,960	3,960	4,079	4,201	30,200
5. Supplies		-	-	-	-
6. Contractual	440,000	563,200	155,736	160,408	1,319,344
7. Training Stipends	-	-	-	-	-
8. Other		-	-	-	-
9. Total Direct Costs (lines 1-8)	811,308	1,296,868	911,414	938,756	3,958,346
10. Indirect Costs*	34,907	56,888	131,564	135,511	358,869
11.Funding for Involved LEAs		-	-	-	-
12. Supplemental Funding for Participating LEAs		-	-	-	-
13. Total Costs (lines 9-12)	846,215	1,353,756	1,042,978	1,074,267	4,317,215

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

(E): Center for Collaborative Inquiry on Intensive Support to Schools

1) Personnel

Personnel:	% FTE	Base Salary	Total per Year
Administrative Consultant	100%	$86,250	$86,250
Five implementation team members, each with different expertise related to competency-based education, coaching, leadership, and systems design and change	100%	$83,000	$415,000
Secretary	100%	$41,400	$41,400

Note, a sixth member of the Center team will be hired through contracted services.

The IDE will work to reorganize so that the Center staff will come onto state payroll at the end of four years. AEAs brought into the center and receive staffing must commit to the same.

2) Fringe Benefits: 4.4%

3) Travel

All consultants will travel very frequently, both within Iowa and outside. Travel is based on traveling at a rate of $6,000 per year, mostly within Iowa, but also nationally. This travel is for national conferences and USED visits, and to work with participating LEAs, AEAs, and other Centers. The state of Iowa currently reimburses 39 cents per mile for mileage and $50 per night for lodging.

4) Equipment

The state of Iowa does not have a rigid definition of equipment and follows the definition required by grant makers. Each staff member receives a laptop, a docking station, and a Blackberry in year one. Subsequent years consider inflation and periodic replacement of portable equipment.

5) Supplies

In addition to regular office supplies, this office will require instructional and presentation materials. The estimates are based on the average unit expense on supplies within the IDE.

Equipment:	Cost of Item	Total
Seven laptops and docking stations	$2,000	$14,000
Six Blackberry's and service fees	$660/year	$3,960/yr.

The estimates are based on the average unit expense on supplies within the IDE.

6) Contractual

The sixth member of this implementation team will be contracted from outside the IDE/AEAs. The office will receive ongoing professional development around implementation science, adaptive leadership, and systems change, and their individual areas of expertise. Staff will take part in national professional associations. Further, the Center will conduct professional development with LEAs. The Center will specifically contract with experts on replacement units and other programs already underway to support competency-based promotion of students. The state has not yet procured these services; upon receipt of the grant, the State will follow the procedures for procurement under 34 CFR Parts 74.40 -74.48 and Part 80.36.

Contractual:	Cost of Item	Total*
Sixth implementation team member	$110,000	$339,999
Professional development, professional associations, and other contracted services	$40,000	$167,345
Contractors to provide professional development to LEAs and consultation on special topics	$ 400,000	$812,000

* Inflation is figured at 3% per year.

9) Total Direct Costs

Total Direct Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	811,308	1,296,868	911,414	938,756	3,958,346

10) Indirect Costs

Iowa's indirect cost rate is 4.4% for restricted budget items.

13) Total Costs

Total Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	846,215	1,353,756	1,042,978	1,074,267	4,317,215

Budget Part II: Project-Level Budget Table					
Project Name:	**PLAS District Subgrants**				
Associated with Criteria:					
(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		-	-	-	-
2. Fringe Benefits	-	-	-	-	-
3. Travel		-	-	-	-
4. Equipment		-	-	-	-
5. Supplies		-	-	-	-
6. Contractual					-
7. Training Stipends		-	-	-	-
8. Other		-	-	-	-
9. Total Direct Costs (lines 1-8)	-	-	-	-	-
10. Indirect Costs*	-	-	-	-	-
11.Funding for Involved LEAs		-	-	-	-
12. Supplemental Funding for Participating LEAs	1,836,000	1,770,000	2,300,000	3,030,000	8,936,000
13. Total Costs (lines 9-12)	1,836,000	1,770,000	2,300,000	3,030,000	8,936,000

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

(E): PLAS District Subgrants

12) Supplemental Funding for Participating LEAs

Participating LEAs	Year One	Year Two	Year Three	Year Four	TOTAL
	1,836,000	1,770,000	2,300,000	3,030,000	8,936,000

Subgrants are given to districts for schools placed on the state's annual list of Persistently Lowest-Achieving Schools that agree to implement one of the four intervention models. Schools receive subgrants for three years in order to carry out complex reform. In year one, subgrants will be divided among the six Tier II schools that submitted MOUs for the School Improvement Grants, as well as supplements, if needed, for the six Tier I schools.

The year two budget expands to encompass all of the currently identified Tier II schools. Subgrants continue for year one districts/schools; 28 schools will be added in year two. These 28 schools will receive subgrants for three years. In year three, an additional seven schools will receive subgrants, and they will receive subgrants for two years. In year four, an additional ten schools will receive subgrants, and they will receive the subgrant for one year.

13) Total Costs

Total Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	1,836,000	1,770,000	2,300,000	3,030,000	8,936,000

Budget Part II: Section (A), Project #4					
Project Name:	Overcoming achievement gaps by poverty through Learning Suppor				
Associated with Criteria:					
(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	59,700	61,491	63,336	65,236	249,763
2. Fringe Benefits	59,700	61,491	63,336	65,236	249,763
3. Travel	174,000	179,220	184,597	190,134	727,951
4. Equipment		-	-	-	-
5. Supplies		-	-	-	-
6. Contractual	100,000	103,000	106,090	109,273	418,363
7. Training Stipends	108,750	112,013	115,373	118,834	454,969
8. Other		-	-	-	-
9. Total Direct Costs (lines 1-8)	502,150	517,215	532,731	548,713	2,100,808
10. Indirect Costs*	22,095	22,757	77,246	79,563	201,661
11.Funding for Involved LEAs		-	-	-	-
12. Supplemental Funding for Participating LEAs	250,000	257,500	265,225	273,182	1,045,907
13. Total Costs (lines 9-12)	774,245	797,472	875,202	901,458	3,348,376

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

(E): Overcoming achievement gaps by poverty through Learning Supports

1) Personnel

Personnel:	% FTE	Base Salary	Total per Year
Consultant	50%	$78,000	39,000
Secretary	50%	$41,400	20,700

2) Fringe Benefits: 4.4%

3) Travel

Learning Supports work is largely in the field. Thus, consultants travel very frequently, both within Iowa and outside. This grant would cover the full year's travel budget for the Learning Supports team member. Travel is based on traveling at a rate of $6,000 per year, mostly within Iowa, but also nationally. This travel is for national conferences and USED visits, and to work with participating LEAs, AEAs, and other Centers. The state of Iowa currently reimburses 39 cents per mile for mileage and $50 per night for lodging.

6) Contractual

The Learning Supports team will rely on national consultants to keep Iowa moving on the cutting edge. The state has not yet procured these services; upon receipt of the grant, the State will follow the procedures for procurement under 34 CFR Parts 74.40 - 74.48 and Part 80.36.

Contractual:	Cost of Item per year	Total*
Equivalent of an additional team member, spread out among different consultants during the year as needed.	$100,000	$ 418,363

* Inflation is figured at 3% per year.

7) Training Stipends	Year One	Year Two	Year Three	Year Four	TOTAL
	108,750	112,013	115,373	118,834	454,969

8) Other

9) Total Direct Costs

Total Direct Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	502,150	517,215	532,731	548,713	2,100,808

10) Indirect Costs: Iowa's indirect cost rate is 4.4% for restricted budget items

12) Supplemental Funding for Participating LEAs

The IDE is providing supplemental funding to each participating LEAs engaged in Learning Supports Programming. Subgrant amounts increase by a factor for inflation each year.

Activity	Cost
LEA Subgrants Year One	$250,000
LEA Subgrants Year Two	$257,500
LEA Subgrants Year Three	$265,225
LEA Subgrants Year Four	$273,182
Total	$1,045,907

13) Total Costs

Total Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	774,245	797,472	875,202	901,458	3,348,376

Budget Part II: Project-Level Budget Table Project Name: Racial Equity Collaborative Associated with Criteria: (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		-	-	-	-
2. Fringe Benefits		-	-	-	-
3. Travel	2,000	2,060	2,122	2,185	8,367
4. Equipment		-	-	-	-
5. Supplies		-	-	-	-
6. Contractual	400,000	412,000	424,360	437,091	1,673,451
7. Training Stipends	-	-	-	-	-
8. Other		-	-	-	-
9. Total Direct Costs (lines 1-8)	402,000	414,060	426,482	439,276	1,681,818
10. Indirect Costs*	17,688	18,219	61,840	63,695	161,442
11.Funding for Involved LEAs		-	-	-	-
12. Supplemental Funding for Participating LEAs	450,000	463,500	477,405	491,727	1,882,632
13. Total Costs (lines 9-12)	869,688	895,779	965,727	994,698	3,725,892

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

(E): Racial Equity Collaborative

3) Travel

The CCI will work with a national facilitator to design, facilitate, and deliver a process to bring together LEAs, AEAs, IDE, partners in higher education and the business community, and other sectors in a concerted effort to overcome issues of race. The work is largely in the field and will entail bringing in national experts to help deliver a program focused on Iowa's demographics. Two cohorts of districts will take part in the activity. This grant would cover travel for CCI team members, consultants, facilitators, and invited speakers and guests. The state of Iowa currently reimburses 39 cents per mile for mileage and $50 per night for lodging.

6) Contractual

The work on racial equity will be led by contractors working closely with Center and IDE staff. The IDE will be the host and a participant in the events. These funds will cover a coordinator who engages primary delivery on the program, but also covers costs of bringing in national experts. The state has not yet procured these services; upon receipt of the grant, the State will follow the procedures for procurement under 34 CFR Parts 74.40 - 74.48 and Part 80.36.

Contractual:	Cost of Item per cohort per year	Subtotal*	Four Year Total
One primary contractor to coordinate and deliver service to two cohorts	$ 200,000	$400,000 per year, plus inflation	$ 1,673,451

* Inflation is figured at 3% per year.

9) Total Direct Costs

Total Direct Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	402,000	414,060	424,360	437,091	$ 1,673,451

10) Indirect Costs

Iowa's indirect cost rate is 4.4% for restricted budget items.

12) Supplemental Funding for Participating LEAs

The IDE is providing supplemental funding to each participating LEA in the racial equity collaborative.

Activity	Cost
LEA Subgrants Year One	$450,000
LEA Subgrants Year Two	$463,500
LEA Subgrants Year Three	$477,405
LEA Subgrants Year Four	$491,727
Total	$1,882,632

13) Total Costs

Total Costs	Year One	Year Two	Year Three	Year Four	TOTAL
	869,688	895,779	965,727	994,698	3,725,892

APPENDIX A

Appendix A

Attachment Number	Attachment Title	Relevant Criterion	Page Number
(A)(1)–1	Chapter 72 Iowa Code: Accreditation of Area Education Agencies	(A)(1)(i)	Appendix A–1
(A)(1)–2	Student Achievement and Teacher Quality Act	(A)(1)(i)	Appendix A–8
(A)(1)–3	SF 2216 Iowa Core	(A)(1)(i)	Appendix A–15
(A)(1)–4	Iowa Statewide Initiatives	(A)(1)(i)	Appendix A–19
(A)(1)–5	Iowa's Race to the Top Participating Local Education Agency (LEA) Memorandum of Understanding	(A)(1)(i)	Appendix A–37
(A)(1)–6	Detailed Table for (A)(1)	(A)(1)(i)	Appendix A–48
(A)(1)–7	Graphical Representation of Goals	(A)(1)(i)	Appendix A–60
(A)(2)–1	ARRA SFSF–Education Fund	(A)(2)(ii)	Appendix A–67
(A)(2)–2	Letters of Support	(A)(2)(ii)	Appendix A–73
(A)(3)–1	Selected NAEP Achievement Charts for Iowa, 1992–2009, and Iowa Testing Program Results, 2001-2009	(A)(3)(ii)	Appendix A–111

Chapter 72

Accreditation of Area Education AGENCIES

281—72.1(273) Scope. The purpose of Iowa's early childhood through twelfth grade educational system is to support learning for all students. Area education agencies, as part of that system, exist to provide leadership and equitable services for school improvement to schools and school districts in order to enable every learner to perform at higher education levels. Area education agencies are subject to accreditation by the state board of education as specified in Iowa Code section 273.10. These rules apply to the accreditation of area education agencies.

281—72.2(273) Definitions.

"AEA" is an acronym for area education agency.

"Agencywide goals" means cross–divisional desired targets to be reached over an extended period of time, derived from agencywide needs assessment and state and local student learning needs, and upon which services are focused.

"Baseline data" means information gathered at a selected point in time and used thereafter as a basis from which to monitor change.

"Board" means the Iowa state board of education.

"Department" means the state department of education.

"Director" means the state director of the department of education.

"Equitable" means that services provided by an AEA are accessible to all schools and school districts within the agency's service region.

"External knowledge base" means what is known, such as research and student achievement data, from the state or the nation about how learners in other settings perform and respond in a content area such as reading, mathematics, or science, as well as what is known about developing a learning environment that will support the desired student performance and response in a content area such as reading, mathematics, or science.

"Indicators of improvement" means internal data the agency uses to determine how well its continuous improvement processes are implemented.

"Indicators of quality" means external data sources which measure the effectiveness of services.

"School" means an accredited nonpublic school.

"School district" means a public school district.

"State indicators" means the school and school district indicators defined in 281—paragraph 12.8(3)*"a."*

281—72.3(273) Accreditation components. To be accredited by the board and maintain accreditation status, an AEA shall: provide services which meet the standards defined in rule 281—72.4(273), establish a comprehensive improvement plan as defined in rule 281—72.9(273), submit a board–approved annual budget as defined in subrule 72.10(1), and annually provide a progress report as defined in subrule 72.10(2).

281—72.4(273) Standards for services. An AEA shall provide services that meet these standards as evidenced by, but not limited to, the descriptors following each standard. These services shall be accessible to all schools and school districts within the agency's service region.

72.4(1) The AEA shall deliver services for school–community planning. The AEA assists schools and school districts in assessing needs of all students, developing collaborative relationships among community agencies, establishing shared direction, implementing actions to meet goals, and reporting progress towards goals.

72.4(2) The AEA shall deliver professional development services for schools, school districts and AEA instructional, administrative, and support personnel. The AEA anticipates and responds to schools' and school districts' needs; supports proven and emerging educational practices; aligns with school and school district comprehensive long–range and annual improvement goals; uses adult learning theory; supports improved teaching; uses theory, demonstration, practice, feedback, and coaching; and addresses professional development activities as required by the Iowa Code or administrative rules.

72.4(3) The AEA shall deliver curriculum, instruction, and assessment services that address the areas of reading, language arts, mathematics, and science but may also be applied to other curriculum areas. These services support the development, implementation, and assessment of rigorous content standards in, but not limited to, reading, mathematics, and science. The AEA assists schools and school districts in gathering and analyzing student achievement data as well as data about the learning environment, compares those data to the external knowledge base, and uses that information to guide school and school district goal setting and implementation of actions to improve student learning.

72.4(4) The AEA shall address the diverse learning needs of all children and youth, including but not limited to services which address gifted and talented students, and meet the unique needs of students with disabilities who require special education. Services provide support to schools and school districts and include special education compliance with Iowa administrative rules for special education.

72.4(5) The AEA shall provide services that support multicultural, gender–fair approaches to the educational program pursuant to Iowa Code section 256.11. These services assist schools and school districts to take actions that ensure all students are free from discriminatory acts and practices; to establish policies and take actions that ensure all students are free from harassment; to incorporate into the educational program instructional strategies and student activities related to responsibilities, rights, and the respect for diversity which are necessary for successful citizenship in a diverse community and a global economy; and to incorporate on an ongoing basis activities within professional development that prepare and assist all employees to work effectively with diverse learners.

72.4(6) The AEA shall deliver media services. These services align with school and school district needs, support effective instruction, and provide consultation, research and information services, instructional resources, and materials preparation and dissemination to assist schools and school districts to meet the learning needs of all students and support local district media services. These services support the implementation of content standards in, but not limited to, reading, mathematics, and science. These services also support and integrate emerging technology.

72.4(7) The AEA shall supplement and support effective instruction for all students through school technology services. These services provide technology planning, technical assistance, and professional development, and support the incorporation of instructional technologies to improve student achievement. These services support the implementation of content standards in,

but not limited to, reading, mathematics, and science. These services support and integrate emerging technology.

72.4(8) The AEA shall deliver services that develop leadership based upon the Iowa Standards for School Administrators as adopted by the board of educational examiners. Leadership services assist with recruitment, induction, retention, and professional development of educational leaders. AEAs develop and deliver leadership programs based on local and state educational needs and best practices.

72.4(9) The AEA shall deliver management services if requested. If the AEA provides management services to school districts, the services shall conform to the provisions of Iowa Code section 273.7A.

281—72.5 to 72.8 Reserved.

281—72.9(273) Comprehensive improvement plan. Each AEA, on a cycle established by the department, shall submit to the department a comprehensive improvement plan. The plan shall be the basis for the improvement actions taken by the agency and shall also serve as a basis for the comprehensive site visit.

72.9(1) *Comprehensive improvement plan contents.* At a minimum, the comprehensive improvement plan for an AEA shall include the following:

a. Needs assessment. The plan shall contain a description of how the AEA conducts ongoing needs assessment.

b. Needs assessment summary. The plan shall contain a summary of the findings from agencywide needs assessment. The summary, at a minimum, shall include the following:

(1) Findings from AEA internal needs assessment which includes, at a minimum, four indicators of improvement:

1. Implementation of a continuous improvement model;

2. Implementation of services that respond to schools' and school districts' needs;

3. Demonstration of proactive leadership;

4. Use of data to implement actions to improve student learning;

(2) Findings from school and school district state indicator data;

(3) Findings from reviews of school and school district comprehensive school improvement plans;

(4) Findings from the department's comprehensive site visit reports to schools and school districts;

(5) Findings from AEA comprehensive site visit reports; and

(6) Findings from the department's statewide customer service survey.

c. Agencywide goals. The plan shall contain agencywide goals developed as a result of needs assessment findings. Agencywide goals shall be measurable and, at a minimum, focused on assisting schools and school districts with the school improvement process and improving teaching and learning as evidenced in the indicators of quality as prescribed in subrule 72.10(2).

d. Services. The plan shall describe the services developed to meet agencywide goals and to meet the standards defined in this chapter.

e. Action plans. The plan shall include agencywide actions to accomplish agencywide goals. Action plans shall include evidence of meeting all standards for services. Action plans shall include provisions for equitable availability of services. The agencywide action plans shall include, at a minimum, the following components:

(1) Agencywide data sources;

(2) Agencywide baseline data;

(3) Services to meet the agencywide goals;

(4) Agencywide resources, which include funding, staff allocation, and time and may be delivered directly, through contractual agreements, and through collaborative arrangements with other educational or community agencies;

(5) Agencywide responsible parties that will monitor the implementation of services in the action plan;

(6) A system for measuring the efficiency and effectiveness of services; and

(7) A process for reporting progress toward agencywide goals.

f. Provisions for management services. If the AEA provides management services to school districts, the plan shall include a description of how the agency provides those services as described in Iowa Code section 273.7A.

g. Professional development plan. The plan shall contain a summary of the agencywide professional development plan developed pursuant to 281—subrule 83.6(2).

72.9(2) *Plan submission and cycle.* Rescinded IAB 9/5/01, effective 10/10/01.

72.9(3) *Comprehensive improvement plan review process.* The comprehensive improvement plan of an AEA shall be reviewed by the department to determine if the plan meets the requirements of this chapter. An AEA will be provided reasonable time to correct any deficiencies.

281—72.10(273) Annual budget and annual progress report. Each AEA shall submit to the board an annual budget as required by Iowa Code section 273.3 and shall provide an annual progress report on the indicators of quality and the agencywide goals.

72.10(1) *Annual budget.* An annual budget shall be submitted by an AEA accredited by the board or an AEA that has been given conditional accreditation by the board as described in Iowa Code section 273.3(12) and subrule 72.11(4) to the board for approval, on forms provided by the department, no later than March 15 preceding the next fiscal year. The board shall review the proposed budget and shall, before April 1, either grant approval or return the budget without approval with comments of the board included. An unapproved budget shall be resubmitted to the board for final approval no later than April 15.

72.10(2) *Annual progress report.* An AEA shall annually submit a written progress report to its schools and school districts and the department and make the report available to the public. The report shall include, but not be limited to, the following information:

a. Agencywide goals. Progress, at a minimum, toward the agencywide goals described in paragraph 72.9(1)*"c"* shall be reported. This progress shall include agencywide baseline data and changes in the baseline data as a result of services provided in each action plan.

b. Indicators of quality. Aggregated agencywide data shall include baseline data and trends over time for the following indicators of quality from, at a minimum, the state indicators, the statewide customer service survey, school and school district comprehensive school improvement plans, and school and school district annual progress reports:

(1) Targeted assistance. An AEA assists schools and school districts with specific student, teacher, and school needs evidenced in local school improvement plans by:

1. Addressing teacher, school and school district needs.

2. Responding to student learning needs.

(2) Improved student learning. An AEA assists schools and school districts in:

1. Improving student achievement in mathematics.

2. Improving student achievement in reading.

3. Improving student achievement in science.

4. Reducing student achievement gaps in mathematics.

5. Reducing student achievement gaps in reading.

6. Reducing student achievement gaps in science.

7. Reducing dropout rates.

8. Preparing students for postsecondary success.

9. Planning to ensure that students complete a core program.

(3) Improved teaching. An AEA assists schools and school districts in improving teaching in the following areas:

1. Mathematics.

2. Reading.

3. Science.

(4) Resource management. An AEA assists schools and school districts:

1. By delivering cost–efficient services.

2. By timely delivery of services.

(5) Customer satisfaction with services. An AEA determines customer satisfaction through:

1. High levels of participation.

2. High levels of customer satisfaction with quality of AEA services.

(6) Annual progress report review process. The annual progress report of an AEA shall be reviewed by a team appointed by the director. Following the review of an AEA's report, feedback will be provided to the agency.

281—72.11(273) Comprehensive site visit.

72.11(1) *On–site review.* An accreditation team shall conduct one or more on–site reviews of the AEA's progress toward agencywide goals and shall determine if services meet the standards in this chapter. Prior to an on–site review of an AEA, the accreditation team shall have access to the

AEA's comprehensive improvement plan, annual progress report, and annual budget as well as any other information collected by the department relating to the AEA.

72.11(2) *Accreditation team.* The membership of the accreditation team shall be determined by the director. Each team member should have appropriate competencies, background, and experiences to enable the member to contribute to the evaluation visit. The team shall include at least four members, including, but not limited to:

a. Department staff.

b. Representatives from various sizes of schools and school districts served by the AEA being evaluated.

c. AEA staff from other AEAs.

d. Others with expertise as deemed appropriate by the director.

72.11(3) *Accreditation team action.* After an on–site review of an AEA, the accreditation team shall determine whether the requirements of this chapter have been met and shall make a report to the director identifying which standards and other accreditation requirements in this chapter an AEA has or has not met. The accreditation team shall report strengths and weaknesses, if any, for each standard or requirement, and shall advise the AEA of available resources and technical assistance to further enhance the strengths and improve areas of weakness. An AEA may respond to the accreditation team's report by providing to the board factual information concerning its services.

72.11(4) *Accreditation.* All AEAs shall be deemed accredited upon the date of implementation of these rules. Accreditation of an AEA by the board shall be based on the recommendation of the director after study of the factual and evaluative evidence on record about the standards and other requirements as described in this chapter and based upon the timely submission of information required by the department. If, at any time, the board determines that an AEA has not met all standards and other requirements, the board shall require the AEA to address the deficiencies.

a. Accreditation status. After completion of the comprehensive site visit under rule 281—72.11(273), the board shall grant continuation of accreditation if all standards and other requirements are met. If the board determines that an AEA has not met all standards and other requirements, the board shall grant conditional accreditation to the agency.

b. Conditional accreditation. If the board grants conditional accreditation, the department shall notify the administrator of the AEA and each member of the board of directors of the AEA within 15 days. The notice shall contain a description of the accreditation deficiencies.

c. Remediation plan. Upon granting of conditional accreditation by the board, the director, in cooperation with the board of directors of the AEA, shall establish a remediation plan. The remediation plan shall describe how the AEA will correct deficiencies to meet accreditation standards and shall establish a timeline and deadline date for correction of the deficiencies. The remediation plan is subject to the approval of the board. The AEA shall remain conditionally accredited during the implementation of the remediation plan.

d. Implementation of remediation plan. At intervals prescribed in the remediation plan or at the request of the director, the accreditation team shall revisit the AEA and shall determine whether the deficiencies in the accreditation standards are being or have been corrected and shall make a

report and recommendation to the director and the board. The board shall review this report and recommendations and shall determine whether the deficiencies have been corrected.

e. Failure to correct deficiencies. If the deficiencies have not been corrected within the time stipulated in the remediation plan, the board shall remove accreditation of the agency. At the hearing before the board, the AEA may be represented by counsel and may present evidence. The board may provide for the hearing to be recorded or reported. If requested by the AEA at least 10 days before the hearing, the board shall provide for the hearing to be recorded or reported at the expense of the AEA. Within 30 days after the hearing, the board shall render a written decision approving or removing the accreditation. Action by the board at this time is final agency action for the purposes of Iowa Code chapter 17A. The department shall notify the administrator of the AEA, each member of the board of directors of the AEA, and the schools and school districts served by the AEA of the decision of the board.

f. Required response to removal of accreditation. After removal of accreditation of the agency, the AEA board of directors shall make provisions for the continuation of services to schools and school districts subject to approval by the state board of education.

These rules are intended to implement Iowa Code section 273.10.

Document 1 of 1

Source:

Iowa Acts/2001 Iowa Acts/2001 Iowa Acts/CHAPTER 161 STUDENT ACHIEVEMENT AND TEACHER QUALITY PROGRAM

CHAPTER 161

STUDENT ACHIEVEMENT AND TEACHER QUALITY PROGRAM

S.F. 476

AN ACT relating to the establishment of a student achievement and teacher quality program and providing for contingent effectiveness.

Be It Enacted by the General Assembly of the State of Iowa:

Section 1. INTENT. It is the intent of the general assembly to create a student achievement and teacher quality program that acknowledges that outstanding teachers are a key component in student success. The program's goals are to enhance student achievement and to redesign compensation strategies and teachers' professional development. Such compensation strategies are designed to attract and retain high performing teachers, to reward teachers for improving their skills and knowledge in a manner that translates into better student learning, and to reward the staff of school attendance centers for improvement in student achievement.

Sec. 2. NEW SECTION. 284.1 STUDENT ACHIEVEMENT AND TEACHER QUALITY PROGRAM.

A student achievement and teacher quality program is established to promote high student achievement. The program shall consist of the following four major elements:

1. Mentoring and induction programs that provide support for beginning teachers in accordance with section 284.5.
2. Career paths with compensation levels that strengthen Iowa's ability to recruit and retain teachers.
3. Professional development designed to directly support best teaching practices.
4. Team-based variable pay that provides additional compensation when student performance improves.

Sec. 3. NEW SECTION. 284.2 DEFINITIONS.

As used in this chapter, unless the context otherwise requires:

1. "Beginning teacher" means an individual serving under an initial provisional license, issued by the board of educational examiners under chapter 272, who is assuming a position as a classroom teacher.
2. "Classroom teacher" means an individual who holds a valid practitioner's license and who is employed under a teaching contract with a school district or area education agency in this state to provide classroom instruction to students.
3. "Comprehensive evaluation" means a summative evaluation of a teacher conducted by an evaluator for purposes of performance review, or recommendation for licensure based upon models developed pursuant to section 256.9, subsection 51, and to determine whether the teacher's practice meets the school district expectations for a career, career II, or advanced level.
4. "Department" means the department of education.
5. "Director" means the director of the department of education.
6. "Evaluator" means an administrator or other practitioner who successfully completes an evaluator training program pursuant to section 284.10.
7. "Mentor" means an individual employed by a school district or area education agency as a classroom teacher or a retired teacher who holds a valid license issued under chapter 272. The individual must have a record of four years of successful teaching practice, must be employed as a classroom teacher on a nonprobationary basis, and must demonstrate professional commitment to both the improvement of teaching and learning and the development of beginning teachers.
8. "School board" means the board of directors of a school district or a collaboration of boards of directors of school districts.
9. "State board" means the state board of education.
10. "Teacher" means an individual holding a practitioner's license issued under chapter 272, who is employed as a teacher, librarian, media specialist, or counselor in a nonadministrative position by a school district or area education agency pursuant to a contract issued by a board of directors under section 279.13. A teacher may be employed in both an administrative and a nonadministrative position by a board of directors and shall be considered a part-time teacher for the portion of time that the teacher is employed in a nonadministrative position. "Teacher" includes a licensed individual employed on a less than full-time basis by a school district through a contract between the school district and an institution of higher education with a practitioner preparation program in which the licensed teacher is enrolled.

Sec. 4. NEW SECTION. 284.3 IOWA TEACHING STANDARDS.

1. For purposes of this chapter and for developing teacher evaluation criteria under chapter 279, the Iowa teaching standards are as follows:

a. Demonstrates ability to enhance academic performance and support for and implementation of the school district's student achievement goals.
b. Demonstrates competence in content knowledge appropriate to the teaching position.
c. Demonstrates competence in planning and preparing for instruction.
d. Uses strategies to deliver instruction that meets the multiple learning needs of students.
e. Uses a variety of methods to monitor student learning.
f. Demonstrates competence in classroom management.
g. Engages in professional growth.
h. Fulfills professional responsibilities established by the school district.

2. The school board and faculty shall collaborate to further define good teaching by enhancing the Iowa teaching standards in the following manner:

a. For purposes of comprehensive evaluations for beginning teachers, including the comprehensive evaluation required for the beginning teacher to progress to career teacher, the criteria shall be based upon the models developed pursuant to section 256.9, subsection 51, and

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established pursuant to chapter 20.

b. For purposes of comprehensive evaluations for teachers other than beginning teachers, the school board shall convene the members of the school board and representatives of the faculty, elected by the faculty, to establish criteria based upon the models developed pursuant to section 256.9, subsection 51. If the parties are unable to reach agreement by July 1, immediately after the school year in which a contract period ends, the model criteria shall become the school district's criteria.

Sec. 5. NEW SECTION. 284.4 PARTICIPATION.

1. A school district is eligible to receive moneys appropriated for purposes specified in this chapter if the school board applies to the department to participate in the student achievement and teacher quality program and submits a written statement declaring the school district's willingness to do all of the following:

a. Commit and expend local moneys to improve student achievement and teacher quality.

b. Implement a beginning teacher mentoring and induction program as provided in this chapter.

c. Provide, beginning in the second year of participation, the equivalent of two or more additional contract days, outside of instruction time, than were provided in the school year preceding the first year of participation, to provide additional time for teacher career development that aligns with student learning and teacher development needs, including the integration of technology into curriculum development, in order to achieve attendance center and districtwide student achievement goals outlined in the district comprehensive school improvement plan. School districts are encouraged to develop strategies for restructuring the school calendar to provide for the most effective professional development. A school district that provides the equivalent of ten or more contract days for career development is exempt from this paragraph.

d. Adopt a teacher career development program in accordance with this chapter.

e. Adopt a teacher evaluation plan that, at minimum, requires a comprehensive evaluation of teachers in the participating district at least every five years based upon the Iowa teaching standards and requires administrators to complete evaluator training in accordance with section 284.10.

f. Adopt teacher career paths based upon demonstrated knowledge and skills in accordance with this chapter.

g. Adopt a team-based variable pay plan that rewards attendance center success upon the implementation of a statewide variable pay plan.

2. By July 1, 2003, each school district shall participate in the student achievement and teacher quality program.[1]

Sec. 6. NEW SECTION. 284.5 BEGINNING TEACHER MENTORING AND INDUCTION PROGRAM.

1. A beginning teacher mentoring and induction program is created to promote excellence in teaching, enhance student achievement, build a supportive environment within school districts, increase the retention of promising beginning teachers, and promote the personal and professional well-being of classroom teachers. Prior to the completion of the 2001-2002 school year, a school district shall, at a minimum, provide an approved beginning teacher mentoring and induction program for all classroom teachers who are beginning teachers.

2. The state board shall adopt rules to administer this section.

3. Notwithstanding subsection 1, a school district may provide a beginning teacher mentoring and induction program for all classroom teachers who are beginning teachers in the school years beginning July 1, 2001, and July 1, 2002.[2]

4. Each participating school district shall develop an initial beginning teacher mentoring and induction plan. The plan shall be included in the school district's comprehensive school improvement plan submitted pursuant to section 256.7, subsection 21. The beginning teacher mentoring and induction plan shall, at a minimum, provide for a two-year sequence of induction program content and activities to support the Iowa teaching standards and beginning teacher professional and personal needs; mentor training that includes, at a minimum, skills of classroom demonstration and coaching, and district expectations for beginning teacher competence on Iowa teaching standards; placement of mentors and beginning teachers; the process for dissolving mentor and beginning teacher partnerships; district organizational support for released time for mentors and beginning teachers to plan, provide demonstration of classroom practices, observe teaching, and provide feedback; structure for mentor selection and assignment of mentors to beginning teachers; a district facilitator; and program evaluation.

5. A beginning teacher shall be informed by the school district, prior to the beginning teacher's participation in a mentoring and induction program, of the criteria upon which the beginning teacher shall be evaluated and of the evaluation process utilized by the school district.

6. Upon completion of the program, the beginning teacher shall be comprehensively evaluated to determine if the teacher meets expectations to move to the career level. The school district shall recommend a beginning teacher who has successfully completed the program for an educational license. A school district may offer a teacher a third year of participation in the program if, after conducting a comprehensive evaluation, the school district determines that the teacher is likely to successfully complete the mentoring and induction program by the end of the third year of eligibility. A teacher granted a third year of eligibility shall develop a teacher's mentoring and induction program plan in accordance with this chapter and shall undergo a comprehensive evaluation at the end of the third year. The board of educational examiners shall grant a one-year extension of the beginning teacher's provisional license upon notification by the school district that the teacher will participate in a third year of the school district's program.

Sec. 7. NEW SECTION. 284.6 TEACHER CAREER DEVELOPMENT.

1. The department shall coordinate a statewide network of career development for Iowa teachers. A participating school district or career development provider that offers a career development program in accordance with section 256.9, subsection 51, shall demonstrate that the program contains the following:

a. Support that meets the career development needs of individual teachers and is aligned with the Iowa teaching standards.

b. Research-based instructional strategies aligned with the school district's student achievement needs and the long-range improvement goals established by the district.

c. Instructional improvement components including student achievement data, analysis, theory, classroom demonstration and practice, technology integration, observation, reflection, and peer coaching.

d. An evaluation component that documents the improvement in instructional practice and the effect on student learning.

2. The department shall identify models of career development practices that produce evidence of the link between teacher training and improved student learning.

3. A participating school district shall incorporate a district career development plan into the district's comprehensive school improvement plan submitted to the department in accordance with section 256.7, subsection 21. The district career development plan shall include a description of the means by which the school district will provide access to all teachers in the district to career development programs or

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offerings that meet the requirements of subsection 1. The plan shall align all career development with the school district's long-range student learning goals and the Iowa teaching standards. The plan shall indicate the school district's approved career development provider or providers.

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4. In cooperation with the teacher's supervisor, the teacher employed by a participating school district shall develop an individual teacher career development plan. The individual plan shall be based, at minimum, on the needs of the teacher, the Iowa teaching standards, and the student achievement goals of the attendance center and the school district as outlined in the comprehensive school improvement plan. The individual plan shall be reviewed by the teacher and the teacher's supervisor at the teacher's annual review, and shall be modified as necessary to reflect the individual teacher's and the school district's needs and the individual's progress in the plan.

5. School districts, a consortium of school districts, area education agencies, higher education institutions, and other public or private entities including professional associations may be approved by the state board to provide teacher career development. The career development program or offering shall, at minimum, meet the requirements of subsection 1. The state board shall adopt rules for the approval of career development providers and standards for the district career development plan.

Sec. 8. NEW SECTION. 284.7 IOWA TEACHER CAREER PATH.

To promote continuous improvement in Iowa's quality teaching workforce and to give Iowa teachers the opportunity for career recognition that reflects the various roles teachers play as educational leaders, an Iowa teacher career path is established for teachers employed by participating school districts. A participating school district shall raise teacher salaries to meet the requirements of this section.[3] The Iowa teacher career path and salary minimums are as follows:

1. Effective July 1, 2001, the following career path levels are established and shall be implemented in accordance with this chapter:

a. BEGINNING TEACHER.

(1) A beginning teacher is a teacher who meets the following requirements:

(a) Has successfully completed an approved practitioner preparation program as defined in section 272.1.

(b) Holds a provisional teacher license issued by the board of educational examiners.

(c) Participates in the beginning teacher mentoring and induction program as provided in this chapter.

(2) The participating district shall increase the district's minimum salary for a first-year beginning teacher by at least one thousand five hundred dollars per year above the minimum salary paid to a first-year beginning teacher in the previous year unless the minimum salary for a first-year beginning teacher exceeds twenty-eight thousand dollars.

b. CAREER TEACHER.

(1) A career teacher is a teacher who meets the following requirements:

(a) Has successfully completed the beginning teacher mentoring and induction program and has successfully completed a comprehensive evaluation as provided in this chapter.

(b) Is reviewed by the school district as demonstrating the competencies of a career teacher.

(c) Holds a valid license issued by the board of educational examiners.

(d) Participates in teacher career development as set forth in this chapter and demonstrates continuous improvement in teaching.

(2) The participating district shall provide a two thousand dollar difference between the average beginning teacher salary and the minimum career teacher salary, unless the school district has a minimum career teacher salary that exceeds thirty thousand dollars.

2. It is the intent of the general assembly to establish and require the implementation of and provide for the implementation of the following additional career path levels by July 1, 2003:

a. CAREER II TEACHER.

(1) A career II teacher is a teacher who meets the requirements of subsection 1, paragraph "b", has met the requirements established by the school district that employs the teacher, and is evaluated by the school district as demonstrating the competencies of a career II teacher. The teacher shall have successfully completed a comprehensive evaluation in order to be classified as a career II teacher.

(2) It is the intent of the general assembly that the participating district shall establish a minimum salary for a career II teacher that is at least five thousand dollars greater than the minimum career teacher salary. It is further intended that the district shall adopt a plan that facilitates the transition of a career teacher to a career II level.

b. ADVANCED TEACHER.

(1) An advanced teacher is a teacher who meets the following requirements:

(a) Receives the recommendation of the review panel that the teacher possesses superior teaching skills and that the teacher should be classified as an advanced teacher.

(b) Holds a valid license from the board of educational examiners.

(c) Participates in teacher career development as outlined in this chapter and demonstrates continuous improvement in teaching.

(d) Possesses the skills and qualifications to assume leadership roles.

(2) It is the intent of the general assembly that the participating district shall establish a minimum salary for an advanced teacher that is at least thirteen thousand five hundred dollars greater than the minimum career teacher salary. In conjunction with the development of the review panel pursuant to section 284.9, the department shall make recommendations to the general assembly by January 1, 2002, regarding the appropriate district-to-district recognition for advanced teachers and methods that facilitate the transition of a teacher to the advanced level.

3. A teacher shall be promoted one level at a time and a teacher promoted to the next career level shall remain at that level for at least one year before requesting promotion to the next career level.

4. If a comprehensive evaluation for a teacher is conducted in the fifth year of the teacher's status at the career level, and indicates that the teacher's practice no longer meets the standards for that level, a comprehensive evaluation shall be conducted in the next following school year. If the comprehensive evaluation establishes that the teacher's practice fails to meet the standards for that level, the teacher shall be ineligible for any additional pay increase other than a cost of living increase.[4]

5. A teacher employed in a participating district shall not receive less compensation in that participating district than the teacher received in the school year, preceding participation, as set forth in section 284.4 due to implementation of this chapter. A teacher who achieves national board for professional teaching standards certification and meets the requirements of section 256.44 shall continue to receive the award as specified in section 256.44 in addition to the compensation set forth in this section.

Sec. 9. NEW SECTION. 284.8 EVALUATION REQUIREMENTS FOR CAREER,

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CAREER II, AND ADVANCED TEACHERS.

1. Notwithstanding section 284.4, subsection 2, effective July 1, 2004, teacher performance shall be reviewed annually for purposes of assisting the teacher in making continuous improvement. The annual review shall be conducted by a certified evaluator shall be selected by an administrator after consultation with the teacher. School districts are encouraged to make available time for and to utilize peer review and peer coaching techniques when conducting the annual review. The annual review need not be conducted if the teacher has been comprehensively reviewed during the same school year. The review shall include classroom observation of the teacher and should include supporting documentation from other supervisors, parents, and students.

2. In addition to evaluations agreed upon under chapter 20, a teacher shall be comprehensively evaluated based on the provisions of section 284.3 at least once every five years. Comprehensive evaluations shall be conducted by an administrator or the administrator's designee certified pursuant to section 284.10. The evaluation shall include, at minimum, classroom observation of the teacher, the teacher's progress and implementation of the teacher's individual career development plan; should include supporting documentation from other supervisors, teachers, parents, and students; and may include video portfolios as evidence of teaching practices. A teacher may be comprehensively evaluated for purposes of performance review or recommendation for licensure, and shall be comprehensively evaluated for advancement in the career path established pursuant to section 284.7.

3. If a teacher is denied advancement based upon a comprehensive evaluation, the teacher may appeal the decision to an adjudicator under the process established under section 279.17. However, the decision of the adjudicator is final. If a district does not recommend a teacher for continued employment or licensure based upon a comprehensive evaluation, the provisions of sections 279.14, 279.17, and 279.18 shall apply. A teacher may file one cause of action objecting to the contents or procedures of a comprehensive evaluation and the objections shall not be subject to the grievance procedures negotiated in accordance with chapter 20.

4. This section applies only to career, career II, and advanced teachers.

Sec. 10. NEW SECTION. 284.9 REVIEW PANEL.

1. A career II teacher seeking to receive an advanced designation shall submit a portfolio of work evidence aligned with the Iowa teaching standards to a review panel established in accordance with subsection 2. A majority of the evidence in the portfolio shall be classroom-based. The review panel shall evaluate the career II teacher's portfolio to determine whether the teacher demonstrates superior teaching skills and shall make a recommendation to the board of educational examiners whether or not the teacher shall receive an advanced designation. The standards for recommendation include, but are not limited to, meeting the Iowa teaching standards at an advanced level.

2. The department shall establish up to five regional review panels consisting of five members per panel. Each panel shall include, at a minimum, a nationally board-certified teacher and a school district administrator. Panel members shall be appointed by the director and shall possess the knowledge necessary to determine the quality of the evidence submitted in an applicant's portfolio. Panel members shall serve a staggered three-year term and may be reappointed to a second term. The department shall provide support and evaluation training for panel members and convene panels as needed.[5]

3. To assure fairness and consistency in the evaluation process, the review panels may perform random audits of the comprehensive evaluations conducted by evaluators throughout the state, and may randomly review performance-based evaluation models developed by school districts in accordance with section 284.3, subsection 2. The review of the evaluation models shall ensure that the model is at least equivalent to the state models developed pursuant to section 256.9, subsection 51.

4. A teacher who does not receive a recommendation from a review panel may appeal that denial to an administrative law judge located in the department of inspections and appeals. The state shall not be liable for a teacher's attorney fees, costs, or damages that may result from an appeal of a review panel's decision. The state board shall adopt rules to administer this section.

Sec. 11. NEW SECTION. 284.10 EVALUATOR TRAINING PROGRAM.

1. The department shall establish an evaluator training program to improve the skills of school district evaluators in making employment decisions, making recommendations for licensure, and moving teachers through a career path as established under this chapter. The department shall consult with persons representing teachers, national board-certified teachers, administrators, school boards, higher education institutions with approved practitioner and administrator preparation programs, and with persons from the private sector knowledgeable in employment evaluation and evaluator training in order to develop standards and requirements for the program. Evaluator training programs offered pursuant to this chapter may be provided by a public or private entity. The department shall distribute a list of evaluator training program providers to each school district.

2. a. An administrator licensed under chapter 272 who conducts evaluations of teachers for purposes of this chapter shall complete the evaluator training program. A practitioner licensed under chapter 272 who is not an administrator may enroll in the evaluator training program. Enrollment preference shall be given to administrators. Upon successful completion, the provider shall certify that the administrator or other practitioner is qualified to conduct evaluations for employment, make recommendations for licensure, and make recommendations that a teacher is qualified to advance from one career path level to the next career path level pursuant to this chapter. Certification is for a period of five years and may be renewed.

b. However, an administrator licensed in accordance with section 272.2, subsection 13, paragraph "a", shall not be eligible to enroll in the evaluator training program.[6]

3. Effective until July 1, 2004, a school district shall pay the amount of one thousand dollars for each individual who is licensed as a practitioner under chapter 272 on or after July 1, 2001, and who has been certified in accordance with this section.[7] By October 1 annually, the school district shall notify the department of education of the number of individuals who have achieved certification in accordance with this section, and shall submit any documentation requested by the department.

4. By July 1, 2002, a higher education institution approved by the state board to provide an administrator preparation program shall incorporate the evaluator training program into the program offered by the institution.

5. Beginning July 1, 2002, the board of educational examiners shall require certification as a condition of issuing or renewing an administrator's license.

6. By July 1, 2004, the director shall develop and implement an evaluator training certification renewal program for administrators and other practitioners who need to renew a certificate issued pursuant to this section.

Sec. 12. NEW SECTION. 284.11 PILOT PROGRAM FOR TEAM-BASED VARIABLE PAY FOR STUDENT ACHIEVEMENT.

1. It is the intent of the general assembly to create a statewide team-based variable pay program to reward individual attendance centers

for improvement in student achievement. A pilot program is established to give Iowa school districts with one or more participating attendance centers the opportunity to explore and demonstrate successful methods to implement team-based variable pay. The department shall develop and administer the pilot program. Each school district approved by the department to participate in the pilot program shall administer valid and reliable standardized assessments at the beginning and end of the school year to demonstrate growth in student achievement.

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2. All licensed practitioners employed at a participating attendance center that has demonstrated improvement in student achievement shall share in a cash award.[8] However, the school district is encouraged to extend cash awards to other staff employed at the attendance center.

3. The principal, with the participation of a team of licensed practitioners appointed by the principal, at each participating attendance center within a school district shall annually submit district attendance center student performance goals to the school board for approval. The attendance center goals must be aligned with the school improvement goals for the district developed in accordance with section 256.7, subsection 21. The district shall determine the designation of an attendance center for purposes of this section. The attendance center student performance goals may differ from attendance center to attendance center and may contain goals and indicators in addition to the comprehensive school improvement plan. An attendance center shall demonstrate student achievement through the use of multiple measures that are valid and reliable.

4. Each participating district shall create its own design for a team-based pay plan linked to the district's comprehensive school improvement plan. The plan must include attendance center student performance goals, student performance levels, multiple indicators to determine progress toward attendance center goals, and a system for providing financial rewards. The team-based pay plan shall be approved by the local board.

5. Each district team-based pay plan shall be reviewed by the department. The department shall include a review of the locally established goals, targeted levels of improvement, assessment strategies, and financial reward system.[9]

6. A district electing to initiate a team-based variable pay plan according to this section during the school year beginning July 1, 2001, shall notify the department of its election in writing no later than August 1, 2001. The department shall certify the school district plan by October 1, 2001.

Sec. 13. NEW SECTION. 284.12 REPORT.

1. The department shall annually report the statewide progress on the following:

a. Student achievement scores in mathematics and reading at the fourth and eighth grade levels on a district-by-district basis as reported to the local communities pursuant to section 256.7, subsection 21, paragraph "c".

b. Evaluator training program.

c. Team-based variable pay for student achievement.

d. Changes and improvements in the evaluation of teachers under the Iowa teaching standards.

2. The report shall be made available to the chairpersons and ranking members of the senate and house committees on education, the legislative education accountability and oversight committee, the deans of the colleges of education at approved practitioner preparation institutions in this state, the state board, the governor, and school districts by January 1. School districts shall provide information as required by the department for the compilation of the report and for accounting and auditing purposes.

3. The[10] department shall provide for a comprehensive independent evaluation of all components of the student achievement and teacher quality program and shall submit the results of the evaluation in the report submitted pursuant to subsection 2 by January 1, 2007.

4. The board of educational examiners shall compile statistical information from the results of the examinations administered pursuant to section 272.2, subsection 17. The information compiled shall identify the practitioner preparation programs from which the applicants graduated, but shall not identify applicants individually. The statistical information compiled by the board pursuant to this subsection is a public record. The board shall submit a review of the statistical information to the chairpersons and ranking members of the senate and house committees on education and the state board by December 1, 2003.

5. In developing administrative rules for consideration by the state board, the department shall consult with persons representing teachers, administrators, school boards, approved practitioner preparation institutions, other appropriate education stakeholders, and the legislative education accountability and oversight committee.

Sec. 14. Section 256.9, Code 2001, is amended by adding the following new subsection:

NEW SUBSECTION. 51. Develop core knowledge and skill criteria models, based upon the Iowa teaching standards, for the evaluation, the advancement, and for teacher career development purposes pursuant to chapter 284. The model criteria shall further define the characteristics of quality teaching as established by the Iowa teaching standards.

Sec. 15. Section 272.2, subsection 1, Code 2001, is amended to read as follows:

1. a. License practitioners~~,~~ who do not hold or receive a license from another professional licensing board~~, and professional development programs, except for programs developed and offered by practitioner preparation institutions or area education agencies and approved by the state board of education~~. Licensing authority includes the authority to establish criteria for the licenses, ~~including but not limited to,~~establish issuance and renewal requirements, ~~creation of~~create application and renewal forms, ~~creation of~~create licenses that authorize different instructional functions or specialties, ~~development of~~develop a code of professional rights and responsibilities, practice, and ethics, and ~~the authority to~~ develop any other classifications, distinctions, and procedures which may be necessary to exercise licensing duties. A code of professional rights and responsibilities, practice, and ethics shall address but not be limited to the habitual failure of a practitioner to fulfill contractual obligations under section 279.13.

b. Notwithstanding section 272.28, subsection 1, a teacher shall be licensed in accordance with rules adopted pursuant to chapter 272, Code 2001, if the teacher successfully completes a beginning teacher mentoring program approved pursuant to chapter 256E[11] on or before June 30, 2002, or is employed by a school district that does not offer a beginning teacher mentoring and induction program approved in accordance with this chapter during the school year beginning July 1, 2001.

Sec. 16. Section 272.2, Code 2001, is amended by adding the following new subsection:

NEW SUBSECTION. 17. a. Administer the Praxis II examination for knowledge of pedagogies and for not more than one content area to each individual who is applying for a provisional license prior to issuance of the license.

b. Examination fees for the examination required under this subsection shall be paid by the board.[12] Costs incurred for additional content

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area examinations shall be paid by the applicant.

c. This subsection is repealed effective June 30, 2003.

Sec. 17. NEW SECTION. 272.28 MENTORING AND INDUCTION REQUIREMENT. (A)(1)-2 con't

1. Effective July 1, 2003, requirements for teacher licensure beyond a provisional license shall include successful completion of a beginning teacher mentoring and induction program approved by the state board of education.

2. A teacher from an accredited nonpublic school or another state or country is exempt from the requirement of subsection 1 if the teacher can document three years of successful teaching experience within the past five years and meet or exceed the requirements contained in rules adopted under this chapter for endorsement and licensure.

Sec. 18. Section 279.19, unnumbered paragraph 2, Code 2001, is amended to read as follows:

In the case of the termination of a probationary teacher's contract, the provisions of sections 279.15 and 279.16 shall apply. However, if the probationary teacher is a beginning teacher who fails to successfully complete a beginning teacher mentoring and induction program in accordance with chapter 284, the provisions of sections 279.17 and 279.18 shall also apply.

Sec. 19. Section 294A.14, unnumbered paragraphs 3 and 4, Code 2001, are amended to read as follows:

A plan shall be developed using the procedure specified under section 294A.15. The plan shall provide for the establishment of a performance-based pay plan, a supplemental pay plan, a combination of the two pay plans, or comprehensive school transformation programs, and shall include a budget for the cost of implementing the plan. In addition to the costs of providing additional salary for teachers and the amount required to pay the employers' share of the federal social security and Iowa public employees' retirement system, or a pension and annuity retirement system established under chapter 294, and payments on the additional salary, the budget may include costs associated with providing specialized or general training. Moneys received under phase III shall not be used to employ additional employees of a school district, except that phase III moneys may be used to employ substitute teachers, part-time teachers, and other employees needed to implement plans that provide innovative staffing patterns, or ~~that~~ require that a teacher employed on a full-time basis be absent from the classroom for specified periods for fulfilling other instructional duties or to participate on a peer review team or in peer coaching efforts. However, all teachers employed are eligible to receive additional salary under an approved plan.

For the purpose of this section, a performance-based pay plan shall provide for salary increases for teachers who demonstrate superior performance in completing assigned duties. The plan shall include the method used to determine superior performance of a teacher. For school districts, the plan may include assessments of ~~specific~~ teaching ~~behavior~~performance, assessments of student performance, assessments of other characteristics associated with effective teaching, or a combination of these criteria.

Sec. 20. Chapter 256E, Code 2001, is repealed.

Sec. 21. Section 272.33, Code 2001, is repealed effective July 1, 2002.

Sec. 22. PRACTITIONER PREPARATION CREDIT TRANSFER STUDY. The state board of regents shall conduct a study of the transfer of credits between practitioner preparation institutions, both in-state and out-of-state, to determine whether the transfer of credits by practitioner preparation institutions is fair and consistent. The state board shall collect information relating to the transfer and acceptance of credits from a representative sample of in-state and out-of-state practitioner preparation institutions. The state board shall identify actions that may be taken to improve the ability of a student to transfer credits earned in one practitioner preparation institution to another. The state board shall submit its findings and recommendations in a report to the senate and house of representatives standing committees on education by December 1, 2001.

Sec. 23. LEGISLATIVE EDUCATION ACCOUNTABILITY AND OVERSIGHT COMMITTEE. The legislative council is requested to establish a two-year legislative education accountability and oversight committee to conduct a comprehensive study of team-based variable pay and make recommendations for the implementation of a team-based variable pay plan component of the student achievement and teacher quality program.[13]

The committee shall recommend the manner in which standards of performance are to be determined, the level of expected growth, the development of a student academic database, the timeline and procedure for the collection of student achievement data, identification of the structures of a team for purposes of equitable operation of the plan, and a timeline for implementation of the plan. The committee shall recommend assessment models for use in accurately measuring student achievement. The committee may recommend additional measures and reviews for the purpose of strengthening comprehensive school improvement plans through the implementation of team-based variable pay plans. The committee shall monitor the progress of team-based variable pay pilot programs.

The committee shall recommend a means of evaluation designed to determine the effect of the student achievement and teacher quality plan on raising student achievement. The committee shall submit preliminary recommendations to the general assembly by December 15, 2001, and shall make its final recommendations to the general assembly by December 15, 2002.

The committee shall be composed of six voting members representing both political parties and both houses of the general assembly. Three members shall be appointed by the president of the senate, after consultation with the majority leader of the senate and the minority leader of the senate. The remaining three members shall be appointed by the speaker of the house of representatives after consultation with the majority and minority leaders of the house of representatives.

The committee shall also include the following ex officio, nonvoting members:

1. The director of the department of education or the director's designee.
2. One member who shall be appointed by the Iowa association of school boards.
3. One member who shall be appointed by the school administrators of Iowa.
4. Two members who shall be appointed independently by the state's two largest professional teachers associations.
5. One member who shall be appointed by the governor to represent the office of the governor.

It is the intent of the general assembly that the legislative education accountability and oversight committee oversee the policies established pursuant to this Act.

Sec. 24. STATE MANDATE FUNDING SPECIFIED. In accordance with section 25B.2, subsection 3, the state cost of requiring compliance with any state mandate included in this Act shall be paid by a school district from state school foundation aid received by the school district under section 257.16. This specification of the payment of the state cost shall be deemed to meet all the state funding-related requirements of section 25B.2, subsection 3, and no additional state funding shall be necessary for the full implementation of this Act by and enforcement of this Act against all affected school districts.

Sec. 25. CONTINGENT EFFECTIVENESS. Section 284.10, subsection 2, paragraph "b", as enacted in this Act, takes effect only if

(A)(1)-2 con't

2001 Iowa Acts, House File 670[14] is enacted.

Approved May 23, 2001

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Document 1 of 1 (A)(1)-3

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Senate File 2216 - Reprinted

SENATE FILE _____
BY COMMITTEE ON EDUCATION

(SUCCESSOR TO SSB 3097)

Passed Senate, Date _____ Passed House, Date _____
Vote: Ayes _____ Nays _____ Vote: Ayes _____ Nays _____
Approved _____

A BILL FOR

1 An Act concerning state and local measures for preparing a
2 student for a career or for postsecondary education, including
3 a statewide core curriculum for school districts and
4 accredited nonpublic schools and a state=designated career
5 information and decision=making system.
6 BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF IOWA:
7 TLSB 6127SV 82
8 kh/nh/5

PAG LIN

1 1 Section 1. Section 256.7, subsections 26 and 28, Code
1 2 Supplement 2007, are amended to read as follows:
1 3 26. a. Adopt rules that establish a ~~voluntary model~~ core
1 4 curriculum and requiring, beginning with the students in the
1 5 2010==2011 school year graduating class, high school
1 6 graduation requirements for all students in school districts
1 7 and accredited nonpublic schools that include at a minimum
1 8 satisfactory completion of four years of English and language
1 9 arts, three years of mathematics, three years of science, and
1 10 three years of social studies. The ~~voluntary model~~ core
1 11 curriculum adopted shall address the core content standards in
1 12 subsection 28 and the skills and knowledge students need to be
1 13 successful in the twenty=first century. The ~~voluntary model~~
1 14 core curriculum shall include social studies and twenty=first
1 15 century learning skills which include but are not limited to
1 16 civic literacy, health literacy, technology literacy,
1 17 financial literacy, and employability skills; and shall
1 18 address the curricular needs of students in kindergarten
1 19 through grade twelve in those areas. For purposes of this
1 20 subsection, "financial literacy" shall include but not be
1 21 limited to financial responsibility and planning skills; money
1 22 management skills, including setting financial goals, creating
1 23 spending plans, and using financial instruments; applying
1 24 decision=making skills to analyze debt incurrence and debt
1 25 management; understanding risk management, including the
1 26 features and functions of insurance; and understanding saving
1 27 and investing as applied to long=term financial security and
1 28 asset building.

1 29 b. ~~The state board shall continue~~ Continue the inclusive
1 30 process begun during the initial development of a ~~voluntary~~
1 31 ~~model~~ core curriculum for grades nine through twelve including (A)(1)-3 con't
1 32 stakeholder involvement, including but not limited to
1 33 representatives from the private sector and the business
1 34 community, and alignment of the ~~voluntary model~~ core
1 35 curriculum to other recognized sets of national and
2 1 international standards. The state board shall also recommend
2 2 quality assessments to school districts and accredited
2 3 nonpublic schools to measure the ~~voluntary model~~ core
2 4 curriculum.
2 5 The state board shall not require school districts or
2 6 accredited nonpublic schools to adopt a specific textbook or
2 7 textbook series to meet the core curriculum requirements of
2 8 this subsection or the core content standards adopted pursuant
2 9 to subsection 28.
2 10 28. Adopt a set of core content standards applicable to
2 11 all students in kindergarten through grade twelve in every
2 12 school district and accredited nonpublic school. For purposes
2 13 of this subsection, "core content standards" includes reading,
2 14 mathematics, and science. The core content standards shall be
2 15 identical to the core content standards included in Iowa's
2 16 approved 2006 standards and assessment system under Title I of
2 17 the federal Elementary and Secondary Education Act of 1965, 20
2 18 U.S.C. } 6301 et seq., as amended by the federal No Child Left
2 19 Behind Act of 2001, Pub. L. No. 107=110. School districts and
2 20 accredited nonpublic schools shall include, at a minimum, the
2 21 core content standards adopted pursuant to this subsection in
2 22 any set of locally developed content standards. School
2 23 districts and accredited nonpublic schools are strongly
2 24 encouraged to ~~include the voluntary model core curriculum or~~
2 25 set higher expectations in local standards. As changes in
2 26 federal law or regulation occur, the state board is authorized
2 27 to amend the core content standards as appropriate.
2 28 Sec. 2. Section 256.9, Code Supplement 2007, is amended by
2 29 adding the following new subsection:
2 30 NEW SUBSECTION. 57. Develop and distribute, in
2 31 collaboration with the area education agencies, core
2 32 curriculum technical assistance and implementation strategies
2 33 that school districts and accredited nonpublic schools may
2 34 utilize, including but not limited to the development and
2 35 delivery of formative and end=of=course assessments classroom
3 1 teachers can use to measure student progress on the core
3 2 curriculum adopted pursuant to section 256.7, subsection 26.
3 3 The department shall continue to collaborate with Iowa testing
3 4 programs on the development of end=of=course and additional
3 5 assessments to align with the expectations included in the
3 6 Iowa core curriculum.
3 7 Sec. 3. Section 256.9, Code Supplement 2007, is amended by
3 8 adding the following new subsection:
3 9 NEW SUBSECTION. 58. Submit an annual report to the
3 10 general assembly by January 1 regarding activities, findings,
3 11 and student progress under the core curriculum established
3 12 pursuant to section 256.7, subsection 26. The annual report
3 13 shall include the state board's findings and recommendations.
3 14 Sec. 4. Section 279.61, Code Supplement 2007, is amended
3 15 to read as follows:
3 16 279.61 STUDENT PLAN FOR PROGRESS TOWARD UNIVERSITY
3 17 ADMISSIONS == REPORT.
3 18 1. For the school year beginning July 1, ~~2007~~ 2008, and
3 19 each succeeding school year, the board of directors of each
3 20 school district shall cooperate with each student enrolled in
3 21 grade eight to develop for the student a core curriculum plan
3 22 to guide the student toward the goal of successfully
3 23 completing, at a minimum, the ~~voluntary model~~ core curriculum

3 24 developed by the state board of education pursuant to section
3 25 256.7, subsection 26, by the time the student graduates from
3 26 high school. The plan shall include career options and shall (A)(1)-3 con't
3 27 identify the coursework needed in grades nine through twelve
3 28 to support the student's postsecondary education and career
3 29 options. Additionally, the plan shall include a timeline for
3 30 each student to successfully complete, prior to graduation,
3 31 all components of the state=designated career information and
3 32 decision=making system administered by the department in
3 33 accordance with section 118 of the federal Carl D. Perkins
3 34 Career and Technical Education Improvement Act of 2006, Pub.
3 35 L. No. 109=270. The student's parent or guardian shall sign
4 1 the core curriculum plan developed with the student and the
4 2 signed plan shall be included in the student's cumulative
4 3 records.
4 4 2. For the school year beginning July 1, ~~2007~~ 2008, and
4 5 each succeeding school year, the board of directors of each
4 6 school district shall report annually to each student enrolled
4 7 in grades nine through twelve in the school district, and, if
4 8 the student is under the age of eighteen, to each student's
4 9 parent or guardian, the student's progress toward meeting the
4 10 goal of successfully completing the core curriculum and high
4 11 school graduation requirements adopted by the state board of
4 12 education pursuant to section 256.7, subsection 26.
4 13 Sec. 5. Section 280.3, Code 2007, is amended to read as
4 14 follows:
4 15 280.3 ~~DUTIES OF BOARD~~ EDUCATIONAL PROGRAM == ATTENDANCE
4 16 CENTER REQUIREMENTS.
4 17 1. The board of directors of each public school district
4 18 and the authorities in charge of each nonpublic school shall
4 19 prescribe the minimum educational program and an attendance
4 20 policy which shall require each child to attend school for at
4 21 least one hundred forty=eight days, to be met by attendance
4 22 for at least thirty=seven days each school quarter, for the
4 23 schools under their jurisdictions.
4 24 2. The minimum educational program shall be the curriculum
4 25 set forth in subsection 3 of this section and section 256.11,
4 26 except as otherwise provided by law. The board of directors
4 27 of a public school district shall not allow discrimination in
4 28 any educational program on the basis of race, color, creed,
4 29 sex, marital status or place of national origin.
4 30 3. The board of directors of each public school district
4 31 and the authorities in charge of each nonpublic school shall
4 32 do all of the following:
4 33 a. Adopt an implementation plan by July 1, 2010, which
4 34 provides for the adoption of at least one core curriculum
4 35 subject area each year as established by the state board of
5 1 education for grades nine through twelve pursuant to section
5 2 256.7, subsection 26. The core curriculum established for
5 3 grades nine through twelve by the state board of education
5 4 pursuant to section 256.7, subsection 26, shall be fully
5 5 implemented by each school district and school by July 1,
5 6 2012.
5 7 b. Adopt an implementation plan, by July 1, 2012, which
5 8 provides for the full implementation of the core curriculum
5 9 established for kindergarten through grade eight by the state
5 10 board of education pursuant to section 256.7, subsection 26,
5 11 by the 2014=2015 school year.
5 12 4. A nonpublic school which is unable to meet the minimum
5 13 educational program may request an exemption from the state
5 14 board of education. The authorities in charge of the
5 15 nonpublic school shall file with the director of the
5 16 department of education the names and locations of all schools
5 17 desiring to be exempted and the names, ages, and post office
5 18 addresses of all pupils of compulsory school age who are

5 19 enrolled. The director, subject to the approval of the state
5 20 board, may exempt the nonpublic school from compliance with
5 21 the minimum educational program for two school years. When (A)(1)-3 con't
5 22 the exemption has once been granted, renewal of the exemption
5 23 for each succeeding school year may be conditioned by the
5 24 director, with the approval of the board, upon proof of
5 25 achievement in the basic skills of arithmetic, the
5 26 communicative arts of reading, writing, grammar, and spelling,
5 27 and an understanding of United States history, history of
5 28 Iowa, and the principles of American government, of the pupils
5 29 of compulsory school age exempted in the preceding year.
5 30 Proof of achievement shall be determined on the basis of tests
5 31 or other means of evaluation prescribed by the director of the
5 32 department of education with the approval of the state board
5 33 of education. The testing or evaluation, if required, shall
5 34 be accomplished prior to submission of the request for renewal
5 35 of the exemption. Renewal requests shall be filed with the
6 1 director by April 15 of the school year preceding the school
6 2 year for which the applicants desire exemption. This section
6 3 shall not apply to schools eligible for exemption under
6 4 section 299.24.
6 5 5. The board of directors of each public school district
6 6 and the authorities in charge of each nonpublic school shall
6 7 establish and maintain attendance centers based upon the needs
6 8 of the school age pupils enrolled in the school district or
6 9 nonpublic school. Public school kindergarten programs shall
6 10 and public and nonpublic school prekindergarten programs may
6 11 be provided. In addition, the board of directors or governing
6 12 authority may include in the educational program of any school
6 13 such additional courses, subjects, or activities which it
6 14 deems fit the needs of the pupils.
6 15 Sec. 6. DEPARTMENT OF EDUCATION == CORE CURRICULUM STUDY.
6 16 The department of education shall conduct a study of the
6 17 measures necessary for the successful adoption by the state's
6 18 school districts and accredited nonpublic schools of core
6 19 curriculums and core content standards established by rule
6 20 pursuant to section 256.7, subsections 26 and 28. The
6 21 department shall submit its findings and recommendations,
6 22 including recommendations for statutory and administrative
6 23 rule changes necessary, to the general assembly by November
6 24 14, 2008.
6 25 Sec. 7. STATE MANDATE FUNDING SPECIFIED. In accordance
6 26 with section 25B.2, subsection 3, the state cost of requiring
6 27 compliance with any state mandate included in this Act shall
6 28 be paid by a school district from state school foundation aid
6 29 received by the school district under section 257.16. This
6 30 specification of the payment of the state cost shall be deemed
6 31 to meet all of the state funding=related requirements of
6 32 section 25B.2, subsection 3, and no additional state funding
6 33 shall be necessary for the full implementation of this Act by
6 34 and enforcement of this Act against all affected school
6 35 districts.
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Iowa Statewide Initiatives

The following summaries of current statewide initiatives give context for the Race to the Top application. References in the narrative section refer to several of these initiatives.

Adolescent Literacy

Adolescent Literacy Research and Development Team (ALRDT) engages in group-investigation inquiry into adolescent literacy and the development of professional development materials. The first series of materials being developed are: an Introduction to Adolescent Literacy which includes Inquiry, Access to Print, Reading Volume, and Content Area Read Alouds. The next series of materials to be developed will be Explicit Instruction in the areas of Vocabulary and Comprehension. The third series to be developed will be in the area of writing. The work of this team is supported by additional professional development in the area of formative assessment, Concept Oriented Reading Instruction (CORI), Question-Answer Relationships (QAR), Every Child Reads (ECR), Second Chance Reading (SCR), and Authentic Intellectual Work (AIW).

Authentic Intellectual Work (AIW)

Within the standards for AIW, special emphasis is placed on cognitive complexity, or teaching for understanding. Formative assessments are used to determine the progress of students toward deeper levels of understanding. "Research on authentic intellectual work throughout the United States indicated that in grades 3 – 12, across the subjects of mathematics, social studies, language arts, science, and regardless of race, gender, or social class, students who experienced higher levels of instruction and assessment that promoted authentic intellectual work showed higher achievement than students who experienced lower levels of instruction and assessment

aimed toward authentic intellectual work." Newmann, Fred M., Bruce King, and Dana Carmichael. Authentic Instruction and Assessment. Prepared for the Iowa Department of Education, 2007.

Concept Oriented Reading Instruction (CORI)

The CORI Teacher Development Academy is targeted for upper elementary and middle school teams to engage in a research-based classroom instructional model emphasizing reading engagement, reading comprehension, and conceptual learning in science (or other content areas) in order to improve reading achievement. In using the strategies of CORI, teachers are engaged in on-going formative assessment of students. The model emphasizes the three critical criteria for authentic intellectual work, construction of knowledge, disciplined inquiry, and value of achievement beyond school.

Cognitively Guided Instruction (CGI)

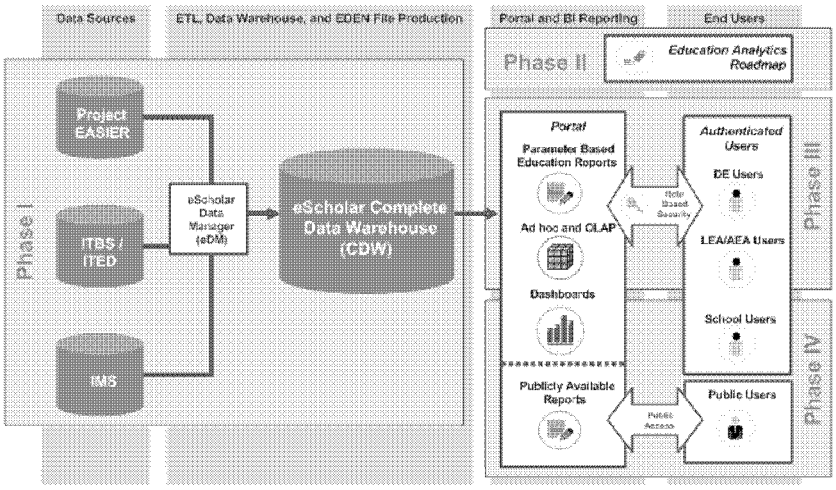
CGI provides a framework for assessing students' thinking. CGI teachers use formative assessments and learn how to use what their children currently understand to plan instructional activities for these students. CGI incorporates the three critical criteria for authentic intellectual work, construction of knowledge, disciplined inquiry, and value of achievement beyond school.

EdInsight Data Warehouse Project

The Iowa Department of Education (IDE) developed a statewide longitudinal data system in order to provide a common repository of educational information built for education stakeholders. Historical data has been loaded from the 2004-2005 School Year to the present for multiple data sets: Project Easier (Student data collection including enrollment and curriculum), IMS (Special Education), Iowa Testing Programs (ITP) data, and Teacher Data. EdInsight

release 1.0 contains a series of reports that synergizes the value of these data sets and directly empowers Iowa Educators through data.

To accurately gather initial requirements for the project, the IDE conducted 20 external focus groups across the state to interview users from a variety of levels. To extend the reach of the focus groups, an online survey was conducted to gather feedback from over 400 users across the state. In addition to the Project Team, EdInsight has engaged an Advisory Board, Data Governance and Steering Committees to shape, define and direct the project.



This schematic provides a high level overview of EdInsight. Data sets are loaded into the backend warehouse. The front end portal provides user access to a suite of tools. EdInsight 1.0 provides access to reports and education analytics built on a business intelligence platform.

The following table defines the content of the pre-formatted reports and the OLAP cube provided in the release.

Report Family	**Report Name**	**Report Purpose**
Assessment	Individual Performance Detail	How has the student performed in each of the ITBS / ITED areas 2004-2005 School Year to current? What is a student's proficiency?
	Cohort Reports	How have Cohorts performed on ITBS/ITED Assessments (Simple, Matched and Cross Sectional) over time?
	Assessment Cube	Direct OLAP access for Ad-Hoc type data requests, an Assessment based data cube for analysis.
Annual Progress Report	Student Achievement	Each year a school or school district is required to submit an annual progress report to the local community, AEA, and IA Department of Education. This report provides the student achievement information of that report. This report

Report Family	Report Name	Report Purpose
		displays the percentage and counts of students, disaggregated, by achievement level.
Curriculum	Curriculum Accreditation Report	This report displays the number of Carnegie Units that are offered and taught in a building and allows for comparison with the State, AEA, or enrollment category. Users are able to drill through and view details about the courses that the building is offering in each accreditation area
	Student Course History Report	This report displays all the courses that are offered and taught in the referenced building, grouped by NCES course name. Carnegie Units and student enrollments are subtotaled by NCES course name and displayed as totals for accreditation.
Special Education	Suspensions and Expulsions	The purpose of this report is to measure state and district progress toward meeting targets for the suspension and expulsion of students with IEPs.
Utilities	School and District Comparison	The reports in this area will permit the user to find comparable schools or districts in terms of size (enrollment), and/or demographics

The IDE has made a substantial investment in EdInsight and has a multi-phase, multi-year plan for continued development. Additional data sets will be added such as district financial chart of accounts, additional student assessments, post-secondary data and a linkage to workforce.

Enhanced Assessment Grant (EAG) – Formative Assessment

The EAG—Formative Assessment is a high school pilot project in collaboration with the Council of Chief State School Officers (CCSSO) and high schools in nine other states. Its focus is on formative assessment as part of a balanced assessment system with emphasis on enhancing student motivation to learn. Participants gain insight into better using formative assessment data to guide instructional decisions as well as developing valid and reliable formative and summative classroom assessments.

Every Child Reads (ECR)

ECR is a K -12 program designed to provide research-based content and the facilitation needed for improving instruction in order to accelerate the achievement of all students. The initiative provides teachers with professional development in the five components of reading, reading strategies, using data to drive instructional decisions, and the use of classroom-based assessments for frequent, ongoing monitoring of student progress.

Every Learner Inquires (ELI)

The mission of the ELI project is to assist Iowa's AEAs, schools, and districts in building the capacity to implement an effective K-12 science education program using inquiry-based instructional strategies as outlined in the National Science Education Standards. Integrated into the learning model is emphasis on construction of student knowledge, disciplined inquiry – use of prior knowledge, in-depth understanding, and elaborated communication of knowledge, – and meaning beyond the success in school. One goal of the ELI project is to assist leadership teams in better assessing students' science learning using formative and summative assessments.

Every Student Counts (ESC)

The ESC initiative states clearly that teaching for understanding emphasizes problem-based instructional tasks and meaningful distributed practice with emphasis on the three criteria critical to significant intellectual accomplishment – construction of knowledge, disciplined inquiry, and the value of achievement beyond school. ESC provides professional development to mathematics educators in formative assessment strategies and how to base instructional decisions on student understanding.

Instructional Decision Making (IDM)

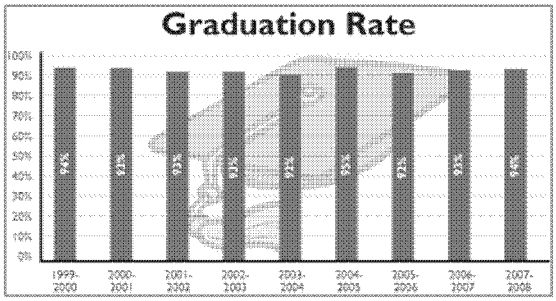
The IDM process begins with all students having access to a guaranteed and viable curriculum provided by the school through the core instructional program. Formative, summative, and diagnostic assessment data are gathered on a regular basis and each student's response to instruction is evaluated. Students who exceed or are not meeting the standards of the core instructional program are provided supplemental and/or intensive instruction. Performance is monitored and student's flow from one cycle of instruction to another as indicated by the data. In this system, all students receive instruction to address their unique learning needs.

I-JAG (Iowa Jobs for America's Graduates)

One program in Iowa high schools is successfully graduating students and preparing them to enter the workforce. We're iJAG – Iowa Jobs for America's Graduates – and we're one of the most cost-effective dropout prevention and school-to-career solutions in Iowa.

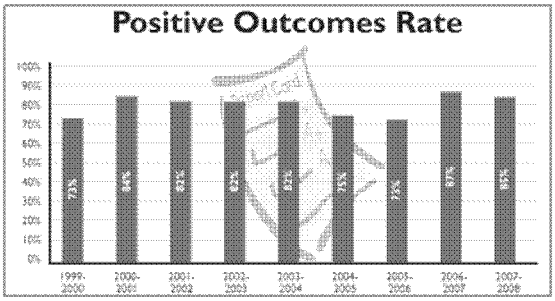
Students in the iJAG program have trouble making it in a conventional classroom because of the distractions and barriers at home, outside the classroom or even inside the classroom. Relying on real-world, project-based instructional methods and an unconventional approach to personal connections with students, the iJAG teaching specialists work within conventional learning environments to help remove barriers and show students how to achieve the next step of their career or education.

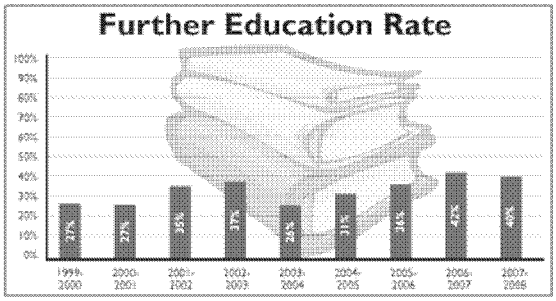
iJAG benefits Iowa by increasing high school graduation rates, preparing high school students to enter the workforce, preparing youth to become productive members of our community decreasing juvenile crime and delinquency, and by increasing the number of

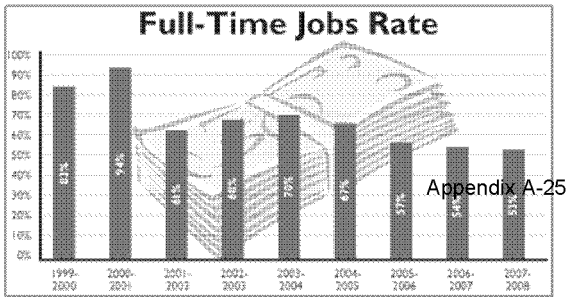


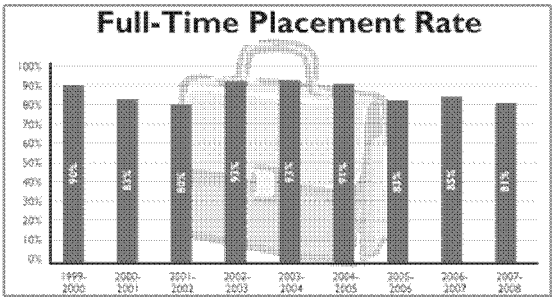
people working and contributing to society. iJAG students develop character and improve performance needed to realize one's potential for excellence in school, the workplace, as well as continuous self-development. iJAG graduates who are employed full time repay the cost of their participation within 14 months after graduation through payroll or sales taxes. Additionally, iJAG students across Iowa annually contribute more than 9,000 hours in community service.

The success of the program is reflected in iJAG's documented, measurable performance outcomes. iJAG education specialists collect information on each student and activity at the local level, allowing iJAG to document outcomes. iJAG vigilantly tracks and responds to the outcomes of our programs, always keeping students at the center of the educational process. Ultimately, our students achieve a better success rate than the overall student population of Iowa. We collect and analyze data through the JAG Electronic National Data Management System (e-NDMS). Program performance standards are monitored by the Center for Labor Market Studies at Northeastern University and JAG program. This system contains data on JAG students across the nation and obtains information upon intake, during participation in the iJAG program, and for one year post graduation.









Iowa Arts Educators Mentor Program – Model of Excellence

The purpose of this program is to continue to improve the quality of arts education in Iowa through mentoring assistance of first-year arts teachers. Increased opportunities for success have and will benefit these teachers, the students in their classrooms, the local school district, and the state. One of the most important traits of leadership is to create an environment in which quality can flourish, and this grant program will continue to foster and sustain this environment for our beginning teachers.

The Iowa Arts Educators Mentor Program is designed to enhance, not supplant the established local/district/AEA/State mentoring programs. The mentoring program is discipline-specific. The information that is made available to the first-year teacher through this program ranges from "survival" to "mastery" skills needed to be successful in the arts classroom. The information is tailored specifically to the individual teacher and teaching situation. This information can also be accessed immediately (through emails/phone calls) or after observation and reflection (mentor visits). It also provides for networking with other first-year and veteran teachers throughout the state.

Due to the statewide scope of this project, the Iowa Alliance for Arts Education continues to be uniquely positioned to manage this project. All of the participating arts organizations are members of the IAAE "umbrella." The leadership of the six arts organizations (Arts Educators of Iowa, Iowa Bandmasters Association, Iowa Communications Association, Iowa Choral Directors

Association, Iowa Music Educators Association, and Iowa String Teachers Association), as well as Music Mentors of Iowa, participates in IAAE programs and has representatives on the IAAE Advisory Board. IAAE, collaborating with the Iowa Department of Education, has been a leader in the development of statewide arts programs in the areas of assessment, standards and benchmarks, integration, advocacy, and leadership development.

The mentoring project is a natural outgrowth of the IAAE mission statement, which is to "increase the support of policies, practices, and partnerships that ensure quality arts education for all Iowans." Goals of the mentoring project continue to be:

- To build a collaborative community environment between our professional organizations.
- To retain promising beginning arts teachers.
- To promote the personal and professional well-being of beginning arts teachers.
- To improve arts teaching performance by supporting continuous professional growth for both mentor and mentee.

Iowa Core

The Iowa Core (also known as the Iowa Core Curriculum) is a statewide effort to improve teaching and learning to ensure that all Iowa students engage in a rigorous and relevant curriculum. It defines a core curriculum for all Iowa students Signed into law in spring 2008, the Iowa Core establishes high expectations not only for students, but for teachers and school leaders in all of Iowa's accredited nonpublic and public schools.

Implementation of the Iowa Core will require teachers to examine their content and instructional practices and to collaborate and improve together to energize and invigorate Iowa's students to construction knowledge through deep conceptual and procedural learning focused on a well-researched set of essential concepts and skills in literacy, math, science, social studies, and

21st century learning skills (civic literacy, financial literacy, technology literacy, health literacy, and employability skills).

The Iowa Core builds on our state's long history of community leadership in education and relies on partners across the state for implementation in high schools by 2012 and in elementary and middle schools by 2014.

Successful implementation of the Iowa Core relies upon the support of three very important sets of supports:

- Community

  The Iowa Core galvanizes action to improve teaching and learning by encouraging communities, parents, and educators to strive to improve student academic achievement. The community must be fully informed and actively engaged in the process. Multiple partners including business and industry, families, and communities work interdependently to improve learning in schools across the state.

- Schools

  Schools and supporting agencies function as an integrated system and provide a coordinated approach, consistent communication, and differentiated delivery. All school systems, processes and initiatives are important in supporting the work of teaching and learning.

- Leadership

  Committed leadership actions are focused and provide the expertise, guidance, and resources needed to support teaching and learning. Leaders have an unrelenting focus on improving instructional practices and creating a sustainable system of instruction that develops conceptual learning for all students, cultivating leadership and delegating responsibility.

Major areas of work include the following:

- Content

  Districts and schools will be asked to review their local enacted curriculum (the curriculum delivered to students) compared to the intended curriculum (the essential concepts and skills of the Iowa Core Curriculum). Educators will locate gaps and take action to restructure their current program to fully embrace the Iowa Core Curriculum.

- Instruction

  The focus on instruction will be to implement instructional practices that support these characteristics of effective instruction: teaching for understanding, rigor and relevance, student-centered learning, and teaching for **learner** differences. Educators will become members of professional learning communities focused on improving instructional practices.

- Assessment

  Iowa plans to continue with its state assessment, which is currently being reviewed and improved to align more closely with the Iowa Core Curriculum. The state is also working on proving a writing assessment to schools and voluntary end-of-course assessments are already available in mathematics and science. We are working to enhance assessment for learning (formative assessment) practices across the state through providing professional development experiences designed to improve practices of educators across the state.

The Iowa High School Project

Jointly supported by the Iowa Department of Education and the International Center for the Leadership in Education (ICLE), the Iowa High School Project has been a unique opportunity for Iowa schools to access support to assist in reform efforts. Fifty-seven high schools voluntarily applied to participate in a three-year support process over the past five years. Participants focus on growing their respective improvement and reform efforts with a concentration on struggling learners within the rigor and relevance framework. Participant schools in the Iowa High School Project are representative of our state, including urban, suburban, small town, and rural sites.

Participating schools demonstrate sound initial efforts and the potential to substantially expand and grow positive reform to all learners in their respective settings. Supports to selected schools included, but were not limited to the following: membership in the Successful Practices Network (SPN), web- based supports, national consultation assistance, print and on-line resources, regional trainings, team attendance at a Model Schools Conference, participation in ICLE research efforts, and ongoing customized supports to meet the unique needs of the

individual building sites.

Iowa Youth Development Collaboration Project

The Iowa Youth Development Collaboration Project builds on the State's existing youth development initiatives to produce broad, positive change in youth-serving systems. The project's goals are to replace fragmented and deficit-driven youth policies and programs at the State level with a coordinated youth development approach, and then to build the capacity of local communities to use a positive youth development approach in providing youth services. Eight state agencies, along with Iowa State University and several community-based programs, are involved in the initiative.

The project is working to ensure that all Iowa youth have the opportunity to be successful in school, in a career, and in life. The framework for the project targets four results for Iowa youth: (i) safe and supportive families, schools and communities; (ii) healthy and socially competent; (iii) successful in school; (iv) prepared for a productive adulthood.

Journey to Excellence Model

Journey to Excellence is a mentoring and induction model developed by Iowa educators for Iowa beginning educators. It uses a series of learning projects for mentors to use with beginning educators. It serves as the curriculum for mentors and beginning educators. The program uses Mentoring Matters: A Practical Guide to Learning-Focused Conversations for the skill set needed by mentors.

Learning Projects are organized around a process adapted from Dr. W. Edwards Deming used by the Iowa Department of Education as the formative process of Iowa Learning Initiatives. They include the following steps.

Cycle	Action
Assessing Needs	The mentor and beginning educator review the learning project. They also review the assigned Iowa Teaching Standard and the criteria by reviewing the appropriate pages in the ***ITS Framework***. As a result of this review, the beginning educator in consultation with her/his mentor selects one criterion for the focus of this learning project. The beginning educator highlights appropriate levels of performance for that criterion in the Framework book.
Planning	Using a **Learning-Focused Growth Plan**, the mentor will engage the beginning educator in a planning learning-focused conversation. As a result of the conversation, a plan will be created that includes (1) the focus for growth, (2) how the beginning educator will fill the knowledge gap, (3) implementation steps, (4) assessment/data collection, and (5) assistance options.
Implementing	The beginning educator will carry-out the plan, practicing the teaching aspects and consult with the mentor as needed. The beginning educator will use the **Learning-Focused Growth Plan: Tracking Progress** sheet to capture new learnings and questions.
Evaluating	The beginning educator will have an opportunity to reflect on the learning project. One method will be a set of reflective questions based on the ORID method of questioning. The mentor will then engage the beginning educator in a reflective, learning-focused conversation. The conversation will include determining the degree to which the goal was achieved. They will return to the original criterion page in the ***ITS Framework***. The beginning educator will highlight appropriate levels of performance for that criterion in the Framework book. In the event the beginning educator wishes to learn more about the standard or a criterion, the learning project may be repeated.

Each learning project includes these four sections of the cycle. For some learning projects, the actions may be different than those listed above

Mentoring and Induction Program

In 2001, the Iowa legislature required that districts' mentoring and induction plans provide a two-year sequence of induction program content and activities to support the Iowa

teaching standards and beginning teacher professional and personal needs; mentor training that includes, at a minimum, skills of classroom demonstration and coaching and district expectations for beginning teacher competence of Iowa teaching standards; placement of mentors and beginning teachers; the process for dissolving mentor and beginning teacher partnerships; district organizational support for release time for mentors and beginning teachers to plan, provide demonstration of classroom practices, observe teaching, and provide feedback; structure for mentor selection and assignment of mentors to beginning teachers; a district facilitator; and program evaluation. Iowa is an example of one of the states currently funding districts' mentoring and induction programs for teachers. The 2001 Student Achievement and Teacher Quality Act requires each participating school district and area education agency (AEA) to develop an initial beginning teacher mentoring and induction program to promote excellence in teaching, enhance student achievement, build a supportive environment within school districts and AEAs, increase the retention of promising beginning teachers, and promote the personal and professional well-being of classroom teachers.

Our Kids

Our Kids is a professional development program for teachers of English language learners. The program provides teachers with the opportunity to learn strategies, including formative assessments, to effectively help students learn both English and content in the classroom.

Picture Word Inductive Model (PWIM)

The picture word inductive model is an inquiry-oriented language arts strategy that employs photographs containing familiar objects, actions, and scenes to elicit words in children's listening and speaking vocabulary. PWIM requires continuous modeling of reading and writing

by the teacher and can also be used to teach students how to use observation and analysis in their study of reading and writing, as well as in comprehending and composing. The Department of Education is working with Area Education Agencies to deliver training in this initiative.

Question Answer Relationships (QAR)

The QAR Teacher Development Academy is targeted for middle school and high school teams to engage in a research-based instructional strategy that provides a framework for making explicit the invisible processes underlying reading comprehension in order to improve reading achievement for all students. It includes making the learning targets visible for students and using student work to diagnose student strengths and weaknesses in order to inform instructional decisions. Emphasis is placed on construction of student knowledge and the involvement of disciplined inquiry.

Reducing the Achievement Gap Grant

Established in 2003, the Reducing the Achievement Gap Grant program is a competitive process to support and encourage the use of research-based strategies that improve academic achievement and narrow the achievement grant. The program supports public school districts in areas such as assigning highly skilled teacher to high-need students and highly skilled administrators to high-need schools; maintaining a commitment to cultural competency training; supporting professional development; and creating partnerships between schools, families, businesses, and communities.

Second Chance Reading (SCR)

SCR is a program that provides a specific course for struggling readers at the middle and high school levels. SCR provides students with strategies for reading and a process to monitor their own achievement toward specific learning goals.

Statewide Reading Team

The Iowa Department of Education, in collaboration with area education agencies, has established the Statewide Reading Team (SWRT) and AEA reading teams to support the Every Child Reads K -12 effort. The SWRT and AEA reading teams are designed to accomplish the following:

- Build individual and collective knowledge, skills, and strategies in the area of reading and reading instruction K-12 across Iowa's education system including DE , AEAs, and LEAs in teaching reading to those students who are experiencing difficulty across Iowa's educational system including DE, AEAs, and LEAs
- Build individual and collective knowledge about structured school improvement components necessary to improve achievement in an academic area of specific reading strategies and models
- Emphasize the application of the Every Child Reads: Excellence in Teaching and Learning strategies and models across subject areas

Teacher Development Academies

Teacher Development Academies are a series of professional development opportunities available to teams from public schools. Each Academy features research based content and is designed to support local school districts and AEAs in offering professional development that is grounded in research and based on the Iowa Professional Development Model.

The target audience for the Academies is local school teams that include the teachers, principals, and central office personnel from Iowa's school districts and AEA consultants who participate with a specific school team. The purposes of the Academies are:

- To increase student achievement through quality professional development.
- To improve local district access to qualified trainers in high demand content areas (Reading, Mathematics and Science).
- To increase the number of teachers and consultants with expertise in specific academic content areas and skills in delivering professional development opportunities.
- To support and compliment existing Teacher Quality Program efforts. This initiative is designed to support the AEA and DE capacity building efforts by adding to the pool of available trainers in Iowa.
- To support LEA implementation of District Professional Development Plan.

The objectives are:

- Participants acquire knowledge and skills in instructional strategies that are supported by scientifically based research.
- Participants practice strategies in the classroom, collect data on student results, and study their own implementation.
- Participants attend all training sessions. Training usually begins in the summer and is distributed through the school year (either 4 or 5 days during the summer, 3 follow-up dates during the school year, and intermittent ICN sessions).

The content offered in the academies is selected to assist local districts in providing training to implement District Professional Development Plan. The content is determined by analyzing statewide student achievement data and District Professional Development Plan across the state.

The benefits to participants include:

- Participants are learning new skills and refining existing skills that will improve their practice as teachers, consultants, and teacher-trainers.
- Participants are collaborating with other educators locally and across the state.
- Participants received a stipend for their engagement in the training.
- Training materials and assessment instruments were provided at no cost to schools.
- Teachers have the option of receiving renewal or graduate credit and the opportunity to earn credit for additional endorsements.

The Strategic Instruction Model (SIM)

SIM was developed by researchers and teachers at the University of Kansas Center for Research on Learning (KU-CRL), is an approach to teaching adolescents who struggle with becoming good readers, writers, and learners. It is based on the reality that for adolescents to meet high standards, they must be able to read and understand large volumes of complex, difficult reading materials. Additionally, they must acquire the skills to express themselves effectively in writing content areas The Iowa Department of Education works with AEAs to deliver training state-wide.

District Name: _____

Iowa's Race to the Top
Participating Local Education Agency (LEA)
Memorandum of Understanding

Purposes:

Signing this Memorandum of Understanding is required for districts to access their share of the 50 percent of Iowa's Race to the Top funds that will be allocated directly to participating districts.

Instructions to Complete Participating LEA Memorandum of Understanding (MOU) if your district wishes to participate:

1. Fill in District name (complete name spelled out) on this cover page and on page 2.

2. Have the school board president sign on the last page (required) and make every effort to obtain the signatures of the superintendent and local teachers association president.

3. Return signed MOU and Exhibit I—Preliminary Scope of Work.

    a. Email a signed MOU in PDF format to Bonnie McIntosh at bonnie@westwinded.com by 4:30 p.m. on May 14, 2010.

    b. Call Bonnie McIntosh to confirm receipt: 877-354-9378 ext. 102 (toll free).

4. If the State is awarded a Race to the Top grant, participating LEAs must submit a Final Scope of Work within 90 days from the date of the award. The Final Scope of Work Award must contain a detailed work plan consistent with the preliminary scope of work aligned with the State's grant application, and must include the LEA's specific goals, activities, timelines, budgets, key personnel, and annual targets for key performance measures. The Department will develop a template for the Final Scope of Work and disseminate it to Participating LEAs.

5. Contact Kevin Fangman at Kevin.Fangman@iowa.gov or 515-281-3333 if you have any questions about the contents of the MOU.

6. Contact Bonnie McIntosh at bonnie@westwinded.com or 877-354-9378 ext. 102 with technical questions about submitting the MOU.

IOWA'S RACE TO THE TOP
PARTICIPATING LOCAL EDUCATION AGENCY
MEMORANDUM OF UNDERSTANDING (MOU)

I. SCOPE OF WORK:

This Memorandum of Understanding ("MOU") is entered into by and between the Iowa Department of Education ("Department") and _____ ("Participating LEA"). The purpose of this agreement is to establish a framework of collaboration, as well as articulate specific roles and responsibilities in support of the Department in its implementation of an approved Race to the Top grant application. Exhibit I, the Preliminary Scope of Work, indicates that the Participating LEA agrees to implement all listed components of the State's proposed reform plans, should the State's application be approved by the U.S. Department of Education (USED).

II. PROJECT ADMINISTRATION:

A. PARTICIPATING LEA RESPONSIBILITIES:

The Participating LEA will assist the Department in implementing the tasks and activities described in the State's Race to the Top application, should the State's application be approved by the USED. The Participating LEA subgrantee will:

1) Implement the Participating LEA plan as identified in Section VI of this agreement.

2) Actively participate in all relevant meetings, communities of practice, or other practice-sharing events that are organized or sponsored by the Department or by USED.

3) Participate, as requested, in evaluations of this grant conducted by the Department or USED.

4) Be responsive to Department or USED requests for information including the status of the project, project implementation, outcomes, and any problems anticipated or encountered.

5) Provide appropriate professional development to teachers and administrators to successfully implement activities outlined in the scope of work.

6) Participate in meetings and telephone conferences with the Department to discuss: (a) progress of the project, (b) potential dissemination of resulting non-proprietary products and lessons learned, (c) plans for subsequent years of the Race to the Top grant period, and (d) other matters related to the Race to the Top grant and associated plans.

B. DEPARTMENT RESPONSIBILITIES:

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

1) Work collaboratively with and support the Participating LEA in carrying out the LEA Plan as identified in Exhibit I of this agreement.

2) Distribute the Participating LEA's portion of Race to the Top grant funds in a timely manner during the course of the project period and in accordance with the LEA Plan.

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

4) Provide or coordinate technical assistance, professional development, and other necessary support.

5) Align the detailed scope of work, to the extent possible, with the Iowa Core Implementation Plan.

C. JOINT RESPONSIBILITIES:

1) The Department and the Participating LEA will each appoint a key contact person for the Race to the Top grant.

2) These key contacts from the Department and the Participating LEA will maintain frequent communication to facilitate cooperation under this MOU.

3) Department and Participating LEA grant personnel will work together to determine appropriate timelines for project updates throughout the whole grant period.

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

D. DEPARTMENT RECOURSE FOR LEA NON-PERFORMANCE:

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

III. ASSURANCES:

The Participating LEA hereby certifies and represents that it:

A. Has all requisite power and authority to execute this MOU.

B. Is familiar with the Participating LEA's requirements within the State's Race to the Top grant application and is supportive of the goals and plans for implementation and is committed to working on all applicable portions of the State Plan.

C. Agrees to be a Participating LEA and will implement those portions of the State Plan indicated in Section VI, if the State application is funded.

D. Will provide a Final Scope of Work in a format provided by the Department. The Final Scope of Work will describe the LEA's specific goals, activities, timelines, budgets, key personnel, and annual targets for key performance measures ("LEA Plan") in a manner that is consistent with the Preliminary Scope of Work (Section VI) and with the State Plan. The Final Scope of Work is due and must be submitted no later than 90 days after the grant is awarded to the State of Iowa, should the State be awarded the grant.

E. Will comply with all of the terms of the grant, the Department's subgrant, and all applicable Federal and State laws and regulations, including laws and regulations applicable to the Program (www2.ed.gov/programs/racetothetop/legislation.html, http://coolice.legis.state.ia.us/Cool-ICE/default.asp?Category=billinfo&Service=Billbook&menu=false&hbill=SF2033) and the applicable provisions of EDGAR (34 CFR Parts 75, 77, 79, 80, 82, 84, 85, 86, 97, 98, and 99; www2.ed.gov/about/offices/list/osdfs/edgar2008.pdf).

F. The signatories agree to work together in good faith to implement those portions of Iowa's Plan indicated in the Preliminary Scope of Work. Nothing in this MOU shall be construed to override any rights or duties as provided by collective bargaining law or collective bargaining agreements. The LEA and the local collective bargaining agent agree to negotiate in good faith, and those portions subject to collective bargaining shall be implemented only upon the agreement of the LEA and the local bargaining agent.

IV. MODIFICATIONS:

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

V. DURATION/TERMINATION:

This MOU 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.

In general, the Iowa Department of Education will agree to termination by a district that shows that compliance with the MOU will cause an undue burden to the district because either pertinent information has substantially changed since the signing of the MOU or additional specific information was developed after the signing of the MOU.

In order to participate, the LEA must agree to implement all portions of the State Plan as detailed in the attached Exhibit I, and return the signed MOU in PDF format by email to bonnie@westwinded.com no later than 4:30 p.m. on May 14, 2010.

VI. PRELIMINARY SCOPE OF WORK

Participating LEA (hereafter "LEA") hereby agrees to participate in implementing the State Plan in each of the areas identified below. The elements below are numbered to correspond with the sections in the Race to the Top application [Sections (A), (B), (C), and (D) and subsections within].

Elements of State Reform Plan	
(A) State Success Factors	
(A)(1) Articulating the State's education reform agenda	**Comments from LEA (optional)**
Agreement 1. LEA will develop a plan for competency-based credit or promotion for a grade span, content area, or 21st-century skill to further expand Iowa Core Implementation by at least the end of the third year of Iowa's Race to the Top program, using guidance from the pilot State project, and will begin implementing the plan during the fourth year.	
(A)(2) Building strong statewide capacity to scale up, implement and sustain proposed plans	**Comments from LEA (optional)**
Agreement 2. LEA will take part in a survey in the fall of 2010 to gather baseline data necessary for tracking the effectiveness of reforms. (Costs of the evaluation will be covered by other entities.)	

Agreement 3. LEA affirms it will work with community members and other supporting agencies in implementing the Race to the Top program.	
Agreement 4. LEA will collaborate with other school districts, AEAs, community colleges, higher education institutions, and other supporting agencies to meet the requirements of the Race to the Top program.	
(A)(3) Demonstrating significant progress in raising achievement and closing gaps	**Comments from LEA (optional)**
Agreement 5. LEA will demonstrate in an annual report to the public progress on increasing achievement overall and reductions in achievement disparities among subgroups of students.	
(B) Standards and Assessments	
(B)(3) Supporting the transition to enhanced standards and high quality assessments	**Comments from LEA (optional)**
Agreement 6. LEA will implement a local instructional improvement program to ensure students acquire essential concepts and skills embodied in the Iowa Core, which shall include the Common Core Standards. Such a program incorporates: • a strong and enacted curriculum, • effective curricular materials, • professional development, • district-wide balanced assessment system, and • the use of information on student achievement and growth to inform and improve instruction.	
Agreement 7. LEA will share data/information/lessons learned on implementation of their instructional improvement program with the State.	
Agreement 8. Once the data platform is operational, LEA will submit examples of student work to the Department for the purpose of developing multiple, authentic measures of student achievement and growth, respecting student confidentiality.	

(C) Data Systems	
(C)(3) Using data to improve instruction:	
(i) Use of local instructional improvement systems	**Comments from LEA (optional)**
Agreement 9. LEA will collect and submit samples of teacher work for the purpose of professional development, respecting teacher confidentiality.	
Agreement 10. LEA will implement a local instructional improvement system to provide teachers, principals, and administrators with the information and resources they need to inform and improve their instructional practices, decision making, and student achievement and growth.	
(ii) Professional development on use of data	**Comments from LEA (optional)**
Agreement 11. LEA will offer professional development to teachers, principals, and administrators on using data in the balanced assessment and instructional improvement systems.	
(iii) Availability and accessibility of data to researchers	**Comments from LEA (optional)**
Agreement 12. LEA will make data on student achievement and growth available to researchers as appropriate and as allowed by the Family Educational Rights and Privacy Act (FERPA) with respect to student and teacher confidentiality.	
(D) Great Teachers and Leaders	
(D)(2) Improving teacher and principal effectiveness based on performance:	
(i) Measure student growth	**Comments from LEA (optional)**
Agreement 13. LEA will contribute to the development of authentic/multiple measures of student achievement and growth (described in section B).	
(ii) Design and implement evaluation systems	**Comments from LEA (optional)**
Agreement 14. LEA affirms it engages in teacher, principal,	

and superintendent evaluation as required in the Iowa Code.	
Agreement 15. LEA will collaborate with its teachers association to implement any changes by the end of the grant period that make student achievement and growth a significant factor in teacher evaluation. LEA will implement by the end of the grant period student achievement and growth as a significant factor in principal and superintendent evaluation.	
(iii) Conduct annual evaluations	**Comments from LEA (optional)**
Agreement 16. LEA affirms that: (a) for teachers holding an initial license, it conducts annual summative evaluations; (b) for career teachers with a standard license, it conducts formative evaluations of performance every first and second year of the evaluation cycle for each teacher and a summative evaluation every third year; (c) for principals with an initial license, it conducts annual summative evaluations; (d) for principals with a professional administrator license, it conducts formative evaluations of performance every first and second year of the evaluation cycle for each principal and a summative evaluation every third year; (e) for superintendents, it conducts formative evaluations of performance every first and second year of the evaluation cycle and a summative evaluation every third year.	
Agreement 17. LEA affirms that all teacher and principal evaluations are conducted by licensed evaluators.	
(iv)(a) Use evaluations to inform professional development	**Comments from LEA (optional)**
Agreement 18. LEA affirms it uses evaluation information to inform individual and school/district-wide professional development.	

(iv)(b) Use evaluations to inform promotion and retention	**Comments from LEA (optional)**
Agreement 19. LEA affirms it uses teacher, principal, and superintendent evaluations to inform decisions about employment as provided in the Iowa Code.	
(iv)(c) Use evaluations to inform tenure and/or full certification	**Comments from LEA (optional)**
Agreement 20. LEA affirms it uses beginning teacher evaluations to determine tenure decisions and recommendations for continued state licensure.	
(iv)(d) Use evaluations to inform removal	**Comments from LEA (optional)**
Agreement 21. LEA affirms it uses teacher, principal, and superintendent evaluations to inform decisions about employment as provided in the Iowa Code.	
(D)(3) Ensuring equitable distribution of effective teachers and principals:	
(i) High-poverty and/or high-minority schools	**Comments from LEA(optional)**
Agreement 22. LEA affirms it will track and ensure equitable distribution of effective teachers and principals in high-poverty and/or high-minority schools, as the available pool of teachers and principals allows.	
(ii) Hard-to-staff subjects and specialty areas	**Comments from LEA (optional)**
Agreement 23. LEA affirms it will track and ensure equitable distribution of effective teachers in hard-to-staff subjects and specialty areas, as the available pool of teachers allows.	
(D)(5) Providing effective support to teachers and principals:	
(i) Quality professional development	**Comments from LEA (optional)**
Agreement 24. LEA, in collaboration with its Teacher Quality Committee where applicable, will ensure its professional development to improve teaching and learning follows the Iowa Professional Development Model.	
Agreement 25. LEA will submit examples of teacher and	

student work to support professional development.	
Agreement 26. LEA will use data on student achievement and growth to determine the professional development it provides/requires.	
(ii) Measure effectiveness of professional development	**Comments from LEA (optional)**
Agreement 27. LEA, with its Teacher Quality Committee where applicable, will evaluate the impact of professional development on teacher practice and the resulting impact on student achievement and growth and improve professional development as a result.	

VII. SIGNATURES

President of School Board for the LEA (required):

_____
Signature/Date

_____
Print Name/Title

Superintendent for the LEA:

_____
Signature/Date

_____
Print Name/Title

Authorized Representative of Local Teachers Association:

_____
Signature/Date

_____
Print Name/Title

Iowa Director of Education:

_____
Signature/Date

_____
Print Name/Title

Detailed Table for (A)(1)

	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)
Adair-Casey	2	329	114	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Albia	6	1136	416	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Alburnett	2	613	102	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Algona	6	1282	452	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Allison-Bristow	2	289	84	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Alta	3	496	209	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Anamosa	4	1275	481	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Anita	2	237	92	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Anthon-Oto	2	261	137	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Aplington-Parkersburg	4	798	226	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Armstrong-Ringsted	2	308	108	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Audubon	2	609	199	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Aurelia	3	269	82	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Ballard	4	1591	332	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Battle Creek-Ida Grove	4	652	251	Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Baxter	2	416	100	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Bedford	2	508	241	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Bellevue	3	615	151	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

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Bennett	1	86	22	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Benton	7	1564	330	Y	Y	Y*	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Bettendorf	15	4361	1149	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Boyer Valley	2	444	149	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Burlington	11	4122	2155	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
C and M	2	181	85	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
CAL	2	251	112	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Calamus-Wheatland	2	533	158	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Camanche	4	1022	336	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Cardinal	3	600	307	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Cedar Falls	10	4646	918	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Cedar Rapids	39	16231	6582	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Center Point-Urbana	4	1399	202	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Centerville	13	1449	679	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Central	2	490	160	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Central City	4	428	137	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Central Clinton	8	1483	391	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Central Decatur	5	681	381	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Chariton	5	1429	732	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Charles City	5	1536	673	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Cherokee	5	994	399	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Clarinda	5	1177	379	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Clarke	4	1279	617	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Clarksville	2	340	114	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Clayton Ridge	4	617	236	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

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Clear Creek Amana	5	1560	325	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Clear Lake	6	1331	422	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Clearfield	1	21	16	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
College	10	4468	1211	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Collins-Maxwell	2	475	118	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Columbus	3	932	643	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Corning	4	488	203	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Council Bluffs	18	8807	5261	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Creston	12	1371	660	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Danville	2	580	142	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Davenport	55	15262	8376	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Decorah Community	5	1616	392	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Delwood	1	125	50	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Denver	4	747	81	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Des Moines Independent	77	30040	19832	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Diagonal	2	104	45	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Dubuque	40	10513	4061	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Dunkerton	2	469	177	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Eagle Grove	4	770	399	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
East Union	4	463	208	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Edgewood-Colesburg	2	570	242	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Eldora-New Providence	3	548	243	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Elk Horn-Kimballton	2	250	88	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

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Emmetsburg	3	740	274	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
English Valleys	2	513	147	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Essex	2	242	80	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Estherville Lincoln	4	1267	624	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Exira	2	220	75	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Fairfield	6	1705	675	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Farragut	2	211	83	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Forest City	4	1171	387	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Fort Dodge	19	3634	1901	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Galva-Holstein	3	443	125	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Gilmore City-Bradgate	3	137	85	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Gladbrook-Reinbeck	4	609	158	C	C	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Glenwood	5	1990	632	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Glidden-Ralston	2	380	93	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Graettinger	2	174	78	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Greene	2	285	69	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Guthrie Center	3	554	192	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Hamburg	3	254	119	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Hampton-Dumont	5	1183	562	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Harmony	2	356	158	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Harris-Lake Park	2	309	103	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Hartley-Melvin-Sanborn	5	655	242	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Highland	4	704	177	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Hinton	3	694	92	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

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H-L-V	2	357	59	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Howard-Winneshiek	9	1285	503	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Hubbard-Radcliffe	2	328	164	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Hudson	3	737	141	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Humboldt	6	1210	395	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
IKM	2	355	134	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Independence	9	1336	463	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Indianola	7	3313	878	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Iowa City	26	11526	3526	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Iowa Valley	2	615	209	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Janesville Consolidated	2	267	50	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Jefferson-Scranton	4	1051	365	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Jesup	6	910	262	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Johnston	10	5989	867	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Keokuk	7	1992	1165	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Keota	2	316	60	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Knoxville	6	1886	753	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Lake Mills	3	702	186	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Lamoni	3	328	151	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Laurens-Marathon	3	332	128	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Le Mars	7	2117	523	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Lenox	3	415	206	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Lewis Central	4	3039	1168	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Lineville-Clio	2	61	34	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

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Linn-Mar	10	6242	933	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Lisbon	3	578	117	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Lone Tree	3	478	100	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Louisa-Muscatine	3	865	367	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Lynnville-Sully	5	466	68	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Malvern	3	286	106	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Manning	2	405	132	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Manson Northwest Webster	2	693	171	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Maple Valley	4	411	177	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Maquoketa	8	1517	759	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Maquoketa Valley	5	733	230	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Marcus-Meriden-Cleghorn	3	425	122	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Marion Independent	9	1954	527	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Mason City	10	3929	1735	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
MFL MarMac	4	812	344	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Midland	3	427	178	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Mid-Prairie	8	1222	333	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
MOC-Floyd Valley	7	1318	320	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Monticello	4	1030	291	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Moravia	2	339	172	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Mormon Trail	2	212	108	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Morning Sun	1	127	48	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Moulton-Udell	2	213	83	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

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Mount Ayr	3	617	270	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Mount Vernon	3	1233	210	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Muscatine	18	5224	2467	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Nashua-Plainfield	3	664	238	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Nevada	3	1450	468	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
New Hampton	4	1033	275	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
New London	2	530	201	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Newell-Fonda	4	419	169	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Nishna Valley	2	238	119	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Nodaway Valley	4	694	259	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Nora Springs-Rock Falls	2	396	143	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
North Cedar	4	836	203	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
North Central	2	437	140	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
North Fayette	6	825	301	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
North Iowa	3	477	187	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
North Linn	5	715	165	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
North Mahaska	2	535	188	Y	Y	Y	Y	Y	Y	Y	Y	Y	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
North Scott	9	3019	697	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
North Tama County	2	534	149	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Northeast	2	675	202	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Northwood-Kensett	2	518	168	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Odebolt-Arthur	2	332	130	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Olin Consolidated	2	182	90	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Orient-Macksburg	2	178	63	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

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Ottumwa	16	4515	1887	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Panorama	3	762	210	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
PCM	4	1023	236	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Perry	6	1762	1233	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Pleasant Valley	10	3596	338	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Pleasantville	3	659	226	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Pocahontas Area	4	466	196	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Pomeroy-Palmer	1	206	81	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Postville	2	529	342	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Prescott	1	25	14	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Preston	3	343	77	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Red Oak	7	1197	576	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Remsen-Union	3	350	90	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Riceville	2	311	81	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
River Valley	3	431	188	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Rockwell City-Lytton	2	461	165	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Rockwell-Swaledale	2	359	100	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Rudd-Rockford-Marble Rk	2	502	148	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Ruthven-Ayrshire	2	225	94	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Sac	2	462	193	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Saydel	4	1322	651	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Schaller-Crestland	2	329	119	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Sentral	2	160	82	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Sergeant Bluff-Luton	4	1510	343	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

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Seymour	2	229	115	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Sheffield Chapin	3	339	90	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Sheldon	8	982	295	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Shenandoah	3	1006	490	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Sibley-Ocheyedan	3	799	247	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Sidney	2	361	155	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Sigourney	4	572	180	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Sioux Central	3	611	255	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Sioux City	35	13356	7750	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
South Hamilton	2	707	218	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
South O'Brien	2	596	181	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
South Page	2	171	101	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
South Tama County	3	1410	663	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
South Winneshiek	6	563	169	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Southern Cal	2	477	190	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Spencer	5	1882	675	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Spirit Lake	3	1199	290	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Springville	2	414	103	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
St Ansgar	3	650	180	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Stanton	3	267	56	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Starmont	5	672	235	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Storm Lake	7	2122	1463	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Stratford	1	81	18	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Terril	2	130	59	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Tipton	3	864	206	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Titonka	2	140	65	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

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Consolidated																							
Tri-Center	3	735	172	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Tri-County	3	276	118	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Tripoli	2	474	110	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Turkey Valley	2	443	85	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Twin Rivers	3	127	61	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
United	2	143	42	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Valley	2	476	182	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Ventura	2	300	86	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Villisca	2	336	188	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Vinton-Shellsburg	4	1657	569	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Wall Lake View Auburn	2	470	146	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Walnut	3	180	83	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Wapello	3	724	350	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Wapsie Valley	7	701	127	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Washington	9	1640	718	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Waterloo	31	10116	5618	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Waverly-Shell Rock	8	1993	440	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Wayne	3	571	281	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Webster City	10	1606	613	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
West Bend-Mallard	3	317	89	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
West Branch	3	789	171	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
West Burlington Ind	3	719	317	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
West Delaware County	3	1514	430	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

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West Des Moines	14	8763	1880	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
West Hancock	3	601	236	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
West Liberty	4	1124	596	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
West Monona	4	633	270	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
West Sioux	7	667	328	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Western Dubuque	17	2822	828	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Williamsburg	3	1136	278	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Winfield-Mt Union	2	427	191	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Winterset	5	1701	551	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Woden-Crystal Lake	2	104	33	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Woodbine	2	404	134	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Woodbury Central	3	607	118	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

* Several districts in an attachment to the MOU or in the comments section provided in the Scope of Work section re-stated provisions of the MOU they felt were especially important. We do not include these comments as they do not modify or make conditional the MOU. Following are comments that are not directly covered by the MOU:

The Benton Community teachers association noted "reservations," but they did not change the content of the MOU. They stated in the "Comments" section or (A)(1): "Who? How? What? (will develop plan) Seat time or computer assessment? What will be considered valued authentic multiple assessments?" and for (D)(2)(ii): "Concern collaboration; How? Who?"

Hubbard-Radcliffe noted in the comments section for (D)(2)ii), "The Hubbard-Radcliffe CSD + its Board of Education is not comfortable about the word 'association' still in the MOU."

Sheldon CSD agreed to the full MOU, but noted this comment to item (D)(2)(i): "The Sheldon CSD is opposed to limiting collaboration to just the teacher's association. Collaboration needs to occur with all stakeholders. Also, this requirement expands collective bargaining outside of Chapter 20 of the Iowa Code."

Sigourney officially agreed to the full MOU, but the teacher association president did not agree to the provision in (D)(2)(iv). (Note that these provisions already are required by Iowa Code.) Their comment is, "The association … remains opposed to basing teacher evals. on.st. assessment"

South Winneshiek stated for (D)(5)ii), "'This [evaluating the impact of professional development on teacher practice and the resulting impact on student achievement and growth and improving professional development as a result] is an LEA responsibility and may utilize collaboration work with TQ committee."

Waterloo also included the following concerns in a cover memo. They indicated additional concerns that were fully covered in the MOU, but these fell outside the scope of the comments sections. Waterloo did NOT for these to be conditions of their agreement to the MOU: "Administrative evaluation linked to student achievement is at the sole discretion of the board and superintendent; failure to align appropriate assessment with instruction, i.e., now virtually limited to a norm-referenced standardized test is preventing true school improvement; the scope of Iowa's Race to the Top application may be insufficient to achieve the degree of reform necessary to "turn around" school performance; there is a lack of local authority to institute major reform initiatives; school districts need a certain level of financial stability to undertake the ambitious innovation and reform necessary to turn around low performing schools and students. It will require reliable, consistent, formula driven financial support over a long period, and this cannot be achieved through the federal program of competitive grants."

Conditions

Gladbrook-Reinbeck attached a condition to their MOU stating it is subject to "Review of the terms of the Memorandum of Understanding (MOU) by legal counsel and review by the Board and legal counsel of any and all administrative directives and regulations promulgated by federal or state authorities to administer or implement the Race to the Top Fund grant program."

We are interpreting North Mahaska's comment as making their MOU conditional on the deletion of item (D)(2)(ii). They wrote in the comments section next to this item, "We do not agree with this concept and cannot guarantee compliance."

Iowa's Race to the Top Objectives

Through Iowa's Race to the Top plan, we will transition to a competency-based system of education in order to achieve our priority goals:

1) increasing student achievement overall;
2) decreasing achievement gaps among student subgroups;
3) increasing the number and percentage of students of color who graduate from high school;
4) increasing college enrollment and the number of students who complete at least the equivalent of one year of college credit that can be applied toward a degree;
5) increasing undergraduate enrollment in STEM majors in Iowa's or Regents institutions of higher education.

To achieve these ambitious goals, we have developed set of objectives, described below.

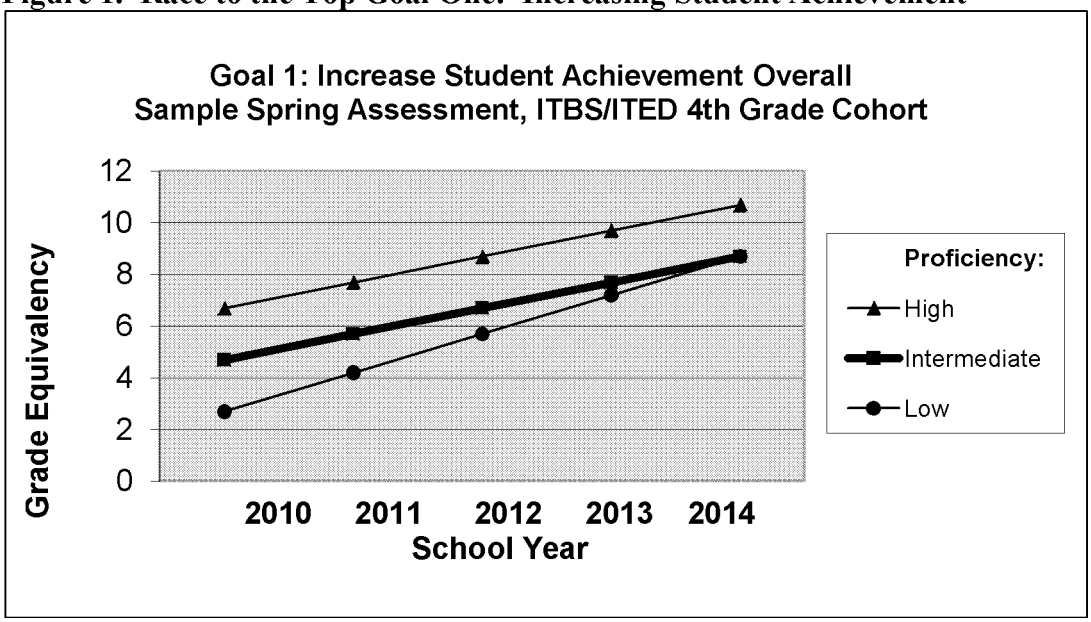
Our first goal is to increase student achievement overall. Within this goal, we have identified two objectives: (1) Increase achievement for students who are proficient on the state tests at least one grade level per year. (2) Increase achievement by students who are not proficient on the state tests by more than one grade level per year.

We are committed to ensuring that each and every student grows each and every year, and that we accelerate that achievement of our non-proficient students to bring them up to standard. That is, students who are performing at proficient or above still should grow as a result of their experience in our public schools. Students who are below proficient should have the opportunity to grow fast enough that they catch up to our standards and are prepared to succeed after high school.

Iowa has an approved growth model for our statewide summative exam for ESEA; our statewide assessment includes a vertical scale on results. Following is an example of what this might look like in our fourth grade cohort starting this fall. In this example, our "Intermediate" student is achieving and growing on standard. Our "High" performing student is achieving at an advanced level, and still growing the equivalent of one grade-level per year. Our "Low" performing student starts out achieving below the standard. To catch up, this student would need to accelerate her/his learning at a faster rate than other students.

It is our commitment that public schooling in Iowa will provide value-add to each and every student.

Figure 1. Race to the Top Goal One: Increasing Student Achievement



Our second goal is to decrease achievement gaps among student subgroups. Again, our objectives are two-fold: (1) Reduce achievement gaps by poverty and race in reading and mathematics in half in grade eight and 11. (2) Eliminate achievement gaps by poverty and race in reading and mathematics in grade three.

Through Race to the Top, we have the opportunity to dramatically move the needle on achievement. We have enough districts participating and a strong plan to target our Intensive School Supports on students of color and students in poverty.

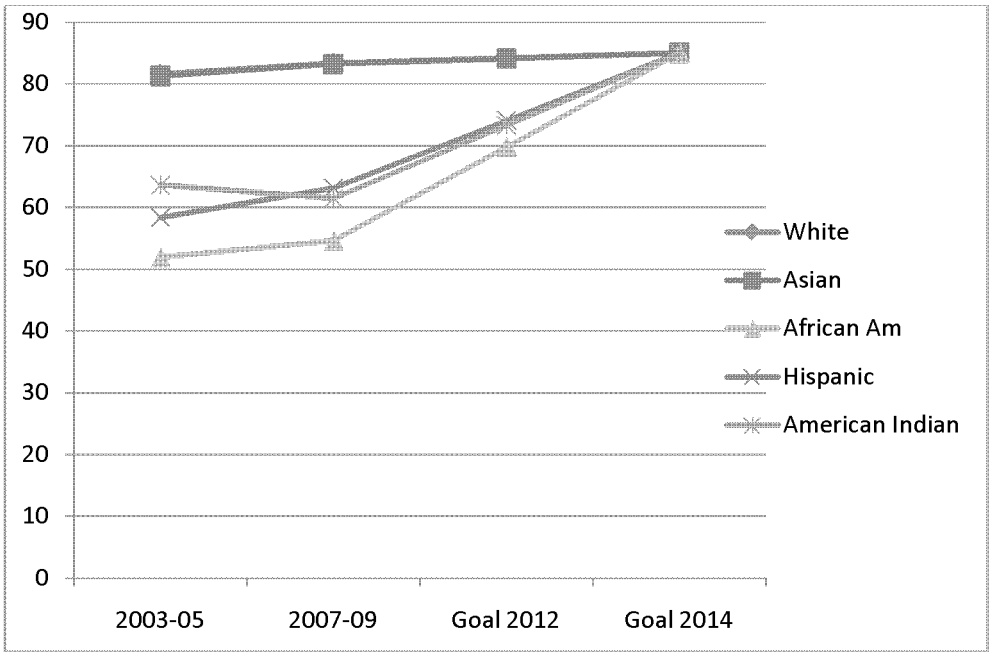
For example, when we look at achievement by race, we can demonstrate that there currently are 16,202 proficient minority students out of the 32,765 minority students statewide. If we set our goal at 85% of our students being proficient overall, we would need to increase the number of proficient minority students by 10,010 students.

Within our Race to the Top participating districts, only 36.4% of their current non-proficient minority students would need to become proficient for us to reach this number.

We can reach this number through our Race to the Top Intensive School Supports.

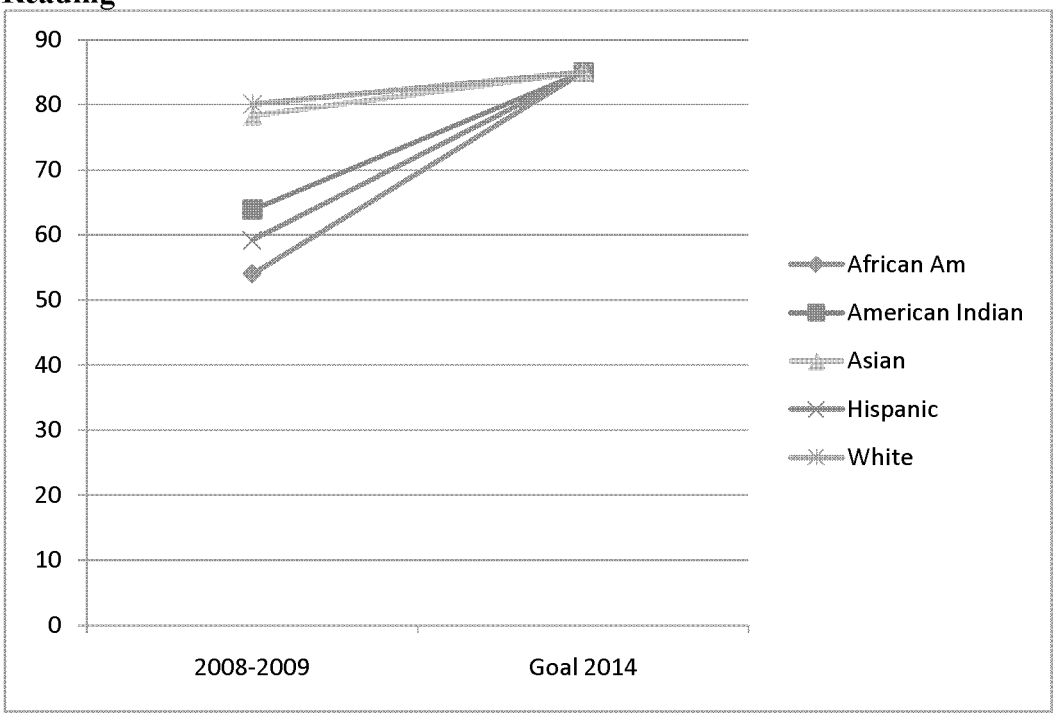
Below you will find graphical representations of what the trajectories for improvement will look like for our Race to the Top program. Our examples demonstrate achievement by race; similar patterns are evident for students in poverty.

Figure 2. Race to the Top Goals, Eliminating Racial Achievement Gaps, 4th Grade Reading



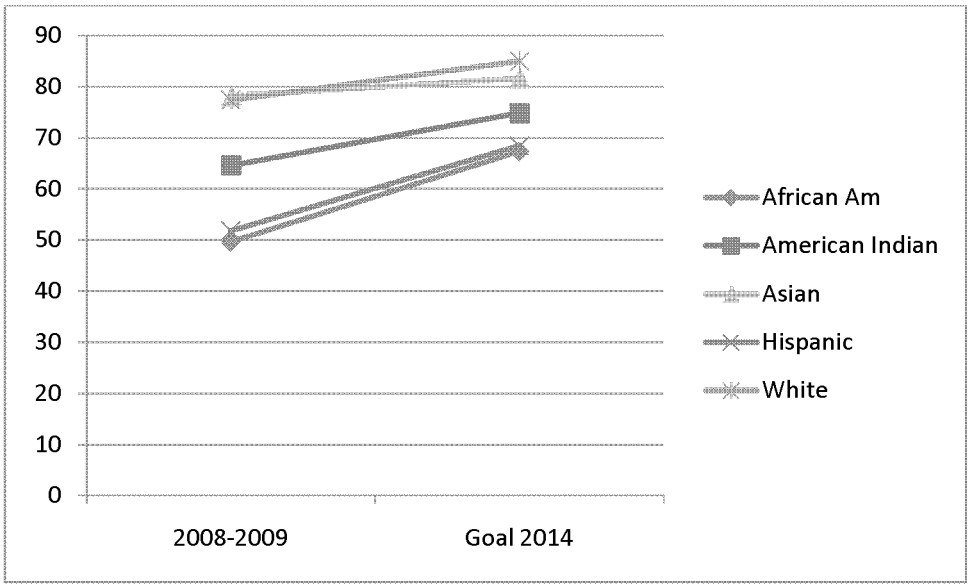
Students who enter kindergarten this fall will be 3rd graders by the end of the Race to the Top period. Our goal is to make sure that those who start school as we start Race to the Top will not display disparities in achievement by race and poverty by the end of our grant period.

Figure 3. Race to the Top Goals, Eliminating Racial Achievement Gaps, 3rd Grade Reading



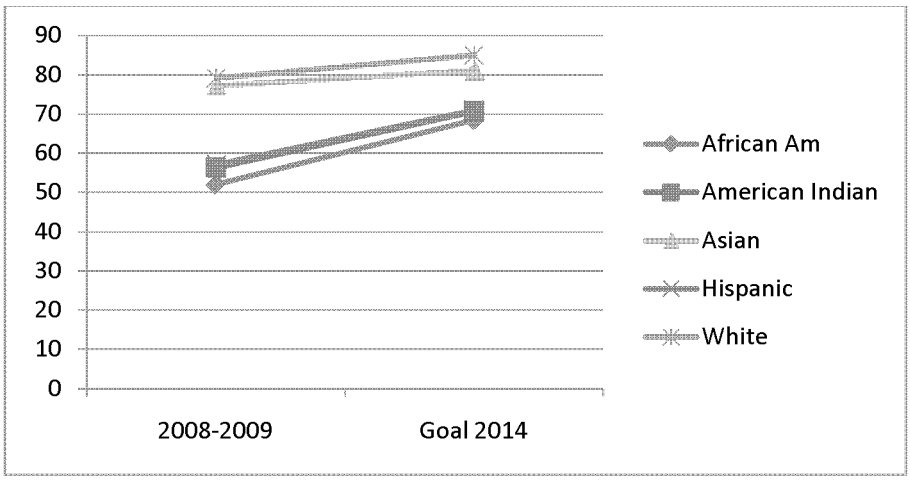
Students who are in 4th grade now will be in 8th grade by the end of our grant period. Our goal for them is to reduce achievement gaps by race by 50% before the end of the grant period.

Figure 4. Race to the Top Goals, Closing Racial Achievement Gaps, 8th Grade Reading



Students who enter high school this fall will have finished their senior year by the end of our grant period. Our goal for them is to reduce achievement gaps by race by 50% by the time they graduate.

Figure 5. Race to the Top Goals, Closing Racial Achievement Gaps, 11th Grade Reading



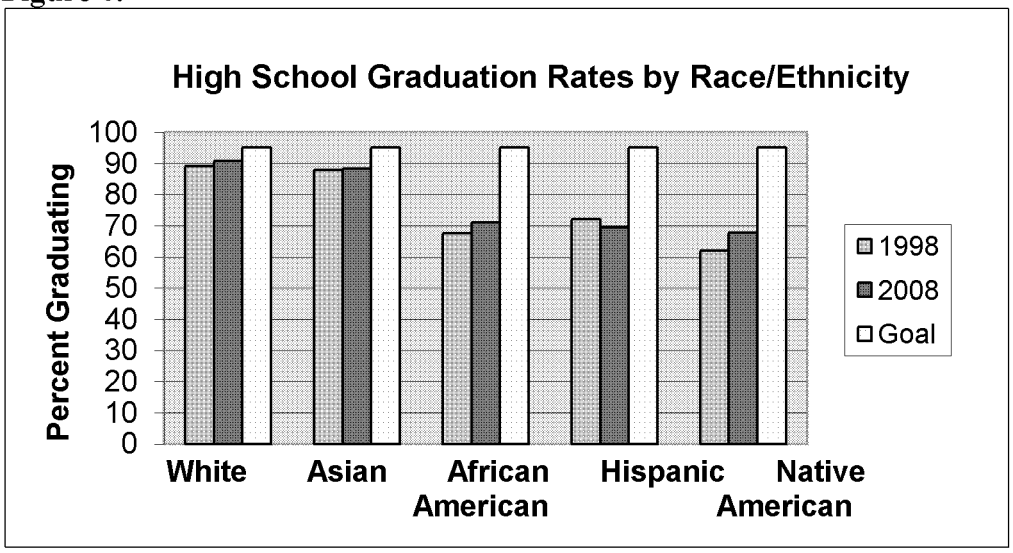
Our third goal is to increase high school graduation rates.

In 2006, Iowa ranked third in the nation for average freshman graduation rates. Therefore, we are focusing our Race to the Top efforts on closing the gap in graduation rates. However, our students of color had a graduation rate of only 73 percent in 2008 and our students in poverty graduated at a rate of 78 percent.

Our Race to the Top program will prioritize increasing the graduation rate of our students of color and our students in poverty so that gaps in graduation rates are eliminated.

Achieving these goals would look like the following:

Figure 6.



Our fourth goal is to increase college enrollment and the number of students who complete at least the equivalent of one year of college credit that can be applied toward a degree

Our objectives include: (1) Achieve 75 percent matriculation to post-secondary school rate; (2) Increase the number of students who complete at least the equivalent of one year of college credit applicable to a degree.

At this point, we do not have the full set of data we need in order to track this goal. With Race to the Top, we will rapidly develop the capacity to collect the last few data elements, so we will have baseline data against which to measure achievement of our goal.

Our fifth goal is to achieve annual increases in undergraduate enrollment in STEM majors in Iowa's Regents institutions of higher education. Our specific objectives are to (1) increase enrollment of STEM majors 20 percent overall; and (2) increase under-represented minority enrollment by 50%; and (3) increase female enrollment to 50% of STEM majors.

Figure 7.

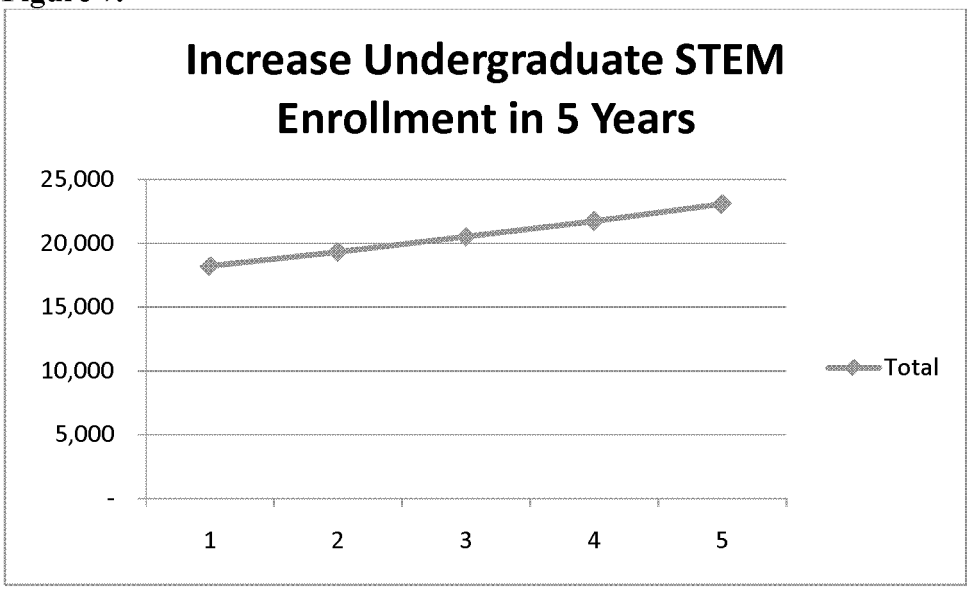


Figure 8.

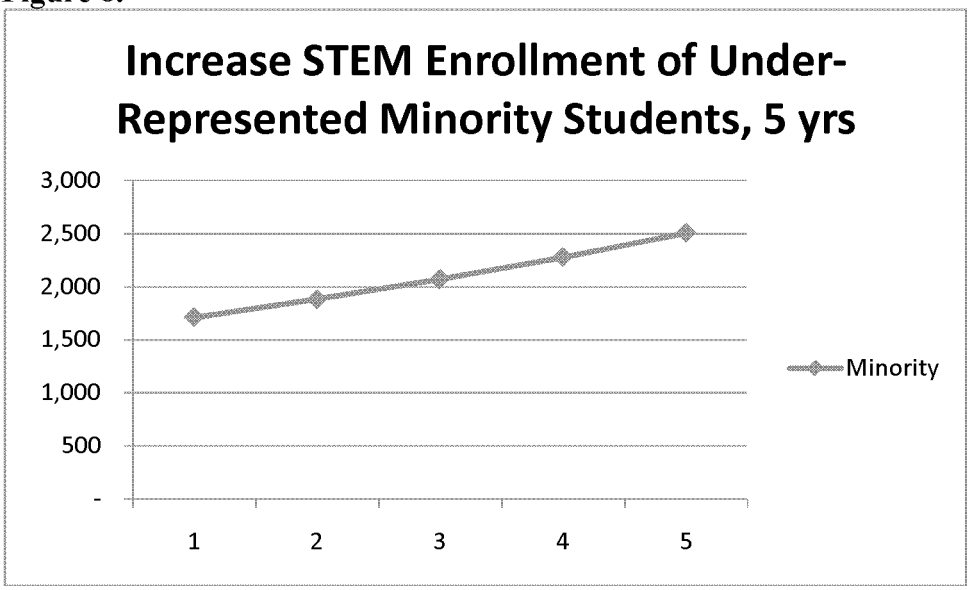
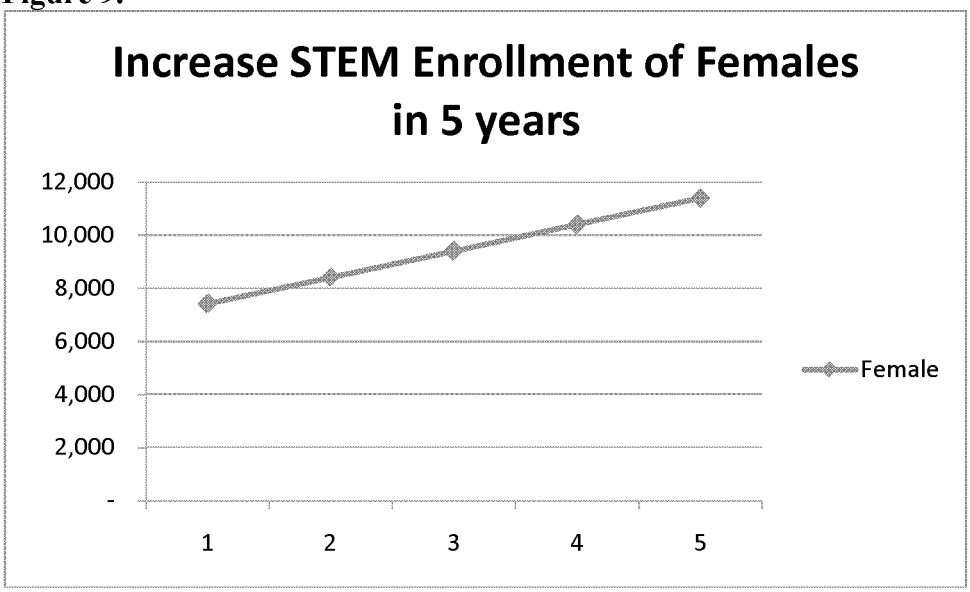


Figure 9.


Increase STEM Enrollment of Females in 5 years
12,000
10,000
8,000
6,000
4,000
2,000
-
1
2
3
4
5
Female

Fields of Opportunities

STATE OF IOWA

CHESTER J. CULVER, GOVERNOR
PATTY JUDGE, LT. GOVERNOR

DEPARTMENT OF EDUCATION
JUDY A. JEFFREY, DIRECTOR

To: Iowa Accountability and Transparency Board

From: Iowa Department of Education

Subject: ARRA High Risk Accountability Plan

Date: November 2, 2009

On September 9, 2009, the Iowa Department of Education (DE) was identified as a high priority risk assessment agency. In the communication on Sept 9, the DE was asked to create an accountability plan that addresses the following issues related to the management of ARRA funding:

Each agency/program ranked as high priority must develop a comprehensive monitoring plan and protocol to review grant and sub grant supported activities. The accountability plan should address the following at a minimum:

- A monitoring schedule;
- Monitoring policies and procedures;
- Data collection instruments (e.g., interview guides, review checklists);
- Monitoring reports and feedback to sub recipients; and
- Processes for verification of implementation of required corrective actions.

Our understanding of the reason for the above risk designation is primarily related to the State Fiscal Stabilization Funding (SFSF). Both the amount of funding and the newness of the funding create a situation under which there is risk for potential misuse of funds and consequently, the creation of this plan is desirable. This plan will focus primarily on the management of the education portion of that fund, since the Government Services portion of that fund is being managed by the Iowa Department of Management.

The DE received several other forms of ARRA funding, but all were additions to preexisting program funding and consequently, have well-established distribution, monitoring, and accountability provisions, which is why they will not be addressed in this plan unless the IATB instructs the DE to do so. These programs are frequently monitored through federal fiscal accountability visits and oversight.

Grimes State Office Building - 400 E 14th St - Des Moines IA 50319-0146
PHONE (515) 281-5294 FAX (515) 242-5988
www.iowa.gov/educate
Helping Communities Meet the Learning Needs of All Their Children and Adults

ARRA SFSF – Education Fund ($386,373,745)

Background

The Education portion of the ARRA SFSF fund is approximately 80% of the total funding made available in this piece of ARRA funding. This funding must go to public school districts and public post-secondary institutions of higher education. The DE, in collaboration with the Governor's office and the Iowa Department of Management, submitted an initial application for the first two-thirds of the education funds. That application was approved in early June, 2009. The approved application includes certain assurances the State made related to priority reforms, documentation of funding levels related to minimum maintenance of effort, and plans for distribution of funds to specific entities.

During the 2009 legislative session, the Governor and the Legislature agreed to allocate Education SFSF funds through the legislative appropriations process. The legislature subsequently appropriated the majority of the SFSF Education funds in FY09 and FY10. Per ARRA, entities receiving funds from SFSF have broad discretion on use of funds. For K-12 school districts, the funds may be used in the same way as federal Impact Aid under ESEA is used, which is essentially similar to general fund dollars. For public post-secondary institutions, the same is true. The intent of these funds was two-fold: 1) bolster states by providing federal funding that serves to fill in gaps created by loss of state funds and 2) promote activities aligned to the four areas of reform promoted within the ARRA. There were few restrictions on these funds and states were prohibited from adding restrictions beyond what the statute provided. This created a situation where high visibility on use of funds was necessary, even while the parameters on how the funds were used were minimal.

Monitoring Schedule

All SFSF Education funds were appropriated into preexisting funding mechanisms. The K-12 schools received SFSF Education funding in three pieces 1) direct state aid replacement, 2) instructional support levy state aid replacement, and 3) professional development funding to supplement existing professional development funding within the school aid formula. Public post-secondary institutions (community colleges and Regents institutions) received funds entirely as state aid replacement.

Monitoring then occurs in several ways. Every one of these funding streams has established distribution schedules. Community Colleges and Regents institutions receive state aid appropriations in 12 equal payments during the given fiscal year. K-12 school districts receive state aid in 10 equal payments beginning in September in a given fiscal year. Since the appropriation of $2,000,000 in professional development for schools was to supplement existing PD efforts to implement the Iowa Core Curriculum, that distribution occurred once concurrent to the state aid distribution for schools in September.

These entities were expected and have established individual accounting lines for each separate piece of ARRA SFSF Education funding. K-12 schools have established accounting codes statewide and will account for all ARRA funding separately using the regular Certified Annual Report (CAR) process for budgeting and expenditures. A similar process is in effect for public post-secondary institutions. As a result, usual accounting and budgeting processes will account for these additional new funding streams. In all cases, subrecipients were cautioned about the types of accounts in which these funds were placed, since federal law limits the amount of interest earned on federal funds. These cautions occurred through webinars, FAQs, and specific written communication to the field.

Monitoring is then occurring on both the revenue distribution and accounting/expenditure ends of the process. The DE will use the quarterly Section 1512 reporting to the US Department of Education to indicate funds received and distributed to all subrecipients. Subrecipients will be expected to fully comply with Section 1512 reporting requirements and will account for expenditures using regular accounting processes. All of this is subject to audit at the subrecipient level. Section 1512 reporting occurs quarterly. Expenditure reporting occurs annually as a part of the CAR process. For Community Colleges and Regents, the DE and Board of Regents offices will implement similar processes for both distribution of funds and accounting for revenues.

Monitoring Policies and Procedures

The Department of Education and Board of Regents are using established accounting processes to monitor expenditures of ARRA SFSF Education funds. These processes are available for review by both respective entities and have been included in the entity's state audit process. For uses of funds, subrecipients must report cumulative expenditures and uses of the funds in the quarterly Section 1512 reports submitted to the Iowa Recovery.gov web site. Each report will be evaluated against the permissive uses of funds set out in the original ARRA statute. Guidance on uses of ARRA funds has been provided to all subrecipients and is available at
http://www.iowa.gov/educate/index.php?option=com_content&view=article&id=1731&Itemid=2552#how

Data Collection Instruments

Information on uses of funds will be supplied by subrecipients using the reporting.iowa.gov web site. Accounting for expenditures will use the tools provided by either the DE or Board of Regents as a part of regular accounting procedures and processes.

Monitoring Reports and feedback to subrecipients

The DE is the primary reviewer of Section 1512 reports from all subrecipients of SFSF Education funds. These reports will be monitored and approved/rejected

using consistent processes of review and review criteria. Much of the review is presence or absence of information, since the parameters for uses of funds are broad. Certain types of data must be included such as jobs created/maintained, funds expended, uses of funds, and subrecipient identifier data.

If a given report has certain absence of data or deficiencies, the reporting,iowa.gov system has the ability to force a response prior to the acceptance of the report by the primary grantee. In these cases, individuals reviewing these reports for the DE have the ability to request additional data or fixes to the report to ensure that the report is submitted properly and completely. This was done to the degree practicable during the first cycle of Section 1512 reporting. The DE held several webinars and ICN sessions, as well as face-to-face training sessions, to assist subrecipients in understanding reporting requirements.

Accounting for expenditures will also occur in the regular CAR process. When looking at expenditures, the normal review process completed by department personnel will ensure that amounts balance, and that all funds are properly accounted for through the appropriate codes.

Processes for verification of implementation of required corrective actions
For Section 1512 reporting, the process of review will include any required corrective actions that must be taken by the subrecipient to properly submit the required report. This reporting will improve each cycle. The emphasis in the first round of Section 1512 reporting was simply trying to get the system functional and ensure all baseline information was provided. As these Section 1512 reports are cumulative over the life of ARRA, it is expected that this reporting will improve each cycle. If a correction is required, the DE will work with the subrecipient in question until the issue is properly resolved.

Local audits will review expenditures as a part of the annual audit. The Department provides annual updating and training for local auditors to help them stay current with new programs like these. Additional review of data submitted through regular accounting reporting process will occur and irregularities will be handled using normal corrective action processes.

Monitoring subrecipients on the Uses of ARRA Funds
Monitoring subrecipients of ARRA Education Stabilization funds will occur using three processes. These must be viewed collectively as a system to monitor. No one piece of this monitoring will fully address the potential misuse of funds, but using the pieces together will allow for cross-comparisons that will create red flags when appropriate.

1. ARRA 1512 reporting

Subrecipients will be required, as a part of the federal quarterly ARRA Section 1512 reporting, to describe how funds were expended. This reporting is cumulative and consequently, those fund use descriptions will be reviewed each quarter If it is determined that there are questions about uses of funds or that the spending is not appropriate, that feedback will be provided to the subrecipient along with a request for a plan of correction. A potential action on any issues that are not adequately addressed would be a delay in future ARRA funds or potential payback of disbursed ARRA funds.

Timelines/Benchmarks: Monitoring of these reports will occur quarterly for the duration of the grant award period (March 31, June 30, Sept 30, Dec 31).

2. Annual Financial Reports

An existing process that is in place for all subrecipients requires them to submit an annual Financial Report that describes expenditures against revenues received. The Department has the discretion to focus on a specific type of funding within this comprehensive report as needed if there is a perceived need to more closely monitor uses of funds in a given category of spending. The Department will elevate all ARRA funding to this level of review and so will consequently monitor these reports for uses of ARRA funds. These reports are submitted each fall for the prior year spending. If irregularities are noted, the Department will work with districts to correct any improper use of funds.

Timelines/Benchmarks: All school districts must submit their Certified Annual Reports to the Iowa Department of Education by September 15 of each year for the prior fiscal year. It then takes several months to completely analyze and certify the data as correct.

3. Local school district audits

Every subrecipient of ARRA Education Stabilization funds is required to have an independent local audit each year. Audit findings are provided to these subrecipients each spring by the independent auditor. These audit reports are also provided to the Department. The Department annually reviews all of these local audits for irregularities or noncompliance.

Each year, the Department also provides training to these independent auditors to help update them on points of emphasis or changes to existing law. In the training for auditors for FY10, ARRA funding was included as a new funding stream. Local auditors were provided the ARRA guidance, as well as descriptions of uses of funds and fund disbursement schedules.

The Department will review all local independent audits for any findings related to all ARRA funding and ensure that the subrecipients make corrections appropriate to the findings.

Timelines/Benchmarks: All school districts must submit the local single audit to the Iowa Department of Education by March 31 of each year. These single audits are always for the prior fiscal year. The Department then amasses the findings from the local audits and takes appropriate follow-up action as determined necessary case by case.

RTTT Letters of Support by Organization

1. AEA 267
2. Grant Wood AEA
3. Great Prairie AEA
4. Green Hills AEA
5. Heartland AEA
6. Keystone AEA
7. Mississippi Bend AEA
8. Northwest AEA
9. Prairie Lakes AEA
10. Iowa Area Education Agencies
11. Iowa Association of Community College Trustees
12. Iowa Braille and Sight Saving School
13. Iowa Business Council
14. Iowa Parent Teacher Association
15. Iowa Senate Majority Leader
16. Iowa Speaker of the House Pat Murphy
17. Iowa State Education Association
18. Iowa State University
19. Iowa's Special Education Advisory Panel
20. Iowa Workforce Development
21. School Administrators of Iowa
22. School Administrators of Iowa, Wallace Leadership Grant for Iowa
23. The Greater Des Moines Partnership
24. The University of Iowa
25. The University of Iowa, College of Education, Realizing Educational & Career Hopes Program
26. University of Northern Iowa
27. University of Northern Iowa, Department of Special Education
28. Urban Education Network

AEA 267
AREA EDUCATION AGENCY
leadership in learning

May 3, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver:

This letter is being written in support of the Iowa Department of Education's application for initial funding for the Race to the Top grant. AEA 267 is in full support of the Department of Education's application and fully committed to working with the Department in its implementation.

AEA 267 is one of nine AEAs in Iowa. We provide services to 60 school districts in north-central Iowa with a focus on special education; curriculum, instruction and assessment and supporting professional development; and technology and media services. Our mission is to"...build the capacity of educators, parents and students...to improve student achievement".

AEA 267 has a long history of working collaboratively with the Iowa Department of Education and the other eight AEAs in Iowa to implement school improvement innovations and initiatives. Currently, this statewide collaborative effort has focused on the implementation of the Iowa Core Curriculum. This powerful collaboration is moving this initiative forward in a manner that is much more effective than either the Department of an individual AEA could do on their own.

I believe the educational culture, based upon extensive collaboration among the Department of Education, the Iowa AEA system, and the Local School Districts, is well positioned to make effective use of the additional support a successful RTTT application could bring. I would encourage those making decisions about RTTT grants give Iowa its fullest consideration.

Sincerely,

(b)(6)

Dean W. Meier, Ed.D.
Chief Administrator
AEA 267
Cedar Falls, IA 50613-6290

Our Promise to our Educational Partners:
We provide educational leadership, services, and support to the children, families, and educators we serve to build their capacity to positively impact and increase student achievement.

May 5, 2010

To Whom It May Concern:

At a recent monthly board meeting, the AEA 267 Board of Directors unanimously passed the following resolution:

> The AEA 267 Board of Directors is in full support of the Iowa Race to the Top Application and the Agency will extend its full support to the implementation of the program.

Sincerely,

Dean Meier, Ed.D.
Chief Administrator
AEA 267

GRANT WOOD
AREA EDUCATION AGENCY

May 3, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver,

As you know, the AEAs are a statewide system, created by the Iowa Legislature 35 years ago in response to the Students with Disability Act. The AEAs play an integral part in providing support to education of all of Iowa's students – including those in public, private, charter and home schools. The legislators who created the AEA system in Iowa envisioned a partnership between the AEAs and educators where the AEAs provide not only special education support services, but also library resources, technology and technology support, teaching improvement through professional development, and various cost-efficiencies for the schools.

Each of the AEAs in this state have dedicated their resources toward improving instruction in Iowa's schools, thus helping each of the districts meet the state's performance plan under No Child Left Behind. Where needed, the AEAs have helped trouble-shoot with schools and districts identified as being in need of assistance. The AEAs have also committed themselves to helping with the development and rollout of the Iowa Core Curriculum, including the very important development of 21st Century skills among Iowa students. The AEAs continually serve as change agents in the Iowa education system, helping teachers, administrators, school boards and districts to find new and better ways to educate children in our service areas.

We are excited by what we see evolving in our state as a result of the work on the Iowa Core. We believe the implementation of the Iowa Core Curriculum throughout Iowa's schools will play a significant part in preparing our students for becoming leaders in the 21st Century. We anticipate the quality of education in Iowa, which has always been near the top in the nation for many years, will improve even more. We also believe this work will create a model of excellence for education in rural states, which could be replicated in other states.

I know I speak not only for my agency but for all AEAs in the state when I tell you how excited we are to get involved in the Race to the Top program. We will work diligently with the Department of Education, the Regent institutions, business partners and social agencies to draw together all of our state's resources toward making this effort a success.

Sincerely,

(b)(6)

Ronald S. Fielder, Ph.D.
Chief Administrator

Great Prairie
AREA EDUCATION AGENCY

2814 North Court Street
Ottumwa IA 52501-1163
641-682-8591 • 800-622-0027
FAX: 641-682-9083

3601 West Avenue Road
Burlington IA 52601-1065
319-753-6561 • 800-382-8970
FAX: 319-753-1527

May 5, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver,

As Chief Administrator of Great Prairie Area Education Agency, I write this letter in support of the Iowa Department of Education's phase 2 application for funding for the Race to the Top grant. Great Prairie AEA provides leadership and support to more than 38,000 students, 3,700 teachers and administrators, and 35 school districts in southeast Iowa.

Iowa's priorities and goals for Race to the Top directly correlate with the work that we do as an AEA system. We extensively collaborate with the Department of Education to help promote change in education. As professional educators we understand the need for change in curriculum, instruction and assessment for the 21st century learner. We work with local schools to implement innovative approaches to teaching and learning, as well as gather data to inform and improve instruction and delivery.

We are committed to improve student achievement. Iowa's AEAs were established by the 1974 Iowa Legislature to provide equitable, efficient and economical educational opportunities for all Iowa children. We work as educational partners with public and accredited private schools to help students, staff, parents and communities meet the school improvement challenges.

Great Prairie AEA is devoted to collaboratively working to implement the plans that Race to the Top funding will help Iowa achieve. Iowa is a leader in the field of education, and we believe with Race to the Top funding, we will continue to lead and impact the youth of our nation.

Sincerely,

(b)(6)

Joseph M. Crozier, Chief Administrator
Great Prairie Area Education Agency

May 5, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver:

The newly merged Green Hills Area Education Agency provides support services to the schools of Southwest Iowa. These schools represent a large percentage of low socio-economic population students. As a member of the AEA system of support to the department and schools, we are deeply involved in every aspect of education in Iowa.

Green Hills AEA is deeply committed to improving the lives of each student within our geographic region. As part of our commitment to our students, we fully support and affirm our involvement in the statewide system of support to implement the state's application for Race to the Top efforts. As an agency, and as a state, much work has already been done that aligns with what is being looked for in the RTTT grant.

Because of our student population and their needs, Green Hills AEA will be focusing upon improving low performing schools and increasing student achievement. We have devoted many resources to the implementation of the Iowa Core curriculum and believe the state's application reflects our mission to support all learners. We believe that major changes will occur for students when we are able to fundamentally change the teaching and learning process within our schools. Iowa's RTTT efforts will help ensure such fundamental changes will occur.

As a newly formed AEA our staff are looking forward to being part of the statewide system of support to the children of Iowa. We are pleased with how Iowa's many educational efforts are coming into alignment to achieve the goals of Race to the Top.

Sincerely,

(b)(6)

Glenn Grove
Acting Chief Administrator
Green Hills AEA

Green Hills AEA • P.O. Box 1109 • Council Bluffs, IA 51502-1109
712-366-0503 • 1-800-432-5804 • FAX 712-366-7772

6500 Corporate Drive, Johnston, IA 50131-1603 • Phone (515) 270-9030 • (800) 362-2720 • Fax (515) 270.5383

May 6, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver,

I am writing to show Heartland Area Education Agency's (AEA) support of the Iowa Department of Education's upcoming application for our state's participation in the Race to the Top (RTTT) grant competition. Heartland AEA provides services to 133,000 students in 54 public school districts and 29 accredited non-public schools in critical areas such as curriculum, instruction and assessment, school leadership, instructional technology, special education and professional development. These services are provided in partnership with our schools and are focused on improving teaching and learning.

Iowa's participation in RTTT would allow educators throughout the state to develop infrastructures and programs that will create new, more effective learning environments that in turn will enable Iowa students to acquire the essential concepts and skills of the Iowa Core Curriculum. Ultimately, improvements to our system enabled by RTTT will allow Iowa students to compete successfully in the global economy.

I have read the overview of the Department of Education's RTTT application and a number of components are particularly impressive, especially projects that would support Iowa's continued work toward a competency-based, outcome-driven education system. The Iowa Core Curriculum is the vehicle for this change and what is needed now is a sustained focus on resources and tools that will help this vision come to life. As a state, Iowa is uniquely positioned to implement required components of RTTT. In particular, Iowa has:

a) Unique relationships between the Department of Education, AEAs, school districts and institutes of higher education that allow efficient and effective delivery of education innovations on a broad scale throughout the system.
b) A commitment to becoming outcome-driven in our approach to improving our schools.
c) A commitment to developing and implementing an integrated system of curriculum, instruction and assessment that adheres to high standards of rigor.
d) A commitment to not only improving teacher performance, but to improving the performance of school leaders.

Heartland AEA is committed to working in partnership with both the Department of Education and our schools to implement the components of Iowa's RTTT plan. We will commit appropriate resources to RTTT projects, provide leadership for development of major RTTT components and make the success of RTTT activities a major priority for our agency. I am pleased to endorse the Department of Education's RTTT proposal, and I encourage reviewers to give this proposal serious consideration. If there is any additional information I can provide regarding Heartland AEA's commitment to the RTTT proposal, please do not hesitate to contact me.

Cordially,

Sheila King
Interim Chief Administrator
sking@aea11.k12.ia.us

Extending your reach.

Heartland Area Education Agency 11 does not discriminate based on gender, race, national/ethnic origin, creed, age, marital status, sexual orientation, or disability. Direct inquiries to the Affirmative Action Coordinator, 6500 Corporate Dr., Johnston, IA 50131-1603, or Director, Office for Civil Rights, Chicago, IL 60604-7267.

Keystone Area Education Agency
Administration
1400 2nd St. NW • Elkader, IA 52043-9584
Phone: 563-245-1480 • FAX: 563-245-1484

Improving Learning And Living For All Students

May 4, 2010

The Honorable Chester Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, Iowa
50319

Dear Governor Culver:

The purpose of this letter is to offer our support for the Iowa Department of Education as they submit a Phase Two Race to the Top Grant proposal.

Keystone Area Education Agency serves 24 public school districts in northeast Iowa. We have staff dedicated to providing services in the areas of school community planning, professional development, curriculum, instruction and assessment, special education, instructional media, school technology, and school leadership among others.

Our 265 staff members are committed to continue to provide high quality services in the areas described above to local district staff and students in all of our districts with special emphasis on the components of the Race to the Top initiative.

Moreover, we intend to establish a strong collaborative relationship with the Iowa Department of Education and all of the other Area Education Agencies in an attempt to make the Race to the Top initiative truly meaningful for each of our participating districts.

Sincerely,

(b)(6)

Robert Vittengl, Ph.D.
Chief Administrator

Mississippi Bend
AREA EDUCATION AGENCY
Improving teaching & learning

729 - 21st Street • Bettendorf, Iowa • 52722-5096
563-359-1371 • 800-947-AEA9
Fax: 563-359-5967 • TDD 563-344-6281
www.aea9.k12.ia.us

May 20, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver:

I am writing to confirm Mississippi Bend Area Education Agency's commitment to the *Race to the Top* innovative system reform efforts. The Agency's interest in the project grows out of the critical system reform delivery role for Iowa's area education agencies described within the application. The Agency has appreciated the Department's involvement of all stakeholders in the application's design process to ensure commitment to the statewide reform efforts.

The Agency is committed to: providing support and coaching so that schools and school districts can implement the Iowa Core Curriculum through a competency-based system; facilitating and sustaining balanced assessment systems at the district, school, and classroom level; delivering high quality professional development and capacity building to implement the adopted intervention models; and training leaders to initiate program evaluation processes to create productive feedback loops to inform school level decisions.

Given the long history of school improvement collaboration between the Agency and the Department, I am pleased to lend the Agency's resources and expertise to the successful implementation of the *Race to the Top* project.

Sincerely

(b)(6)

Glenn M. Pelecky, Ed.D.
Chief Administrator

NORTHWEST AEA
NORTHWEST AREA EDUCATION AGENCY

May 6, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver,

Northwest AEA is one of ten area education agencies that provide equitable, efficient and economical educational opportunities for both public and accredited private schools in northwest Iowa. We serve ten counties and approximately 43,000 students in our area. Northwest AEA provides special education support services, media and technology services, a variety of instructional services, professional development, and leadership to help improve student achievement.

Serving as a partner with local schools, Northwest AEA has a keen interest in providing quality professional development for teachers and quality services for students. Northwest AEA's mission is to provide visionary leadership and quality student-centered services through relationships with families, schools and communities. We are highly committed to provide responsive services in the areas of special education, media and educational services and professional development.

We are very supportive of the state's efforts to acquire a Race To The Top grant so that students in Iowa can continue to receive a quality education. We need to secure all resources available to help our children compete in a global economy. Northwest AEA has helped our local schools implement the Iowa Core Curriculum in collaboration with the Iowa Department of Education. Our staff lead the Schools In Need of Assistance (SINA) program for the state of Iowa. Teams of AEA staff work with the individual schools that have been identified to help the schools work through the audit process and design a plan of action to help turn their school around. This grant would allow further implementation of the plans already designed for schools in our area that have been identified through the SINA process.

Northwest AEA is committed to partner with local schools and the Department of Education to increase student achievement in our area. This has been our belief for the last 35 years, since the AEA's inception. We are enthused to have this grant opportunity so that we can increase our capability to provide these services in a collaborative way with our school districts.

Educationally Yours,

Timothy S Grieves, Ph.D.
Chief Administrator
Northwest AEA

Prairie Lakes
Area Education Agency

May 6, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver,

Prairie Lakes Area Education Agency is one of 10 intermediate service agencies serving Iowa's public and accredited non-public schools. Prairie Lakes works in partnership with our local schools to identify and meet the needs of students in order to ensure maximum achievement for all. We provide special education support services and direct service to students and children ages birth through 21 along with professional development and instructional resources (including technology resources) for all educators (pre-K through 12th grade.)

Iowa is primarily a rural state and Prairie Lakes AEA serves a rural area of this state with the unique challenges and strengths of culture that are indigenous to rural regions. Declining enrollments have been the incentive for increased sharing and collaboration among our school districts and stronger partnerships between the AEA and the local schools. At Prairie Lakes we are committed to the efficient use of resources to ensure that our students achieve at the highest levels and use their knowledge and work ethic to overcome a growing problem of rural poverty.

Of particular promise for Prairie Lakes AEA in the RTTT proposal is the emphasis on innovation to create new learning opportunities and new learning environments. The proposed Centers of Excellence provide the opportunity to garner the expertise in our state in the most effective manner and to work statewide for collaborative implementation of the best practices to deepen the capacity for and the success of implementation.

Iowa has a strong history of integrated coordination to achieve focused initiatives for school improvement. The relationship between the Department of Education, the Area Education Agencies, local schools, and the various professional organizations allows ongoing dialogue and collaborative efforts on behalf of our students. The Race to the Top proposal has brought continued focus to the next level of work in Iowa and funding will make . implementation possible in a reasonable timeline. I am excited about the potential of this work and support this grant proposal.

Sincerely,

(b)(6)

L. Kay Forsythe, Ph.D.
Chief Administrator

May 6, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver,

Iowa's AEAs were established by the 1974 Iowa Legislature to provide equitable, efficient and economical educational opportunities for all Iowa children. Iowa's AEAs provide special education support services, media and technology services, a variety of instructional services, professional development, and leadership to help improve student achievement. Iowa's AEAs serve as intermediate units that provide educational services to local schools and are widely regarded as one of the foremost regional service systems in the country.

Iowa's AEAs extensively collaborate with the Department of Education to help promote change in education. School improvement efforts have been supported and implemented through the partnership between the Iowa Department of Education and the AEAs. The primary goals are to emphasize student achievement and accountability. The Department of Education and Iowa's AEAs work as educational partners with public and accredited private schools to help students, staff, parents and communities meet the school improvement challenges.

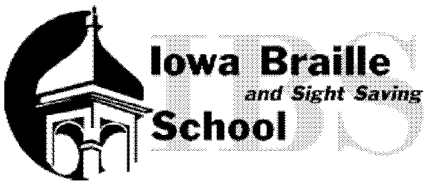
The ten AEAs in Iowa have concentrated heavily on working together as a state system over the past five years. A perfect example of this is the systematic implementation of the Iowa Core Curriculum with the Iowa Department of Education, which addresses the standards and assessment criteria in the Race To The Top grant. Currently, AEA staff lead the Schools In Need of Assistance (SINA) program for the state of Iowa. Teams of AEA staff work with the individual schools that have been identified and help them work through the audit process and design a plan of action to help turn their school around. This grant would allow further implementation of the plans already designed for schools in our area that have been identified through the SINA process.

Each of the ten AEA Chief Administrators unanimously support the State of Iowa's application and we highly encourage you to select Iowa as a grant recipient. We believe that as an integrated AEA system, with the Department of Education, we can build capacity and help bring to scale all of the components of the Race To The Top grant.

Educationally Yours,

Timothy S. Grieves, Ph.D.
Chair, Iowa AEA Chief Administrators

Brent Siegrist
Director of State AEA Services



May 10, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver,

I write this letter of support of the application for the Race to the Top initiative on behalf of the Statewide System for Vision Services, the Iowa State system for supporting the education of children and youth that are blind or visually impaired. This Statewide System provides education instructional and support services to students across the state. This Statewide System is an innovative approach to meeting the educational needs of this low incident population.

The Statewide System for Vision Services is a partnership with the local schools districts, intermediate Area Education Agencies, Department of Education and the Department for the Blind empowered to ensure access to quality educational services for all students' birth to twenty one who are blind or visually impaired. We commit to work with these partner agencies to implement and meet the priorities of the Race to the Top initiatives. Our partnership certainly includes leadership in closing the gap in performance for low-achieving schools and in the implementation of competency-based instruction.

The Statewide System for Vision Services is a new organizational structure that may provide a model for other State initiatives in the Race to the Top priorities. The Statewide System personnel hold expertise in the development of content and the design of instruction and assessment and we are prepared to work in collaboration with others to advance the full implementation of the Iowa Core.

Iowa continues to be a leader in education and thus is well suited to lead the implementation of the Race to the Top initiatives. On behalf of the Statewide System for Vision Services I commit the resources, including the expertise of our personnel, to advance the implementation of the Race to the Top priorities.

Sincerely,

Patrick D. Clancy
Superintendent of the Iowa Braille School
Administrator for the Statewide System for Vision Services

Iowa Business Council
100 East Grand Avenue, Suite 160, Des Moines, Iowa 50309

Phone: 515-246-1700
Fax: 515-246-1701
E-mail: ibc@iowabusinesscouncil.org
Web site: www.iowabusinesscouncil.org

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May 4, 2010

The Honorable Chester J. Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, Iowa 50319

Re: Application by the State of Iowa to the U.S. Department of Education for *Race To The Top* Funding

Dear Governor Culver,

The Iowa Business Council offers its strong support to the efforts of your office and the Iowa Department of Education to secure funding for the Obama Administration's *Race To The Top* initiative administered by the U.S. Department of Education.

The ability of Iowa business to succeed in the intensely competitive environment of the world marketplace will depend on the skills and knowledge of its workforce. Continued movement toward a technology-driven economy has created a critical need for Iowa's workers of the future to be proficient in math, science, reading, comprehension, and other disciplines. Quality teachers and a strong education system are paramount to building the future workforce base. It is also essential to have healthy and vibrant post-secondary education institutions that promote research and development, catalyze innovation, and incent commercialization while supplying the state with the intellectual capital necessary for a knowledge-based economy.

The Iowa Business Council supports changes in the delivery of Iowa's preK-16 education system that will:

- spur student achievement in key subject areas, e.g., math, science, reading, problem solving, creative thinking, team building, cultural awareness, foreign languages, financial literacy
- promote excellence and ethics in all aspects of performance and moral character strengths needed for 21st Century skills, e.g., effort, diligence, work ethic, positive attitude, self-discipline, honesty, respect, dependability, integrity
- encourage and facilitate professional development for teachers and meaningful assessment of their performance
- drive administrative efficiency throughout
- enhance a meaningful lifelong learning experience

In turn, sustainable funding resources must be established for other value-added areas such as teacher compensation, reductions in student tuition, and certified early childhood education for all children.

Thomas C. Aller
Alliant Energy Corporation
Chair

Scott A. Asbroek
HPM Corporation
Vice Chair

John K. Sorensen
Iowa Bankers Association
Treasurer

Max A. Phillips
Owen
Immediate Past Chair

Benjamin J. Allen, Ph.D.
University of Northern Iowa

W. Kim Austen
Allied Insurance

Craig R. Barrett
Pat Quiet Challenge

William J. Fabrowski
Hypertherm Energy Services

John D. Forsyth
Wellmark Blue Cross Blue Shield

Gregory L. Geoffroy, Ph.D.
Iowa State University

Clayton M. Jones
Rockwell Collins, Inc.

Richard N. Jurgens
Hy-Vee, Inc.

William B. Lawler
MidAmerican Energy Holdings

Sally Mason
University of Iowa

Patrick J. Moore
PepsiCo Beverages

Mark C. Oman
Wells Fargo & Company

Jean E. Robillard, M.D.
University of Iowa Hospitals & Clinics

John Ruan III
Ruan Transportation Management Systems

Barry W. Schaffer
Deere & Company

Paul E. Schaefer
Alliance HealthONE Iowa, Inc.

James T. Sutter
Cargill, Inc.

David N. Vittinghoff
Mercy Health Network

Robert L. Vermeer
Vermeer Corporation

Larry D. Zimpleman
Principal Financial Group

Elliott G. Smith
Executive Director
Iowa Business Council

Governor Chet Culver
May 4, 2010
page two

The Iowa Department of Education has extensive experience engaging leaders from business, government, education, and communities around Iowa to encourage and promote the implementation of innovative, rigorous core curriculum subject matters. Representatives of Iowa Business Council member companies and institutions have collaborated with the Department over the years to identify methods of outreach and secure sustainable resources for motivating primary and secondary school-age students to participate in a broad-based core course of study. The *Race To The Top* initiative evidences exceptional beneficial promise for the education system in Iowa as well as the long-term welfare of the business community in this state.

With every confidence of achieving these outcomes, the Iowa Business Council commits to working with you, Governor, and the Iowa Department of Education to effectively align and implement the plans that *Race To The Top* funding will help achieve. The Council firmly believes the dedicated education and business leaders of this state will serve the *Race To The Top* initiative with honor and distinction. My signature below represents support for this designation by many of the state's largest corporations and universities.

On behalf of the members of the Iowa Business Council,

(b)(6)

Tom Aller
Chair, Iowa Business Council
President, Interstate Power and Light Co., an Alliant Energy company

* *

Founded in 1985, the Iowa Business Council is a non-partisan, non-profit, self-funded organization whose members include the top executives of 20 of the largest businesses in the state, the three Regent university presidents, and the state's largest banking association. The purpose of the Council is to engage the personal commitment of these executives in active leadership roles on major initiatives that offer opportunity to enhance Iowa's overall economic vitality. ***Collectively,*** IBC companies and institutions employ nearly a quarter million Iowans and have committed billions of dollars of capital investment in the state. Annually, they account for several hundred million dollars in financial contributions and volunteer hours donated to numerous charitable causes, and lead in technology innovation by investing their own resources and procuring millions in grants for research and development. More information is available on the Web by visiting **www.iowabusinesscouncil.org**.

855 East Court Avenue
Des Moines, Iowa 50309

Phone: (515) 282-4692
Fax: (515) 282-3743

Area I
Northeast Iowa Community College

Area II
North Iowa Area Community College

Area III
Iowa Lakes Community College

Area IV
Northwest Iowa Community College

Area V
Iowa Central Community College

Area VI
Iowa Valley Community College District

Area VII
Hawkeye Community College

Area IX
Eastern Iowa Community College District

Area X
Kirkwood Community College

Area XI
Des Moines Area Community College

Area XII
Western Iowa Tech Community College

Area XIII
Iowa Western Community College

Area XIV
Southwestern Community College

Area XV
Indian Hills Community College

Area XVI
Southeastern Community College

May 7, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Via email: bonnie@westwinded.co

Dear Governor Culver,

As Chairs of the Iowa Associations of Community College Trustees and Presidents, we write to express our support of Iowa's participation in the *Race to the Top*. The Community Colleges not only have close ties with Iowa's K12 systems and students, but we are invested strongly in helping all Iowa students obtain the skills needed for success in the competitive global world.

Singly and as a group, Iowa's Community Colleges are ready to join in a serious effort to move our state's and our nation's educational systems into the future. We support the drive to retain and graduate more students, to smooth their transition to college education, and to support them to attainment of higher level certificates/degrees. As open door institutions, we share a commitment to not only increase access to college but to significantly improve college student achievement. Iowa's plan to make the best quality K12 education available to all students, no matter where they reside, is something the Community Colleges can help with since we span the state. We work closely with area superintendents and Area Education Associations to articulate our programs with high schools, to offer opportunities to begin college to numerous high school juniors and seniors, and to help prepare teachers who make a difference in our schools.

We have carefully reviewed Iowa's plan to support the *Race to the Top* for Iowa students and we plan to support all of its goals. In particular, Iowa's Community Colleges hope to engage in the innovative new teaching and learning models/formats that span K12 through college. Because we so often work with "at-risk" students, and provide a second chance for high school drop-outs, we are eager to assist in any efforts to increase the chances of success for these underachieving students.

Iowa's Community Colleges are committed to working singly and as a group to support the implementation of the plans outlined in Iowa's *Race to the Top* proposal.

Sincerely,

Conrad Dejardin Patricia A. Keir

Conrad Dejardin
Chair Iowa Association of
Community College Trustees
Trustee Iowa Valley Community
College District

Dr. Patricia Keir
Chair, Iowa Association of
Community College Presidents
Chancellor, Eastern Iowa Community
College District

May 21 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver

I would like to introduce myself to you. My name is Claire Leonard and I am the President of the Iowa PTA and also a mother to a college student here in Iowa. I have been involved with the PTA since my daughter started school here in Cedar Rapids 14 years ago. With my involvement in the schools all these years I have seen many things change in the school system and am concerned about some of those changes, mostly where it appears to me that the students needs are not being met. It is sad to me that so many students don't seem to get the opportunity to learn some of the unique and often the more appreciated lessons that come from the fine arts departments due to budget cuts, as well as the larger class sizes due to staff cuts.

The National PTA has worked for years to encourage the commitment of parents to help their children to become better citizens in the community, which starts with their school community. To be able to accomplish this, these students need to learn about the importance of education. The NPTA has developed national standards to teach parents, students and staff how to work together to reach this goal. So when I was asked to join the Race to the Top advisory group it became clear to me that these two groups are connected with our desire to bring a better Iowa and making sure that the children are our first priority.

My hope is that Iowa will be able to take advantage of RTTT funds to accomplish the four major projects that will continue to make Iowa a place that other states will envy. Being able to achieve goals that are listed in the application criteria including the competency-based instruction, balanced assessment systems, teacher and administrator evaluation and support, and supporting our persistently lowest achieving schools will go along way in making Iowa that State.

The mission and purpose of the NPTA reads "The National PTA was created to meet a profound challenge: *to better the lives of children*. It continues to flourish because PTA has never lost sight of the goal to change the lives of children across our nation for the better. The beliefs on which PTA operates are stated in its Mission." With this in mind it is apparent that anyone that works for the children of Iowa wants to encourage you to help *"Better the lives of children."*

Sincerely,

Claire Leonard
IPTA President

MIKE GRONSTAL
STATE SENATOR
Fiftieth District
Pottawattamie County
Office: (515) 281-4610
Fax: (515) 281-3361

—

HOME ADDRESS
220 Bennett Avenue
Council Bluffs, Iowa 51503
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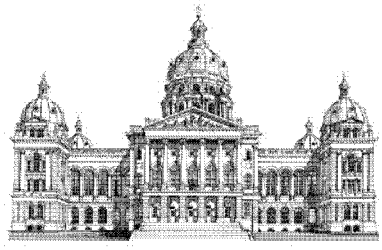
michael.gronstal@legis.state.ia.us



The Senate
State of Iowa
Eighty-third General Assembly
STATEHOUSE
Des Moines, Iowa 50319

SENATE
MAJORITY LEADER

Rules and Administration, *Chair*

May 17, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver,

As the Iowa Senate Majority leader, I believe that education is the top priority and the top responsibility of state government. I am proud of the efforts we have made in supporting an enhanced education data system and warehouse, the development of the Iowa Core Curriculum, and our nationally recognized Teacher and Administrator Quality legislation.

The Iowa Senate is committed to education reform. We have a strong education system and continually work to improve our student achievement. That is why we are supportive of the Iowa Department of Education and your effort in obtaining a Race to the Top grant to help Iowa implement our 21st Century Iowa Core Curriculum. We have shown our commitment to this reform endeavor by passing SF 2033, a bill that modifies our Code to more fully support the Race to the Top goals and mission for our students.

Iowa's education system has a long history of working together for our students. In SF 2033, we encourage schools to do things differently – to be innovative in order to increase our student achievement, close the achievement gaps in our schools and raise our graduation rates. We have new laws that allow Innovation Zone Schools and Consortiums. These new innovation zones will lift some regulations and requirements from schools in order for them to do things differently, to think outside the box and pilot new ideas for what education should look like in the 21st century.

Iowa is in a unique position to use our strong educational system to pilot and test new models of innovative education reform that will be beneficial for the rest of the nation. I am excited about this great opportunity for Iowa students and for the significant impact our work could have on what schools and education should look like for all children.

Sincerely,

Michael Gronstal
Iowa Senate Majority Leader

STATE OF IOWA

HOUSE OF REPRESENTATIVES
STATE CAPITOL
DES MOINES, IOWA 50319

OFFICE OF THE SPEAKER

Patrick J. Murphy

OFFICE 515-281-5566
FAX 515-281-3846
PAT.MURPHY@LEGIS.STATE.IA.US

May 17, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 E. Grand Avenue
Des Moines, IA 50319

Dear Governor Culver:

As Speaker of the House, I wish to express my enthusiastic support for Iowa's Race to the Top application. From a legislative perspective, I feel that we have made important strides in recent years toward improving Iowa's education system, including adoption of the Iowa Core Curriculum as well as substantial new investments in statewide voluntary preschool programs, teacher salary improvements, and post-secondary education. Race to the Top provides an exciting opportunity to implement education reform on a more comprehensive basis.

I am pleased that the federal government has made this substantial commitment to educational innovation and reform, and I appreciate your leadership in promoting Iowa's participation in this historic partnership. As we move forward, I remain committed to working in concert with your office and with other stakeholders at the national, state and local levels to achieve Iowa's Race to the Top priorities.

I view education reform as a continuum whereby we build upon existing methods to create better learning opportunities to benefit current and future generations. In this regard, Race to the Top is a significant step that will add value to Iowa's current education system and move us to the next level.

Yours Truly,

Patrick J. Murphy

May 4, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver,

I am writing on behalf of the Iowa Special Education Advisory Panel to voice support for Iowa's Race to the Top proposal.

The Special Education Advisory Panel is comprised of parents, teachers, educational administrators, and state agency officials. This panel serves as a resource to advise the Iowa Department of Education on behalf of all children with special needs and their families. The purpose of the panel is to provide policy guidance with respect to special education and related services for children with disabilities.

Iowa's Race to the Top proposal offers several goals and plans that hold significant promise for students with special needs. Specifically, Iowa's students with special needs will benefit from the competency-based system that is tied to Iowa's Core Curriculum in the proposal. That system is designed around increasing the achievement of all students, with a focus on closing the achievement gap between students with disabilities and those without disabilities. Such a focus is vital to ensuring success for the students that our panel members represent. The panel is also excited by Iowa's goal to implement innovative approaches to learning opportunities through new arrangements for teaching—such as collaborative teaching—and more community engagement in learning. Another key benefit of the proposal is its alignment to Iowa's State Performance Plan, a federal requirement in which each state sets goals and targets for students needing special education. Iowa's State Performance Plan and the Race to the Top proposal both call for the use of data on student achievement and growth to inform and improve instruction. . The panel recognizes the tremendous potential for success when the Race to the Top and the State Performance Plan efforts are aligned.

Although each member of the Special Education Advisory Panel has a unique perspective, the panel shares a passion and commitment to ensuring that the needs of persons with disabilities are met. This group is optimistic about the current direction of Iowa special education and the promise inherent in Iowa's Race to the Top proposal.

We look forward to working collaboratively with partners throughout the state to implement the goals and plans identified in the Race to the Top proposal.

Sincerely,

Vicki Goshon
Chair, Iowa Special Education Advisory Panel

ISEA Great Education. It's An Iowa Basic.

Iowa State
Education Association

777 Third Street
Des Moines, IA
50309-1301
tel 515.471.8000
fax 515.471.8017
www.isea.org

An affiliate of the
National Education
Association

May 10, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver:

On behalf of the 34,000 teachers, education support professionals, area education agency staff, community college faculty and staff, retired educators, and college students that comprise the Iowa State Education Association (ISEA); we support Iowa's application to the United States Department of Education for Race to the Top funding.

The members of the ISEA are committed and talented professionals that want nothing more than to see every student succeed in education and in life. They are passionate about the work to which they are dedicating their lives and they believe a quality public education is the key to their students' future.

As an organization that values collective action, we have been pleased to be a part of the Advisory Group and the work groups that helped draft the states' application. We have been impressed with the collaborative approach adopted by the Iowa Department of Education in developing this important application and policy framework. We stand prepared to continue supporting this work when the application turns to implementation.

Far too often in education, we begin initiatives and do not see them through before a new initiative is added. We appreciate the fact the Iowa application allows us to focus on the careful and deliberate implementation of a major initiative already underway in Iowa, the Iowa Core. This endeavor is designed to sustain teachers' efforts to take learning to a deeper level in a student-based approach that focuses on essential concepts and skills in literacy, math, science, social studies, and 21st century learning skills.

As educators, we know an over-reliance on high-stakes, standardized tests is not an appropriate method to measure student learning and are pleased that Iowa's application for Race to the Top funding recognizes this as well. The emphasis of the application on working with local educators to develop multiple

high-quality measures of student growth will deepen our members' abilities to make effective instructional decisions.

Our Association will support our members who have agreed to take part in the Race to the Top effort. The application calls on our members at the local level to help develop and implement actions that will lead to enhanced students learning. We are confident the collaborative tone established through the drafting process and called for in the application will lead to the best possible outcomes for our students. Our Teacher Quality Committee process taught us all a great deal about the importance of working together in the school community. Hopefully the lessons we have learned in that process will be applied to the implementation of the Race to the Top effort, allowing teachers a strong voice in the implementation of the grant.

Sincerely,

(b)(6)

Chris Bern
ISEA President

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Office of the President
1750 Beardshear Hall
Ames, Iowa 50011-2035
515 294-2042

May 24, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver:

Iowa State University is very excited about the prospect of the Raise to the Top grant award and we are pleased to offer our support to the Iowa Department of Education's RTTT application. The education and preparation of future teachers and administrators for our PK-12 schools has long been a high priority for Iowa State University. In addition, we have a continuing to support the professional development of practicing teachers and administrators, and to conduct research investigations that directly manifest in the improvement of classroom instruction and learning.

Iowa State's program of education has a rich history of success dating back to 1871 with the establishment of Home Economics Education, with the program in Agricultural Education following in 1911. Today there are 16 undergraduate licensing areas, six added endorsement programs, and six graduate licensing areas, and a testament to the level of quality of these programs came in 2005 with the successful re-accreditation of the teacher education program by the Iowa State Board of Education at the State Department of Education.

This program epitomizes the University's commitment to the land grant mission, including the principal that higher education should be accessible to all and that the university should teach liberal and practical subjects. Iowa was the first state to accept the provisions of the Morrill Act establishing the nation's land-grant universities, and Iowa State University subsequently pioneered the establishment of Extension – extending the university's knowledge to people throughout the state.

Equipped with the broad and specific knowledge and skills necessary for effective teaching, new teachers from Iowa State begin their careers in a variety of educational settings ranging from the Pre-kindergarten level through the 12th grade. Since its first graduating class in 1872, Iowa State has graduated more than 20,000 teachers who have influenced the lives of millions of young people. Our graduates now teach in all 50 states and in several foreign countries. Today, hundreds of thousands of children, from birth through 12th grade, are directly influenced by these graduates as they contribute to the development of productive and successful global citizens.

Examples of scholarship produced by teacher education faculty members that directly impact PK-12 student learning are:

- *CAREER: Constructing Coherence: Elementary Teachers' Strategies for Using Standards-Based Mathematics Curriculum Materials* by Dr. Corey Drake;
- *Enhancing Education Through Technology (E2T2)* by Dr. Gary Phye;
- *Humanizing Science to Improve Post-Secondary Science Education: Pursuing the Second-Tier* by Michael Clough; and
- *Iowa Dual Immersion and Elementary School Foreign Language Project* by Marcia Rosenbusch.

The ISU Educational Leadership and Policy Studies Department (ELPS) is a nationally recognized and highly ranked academic unit. In the 2009 *U.S. News and World Report* ranking, two ISU ELPS programs were ranked among the top 20 public university programs – Counseling and Personnel Services 18th and Higher Education 13th. In addition, in the Faculty Scholarly Productivity Index (FSP Index), administered by Academic Analytics, ELPS ranked 6th among the top programs in the General Education category for 2006-2007. ISU's Department of Curriculum and Instruction is also home for the Center for Excellence in Science, Mathematics, and Engineering Education (CESMEE), whose mission is to promote excellence in these areas through collaboration and research with STEM teachers, teacher educators, and practitioners in the Iowa, the nation, and the world.

Iowa State University also has a successful history in working closely with the Iowa Department of Education and with Iowa's school districts, administrators, teachers and students. We believe strongly that Iowa State can be an excellent resource to the State and to the Department of Education in efforts to achieve equity in teacher distribution, improve collection and use of data, enhance the quality of academic standards and assessments, and support struggling schools.

Thank you for your leadership in improving education in Iowa and in the Race for the Top competition. Iowa State University is committed to supporting these efforts.

Sincerely,

Gregory L. Geoffroy
President

Chester J. Culver, Governor

Patty Judge, Lt. Governor

Elisabeth Buck, Director

IOWA WORKFORCE DEVELOPMENT
Smart. Results.

May 3, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Re: Race to the Top

Dear Governor Culver,

Iowa Workforce Development has a long established interest in the education of Iowans. We have developed a strong and lasting relationship with the Department of Education and will collaborate with them to provide the necessary foundation to continue our students' quest for higher education and to become members of a skilled Iowa workforce.

I am pleased to provide this letter of support for the "Race to the Top" Application as part of the competitive grant program of the 2009 American Recovery and Reinvestment Act. Under this grant, Iowa has the opportunity to receive up to $200 million. Over the next four years, funds from "Race to the Top" will provide resources for Iowa to: create competency-based instruction for schools; establish a system of multiple measures for student's performance; create an architecture for capturing and reporting aggregated data; provide a more individualized approach to student performance and professional development for educators; and assist persistently lowest-achieving schools with the necessary services that will raise achievement and close learning gaps.

Iowa has already created the Iowa Core which helps teachers focus on research-based essential concepts and skills in literacy, math, science, social studies, and the 21st century learning skills in the areas of civic, financial, technology, heath and employability skills. The Iowa Core has established the basis and the funds from "Race to the Top" can bring Iowa's education system into the next century.

The result at the end of the four years will be a strong, innovative, and improved education system that produces Iowa leaders who are prepared to face the challenges of the global economy.

Sincerely,

Elisabeth Buck

Elisabeth Buck
Director

1000 E Grand Avenue • Des Moines, IA 50319 • 515-281-5387 • 800-562-4692 • www.iowaworkforce.org
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School Administrators of Iowa

12199 Stratford Drive, Clive, Iowa 50325 ● phone 515.267.1115 ● fax 515.267.1066 ● www.sai-iowa.org

May 7, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver,

I direct the Wallace Foundation's $1.5 million school leadership grant award to the state of Iowa. We recently were cited by an independent RAND study as having one of only three states to have the most cohesive school leadership system in the entire Wallace network of funded states. I have also been an advisor to Iowa's Race To The Top application writers by serving on two work groups, State Success Factors and Quality Teachers/Quality Leaders.

In my capacity as the director of the Wallace Leadership grant, I have had the privilege to oversee the establishment of leadership standards for school administrators; model evaluation processes and tools for evaluating principals, superintendents, and central office personnel; a host of professional development opportunities to support leaders' skills in improving student achievement; and supportive conditions such as policy development, resource allocation, central office redesign to support principals in their work to increase student achievement; the revision of administrator preparation programs; and other related initiatives. This focus on school leadership is vital, given the research that indicates that, second only to the quality of the teacher in the classroom, the quality of the leaders in the building and the district impacts student achievement the most. We must have high quality leaders to create systems in which teachers and student can flourish.

It is for these reasons that I am enthusiastic about Iowa's Race To The Top application. Its emphasis on systemic improvements that will enable Iowa to implement our bold Iowa Core Curriculum proposals holds much promise for improving educational outcomes for each and every learner in our state, and for showing other rural states how this can be accomplished in spite of challenges of declining enrollment, geographic distances, and changing demographics. The acknowledgment in the proposal about the important role that school leaders play in accomplishing this vision is robust and holds administrators to high standards. This is an essential component of true reform.

Sincerely,

(b)(6)

Troyce Fisher, Ed. D.
Director, Wallace Leadership Grant for Iowa

School Administrators of Iowa

12199 Stratford Drive, Clive, Iowa 50325 ● phone 515.267.1115 ● fax 515.267.1066 ● www.sai-iowa.org

May 10, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver,

I am the executive director of the School Administrators of Iowa (SAI). SAI represents all of Iowa's school administrators including elementary principals, secondary school principals, and superintendents.

The School Administrators of Iowa is committed to helping Iowa schools achieve excellence. Out motto is "linking leadership and learning." The work SAI is doing to accomplish this motto has been nationally recognized by several agencies.

The work of our organization will be enhanced by the goals and plans that are a part of Iowa's Race to the Top application. SAI is especially excited about moving toward a competency-based system, enhancing the work of professional learning communities, and fostering community engagement in learning. We believe in balanced assessment systems and the importance of professional development and support. SAI has also been very involved in teacher and administrator evaluation and support.

SAI appreciates the Iowa Department of Education listening to our specific concerns regarding various aspects of the second MOU and making appropriate changes or clarifications.

Race to the Top is an opportunity for Iowans to come together to build upon our historic accomplishments in education. The additional funding will be a critical component to energize the vision included in this plan.

Sincerely,

Daniel H. Smith
Executive Director
School Administrators of Iowa

May 5, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver:

The Greater Des Moines Partnership (Partnership) is writing in support of the efforts of your office and the Iowa Department of Education to secure funding from the *Race to the Top* initiative now under consideration.

The Partnership strongly believes that a quality education system with workforce connections is a critical component of effective economic development. Tomorrow's workforce requires high-level reading, structured problem solving and effective oral and written communications skills, along with the ability to work in diverse groups. The readiness of Iowa's workforce will determine Iowa's economic security, prosperity, and quality of life.

The Partnership supports changes in the delivery of Iowa's pre K-12 education system that will:

- Establish state-level 21st Century learning standards and assessments focused on student achievement
- Implement the Iowa Core Curriculum with deliberate speed and align it with comprehensive student assessments that accurately measure critical learning skills at a comparative level globally, including the immediate implementation of a writing assessment.
- Align the Iowa Core Curriculum with career pathway maps to build a stronger connection between the K-12 education system and the Iowa business community.
- Improve and enhance existing technology tools to better connect the workforce needs of businesses to school curriculums and students assessing future career pathways.
- Fully implement a career ladder to provide teachers enhanced merit-based compensation and more professional development opportunities for career advancement to enhance recruitment and retention of quality teachers.
- Increase the utilization of flexible and innovative school reform models such as charter schools.
- Increase focus on science, technology, engineering, and mathematics (STEM) learning.
- Implement initiatives to improve graduation rates.

- Evaluate reform efforts to further implement year-round school and lengthen the school day and school calendar year, which could arguably improve student achievement, reduce juvenile crime, improve current workforce productivity, and better prepare Iowa's future workforce.

Iowa has a proud history of global leadership in educational achievement. The Partnership believes that implementing the *Race to the Top* opportunity will assure that we continue this leadership in education. In turn, it assures that Iowa and its citizens will enjoy prosperity and growth in the decades to come. We believe that educational, business, and public leaders will work together to maximize the benefits of the *Race to the Top* opportunity.

Sincerely,
(b)(6)

Martha A. Willits
President & CEO

May 6, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver,

Realizing Educational and Career Hopes (REACH) is an innovative, two year non-degree program for students with multiple learning and cognitive disabilities at The University of Iowa. We are in our second year of operation and are serving 34 students who live in the residence hall, take specially designed courses, and participate in internships in community businesses. Already REACH has seen many remarkable outcomes in the skills and self-sufficiency of its students. Most REACH students are from Iowa and their families never envisioned that an opportunity for post-secondary education and an integrated "college" experience would be possible for their sons and daughters. These deserving young men and women, because of the unique opportunities for living and learning they are receiving at REACH, will return to their home communities better prepared to work successfully and participate actively in an inclusive community life than would have been possible without this educational opportunity.

REACH is part of the Department of Teaching and Learning in the College of Education. As such many individuals preparing to be teachers and professionals in such fields as vocational rehabilitation, counseling, and school psychology have an opportunity to be better prepared to serve Iowa children and families in need. Faculty and students in these and other programs participate actively in REACH in many different ways – for the benefit of the REACH students as well as for the benefit of the men and women preparing to improve the life outcomes of Iowa's students and families.

Working together the educational achievement and life outcomes of all of Iowa's children will be enhanced, and we at REACH are dedicated to collaborating in any way that we can to implement the Race to the Top proposal which targets schools in greatest need.

Iowa and The University of Iowa are well recognized for excellence in education. Implementation of the Race to the Top holds great promise for sustaining and improving student, school, and community achievement. Thank you for your support of this important initiative!

Sincerely,

(b)(6)

Jo Hendrickson, Director
REACH

(A)(2)-2 con't

OFFICE OF THE PRESIDENT
101 Jessup Hall
Iowa City, Iowa 52242-1316
319-335-3549
Fax 319-335-0807

May 4, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver:

The University of Iowa offers its strongest support for the Iowa Department of Education's application for a Race to the Top grant. Education is the UI's top priority, including the highest quality training of tomorrow's finest teachers for the students of our state. Our College of Education was founded in 1872 as the nation's first permanent college-level department of education. Today, the College enrolls approximately 1,000 Teacher Education Program undergraduates and 900 graduate students. Eighty percent of Iowa's K-12 school districts employ UI graduates as teachers and administrators. Iowa's graduates boast a professional retention rate significantly higher than the 50% national average: 75% of our education graduates from the years 1995-1999 remain in teaching, with another 7% moving into other educational areas such as counseling or administration. The College enjoys an international reputation for innovative teaching methods, cutting-edge research, and wide-reaching service. Our College of Education boasts the #4 Rehabilitation Counseling graduate program in the country, with five additional programs in the top 25.

The UI College of Education is committed to providing the highest quality, most up-to-date training for our state's teachers and other educational professionals. Excellent teachers are key to student success, and we are committed to making sure that the state maintains and enhances its national top-tier leadership in education. The following are some of our most significant areas of excellence:

- The College of Education is a national leader in technology. Its history of embracing technology to empower learning stems from such practical inventions as the first automated scoring machine to the recent advancements infusing multimedia into the teacher-training program with the Iowa ePortfolio project, which provides new graduates with a set of integrated digital tools.
- The College is home to the Iowa Testing Programs, an international leader in the field of educational testing and measurement. The Iowa Tests of Basic Skills and the Iowa Tests of Educational Development, both developed by Iowa Testing Programs, are widely used throughout the United States and Canada. Iowa City has become the site of a thriving testing industry thanks to the contributions, research, and expertise of Iowa Testing Programs personnel and the College. This includes the headquarters of ACT, which spun out of UI research.

- The College is a national and international leader in gifted education. The Connie Belin & Jacqueline N. Blank International Center for Gifted Education and Talent Development, founded in 1988, is dedicated to research and service in gifted education. This Center trains teachers to work with gifted students in their classrooms or to become Advanced Placement teachers. Weekend and summer workshops provide an enriched curriculum for the state's gifted students. The Center also conducts research and programs in gifted education in rural schools.
- The College's mathematics and science programs have received national recognition for classroom material development and innovative instructional delivery methods.
- In the College's most recent review by the Iowa Department of Education, special recognition was given to its technical accomplishments and the technical resources and services available to faculty, staff, and students. The College has paid special attention to and received recognition in the area of assistive technologies for learners with disabilities.
- The College is a resource for teachers, administrators, and communities throughout the state and has formed a number of partnerships with Iowa community school districts to create and investigate new methods of learning and teaching. For example, faculty in the Language, Literacy, and Culture Program work collaboratively with K-12 teachers. Through the Reading Recovery Center of Iowa, educators are trained to teach disadvantaged readers. Faculty assist school districts with curriculum development, provide consultation and counseling services, and administer workshops for professional development and continuing education.

As is evident from the above strengths, the UI is ready and eager to provide leadership, training, and support for crucial areas of Iowa's RTTT plan. As an internationally renowned center for assessment and measurement, the UI can and will play a major role in such major areas as using information on student achievement and growth to inform and improve instruction, as well as major state projects as competency-based instruction, balanced assessment systems, and teacher and administrator evaluation. Through our partnerships in multiple areas, we will continue to take a direct role in improving Iowa students' achievement, including in lowest-achieving schools. Thanks to our cutting-edge research and instructional innovations, our faculty, through their instruction of the next generation of teachers, can play a major role in the continuous process of creating new learning opportunities and environments that will best aid Iowa's students in acquiring the concepts and skills that are central to the Iowa Core.

Education in Iowa has long been one of our state's critical strengths and points of pride. The future of education in Iowa remains bright as we strengthen and deepen our commitment to our students, develop new visions and innovations for their learning, and enhance the collaborative spirit that has always marked our work. The Race to the Top grant will be invaluable to implementing Iowa's educational priorities and plans and ensuring Iowa's high student achievement in the coming years.

Sincerely,

Sally Mason

Sally Mason
President

University of Northern Iowa
Department of Special Education

May 3, 2010

The Honorable Chet Culver
Office of the Governor
State Capital
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver:

The purpose of this letter is to offer support for Iowa's Race to the Top Application for funding. The Department of Special Education at the University of Northern Iowa has a longstanding commitment to education in Iowa. We demonstrate this commitment through the preparation of high qualified teachers and research and service that leads to the improvement of pre K – 12 education. All of the faculty members in Special Education actively participate in one or more initiatives to improve the quality of services for children with disabilities in Iowa.

The Department has been engaged in numerous activities to improve education for Iowa children over the past ten years. First and foremost is our longstanding commitment to address the chronic shortage of special education teachers in the state. We have addressed this concern or priority by not only recruiting and preparing highly qualified teachers at UNI, but working closely with the State Department of Education to provide coursework to teachers who are on conditional or temporary special education licenses. Second, our faculty have been engaged in ongoing efforts to conduct research and professional development activities for teachers. For example, The Center for Disability Studies in Literacy, Language, and Learning has recently been established to engage in research and provide resources and support to families and teachers in Iowa. Similarly, our faculty have collaborated with state personnel in examining ways to improve vocational training for adolescents with disabilities, support novice special education teachers, support inclusion for children with special needs. Our faculty are committed to continuing and extending these activities over the next year.

Several of Iowa's priorities for the Race to the Top are especially promising to our Department. For example, one goal is to ensure that all students acquire the essential concepts and skills embodied in the Iowa Core. Curriculum. This will entail developing learning environments and approaches that are not only innovative, but effective for children who present significant learning challenges. The Department of Special Education is anxious to collaborate with the state on this priority. A second goal is to improve schools that have faced persistent difficulties with student achievement. Numerous faculty in our Department have both the expertise and commitment to collaborate with the state in implementing effective school intervention models. These two initiatives are especially promising because they fit our current activities, as well as our vision of the role that our department should assume in supporting Iowa education.

IN closing, the State of Iowa has a reputation for providing one of the finest educational systems in the nation and I am confident that plans that Race to the Top funding will lead to even greater accomplishments. On behalf of the Department, I wish to offer my support and commitment to continuing to support activities to lead to the improvement of education in Iowa.

150A Schindler Education Center • Cedar Falls, Iowa 50614-0601 • Phone: 319-273-6061 • Fax: 319-273-7852 • www.uni.edu/coe/specialed

Department of Special Education

University of Northern Iowa

Sincerely

Dr. Frank W. Kohler

Interim Head and Professor

Department of Special Education

University of Northern Iowa

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Office of the President

University of Northern Iowa

May 4, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver:

The University of Northern Iowa (UNI) is pleased to write a letter of support for Iowa's Race to the Top proposal. UNI has a long history of working collaboratively with the Iowa Department of Education, Area Education Agencies, and local education agencies to provide effective educational practice in Iowa's schools. As the largest teacher preparation institution in Iowa, UNI graduates approximately 550 educators annually. UNI's alums provide significant leadership in Iowa schools as reflected by data from the 2008 – 2009 academic year where 23 percent of Iowa's teachers and 29 percent of Iowa administrators had earned at least one degree from UNI. In addition, UNI's Price Laboratory School (PLS), with the proposed Research and Development School at UNI, has established a unique partnership with the Iowa Department of Education (IDE) to provide leadership and model innovative practices that are shared with Iowa's educators. The collaborations between the Iowa Department of Education and UNI will provide a significant resource in implementing the Iowa Core and supporting each student in acquiring the essential concepts and skills for future success.

The University of Northern Iowa is committed to working as an active partner with the Iowa Department of Education and other educational entities to support the Iowa Core vision that each student graduates prepared for college, a career, and citizenry. UNI faculty has been engaged in this partnership by providing leadership for the development and implementation of the Iowa Core. Each of the Iowa Core writing committees included UNI faculty and the Price Laboratory School faculty have partnered with the IDE and Area Education Agency consultants to develop and deliver professional development instruction focused on the Iowa Core.

The UNI teacher education faculty has participated in professional development preparation that has targeted the pedagogy supporting the Iowa Core. The teacher education program has embedded the Teacher Work Sample (TWS) in clinical experiences. The TWS is completed under the supervision of UNI faculty during the required field experiences at PLS and during student teaching. The TWS provides a framework for competency-based instruction and a balanced assessment for student learning and program development. These examples reflect the commitment and engagement of the University of Northern Iowa with IDE initiatives, and UNI remains dedicated to collaborating on future innovative activities.

20 Seerley Hall • Cedar Falls, Iowa 50614-0705 • Phone: 319-273-2566

One of the University of Northern Iowa's priorities is to prepare great teachers and leaders. UNI's rich tradition in educator preparation provides the foundation for future leadership in preparing professionals for 21st century learning environments. UNI is positioned to support Iowa's Race to the Top proposal by partnering at both the pre-service level as well as through in-service and professional development with practicing professionals.

The Iowa Core provides the overall vision and framework for a systems approach to guide the innovation and change needed for the new mission of education. This vision combined with Iowa's rich tradition of providing quality educational experiences at all levels, PreK – 20, provides the basis for Iowa's students acquiring the essential concepts and skills embodied in the Iowa Core. The University of Northern Iowa anticipates the opportunity to collaborate with the Iowa Department of Education and local education agencies in providing expertise needed to implement the goals identified in Iowa's Race to the Top proposal with the ultimate outcome that EACH student is prepared for college, a career, and citizenry.

Sincerely,

Benjamin J. Allen

Benjamin Allen
President

20 Seerley Hall • Cedar Falls, Iowa 50614-0705 • Phone: 319-273-2566

URBAN EDUCATION NETWORK OF IOWA

Dr. Lew Finch, Executive Director
1543 Bilgarie Ct NE
Cedar Rapids IA 52402
lfinch@mchsi.com
319-329-0547 Cell/Office
319-362-9272 Fax

May 20, 2010

The Honorable Chet Culver
Office of the Governor
State Capitol
1007 East Grand Avenue
Des Moines, IA 50319

Dear Governor Culver,

The Urban Education Network of Iowa (UEN) is comprised of Iowa's eight largest school districts. Collectively, these eight districts enroll nearly 25% of Iowa's public school students, employ approximately 26% of Iowa's certified staff, and educate nearly 52% of Iowa's students of color. Each of these districts includes high percentages of special needs, at risk and low income families. The challenge is daunting.

The UEN continues to advocate for appropriate education of all Iowa students, and each year, has adopted legislative priorities designed to support all students. Each of the eight districts has been on the cutting edge by aggressively initiating innovative programs and services to improve the quality of education for students they serve. However, the challenges posed by under-performing "at risk" students has exceeded the available resources.

Iowa's Race To The Top application and plan includes several initiatives that are consistent with recently adopted goals of the UEN. These include: considering student performance as one factor in the evaluation of teachers; creation of innovation zones that allow school boards and administrators to more aggressively address low-performing schools; the requirement for a turn-around model for persistently low-performing schools; and, development of multiple assessments to determine student performance.

The Urban Education Network of Iowa is ready and willing to work cooperatively with the Iowa Department of Education, the Iowa General Assembly and you, Governor Culver, for the improvement of Iowa's public schools. A successful Race To The Top application would be a tremendous boost to our collective efforts.

Respectfully,

Dr. Lew Finch
Executive Director

Selected NAEP Achievement Charts for Iowa, 1992-2009, and Iowa Testing Program Results, 2001-2009

Attached are "State Snapshot Reports" including information on Iowa's student achievement on NAEP in 4th and 8th grade reading and 4th and 8th grade mathematics for 2009, including summary charts from 1992-2009. Following these data sheets are snapshots of Iowa's student achievement on the Iowa Tests of Basic Skills and Iowa Tests of Educational Development from 2001-2009, which indicate student performance on the state's test used for ESEA accountability. The charts demonstrate achievement overall and by subgroup over time.

Data demonstrated include:

- NAEP achievement levels in 4th grade reading
- NAEP achievement levels in 4th grade mathematics
- NAEP achievement levels in 8th grade reading
- NAEP achievement levels in 8th grade mathematics
- Overall student achievement in 4th grade reading on ITBS
- Student achievement in 4th grade reading on ITBS broken down by:
    - gender
    - race/ethnicity
    - socioeconomic status
    - disability status
    - primary language status
- Overall student achievement in 4th grade mathematics on ITBS
- Student achievement in 4th grade mathematics on ITBS broken down by:
    - gender
    - race/ethnicity
    - socioeconomic status
    - disability status
    - primary language status
    - migrant status
- Overall student achievement in 8th grade reading on ITBS
- Student achievement in 8th grade reading on ITBS broken down by:
    - gender
    - race/ethnicity
    - socioeconomic status
    - disability status
    - primary language status
    - migrant status
- Overall student achievement in 8th grade mathematics on ITBS
- Student achievement in 8th grade mathematics on ITBS broken down by:
    - gender
    - race/ethnicity
    - socioeconomic status
    - disability status
    - primary language status
    - migrant status

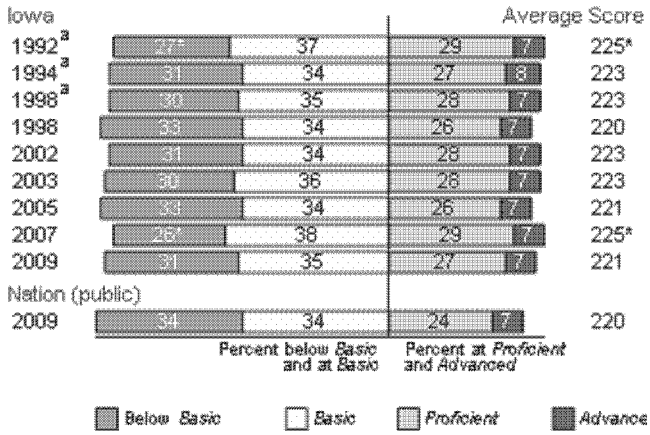
The Nation's Report Card Reading 2009

State Snapshot Report

Overall Results

- In 2009, the average score of fourth-grade students in Iowa was 221. This was not significantly different from the average score of 220 for public school students in the nation.
- The average score for students in Iowa in 2009 (221) was lower than their average score in 2007 (225) and was lower than their average score in 1992 (225).
- In 2009, the score gap between students in Iowa at the 75th percentile and students at the 25th percentile was 45 points. This performance gap was not significantly different from that of 1992 (41 points).
- The percentage of students in Iowa who performed at or above the NAEP *Proficient* level was 34 percent in 2009. This percentage was not significantly different from that in 2007 (36 percent) and was not significantly different from that in 1992 (36 percent).
- The percentage of students in Iowa who performed at or above the NAEP *Basic* level was 69 percent in 2009. This percentage was smaller than that in 2007 (74 percent) and was smaller than that in 1992 (73 percent).

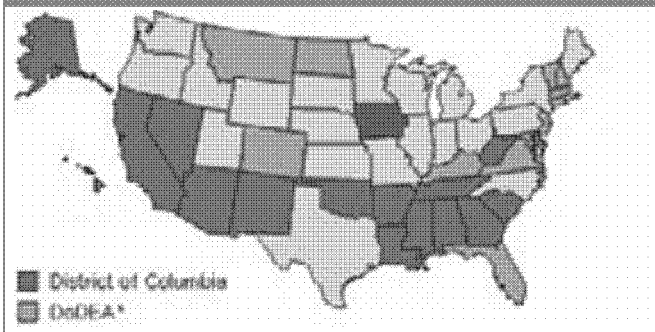
Achievement Level Percentages and Average Score Results



* Significantly different ($p < .05$) from state's results in 2009.
[a] Accommodations not permitted.

NOTE: Detail may not sum to totals because of rounding.

Compare the Average Score in 2009 to Other States/Jurisdictions

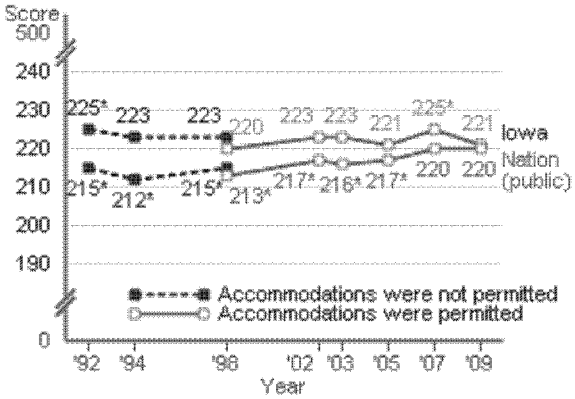


* Department of Defense Education Activity schools (domestic and overseas).

In 2009, the average score in Iowa was

- lower than those in 14 states/jurisdictions
- higher than those in 16 states/jurisdictions
- not significantly different from those in 21 states/jurisdictions

Average Scores for State/Jurisdiction and Nation (public)



* Significantly different ($p < .05$) from 2009.

Results for Student Groups in 2009

Reporting Groups	Percent of students	Avg. score	Percentages at or above *Basic*	Percentages at or above *Proficient*	Percent at *Advanced*
Gender					
Male	51	217	64	29	6
Female	49	226	74	39	9
Race/Ethnicity					
White	84	224	72	36	8
Black	6	203	49	22	3
Hispanic	7	207	53	20	3
Asian/Pacific Islander	2	229	72	46	16
American Indian/Alaska Native	1	‡	‡	‡	‡
National School Lunch Program					
Eligible	37	208	54	21	3
Not eligible	63	229	77	42	9

‡ Reporting standards not met.

NOTE: Detail may not sum to totals because of rounding, and because the "Information not available" category for the National School Lunch Program, which provides free/reduced-price lunches, and the "Unclassified" category for race/ethnicity are not displayed.

Score Gaps for Student Groups

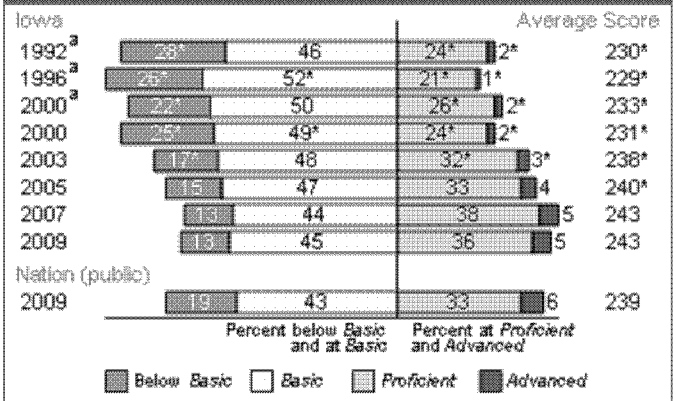
- In 2009, female students in Iowa had an average score that was higher than that of male students.
- In 2009, Black students had an average score that was 21 points lower than that of White students. This performance gap was not significantly different from that in 1992 (18 points).
- In 2009, Hispanic students had an average score that was 16 points lower than that of White students. Data are not reported for Hispanic students in 1992, because reporting standards were not met.
- In 2009, students who were eligible for free/reduced-price school lunch, an indicator of low income, had an average score that was 21 points lower than that of students who were not eligible for free/reduced-price school lunch. This performance gap was not significantly different from that in 1998 (21 points).

NOTE: Statistical comparisons are calculated on the basis of unrounded scale scores or percentages.

Overall Results

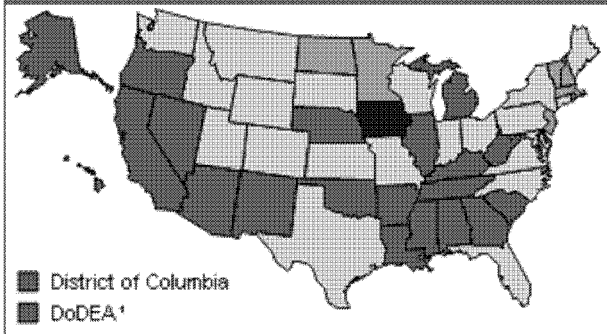
- In 2009, the average score of fourth-grade students in Iowa was 243. This was higher than the average score of 239 for public school students in the nation.
- The average score for students in Iowa in 2009 (243) was not significantly different from their average score in 2007 (243) and was higher than their average score in 1992 (230).
- In 2009, the score gap between students in Iowa at the 75th percentile and students at the 25th percentile was 34 points. This performance gap was not significantly different from that of 1992 (38 points).
- The percentage of students in Iowa who performed at or above the NAEP *Proficient* level was 41 percent in 2009. This percentage was not significantly different from that in 2007 (43 percent) and was greater than that in 1992 (26 percent).
- The percentage of students in Iowa who performed at or above the NAEP *Basic* level was 87 percent in 2009. This percentage ' was not significantly different from that in 2007 (87 percent) and ' was greater than that in 1992 (72 percent). '

Achievement-Level Percentages and Average Score Results



* Significantly different ($p < .05$) from state's results in 2009.
[a] Accommodations not permitted.
NOTE: Detail may not sum to totals because of rounding.

Compare the Average Score in 2009 to Other States/ urisdictions

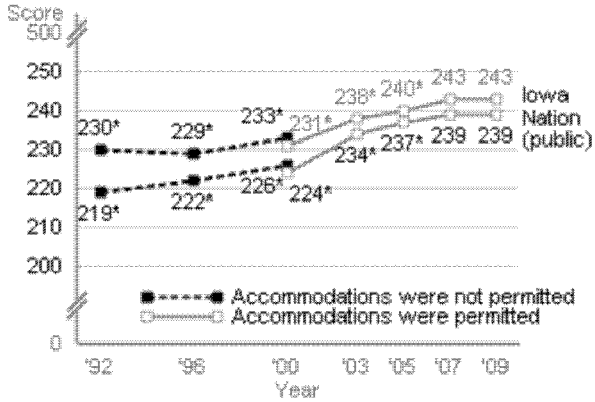


[1] Department of Defense Education Activity schools (domestic and overseas).

In 2009, the average score in Iowa was

- lower than those in 6 states/jurisdictions
- higher than those in 24 states/jurisdictions
- not significantly different from those in 21 states/jurisdictions

Compare the Average Score to Nation (public)



* Significantly different ($p < .05$) from 2009.

Results for Student Groups in 2009

Reporting Groups	Percent of students	Avg. score	Percentages at or above *Basic*	Percentages at or above *Proficient*	Percent at *Advanced*
Gender '					
Male 51		243	87	43	6
Female	49	242	87	40	5
Race/Ethnicity					
White 84		245	90	45	6'
Black 5		226	69	17	1
Hispanic 8		223	64	17	1
Asian/Pacific Islander	2	259	94	66	23
American Indian/Alaska Native	#	‡	‡	‡	‡
National School Lunch Program '					
Eligible 37		232	77	25	2
Not eligible	63	249	93	51	7

Rounds to zero. ‡ Reporting standards not met.

NOTE: Detail may not sum to totals because of rounding, and because the "Information not available" category for the National School Lunch Program, which provides free/reduced-price lunches, and the "Unclassified" category for race/ethnicity are not displayed.

Score Gaps for Student Groups

- In 2009, male students in Iowa had an average score that was not significantly different from that of female students. This performance gap was not significantly different from that in 1992 (1 point). '
- In 2009, Black students had an average score that was 19 points lower than that of White students. Data are not ' reported for Black students in 1992, because reporting standards were not met.
- In 2009, Hispanic students had an average score that was 22 points lower than that of White students. Data are not ' reported for Hispanic students in 1992, because reporting standards were not met.
- In 2009, students who were eligible for free/reduced-price school lunch, an indicator of poverty, had an average score that was 17 points lower than that of students who were not eligible for free/reduced-price school lunch. This performance gap was not significantly different from that in 1996 (15 points).

NOTE: Statistical comparisons are calculated on the basis of unrounded scale scores or percentages.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1992–2009 Mathematics Assessments.

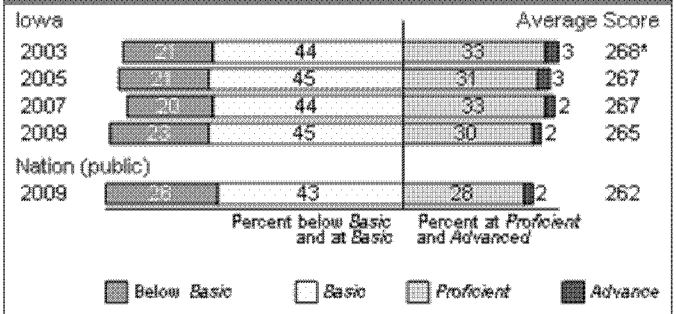
The Nation's Report Card — Reading 2009

State Snapshot Report

Overall Results

- In 2009, the average score of eighth-grade students in Iowa was 265. This was higher than the average score of 262 for public school students in the nation.
- The average score for students in Iowa in 2009 (265) was not significantly different from their average score in 2007 (267) and was lower than their average score in 2003 (268).
- In 2009, the score gap between students in Iowa at the 75th percentile and students at the 25th percentile was 41 points. This performance gap was not significantly different from that of 2003 (42 points).
- The percentage of students in Iowa who performed at or above the NAEP *Proficient* level was 32 percent in 2009. This percentage was not significantly different from that in 2007 (36 percent) and was not significantly different from that in 2003 (36 percent).
- The percentage of students in Iowa who performed at or above the NAEP *Basic* level was 77 percent in 2009. This percentage was not significantly different from that in 2007 (80 percent) and was not significantly different from that in 2003 (79 percent).

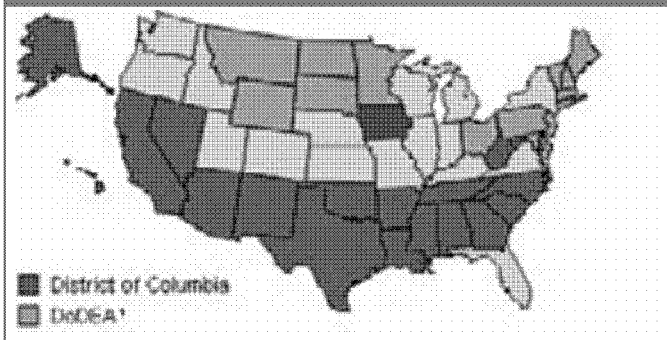
Achievement-Level Percentages and Average Score Results



* Significantly different ($p < .05$) from state's results in 2009.

NOTE: Detail may not sum to totals because of rounding.

Compare the Average Score in 2009 to Other States/Jurisdictions

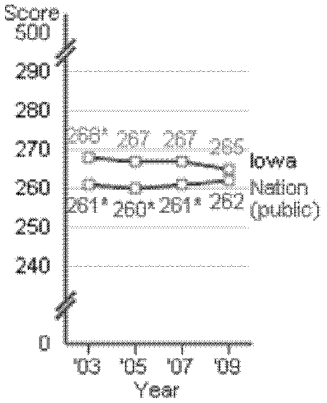


[1] Department of Defense Education Activity schools (domestic and overseas).

In 2009, the average score in Iowa was

- lower than those in 14 states/jurisdictions
- higher than those in 19 states/jurisdictions
- not significantly different from those in 18 states/jurisdictions

Average Scores for State/Jurisdiction and Nation (public)



* Significantly different ($p < .05$) from 2009.

Results for Student Groups in 2009

Reporting Groups	Percent of students	Avg. score	Percentages at or above *Basic*	Percentages at or above *Proficient*	Percent at *Advanced*
Gender					
Male	50	261	74	26	1
Female	50	269	81	38	3
Race/Ethnicity					
White	86	267	80	34	2
Black	5	241	51	12	#
Hispanic	6	249	61	18	1
Asian/Pacific Islander	2	‡	‡	‡	‡
American Indian/Alaska Native	1	‡	‡	‡	‡
National School Lunch Program					
Eligible	33	253	65	21	1
Not eligible	67	270	83	38	2

Rounds to zero. ‡ Reporting standards not met.

NOTE: Detail may not sum to totals because of rounding, and because the "Information not available" category for the National School Lunch Program, which provides free/reduced-price lunches, and the "Unclassified" category for race/ethnicity are not displayed.

Score Gaps for Student Groups

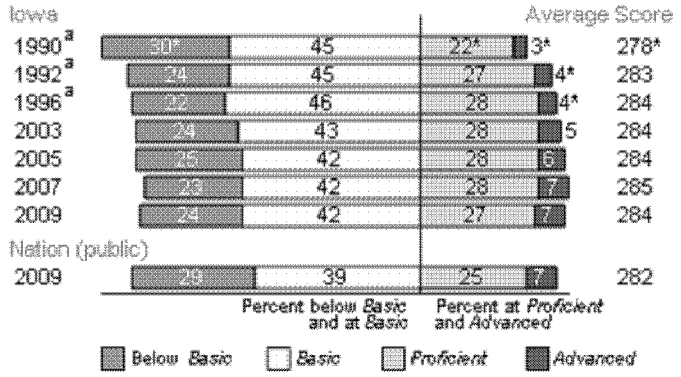
- In 2009, female students in Iowa had an average score that was higher than that of male students.
- In 2009, Black students had an average score that was 27 points lower than that of White students. This performance gap was not significantly different from that in 2003 (25 points).
- In 2009, Hispanic students had an average score that was 18 points lower than that of White students. This performance gap was not significantly different from that in 2003 (25 points).
- In 2009, students who were eligible for free/reduced-price school lunch, an indicator of low income, had an average score that was 17 points lower than that of students who were not eligible for free/reduced-price school lunch. This performance gap was not significantly different from that in 2003 (21 points).

NOTE: Statistical comparisons are calculated on the basis of unrounded scale scores or percentages.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003–2009 Reading Assessments.

Overall Results

- In 2009, the average score of eighth-grade students in Iowa was 284. This was higher than the average score of 282 for public school students in the nation.
- The average score for students in Iowa in 2009 (284) was not significantly different from their average score in 2007 (285) and was higher than their average score in 1990 (278).
- In 2009, the score gap between students in Iowa at the 75th percentile and students at the 25th percentile was 44 points. This performance gap was not significantly different from that of 1990 (42 points).
- The percentage of students in Iowa who performed at or above the NAEP *Proficient* level was 34 percent in 2009. This percentage was not significantly different from that in 2007 (35 percent) and was greater than that in 1990 (25 percent).
- The percentage of students in Iowa who performed at or above the NAEP *Basic* level was 76 percent in 2009. This percentage was not significantly different from that in 2007 (77 percent) and was greater than that in 1990 (70 percent).

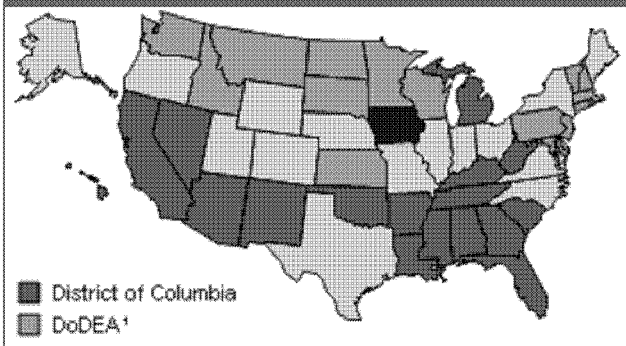
Achievement-Level Percentages and Average Score Results



* Significantly different ($p < .05$) from state's results in 2009.
[a] Accommodations not permitted.

NOTE: Detail may not sum to totals because of rounding.

Compare the Average Score in 2009 to Other States/Jurisdictions

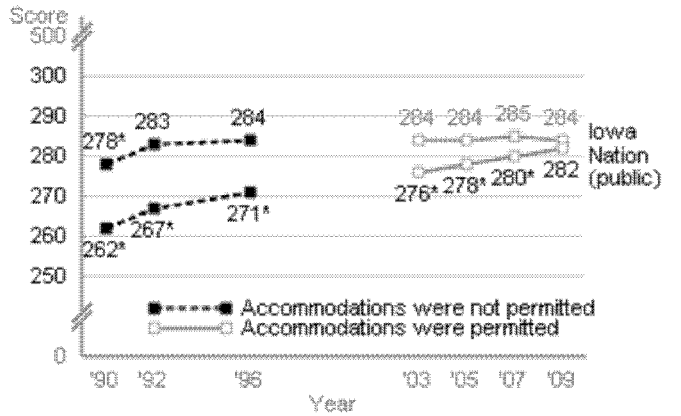


[1] Department of Defense Education Activity schools (domestic and overseas).

In 2009, the average score in Iowa was

- lower than those in 16 states/jurisdictions
- higher than those in 19 states/jurisdictions
- not significantly different from those in 16 states/jurisdictions

Compare the Average Score to Nation (public)



* Significantly different ($p < .05$) from 2009.

Results for Student Groups in 2009

Reporting Groups	Percent of students	Avg. score	Percentages at or above *Basic*	Percentages at or above *Proficient*	Percent at *Advanced*
Gender [1]					
Male	51	285	76	35	8
Female	49	284	76	33	5
Race/Ethnicity					
White	86	287	79	37	7
Black	5	259	50	9	2
Hispanic	6	266	57	15	1
Asian/Pacific Islander	2	‡	‡	‡	‡
American Indian/Alaska Native	1	‡	‡	‡	‡
National School Lunch Program [1]					
Eligible	3	269	61	17	2
Not eligible	67	292	84	42	9

‡ Reporting standards not met.

NOTE: Detail may not sum to totals because of rounding, and because the "Information not available" category for the National School Lunch Program, which provides free/reduced-price lunches, and the "Unclassified" category for race/ethnicity are not displayed.

Score Gaps for Student Groups

- In 2009, male students in Iowa had an average score that was not significantly different from that of female students. This performance gap was not significantly different from that in 1990 (5 points).
- In 2009, Black students had an average score that was 28 points lower than that of White students. Data are not reported for Black students in 1990, because reporting standards were not met.
- In 2009, Hispanic students had an average score that was 21 points lower than that of White students. Data are not reported for Hispanic students in 1990, because reporting standards were not met.
- In 2009, students who were eligible for free/reduced-price school lunch, an indicator of poverty, had an average score that was 23 points lower than that of students who were not eligible for free/reduced-price school lunch. This performance gap was wider than that in 1996 (15 points).

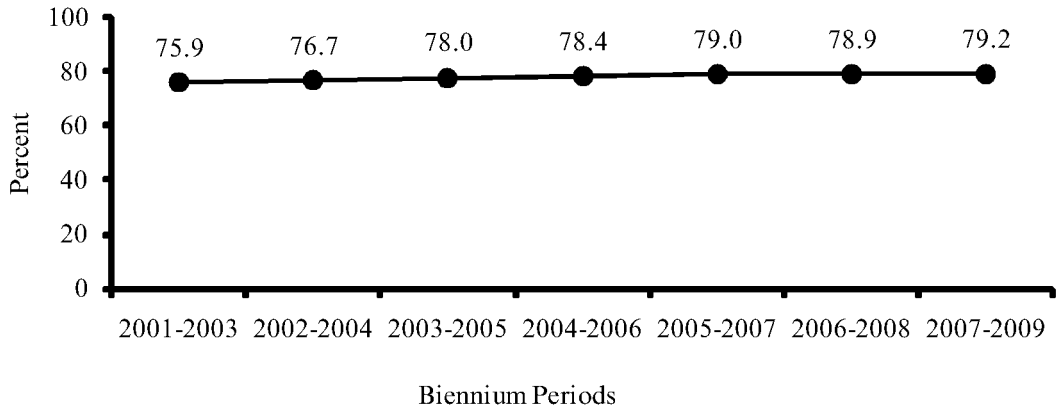
NOTE: Statistical comparisons are calculated on the basis of unrounded scale scores or percentages.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2009 Mathematics Assessments.

Reading

Indicator: Percentage of fourth, eighth, and 11th grade students achieving proficient or higher reading status on the ITBS Reading Comprehension Test or the ITED Reading Comprehension Test (reported for all students and by gender, race/ethnicity, socioeconomic status, disability, primary language status, and migrant status).

Figure 28

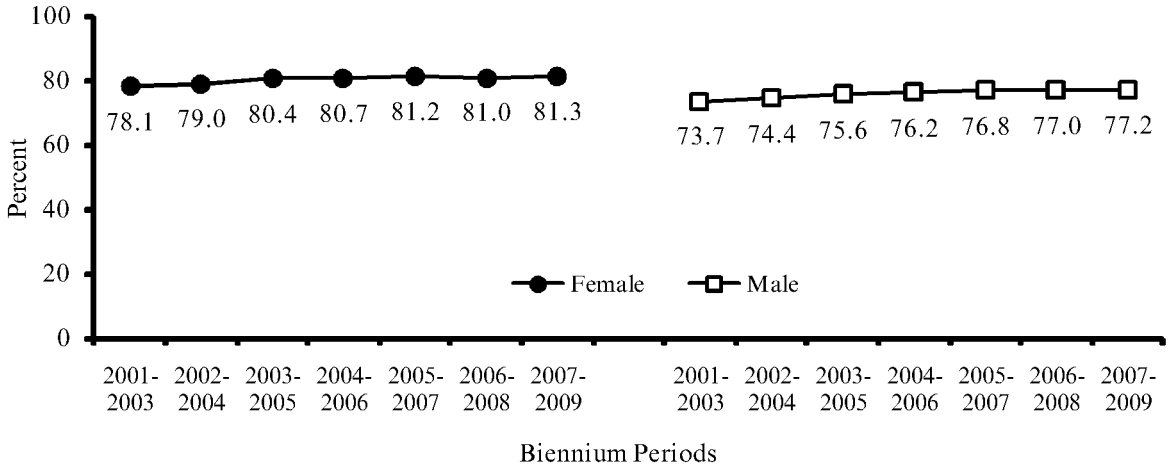
Percent of Iowa Fourth Grade Students Proficient on ITBS Reading Comprehension Test Biennium Periods 2001-2003 to 2007-2009



Source: Iowa Testing Programs, The University of Iowa.
Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years.
A student designated as proficient can, at a minimum, do the following:
Usually understands factual information and new words in context.
Usually is able to make inferences and interpret either nonliteral language or information in new contexts.
Often can determine a selection's main idea and analyze its style and structure.

Figure 29

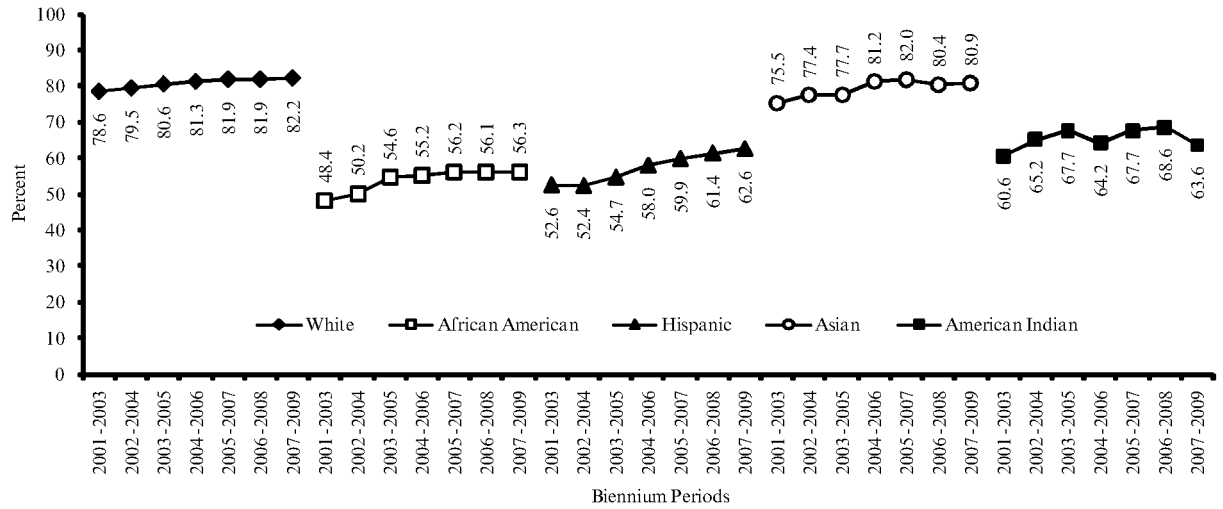
Percent of Iowa Fourth Grade Students Proficient on ITBS Reading Comprehension Test by Gender Biennium Periods 2001-2003 to 2007-2009



Source: Iowa Testing Programs, The University of Iowa.
Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years.
A student designated as proficient can, at a minimum, do the following:
Usually understands factual information and new words in context.
Usually is able to make inferences and interpret either nonliteral language or information in new contexts.
Often can determine a selection's main idea and analyze its style and structure.

Figure 30

Percent of Iowa Fourth Grade Students Proficient on ITBS Reading Comprehension Test by Race/Ethnicity Biennium Periods 2001-2003 to 2007-2009

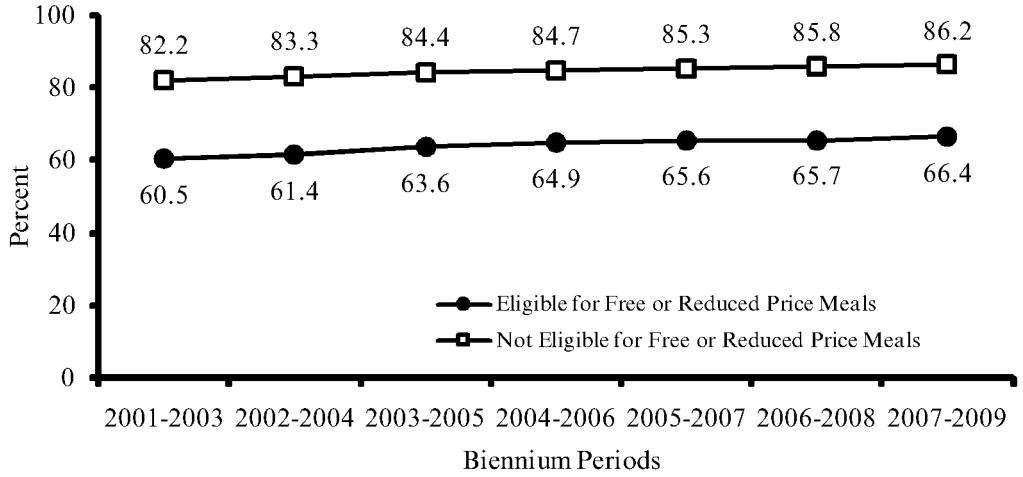


Source: Iowa Testing Programs, The University of Iowa.

Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years.
A student designated as proficient can, at a minimum, do the following:
Usually understands factual information and new words in context.
Usually is able to make inferences and interpret either nonliteral language or information in new contexts.
Often can determine a selection's main idea and analyze its style and structure.

Figure 31

Percent of Iowa Fourth Grade Students Proficient on ITBS Reading Comprehension Test by Socioeconomic Status* Biennium Periods 2001-2003 to 2007-2009

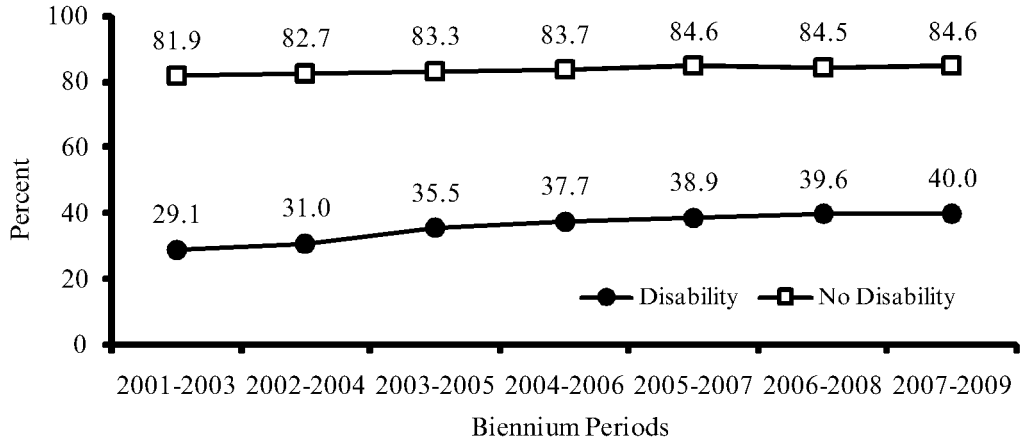


Source: Iowa Testing Programs, The University of Iowa.

Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years.
A student designated as proficient can, at a minimum, do the following:
Usually understands factual information and new words in context.
Usually is able to make inferences and interpret either nonliteral language or information in new contexts.
Often can determine a selection's main idea and analyze its style and structure.
*Socioeconomic Status is determined by eligibility for free or reduced price meals.

Figure 32

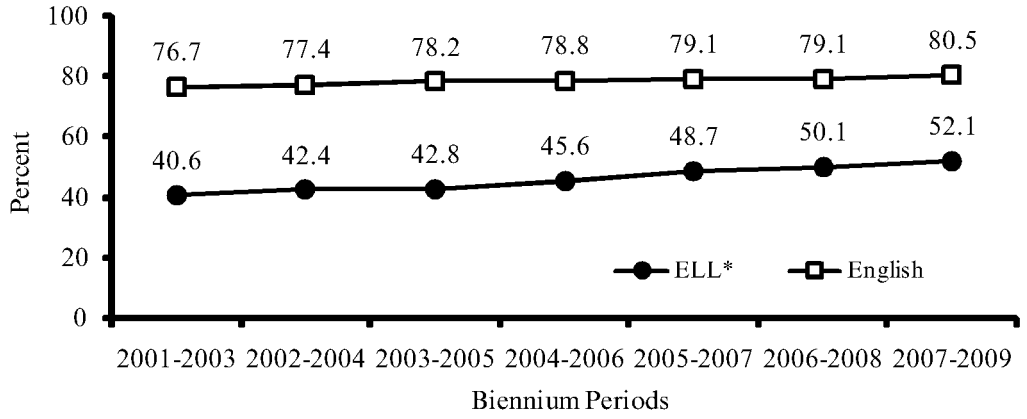
Percent of Iowa Fourth Grade Students Proficient on ITBS Reading Comprehension Test by Disability Status* Biennium Periods 2001-2003 to 2007-2009



Source: Iowa Testing Programs, The University of Iowa.
Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years.
A student designated as proficient can, at a minimum, do the following:
Usually understands factual information and new words in context.
Usually is able to make inferences and interpret either nonliteral language or information in new contexts.
Often can determine a selection's main idea and analyze its style and structure.
*Disability Status is determined by the presence of an individualized education plan (IEP).

Figure 33

Percent of Iowa Fourth Grade Students Proficient on ITBS Reading Comprehension Test by Primary Language Status* Biennium Periods 2001-2003 to 2007-2009



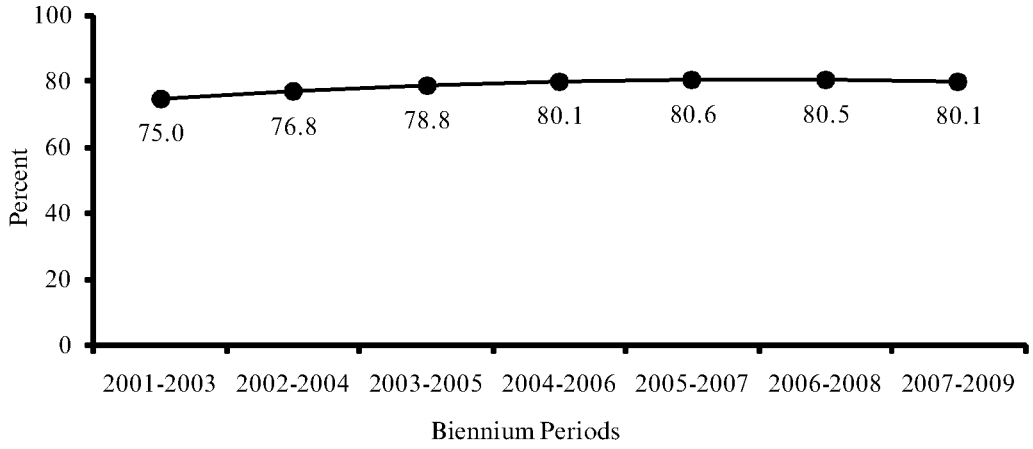
Source: Iowa Testing Programs, The University of Iowa.
Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years.
A student designated as proficient can, at a minimum, do the following:
Usually understands factual information and new words in context.
Usually is able to make inferences and interpret either nonliteral language or information in new contexts.
Often can determine a selection's main idea and analyze its style and structure.
*Primary Language Status is classified by English and English Language Learner and determined according to the following definition: English Language Learner refers to a student who has a language other than English and the proficiency in English is such that the probability of the student's academic success in an English-only classroom is below that of an academically successful peer with an English language background.

Mathematics

Indicator: Percentage of fourth, eighth, and 11th grade students achieving proficient or higher mathematics status on the ITBS and ITED Mathematics Tests (reported for all students and by gender, race/ethnicity, socioeconomic status, disability, primary language status, and migrant status). (A)(3)-1 con't

Figure 49

PERCENT OF IOWA FOURTH GRADE STUDENTS PROFICIENT ON ITBS MATHEMATICS TEST BIENNIUM PERIODS 2001-2003 TO 2007-2009



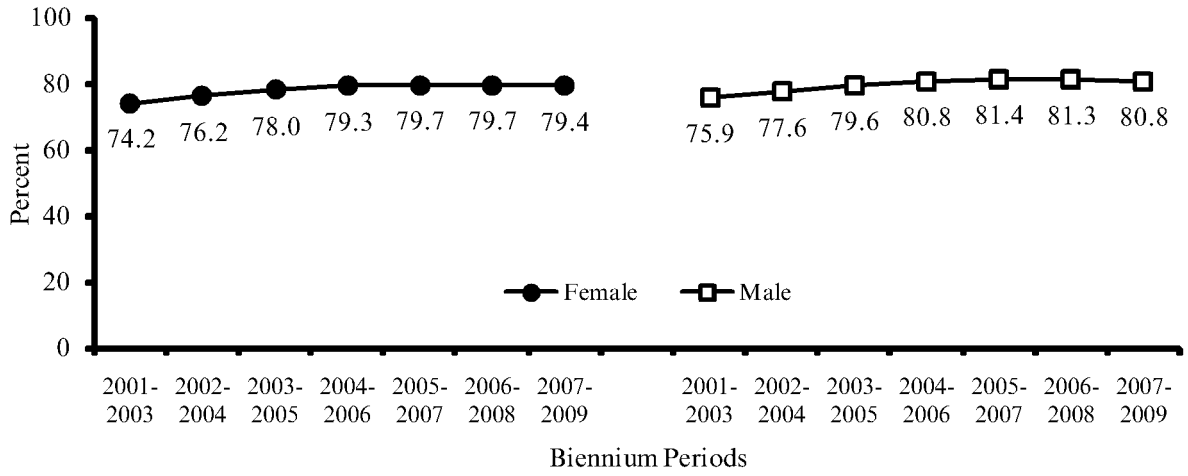
Source: Iowa Testing Programs, The University of Iowa.

Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years. A student designated as proficient can, at a minimum, do the following:

Is developing an understanding of many math concepts; usually is able to solve simple and complex word problems and use estimation methods; and can interpret data from graphs and tables.

Figure 50

Percent of Iowa Fourth Grade Students Proficient on ITBS Mathematics Test by Gender Biennium Periods 2001-2003 to 2007-2009



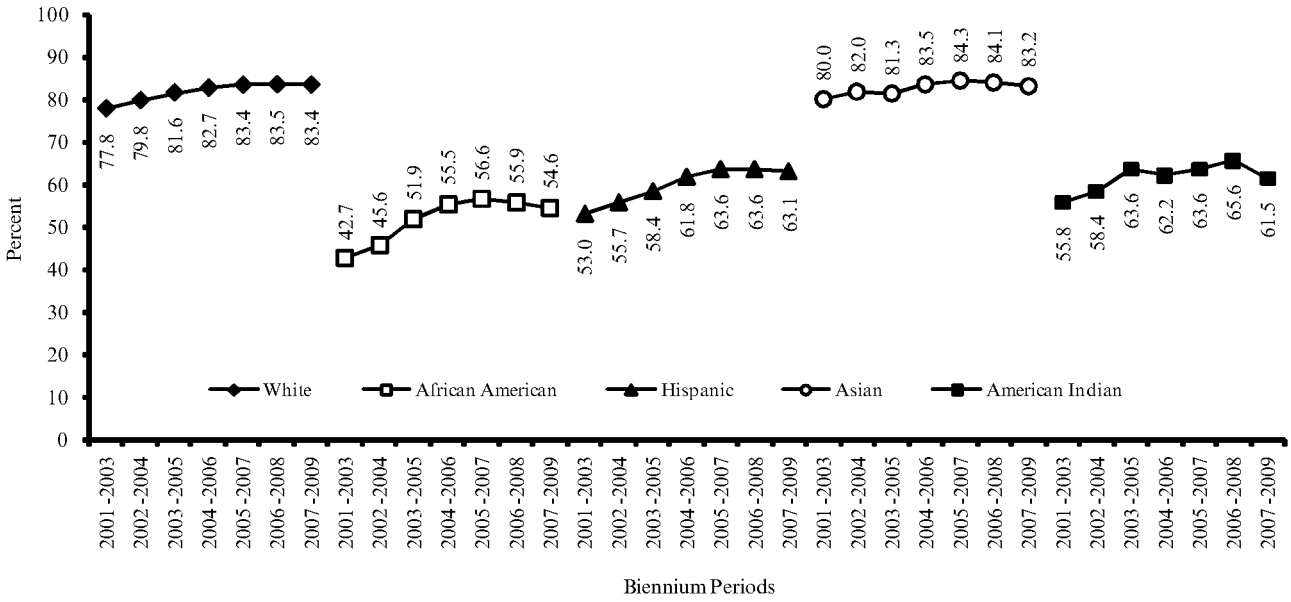
Source: Iowa Testing Programs, The University of Iowa.

Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years. A student designated as proficient can, at a minimum, do the following:

Is developing an understanding of many math concepts, usually is able to solve simple and complex word problems and use estimation methods; and can interpret data from graphs and tables.

Figure 51

Percent of Iowa Fourth Grade Students Proficient on ITBS Mathematics Test by Race/Ethnicity Biennium Periods 2001-2003 to 2007-2009



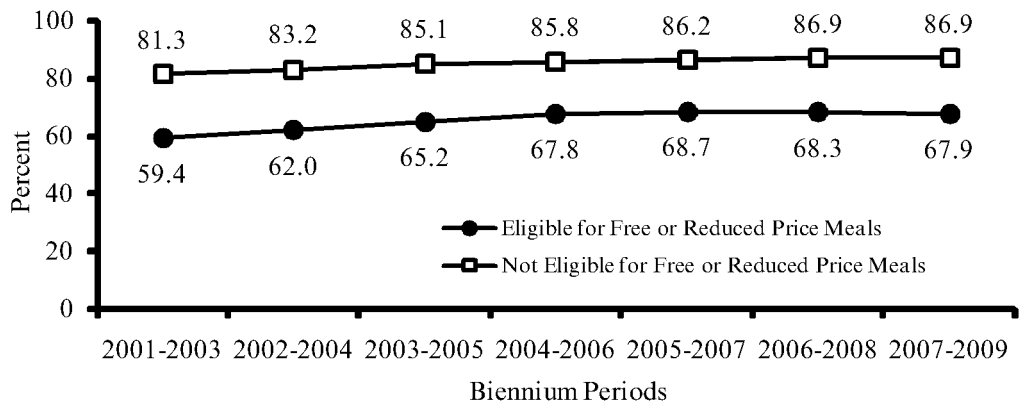
Source: Iowa Testing Programs, The University of Iowa.

Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years. A student designated as proficient can, at a minimum, do the following:

Is developing an understanding of many math concepts, usually is able to solve simple and complex word problems and use estimation methods; and can interpret data from graphs and tables.

Figure 52

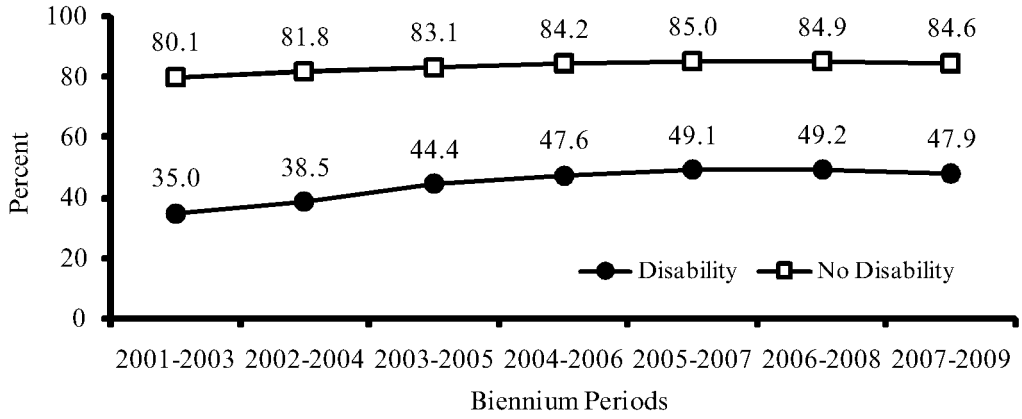
Percent of Iowa Fourth Grade Students Proficient on ITBS Mathematics Test by Socioeconomic Status* Biennium Periods 2001-2003 to 2007-2009



Source: Iowa Testing Programs, The University of Iowa.
Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years.
A student designated as proficient can, at a minimum, do the following:
Is developing an understanding of many math concepts, usually is able to solve simple and complex word problems and use estimation methods; and can interpret data from graphs and tables.
*Socioeconomic Status is determined by eligibility for free or reduced price meals.

Figure 53

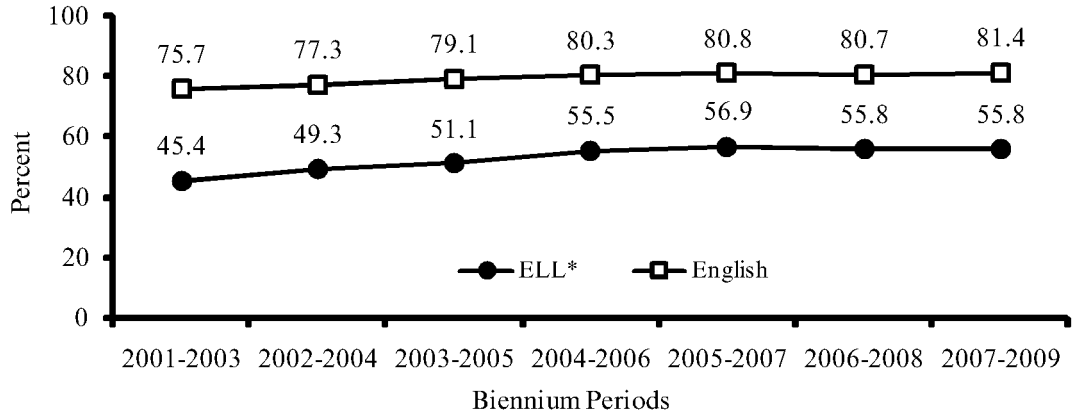
Percent of Iowa Fourth Grade Students Proficient on ITBS Mathematics Test by Disability Status* Biennium Periods 2001-2003 to 2007-2009



Source: Iowa Testing Programs, The University of Iowa.
Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years. A student designated as proficient can, at a minimum, do the following:
Is developing an understanding of many math concepts, usually is able to solve simple and complex word problems and use estimation methods; and can interpret data from graphs and tables.
*Disability Status is determined by the presence of an individualized education plan (IEP).

Figure 54

Percent of Iowa Fourth Grade Students Proficient on ITBS Mathematics Test by Primary Language Status* Biennium Periods 2001-2003 to 2007-2009

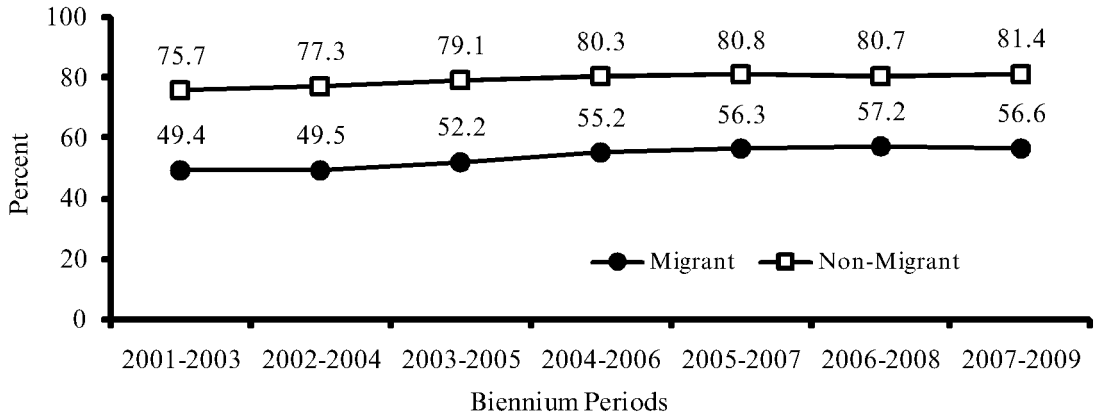


Source: Iowa Testing Programs, The University of Iowa.

Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years.
A student designated as proficient can, at a minimum, do the following:
Is developing an understanding of many math concepts, usually is able to solve simple and complex word problems and use estimation methods; and can interpret data from graphs and tables.
*Primary Language Status is classified by English and English Language Learner and determined according to the following definition: English Language Learner refers to a student who has a language other than English and the proficiency in English is such that the probability of the student's academic success in an English-only classroom is below that of an academically successful peer with an English language background.

Figure 55

Percent of Iowa Fourth Grade Students Proficient on ITBS Mathematics Test by Migrant Status* Biennium Periods 2001-2003 to 2007-2009



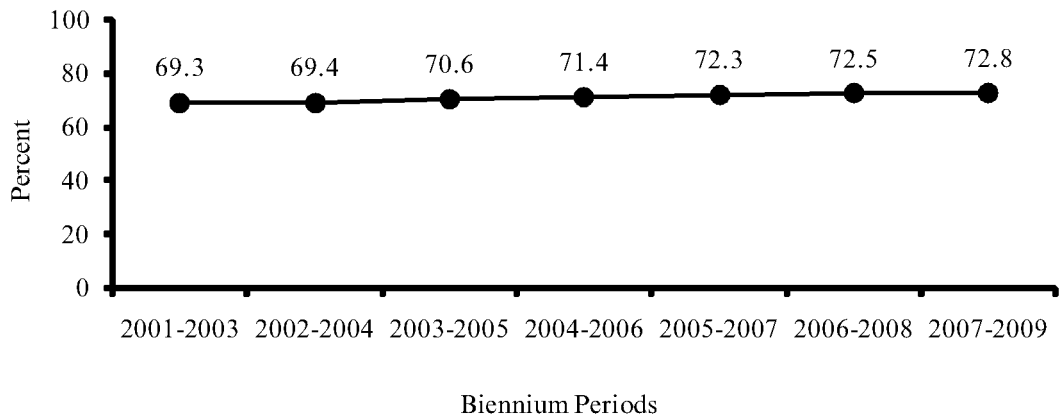
Source: Iowa Testing Programs, The University of Iowa.

Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years.
A student designated as proficient can, at a minimum, do the following:
Is developing an understanding of many math concepts, usually is able to solve simple and complex word problems and use estimation methods; and can interpret data from graphs and tables.
*Migrant status is defined as migrant or non-migrant as follows: Migrant—a student is considered a migrant if he or she has moved in the past 36 months from one district to another so that the parents could obtain temporary or seasonal employment in agriculture as their principle means of livelihood.

Figure 35

(A)(3)-1 cont

PERCENT OF IOWA EIGHTH GRADE STUDENTS PROFICIENT ON ITBS READING COMPREHENSION TEST BIENNIUM PERIODS 2001-2003 TO 2007-2009

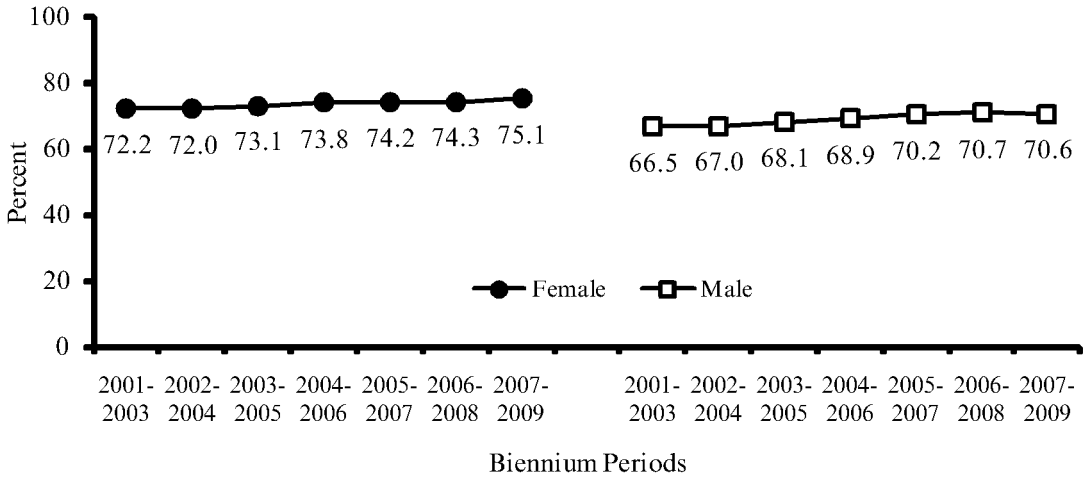


Source: Iowa Testing Programs, The University of Iowa.

Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years.
A student designated as proficient can, at a minimum, do the following:
Usually is able to make inferences and interpret either nonliteral language or information in new contexts.
Often is able to determine a selection's main idea, identify the author's purpose or viewpoint, and analyze its style and structure.

Figure 36

Percent of Iowa Eighth Grade Students Proficient on ITBS Reading Comprehension Test by Gender Biennium Periods 2001-2003 to 2007-2009

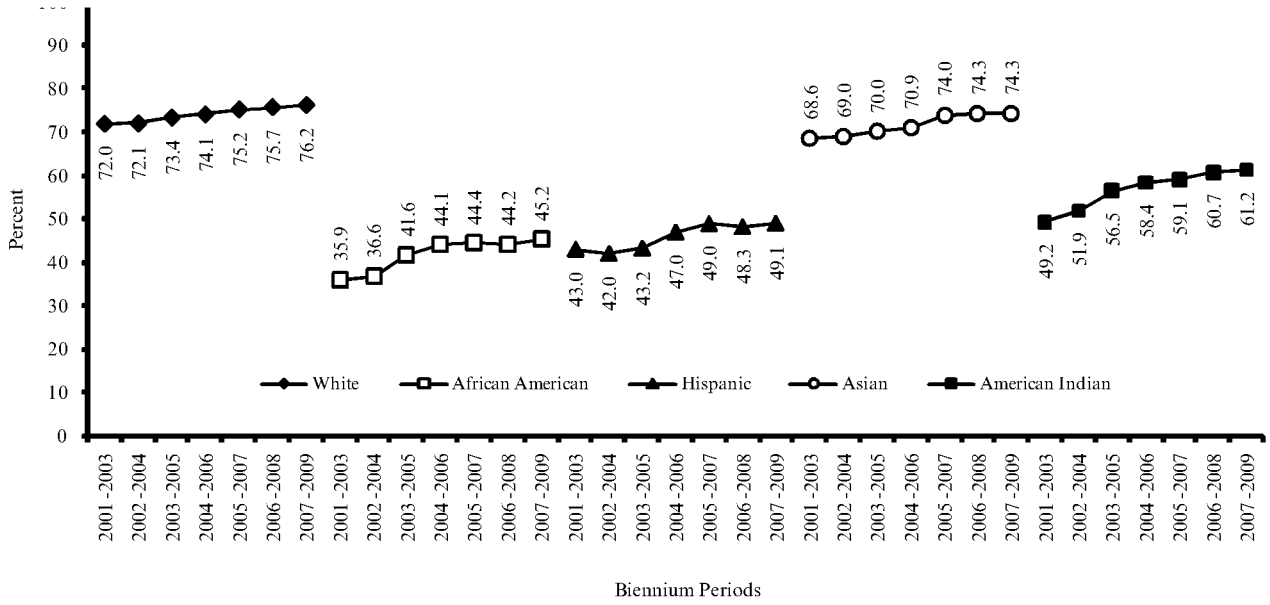


Source: Iowa Testing Programs, The University of Iowa.

Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years.
A student designated as proficient can, at a minimum, do the following:
Usually is able to understand factual information and new words in context, make inferences, and interpret information in new contexts.
Often is able to determine a selection's main idea, identify its author's purpose or viewpoint, and analyze its style and structure.

Figure 37

Percent of Iowa Eighth Grade Students Proficient on ITBS Reading Comprehension Test by Race/Ethnicity Biennium Periods 2001-2003 to 2007-2009

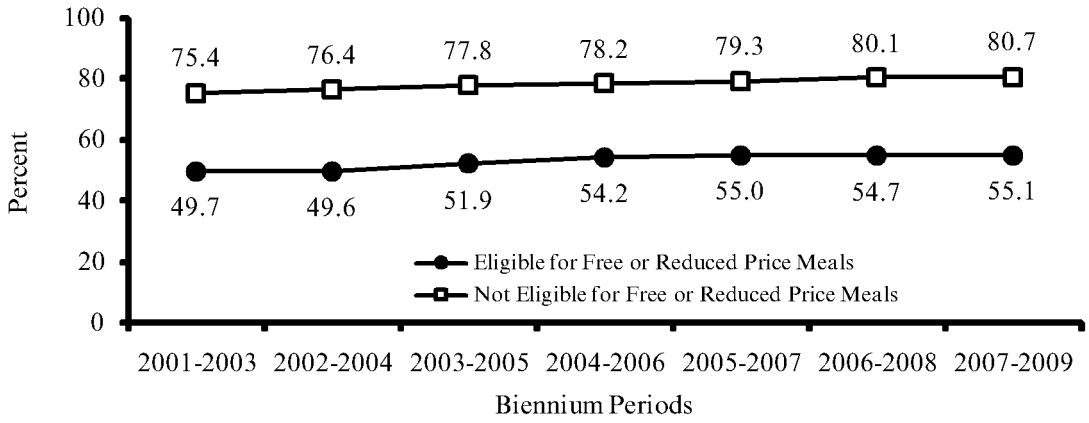


Source: Iowa Testing Programs, The University of Iowa.

Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years.
A student designated as proficient can, at a minimum, do the following:
Usually is able to understand factual information and new words in context, make inferences, and interpret information in new contexts.
Often is able to determine a selection's main idea, identify its author's purpose or viewpoint, and analyze its style and structure.

Figure 38

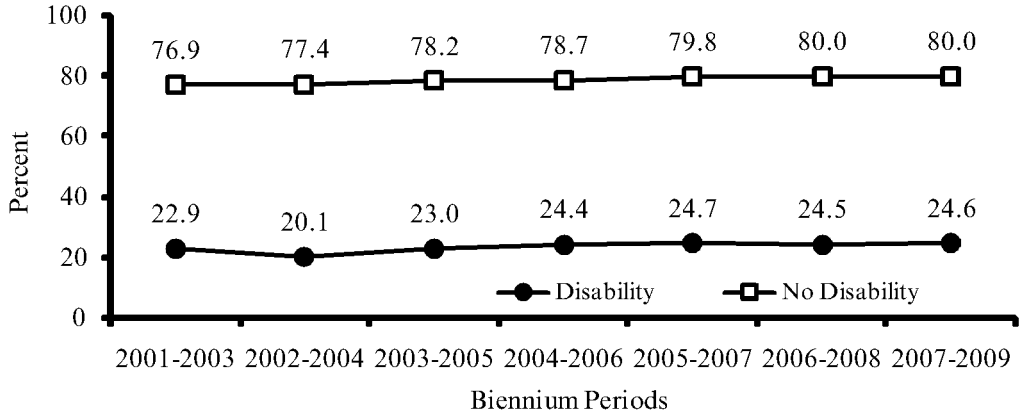
Percent of Iowa Eighth Grade Students Proficient on ITBS Reading Comprehension Test by Socioeconomic Status* Biennium Periods 2001-2003 to 2007-2009



Source: Iowa Testing Programs, The University of Iowa.
Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years. A student designated as proficient can, at a minimum, do the following:
Usually is able to understand factual information and new words in context, make inferences, and interpret information in new contexts.
Often is able to determine a selection's main idea, identify its author's purpose or viewpoint, and analyze its style and structure.
*Socioeconomic Status is determined by eligibility for free or reduced price meals.

Figure 39

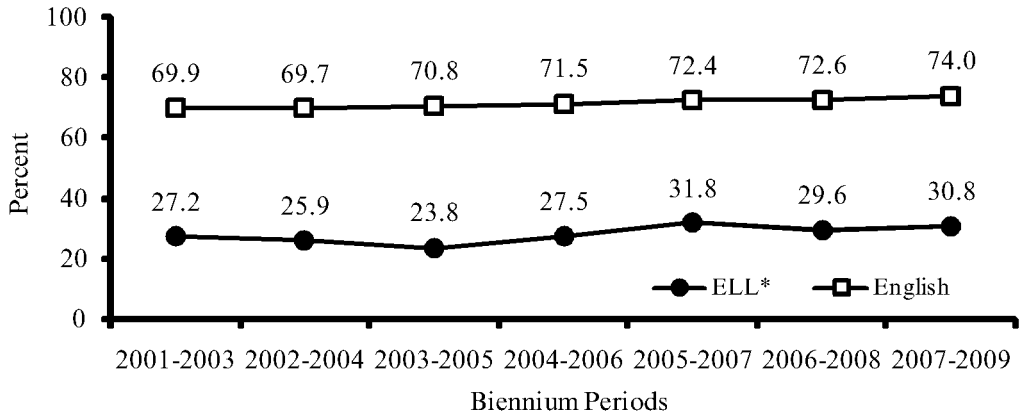
Percent of Iowa Eighth Grade Students Proficient on ITBS Reading Comprehension Test by Disability Status* Biennium Periods 2001-2003 to 2007-2009



Source: Iowa Testing Programs, The University of Iowa.
Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years. A student designated as proficient can, at a minimum, do the following:
Usually is able to understand factual information and new words in context, make inferences, and interpret information in new contexts.
Often is able to determine a selection's main idea, identify its author's purpose or viewpoint, and analyze its style and structure.
*Disability Status is determined by the presence of an individualized education plan.

Figure 40

Percent of Iowa Eighth Grade Students Proficient on ITBS Reading Comprehension Test by Primary Language Status* Biennium Periods 2001-2003 to 2007-2009



Source: Iowa Testing Programs, The University of Iowa.

Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years. A student designated as proficient can, at a minimum, do the following:

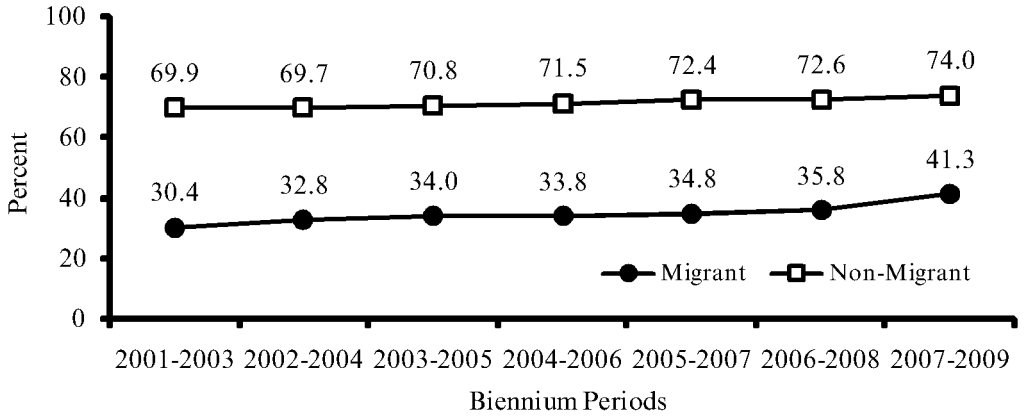
Usually is able to understand factual information and new words in context, make inferences, and interpret information in new contexts.

Often is able to determine a selection's main idea, identify its author's purpose or viewpoint, and analyze its style and structure.

*Primary Language Status is classified by English and English Language Learner and determined according to the following definition: English Language Learner refers to a student who has a language other than English and the proficiency in English is such that the probability of the student's academic success in an English-only classroom is below that of an academically successful peer with an English language background.

Figure 41

Percent of Iowa Eighth Grade Students Proficient on ITBS Reading Comprehension Test by Migrant Status* Biennium Periods 2001-2003 to 2007-2009



Source: Iowa Testing Programs, The University of Iowa.

Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years. A student designated as proficient can, at a minimum, do the following:

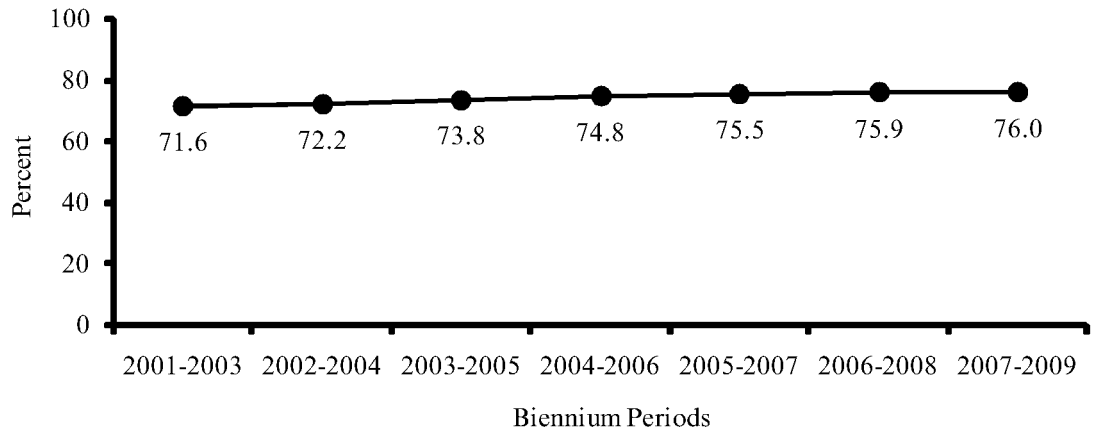
Usually is able to understand factual information and new words in context, make inferences, and interpret information in new contexts.

Often is able to determine a selection's main idea, identify its author's purpose or viewpoint, and analyze its style and structure.

*Migrant status is defined as follows: Migrant—a student is considered a migrant if he or she has moved in the past 36 months from one district to another so that the parents could obtain temporary or seasonal employment in agriculture as their principle means of livelihood.

Figure 56

Percent of Iowa Eighth Grade Students Proficient on ITBS Mathematics Test Biennium Periods 2001-2003 to 2007-2009

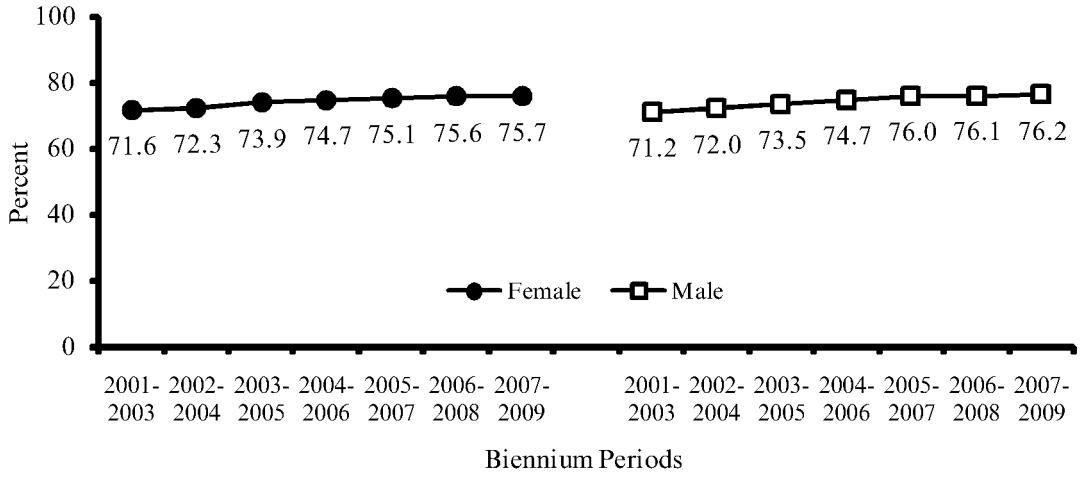


Source: Iowa Testing Programs, The University of Iowa.

Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g.,2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years.
A student designated as proficient can, at a minimum, do the following:
Usually can understand math concepts and solve simple and complex word problems, sometimes can use estimation methods, and usually is able to interpret data from graphs and tables.

Figure 57

Percent of Iowa Eighth Grade Students Proficient on ITBS Mathematics Test by Gender Biennium Periods 2001-2003 to 2007-2009

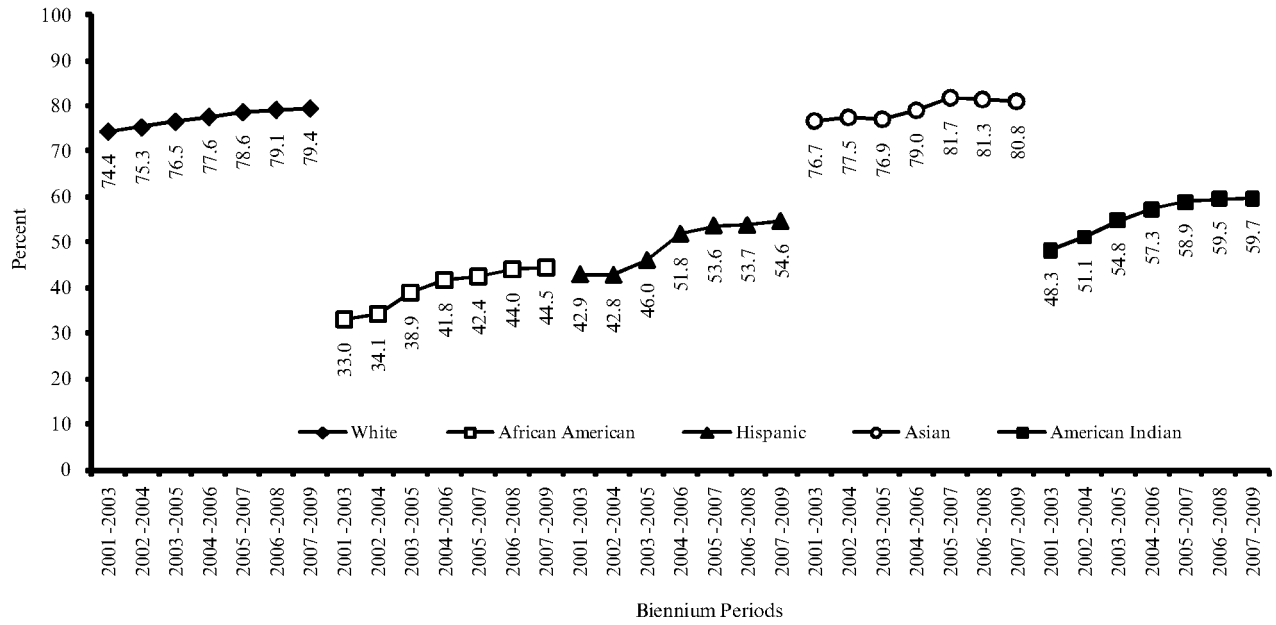


Source: Iowa Testing Programs, The University of Iowa.

Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g.,2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years. A student designated as proficient can, at a minimum, do the following:
Usually can understand math concepts and solve simple and complex word problems, sometimes can use estimation methods, and usually is able to interpret data from graphs and tables.

Figure 58

Percent of Iowa Eighth Grade Students Proficient on ITBS Mathematics Test by Race/Ethnicity Biennium Periods 2001-2003 to 2007-2009

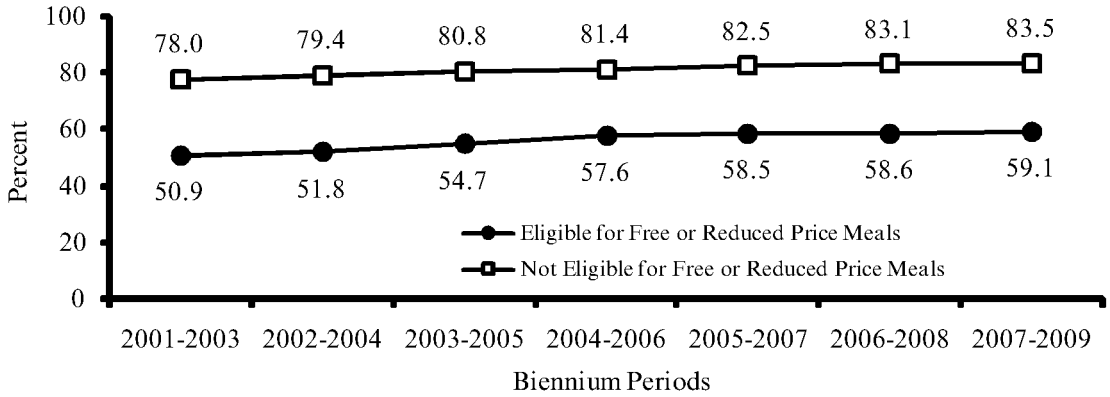


Source: Iowa Testing Programs, The University of Iowa.

Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years. A student designated as proficient can, at a minimum, do the following:
Usually can understand math concepts and solve simple and complex word problems, sometimes can use estimation methods, and usually is able to interpret data from graphs and tables.

Figure 59

Percent of Iowa Eighth Grade Students Proficient on ITBS Mathematics Test by Socioeconomic Status* Biennium Periods 2001-2003 to 2007-2009

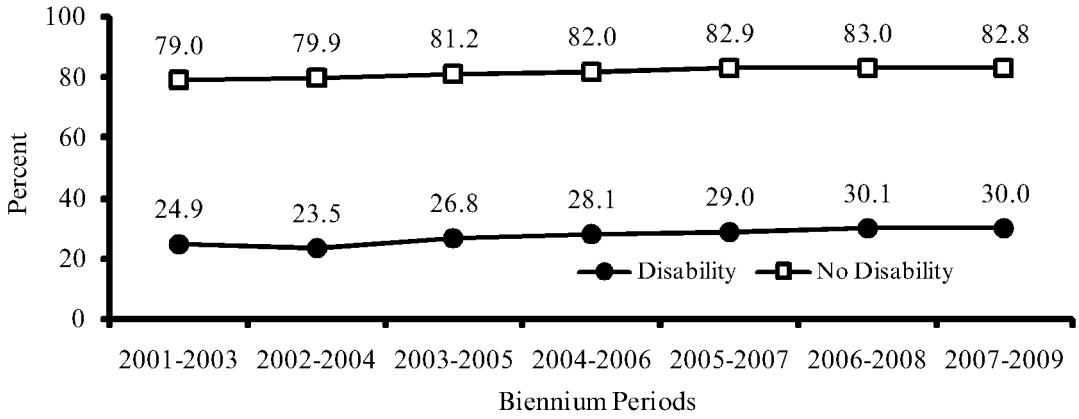


Source: Iowa Testing Programs, The University of Iowa.

Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years. A student designated as proficient can, at a minimum, do the following:
Usually can understand math concepts and solve simple and complex word problems, sometimes can use estimation methods, and usually is able to interpret data from graphs and tables.
*Socioeconomic Status is determined by eligibility for free or reduced price meals.

Figure 60

Percent of Iowa Eighth Grade Students Proficient on ITBS Mathematics Test by Disability Status* Biennium Periods 2001-2003 to 2007-2009



Source: Iowa Testing Programs, The University of Iowa.

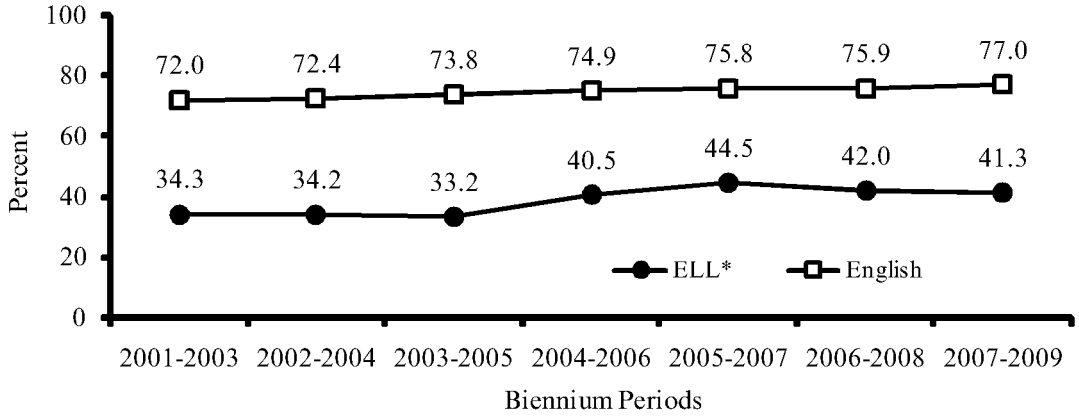
Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years. A student designated as proficient can, at a minimum, do the following:

Usually can understand math concepts and solve simple and complex word problems, sometimes can use estimation methods, and usually is able to interpret data from graphs and tables.

*Disability Status is determined by the presence of an individualized education plan (IEP).

Figure 61

Percent of Iowa Eighth Grade Students Proficient on ITBS Mathematics Test by Primary Language Status* Biennium Periods 2001-2003 to 2007-2009



Source: Iowa Testing Programs, The University of Iowa.

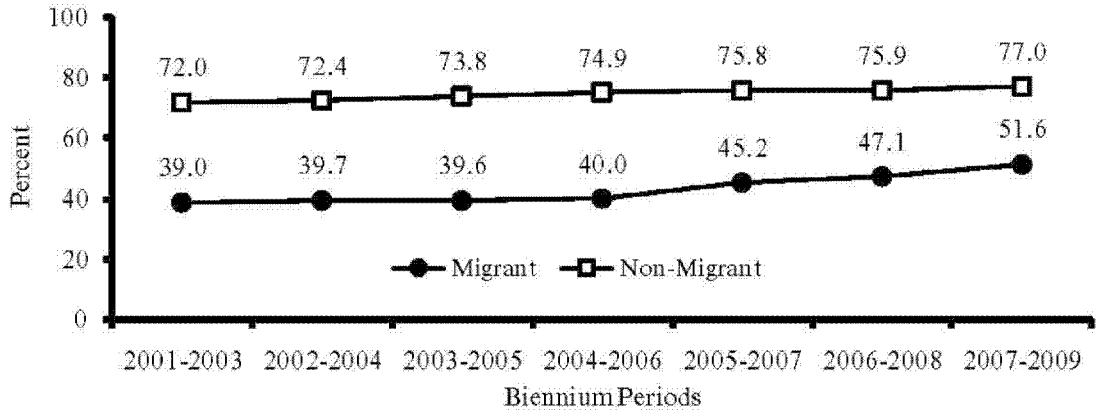
Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years. A student designated as proficient can, at a minimum, do the following:

Usually can understand math concepts and solve simple and complex word problems, sometimes can use estimation methods, and usually is able to interpret data from graphs and tables.

*Primary Language Status is classified by English and English Language Learner and determined according to the following definition: English Language Learner refers to a student who has a language other than English and the proficiency in English is such that the probability of the student's academic success in an English-only classroom is below that of an academically successful peer with an English language background.

Figure 62

Percent of Iowa Eighth Grade Students Proficient on ITBS Mathematics Test by Migrant Status* Biennium Periods 2001-2003 to 2007-2009



Source: Iowa Testing Programs, The University of Iowa.

Notes: Percentages for each biennium period represent average percentages of proficient students for the two school years represented, e.g., 2001-2003 represents the average for the 2001-2002 and the 2002-2003 school years. A student designated as proficient can, at a minimum, do the following:

Usually can understand math concepts and solve simple and complex word problems, sometimes can use estimation methods, and usually is able to interpret data from graphs and tables.

*Migrant Status is defined as migrant or non-migrant as follows: Migrant—a student is considered a migrant if he or she has moved in the past 36 months from one district to another so that the parents could obtain temporary or seasonal employment in agriculture as their principle means of livelihood.

APPENDIX B

Appendix B

Attachment Number	Attachment Title	Relevant Criterion	Page Number
(B)(1)–1	Dear State Partners/Common Core State Standards	(B)(1)(i)	Appendix B–1
(B)(1)–2	International Benchmarking and the Common Core	(B)(1)(i)	Appendix B–73
(B)(1)–3	Common Core Standards Memorandum of Agreement	(B)(1)(i)	Appendix B–75
(B)(1)–4	News Release: Fifty-One States and Territories Join Common Core State Standards Initiative	(B)(2)(i)	Appendix B–79
(B)(2)–1	States Participating in the SMARTER Balanced Consortium	(B)(2)(ii)	Appendix B–82
(B)(2)–2	SMARTER Letter of Commitment	(B)(2)(ii)	Appendix B–83

Dear State Partners:

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

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

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

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

Themes from the feedback and how we revised the Standards:

1. *Attending more fully to technical reading and writing*: Several states felt we had not adequately addressed technical reading and writing, and the Standards are substantially enhanced in this regard. You will notice the change in the title to make technical texts explicit. Also, we have threaded the demands of technical reading and writing throughout the grade-specific standards. Additional samples of technical reading will be added to Appendix B, and samples of student technical writing will be included in Appendix C.

2. *Ensuring text complexity is treated as a goal that does not overly constrain student reading throughout the year*: States were concerned that the way we had framed the text complexity requirements of the Standards seemed to limit attention to individual student needs during the year. We have substantially revised standard 10 on reading complex texts to ensure it is clear that it is an end-of-year expectation.

3. *Clarifying the grade-by-grade progressions, rendering them smoother and clearer to support high-quality instruction and assessment*. All of the progressions have been reviewed repeatedly and with care; we think you will find them far clearer as grade-specific standards year to year.

4. *Making sure the K–2 material is developmentally appropriate*: We have revised the K–2 standards to ensure that they are developmentally appropriate and that key skills such as fluency are extended to grade 5. In a similar vein, we have made standards pertaining to such areas as media and research applicable at the earliest grades in response to overwhelming feedback to do so.

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

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

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

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

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

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

Best regards,

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

COMMON CORE STATE STANDARDS FOR

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

DRAFT

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Introduction

The Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects ("the Standards") are the culmination of an extended, broad-based effort to fulfill the charge issued by the states to create the next generation of K–12 standards in order to help ensure that all students are college and career ready in literacy no later than the end of high school.

The present work, led by the Council of Chief State School Officers (CCSSO) and the National Governors Association (NGA), builds on the foundation laid by states in their decades-long work on crafting high-quality education standards. The Standards also draw on the most important international models as well as research and input from numerous sources, including state departments of education, scholars, assessment developers, professional organizations, educators from kindergarten through college, and parents, students, and other members of the public. In their design and content, refined through successive drafts and numerous rounds of feedback, the Standards represent a synthesis of the best elements of standards-related work to date and an important advance over that previous work.

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

The Standards are an extension of a prior initiative led by CCSSO and NGA to develop College and Career Readiness (CCR) standards in reading, writing, speaking, listening, and language as well as in mathematics. The CCR Reading, Writing, and Speaking and Listening Standards, released in draft form in September 2009, serve, in revised form, as the backbone for the present document. Grade-specific K–12 standards in reading, writing, speaking, listening, and language translate the broad (and, for the earliest grades, seemingly distant) aims of the CCR standards into age- and attainment-appropriate terms.

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

As a natural outgrowth of meeting the charge to define college and career readiness, the Standards also lay out a vision of what it means to be a literate person in the twenty-first century. Indeed, the skills and understandings students are expected to demonstrate have wide applicability outside the classroom or workplace. Students who meet the Standards readily undertake the close, attentive reading that is at the heart of understanding and enjoying complex works of literature. They habitually perform the critical reading necessary to pick carefully through the staggering amount of information available today in print and digitally. They actively seek the wide, deep, and thoughtful engagement with high-quality literary and informational texts that builds knowledge, enlarges experience, and broadens worldviews. They reflexively demonstrate the cogent reasoning and use of evidence that is essential to both private deliberation and responsible citizenship in a democratic republic. In short, students who meet the Standards develop the skills in reading, writing, speaking, and listening that are the foundation for any creative and purposeful expression in language.

May 2010

Key Design Considerations

CCR and grade-specific standards

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

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

Grade levels for K–8; grade bands for 9–10 and 11–12

The Standards use individual grade levels in kindergarten through grade 8 to provide useful specificity; the Standards use two-year bands in grades 9–12 to allow schools, districts, and states flexibility in high school course design.

A focus on results rather than means

By emphasizing required achievements, the Standards leave room for teachers, curriculum developers, and states to determine how those goals should be reached and what additional topics should be addressed. Thus, the Standards do not mandate such things as a particular writing process or the full range of metacognitive strategies that students may need to monitor and direct their thinking and learning. Teachers are thus free to provide students with whatever tools and knowledge their professional judgment and experience identify as most helpful for meeting the goals set out in the Standards.

An integrated model of literacy

Although the Standards are divided into Reading, Writing, Speaking and Listening, and Language strands for conceptual clarity, the processes of communication are closely connected, as reflected throughout this document. For example, Writing standard 9 requires that students be able to write about what they read. Likewise, Speaking and Listening standard 4 sets the expectation that students will share findings from their research.

Research and media skills blended into the Standards as a whole

To be ready for college, workforce training, and life in a technological society, students need the ability to gather, comprehend, evaluate, synthesize, and report on information and ideas, to conduct original research in order to answer questions or solve problems, and to analyze and create a high volume and extensive range of print and nonprint texts in media forms old and new. The need to conduct research and to produce and consume media is embedded into every aspect of today's curriculum. In like fashion, research and media skills and understandings are embedded throughout the Standards rather than treated in a separate section.

Shared responsibility for students' literacy development

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

Part of the motivation behind the interdisciplinary approach to literacy promulgated by the Standards is extensive research establishing the need for college- and career-ready students to be proficient in reading complex informational text independently in a variety of content areas. Most of the required reading in college and workforce training programs is informational in structure and challenging in content; postsecondary education programs typically provide students with both a higher volume of such reading than is generally required in K–12 schools and comparatively little scaffolding.

The Standards are not alone in calling for a special emphasis on informational text. The 2009 reading framework of the National Assessment of Educational Progress (NAEP) requires a high and increasing proportion of informational text on its assessment as students advance through the grades.

Distribution of Literary and Informational Passages by Grade in the 2009 NAEP Reading Framework

Grade	Literary	Informational
4	50%	50%
8	45%	55%
12	30%	70%

The Standards aim to align instruction with this framework so that many more students than at present can meet the requirements of college and career readiness. In K–5, the Standards follow NAEP's lead in balancing the reading of literature with the reading of informational texts, including texts in history/social studies, science, and technical subjects. In accord with NAEP's growing emphasis on informational texts in the higher grades, the Standards demand that a significant amount of reading of informational texts take place in and outside of the ELA classroom. Fulfilling the standards for 6–12 ELA requires much greater attention to a specific category of informational text—literary nonfiction—than has been traditional. Because the ELA classroom must focus on literature (stories, drama, and poetry) as well as literary nonfiction, a great deal of informational reading in grades 6–12 must take place in other classes if the NAEP assessment framework is to be matched instructionally.[1] To measure students' growth toward college and career readiness, assessments aligned with the Standards should adhere to the distribution of texts across grades cited in the NAEP framework.

NAEP likewise outlines a distribution across the grades of the core purposes and types of student writing. Similar to the Standards, the 2011 NAEP framework cultivates the development of three mutually reinforcing writing capacities: writing to persuade, to explain, and to convey real or imagined experience. Evidence concerning the demands of college and career readiness gathered during development of the Standards concurs with NAEP's shifting emphases: standards for grades 9–12 describe writing in all three forms, but, consistent with NAEP, the overwhelming focus of writing throughout high school should be on writing to argue and to inform or explain.[2]

Distribution of Communicative Purposes by Grade in the 2011 NAEP Writing Framework

Grade	To Persuade	To Explain	To Convey Experience
4	30%	35%	35%
8	35%	35%	30%
12	40%	40%	20%

It follows that writing assessments aligned with the Standards should adhere to the distribution of writing purposes across grades outlined by NAEP.

What is not *covered by the Standards*

The Standards should be recognized for what they are *not* as well as what they are. The most important intentional design limitations are as follows:

1) The Standards define what all students are expected to know and be able to do, not how teachers should teach. The Standards must be complemented by a well-developed, content-rich curriculum consistent with the expectations laid out in this document.

2) While the Standards do attempt to focus on what is most essential, they do not describe all that can or should be taught. A great deal is left to the discretion of teachers and curiculum developers. The aim of the Standards is to articulate the fundamentals, not to set out an exhaustive list nor a set of restrictions that limits what can be taught beyond what is specified herein.

3) The Standards do not define the nature of advanced work for students who meet the Standards prior to the end of high school. For those students, advanced work in such areas as literature, composition, language, and journalism should be available. This work should provide the next logical step up from the college and career readiness baseline established here.

4) The Standards set grade-specific standards but do not define the intervention methods or materials necessary to support students who are well below or well above grade-level expectations. It is also beyond the scope of the Standards to define the full range of supports appropriate for English language learners and for students with special needs. At the same time, all students must have the opportunity to learn and meet the same high standards if they are to access the knowledge and skills necessary in their post-school lives. The Standards should be read as allowing for the widest possible range of students to participate fully from the outset, along with appropriate accommodations to ensure maximum participaton of students with special education needs. For example, for students with disabilities *reading* should allow for use of Braille, screen reader technology, or other assistive devices, while *writing* should include the use of a scribe, computer, or speech-to-text technology. In a similar vein, speaking and *listening* should be interpreted broadly to include sign language. No set of grade-specific standards can fully reflect the great variety in abilities, needs, learning rates, and achievement levels of students in any given classroom. However, the Standards do provide clear signposts along the way to the goal of college and career readiness for all students.

5) While the ELA and content area literacy components described herein are critical to college and career readiness, they do not define the whole of such readiness. Students require a wide-ranging, rigorous academic preparation and, particularly in the early grades, attention to such matters as social, emotional, and physical development and approaches to learning. Similarly, the Standards define literacy expectations in history/social studies, science, and technical subjects, but literacy standards in other areas, such as mathematics and health education, modeled on those herein are strongly encouraged to allow for a comprehensive, schoolwide literacy program.

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

[2] As with reading, the percentages in the table reflect the sum of student writing, not just writing in ELA settings.

The Student Who is College and Career Ready in Reading, Writing, Speaking, Listening, and Language

The descriptions that follow are not standards themselves but instead offer a portrait of students who meet the standards set out in this document. As students advance through the grades and master the standards in reading, writing, speaking, listening, and language, they are able to exhibit with increasing fullness and regularity these capacities of the literate individual.

- **They demonstrate independence.**

Students can, without significant scaffolding or support, comprehend and evaluate complex texts across a range of types and disciplines, and they can construct effective arguments and clearly convey intricate or multifaceted information. Likewise, students are independently able to discern a speaker's key points and request clarification if something is not understood. They ask relevant questions, build on others' ideas, articulate their own ideas, and ask for confirmation that they have been understood. Without prompting, they observe language conventions, determine word meanings, attend to the connotations of words, and acquire new vocabulary.

- **They build strong content knowledge.**

Students establish a base of knowledge across a wide range of subject matter by engaging with works of quality and substance. They become proficient in new areas through research and study. They read purposefully and listen attentively to gain both general knowledge and discipline-specific expertise. They refine and share their knowledge through writing and speaking.

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

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

- **They comprehend as well as critique.**

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

- **They value evidence.**

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

- **They use technology and digital media strategically and capably.**

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

- **They come to understand other perspectives and cultures.**

Students appreciate that the twenty-first-century classroom and workplace are settings in which people from often widely divergent cultures and who represent diverse experiences and perspectives must learn and work together. Students actively seek to understand other perspectives and cultures through reading and listening, and they are able to communicate effectively with people of varied backgrounds. They evaluate other points of view critically and constructively. Through reading great classic and contemporary works of literature representative of a variety of periods, cultures, and worldviews, students can vicariously inhabit worlds and have experiences much different than their own.

How to Read This Document

Overall Document Organization and Main Features

The Standards comprise three main sections: a comprehensive K–5 section and two content area–specific sections for grades 6–12, one for ELA and one for history/social studies, science, and technical subjects. Three appendices (lettered A, B, and C) accompany the main document.

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

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

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

Who is responsible for which portion of the Standards

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

Key Features of the Standards

Reading: Text complexity and the growth of comprehension

The Reading standards place equal emphasis on the sophistication of what students read and the skill with which they read. Standard 10 defines a grade-by-grade "staircase" of increasing text complexity that rises from beginning reading to the college- and career-readiness level. Whatever they are reading, students must also show a steadily growing ability to discern more from and make fuller use of text, including making an increasing number of connections among ideas and between texts, considering a wider range of textual evidence, and becoming more sensitive to inconsistencies, ambiguities, and poor reasoning in texts.

Writing: Text types, responding to reading, and research

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

Speaking and Listening: Flexible communication and collaboration

Including but not limited to skills necessary for formal presentations, the Speaking and Listening standards require students to develop a range of broadly useful oral communication and interpersonal skills. Students must learn to work together, express and listen to ideas, integrate information from oral, visual, and multimodal sources, evaluate what they hear, use digital media and visual displays strategically to help achieve communicative purposes, and adapt speech to context and task.

Language: Conventions and vocabulary

The standards on conventions and effective language use include the essential "rules" of formal written and spoken English, but they also approach language as a matter of craft and informed choice among alternatives. The vocabulary standards focus on understanding words, their relationships, and

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

Appendices A, B, and C

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

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

K–5

DRAFT

College and Career Readiness Anchor Standards for Reading

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

Key Ideas and Details

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

Craft and Structure

4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and explain how specific word choices shape meaning or tone.
5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
6. Assess how point of view or purpose shapes the content and style of a text.

Integration of Knowledge and Ideas

7. Integrate and evaluate content presented graphically, visually, orally, and multimodally as well as in words within and across print and digital sources.*
8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

Range of Reading and Level of Text Complexity

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

*Please see "Research to Build and Present Knowledge" in Writing and "Comprehension and Collaboration" in Speaking and Listening for additional standards relevant to gathering, assessing, and applying information from print and digital sources.

Note on range and content of student reading

To build a foundation for college and career readiness, students must read widely and deeply from among a broad range of high-quality, increasingly challenging literary and informational texts. Through extensive reading of stories, dramas, poems, and myths from diverse cultures and different time periods, students gain literary and cultural knowledge as well as familiarity with various text structures and elements. By reading texts in history/social studies, science, and other disciplines, students build a foundation of knowledge in these fields that will also give them the background to be better readers in all content areas. Students can only gain this foundation when the curriculum is intentionally and coherently structured to develop rich content knowledge within and across grades. Students also acquire the habits of reading independently and closely, which are essential to their future success.

Reading Standards for Literature K–5

[RL]

The following standards offer a focus for instruction each year and help ensure that students gain adequate exposure to a range of texts and tasks. Rigor is also infused through the requirement that students read increasingly complex texts through the grades. Students advancing through the grades are expected to meet each year's grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.

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

Appendix B-7

Reading Standards for Literature K–5

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

Reading Standards for Literature K–5

[RL]

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

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Reading Standards for Informational Text K–5

[RI]

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

Reading Standards for Informational Text K–5

[RI]

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

Reading Standards for Informational Text K–5

Grade 3 students:	Grade 4 students:	Grade 5 students:
Range of Reading and Level of Text Complexity		
10. By the end of the year, read and comprehend informational texts, including historical, scientific, and technical texts, in the grades 2–3 text complexity band independently and proficiently.	**10.** By the end of year, read and comprehend informational texts, including historical, scientific, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as necessary at the high end of the range.	**10.** By the end of the year, read and comprehend informational text, including historical, scientific, and technical texts, in the grades 4–5 text complexity band level independently and proficiently.

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Reading Standards: Foundational Skills (K–5)

[RF]

These standards are directed toward fostering students' understanding and working knowledge of concepts of print, the alphabetic principle, and other basic conventions of the English writing system. These Foundational Skills are not an end in and of themselves; rather, they are necessary and important components of an effective, comprehensive reading program designed to develop proficient readers with the capacity to comprehend texts across a range of types and disciplines. Instruction should be differentiated: Good readers will need much less practice with these concepts than struggling readers. The point is to teach students what they need to learn and not what they already know—to discern when particular children or activities warrant more or less attention.

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

Kindergartners:	Grade 1 students:
Print Concepts	
1. Demonstrate understanding of the organization and basic features of print. a. Follow words from left to right, top to bottom, and page-by-page. b. Recognize that spoken words are represented in written language by specific sequences of letters. c. Understand that words are separated by spaces in print. d. Recognize and name all upper- and lowercase letters of the alphabet.	**1.** Demonstrate understanding of the organization and basic features of print. a. Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation).
Phonological Awareness	
2. Demonstrate understanding of spoken words, syllables, and sounds (phonemes). a. Recognize and produce rhyming words. b. Count, pronounce, blend, and segment syllables in spoken words. c. Blend and segment onsets and rimes of single-syllable spoken words. d. Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three-phoneme (CVC) words.[1] (This does not include CVCs ending with /l/, /r/, or /x/.) e. Add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words.	**2.** Demonstrate understanding of spoken words, syllables, and sounds (phonemes). a. Distinguish long from short vowel sounds in spoken single-syllable words . b. Orally produce single-syllable words by blending sounds (phonemes), including consonant blends. c. Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words. d. Segment spoken single-syllable words into their complete sequence of individual sounds (phonemes).

[1] Words, syllables, or phonemes written in /slashes/ refer to their pronunciation or phonology. Thus, /CVC/ is a word with three phonemes regardless of the number of letters in the spelling of the word.

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Reading Standards: Foundational Skills (K–5)

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

Kindergartners:*	Grade 1 students:	Grade 2 students:
Phonics and Word Recognition		
3. Know and apply grade-level phonics and word analysis skills in decoding words. a. Demonstrate basic knowledge of letter-sound correspondences by producing the primary or most frequent sound for each consonant. b. Associate the long and short sounds with the common spellings (graphemes) for the five major vowels. c. Read common high-frequency words by sight. (e.g., *the*, *of*, *to*, *you*, *she*, *my*, *is*, *are*, *do*, *does*). d. Distinguish between similarly spelled words by identifying the sounds of the letters that differ.	**3.** Know and apply grade-level phonics and word analysis skills in decoding words. a. Know the spelling-sound correspondences for common consonant digraphs.(two letters that represent one sound). b. Decode regularly spelled one-syllable words. c. Know final -e and common vowel team conventions for representing long vowel sounds. d. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word. e. Decode two-syllable words following basic patterns by breaking the words into syllables. f. Read words with inflectional endings. g. Recognize and read grade-appropriate irregularly spelled words.	**3.** Know and apply grade-level phonics and word analysis skills in decoding words. a. Distinguish long and short vowels when reading regularly spelled one-syllable words. b. Know spelling-sound correspondences for additional common vowel teams. c. Decode regularly spelled two-syllable words with long vowels. d. Decode words with common prefixes and suffixes. e. Identify words with inconsistent but common spelling-sound correspondences. f. Recognize and read grade-appropriate irregularly spelled words.
4. Read emergent-reader texts with purpose and understanding.	**4.** Read with sufficient accuracy and fluency to support comprehension. a. Read on-level text with purpose and understanding. b. Read on-level text orally with accuracy, appropriate rate, and expression. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.	**4.** Read with sufficient accuracy and fluency to support comprehension. a. Read on-level text with purpose and understanding. b. Read on-level text orally with accuracy, appropriate rate, and expression. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Reading Standards: Foundational Skills (K–5)

Grade 3 students:	Grade 4 students:	Grade 5 students:
Phonics and Word Recognition		
3. Know and apply grade-level phonics and word analysis skills in decoding words. a. Identify and know the meaning of the most common prefixes and derivational suffixes. b. Decode words with common Latin suffixes. c. Decode multisyllable words. d. Read grade-appropriate irregularly spelled words.	**3.** Know and apply grade-level phonics and word analysis skills in decoding words. a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multi-syllabic words in context and out of context.	**3.** Know and apply grade-level phonics and word analysis skills in decoding words. a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multi-syllabic words in context and out of context.
Fluency		
4. Read with sufficient accuracy and fluency to support comprehension. a. Read on-level text with purpose and understanding. b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.	**4.** Read with sufficient accuracy and fluency to support comprehension. a. Read on-level text with purpose and understanding. b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.	**4.** Read with sufficient accuracy and fluency to support comprehension. a. Read on-level text with purpose and understanding. b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

College and Career Readiness Anchor Standards for Writing

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

Text Types and Purposes[1]

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

Production and Distribution of Writing

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

Research to Build and Present Knowledge

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

Range of Writing

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

[1]These broad types of writing include many subgenres. See Appendix A for definitions of key writing types.
[2]See standards 1–3 in Language, pages 26–31, for specific editing expectations.

Note on range and content of student writing

To build a foundation for college and career readiness, students need to learn to use writing as a way of offering and supporting opinions, demonstrating understanding of the subjects they are studying, and conveying real and imagined experiences and events. They learn to appreciate that a key purpose of writing is to communicate clearly to an external, sometimes unfamiliar audience, and they begin to adapt the form and content of their writing to accomplish a particular task and purpose.. They develop the capacity to build knowledge on a subject through research projects and to respond analytically to literary and informational sources. To meet these goals, students must devote significant time and effort to writing, producing numerous pieces over short and extended time frames throughout the year.

Writing Standards K–5

[W]

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

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

Writing Standards K–5

Grade 3 students:	Grade 4 students:	Grade 5 students:
Text Types and Purposes		
1. Write opinion pieces on familiar topics or texts, supporting a point of view with reasons. a. Introduce the topic or book they are writing about, state an opinion, and create an organizational structure that lists reasons. b. Provide reasons that support the opinion. c. Use linking words and phrases (e.g., *because*, *therefore*, *since*, *for example*) to connect opinion and reasons. d. Provide a concluding statement or section.	**1.** Write opinion pieces on topics or texts, supporting a point of view with reasons and information. a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose. b. Provide reasons that are supported by facts and details. c. Link opinion and reasons using words and phrases (e.g., *for instance*, *in order to*, *in addition*). d. Provide a concluding statement or section related to the opinion presented.	**1.** Write opinion pieces on topics or texts, supporting a point of view with reasons and information. a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose. b. Provide logically ordered reasons that are supported by facts and details. c. Link opinion and reasons using words, phrases, and clauses (e.g., *consequently*, *specifically*). d. Provide a concluding statement or section related to the opinion presented.
2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension. b. Develop the topic with facts, definitions, and details. c. Use linking words and phrases (e.g., *also*, *another*, *and*, *more*, *but*) to connect ideas within categories of information. d. Provide a concluding statement or section.	**2.** Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within categories of information using words and phrases (e.g., *another*, *for example*, *also*, *because*). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented.	**2.** Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., *in contrast*, *especially*). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented.
3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations. c. Use temporal words and phrases to signal event order. d. Provide a sense of closure.	**3.** Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use dialogue and description to develop experiences and events or show the responses of characters to situations. c. Use a variety of transitional words and phrases to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events precisely. e. Provide a conclusion that follows from the narrated experiences or events.	**3.** Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations. c. Use a variety of transitional words, phrases, and clauses to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events precisely. e. Provide a conclusion that follows from the narrated experiences or events.

Writing Standards K–5

Grade 3 students:	Grade 4 students:	Grade 5 students:
Production and Distribution of Writing		
4. With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1–3 above.)	**4.** Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)	**4.** Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.	**5.** With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.	**5.** With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
6. With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.	**6.** With some guidance and support from adults, use technology, including the Internet, to produce and publish writing (using the keyboard) as well as to interact and collaborate with others.	**6.** With some guidance and support from adults, use technology, including the Internet, to produce and publish a minimum of two pages of writing (using the keyboard) as well as to interact and collaborate with others.
Research to Build Knowledge		
7. Conduct short research projects that build knowledge about a topic.	**7.** Conduct short research projects that build knowledge through investigation of different aspects of a topic.	**7.** Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
8. Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.	**8.** Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.	**8.** Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.
9. (Begins in grade 4)	**9.** Draw evidence from literary or informational texts to support analysis, reflection, and research. a. Apply *grade 4 Reading standards* to literature (e.g., "Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text"). b. Apply *grade 4 Reading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text").	**9.** Draw evidence from literary or informational texts to support analysis, reflection, and research. a. Apply *grade 5 Reading standards* to literature (e.g., "Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text"). b. Apply *grade 5 Reading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence supports which point[s]").
Range of Writing		
10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	**10.** Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	**10.** Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

College and Career Readiness Anchor Standards for Speaking and Listening

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

Comprehension and Collaboration

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

Presentation of Knowledge and Ideas

4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
6. Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.

Note on range and content of student speaking and listening

To build a foundation for college and career readiness, students must have ample opportunities to take part in a variety of rich, structured conversations—as part of a whole class, in small groups, and with a partner. Being productive members of these conversations requires that students contribute accurate, relevant information; respond to and develop what others have said; make comparisons and contrasts; and analyze and synthesize a multitude of ideas in various domains.

New technologies have broadened and expanded the role that speaking and listening play in acquiring and sharing knowledge and have tightened their link to other forms of communication. Digital texts confront students with the potential for continually updated content and dynamically changing combinations of words, graphics, images, hyperlinks, and embedded video and audio.

Speaking and Listening Standards K–5

[SL]

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

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

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

College and Career Readiness Anchor Standards for Language

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

Conventions

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

Effective Language Use

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

Vocabulary Acquisition and Use

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

Note on range and content of student language use

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

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

Kindergartners:	Grade 1 students:	Grade 2 students:
Conventions		
1. Observe conventions of grammar and usage when writing or speaking. a. Print many upper- and lowercase letters. b. Use frequently occurring nouns and verbs. c. Form regular plural nouns orally by adding /s/ or /es/ (e.g., *dog*, *dogs*; *wish*, *wishes*). d. Understand and use question words (interrogatives) (e.g., *who*, *what*, *where*, *when*, *why*, *how*). e. Use the most frequently occurring prepositions (e.g., *to*, *from*, *in*, *out*, *on*, *off*, *for*, *of*, *by*, *with*). f. Produce and expand complete sentences in shared language activities.	**1.** Observe conventions of grammar and usage when writing or speaking. a. Print all upper- and lowercase letters. b. Use common, proper, and possessive nouns. c. Use singular and plural nouns with matching verbs in basic sentences (e.g., *He hops*; *We hop*). d. Use personal, possessive, and indefinite pronouns (e.g., *I*, *me*, *my*; *they*, *them*, *their*, *anyone*, *everything*). e. Use verbs to convey a sense of past, present, and future (e.g., *Yesterday I walked home*; *Today I walk home*; *Tomorrow I will walk home*). f. Use frequently occurring adjectives. g. Use frequently occurring conjunctions (e.g., *and*, *but*, *or*, *so*, *because*). g. Use determiners (e.g., articles, demonstratives). h. Use frequently occurring prepositions (e.g., *during*, *beyond*, *toward*). i. Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to questions and prompts.	**1.** Observe conventions of grammar and usage when writing or speaking. a. Use collective nouns (e.g., *group*). b. Form and use frequently occurring irregular plural nouns (e.g., *feet*, *children*, *teeth*, *mice*, *fish*). c. Use reflexive pronouns (e.g., *myself*, *ourselves*). d. Form and use the past tense of frequently occurring irregular verbs (e.g., *sat*, *hid*, *told*). e. Use adjectives and adverbs, and choose between them depending on what is to be modified. f. Produce, expand, and rearrange complete simple and compound sentences (e.g., *The boy watched the movie*; *The little boy watched the movie*; *The action movie was watched by the little boy*).
2. Observe conventions of capitalization, punctuation, and spelling when writing. a. Capitalize the first word in a sentence and the pronoun *I*. b. Recognize and name end punctuation. c. Write a letter or letters for most consonant and short-vowel sounds (phonemes). d. Spell simple words phonetically, drawing on knowledge of sound-letter relationships.	**2.** Observe conventions of capitalization, punctuation, and spelling when writing. a. Capitalize dates and names of people. b. Use end punctuation for sentences. c. Use commas in dates and to separate single words in a series. d. Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words. e. Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions.	**2.** Observe conventions of capitalization, punctuation, and spelling when writing. a. Capitalize holidays, product names, and geographic names. b. Use commas in greetings and closings of letters. c. Use an apostrophe to form contractions and frequently occurring possessives. d. Generalize learned spelling patterns when writing words (e.g., *cage* → *badge*; *boy* → *boil*). e. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.
Effective Language Use		
3. (Begins in grade 3)	**3.** (Begins in grade 3)	**3.** (Begins in grade 3)

Kindergartners:	Grade 1 students:	Grade 2 students:
Vocabulary Acquisition and Use		
4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *kindergarten reading and content*. a. Identify new meanings for familiar words and apply them accurately (e.g., knowing *duck* as a bird and learning the verb *to duck*). b. Use the most frequently occurring inflections and affixes (e.g., *-ed*, *-s*, *re-*, *un-*, *pre-*, *-ful*, *-less*) as a clue to the meaning of an unknown word.	**4.** Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 1 reading and content*, choosing flexibly from an array of strategies. a. Use sentence-level context as a clue to the meaning of a word or phrase. b. Use frequently occurring affixes as a clue to the meaning of a word. c. Identify frequently occurring root words (e.g., *look*) and their inflectional forms (e.g., *looks*, *looked*, *looking*).	**4.** Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 2 reading and content*, choosing flexibly from an array of strategies. a. Use sentence-level context as a clue to the meaning of a word or phrase. b. Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., *happy/unhappy*, *tell/retell*). c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *addition*, *additional*). d. Use knowledge of the meaning of individual words to predict the meaning of compound words (e.g., *birdhouse*, *lighthouse*, *housefly*; *bookshelf*, *notebook*, *bookmark*). e. Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases.
5. With guidance and support from adults, explore word relationships and nuances in word meanings. a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent. b. Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms). c. Identify real-life connections between words and their use (e.g., note places at school that are *colorful*). d. Distinguish shades of meaning among verbs describing the same general action (e.g., *walk*, *march*, *strut*, *prance*) by acting out the meanings.	**5.** With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings. a. Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent. b. 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). c. Identify real-life connections between words and their use (e.g., note places at home that are *cozy*). d. Distinguish shades of meaning among verbs differing in manner (e.g., *look*, *peek*, *glance*, *stare*, *glare*, *scowl*) and adjectives differing in intensity (e.g., *large*, *gigantic*) by defining or choosing them or by acting out the meanings.	**5.** Demonstrate understanding of word relationships and nuances in word meanings. a. Identify real-life connections between words and their use (e.g., describe foods that *are spicy* or *juicy*). b. Distinguish shades of meaning among closely related verbs (e.g., *toss*, *throw*, *hurl*) and closely related adjectives (e.g., *thin*, *slender*, *skinny*, *scrawny*).
6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts.	**6.** Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., *I named my hamster Nibblet because she nibbles too much because she likes that*).	**6.** Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., *When other kids are happy that makes me happy*).

Grade 3 students:	Grade 4 students:	Grade 5 students:
Conventions		
1. Observe conventions of grammar and usage when writing or speaking. a. Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences. b. Form and use regular and irregular plural nouns. c. Use abstract nouns (e.g., *childhood*). d. Form and use regular and irregular verbs. e. Form and use the simple (e.g., *I walked*; *I walk*; *I will walk*) verb tenses. f. Ensure subject-verb and pronoun-antecedent agreement.* g. Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified. h. Use coordinating and subordinating conjunctions. i. Produce simple, compound, and complex sentences.	**1.** Observe conventions of grammar and usage when writing or speaking. a. Use relative pronouns (*who*, *whose*, *whom*, *which*, *that*) and relative adverbs (*where*, *when*, *why*). b. Form and use the progressive (e.g., *I was walking*; *I am walking*; *I will be walking*) verb aspects. c. Use modal auxiliaries (e.g., *can*, *may*, *must*) to convey various conditions. d. Order adjectives within sentences according to conventional patterns (e.g., *a small red bag* rather than *a red small bag*). e. Form and use prepositional phrases. f. Produce complete sentences, recognizing and correcting rhetorically poor fragments and run-ons.* g. Correctly use frequently confused words (e.g., *to*, *too*, *two*; *there*, *their*).*	**1.** Observe conventions of grammar and usage when writing or speaking. a. Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences. b. Form and use the perfect (e.g., *I had walked*; *I have walked*; *I will have walked*) verb aspects. c. Use verb tense and aspect to convey various times, sequences, states, and conditions. d. Recognize and correct inappropriate shifts in verb tense and aspect.* e. Use correlative conjunctions.
2. Observe conventions of capitalization, punctuation, and spelling when writing. a. Capitalize important words in titles. b. Use commas in addresses. c. Use commas and quotation marks in dialogue. d. Form and use possessives. e. Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., *sitting*, *smiled*, *cries*, *happiness*). f. Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words. g. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.	**2.** Observe conventions of capitalization, punctuation, and spelling when writing. a. Use correct capitalization. b. Use commas and quotation marks to mark direct speech and quotations from a text. c. Use a comma before a coordinating conjunction in a compound sentence. d. Spell grade-appropriate words correctly, consulting references as needed.	**2.** Observe conventions of capitalization, punctuation, and spelling when writing. a. Use punctuation to separate items in a series.* b. Use a comma to separate an introductory element from the rest of the sentence. c. Use a comma to set off the words *yes* and *no* (e.g., *Yes, thank you*), to set off a tag question from the rest of the sentence (e.g., *It's true, isn't it?*), and to indicate direct address (e.g., *Is that you, Steve?*). d. Use underlining, quotation marks, or italics to indicate titles of works. e. Spell grade-appropriate words correctly, consulting references as needed.
Effective Language Use		
3. Use language to achieve particular effects when writing or speaking. a. Choose words and phrases for effect.*	**3.** Use language to enhance meaning and achieve particular effects when writing or speaking. a. Choose words and phrases to convey ideas precisely.* b. Use punctuation for effect.*	**3.** Use language to enhance meaning, convey style, and achieve particular effects when writing or speaking. a. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.

Grade 3 students:	Grade 4 students:	Grade 5 students:
Vocabulary Acquisition and Use		
4. Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on *grade 3 reading and content*, choosing flexibly from a range of strategies. a. Use sentence-level context as a clue to the meaning of a word or phrase. b. Determine the meaning of the new word formed when a known affix is added to a known word (e.g., *agreeable/disagreeable*, *comfortable/uncomfortable*, *care/careless*, *heat/preheat*). c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *company*, *companion*). d. Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.	**4.** Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 4 reading and content*, choosing flexibly from a range of strategies. a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *telegraph*, *photograph*, *autograph*). c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.	**4.** Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 5 reading and content*, choosing flexibly from a range of strategies. a. Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *photograph*, *photosynthesis*). c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.
5. Demonstrate understanding of word relationships and nuances in word meanings. a. Distinguish the literal and nonliteral meanings of words and phrases in context (e.g., *take steps*). b. Identify real-life connections between words and their use (e.g., describe people who are *friendly* or *helpful*). c. Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., *knew*, *believed*, *suspected*, *heard*, *wondered*).	**5.** Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Explain the meaning of simple similes and metaphors (e.g., *as pretty as a picture*) in context. b. Recognize and explain the meaning of common idioms, adages, and proverbs. c. Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).	**5.** Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Interpret figurative language, including similes and metaphors, in context. b. Recognize and explain the meaning of common idioms, adages, and proverbs. c. Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.
6. Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific vocabulary, including words and phrases that signal spatial and temporal relationships (e.g., *After dinner that night we went looking for them*).	**6.** Acquire and use accurately grade-appropriate general academic and domain-specific vocabulary, including words and phrases that signal precise actions, emotions, or states of being (e.g., *quizzed*, *whined*, *stammered*) and words and phrases basic to a particular topic (e.g., *wildlife*, *conservation*, and *endangered* when discussing animal preservation).	**6.** Acquire and use accurately grade-appropriate general academic and domain-specific vocabulary, including words and phrases that signal contrast, addition, and other logical relationships (e.g., *however*, *although*, *nevertheless*, *similarly*, *moreover*, *in addition*).

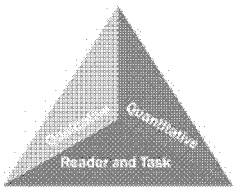
Language Progressive Skills, by Grade

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

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

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

Measuring Text Complexity: Three Factors



Qualitative evaluation of the text: Levels of meaning, structure, language conventionality and clarity, and knowledge demands

Quantitative evaluation of the text: Readability measures and other scores of text complexity

Matching reader to text and task: Reader knowledge, motivation, and interests as well as the complexity generated by the tasks assigned and the questions posed

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

Range of Text Types for K–5

Students in K–5 apply the Reading standards to the following range of text types, with texts selected from a broad range of cultures and periods.

Literature			Informational Text
Stories	**Dramas**	**Poetry**	**Literary Nonfiction and Historical, Scientific, and Technical Texts**
Includes children's adventure stories, folktales, legends, fables, fantasy, realistic fiction, and myth	Includes staged dialogue and brief familiar scenes	Includes nursery rhymes and the subgenres of the narrative poem, limerick, and free verse poem	Includes biographies and autobiographies; books about history, social studies, science, and the arts; technical texts, including directions, forms, and information displayed in graphs, charts, or maps; and digital sources on a range of topics

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

	Literature: Stories, Drama, Poetry	Informational Texts: Literary Nonfiction and Historical, Scientific, and Technical Texts
K	▪ *Over in the Meadow* by John Langstaff (traditional) (c1800)* ▪ *A Boy, a Dog, and a Frog* by Mercer Mayer (1967) ▪ *Pancakes for Breakfast* by Tomie DePaola (1978) ▪ *A Story A Story* by Gail E. Haley (1970)* ▪ *Kitten's First Full Moon* by Kevin Henkes (2004)*	▪ *My Five Senses* by Aliki (1962)* ▪ *Truck* by Donald Crews (1980) ▪ *I Read Signs* by Tana Hoban (1987) ▪ *What Do You Do With a Tail Like This?* by Steve Jenkins and Robin Page (2003)* ▪ *Amazing Whales!* by Sarah L. Thomson (2005)*
1	▪ "Mix a Pancake" by Christina G. Rossetti (1893)** ▪ *Mr. Popper's Penguins* by Richard Atwater (1938)* ▪ *Little Bear* by Else Holmelund Minarik, illustrated by Maurice Sendak (1957)** ▪ *Frog and Toad Together* by Arnold Lobel (1971)** ▪ *Hi! Fly Guy* by Tedd Arnold (2006)	▪ *A Tree Is a Plant* by Clyde Robert Bulla, illustrated by Stacey Schuett (1960)** ▪ *My Five Senses* by Aliki (1962)** ▪ *Follow the Water from Brook to Ocean* by Arthur Dorros (1991)** ▪ *From Seed to Pumpkin* by Wendy Pfeffer, illustrated by James Graham Hale (2004)* ▪ *How People Learned to Fly* by Fran Hodgkins and True Kelley (2007)*
2–3	▪ "Who Has Seen the Wind?" by Christina G. Rossetti (1893) ▪ *Charlotte's Web* by E. B. White (1952)* ▪ *Sarah, Plain and Tall* by Patricia MacLachlan (1985) ▪ *Tops and Bottoms* by Janet Stevens (1995) ▪ *Poppleton in Winter* by Cynthia Rylant, illustrated by Mark Teague (2001)	▪ *A Medieval Feast* by Aliki (1983) ▪ *From Seed to Plant* by Gail Gibbons (1991) ▪ *The Story of Ruby Bridges* by Robert Coles (1995)* ▪ *A Drop of Water: A Book of Science and Wonder* by Walter Wick (1997) ▪ *Moonshot: The Flight of Apollo 11* by Brian Floca (2009)
4–5	▪ *Alice's Adventures in Wonderland* by Lewis Carroll (1865) ▪ "Casey at the Bat" by Ernest Lawrence Thayer (1888) ▪ *The Black Stallion* by Walter Farley (1941) ▪ "Zlatch the Goat" by Isaac Bashevis Singer (1984) ▪ *Bud, Not Buddy* by Christopher Paul Curtis (1999) ▪ *The Birchbark House* by Louise Erdrich (1999) ▪ *Where the Mountain Meets the Moon* by Grace Lin (2009)	▪ *Discovering Mars* by Melvin Berger (1992) ▪ *Hurricanes: Earth's Mightiest Storms* by Patricia Lauber (1996) ▪ *A History of US* by Joy Hakim (2005) ▪ *Horses* by Seymour Simon (2006) ▪ *Quest for the Tree Kangaroo: An Expedition to the Cloud Forest of New Guinea* by Sy Montgomery (2006)

Note: Given space limitations, the illustrative texts listed above are meant only to show individual titles that are representative of a wide range of topics and genres. (See Appendix B for excerpts of these and other texts illustrative of K–5 text complexity, quality, and range.) At a curricular or instructional level, within and across grade levels, texts need to be selected around topics or themes that generate knowledge and allow students to study those topics or themes in depth. On the next page is an example of progressions of texts building knowledge across grade levels.

[1]Children at the kindergarten and grade 1 levels should be expected to read texts independently that have been specifically written to correlate to their reading level and their word knowledge. Many of the titles listed above are meant to supplement carefully structured independent reading with books to read along with a teacher or that are read aloud to students to build knowledge and cultivate a joy in reading.

Staying on Topic Within a Grade and Across Grades: How to Build Knowledge Systematically in English Language Arts K–5

Building knowledge systematically in English language arts is like giving children various pieces of a puzzle in each grade that, over time, will form one big picture. At a curricular or instructional level, texts within and across grade levels need to be selected around topics or themes that systematically develop the knowledge base of students. Within a grade level, there should be an adequate number of titles on a single topic that would allow children to study that topic for a sustained period. The knowledge children have learned about particular topics in early grade levels should then be expanded and developed in subsequent grade levels to ensure an increasingly deeper understanding of these topics. Children in the upper elementary grades will generally be expected to read these texts independently and reflect on them in writing. However, children in the early grades (particularly K–2) should participate in rich, structured conversations with an adult in response to the written texts that are read aloud, *orally* comparing and contrasting as well as analyzing and synthesizing, in the manner called for by the *Standards*.

Preparation for reading complex informational texts should begin at the very earliest elementary school grades. What follows is one example that uses domain-specific nonfiction titles across grade levels to illustrate how curriculum designers and classroom teachers can infuse the English language arts block with rich, age-appropriate content knowledge and vocabulary in history/social studies, science, and the arts. Having students listen to informational read-alouds in the early grades helps lay the necessary foundation for students' reading and understanding of increasingly complex texts on their own in subsequent grades.

Exemplar Texts on a Topic Across Grades	K	1	2–3	4–5
The Human Body Students can begin learning about the human body starting in kindergarten and then review and extend their learning during each subsequent grade.	The five senses and associated body parts ▪ *My Five Senses* by Aliki (1989) ▪ *Hearing* by Maria Rius (1985) ▪ *Sight* by Maria Rius (1985) ▪ *Smell* by Maria Rius (1985) ▪ *Taste* by Maria Rius (1985) ▪ *Touch* by Maria Rius (1985) Taking care of your body: Overview (hygiene, diet, exercise, rest) ▪ *My Amazing Body: A First Look at Health & Fitness* by Pat Thomas (2001) ▪ *Get Up and Go!* by Nancy Carlson (2008) ▪ *Go Wash Up* by Doering Tourville (2008) ▪ *Sleep* by Paul Showers (1997) ▪ *Fuel the Body* by Doering Tourville (2008)	Introduction to the systems of the human body and associated body parts ▪ *Under Your Skin: Your Amazing Body* by Mick Manning (2007) ▪ *Me and My Amazing Body* by Joan Sweeney (1999) ▪ *The Human Body* by Gallimard Jeunesse (2007) ▪ *The Busy Body Book* by Lizzy Rockwell (2008) ▪ *First Encyclopedia of the Human Body* by Fiona Chandler (2004) Taking care of your body: Germs, diseases, and preventing illness ▪ *Germs Make Me Sick* by Marilyn Berger (1995) ▪ *Tiny Life on Your Body* by Christine Taylor-Butler (2005) ▪ *Germ Stories* by Arthur Kornberg (2007) ▪ *All About Scabs* by GenichiroYagu (1998)	Digestive and excretory systems ▪ *What Happens to a Hamburger* by Paul Showers (1985) ▪ *The Digestive System* by Christine Taylor-Butler (2008) ▪ *The Digestive System* by Rebecca L. Johnson (2006) ▪ *The Digestive System* by Kristin Petrie (2007) Taking care of your body: healthy eating and nutrition ▪ *Good Enough to Eat* by Lizzy Rockwell (1999) ▪ *Showdown at the Food Pyramid* by Rex Barron (2004) Muscular, skeletal, and nervous systems ▪ *The Mighty Muscular and Skeletal Systems* Crabtree Publishing (2009) ▪ *Muscles* by Seymour Simon (1998) ▪ *Bones* by Seymour Simon (1998) ▪ *The Astounding Nervous System* Crabtree Publishing (2009) ▪ *The Nervous System* by Joelle Riley (2004)	Circulatory system ▪ *The Heart* by Seymour Simon (2006) ▪ *The Heart and Circulation* by Carol Ballard (2005) ▪ *The Circulatory System* by Kristin Petrie (2007) ▪ *The Amazing Circulatory System* by John Burstein (2009) Respiratory system ▪ *The Lungs* by Seymour Simon (2007) ▪ *The Respiratory System* by Susan Glass (2004) ▪ *The Respiratory System* by Kristin Petrie (2007) ▪ *The Remarkable Respiratory System* by John Burstein (2009) Endocrine system ▪ *The Endocrine System* by Rebecca Olien (2006) ▪ *The Exciting Endocrine System* by John Burstein (2009)

Standards for English Language Arts

6–12

DRAFT

College and Career Readiness Anchor Standards for Reading

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

Key Ideas and Details

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

Craft and Structure

4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
6. Assess how point of view or purpose shapes the content and style of a text.

Integration of Knowledge and Ideas

7. Integrate and evaluate content presented graphically, visually, orally, and multimodally as well as in words within and across print and digital sources. *
8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

Range of Reading and Level of Text Complexity

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

*Please see "Research to Build Knowledge" in Writing and "Comprehension and Collaboration" in Speaking and Listening for additional standards relevant to gathering, assessing, and applying information from print and digital sources.

Note on range and content of student reading

To become college and career ready, students must grapple with works of exceptional craft and thought whose range extends across genres, cultures, and centuries. Such works offer profound insights into the human condition and serve as models for students' own thinking and writing. Along with high-quality contemporary works, these texts should be chosen from among seminal U.S. documents, the classics of American literature, and the timeless dramas of Shakespeare. Through wide and deep reading of literature and literary nonfiction of steadily increasing sophistication, students gain a reservoir of literary and cultural knowledge, references, and images; the ability to evaluate intricate arguments; and the capacity to surmount the challenges posed by complex texts.

Reading Standards for Literature 6–12

[RL]

The following standards offer a focus for instruction each year and help ensure that students gain adequate exposure to a range of texts and tasks. Rigor is also infused through the requirement that students read increasingly complex texts through the grades. Students advancing through the grades are expected to meet each year's grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.

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

Reading Standards for Literature 6–12

[RL]

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

Reading Standards for Literature 6–12

[RL]

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

Reading Standards for Informational Text 6–12

[RI]

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

Reading Standards for Informational Text 6–12

[RI]

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

DRAFT

Reading Standards for Informational Text 6–12

[RI]

Grades 9–10 students:	Grades 11–12 students:
Key Ideas and Details	
1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	**1.** Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.
2. Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.	**2.** Determine two or more central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to provide a complex analysis; provide an objective summary of the text.
3. Analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.	**3.** Analyze a complex set of ideas or sequence of events and explain how specific individuals, ideas, or events interact and develop over the course of the text.
Craft and Structure	
4. Determine the meaning of words and phrases as they are used in a text and analyze the cumulative impact of several word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).	**4.** Determine the meaning of words and phrases as they are used in a text and analyze how an author uses and refines the meaning of a key term or terms over the course of a text (e.g., how Madison defines *faction* in *Federalist* No. 10).
5. Analyze in detail how an author's ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text (e.g., a section or chapter).	**5.** Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging.
6. Analyze documents of historical and literary significance, including seminal U.S. documents (e.g., the Declaration of Independence, the Preamble to the Constitution, the Bill of Rights), for their premises and purposes.	**6.** Analyze how various authors express different points of view on similar events or issues, assessing the authors' assumptions, use of evidence, and reasoning, including analyzing seminal U.S. documents (e.g., *The Federalist*, landmark U.S. Supreme Court majority opinions and dissents).
Integration of Knowledge and Ideas	
7. Evaluate the accounts of a subject in different mediums (e.g., a person's life story told in print or digital text, film, or multimedia), analyzing each version for which details are emphasized and how the account unfolds.	**7.** Integrate and evaluate multiple sources of information presented in different formats (e.g., print or digital text, video, multimedia) in order to address a question or solve a problem, resolving conflicting information when possible.
8. Delineate and evaluate the argument and claims in a text, assessing the relevance and sufficiency of the evidence and the validity of the reasoning and identifying false statements and fallacious reasoning.	**8.** Delineate and evaluate the argument and claims in a text, assessing the relevance and sufficiency of the evidence and the validity of the reasoning, identifying and evaluating stated and unstated premises and assumptions.
9. Analyze a case in which authors disagree with or otherwise respond to one another's ideas or accounts of events, evaluating the strength of each author's evidence, reasoning, and interpretation.	**9.** Synthesize information, explanations, and arguments from a range of sources to provide a coherent account of events or ideas, resolving conflicting information when possible.
Range of Reading and Level of Text Complexity	
10. By the end of grade 9, read and comprehend literary nonfiction in the grades 9–10 text complexity band proficiently, with scaffolding as needed at the high end of the range. By the end of grade 10, read and comprehend literary nonfiction in the grades 9–10 text complexity band independently and proficiently.	**10.** By the end of grade 11, read and comprehend literary nonfiction in the grades 11–CCR text complexity band proficiently, with scaffolding as needed at the high end of the range. By the end of grade 12, read and comprehend literary nonfiction in the grades 11–CCR text complexity band independently and proficiently.

College and Career Readiness Anchor Standards for Writing

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

Text Types and Purposes[1]

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

Production and Distribution of Writing

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

Research to Build and Present Knowledge

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

Range of Writing

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

[1]These broad types of writing include many subgenres. See Appendix A for definitions of key writing types.
[2]See standards 1–3 in Language, pages 53–57, for specific editing expectations.

Note on range and content of student writing

For students, writing is a key means of asserting and defending claims, showing what they know about a subject, and conveying what they have experienced, imagined, thought, and felt. To be college- and career-ready writers, students must take task, purpose, and audience into careful consideration, choosing words, information, structures, and formats deliberately. They need to know how to combine elements of different kinds of writing—for example, to use narrative strategies within argument and explanation within narrative—to produce complex and nuanced writing. They need to be able to use technology strategically when creating, refining, and collaborating on writing. They have to become adept at gathering information, evaluating sources, and citing material accurately, reporting findings from their research and analysis of sources in a clear and cogent manner. They must have the flexibility, concentration, and fluency to produce high-quality first-draft text under a tight deadline as well as the capacity to revisit and make improvements to a piece of writing over multiple drafts when circumstances encourage or require it.

Writing Standards 6–12

[W]

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

Grade 6 students:	Grade 7 students:	Grade 8 students:
Text Types and Purposes		
1. Write arguments to support claims with clear reasons and relevant evidence. a. Introduce claim(s) and organize the reasons and evidence clearly. b. Support claim(s) with clear reasons and relevant evidence, demonstrating an understanding of the topic or text. c. Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons. d. Establish and maintain a formal style. e. Provide a concluding statement or section that follows from the argument presented.	**1.** Write arguments to support claims with clear reasons and relevant evidence. a. Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically. b. Support claim(s) with logical reasoning and relevant evidence, demonstrating an understanding of the topic or text. c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence. d. Establish and maintain a formal style. e. Provide a concluding statement or section that follows from and supports the argument presented.	**1.** Write arguments to support claims with clear reasons and relevant evidence. a. Introduce claim(s), acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically. b. Support claim(s) with logical reasoning and relevant evidence, using credible sources and demonstrating an understanding of the topic or text. c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence. d. Establish and maintain a formal style. e. Provide a concluding statement or section that follows from and supports the argument presented.
2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from the information or explanation presented.	**2.** Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from and supports the information or explanation presented.	**2.** Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from and supports the information or explanation presented.

Writing Standards 6–12

[W]

Grade 6 students:	Grade 7 students:	Grade 8 students:
Text Types and Purposes (continued)		
3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. e. Provide a conclusion that follows from the narrated experiences or events.	**3.** Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. a. Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. d. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events. e. Provide a conclusion that follows from and reflects on the narrated experiences or events.	**3.** Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. a. Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. b. Use narrative techniques, such as dialogue, pacing, description, and reflection, to develop experiences, events, and/or characters. c. Use a variety of transition words, phrases, and clauses to convey sequence, signal shifts from one time frame or setting to another, and show the relationships among experiences and events. d. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events. e. Provide a conclusion that follows from and reflects on the narrated experiences or events.
Production and Distribution of Writing		
4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)	**4.** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)	**4.** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.	**5.** With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.	**5.** With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.
6. Use technology, including the Internet, to produce and publish a minimum of three pages of writing as well as to interact and collaborate with others.	**6.** Use technology, including the Internet, to produce and publish a minimum of four pages of writing as well as to interact and collaborate with others.	**6.** Use technology, including the Internet, to produce and publish a minimum of five pages of writing as well as to interact and collaborate with others.

Writing Standards 6–12

[W]

Grade 6 students:	Grade 7 students:	Grade 8 students:
Research to Build and Present Knowledge		
7. Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.	**7.** Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	**7.** Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
8. Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.	**8.** Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.	**8.** Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research. a. Apply *grade 6 Reading standards* to literature (e.g., "Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics."). b. Apply *grade 6 Reading standards* to literary nonfiction (e.g., "Delineate and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not").	**9.** Draw evidence from literary or informational texts to support analysis, reflection, and research. a. Apply *grade 7 Reading standards* to literature (e.g., "Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history]). b. Apply *grade 7 Reading standards* to literary nonfiction (e.g., "Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is sufficient to support the claims").	**9.** Draw evidence from literary or informational texts to support analysis, reflection, and research. a. Apply *grade 8 Reading standards* to literature (e.g., "Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new"). b. Apply *grade 8 Reading standards* to literary nonfiction (e.g., "Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient and identifying when irrelevant evidence is introduced").
Range of Writing		
10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	**10.** Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	**10.** Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Grades 9–10 students:	Grades 11–12 students:
Text Types and Purposes	
1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. a. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence. b. Develop claim(s) and counterclaims fairly, supplying evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level and concerns. c. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. e. Provide a concluding statement or section that follows from and supports the argument presented.	**1.** Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. a. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences claim(s), counterclaims, reasons, and evidence. b. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level, concerns, values, and possible biases. c. Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. e. Provide a concluding statement or section that follows from and supports the argument presented.
2. Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content. a. Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. c. Use appropriate and varied transitions to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts. d. Use precise language and domain-specific vocabulary to manage the complexity of the topic. e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).	**2.** Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content. a. Introduce a topic; organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. b. Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. c. Use appropriate and varied transitions and syntax to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts. d. Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic. e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).

Grades 9–10 students:	Grades 11–12 students:
Text Types and Purposes (continued)	
3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences. a. Engage and orient the reader by setting out a problem, situation, or observation, establishing one or multiple point(s) of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events. b. Use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters. c. Use a variety of techniques to sequence events so that they build on one another to create a coherent whole. d. Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters. e. Provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.	**3.** Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences. a. Engage and orient the reader by setting out a problem, situation, or observation and its significance, establishing one or multiple point(s) of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events. b. Use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters. c. Use a variety of techniques to sequence events so that they build on one another to create a coherent whole and build toward a particular tone and outcome (e.g., a sense of mystery, suspense, growth, or resolution). d. Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters. e. Provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.
Production and Distribution of Writing	
4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)	**4.** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.	**5.** Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.	**6.** Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.
Research to Build and Present Knowledge	
7. Conduct short as well as more sustained research projects to answer a question (including a self-generate question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	**7.** Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.	**8.** Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.

Grades 9–10 students:

Research to Build and Present Knowledge (continued)

9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

a. Apply *grades 9–10 Reading standards* to literature (e.g., "Demonstrate knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works of American literature, drawing on how two or more texts from the same period treat similar themes or topics").

b. Apply *grades 9–10 Reading standards* to literary nonfiction (e.g., "Delineate and evaluate the argument and claims in a text, assessing the relevance and sufficiency of the evidence and the validity of the reasoning and identifying false statements and fallacious reasoning").

Range of Writing

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

Grades 11–12 students:

9. Draw evidence form literary or informational texts to support analysis, reflection, and research.

a. Apply *grades 11–12 Reading standards* to literature (e.g., "Analyze how an author draws on and transforms source material in a specific work (e.g., how Shakespeare draws on Ovid or the Bible or how a later author draws on a play by Shakespeare) in order to evaluate how the texts treat similar themes or topics").

b. Apply *grades 11–12 Reading standards* to literary nonfiction (e.g., "Delineate and evaluate the argument and claims in a text, assessing the relevance and sufficiency of the evidence and the validity of the reasoning, identifying and evaluating stated and unstated premises and assumptions").

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

College and Career Readiness Anchor Standards for Speaking and Listening

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

Comprehension and Collaboration

1. Prepare for and participate effectively in a range of conversations and collaborations, building on others' ideas and expressing their own clearly and persuasively.

2. Integrate and evaluate content from multiple graphical, visual, oral, or multimodal sources.

3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.

Presentation of Knowledge and Ideas

4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.

5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

6. Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.

Note on range and content of student speaking and listening

To become college and career ready, students must have ample opportunities to take part in a variety of rich, structured conversations—as part of a whole class, in small groups, and with a partner—built around important content in various domains. They must be able to contribute appropriately to these conversations, to make comparisons and contrasts, and to analyze and synthesize a multitude of ideas in accordance with the standards of evidence appropriate to a particular discipline. Whatever their intended major or profession, high school graduates will depend heavily on their ability to listen attentively to others so that they are able to build on others' meritorious ideas while expressing their own clearly and persuasively.

New technologies have broadened and expanded the role that speaking and listening play in acquiring and sharing knowledge and have tightened their link to other forms of communication. The Internet has accelerated the speed at which connections between speaking, listening, reading, and writing can be made, requiring that students be ready to use these modalities nearly simultaneously. Technology itself is changing quickly, creating a new urgency for students to be adaptable in response to change.

Speaking and Listening Standards 6–12

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

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

Speaking and Listening Standards 6–12

Grades 9–10 students:	Grades 11–12 students:
Comprehension and Collaboration	
1. Initiate and participate effectively in a range of collaborative discussions (one-on-one and in groups) on *grades 9–10 topics, texts, and issues*, building on others' ideas and expressing their own clearly and persuasively. a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed. c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions. d. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.	**1.** Initiate and participate effectively in a range of collaborative discussions (one-on-one and in groups) on *grades 11–12 topics, texts, and issues*, building on others' ideas and expressing their own clearly and persuasively. a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. b. Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed. c. Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives. d. Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
2. Synthesize information from multiple graphical, visual, or multimodal sources with other information presented orally, noting any discrepancies among the data.	**2.** Integrate information from multiple graphical, oral, visual, or multimodal sources in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and resolving conflicting information when possible.
3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence.	**3.** Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, assessing the stance, premises, links among ideas, word choice, points of emphasis, and tone used.
Presentation of Knowledge and Ideas	
4. Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.	**4.** Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range or formal and informal tasks.
5. Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.	**5.** Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.
6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See standards 1–3 in Language, pages 53–57, for specific expectations.)	**6.** Adapt speech to a variety of contexts and tasks, demonstrating a command of formal English when indicated or appropriate. (See standards 1–3 in Language, pages 53–57, for specific expectations.)

College and Career Readiness Anchor Standards for Language

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

Conventions

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

Effective Language Use

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

Vocabulary Acquisition and Use

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

Note on range and content of student language use

To be college and career ready in language, students must have firm control over the conventions of grammar, usage, and mechanics. At the same time, they must come to appreciate that language is as at least as much a matter of craft as of rules and be able to use words, syntax, and punctuation to achieve particular rhetorical effects. They must also have extensive vocabularies, built through reading and study, enabling them to comprehend complex texts and engage in purposeful writing about and conversations around content. They need to become skilled in determining or clarifying the meaning of words and phrases they encounter, choosing flexibly from an array of strategies to aid them. They must learn to see an individual word as part of a network of other words—words, for example, that have similar denotations but different connotations. The inclusion of Language standards in their own strand should not be taken as an indication that skills related to conventions, effective language use, and vocabulary are unimportant to reading, writing, speaking, and listening; indeed, they are inseparable from such contexts.

Language Standards 6–12

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

Grade 6 students:	Grade 7 students:	Grade 8 students:
Conventions		
1. Observe conventions of grammar and usage when writing or speaking. a. Ensure that pronouns are in the proper case (subjective, objective, possessive). b. Use intensive pronouns (e.g., *myself*, *ourselves*). c. Recognize and correct inappropriate shifts in pronoun number and person.* d. Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).* e. Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.*	**1.** Observe conventions of grammar and usage when writing or speaking. a. Explain the function of phrases and clauses in general and their function in specific sentences. b. Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas. c. Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.*	**1.** Observe conventions of grammar and usage when writing or speaking. a. Explain the function of verbals (gerunds, participles, infinitives) in general and their function in particular sentences. b. Form and use verbs in the active and passive voice. c. Form and use verbs in the indicative, imperative, interrogative, conditional, and subjunctive mood. d. Recognize and correct inappropriate shifts in verb voice and mood.*
2. Observe conventions of capitalization, punctuation, and spelling when writing. a. Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.* b. Spell correctly.	**2.** Observe conventions of capitalization, punctuation, and spelling when writing. a. Use a comma to separate coordinate adjectives (e.g., *It was a fascinating, enjoyable movie* but not *He wore an old[,] green shirt*). b. Spell correctly.	**2.** Observe conventions of capitalization, punctuation, and spelling when writing. a. Use punctuation (comma, ellipsis, dash) to indicate a pause or break. b. Use an ellipsis to indicate an omission. c. Spell correctly.
Effective Language Use		
3. Use language to enhance meaning, convey style, and achieve particular effects when writing or speaking. a. Vary sentence patterns for meaning, reader/listener interest, and style.* b. Maintain consistency in style and tone.*	**3.** Use language to enhance meaning, convey style, and achieve particular effects when writing or speaking. a. Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.*	**3.** Use language to enhance meaning, convey style, and achieve particular effects when writing or speaking. a. Use verbs in the active and passive voice and in the conditional and subjunctive mood to achieve particular effects (e.g., emphasizing the actor or the action; expressing uncertainty or describing a state contrary to fact).

Language Standards 6–12

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Grade 6 students:	Grade 7 students:	Grade 8 students:
Vocabulary Acquisition and Use		
4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 6 reading and content*, choosing flexibly from a range of strategies. a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *audience*, *auditory*, *audible*). c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).	**4.** Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 7 reading and content*, choosing flexibly from a range of strategies. a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *belligerent*, *bellicose*, *rebel*). c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).	**4.** Determine or clarify the meaning of unknown and multiple-meaning words or phrases based on *grade 8 reading and content*, choosing flexibly from a range of strategies. a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *precede*, *recede*, *secede*). c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Interpret figures of speech (e.g., personification) in context. b. Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words. c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., *stingy*, *scrimping*, *economical*, *unwasteful*, *thrifty*).	**5.** Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context. b. Use the relationship between particular words (e.g., synonym/antonym, analogy) to better understand each of the words. c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., *refined*, *respectful*, *polite*, *diplomatic*, *condescending*).	**5.** Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Interpret figures of speech (e.g. verbal irony, puns) in context. b. Use the relationship between particular words to better understand each of the words. c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., *bullheaded*, *willful*, *firm*, *persistent*, *resolute*).
6. Acquire and use accurately grade-appropriate general academic and domain-specific vocabulary.	**6.** Acquire and use accurately grade-appropriate general academic and domain-specific vocabulary.	**6.** Acquire and use accurately grade-appropriate general academic and domain-specific vocabulary.

Language Standards 6–12

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Grades 9–10 students:	Grades 11–12 students:
Conventions	
1. Observe conventions of grammar and usage when writing or speaking. a. Use parallel structure.* b. Use various types of phrases (noun, verb, adjectival, adverbial, participial, prepositional, absolute) and clauses (independent, dependent; noun, relative, adverbial) to add variety and interest to writing or presentations.	**1.** Observe conventions of grammar and usage when writing or speaking. a. Apply the understanding that usage is a matter of convention, can change over time, and is sometimes contested. b. Resolve issues of complex or contested usage, consulting references (e.g., *Merriam-Webster's Dictionary of English Usage*, *Garner's Modern American English*) as needed.
2. Observe conventions of capitalization, punctuation, and spelling when writing. a. Use a semicolon (and perhaps a conjunctive adverb) to link two or more closely related independent clauses. b. Use a colon to introduce a list or quotation. c. Spell correctly.	**2.** Observe conventions of capitalization, punctuation, and spelling when writing. a. Observe hyphenation conventions. b. Spell correctly.
Effective Language Use	
3. Use language to enhance meaning, convey style, and achieve particular effects when writing or speaking. a. Write and edit work so that it conforms to the guidelines in a style manual (e.g., *MLA Handbook*, Turabian's *Manual for Writers*) appropriate for the discipline and writing type.	**3.** Use language to enhance meaning, convey style, and achieve particular effects when writing or speaking. a. Vary syntax for effect, consulting references (e.g., Tufte's *Artful Sentences*) for guidance as needed; apply an understanding of syntax to the study of complex texts when reading.
Vocabulary Acquisition and Use	
4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 9–10 reading and content*, choosing flexibly from a range of strategies. a. Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b. Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., *analyze*, *analysis*, *analytical*; *advocate*, *advocacy*). c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, its part of speech, or its etymology. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).	**4.** Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 11–12 reading and content*, choosing flexibly from a range of strategies. a. Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b. Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., *conceive*, *conception*, *conceivable*). c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, its part of speech, its etymology, or its standard usage. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Interpret figures of speech (e.g., satire, sarcasm) in context and analyze their role in the text. b. Analyze nuances in the meaning of words with similar denotations.	**5.** Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Interpret figures of speech (e.g., hyperbole, paradox) in context and analyze their role in the text. b. Analyze nuances in the meaning of words with similar denotations.
6. Acquire and use accurately general academic and domain-specific vocabulary sufficient for reading, writing, speaking, and listening at the college and career readiness level.	**6.** Acquire and use accurately general academic and domain-specific vocabulary sufficient for reading, writing, speaking, and listening at the college and career readiness level.

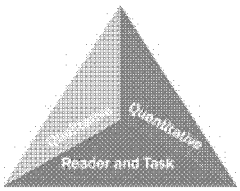
Language Progressive Skills, by Grade

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

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

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

Measuring Text Complexity: Three Factors



Qualitative evaluation of the text: Levels of meaning, structure, language conventionality and clarity, and knowledge demands

Quantitative evaluation of the text: Readability measures and other scores of text complexity

Matching reader to text and task: Reader knowledge, motivation, and interests as well as the complexity generated by the tasks assigned and the questions posed

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

Range of Text Types for 6–12

Students in grades 6–12 apply the Reading standards to the following range of text types, with texts selected from a broad range of cultures and periods.

Literature			Informational Text
Stories	**Drama**	**Poetry**	**Literary Nonfiction**
Includes the subgenres of adventure stories, historical fiction, mysteries, myths, science fiction, realistic fiction, allegories, parodies, satire, and graphic novels	Includes one-act and multiact plays, both in written form and on film	Includes the subgenres of narrative poems, lyrical poems, free verse poems, sonnets, odes, ballads, and epics	Includes the subgenres of exposition, argument, and functional text in the form of personal essays, speeches, opinion pieces, essays about art or literature, biographies, memoirs, journalism, and historical, scientific, or economic accounts (including digital sources) written for a broad audience

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

	Literature: Stories, Dramas, Poetry	Informational Texts: Literary Nonfiction
7–8	▪ *Little Women* by Louisa May Alcott (1869) ▪ *The Adventures of Tom Sawyer* by Mark Twain (1876) ▪ "The Road Not Taken" by Robert Frost (1915) ▪ *The Dark Is Rising* by Susan Cooper (1973) ▪ *Dragonwings* by Laurence Yep (1975) ▪ *Roll of Thunder, Hear My Cry* by Mildred Taylor (1976)	▪ "Letter on Thomas Jefferson" by John Adams (1776) ▪ *Narrative of the Life of Frederick Douglass, an American Slave* by Frederick Douglass (1845) ▪ *Harriet Tubman: Conductor on the Underground Railroad* by Ann Petry (1955) ▪ *Travels with Charley: In Search of America* by John Steinbeck (1962) ▪ *The Great Fire* by Jim Murphy (1995) ▪ *This Land Was Made for You and Me: The Life and Songs of Woody Guthrie* by Elizabeth Partridge (2002)
9–10	▪ *The Tragedy of Romeo and Juliet* by William Shakespeare (1592) ▪ "Ozymandias" by Percy Bysshe Shelley (1817) ▪ "The Raven" by Edgar Allen Poe (1845) ▪ "The Gift of the Magi" by O. Henry (1906) ▪ *The Grapes of Wrath* by John Steinbeck (1939) ▪ *Fahrenheit 451* by Ray Bradbury (1953) ▪ *The Killer Angels* by Michael Shaara (1975)	▪ "Speech to the Second Virginia Convention" by Patrick Henry (1775) ▪ The Declaration of Independence by Thomas Jefferson (1776) ▪ "Second Inaugural Address" by Abraham Lincoln (1865) ▪ "State of the Union Address" by Franklin Delano Roosevelt (1941) ▪ *Cod: A Biography of the Fish That Changed the World* by Mark Kurlansky (1997) ▪ *The Race to Save Lord God Bird* by Phillip Hoose (2004)
11–12	▪ "Ode on a Grecian Urn" by John Keats (1820) ▪ *Jane Eyre* by Charlotte Brontë (1848) ▪ "Because I Could Not Stop for Death" by Emily Dickinson (1890) ▪ *The Great Gatsby* by F. Scott Fitzgerald (1925) ▪ *Their Eyes Were Watching God* by Zora Neale Hurston (1937) ▪ *A Raisin in the Sun* by Lorraine Hansberry (1959) ▪ *The Namesake* by Jhumpa Lahiri (2003)	▪ *The Crisis* by Thomas Paine (1776) ▪ *Walden* by Henry David Thoreau (1854) ▪ "Society and Solitude" by Ralph Waldo Emerson (1857) ▪ "Gettysburg Address" by Abraham Lincoln (1863) ▪ "Letter from Birmingham Jail" by Martin Luther King, Jr. (1964) ▪ *Google Hacks: Tips & Tools for Smarter Searching* by Tara Calishain and Rael Dornfest (2004) ▪ *America's Constitution: A Biography* by Akhil Reed Amar (2005)

Note: Given space limitations, the illustrative texts listed above are meant only to show individual titles that are representative of a range of topics and genres. (See Appendix B for excerpts of these and other texts illustrative of grades 6–12 text complexity, quality, and range.) At a curricular or instructional level, within and across grade levels, texts need to be selected around topics or themes that generate knowledge and allow students to study those topics or themes in depth.

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

6–12

College and Career Readiness Anchor Standards for Reading

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

Key Ideas and Details

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze how and why individuals, events, or ideas develop and interact over the course of a text.

Craft and Structure

4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
6. Assess how point of view or purpose shapes the content and style of a text.

Integration of Knowledge and Ideas

7. Integrate and evaluate content presented graphically, visually, orally, and multimodally as well as in words within and across print and digital sources.*
8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

Range Reading and Level of Text Complexity

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

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

Note on range and content of student reading

Reading is critical to building knowledge in history/social studies as well as in science and technical subjects. College- and career-ready reading in these fields requires an appreciation of the norms and conventions of each discipline, such as the kinds of evidence used in history and science; an understanding of domain-specific words and phrases; an attention to precise details; and the capacity to evaluate intricate arguments, synthesize complex information, and follow detailed descriptions of events and concepts. In history/social studies, for example, students need to be able to analyze, evaluate, and differentiate primary and secondary sources. When reading scientific and technical texts, students need to be able to gain knowledge from challenging texts that often make extensive use of elaborate diagrams and data to convey information and illustrate concepts. Students must be able to read complex informational texts in these fields with *independence and confidence because the vast majority of reading in college and workforce training programs will be sophisticated nonfiction. It is important to note that these Reading standards are meant to complement the specific content demands of the disciplines, not replace them.*

Reading Standards for Literacy in History/Social Studies 6–12 [RH]

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

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
Key Ideas and Details		
1. Cite specific textual evidence to support analysis of primary and secondary sources. 2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions. 3. Identify key steps in a text's description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).	1. Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information. 2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text. 3. Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them.	1. Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole. 2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas. 3. Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.
Craft and Structure		
4. Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies. 5. Describe how a text presents information (e.g., sequentially, comparatively, causally). 6. Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).	4. Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science. 5. Analyze how a text uses structure to emphasize key points or advance a point of view. 6. Compare the point of view of two or more authors by comparing how they treat the same or similar history/social science topics, including which details they include and emphasize in their respective accounts.	4. Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines *faction* in *Federalist* No. 10). 5. Analyze in detail how a complex primary source is structured, including how key sentences, paragraphs, and larger portions of the text contribute to the whole. 6. Evaluate authors' differing points of view on the same historical event or issue by assessing the authors' claims, reasoning, and evidence.
Integration of Knowledge and Ideas		
7. Integrate visual information (e.g., pictures, videos, maps) with other information within or across print or digital texts. 8. Distinguish among fact, opinion, and reasoned judgment in a text. 9. Analyze the relationship between a primary and secondary source on the same topic.	7. Integrate quantitative or technical information (e.g., charts, research data) with other information within or across print or digital texts. 8. Assess the extent to which the evidence in a text supports the author's claims. 9. Compare and contrast treatments of the same topic in several primary and secondary sources.	7. Integrate and evaluate multiple sources of information presented in different formats (e.g., print or digital text, video, multimedia) in order to address a question, resolving conflicting information when possible. 8. Evaluate an author's premises, claims, and evidence by corroborating or challenging them with other sources of information. 9. Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.
Range of Reading and Level of Text Complexity		
10. By the end of grade 8, read and comprehend history/social studies texts in the grades 6–8 text complexity band independently and proficiently.	10. By the end of grade 10, read and comprehend history/social studies texts in the grades 9–10 text complexity band independently and proficiently.	10. By the end of grade 12, read and comprehend history/social studies texts in the grades 11–12 text complexity band independently and proficiently.

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

[RST]

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
Key Ideas and Details		
1. Cite specific textual evidence to support analysis of science and technical texts. **2.** Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions. **3.** Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	**1.** Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions. **2.** Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text. **3.** Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks attending to special cases or exceptions defined in the text.	**1.** Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account. **2.** Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms. **3.** Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.
Craft and Structure		
4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to *grades 6 8 texts and topics*. **5.** Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic. **6.** Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.	**4.** Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to *grades 9 10 texts and topics*. **5.** Analyze the structure of the relationships among concepts in a text, including relationships among key terms pertaining to important ideas and processes (e.g., *force, friction, reaction force, energy*). **6.** Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.	**4.** Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to *grades 11 12 texts and topics*. **5.** Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas. **6.** Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved or uncertain.
Integration of Knowledge and Ideas		
7. Integrate quantitative or technical information provided by the words in a text with a version of that information expressed graphically (e.g., in a flowchart, diagram, model, graph, or table). **8.** Distinguish among facts, reasoned judgment based on research findings, and speculation in a text. **9.** Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.	**7.** Demonstrate understanding of quantitative or technical information by translating information provided by the words in a text into graphical form (e.g., a table or chart) or translating information expressed graphically or mathematically (e.g., in an equation) into words. **8.** Assess the extent to which the evidence in a text supports a claim or a recommendation for solving a scientific or technical problem. **9.** Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.	**7.** Integrate and evaluate multiple sources of information presented in different formats (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem, resolving conflicting information when possible. **8.** Evaluate the hypotheses, data, and conclusions in a science or technical text, verifying data and corroborating or challenging conclusions when possible by using other sources of information. **9.** Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.
Range and Level of Text Complexity		
10. By the end of grade 8, read and comprehend science/technical texts in the grades 6 8 text complexity band independently and proficiently.	**10.** By the end of grade 10, read and comprehend science/technical texts in the grades 9 10 text complexity band independently and proficiently.	**10.** By the end of grade 12, read and comprehend science/technical texts in the grades 11 12 text complexity band independently and proficiently.

DRAFT

College and Career Readiness Anchor Standards for Writing

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

Text Types and Purposes[1]

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

Production and Distribution of Writing

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

Research to Build and Present Knowledge

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

Range of Writing

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

[1]These broad types of writing include many subgenres. See Appendix A for definitions of key writing types.

Note on range and content of student writing

For students, writing is a key means of asserting and defending claims, showing what they know about a subject, and conveying what they have experienced, imagined, thought, and felt. To be college- and career-ready writers, students must take task, purpose, and audience into careful consideration, choosing words, information, structures, and formats deliberately. They need to be able to use technology strategically when creating, refining, and collaborating on writing. They have to become adept at gathering information, evaluating sources, and citing material accurately, reporting findings from their research and analysis of sources in a clear and cogent manner. They must have the flexibility, concentration, and fluency to produce high-quality first-draft text under a tight deadline and the capacity to revisit and make improvements to a piece of writing over multiple drafts when circumstances encourage or require it. To meet these goals, students must devote significant time and effort to writing, producing numerous pieces over short and long time frames throughout the year.

Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects 6–12 [WHST]

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

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
Text Types and Purposes		
2. Write arguments focused on *discipline-specific content*. a. Introduce claim(s) about a topic or issue, acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically. b. Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources. f. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence. g. Establish and maintain a formal style. e. Provide a concluding statement or section that follows from and supports the argument presented.	1. Write arguments focused on *discipline-specific content*. f. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence. g. Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns. h. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. i. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. j. Provide a concluding statement or section that follows from or supports the argument presented.	1. Write arguments focused on *discipline-specific content*. f. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence. g. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases. h. Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. i. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. j. Provide a concluding statement or section that follows from or supports the argument presented.

Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects 6–12 [WHST]

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
Text Types and Purposes (continued)		
4. Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes. g. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. h. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. i. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. j. Use precise language and domain-specific vocabulary to inform about or explain the topic. k. Establish and maintain a formal style and objective tone. l. Provide a concluding statement or section that follows from and supports the information or explanation presented.	**3.** Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes. g. Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. h. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. i. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts. j. Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers. k. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. l. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).	**3.** Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes. a. Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. b. Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. c. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts. d. Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers. e. Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).
3. Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In history, students must be able to incorporate narrative accounts into their analyses of individuals or events of historical import. In science, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations that others can replicate them and (possibly) reach the same results.	**3.** Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In history, students must be able to incorporate narrative accounts into their analyses of individuals or events of historical import. In science, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations that others can replicate them and (possibly) reach the same results.	**3.** Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In history, students must be able to incorporate narrative accounts into their analyses of individuals or events of historical import. In science, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations that others can replicate them and (possibly) reach the same results.

Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects 6–12 [WHST]

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

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Introduction

Toward greater focus and coherence

Mathematics experiences in early childhood settings should concentrate on (1) number (which includes whole number, operations, and relations) and (2) geometry, spatial relations, and measurement, with more mathematics learning time devoted to number than to other topics. [M]athematical process goals should be integrated in these content areas.

National Research Council, 2009

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

Ginsburg, Leinwand and Decker, 2009

Because the mathematics concepts in [U.S.] textbooks are often weak, the presentation becomes more mechanical than is ideal. We looked at both traditional and non-traditional textbooks used in the US and found this conceptual weakness in both.

Ginsburg et al., 2005

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

Steen, 2007

For over a decade, research studies of mathematics education in high-performing countries have pointed to the conclusion that the mathematics curriculum in the United States must become substantially more focused and coherent in order to improve mathematics achievement in this country. To deliver on the promise of common standards, the standards must address the problem of a curriculum that is 'a mile wide and an inch deep.' These Standards are a substantial answer to that challenge.

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

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

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

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

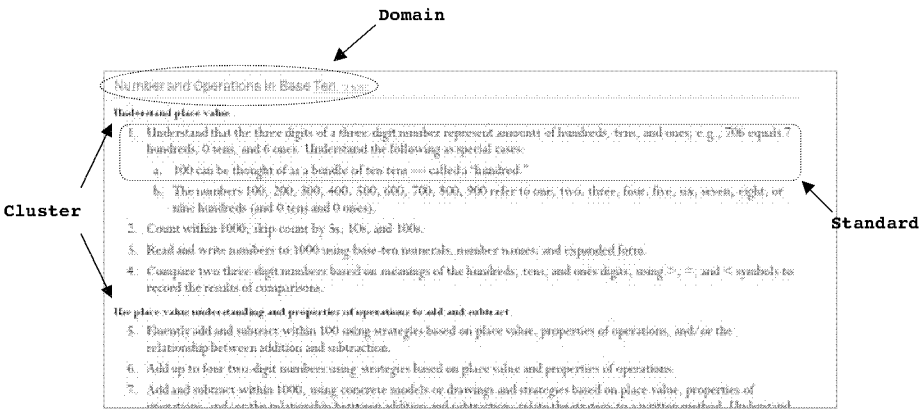
In addition, the 'sequence of topics and performances' that is outlined in a body of mathematics standards must also respect what is known about how students learn. As Confrey (2007) points out, developing "sequenced obstacles and challenges for students…absent the insights about meaning that derive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

Understanding mathematics

These Standards define what students should understand and be able to do in their study of mathematics. Asking a student to understand something means asking a teacher to assess whether the student has understood it. But what does mathematical understanding look like? One hallmark of mathematical understanding is the ability to justify, in a way appropriate to the student's mathematical maturity, *why* a particular mathematical statement is true or where a mathematical rule comes from. There is a world of difference between a student who can summon a mnemonic device to expand a product such as $(a + b)(x + y)$ and a student who can explain where the mnemonic comes from. The student who can explain the rule understands the mathematics, and may have a better chance to succeed at a less familiar task such as expanding $(a + b + c)(x + y)$. Mathematical understanding and procedural skill are equally important, and both are assessable using mathematical tasks of sufficient richness.

The Standards begin on the next page with eight Standards for Mathematical Practice.

How to read the grade level standards



Standards define what students should understand and be able to do. **Clusters** summarize groups of related standards. Note that standards from different clusters may sometimes be closely related, because mathematics is a connected subject. **Domains** are larger groups of related standards. Standards from different domains may sometimes be closely related.

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

Mathematics | Standards for Mathematical Practice

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

1 Make sense of problems and persevere in solving them.

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

2 Reason abstractly and quantitatively.

Mathematically proficient students make sense of the quantities and their relationships in problem situations. Students bring two complementary abilities to bear on problems involving quantitative relationships: the ability to *decontextualize* — to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents — and the ability to *contextualize*, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects. Key related processes: Problem solving, Representation. Key related Key related proficiencies: Strategic competence, productive disposition.

3 Construct viable arguments and critique the reasoning of others.

Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and — if there is a flaw in an argument — explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments. Key related processes: Problem solving, Representation. Key related proficiencies: Strategic competence, productive disposition.

4 Model with mathematics.

Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose. Key related processes: Representation. Key related proficiencies: Adaptive reasoning.

5 Use appropriate tools strategically.

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

6 Attend to precision.

Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions. Key related processes: Problem solving, Representation. Key related proficiencies: Procedural fluency.

7 Look for and make use of structure.

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

8 Look for and express regularity in repeated reasoning.

Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation $(y \quad 2)/(x$

$1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x \quad 1)(x + 1)$, $(x \quad 1)(x^2 + x + 1)$, and $(x \quad 1)(x^3 + x^2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results. Key related processes: Problem solving, Reasoning and proof. Key related proficiencies: Adaptive reasoning.

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

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

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

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

Mathematics | Kindergarten

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

(1) Students use numbers, including written numerals, to represent quantities and to solve quantitative problems, such as counting objects in a set; counting out a given number of objects; comparing sets or numerals; and modeling simple joining and separating situations with sets of objects, or eventually with equations such as $5 + 2 = 7$ and $7 - 2 = 5$. (Kindergarten students should see addition and subtraction equations, and student writing of equations in kindergarten is encouraged, but it is not required.) Students choose, combine, and apply effective strategies for answering quantitative questions, including quickly recognizing the cardinalities of small sets of objects, counting and producing sets of given sizes, counting the number of objects in combined sets, or counting the number of objects that remain in a set after some are taken away.

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

Grade Level Overview

Counting and Cardinality	• Know number names and the count sequence. • Count to tell the number of objects. • Compare numbers.
Operations and Algebraic Thinking	• Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.
Number and Operations in Base Ten	• Work with numbers 11-19 to gain foundations for place value.
Measurement and Data	• Describe and compare measurable attributes. • Classify objects and count the number of objects in each category
Geometry	1. Identify and describe shapes. 2. Analyze, compare, create, and compose shapes.

Mathematical Practices

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

Counting and Cardinality K.CC

Know number names and the count sequence.

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

Count to tell the number of objects.

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

Compare numbers.

6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.[1]
7. Compare two numbers between 1 and 10 presented as written numerals.

Operations and Algebraic Thinking K.OA

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

1. Represent addition and subtraction with objects, fingers, mental images, drawings,[2] sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$).
4. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.
5. Fluently add and subtract within 5.

Number and Operations in Base Ten K.NBT

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

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

Measurement and Data K.MD

Describe and compare measurable attributes.

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

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

3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.[1]

[1] Include groups with up to ten objects.
[2] Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)

Geometry K.G

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

1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as *above*, *below*, *beside*, *in front of*, *behind*, and *next to*.
2. Correctly name shapes regardless of their orientations or overall size.
3. Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").

Analyze, compare, create, and compose shapes.

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

[3] Limit category counts to be less than or equal to 10.

Mathematics | Grade 1

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

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

(2) Students develop, discuss, and use efficient, accurate, and generalizable methods to add within 100 and subtract multiples of 10. They compare whole numbers (at least to 100) to develop understanding of and solve problems involving their relative sizes. They think of whole numbers between 10 and 100 in terms of tens and ones (especially recognizing the numbers 11 to 19 as composed of a ten and some ones). Through activities that build number sense, they understand the order of the counting numbers and their relative magnitudes.

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

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

Grade Level Overview

Operations and Algebraic Thinking	• Represent and solve problems involving addition and subtraction. • Understand and apply properties of operations and the relationship between addition and subtraction. • Add and subtract within 20. • Work with addition and subtraction equations.	1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.	Mathematical Practices
Number and Operations in Base Ten	• Extend the counting sequence. • Understand place value. • Use place value understanding and properties of operations to add and subtract.		
Measurement and Data	• Measure lengths indirectly and by iterating length units. • Tell and write time. • Represent and interpret data.		
Geometry	• Reason with shapes and their attributes.		

[4] Students should apply the principle of transitivity of measurement to make indirect comparisons, but they need not use this technical term.

Operations and Algebraic Thinking 1.OA

Represent and solve problems involving addition and subtraction.

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

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

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

Add and subtract within 20.

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

Work with addition and subtraction equations.

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

Number and Operations in Base Ten 1.NBT

Extend the counting sequence.

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

Understand place value.

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

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

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

[5] See Glossary, Table 1.
[6] Students need not use formal terms for these properties.

Measurement and Data 1.MD

Measure lengths indirectly and by iterating length units.

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

Tell and write time.

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

Represent and interpret data.

4. Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Geometry 1.G

Reason with shapes and their attributes.

1. Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size) for a wide variety of shapes; build and draw shapes to possess defining attributes.
2. Compose two-dimensional shapes (such as rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (such as cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.[7]
3. Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves*, *fourths*, and *quarters*, and use the phrases *half of*, *fourth of*, and *quarter of*. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.

[7] Students do not need to learn formal names such as "right rectangular prism."

Mathematics | Grade 2

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

(1) Students extend their understanding of the base-ten system. This includes ideas of counting in fives, tens, and multiples of hundreds, tens, and ones, as well as number relationships involving these units, including comparing. Students understand multi-digit numbers (up to 1000) written in base-ten notation, recognizing that the digits in each place represent amounts of thousands, hundreds, tens, or ones (e.g., 853 is 8 hundreds + 5 tens + 3 ones).

(2) Students use their understanding of addition to develop fluency with addition and subtraction within 100. They solve problems by applying their understanding of models for addition and subtraction, and they develop, discuss, and use efficient, accurate, and generalizable methods to compute sums and differences of whole numbers in base-ten notation, using their understanding of place value and the properties of operations. They select and accurately apply methods that are appropriate for the context and the numbers involved to mentally calculate sums and differences for numbers with only tens or only hundreds.

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

(4) Students describe and analyze shapes by examining their sides and angles. Students investigate, describe, and reason about decomposing and combining shapes to make other shapes. Through building, drawing, and analyzing two- and three-dimensional shapes, students develop a foundation for understanding area, volume, congruence, similarity, and symmetry in later grades.

Grade Level Overview

Operations and Algebraic Thinking	• Represent and solve problems involving addition and subtraction. • Add and subtract within 20. • Work with equal groups of objects to gain foundations for multiplication.	1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.	Mathematical Practices
Number and Operations in Base Ten	• Understand place value. • Use place value understanding and properties of operations to add and subtract.		
Measurement and Data	• Measure and estimate lengths in standard units. • Relate addition and subtraction to length. • Work with time and money. • Represent and interpret data.		
Geometry	• Reason with shapes and their attributes.		

Operations and Algebraic Thinking 2.OA

Represent and solve problems involving addition and subtraction.

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

Add and subtract within 20.

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

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

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

Number and Operations in Base Ten 2.NBT

Understand place value.

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

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

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

Measurement and Data 2.MD

Measure and estimate lengths in standard units.

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

Relate addition and subtraction to length.

[8] See Glossary, Table 1.
[9] Explanations may be supported by drawings or objects.

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

Work with time and money.

7. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. *Example: If you have 2 dimes and 3 pennies, how many cents do you have?*

Represent and interpret data.

9. Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.
10. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems[10] using information presented in a bar graph.

Geometry 2.G

Reason with shapes and their attributes.

1. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.[11] Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.
3. Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words *halves*, *thirds*, *half of*, *a third of*, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

[10] See Glossary, Table 1.
[11] Sizes are compared directly or visually, not compared by measuring.

Mathematics | Grade 3

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

(1) Students develop an understanding of the meanings of multiplication and division of whole numbers through activities and problems involving equal-sized groups, arrays, and area models; multiplication is finding an unknown product, and division is finding an unknown factor in these situations. For equal-sized group situations, division can require finding the unknown number of groups or the unknown group size. Students use properties of operations to calculate products of whole numbers, using increasingly sophisticated strategies based on these properties to solve multiplication and division problems involving single-digit factors. By comparing a variety of solution strategies, students learn the relationship between multiplication and division.

(2) Students develop an understanding of fractions, beginning with unit fractions. Students view fractions in general as being built out of unit fractions, and they use fractions along with visual fraction models to represent parts of a whole. Students understand that the size of a fractional part is relative to the size of the whole; for example, $1/2$ of the paint in a large bucket could be less paint than $1/3$ of the paint in a smaller bucket; but $1/3$ of a ribbon is longer than $1/5$ of the same ribbon because when the ribbon is divided into 3 equal parts, the parts are longer than when the ribbon is divided into 5 equal parts. Students are able to use fractions to represent numbers equal to, less than, and greater than one. They solve problems that involve comparing fractions by using visual fraction models and strategies based on noticing equal numerators or denominators.

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

(4) Students describe, analyze, and compare properties of two-dimensional shapes. They compare and classify shapes by their sides and angles, and connect these with definitions of shapes. Students also relate their fraction work to geometry by expressing the area of part of a shape as a unit fraction of the whole.

Grade Level Overview

Operations and Algebraic Thinking	• Represent and solve problems involving multiplication and division. • Understand properties of multiplication and the relationship between multiplication and division. • Multiply and divide within 100. • Solve problems involving the four operations, and identify and explain patterns in arithmetic.
Number and Operations in Base Ten	• Use place value understanding and properties of operations to perform multi-digit arithmetic.
Number and Operations—Fractions	• Develop understanding of fractions as numbers.
Measurement and Data	• Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects. • Represent and interpret data. • Geometric measurement: understand concepts of area and relate area to multiplication and to addition. • Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.
Geometry	• Reason with shapes and their attributes.

Mathematical Practices

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

Operations and Algebraic Thinking 3.OA

Represent and solve problems involving multiplication and division.

1. Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. *For example, , describe a context in which a total number of objects can be expressed as 5 × 7.*
2. Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. *For example, describe a context in which a number of shares or a number of groups can be expressed as* 56 ÷ 8.
3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.[12]
4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 × ? = 48, 5 = □ ÷ 3, 6 × 6 = ?.*

Understand properties of multiplication and the relationship between multiplication and division.

5. Apply properties of operations as strategies to multiply and divide.[13] *Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known.* (Commutative property of multiplication.) *3 × 5 × 2 can be found by multiplying 3 × 5 = 15 then multiplying 15 × 2 = 30, or by multiplying 5 × 2 = 10 then multiplying 3 × 10 = 30.* (Associative property of multiplication.) *Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56.* (Distributive property.)
6. Understand division as an unknown-factor problem. *For example, divide 32 ÷ 8 by finding the number that makes 32 when multiplied by 8.*

Multiply and divide within 100.

7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By end of Grade 3, know from memory all products of one-digit numbers.

Solve problems involving the four operations, and identify and explain patterns in arithmetic.

8. Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity; assess the reasonableness of answers using mental computation and estimation strategies including rounding.[14]
9. Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. *For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.*

Number and Operations in Base Ten 3.NBT

Use place value understanding and properties of operations to perform multi-digit arithmetic.[15]

1. Use place value understanding to round whole numbers to the nearest 10 or 100.
2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
3. Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.

Number and Operations—Fractions[16] 3.NF

Develop understanding of fractions as numbers.

1. Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.
2. Understand a fraction as a number on the number line; represent fractions on a number line diagram.

[12] See Glossary, Table 2.
[13] Students need not use formal terms for these properties.
[14] This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order.
[15] A range of algorithms may be used.
[16] Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, 8.

   a. Represent a fraction $1/b$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $1/b$ and that the endpoint of the part based at 0 locates the number $1/b$ on the number line.
   b. Represent a fraction a/b on a number line diagram by marking off a lengths $1/b$ from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.
3. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.
   a. Recognize and generate simple equivalent fractions (e.g., $1/2 = 2/4$, $4/6 = 2/3$); explain why the fractions are equivalent, e.g., by using a visual fraction model.
   b. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *Examples: Express 3 in the form* $3 = 3/1$; *recognize that* $6/1 = 6$; *locate* $4/4$ *and 1 at the same point of a number line diagram.*
   c. Compare two fractions with the same numerator or the same denominator, by reasoning about their size; recognize that valid comparisons rely on the two fractions referring to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

Measurement and Data 3.MD

Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

1. Tell and write time to the nearest minute and measure time intervals in minutes; solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.
2. Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).[17] Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.[18]

Represent and interpret data.

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

Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

5. Recognize area as an attribute of plane figures and understand concepts of area measurement.
   a. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.
   b. A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.
6. Measure areas by counting unit squares, using square cm, square m, square in, square ft, and improvised units.
7. Relate area to the operations of multiplication and addition.
   a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
   b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems; represent whole-number products as rectangular areas in mathematical reasoning.
   c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$; use area models to represent the distributive property in mathematical reasoning.
   d. Recognize area as additive; find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real-world problems.

Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.

8. Solve real-world and mathematical problems involving perimeters of polygons, such as finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different area or with the same area and different perimeter.

Geometry 3.G

[17] Excludes compound units such as cm^3 and finding the geometric volume of a container.
[18] Excludes multiplicative comparison problems (problems involving notions of "times as much"; see Glossary, Table 2).

Reason with shapes and their attributes.

1. Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals); recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.
2. Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. *For example, partition a shape into 4 parts with equal area, and describe the area of each part is $^1/_4$ of the area of the shape.*

Mathematics | Grade 4

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

(1) Students generalize their understanding of place value to 1,000,000, understanding the relative sizes of numbers in each place. They use understandings of multiplication and division to develop fluency with multiplication and division of whole numbers. They apply their understanding of models for multiplication (equal-sized groups, arrays, area models), place value, and properties of operations, in particular the distributive property, as they develop, discuss, and use efficient, accurate, and generalizable methods to compute products of multi-digit whole numbers. Depending on the numbers and the context, they select and accurately apply appropriate methods to estimate or mentally calculate products. They develop fluency with efficient procedures for multiplying whole numbers; understand and explain why the procedures work based on place value and properties of operations; and use them to solve problems. Students apply their understanding of models for division, place value, properties of operations, and the relationship of division to multiplication as they develop, discuss, and use efficient, accurate, and generalizable procedures to find quotients involving multi-digit dividends. They select and accurately apply appropriate methods to estimate and mentally calculate quotients, and interpret remainders based upon the context.

(2) Students develop understanding of fraction equivalence and operations with fractions. They recognize that two different fractions can be equal (e.g., $^{15}/_9 = {}^5/_3$), and they develop methods for generating and recognizing equivalent fractions. Students extend previous understandings about how fractions are built from unit fractions, composing fractions from unit fractions, decomposing fractions into unit fractions, and using the meaning of fractions and the meaning of multiplication to multiply a fraction by a whole number.

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

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

Grade Level Overview

Operations and Algebraic Thinking	• Use the four operations with whole numbers to solve problems. • Gain familiarity with factors and multiples. • Generate and analyze patterns.
Number and Operations in Base Ten	• Generalize place value understanding for multi-digit whole numbers. • Use place value understanding and properties of operations to perform multi-digit arithmetic.
Number and Operations—Fractions	• Extend understanding of fraction equivalence and ordering. • Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. • Understand decimal notation for fractions, and compare decimal fractions.
Measurement and Data	• Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit. • Represent and interpret data. • Geometric measurement: understand concepts of angle and measure angles.
Geometry	• Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

Mathematical Practices

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

Operations and Algebraic Thinking 4.OA

Use the four operations with whole numbers to solve problems.

1. Interpret a multiplication equation as a comparison, e.g., interpret 5 × 7 = 35 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.
2. Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.[19]
3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity; assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Gain familiarity with factors and multiples.

4. Find the factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite.

Generate and analyze patterns.

5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. *For example: Given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.*

Number and Operations in Base Ten[20] 4.NBT

Generalize place value understanding for multi-digit whole numbers.

1. Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. *For example, recognize that 700 ÷ 70 = 10 by applying concepts of place value and division.*
2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits, using >, =, and < symbols to record the results of comparisons.
3. Use place value understanding to round multi-digit whole numbers to any place.

Use place value understanding and properties of operations to perform multi-digit arithmetic.[21]

4. Add and subtract multi-digit whole numbers accurately and efficiently using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
6. Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Number and Operations—Fractions[22] 4.NF

Extend understanding of fraction equivalence and ordering.

1. Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size; use this principle to recognize and generate equivalent fractions.
2. Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $1/2$; recognize that valid comparisons rely on the two fractions referring to the same whole. Record the results of comparisons with symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

[19] See Glossary, Table 2.
[20] Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.
[21] A range of algorithms may be used.
[22] Grade 4 expectations in this domain are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, 100.

Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

3. Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.
   a. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation (e.g., $3/8 = 1/8 + 1/8 + 1/8$ and $3/8 = 1/8 + 2/8$). Justify decompositions, e.g., by using a visual fraction model.
   b. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
   c. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.
4. Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.
   a. Understand a fraction a/b as a multiple of $1/b$. *For example, use a visual fraction model to represent $5/4$ as the product $5 \times (1/4)$, recording the conclusion by the equation $5/4 = 5 \times (1/4)$.*
   b. Understand a multiple of a/b as a multiple of $1/b$, and use this understanding to multiply a fraction by a whole number. *For example, use a visual fraction model to express $3 \times (2/5)$ as $6 \times (1/5)$, recognizing this product as $6/5$. (In general, $n \times (a/b) = (n \times a)/b$.)*
   c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. *For example: If each person at a party will eat $3/8$ of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?*

Understand decimal notation for fractions, and compare decimal fractions.

5. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.[23] *For example, express $3/10$ as $30/100$ and add $3/10 + 4/100 = 34/100$.*
6. Interpret a two-digit decimal as a fraction and use decimal notation for parts of wholes; round decimals to the nearest whole number by reasoning about their size. *For example, rewrite 1.62 as $1\ 62/100$; describe a length as 1.62 meters; locate 1.62 on a number line diagram and round 1.62 to 2.*
7. Compare two decimals to hundredths by reasoning about their size; recognize that valid comparisons rely on the two decimals referring to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.

Measurement and Data 4.MD

Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; ℓ, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of smaller unit. Record measurement equivalents in a two-column table. *For example: Know that 1 ft is 12 times as long as 1 in; express the length of a 4 ft snake as 48 in; generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ….*
2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.
3. Apply the area and perimeter formulas for rectangles in real-world and mathematical problems. *For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.*

Represent and interpret data.

4. Make a line plot to display a data set of measurements in fractions of a unit ($1/2$, $1/4$, $1/8$). Solve problems involving addition and subtraction of fractions by using information presented in line plots. *For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.*

Geometric measurement: understand concepts of angle and measure angles.

5. Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:

[23] Students who can generate equivalent fractions can develop strategies for adding fractions with unlike denominators in general. But addition and subtraction with unlike denominators in general is not a requirement at this grade.

a. An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through $1/360$ of a circle is called a "one-degree angle," and can be used to measure angles.

b. An angle that turns through *n* one-degree angles is said to have an angle measure of *n* degrees.

6. Measure angles in whole-number degrees using a protractor; sketch angles of specified measure.
7. Recognize angle measure as additive; when an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real-world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

Geometry 4.G

Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines; identify these in two-dimensional figures.
2. Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of specified size. Recognize right triangles as a category, and identify right triangles.
3. Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts; identify line-symmetric figures and draw lines of symmetry.

Mathematics | Grade 5

In Grade 5, instructional time should focus on four critical areas: (1) developing fluency with addition and subtraction of fractions, and developing understanding of the multiplication of fractions and of division of fractions in limited cases (unit fractions divided by whole numbers and whole numbers divided by unit fractions); (2) developing fluency with whole number operations; (3) integrating decimal fractions into the place value system and developing understanding of operations with decimals to hundredths; and (4) developing understanding of volume.

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

(2) Students develop fluency with multi-digit addition, subtraction, and multiplication, and develop understanding of why division procedures work based on the meaning of base-ten numerals and properties of operations.

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

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

Grade Level Overview

Operations and Algebraic Thinking	• Write and interpret numerical expressions. • Analyze patterns and relationships.
Number and Operations in Base Ten	• Understand the place value system. • Perform operations with multi-digit whole numbers and with decimals to hundredths.
Number and Operations—Fractions	• Use equivalent fractions as a strategy to add and subtract fractions. • Apply and extend previous understandings of multiplication and division to multiply and divide fractions.
Measurement and Data	• Convert like measurement units within a given measurement system. • Represent and interpret data. • Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.
Geometry	• Graph points on the coordinate plane to solve real-world and mathematical problems. • Classify two-dimensional figures into categories based on their properties.

Mathematical Practices

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

Operations and Algebraic Thinking 5.OA

Write and interpret numerical expressions.

1. Interpret grouping symbols in numerical expressions and evaluate expressions with grouping symbols.
2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. *For example, express the calculation "add 8 and 7, then multiply by 2" as $2 \times (8 + 7)$; recognize that $3 \times (18932 + 921)$ is three times as large as $18932 + 921$, without having to calculate the indicated sum or product.*

Analyze patterns and relationships.

3. Generate two numerical patterns using two given rules. Graph pairs of corresponding terms on a coordinate plane, and identify apparent relationships between corresponding terms. *For example, given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.*

Number and Operations in Base Ten 5.NBT

Understand the place value system.

1. Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and $1/10$ of what it represents in the place to its left.
2. Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use positive integer exponents to denote powers of 10.
3. Read, write, and compare decimals to thousandths.
   a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$.
   b. Compare two decimals to thousandths based on meanings of the digits, using >, =, and < symbols to record the results of comparisons.
4. Use place value understanding to round decimals to any place.

Perform operations with multi-digit whole numbers and with decimals to hundredths.

5. Fluently add, subtract, and multiply multi-digit whole numbers using the standard algorithm for each operation.
6. Find quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division; express the quotient as a fraction or mixed number. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
7. Add, subtract, multiply, and divide decimals of one or two digits, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Number and Operations—Fractions 5.NF

Use equivalent fractions as a strategy to add and subtract fractions.

1. Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. *For example, $2/3 + 5/4 = 8/12 + 15/12 = 23/12$. (In general, $a/b + c/d = (ad + bc)/bd$.)*
2. Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. *For example, recognize an incorrect result $2/5 + 1/2 = 3/7$ by observing that $3/7 < 1/2$.*

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

3. Interpret a fraction as the result of dividing the numerator by the denominator ($a/b = a \div b$); solve word problems involving division of whole numbers leading to fractional answers, e.g., by using visual fraction models or equations to represent the problem. *For example, interpret $3/4$ as the result of dividing 3 by 4, noting that $3/4$ multiplied by 4 equals 3 and that when 3 wholes are shared equally among 4 people each person has a share of size $3/4$. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?*

4. Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.
   a. Interpret the product $(a/b) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. *For example, use a visual fraction model to show $(2/3) \times 4 = 8/3$, and create a story context for this equation; do the same with $(2/3) \times (4/5) = 8/15$. (In general, $(a/b) \times (c/d) = ac/bd$.)*
   b. Find the area of a rectangle with fractional side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths; multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.
5. Interpret multiplication as scaling (resizing), including by:
   a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.
   b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to the effect of multiplying a/b by 1.
6. Solve real-world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
7. Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.[24]
   a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. *For example, create a story context for $(1/3) \div 4$ and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that $(1/3) \div 4 = 1/12$ because $(1/12) \times 4 = 1/3$.*
   b. Interpret division of a whole number by a unit fraction, and compute such quotients. *For example, create a story context for $4 \div (1/5)$ and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that $4 \div (1/5) = 20$ because $20 \times (1/5) = 4$.*
   c. Solve real-world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. *For example, How much chocolate will each person get if 3 people share $1/2$ lb of chocolate equally? How many $1/3$-cup servings are in 2 cups of raisins?*

Measurement and Data 5.MD

Convert like measurement units within a given measurement system.

1. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step real-world problems.

Represent and interpret data.

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

Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

3. Recognize volume as an attribute of solid figures and understand concepts of volume measurement.
   a. A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume.
   b. A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.
4. Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.
5. Relate volume to the operations of multiplication and addition and solve real-world and mathematical problems involving volume.
   a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent three-fold whole-number products as volumes, e.g., to represent the associative property of multiplication.

[24] Students able to multiply fractions in general can develop strategies to divide fractions in general, by reasoning about the relationship between multiplication and division. But division of a fraction by a fraction is not a requirement at this grade.

b. Apply the formulas $V = \ell w h$ and $V = b h$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real-world and mathematical problems;

c. Recognize volume as additive; find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real-world problems.

Geometry 5.G

Graph points on the coordinate plane to solve real-world and mathematical problems.

1. Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).
2. Represent real-world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.

Classify two-dimensional figures into categories based on their properties.

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

Mathematics | Grade 6

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

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

(2) Students use the meaning of fractions, the meanings of multiplication and division, and the relationship between multiplication and division to understand and explain why the procedures for dividing fractions make sense. Students are able to use these operations to solve problems.

(3) Students reason about relationships among shapes to determine area, surface area, and volume. They find areas of right triangles, other triangles, and special quadrilaterals by decomposing these shapes, rearranging or removing pieces, and relating the shapes to rectangles. Using these methods, students discuss, develop, and justify formulas for areas of triangles and parallelograms. Students find areas of polygons and surface areas of prisms and pyramids by decomposition into pieces whose area they can determine. They reason about right rectangular prisms with rational sides to extend the formula for its volume to rational side lengths. They prepare for work on scale drawings and constructions in Grade 8 by drawing polygons in the coordinate plane.

(4) Students understand the use of variables in mathematical expressions. They write expressions and equations that correspond to given situations, evaluate expressions, and use expressions and formulas to solve problems. Students understand that expressions in different forms can be equivalent, and they use the properties of operations to rewrite expressions in equivalent forms. Students know that the solutions of an equation are the values of the variables that make the equation true. Students use properties of operations and the idea of maintaining the equality of both sides of an equation to solve simple one-step equations. Students construct and analyze tables, such as tables of quantities that are in equivalent ratios, and they use equations (such as $3x = y$) to describe relationships between quantities.

Students in Grade 6 develop their ability to think statistically. Students recognize that a typical data distribution does not have a definite center, and so different ways to measure center yield different values. The median measures center in the sense that it is roughly the middle value. The mean measures center in the sense that it is the value that each data point would take on if the total of the data values were redistributed fairly, and also in the sense that it is a balance point. Students learn to describe and summarize distributions of data, identifying clusters, peaks, gaps, and symmetry, considering the context in which the data was collected.

Grade Level Overview

Ratios and Proportional Relationships	• Understand ratio concepts and use ratio reasoning to solve problems.
The Number System	• Apply and extend previous understandings of multiplication and division to divide fractions by fractions. • Apply and extend previous understandings of numbers to the system of rational numbers.
Expressions and Equations	• Apply and extend previous understandings of arithmetic to algebraic expressions. • Reason about and solve one-variable equations and inequalities. • Represent and analyze quantitative relationships between dependent and independent variables.
Geometry	• Solve real-world and mathematical problems involving area, surface area, and volume.
Statistics and Probability	• Develop understanding of statistical variability. • Summarize and describe distributions.

Mathematical Practices

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

Ratios and Proportional Relationships 6.RP

Understand ratio concepts and use ratio reasoning to solve problems.

1. Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. *For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."*
2. Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship. *For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $3/4$ cup of flour for each cup of sugar." "We paid $75 for 15 paperbacks, which is a rate of $5 per paperback."*[1]
3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.
   a. Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
   b. Solve unit rate problems including unit pricing and constant speed. *For example, If it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?*
   c. Find a percentage of a quantity as a rate per 100 (e.g., 30% of a quantity means $30/100$ times the quantity); solve problems involving finding the whole given a part and the percentage.
   d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.

The Number System 6.NS

Apply and extend previous understandings of multiplication and division to divide fractions by fractions.

1. Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. *For example, create a story context for $(2/3) \div (3/4)$ and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that $(2/3) \div (3/4) = 8/9$ because $3/4$ of $8/9$ is $2/3$. (In general, $(a/b) \div (c/d) = ad/bc$.) How much chocolate will each person get if 3 people share $1/2$ lb of chocolate equally? How many $3/4$-cup servings are in $2/3$ of a cup of yogurt? How wide is a rectangular strip of land with length $3/4$ mi and area $1/2$ square mi?*
2. Fluently divide multi-digit numbers using the standard algorithm for each operation.

Apply and extend previous understandings of numbers to the system of rational numbers.

3. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, debits/credits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.
4. Understand a rational number as a point on the number line. Extend number line diagrams and coordinate planes familiar from previous grades to represent negative numbers and their distance from 0.
   a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., $-(-3) = 3$, and that 0 is its own opposite.
   b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.
   c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
5. Understand the ordering of rational numbers.
   a. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. *For example, interpret $-3 > -7$ as a statement that -3 is located to the right of -7 on a number line oriented from left to right.*
   b. Write, interpret, and explain statements of order for rational numbers in real-world contexts. *For example, write $-3\,^{\circ}C > -7\,^{\circ}C$ to express the fact that $-3\,^{\circ}C$ is warmer than $-7\,^{\circ}C$.*
6. Understand absolute value and its relationship to the order of rational numbers.

[1] Expectations for unit rates in this grade are limited to non-complex fractions.

   a. Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. *For example, for an account balance of -30 dollars, write $|-30| = 30$ to describe the size of the debt in dollars.*
   b. Distinguish comparisons of absolute value from statements of order. *For example, recognize that an account balance less than -30 dollars represents a debt greater than 30 dollars.*
7. Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane, including using coordinates and absolute value reasoning to find distances between points with the same first coordinate or the same second coordinate.

Expressions and Equations 6.EE

Apply and extend previous understandings of arithmetic to algebraic expressions.

1. Evaluate numerical expressions involving whole-number exponents.
2. Write, read, and evaluate expressions in which letters stand for numbers.
   a. Write expressions that record operations with numbers and with letters standing for numbers. *For example, express the calculation "Subtract y from 5" as $5 - y$.*
   b. Identify parts of an expression using mathematical language (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. *For example, describe the expression $2(8 + 7)$ as a product of two factors; view $(8 + 7)$ as both a single entity and a sum of two terms.*
   c. Evaluate expressions by substituting values for their variables, including when using formulas in real-world problems. Perform arithmetic operations (including those involving whole-number exponents) in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = 1/2$.*
3. Apply the properties of operations as strategies to generate equivalent expressions. *For example, apply the distributive property to the expression $3(2 + x)$ to produce the equivalent expression $6 + 3x$; apply properties of operations to $y + y + y$ to produce the equivalent expression $3y$.*
4. Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). *For example, the expressions $y + y + y$ and $3y$ are equivalent because they name the same number regardless of which number y stands for.*

Reason about and solve one-variable equations and inequalities.

5. Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.
6. Use variables to stand for numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can be used in cases where a number is unknown, or where, for the purpose at hand, it can be any number in a specified set.
7. Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers.
8. Write a statement of inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities graphically on a number line diagram.

Represent and analyze quantitative relationships between dependent and independent variables.

9. Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. *For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation $d = 65t$ to represent the relationship between distance and time.*

Geometry 6.G

Solve real-world and mathematical problems involving area, surface area, and volume.

1. Find area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.
2. Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the

prism. Apply the formulas $V = \ell w h$ and $V = b h$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.

3. Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.
4. Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.

Statistics and Probability 6.SP

Develop understanding of statistical variability.

1. Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. *For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.*
2. Understand that a set of data collected to answer a statistical question has a distribution which can be described by its overall shape, center and spread.
3. Recognize that a measure of center for a numerical data set summarizes all of its values using a single number, while a measure of variation describes how its values vary using a single number.

Summarize and describe distributions.

4. Display numerical data in plots on a number line, including dot plots, histograms, and box plots.
5. Summarize numerical data sets in relation to their context, such as by:
   a. Reporting the number of observations.
   b. Describing the nature of the attribute of investigation, including how it was measured and its units of measurement.
   c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data was gathered.
   d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data was gathered.

Mathematics | Grade 7

In Grade 7, instructional time should focus on four critical areas: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and solving linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples.

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

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

(3) Students continue their work with area from Grade 6, solving problems involving the area and circumference of a circle and surface area of three-dimensional objects. In preparation for work on congruence and similarity in Grade 8 they reason about relationships among two-dimensional figures using scale drawings and informal geometric constructions, and they gain familiarity with the relationships between angles formed by intersecting lines. Students work with three-dimensional figures, relating them to two-dimensional figures by taking slices. They solve real-world and mathematical problems involving area, surface area, and volume of two- and three-dimensional objects made up from triangles, quadrilaterals, polygons, cubes and right prisms.

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

Grade Level Overview

Ratios and Proportional Relationships	• Analyze proportional relationships and use them to solve real-world and mathematical problems.
The Number System	• Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.
Expressions and Equations	• Use properties of operations to generate equivalent expressions. • Solve real-life and mathematical problems using numerical and algebraic expressions and equations.
Geometry	• Draw, construct and describe geometrical figures and describe the relationships between them. • Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.
Statistics and Probability	• Use random sampling to draw inferences about a population • Draw informal comparative inferences about two populations. • Investigate chance processes and develop, use, and evaluate probability models.

Mathematical Practices

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

Ratios and Proportional Relationships 7.RP

Analyze proportional relationships and use them to solve real-world and mathematical problems.

1. Compute unit rates associated with ratios of nonnegative rational numbers, including ratios of lengths, areas and other quantities measured in like or different units. *For example, If a person walks ½ mile in each ¼ hour, compute the unit rate as the complex fraction ½ / ¼ miles per hour, equivalently 2 miles per hour.*
2. Recognize and represent proportional relationships between covarying quantities.
   a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.
   b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
   c. Represent proportional relationships by equations. *For example, total cost, t, is proportional to the number, n, purchased at a constant price, p; this relationship can be expressed as $t = pn$.*
   d. Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points $(0, 0)$ and $(1, r)$ where r is the unit rate.
3. Use proportional relationships to solve multistep ratio and percent problems. *Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.*

The Number System 7.NS

Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
   a. Describe situations in which opposite quantities combine to make 0. *For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.*
   b. Understand $p + q$ as the number located a distance $|q|$ from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.
   c. Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
   d. Apply properties of operations as strategies to add and subtract rational numbers.
2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
   a. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
   b. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p/q is a rational number, then $-(p/q) = (-p)/q = p/(-q)$. Interpret products of rational numbers by describing real-world contexts.
   c. Apply properties of operations as strategies to multiply and divide rational numbers.
   d. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.
3. Solve real-world and mathematical problems involving the four operations with rational numbers.[2]

Expressions and Equations 7.EE

Use properties of operations to generate equivalent expressions.

1. Know and apply the properties of integer exponents to generate equivalent numerical expressions. *For example, $3^2 \times 3^{-5} = 3^{-3} = 1/3^3 = 1/27$.*

[2] Computations with rational numbers extend the rules for manipulating fractions to complex fractions.

2. Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.
3. Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. *For example, $a + 0.05a = 1.05a$ means that "increase by 5%" is the same as "multiply by 1.05."*

Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

4. Use numbers expressed in the form of a single digit times a whole-number power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. *For example, estimate the population of the United States as 3×10^8 and the population of the world as 7×10^9, and determine that the world population is more than 20 times larger.*
5. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations as strategies for calculating with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. *For example: If a woman making $25 an hour gets a 10% raise, she will make an additional $1/10$ of her salary an hour, or $2.50, for a new salary of $27.50. If you want to place a towel bar $9\ 3/4$ inches long in the center of a door that is $27\ 1/2$ inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.*
6. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.
   a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are specific rational numbers. Solve equations of these forms fluently. Compare the algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. *For example, The perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?*
   b. Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p, q, and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. *For example, As a salesperson, you are paid $50 per week plus $3 per sale. This week you want your pay to be at least $100. Write an inequality for the number of sales you need to make, and describe the solutions.*

Geometry 7.G

Draw, construct, and describe geometrical figures and describe the relationships between them.

1. Solve problems involving scale drawings of geometric figures in the coordinate plane, such as computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.
2. Draw (freehand, with ruler and protractor, and with technology) geometric shapes from given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the triangle is uniquely defined, ambiguously defined or nonexistent.
3. Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.

Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.

4. Know the formulas for the area and circumference of a circle and solve problems; give an informal derivation of the relationship between the circumference and area of a circle.
5. Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.
6. Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

Statistics and Probability 7.SP

Use random sampling to draw inferences about a population.

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

Draw informal comparative inferences about two populations

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

Investigate chance processes and develop, use, and evaluate probability models.

5. Understand that the probability of a chance event is a number between 0 and 1 expressing the likelihood of that event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around ½ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.
6. Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. *For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.*
7. Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.
   a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. *For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.*
   b. Develop a possibly non-uniform probability model by observing frequencies in data generated from a chance process. *For example, find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?*
8. Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.
   a. Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.
   b. Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams. For an event described in everyday language (e.g., "rolling double sixes"), identify the outcomes for which the event occurs.
   c. Design and use a simulation to generate frequencies for compound events. *For example, use random digits as a simulation tool to approximate the answer to the question: if 40% of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood?*

Mathematics | Grade 8

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

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

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

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

(3) Students use ideas about distance and angles, how they behave under translations, rotations, reflections, and dilations, and ideas about congruence and similarity to describe and analyze two-dimensional figures and to solve problems. Students prove that the angles in a triangle add up to a straight line, and that various configurations of lines give rise to similar triangles because of the angles created when a transversal cuts parallel lines. Students understand the statement of the Pythagorean Theorem and its converse, and can explain why the Pythagorean Theorem is valid, for example, by decomposing a square in two different ways. They apply the Pythagorean Theorem to find distances between points on the coordinate plane, to find lengths, and to analyze polygons. Students complete their work on volume by solving problems involving cones, cylinders, and spheres.

Grade Level Overview

The Number System	• Know that there are numbers that are not rational, and approximate them by rational numbers.
Expressions and Equations	• Work with radicals and integer exponents. • Understand the connections between proportional relationships, lines, and linear equations. • Analyze and solve linear equations and pairs of simultaneous linear equations.
Functions	• Define, evaluate, and compare functions. • Use functions to model relationships between quantities.
Geometry	• Understand congruence and similarity using physical models, transparencies, or geometry software. • Understand and apply the Pythagorean Theorem. • Solve real-world and mathematical problems involving volume of cylinders, cones and spheres.
Statistics and Probability	• Investigate patterns of association in bivariate data.

Mathematical Practices

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

The Number System 8.NS

Know that there are numbers that are not rational, and approximate them by rational numbers.

1. Understand informally that every number has a decimal expansion; the rational numbers are those with decimal expansions that terminate in 0s or eventually repeat. Know that other numbers are called irrational.
2. Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., π^2). *For example, by truncating the decimal expansion of $\sqrt{2}$, show that $\sqrt{2}$ is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.*

Expressions and Equations 8.EE

Work with radicals and integer exponents.

1. Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{2}$ is irrational.
2. Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology.

Understand the connections between proportional relationships, lines, and linear equations.

3. Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. *For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.*
4. Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation $y = mx$ for a line through the origin and the equation $y = mx + b$ for a line intercepting the vertical axis at b.

Analyze and solve linear equations and pairs of simultaneous linear equations.

5. Solve linear equations in one variable.
   a. Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers).
   b. Solve linear equations with rational number coefficients, including equations that require expanding expressions using the distributive property and collecting like terms.
6. Analyze and solve pairs of simultaneous linear equations.
   a. Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously.
   b. Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. *For example, $3x + 2y = 5$ and $3x + 2y = 6$ have no solution because $3x + 2y$ cannot simultaneously be 5 and 6.*
   c. Solve real-world and mathematical problems leading to two linear equations in two variables. *For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.*

Functions 8.F

Define, evaluate, and compare functions.

1. Understand that a function from one set (called the domain) to another set (called the range) is a rule that assigns to each element of the domain (an input) exactly one element of the range (the corresponding output). The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.[3]
2. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.*

[3] Function notation is not required in Grade 8.

3. Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. *For example, the function $A = s^2$ giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4) and (3,9), which are not on a straight line.*

Use functions to model relationships between quantities.

4. Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship; from two (x, y) values, including reading these from a table; or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.
5. Describe qualitatively the functional relationship between two quantities by reading a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.

Geometry 8.G

Understand congruence and similarity using physical models, transparencies, or geometry software.

1. Verify experimentally the properties of rotations, reflections, and translations:
   a. Lines are taken to lines, and line segments to line segments of the same length.
   b. Angles are taken to angles of the same measure.
   c. Parallel lines are taken to parallel lines.
2. Understand that a plane figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.
3. Describe the effect of dilations, translations, rotations and reflections on figures using coordinates.
4. Understand that a plane figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar figures, describe a sequence that exhibits the similarity between them.
5. Use informal arguments to establish facts about the angle sum and exterior angle of triangles, and about the angles created when parallel lines are cut by a transversal. *For example, arrange three copies of the same triangle so that the three angles appear to form a line, and give an argument in terms of transversals why this is so.*

Understand and apply the Pythagorean Theorem.

6. Explain a proof of the Pythagorean Theorem and its converse.
7. Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.
8. Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.

Solve real-world and mathematical problems involving volume of cylinders, cones and spheres.

9. Know the formulas for the volume of cones, cylinders and spheres and solve real-world and mathematical problems.

Statistics and Probability 8.SP

Investigate patterns of association in bivariate data.

1. Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.
2. Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.
3. Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. *For example, in a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.*
4. Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. *For example, collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores?*

Mathematics Standards for High School

Where is the College and Career Readiness line drawn?

The high school standards specify the mathematics that all students should study in order to be college and career ready. Additional mathematics that students should learn in order to take advanced courses such as calculus, advanced statistics, or discrete mathematics is indicated by (+), as in this example:

> (+) Represent complex numbers on the complex plane in rectangular and polar form (including real and imaginary numbers).

Standards with a (+) symbol are beyond the college and career readiness threshold, but may appear in courses intended for all students. Any standard without a (+) symbol is intended to be in the common mathematics curriculum for all college and career ready students.

How are the high school standards organized?

The high school standards are listed in conceptual categories:

- Number and Quantity
- Algebra
- Functions
- Modeling
- Geometry
- Statistics and Probability.

Conceptual categories portray a coherent view of core high school mathematics; a student's work with functions, for example, crosses a number of traditional course boundaries, potentially up through and including calculus.

Modeling standards

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

Mathematics | High School—Number and Quantity

Numbers and Number Systems. During the years from kindergarten to eighth grade, students must repeatedly extend their conception of number. At first, "number" means "counting number": 1, 2, 3.... Soon after that, 0 is used to represent "none" and the whole numbers are formed by the counting numbers together with zero. The next extension is fractions. At first, fractions are barely numbers and tied strongly to pictorial representations. Yet by the time students understand division of fractions, they have a strong concept of fractions as numbers and have connected them, via their decimal representations, with the base-ten system used to represent the whole numbers. During middle school, fractions are augmented by negative fractions to form the rational numbers. In Grade 8, students extend this system once more, augmenting the rational numbers with the irrational numbers to form the real numbers. In high school, students will be exposed to yet another extension of number, when the real numbers are augmented by the imaginary numbers to form the complex numbers.

This ascent through number systems makes it fair to ask: what does the word *number* mean that it can mean all of these things? One possible answer is that a number is something that can be used to do mathematics: calculate, solve equations, or represent measurements.

With each extension of number, the meanings of addition, subtraction, multiplication, and division are extended. In each new number system—integers, rational numbers, real numbers, and complex numbers—the four operations stay the same in two important ways: They have the commutative, associative, and distributive properties and their new meanings are consistent with their previous meanings. For example, multiplication by a whole number can be interpreted as repeated addition of the multiplicand in extensions of the whole numbers.

Extending the properties of whole-number exponents leads to new and productive notation. For example, properties of whole-number exponents suggest that $(5^{1/3})^3$ should be $5^{(1/3)\cdot 3} = 5^1 = 5$ and that $5^{1/3}$ should be the cube root of 5.

Calculators can provide ways for students to become better acquainted with these new number systems and their notation. They can be used to generate data for numerical experiments, to help understand the workings of matrix, vector, and complex number algebra, and to experiment with non-integer exponents.

Quantities. In their work in measurement up through Grade 8, students primarily measure commonly used attributes such as length, area, and volume. In high school, students encounter a wider variety of units in modeling, e.g., acceleration, currency conversions, derived quantities such as person-hours and heating degree days, social science rates such as per-capita income, and rates in everyday life such as points scored per game or batting averages. They also encounter novel situations in which they themselves must conceive the attributes of interest. For example, to find a good measure of overall highway safety, they might propose measures such as fatalities per year, fatalities per year per driver, or fatalities per vehicle-mile traveled. Such a conceptual process might be called quantification. Quantification is important for science, as when surface area suddenly "stands out" as an important variable in evaporation. Quantification is also important for companies, which must conceptualize relevant attributes and create or choose suitable measures for them.

Content Overview

The Real Number System Quantities The Complex Number System Vector and Matrix Quantities	• Extend the properties of exponents to rational exponents • Classify numbers as rational or irrational • Reason quantitatively and use units to solve problems • Perform arithmetic operations with complex numbers • Represent complex numbers and their operations on the complex plane • Use complex numbers in polynomial identities and equations • Represent and model with vector quantities • Perform operations on vectors • Perform operations on matrices and use matrices in applications		1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.	Mathematical Practices

The Real Number System N-RN

Extend the properties of exponents to rational exponents

1. Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. *For example, we define* $5^{1/3}$ *to be the cube root of* 5 *because we want* $(5^{1/3})^3 = 5^{(1/3)3}$ *to hold, so* $(5^{1/3})^3$ *must equal* 5.
2. Rewrite expressions involving radicals and rational exponents using the properties of exponents.

Use properties of rational and irrational numbers

3. Explain why sums and products of rational numbers are rational, that the sum of a rational number and an irrational number is irrational, and that the product of a nonzero rational number and an irrational number is irrational.

Quantities* N-Q

Reason quantitatively and use units to solve problems

1. Compare measurements of two quantities of the same type (e.g., two lengths or two weights) expressed in different units to decide which quantity is larger.
2. Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.
3. Define appropriate quantities for the purpose of descriptive modeling.
4. Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

The Complex Number System N-CN

Perform arithmetic operations with complex numbers

1. Know there is a complex number i such that $i^2 = -1$, and every complex number has the form $a + bi$ with a and b real.
2. Use the relation $i^2 = -1$ and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers.
3. (+) Find the conjugate of a complex number; use conjugates to find moduli and quotients of complex numbers.

Represent complex numbers and their operations on the complex plane

4. (+) Represent complex numbers on the complex plane in rectangular and polar form (including real and imaginary numbers), and explain why the rectangular and polar forms of a given complex number represent the same number.
5. (+) Represent addition, subtraction, multiplication, and conjugation of complex numbers geometrically on the complex plane; use properties of this representation for computation. *For example,* $(1 - \sqrt{3}i)^3 = 8$ *because* $(1 - \sqrt{3}i)$ *has modulus 2 and argument* 120°.
6. (+) Calculate the distance between numbers in the complex plane as the modulus of the difference, and the midpoint of a segment as the average of the numbers at its endpoints.

Use complex numbers in polynomial identities and equations

7. Solve quadratic equations with real coefficients that have complex solutions.
8. (+) Extend polynomial identities to the complex numbers. *For example, rewrite* $x^2 + 4$ *as* $(x + 2i)(x - 2i)$.
9. (+) Know the Fundamental Theorem of Algebra; show that it is true for quadratic polynomials.

(+) Vector and Matrix Quantities N-VM

Represent and model with vector quantities.

1. Understand that vector quantities have both magnitude and direction. Represent vector quantities by directed line segments, and use appropriate symbols for vectors and their magnitudes (e.g., $\mathbf{v}$, $|\mathbf{v}|$, $||\mathbf{v}||$, v).
2. Find the components of a vector by subtracting the coordinates of an initial point from the coordinates of a terminal point.
3. Solve problems involving velocity and other quantities that can be represented by vectors.★

Perform operations on vectors.

4. Add and subtract vectors.
   a. Add vectors end-to-end, component-wise, and by the parallelogram rule. Understand that the magnitude of a sum of two vectors is typically not the sum of the magnitudes.
   b. Given two vectors in magnitude and direction form, determine the magnitude and direction of their sum.
   c. Understand that vector subtraction $\mathbf{v} - \mathbf{w}$ is defined as $\mathbf{v} + (-\mathbf{w})$, where $-\mathbf{w}$ is the additive inverse of $\mathbf{w}$, with the same magnitude as $\mathbf{w}$ and pointing in the opposite direction. Represent vector subtraction graphically by connecting the tips in the appropriate order, and perform vector subtraction component-wise.
5. Multiply a vector $\mathbf{v}$ by a scalar.
   a. Represent scalar multiplication graphically by scaling vectors and possibly reversing their direction; perform scalar multiplication component-wise, e.g., as $c(v_x, v_y) = (cv_x, cv_y)$.
   b. Compute the magnitude of a scalar multiple $c\mathbf{v}$ using $||c\mathbf{v}|| = |c|v$.
   c. Understand that when $|c|v \neq 0$, the direction of $c\mathbf{v}$ is either along $\mathbf{v}$ (for $c > 0$) or against $\mathbf{v}$ (for $c < 0$).

Perform operations on matrices and use matrices in applications.★

6. Use matrices to represent and manipulate data, e.g., to represent payoffs or incidence relationships in a network.
7. Multiply matrices by scalars to produce new matrices, e.g., as when all of the payoffs in a game are doubled.
8. Add, subtract, and multiply matrices of appropriate dimensions.
9. Understand that, unlike multiplication of numbers, matrix multiplication for square matrices is not a commutative operation, but still satisfies the associative and distributive properties.
10. Understand that the zero and identity matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers. The determinant of a square matrix is nonzero if and only if the matrix has a multiplicative inverse.
11. Multiply a vector (regarded as a matrix with one column) by a matrix of suitable dimensions to produce another vector. Understand a matrix as a transformation of vectors.
12. Understand a 2×2 matrix as a transformation of the plane, and interpret the absolute value of the determinant in terms of area.

Mathematics | High School—Algebra

Expressions. An expression is a record of a computation with numbers and symbols that represent numbers, arithmetic operations, exponentiation, and, at more advanced levels, the operation of evaluating a function. Conventions about the use of parentheses and the order of operations assure that each expression is unambiguous. Creating an expression that describes a computation involving a general quantity requires the ability to express the computation in general terms, abstracting from specific instances.

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

Algebraic manipulations are governed by the properties of operations and exponents, and the conventions of algebraic notation. At times, an expression is the result of applying operations to simpler expressions. For example, $p + 0.05p$ is the sum of the simpler expressions p and $0.05p$. Viewing an expression as the result of operation on simpler expressions can sometimes clarify its underlying structure.

A spreadsheet or a computer algebra system can be used to experiment with algebraic expressions, perform complicated algebraic manipulations, and understand how algebraic manipulations behave.

Equations and inequalities. An equation is a statement of equality between two expressions, often viewed as a question asking for which values of the variables the expressions on either side are in fact equal. These values are the solutions to the equation. An identity is true for all numbers; identities are often developed by rewriting an expression in an equivalent form.

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

An equation can often be solved by successively deducing from it one or more simpler equations. For example, one can add the same constant to both sides without changing the solutions, but squaring both sides might lead to extraneous solutions. Strategic competence in solving includes looking ahead for productive manipulations and anticipating the nature and number of solutions.

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

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

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

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

Content Overview

Seeing Structure in Expressions	• Interpret the structure of expressions • Write expressions in equivalent forms to solve problems		1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.	Mathematical Practices
Arithmetic with Polynomials and Rational Functions	• Perform arithmetic operations on polynomials • Understand the relationship between zeros and factors of polynomials • Use polynomial identities to solve problems • Rewrite and graph rational functions			
Creating Equations	• Create equations that describe numbers or relationships			
Reasoning with Equations and Inequalities	• Understand solving equations as a process of reasoning and explain the reasoning • Solve equations and inequalities in one variable • Solve systems of equations • Represent and solve equations and inequalities graphically			

Seeing Structure in Expressions A-SSE

Interpret the structure of expressions

1. Interpret expressions that represent a quantity in terms of its context.★
   a. Interpret parts of an expression, such as terms, factors, and coefficients.
   b. Interpret complicated expressions by viewing one or more of their parts as a single entity. *For example, interpret* $P(1+r)^n$ *as the product of P and a factor not depending on P.*
2. Use the structure of an expression to identify ways to rewrite it. *For example, see* $x^4 - y^4$ *as* $(x^2)^2 - (y^2)^2$, *thus recognizing it as a difference of squares that can be factored as* $(x^2 - y^2)(x^2 + y^2)$.

Write expressions in equivalent forms to solve problems

3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.★
   a. Factor a quadratic expression to reveal the zeros of the function it defines.
   b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines.
   c. Use the properties of exponents to transform expressions for exponential functions. *For example the expression* 1.15^t *can be rewritten as* $(1.15^{1/12})^{12t} \approx 1.012^{12t}$ *to reveal the approximate equivalent monthly interest rate if the annual rate is 15%.*
4. Derive the formula for the sum of a finite geometric series (when the common ratio is not 1), and use the formula to solve problems. *For example, calculate mortgage payments.*★

Arithmetic with Polynomials and Rational Expressions A-APR

Perform arithmetic operations on polynomials

1. Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.

Understand the relationship between zeros and factors of polynomials

2. Understand the Remainder Theorem: For a polynomial $p(x)$ and a number a, the remainder on division by $x - a$ is $p(a)$, so $p(a) = 0$ if and only if $(x - a)$ is a factor of $p(x)$.
3. Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial.

Use polynomial identities to solve problems

4. Prove polynomial identities and use them to describe numerical relationships. *For example, the polynomial identity* $(x^2 + y^2)^2 = (x^2 - y^2)^2 + (2xy)^2$ *can be used to generate Pythagorean triples.*
5. (+) Understand that the Binomial Theorem gives the expansion of $(x + y)^n$ in powers of x and y for a positive integer n, where x and y are any numbers, with coefficients determined for example by Pascal's Triangle. The Binomial Theorem can be proved by mathematical induction or by a combinatorial argument.

Rewrite rational expressions

6. Rewrite simple rational expressions in different forms; write $a(x)/b(x)$ in the form $q(x) + r(x)/b(x)$, where $a(x)$, $b(x)$, $q(x)$, and $r(x)$ are polynomials with the degree of $r(x)$ less than the degree of $b(x)$, using inspection, long division, or, for the more complicated examples, a computer algebra system.
7. (+) Understand that rational expressions form a system analogous to the rational numbers, closed under addition, subtraction, multiplication, and division by a nonzero rational expression; add, subtract, multiply, and divide rational expressions.

Creating Equations* A-CED

Create equations that describe numbers or relationships

1. Create equations and inequalities in one variable and use them to solve problems. *Include equations arising from linear and quadratic functions, and simple rational and exponential functions.*
2. Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.
3. Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. *For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.*
4. Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. *For example, rearrange Ohm's law* $V = IR$ *to highlight resistance R.*

Reasoning with Equations and Inequalities A-REI

Understand solving equations as a process of reasoning and explain the reasoning

1. Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.
2. Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise.

Solve equations and inequalities in one variable

3. Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters. Graph the solution set of an inequality on a number line.
4. Solve quadratic equations in one variable.
   a. Understand that the method of completing the square transforms any quadratic equation in x into an equation of the form $(x - p)^2 = q$ that has the same solutions. This leads to the quadratic formula.
   b. Solve by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b.

Solve systems of equations

5. Understand that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.
6. Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.
7. Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. *For example, find the points of intersection between the line* $y = -3x$ *and the circle* $x^2 + y^2 = 3$.
8. (+) Represent a system of linear equations as a single matrix equation in a vector variable.

9. (+) Find the inverse of a matrix if it exists and use it to solve systems of linear equations (using technology for matrices of dimension 3×3 or greater).

Represent and solve equations and inequalities graphically

10. Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a straight line).
11. Explain why the x-coordinates of the points where the graphs of the equations $y = f(x)$ and $y = g(x)$ intersect are the solutions of the equation $f(x) = g(x)$; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where $f(x)$ and/or $g(x)$ are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.★
12. Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.

Mathematics | High School—Functions

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

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

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

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

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

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

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

Content Overview

Interpreting Functions Building Functions Linear, Quadratic, and Exponential Models Trigonometric Functions	• Understand the concept of a function and use function notation • Interpret functions that arise in applications in terms of the context • Analyze functions using different representations • Build a function that models a relationship between two quantities • Build new functions from existing functions • Construct and compare linear and exponential models and solve problems • Interpret expressions for functions in terms of the situation they model • Extend the domain of trigonometric functions using the unit circle • Model periodic phenomena with trigonometric functions • Prove and apply trigonometric identities		1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.	Mathematical Practices

Interpreting Functions F-IF

Understand the concept of a function and use function notation

1. Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x. The graph of f is the graph of the equation $y = f(x)$.
2. Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.
3. Understand that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. *For example, the Fibonacci sequence is defined recursively by $f(0) = f(1) = 1$, $f(n+1) = f(n) + f(n-1)$ for $n \geq 1$.*

Interpret functions that arise in applications in terms of the context

4. For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. *Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.*★
5. Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. *For example, if the function h(n) gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function.*★
6. Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.★

Analyze functions using different representations

7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.★
   a. Graph linear and quadratic functions and show intercepts, maxima, and minima.
   b. Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.
   c. Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior.
   d. (+) Graph rational functions, identifying zeros and asymptotes when suitable factorizations are available, and showing end behavior.
   e. Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude.
8. Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.
   a. Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context.
   b. Use the properties of exponents to interpret expressions for exponential functions. *For example, identify percent rate of change in functions such as $y = (1.02)^t$, $y = (0.97)^t$, $y = (1.01)^{12t}$, $y = (1.2)^{t/10}$, and classify them as representing exponential growth or decay.*
9. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.*

Building Functions F-BF

Build a function that models a relationship between two quantities

1. Write a function that describes a relationship between two quantities.★
   a. Determine an explicit expression, a recursive process, or steps for calculation from a context.
   b. Combine standard function types using arithmetic operations. *For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.*
   c. (+) Compose functions. *For example, if f(t) is the height of a falling body after t seconds, f(t 12) is the height of the same body dropped 12 seconds later.*
2. Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.★

Build new functions from existing functions

3. Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k\,f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. *Include recognizing even and odd functions from their graphs and algebraic expressions for them.*
4. Find inverse functions.
   a. Solve an equation of the form $f(x) = c$ for a simple function f that has an inverse and write an expression for the inverse. *For example, $f(x) = 2x^3$ or $f(x) = (x+1)/(x-1)$ for $x \neq 1$.*
   b. (+) Verify by composition that one function is the inverse of another.
   c. (+) Read values of an inverse function from a graph or a table, given that the function has an inverse.
   d. (+) Produce an invertible function from a non-invertible function by restricting the domain.

Linear, Quadratic, and Exponential Models★ F-LQE

Construct and compare linear, quadratic, and exponential models and solve problems

1. Distinguish between situations that can be modeled with linear functions and with exponential functions.
   a. Understand that linear functions grow by equal differences over equal intervals; exponential functions grow by equal factors over equal intervals.
   b. Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.
   c. Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.
2. Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).

3. Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.
4. For exponential models, express as a logarithm the solution to $a\,b^x = d$ where a, c, and d are numbers and the base b is 2, 10, or e; evaluate the logarithm using technology.

Interpret expressions for functions in terms of the situation they model

5. Interpret the parameters in a linear, quadratic, or exponential function in terms of a context.

Trigonometric Functions F-TF

Extend the domain of trigonometric functions using the unit circle

1. Understand that the radian measure of an angle is the length of the arc on the unit circle subtended by the angle.
2. Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle.
3. (+) Use special triangles to determine geometrically the values of sine, cosine, tangent for $\pi/3$, $\pi/4$ and $\pi/6$, and use the unit circle to express the values of sine, cosine, and tangent for $\pi-x$, $\pi+x$, and $2\pi-x$ in terms of their values for x, where x is any real number.
4. (+) Use the unit circle to explain symmetry (odd and even) and periodicity of trigonometric functions.

Model periodic phenomena with trigonometric functions

5. Choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline.*
6. (+) Understand that restricting a trigonometric function to a domain on which it is always increasing or always decreasing allows its inverse to be constructed.
7. (+) Use inverse functions to solve trigonometric equations that arise in modeling contexts; evaluate the solutions using technology, and interpret them in terms of the context.*

Prove and apply trigonometric identities

8. Prove the Pythagorean identity $\sin^2(\theta) + \cos^2(\theta) = 1$ and use it to calculate trigonometric ratios.
9. (+) Prove the addition and subtraction formulas for sine, cosine, and tangent and use them to solve problems.

Mathematics | High School—Modeling

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

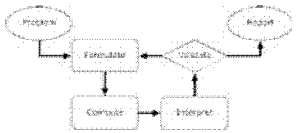
A model can be very simple, such as writing total cost as a product of unit price and number bought, or using a geometric shape to describe a physical object like a coin. Even such simple models involve making choices. It is up to us whether to model a coin as a three-dimensional cylinder, or whether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

Some examples of such situations might include:

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

In situations like these, the models devised depend on a number of factors: How precise an answer do we want or need? What aspects of the situation do we most need to understand, control, or optimize? What resources of time and tools do we have? The range of models that we can create and analyze is also constrained by the limitations of our mathematical, statistical, and technical skills, and our ability to recognize significant variables and relationships among them. Diagrams of various kinds, spreadsheets and other technology, and algebra are powerful tools for understanding and solving problems drawn from different types of real-world situations.

One of the insights provided by mathematical modeling is that essentially the same mathematical or statistical structure can sometimes model seemingly different situations. Models can also shed light on the mathematical structures themselves, for example, as when a model of bacterial growth makes more vivid the explosive growth of the exponential function.



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

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

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

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

Modeling Standards

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

Mathematics | High School—Geometry

An understanding of the attributes and relationships of geometric objects can be applied in diverse contexts—interpreting a schematic drawing, estimating the amount of wood needed to frame a sloping roof, rendering computer graphics, or designing a sewing pattern for the most efficient use of material.

Although there are many types of geometry, school mathematics is devoted primarily to plane Euclidean geometry, studied both synthetically (without coordinates) and analytically (with coordinates). Euclidean geometry is characterized most importantly by the Parallel Postulate, that through a point not on a given line there is exactly one parallel line. (Spherical geometry, in contrast, has no parallel lines.)

During high school, students begin to formalize their geometry experiences from elementary and middle school, using more precise definitions and developing careful proofs. Later in college some students develop Euclidean and other geometries carefully from a small set of axioms.

The concepts of congruence, similarity, and symmetry can be understood from the perspective of geometric transformation. Fundamental are the rigid motions: translations, rotations, reflections, and combinations of these, all of which are here assumed to preserve distance and angles (and therefore shapes generally). Reflections and rotations each explain a particular type of symmetry, and the symmetries of an object offer insight into its attributes—as when the reflective symmetry of an isosceles triangle assures that its base angles are congruent.

In the approach taken here, two geometric figures are defined to be congruent if there is a sequence of rigid motions that carries one onto the other. This is the principle of superposition. For triangles, congruence means the equality of all corresponding pairs of sides and all corresponding pairs of angles. During Grade 8, through experiences with geometric constructions and drawing triangles from given conditions, some students notice ways to specify enough measures in a triangle to ensure that all triangles drawn with those measures are congruent. Once these triangle congruence criteria (ASA, SAS, and SSS) are established using rigid motions, they can be used to prove theorems about triangles, quadrilaterals, and other geometric figures.

Similarity transformations (rigid motions followed by dilations) define similarity in the same way that rigid motions define congruence, and lead to the criterion for triangle similarity that two pairs of corresponding angles are congruent.

The definitions of sine, cosine, and tangent for acute angles are founded on right triangles and similarity, and, with the Pythagorean Theorem, are fundamental in many real-world and theoretical situations. The Pythagorean Theorem is generalized to non-right triangles by the Law of Cosines. Together, the Laws of Sines and Cosines embody the triangle congruence criteria for the cases where three pieces of information suffice to completely solve a triangle. Furthermore, these laws yield two possible solutions in the ambiguous case, illustrating that Side-Side-Angle is not a congruence criterion.

Analytic geometry connects algebra and geometry, resulting in powerful methods of analysis and problem solving. Just as the number line associates numbers with locations in one dimension, a pair of perpendicular axes associates pairs of numbers with locations in two dimensions. This correspondence between numerical coordinates and geometric points allows methods from algebra to be applied to geometry and vice versa. The solution set of an equation becomes a geometric curve, making visualization a tool for doing and understanding algebra. Geometric shapes can be described by equations, making algebraic manipulation into a tool for geometric understanding, modeling, and proof. Geometric transformations of the graphs of equations correspond to algebraic changes in their equations.

Dynamic geometry environments provide students with experimental and modeling tools that allow them to investigate geometric phenomena in much the same way as computer algebra systems allow them to experiment with algebraic phenomena.

Connections to Equations. The correspondence between numerical coordinates and geometric points allows methods from algebra to be applied to geometry and vice versa. The solution set of an equation becomes a geometric curve, making visualization a tool for doing and understanding algebra. Geometric shapes can be described by equations, making algebraic manipulation into a tool for geometric understanding, modeling, and proof.

Content Overview

Congruence	• Experiment with transformations in the plane • Understand congruence in terms of rigid motions • Prove geometric theorems • Make geometric constructions		1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.	Mathematical Practices
Similarity, Right Triangles, and Trigonometry	• Understand similarity in terms of similarity transformations • Prove theorems involving similarity • Define trigonometric ratios and solve problems involving right triangles • Apply trigonometry to general triangles			
Circles	• Understand and apply theorems about circles • Find arc lengths and areas of sectors of circles			
Expressing Geometric Properties with Equations	• Translate between the geometric description and the equation for a conic section • Use coordinates to prove simple geometric theorems algebraically			
Geometric Measurement and Dimension	• Explain volume formulas and use them to solve problems • Visualize relationships between two-dimensional and three-dimensional objects			
Modeling with Geometry	• Apply geometric concepts in modeling situations			

Congruence G-CO

Experiment with transformations in the plane

1. Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.
2. Represent transformations in the plane using, e.g., transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not (e.g., translation versus horizontal stretch).
3. Given a rectangle, parallelogram, trapezoid, or regular polygon, describe the rotations and reflections that carry it onto itself.
4. Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.
5. Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another.

Understand congruence in terms of rigid motions

6. Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent.
7. Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.
8. Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.

Prove geometric theorems

9. Prove theorems about lines and angles. *Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.*
10. Prove theorems about triangles. *Theorems include: measures of interior angles of a triangle sum to 180°; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.*
11. Prove theorems about parallelograms. *Theorems include: opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals.*

Make geometric constructions

12. 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.*
13. Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.

Similarity, Right Triangles, and Trigonometry G-SRT

Understand similarity in terms of similarity transformations

1. Verify experimentally the properties of dilations:
   a. A dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged.
   b. The dilation of a line segment is longer or shorter in the ratio given by the scale factor.
2. Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides.
3. Use the properties of similarity transformations to establish the AA criterion for two triangles to be similar.

Prove theorems involving similarity

4. Prove theorems about triangles using similarity transformations. *Theorems include: a line parallel to one side of a triangle divides the other two proportionally, and conversely; the Pythagorean Theorem proved using triangle similarity.*
5. Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.

Define trigonometric ratios and solve problems involving right triangles

6. Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles.
7. Explain and use the relationship between the sine and cosine of complementary angles.
8. Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.★

(+) **Apply trigonometry to general triangles**

9. Derive the formula $A = \frac{1}{2} ab \sin(C)$ for the area of a triangle by drawing an auxiliary line from a vertex perpendicular to the opposite side.
10. Prove the Laws of Sines and Cosines and use them to solve problems.
11. Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles (e.g., surveying problems, resultant forces).

Circles G-C

Understand and apply theorems about circles

1. Prove that all circles are similar.

2. Identify and describe relationships among inscribed angles, radii, and chords. *Include the relationship between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle.*
3. Construct the inscribed and circumscribed circles of a triangle, and prove properties of angles for a quadrilateral inscribed in a circle.
4. (+) Construct a tangent line from a point outside a given circle to the circle.

Find arc lengths and areas of sectors of circles

5. Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius, and define the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector.

Expressing Geometric Properties with Equations G-GPE

Translate between the geometric description and the equation for a conic section

1. Derive the equation of a circle of given center and radius using the Pythagorean Theorem; complete the square to find the center and radius of a circle given by an equation.
2. Derive the equation of a parabola given a focus and directrix.
3. (+) Derive the equations of ellipses and hyperbolas given two foci for the ellipse, and two directrices of a hyperbola.

Use coordinates to prove simple geometric theorems algebraically

4. Use coordinates to prove simple geometric theorems algebraically. *For example, prove or disprove that a figure defined by four given points in the coordinate plane is a rectangle; prove or disprove that the point (1, √3) lies on the circle centered at the origin and containing the point (0, 2).*
5. Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).
6. Find the point on a directed line segment between two given points that partitions the segment in a given ratio.
7. Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula.★

Geometric Measurement and Dimension G-GMD

Explain volume formulas and use them to solve problems

1. Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone. *Use dissection arguments, Cavalieri's principle, and informal limit arguments.*
2. (+) Give an informal argument using Cavalieri's principle for the formulas for the volume of a sphere and other solid figures.
3. Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.★

Visualize relationships between two-dimensional and three-dimensional objects

4. Identify the shapes of two-dimensional cross-sections of three-dimensional objects, and identify three-dimensional objects generated by rotations of two-dimensional objects.

Modeling with Geometry G-MG

Apply geometric concepts in modeling situations

1. Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder).★
2. Apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot).★
3. Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).★

Mathematics | High School—Statistics and Probability★

Decisions or predictions are often based on data—numbers in context. These decisions or predictions would be easy if the data always sent a clear message, but the message is often obscured by variability. Statistics provides tools for describing variability in data and for making informed decisions that take it into account.

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

Randomization has two important uses in drawing statistical conclusions. First, collecting data from a random sample of a population makes it possible to draw valid conclusions about the whole population, taking variability into account. Second, randomly assigning individuals to different treatments allows a fair comparison of the effectiveness of those treatments. A statistically significant outcome is one that is unlikely to be due to chance alone, and this can be evaluated only under the condition of randomness. The conditions under which data are collected are important in drawing conclusions from the data; in critically reviewing uses of statistics in public media and other reports, it is important to consider the study design, how the data were gathered, and the analyses employed as well as the data summaries and the conclusions drawn.

Random processes can be described mathematically by using a probability model: a list or description of the possible outcomes (the sample space), each of which is assigned a probability. In situations such as flipping a coin, rolling a number cube, or drawing a card, it might be reasonable to assume various outcomes are equally likely. In a probability model, sample points represent outcomes and combine to make up events; probabilities of events can be computed by applying the Addition and Multiplication Rules. Interpreting these probabilities relies on an understanding of independence and conditional probability, which can be approached through the analysis of two-way tables.

Technology plays an important role in statistics and probability by making it possible to generate plots, regression functions, and correlation coefficients, and to simulate many possible outcomes in a short amount of time.

Connections to Functions and Modeling. Functions may be used to describe data; if the data suggest a linear relationship, the relationship can be modeled with a regression line, and its strength and direction can be expressed through a correlation coefficient.

Content Overview

Interpreting Categorical and Quantitative Data	• Summarize, represent, and interpret data on a single count or measurement variable • Summarize, represent, and interpret data on two categorical and quantitative variables • Interpret linear models		1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.	Mathematical Practices
Making Inferences and Justifying Conclusions	• Understand and evaluate random processes underlying statistical experiments • Make inferences and justify conclusions from sample surveys, experiments and observational studies			
Conditional Probability and the Rules of Probability	• Use the concepts of independence and conditional probability to interpret data • Use the rules of probability to compute probabilities of compound events in a uniform probability model			
Using Probability to Make Decisions	• Calculate expected values and use them to solve problems • Use probability to evaluate outcomes of decisions			

Interpreting Categorical and Quantitative Data S-ID

Summarize, represent, and interpret data on a single count or measurement variable

1. Represent data with plots on the real number line (dot plots, histograms, and box plots).
2. Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.
3. Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).
4. Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets, and tables to estimate areas under the normal curve.

Summarize, represent, and interpret data on two categorical and quantitative variables

5. Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.
6. Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.
   a. Fit a function to the data; use functions fitted to data to solve problems in the context of the data. *Use given functions or choose a function suggested by the context. Emphasize linear and exponential models.*
   b. Informally assess the fit of a function by plotting and analyzing residuals.
   c. Fit a linear function for scatter plots that suggest a linear association.

Interpret linear models

7. Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.
8. Compute (using technology) and interpret the correlation coefficient of a linear fit.
9. Distinguish between correlation and causation.

Making Inferences and Justifying Conclusions S-IC

Understand and evaluate random processes underlying statistical experiments

1. Understand that statistics allows inferences to be made about population parameters based on a random sample from that population.
2. Decide if a specified model is consistent with results from a given data-generating process, e.g., using simulation. *For example, a model says a spinning coin falls heads up with probability 0.5. Would a result of 5 tails in a row cause you to question the model?*

Make inferences and justify conclusions from sample surveys, experiments, and observational studies

3. Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each.
4. Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling.
5. Use data from a randomized experiment to compare two treatments; use simulations to decide if differences between parameters are significant.
6. Evaluate reports based on data.

Conditional Probability and the Rules of Probability S-CP

Understand independence and conditional probability and use them to interpret data

1. Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events ("or," "and," "not").
2. Understand that two events A and B are independent if the probability of A and B occurring together is the product of their probabilities, and use this characterization to determine if they are independent.
3. Understand the conditional probability of A given B as P(A and B)/P(B), and interpret independence of A and B as saying that the conditional probability of A given B is the same as the probability of A, and the conditional probability of B given A is the same as the probability of B.
4. Construct and interpret two-way frequency tables of data when two categories are associated with each object being classified. Use the two-way table as a sample space to decide if events are independent and to approximate conditional probabilities. *For example, collect data from a random sample of students in your school on their favorite subject among math, science, and English. Estimate the probability that a randomly selected student from your school will favor science given that the student is in tenth grade. Do the same for other subjects and compare the results.*
5. Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations. *For example, compare the chance of having lung cancer if you are a smoker with the chance of being a smoker if you have lung cancer.*

Use the rules of probability to compute probabilities of compound events in a uniform probability model

6. Find the conditional probability of A given B as the fraction of B's outcomes that also belong to A, and interpret the answer in terms of the model.
7. Apply the Addition Rule, P(A or B) = P(A) + P(B) P(A and B), and interpret the answer in terms of the model.
8. (+) Apply the general Multiplication Rule in a uniform probability model, P(A and B) = P(A)P(B | A) = P(B)P(A | B), and interpret the answer in terms of the model.
9. (+) Use permutations and combinations to compute probabilities of compound events and solve problems.

(+) Using Probability to Make Decisions S-MD

Calculate expected values and use them to solve problems

1. Define a random variable for a quantity of interest by assigning a numerical value to each event in a sample space; graph the corresponding probability distribution using the same graphical displays as for data distributions.
2. Calculate the expected value of a random variable; interpret it as the mean of the probability distribution.
3. Develop a probability distribution for a random variable defined for a sample space in which theoretical probabilities can be calculated; find the expected value. *For example, find the theoretical probability distribution for the number of correct answers obtained by guessing on all five questions of a multiple-choice test where each question has four choices, and find the expected grade under various grading schemes.*
4. Develop a probability distribution for a random variable defined for a sample space in which probabilities are assigned empirically; find the expected value. *For example, find a current data distribution on the number of TV sets per household in the*

United States, and calculate the expected number of sets per household. How many TV sets would you expect to find in 100 randomly selected households?

Use probability to evaluate outcomes of decisions

5. Weigh the possible outcomes of a decision by assigning probabilities to payoff values and finding expected values.
   a. Find the expected payoff for a game of chance. *For example, find the expected winnings from a state lottery ticket or a game at a fast-food restaurant.*
   b. Evaluate and compare strategies on the basis of expected values. *For example, compare a high-deductible versus a low-deductible automobile insurance policy using various, but reasonable, chances of having a minor or a major accident.*
6. Use probabilities to make fair decisions (e.g., drawing by lots, using a random number generator).
7. Analyze decisions and strategies using probability concepts (e.g., product testing, medical testing, pulling a hockey goalie at the end of a game).

Postscript: A Note on High School Courses

The high school standards in this document do not specify how content should be organized into a sequence of high school courses.

However, it is expected that model course sequences based on these standards will become available in both a traditional sequence (Algebra 1, Geometry, and Algebra 2) as well as an integrated sequence (Integrated 1, Integrated 2, Integrated 3).

Glossary

Addition and subtraction within 5, 10, 20, 100, or 1000. Addition or subtraction of two whole numbers with whole number answers, and with sum or minuend in the range 0-5, 0-10, 0-20, or 0-100, respectively. Example: 8 + 2 = 10 is an addition within 10, 14 − 5 = 9 is a subtraction within 20, and 55 − 18 = 37 is a subtraction within 100.
Additive inverses. Two numbers whose sum is 0 are additive inverses of one another. Example: $3/4$ and $-3/4$ are additive inverses of one another because $3/4 + (-3/4) = (-3/4) + 3/4 = 0$.
Associative property of addition. See Table 3 in this Glossary.
Associative property of multiplication. See Table 3 in this Glossary.
Bivariate data. Pairs of linked numerical observations. Example: a list of heights and weights for each player on a football team.
Box plot. A method of visually displaying a distribution of data values by using the median, quartiles, and extremes of the data set. A box shows the middle 50% of the data.[1]
Commutative property. See Table 3 in this Glossary.
Complex fraction. A fraction A/B where A and/or B are fractions (B nonzero).
Computation algorithm. A set of predefined steps applicable to a class of problems that gives the correct result in every case when the steps are carried out correctly. See also: *computation strategy*.
Computation strategy. Purposeful manipulations that may be chosen for specific problems, may not have a fixed order, and may be aimed at converting one problem into another. See also: *computation algorithm*.
Congruent. Two plane or solid figures are congruent if one can be obtained from the other by rigid motion (a sequence of rotations, reflections, and translations).
Counting on. A strategy for finding the number of objects in a group without having to count every member of the group. For example, if a stack of books is known to have 8 books and 3 more books are added to the top, it is not necessary to count the stack all over again; one can find the total by *counting on* — pointing to the top book and saying "eight," following this with "nine, ten, eleven. There are eleven books now."
Dot plot. *See line plot.*
Dilation. A transformation that moves each point along the ray through the point emanating from a fixed center, and multiplies distances from the center by a common scale factor.
Expanded form. A multidigit number is expressed in expanded form when it is written as a sum of single-digit multiples of powers of ten. For example, 643 = 600 + 40 + 3.
Expected value. For a random variable, the weighted average of its possible values, with weights given by their respective probabilities.
First quartile. For a data set with median M, the first quartile is the median of the data values less than M. Example: For the data set {1, 3, 6, 7, 10, 12, 14, 15, 22, 120}, the first quartile is 6.[2] *See also* median, third quartile, interquartile range.
Fraction. A number expressible in the form a/b where a is a whole number and b is a positive whole number. (The word *fraction* in these standards always refers to a nonnegative number.) *See also* rational number.
Identity property of 0. See Table 3 in this Glossary.
Independently combined probability models. Two probability models are said to be combined independently if the probability of each ordered pair in the combined model equals the product of the original probabilities of the two individual outcomes in the ordered pair.
Integer. A number expressible in the form a or $-a$ for some whole number a.
Interquartile Range. A measure of variation in a set of numerical data, the interquartile range is the distance between the first and third quartiles of the data set. Example: For the data set {1, 3, 6, 7, 10, 12, 14, 15, 22, 120}, the interquartile range is 15 − 6 = 9. *See also* first quartile, third quartile.
Line plot. A method of visually displaying a distribution of data values where each data value is shown as a dot or mark above a number line. Also known as a dot plot.[3]
Mean. A measure of center in a set of numerical data, computed by adding the values in a list and then dividing by the number of values in the list.[4] Example: For the data set {1, 3, 6, 7, 10, 12, 14, 15, 22, 120}, the mean is 21.
Mean absolute deviation. A measure of variation in a set of numerical data, computed by adding the distances between each data value and the mean, then dividing by the number of data values. Example: For the data set {2, 3, 6, 7, 10, 12, 14, 15, 22, 120}, the mean absolute deviation is 20.

[1] Adapted from Wisconsin Department of Public Instruction, http://dpi.wi.gov/standards/mathglos.html, accessed March 2, 2010.
[2] Many different methods for computing quartiles are in use. The method defined here is sometimes called the Moore and McCabe method. See Langford, E., "Quartiles in Elementary Statistics," *Journal of Statistics Education* Volume 14, Number 3 (2006).
[3] Adapted from Wisconsin Department of Public Instruction, *op. cit.*
[4] To be more precise, this defines the *arithmetic mean*.

Median. A measure of center in a set of numerical data. The median of a list of values is the value appearing at the center of a sorted version of the list — or the mean of the two central values, if the list contains an even number of values. Example: For the data set {2, 3, 6, 7, 10, 12, 14, 15, 22, 90}, the median is 11.
Midline. In the graph of a trigonometric function, the horizontal line half-way between its maximum and minimum values.
Multiplication and division within 100. Multiplication or division of two whole numbers with whole number answers, and with product or dividend in the range 0-100. Example: 72 ÷ 8 = 9.
Multiplicative inverses. Two numbers whose product is 1 are multiplicative inverses of one another. Example: $3/4$ and $4/3$ are multiplicative inverses of one another because $3/4 \times 4/3 = 4/3 \times 3/4 = 1$.
Number line diagram. A diagram of the number line used to represent numbers and support reasoning about them. In a number line diagram for measurement quantities, the interval from 0 to 1 on the diagram represents the unit of measure for the quantity.
Percent rate of change. A rate of change expressed as a percent. Example: if a population grows from 50 to 55 in a year, it grows by 5/50 = 10% per year.
Probability distribution. The set of possible values of a random variable with a probability assigned to each.
Properties of operations. See Table 3 in this Glossary.
Properties of equality. See Table 4 in this Glossary.
Properties of inequality. See Table 5 in this Glossary.
Properties of operations. See Table 3 in this Glossary.
Probability. A number between 0 and 1 used to quantify likelihood for processes that have uncertain outcomes (such as tossing a coin, selecting a person at random from a group of people, tossing a ball at a target, testing for a medical condition).
Probability model. A probability model is used to assign probabilities to outcomes of a chance process by examining the nature of the process. The set of all outcomes is called the sample space, and their probabilities sum to 1. See also *uniform probability model*.
Random variable. An assignment of a numerical value to each outcome in a sample space.
Rational expression. A quotient of two polynomials with non-zero denomiator.
Rational number. A number expressible in the form a/b or $-a/b$ for some fraction a/b. The rational numbers include the integers.
Rectilinear figure. A polygon all angles of which are right angles.
Rigid motion. A transformation of points in space consisting of a sequence of one or more translations, reflections, and/or rotations. Rigid motions are here assumed to preserve distances and angle measures.
Repeating decimal. The decimal form of a rational number. See *terminating decimal*.
Sample space. In a probability model for a random process, a list of the individual outcomes that are to be considered.
Scatter plot. A graph in the coordinate plane representing a set of bivariate data. For example, the heights and weights of a group of people could be displayed on a scatter plot.[5]
Similarity transformation. A rigid motion followed by a dilation.
Tape diagram. A drawing that looks like a segment of tape, used to illustrate number relationships. Also known as a strip diagram, bar model, fraction strip, or length model.
Terminating decimal. A decimal is called terminating if its repeating digit is 0.
Third quartile. For a data set with median M, the third quartile is the median of the data values greater than M. Example: For the data set {2, 3, 6, 7, 10, 12, 14, 15, 22, 120}, the third quartile is 15. *See also* median, first quartile, interquartile range.
Transitivity principle for indirect measurement. If the length of object A is greater than the length of object B, and the length of object B is greater than the length of object C, then the length of object A is greater than the length of object C. This principle applies to measurement of other quantities as well.
Uniform probability model. A probability model which assigns equal probability to all outcomes. See also *probability model*.
Vector. A quantity with magnitude and direction in the plane or in space, defined by an ordered pair or triple of real numbers.
Visual fraction model. A tape diagram, number line diagram, or area model.
Whole numbers. The numbers 0, 1, 2, 3, ….

[5] Adapted from Wisconsin Department of Public Instruction, *op. cit.*

TABLE 1. Common addition and subtraction situations.[6]

	Result Unknown	Change Unknown	Start Unknown
Add to	Two bunnies sat on the grass. Three more bunnies hopped there. How many bunnies are on the grass now? $2 + 3 = ?$	Two bunnies were sitting on the grass. Some more bunnies hopped there. Then there were five bunnies. How many bunnies hopped over to the first two? $2 + ? = 5$	Some bunnies were sitting on the grass. Three more bunnies hopped there. Then there were five bunnies. How many bunnies were on the grass before? $? + 3 = 5$
Take from	Five apples were on the table. I ate two apples. How many apples are on the table now? $5 - 2 = ?$	Five apples were on the table. I ate some apples. Then there were three apples. How many apples did I eat? $5 - ? = 3$	Some apples were on the table. I ate two apples. Then there were three apples. How many apples were on the table before? $? - 2 = 3$

	Total Unknown	Addend Unknown	Both Addends Unknown[7]
Put Together/ Take Apart[8]	Three red apples and two green apples are on the table. How many apples are on the table? $3 + 2 = ?$	Five apples are on the table. Three are red and the rest are green. How many apples are green? $3 + ? = 5,\ 5 - 3 = ?$	Grandma has five flowers. How many can she put in her red vase and how many in her blue vase? $5 = 0 + 5,\ 5 = 5 + 0$ $5 = 1 + 4,\ 5 = 4 + 1$ $5 = 2 + 3,\ 5 = 3 + 2$

	Difference Unknown	Bigger Unknown	Smaller Unknown
Compare[9]	("How many more?" version): Lucy has two apples. Julie has five apples. How many more apples does Julie have than Lucy? ("How many fewer?" version): Lucy has two apples. Julie has five apples. How many fewer apples does Lucy have than Julie? $2 + ? = 5,\ 5 - 2 = ?$	(Version with "more"): Julie has three more apples than Lucy. Lucy has two apples. How many apples does Julie have? (Version with "fewer"): Lucy has 3 fewer apples than Julie. Lucy has two apples. How many apples does Julie have? $2 + 3 = ?,\ 3 + 2 = ?$	(Version with "more"): Julie has three more apples than Lucy. Julie has five apples. How many apples does Lucy have? (Version with "fewer"): Lucy has 3 fewer apples than Julie. Julie has five apples. How many apples does Lucy have? $5 - 3 = ?,\ ? + 3 = 5$

[6] Adapted from Box 2-4 of National Research Council (2009, op. cit., pp. 32, 33).
[7] These *take apart* situations can be used to show all the decompositions of a given number. The associated equations, which have the total on the left of the equal sign, help children understand that the = sign does not always mean *makes* or *results in* but always does mean *is the same number as*.
[8] Either addend can be unknown, so there are three variations of these problem situations. Both Addends Unknown is a productive extension of this basic situation especially for small numbers less than or equal to 10.
[9] For the Bigger Unknown or Smaller Unknown situations, one version directs the correct operation (the version using *more* for the bigger unknown and using *less* for the smaller unknown). The other versions are more difficult.

TABLE 2. Common multiplication and division situations.[10]

	Unknown Product	Group Size Unknown ("How many in each group?" Division)	Number of Groups Unknown ("How many groups?" Division)
	$3 \times 6 = ?$	$3 \times ? = 18$ and $18 \div 3 = ?$	$? \times 6 = 18$ and $18 \div 6 = ?$
Equal Groups	There are 3 bags with 6 plums in each bag. How many plums are there in all? *Measurement example.* You need 3 lengths of string, each 6 inches long. How much string will you need altogether?	If 18 plums are shared equally into 3 bags, then how many plums will be in each bag? *Measurement example.* You have 18 inches of string, which you will cut into 3 equal pieces. How long will each piece of string be?	If 18 plums are to be packed 6 to a bag, then how many bags are needed? *Measurement example.* You have 18 inches of string, which you will cut into pieces that are 6 inches long. How many pieces of string will you have?
Arrays,[11] Area[12]	There are 3 rows of apples with 6 apples in each row. How many apples are there? *Area example.* What is the area of a 3 cm by 6 cm rectangle?	If 18 apples are arranged into 3 equal rows, how many apples will be in each row? *Area example.* A rectangle has area 18 square centimeters. If one side is 3 cm long, how long is a side next to it?	If 18 apples are arranged into equal rows of 6 apples, how many rows will there be? *Area example.* A rectangle has area 18 square centimeters. If one side is 6 cm long, how long is a side next to it?
Compare	A blue hat costs $6. A red hat costs 3 times as much as the blue hat. How much does the red hat cost? *Measurement example.* A rubber band is 6 cm long. How long will the rubber band be when it is stretched to be 3 times as long?	A red hat costs $18 and that is 3 times as much as a blue hat costs. How much does a blue hat cost? *Measurement example.* A rubber band is stretched to be 18 cm long and that is 3 times as long as it was at first. How long was the rubber band at first?	A red hat costs $18 and a blue hat costs $6. How many times as much does the red hat cost as the blue hat? *Measurement example.* A rubber band was 6 cm long at first. Now it is stretched to be 18 cm long. How many times as long is the rubber band now as it was at first?
General	$a \times b = ?$	$a \times ? = p$ and $p \div a = ?$	$? \times b = p$ and $p \div b = ?$

[10] The first examples in each cell are examples of discrete things. These are easier for students and should be given before the measurement examples.
[11] The language in the array examples shows the easiest form of array problems. A harder form is to use the terms rows and columns: The apples in the grocery window are in 3 rows and 6 columns. How many apples are in there? Both forms are valuable.
[12] Area involves arrays of squares that have been pushed together so that there are no gaps or overlaps, so array problems include these especially important measurement situations.

TABLE 3. The properties of operations. Here a, b and c stand for arbitrary numbers in a given number system. The properties of operations apply to the rational number system, the real number system, and the complex number system.

Associative property of addition	$(a + b) + c = a + (b + c)$
Commutative property of addition	$a + b = b + a$
Additive identity property of 0	$a + 0 = 0 + a = a$
Existence of additive inverses	For every a there exists $\quad a$ so that $a + (\quad a) = (\quad a) + a = 0$.
Associative property of multiplication	$(a \times b) \times c = a \times (b \times c)$
Commutative property of multiplication	$a \times b = b \times a$
Multiplicative identity property of 1	$a \times 1 = 1 \times a = a$
Existence of multiplicative inverses	For every $a \neq 0$ there exists $1/a$ so that $a \times 1/a = 1/a \times a = 1$.
Distributive property of multiplication over addition	$a \times (b + c) = a \times b + a \times c$

TABLE 4. The properties of equality. Here a, b and c stand for arbitrary numbers in the rational, real, or complex number systems.

Reflexive property of equality	$a = a$
Symmetric property of equality	If $a = b$, then $b = a$.
Transitive property of equality	If $a = b$ and $b = c$, then $a = c$.
Addition property of equality	If $a = b$, then $a + c = b + c$.
Subtraction property of equality	If $a = b$, then $a \quad c = b \quad c$.
Multiplication property of equality	If $a = b$, then $a \times c = b \times c$.
Division property of equality	If $a = b$ and $c \neq 0$, then $a \div c = b \div c$.
Substitution property of equality	If $a = b$, then b may be substituted for a in any expression containing a.

TABLE 5. The properties of inequality. Here a, b and c stand for arbitrary numbers in the rational or real number systems.

Exactly one of the following is true: $a < b$, $a = b$, $a > b$.
If $a > b$ and $b > c$ then $a > c$.
If $a > b$, then $b < a$.
If $a > b$, then $\quad a < \quad b$.
If $a > b$, then $a \pm c > b \pm c$.
If $a > b$ and $c > 0$, then $a \times c > b \times c$.
If $a > b$ and $c < 0$, then $a \times c < b \times c$.
If $a > b$ and $c > 0$, then $a \div c > b \div c$.
If $a > b$ and $c < 0$, then $a \div c < b \div c$.

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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.[i] 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.[ii]

How were the international benchmarks used to inform the development of the CCSS?

The goal of the international benchmarking in the common core state standards development process was to ensure that the CCSS are as rigorous as comparable standards in the high-performing and other countries. However, the use of international benchmarks as evidence is no easy feat; it is not simply a matter of identifying the "best" source and copying it, or of aggregating all viable sources to find some set of shared expectations. Rather, international benchmarks were used to guide critical decisions in the following areas:

- *Whether particular content should be included:* One of the principal ways international standards were used in this development process was as a guide when making tough decisions about whether content should be included or excluded.
- *When content should be introduced and how that content should progress*: The progression of topics in the international mathematics standards helped the development team make decisions about when to introduce topics in the CCSS as well as when to stop focusing on them.
- *Ensuring focus and coherence*: Standards from other countries tend to be very focused, including only what is absolutely necessary.

- *Organizing and formatting the standards*: Certain organizational aspects or characteristics of international standards that promoted clarity and ease of reading and use served as a model for the CCSS.
- *Determining emphasis on particular topics in standards*: Where emphasis on particular topics was found repeatedly in international standard, this was instructive in determining their importance for inclusion in the CCSS.

* * * * *

When the final version of the K-12 Common Core State Standards is released, it will be accompanied by a discussion of the evidence that was used in their development. In the meantime, the evidence from the September 2009 draft of the College and Career Ready Standards is available: The URL for the ELA document is http://www.corestandards.org/Files/ELAEvidence.pdf, and the URL for the mathematics document is http://www.corestandards.org/Files/MathEvidence.pdf.

[i] 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.

[ii] 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.

Fields of Opportunities

STATE OF IOWA

CHESTER J. CULVER, GOVERNOR
PATTY JUDGE, LT. GOVERNOR

DEPARTMENT OF EDUCATION
JUDY A. JEFFREY, DIRECTOR

May 18, 2009

Ray Sheppach, Executive Director
National Governors Association
Hall of the States, 444 N. Capitol Street
Washington, D. C. 20001-1512

Gene Wilhoit, Executive Director
Council of Chief State School Officers
One Massachusetts Avenue, NW, Suite 700
Washington, D. C. 20001-1431

Dear Mr. Sheppach and Mr. Wilhoit:

I, as the Chief in Iowa, have believed for some time that national standards are needed in this country. This is not about one state competing with another, but a nation that must compete with the world. Thus, I and the Governor of Iowa support this movement. At the same time, we are concerned about the requirement in the MOU that states this is a voluntary effort for states while then requiring each state that signs on to demonstrate that 85 percent of the state's standards in English language arts and mathematics are aligned to the national standards. I believe this requirement is premature when we have not viewed a national standards document.

In Iowa, we have also just completed such a process for all academic areas and the 21st century skills by having determined the core and essential concepts and skills within all of those areas. School districts are in the process of implementing our "core" and I would find it difficult, if not impossible, since the legislature has determined by law that the core is mandated to redo our requirements. At the same time, I believe that the national standards will be reflected in Iowa's work, but that is difficult to determine until the final document is released. It will certainly depend upon the work that is done by the national standards work group to see whether or not they can actually determine what is "core" and how detailed the document becomes. We will still sign the MOU because we believe in this work, but I am hopeful that consideration will be given to our concern.

Sincerely,

Judy Jeffrey

Judy Jeffrey
Director

Grimes State Office Building - 400 E 14th St - Des Moines IA 50319-0146
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Helping Communities Meet the Learning Needs of All Their Children and Adults

The Council of Chief State School Officers and
The National Governors Association Center for Best Practices

Common Core Standards
Memorandum of Agreement

Purpose. This document commits states to a state-led process that will draw on evidence and lead to development and adoption of a common core of state standards (common core) in English language arts and mathematics for grades K-12. These standards will be aligned with college and work expectations, include rigorous content and skills, and be internationally benchmarked. The intent is that these standards will be aligned to state assessment and classroom practice. The second phase of this initiative will be the development of common assessments aligned to the core standards developed through this process.

Background. Our state education leaders are committed to ensuring all students graduate from high school ready for college, work, and success in the global economy and society. State standards provide a key foundation to drive this reform. Today, however, state standards differ significantly in terms of the incremental content and skills expected of students.

Over the last several years, many individual states have made great strides in developing high-quality standards and assessments. These efforts provide a strong foundation for further action. For example, a majority of states (35) have joined the American Diploma Project (ADP) and have worked individually to align their state standards with college and work expectations. Of the 15 states that have completed this work, studies show significant similarities in core standards across the states. States also have made progress through initiatives to upgrade standards and assessments, for example, the New England Common Assessment Program.

Benefits to States. The time is right for a state-led, nation-wide effort to establish a common core of standards that raises the bar for all students. This initiative presents a significant opportunity to accelerate and drive education reform toward the goal of ensuring that all children graduate from high school ready for college, work, and competing in the global economy and society. With the adoption of this common core, participating states will be able to:

- Articulate to parents, teachers, and the general public expectations for students;
- Align textbooks, digital media, and curricula to the internationally benchmarked standards;
- Ensure professional development to educators is based on identified need and best practices;
- Develop and implement an assessment system to measure student performance against the common core; and
- Evaluate policy changes needed to help students and educators meet the common core standards and "end-of-high-school" expectations.

An important tenet of this work will be to increase the rigor and relevance of state standards across all participating states; therefore, no state will see a decrease in the level of student expectations that exist in their current state standards.

Process and Structure

- ☐ **Common Core State-Based Leadership.** The Council of Chief State School Officers (CCSSO) and the National Governors Association Center for Best Practices (NGA Center) shall assume responsibility for coordinating the process that will lead to state adoption of a common core set of standards. These organizations represent governors and state commissioners of education who are charged with defining K-12 expectations at the state level. As such, these organizations will

facilitate a state-led process to develop a set of common core standards in English language arts and math that are:

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

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

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

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

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

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

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

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

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

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

Signatures		
Governor:	Chester J. Culver	5/18/09
Chief State School Officer:	Judy A. Jeffrey	5/18/09

News Release

09/01/2009

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

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

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

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

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

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

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

"As state school chiefs, we have been discussing and building momentum for state-led, voluntary common standards that are both rigorous and internationally benchmarked for the past two years," stated **CCSSO President and Arkansas Commissioner of Education Ken James**. "The broad level of commitment we have received from states across the nation for this unprecedented effort is both gratifying and exciting. It also clearly illustrates that this is an idea whose time has arrived."

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

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

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

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

###

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

The Council of Chief State School Officers (CCSSO) is a nonpartisan, nationwide, nonprofit organization of public officials who head departments of elementary and secondary education in the states, the District of Columbia, the Department of Defense Education Activity, and five U.S. extra-state jurisdictions. CCSSO provides leadership, advocacy, and technical assistance on major educational issues. The Council seeks member consensus on major educational issues and

expresses their views to civic and professional organizations, federal agencies, Congress, and the public. www.ccsso.org.

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

Printed from the NGA web site.

States Participating in the SMARTER Balanced Consortium (as of 5/12/10)

State	Date	Member/Governing State
Colorado	May 12	Member
Connecticut	April 13	Member
Delaware	April 14	Member
Georgia	April 28	Member
Hawaii	April 15	Member
Idaho	April 15	Governing
Illinois	April 15	Member
Iowa	April 14	Member
Kansas	April 15	Governing
Kentucky	April 15	Member
Maine	April 14	Governing
Michigan	April 16	Governing
Minnesota	April 27	Governing
Missouri	April 14	Governing
Montana	April 14	Member
Nebraska	April 13	Member
Nevada	April 19	Member
New Hampshire	April 19	Member
New Jersey	April 15	Member
New Mexico	April 13	Member
North Carolina	April 15	Governing
North Dakota	April 15	Member
Ohio	April 20	Member
Oregon	April 15	Governing
Pennsylvania	April 27	Member
South Carolina	April 20	Member
South Dakota	April 15	Member
Utah	April 14	Governing
Vermont	April 15	Governing
Washington	April 14	Governing
West Virginia	April 13	Governing
Wisconsin	April 14	Governing
Wyoming	April 14	Member
Total		**Member 33 Governing 13**

Smarter Balance Assessment Consortium
Document of Commitment

Please sign and return by April 15, 2010 to
Tony Alpert, Director of Assessment, Oregon Department of Education

Email as PDF attachment to: Tony.Alpert@ode.state.or.us , or
Fax: 503-378-5156

The Document of Commitment may be returned after April 15, allowing a state to begin to participate as a voting Member State from the date of commitment. Signature on this document indicates support of decisions made prior to Consortia receipt of this document.

Complete descriptions of the responsibilities and time commitments of various levels of consortium governance are provided in the Governance Structure document. This initial governance structure refers to the *proposal process only.* Governance structure will be revised after proposal acceptance to reflect long-term needs during the grant implementation period.

State Name: ___Iowa_____

Please indicate which governance levels are of interest to your state at this time.

X **Member State –** May also sign as member state for other consortia, may participate in setting general direction, may vote on selected issues.

☐ **Governing State –** May only sign with one consortia per competition category; has an active role in policy decisions, is committed to using the assessment system or program developed.

X Please consider my state for representation on the **steering committee**. (10 hr/wk)

☐ Please consider my state for representation on the **proposal design team** (20 hr/wk)

☐ We are interested in participating in the following **work groups** (variable hr/wk)

- X Item Specs/Quality Control, Writing/Constructed Response Scoring/Validity
- X Psychometrics, Reliability, Standard Setting, Reporting
- ☐ Universal Design, Test Administration, Accommodations, Special Populations
- X Technical Specifications/Requirements
- ☐ Communications and Documentation
- ☐ External Validation, Research and Innovations
- ☐ Professional Development and Capacity Building (IT and Human)
- X Formative and Benchmark Assessment
- ☐ Performance-Based, Curriculum-Embedded Assessments
- ☐ High School and Higher Education

Judy Jeffrey

4/14/10

Chief State School Officer Signature Date

APPENDIX C

Appendix C

Attachment Number	Attachment Title	Relevant Criterion	Page Number
(C)(2)–1	Iowa Department of Education Data Warehouse: EdInsight (Overview)	(C)(2)	Appendix C, page 1
(C)(2)–2	Statewide Longitudinal Data System (SLDS) Project Plan	(C)(2)	Appendix C, page 4
(C)(3)–1	Iowa Data Warehouse (EdInsight) Data Training	(C)(3)(i)	Appendix C, page 36

IOWA DEPARTMENT OF EDUCATION
DATA WAREHOUSE: EDINSIGHT

Overview

The transformation of the data infrastructure for the Iowa Department of Education (DE), and to a certain degree the education data infrastructure throughout the state, has begun. As of the beginning of January 2008, the DE entered into a contract with Claraview, Inc., for a data warehouse, a.k.a. EdInsight. EdInsight has a "back end" that will have three sets of data loaded during implementation: Project EASIER, which is student level data; IMS, special education student level data; and Iowa Testing Program student level data. EdInsight will link all these disparate data together for analysis across these domains of information enabling new and meaningful analysis. On the "front end," different education stakeholders (DE staff, area education agency staff, and local district staff) can access data in preformatted reports and more sophisticated analytical tools, dependent on the user's expertise and security clearances.

Implementing EdInsight will take over two years. The DE has received federal funding to support outreach to a wide variety of stakeholders to design the preformatted reports and analysis tools. The DE has recently completed a prototype version of the data warehouse. Full blown development of version 1.0 is currently underway and will be completed in March 2009.

Vision

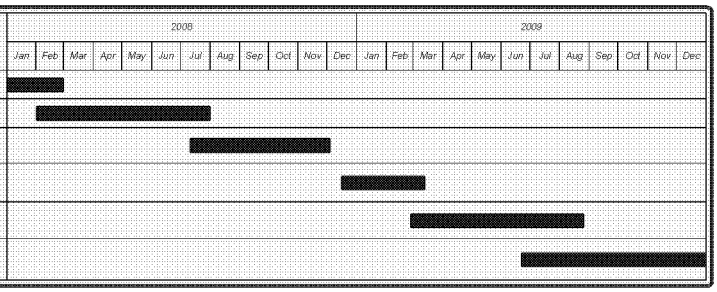
Provide the Iowa education community consistent and accurate longitudinal information on education outcomes and the analytical tools needed to improve decision making and student success.

Goals

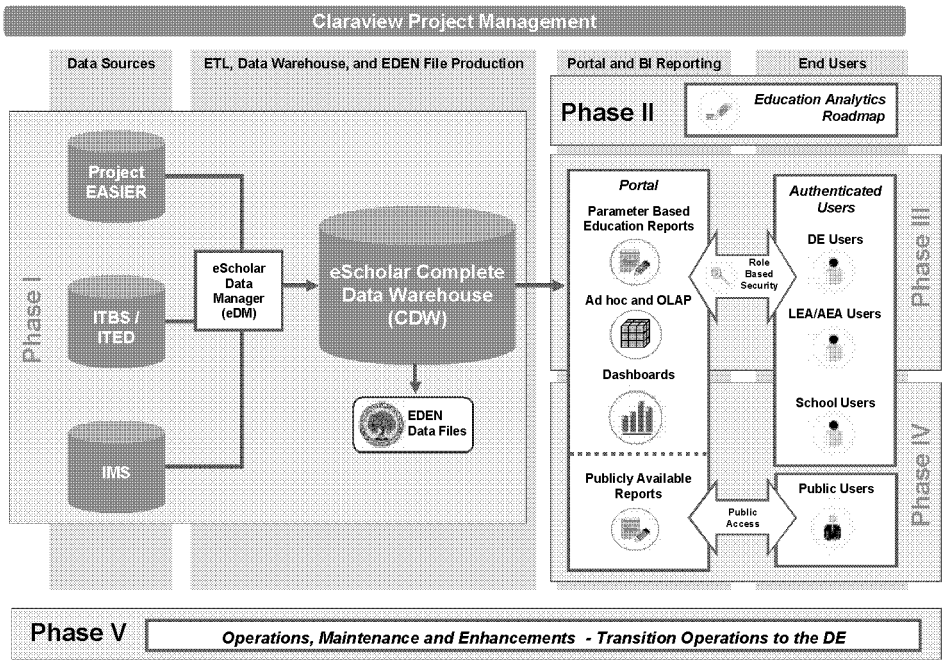
1. Provide the education community a single repository of combined data from multiple sources on one common system.
2. Provide tools and training in the use of data for benchmarking and longitudinal and comparative analysis.
3. Empower data driven decision making for education stakeholders.
4. Increase confidence in data by defining and implementing processes to improve data consistency, reliability and quality.

Proposed Timeline

ID	Task Name	Start	Finish	Duration
1	Project Ramp Up	1/2/2008	2/29/2008	8.6w
2	Phase 1: Data Acquisition and Loading	2/1/2008	7/31/2008	26w
3	Phase 2: Education Analytics & Prototype	7/11/2008	12/3/2008	20.8w
4	Phase 3: Rollout of Education Portal w/ Top Ten Reports – Version 1.0	12/16/2008	3/12/2009	12.6w
5	Phase 4: Portal Refinement and Report Expansion – Version 1.5	2/26/2009	8/25/2009	25.8w
6	Phase 5: Operations, Maintenance and Enhancements	6/22/2009	4/8/2010	41.8w



Solution Architecture



Data and Reporting Needs Assessment

The DE partnered with Iowa AEA's to conduct a data and reporting needs assessment among local school districts and area education agency staff from across the state. The goal of this assessment was to solicit user input on the portal design and reporting interfaces for the statewide rollout of EdInsight. The DE utilized a two-pronged approach in gathering information by: 1) conducting a statewide survey to quantify the magnitude of responses and 2) convening a series of focus groups to capture the depth and breadth of qualitative aspects. The target audience contained district superintendents, principals, assessment coordinators, curriculum directors, teachers and other district personnel, as well as AEA staff. There were 179 participants in the 20 focus groups held statewide, two per AEA, and 445 survey respondents. Triangulating findings from both of these techniques led to the selection of the first ten report areas:

Initial Ten Report Areas for EdInsight Rollout	
Assessment/Growth	Curriculum
Equity School Improvement	Special Education
AYP Report	Transfer of Student Historical Data/Student Profile
APR Report	School/District Comparison
Enrollment	School Report Card for the Public

Committees

To ensure stakeholder input into EdInsight is on-going and addresses the needs of the entire education community, four committees support EdInsight in different ways: Steering directs; Advisory shapes; Data Governance defines, and Project Management engineers.

Budget

The DE has been appropriated cumulatively $1.2 million in initial funding from the legislature for the EdInsight project through FY 09. The initial implementation will cost the DE $2.9 million. The Department is exploring other avenues for sustained funding.

EdInsight

EdInsight Report Numbers

Family	Subject Area	Main Report Areas	Sub Report Areas		Student Detail Report
1.0 ASMT	Assessment / Growth	ASMT 1.1 – Individual Reports	ASMT 1.1.1	Individual Performance Detail	Student Level Detail Report
			ASMT 1.1.2	Individual Performance Trend and Comparison	
		ASMT 1.2 - Group Reports			
		ASMT 1.3 - Cohort Reports			
		ASMT 1.4 – Assessment Cube			
		ASMT 1.5 - Alternate Assessment			
2.0 EQTY	Equity / School Improvement	EQTY 2.1 – AEA/District Equity Report			
4.0 APR	APR Report	APR 4.1 – Student Achievement			
		APR 4.2 – School Report Card for the Public			
5.0 ENRL	Enrollment	ENRL 5.1 – Attendance Report			
		ENRL 5.2 – Certified Enrollment Report			
6.0 CURR	Curriculum	CURR 6.1 – Curriculum Accreditation Report			
		CURR 6.2 – Student Course History Report			
		CURR 6.3 – College Credit Course Report			
		CURR 6.4 – Higher Level Course Report			
7.0 SPED	Special Education	SPED 7.1 – Suspensions and Expulsions			
		SPED 7.2 – Achievement			
		SPED 7.3 – Graduation			
		SPED 7.4 – Drop Out			
		SPED 7.5 – Disproportionality			
9.0 UTIL	Utilities	UTIL 9.1 – Transfer of Historical Data			
		UTIL 9.2 – School and District Comparison Report			
11.0 IND	Student Indicators	IND 11.1 - Graduation			
		IND 11.2 - Drop Out			
		IND 11.3 - Attendance			
		IND 11.4 - Discipline			
12.0 PRGM	Program Indicators	PRGM 12.1 - At Risk			
		PRGM 12.2 - Talented and Gifted			

	New Reports
Prototype Release	4
Release 1.0	5
Release 1.5	15
	24

Iowa Statewide Longitudinal Data System Project Plan
May 2010

a) Need for the Project

The Institute of Education Sciences (IES) grant awarded to Iowa in 2009 provided the framework upon which Iowa's Unified Longitudinal Data System Infrastructure became a cogent, strategic vision. The Iowa Department of Education (IDE) recognized the need and the importance of a comprehensive, accurate, and timely statewide longitudinal data system. IDE was in the process of implementing two cornerstone pieces of such a Statewide Longitudinal Data System (SLDS) – a data warehouse and electronic transcripts – with funds already available when the IES grant was awarded. Prior to the IES grant, IDE's education data infrastructure vision was to: 1) generate a unified infrastructure for educational data; 2) establish interconnectivity between entities for analysis and planning; and 3) develop a prekindergarten (P)-20 system for tracking individuals throughout their educational career. The IES grant provided seven activities to bring this vision to fruition. To briefly summarize the current state of the SLDS, this section will review each of the activities, noting from where the funding has and will come, and then it will examine the current SLDS in whole relative to the 19 elements and capabilities of the America Recovery and Reinvestment Act (ARRA) SLDS Grants[1].

Current Status of Iowa's SLDS

The first activity, the statewide educational data warehouse – EdInsight, was undertaken with appropriations from the Iowa Legislature and other IDE funding nearly one and one-half years before the 2009 IES grants were awarded. EdInsight is the Iowa Department of Education's data warehouse where multiple years of student-level data are stored and can be linked and used for local decision making. Three sets of P-12[2] student-level data currently reside in EdInsight: 1) Project EASIER (Electronic Access System for Iowa Education Records) which includes demographic, enrollment/attendance, program, assessment, graduate, suspension/expulsion, and high school course data; 2) Information Management System (IMS) which includes statewide special education data; and 3) Iowa Testing Programs (ITP) which includes achievement data from the Iowa Tests of Basic Skills (ITBS) and the Iowa Tests of Educational Development (ITED).

To systematically gather initial requirements for EdInsight, IDE conducted 20 stakeholder focus groups across the state to interview the ultimate end users. To extend and triangulate the results of the focus groups, an online survey was also conducted to gather feedback from over 400 potential users statewide. A group of identified stakeholders has been a guiding force in the decision-making process for EdInsight and has provided input on an initial feasibility, request for proposal (RFP) development, portal design, and reporting interfaces. In

[1] In fact, there are 22 capabilities and elements, since the State Fiscal Stabilization Funds (SFSF) is counted as one capacity, when in fact it is four separate criteria or capacities consisting of 34 data elements and three descriptors.

[2] Data for students prior to kindergarten have serious limitations. The system for providing programs and educational programming is fragmented, and so are the data.

addition to this Advisory Committee, EdInsight has engaged stakeholders in Steering and Data Governance Committees. These will be discussed in detail in the Governance Plan Section of the Narrative, as all of the committees have become more integrated with the SLDS and some of the committees' jurisdiction has been expanded to encompass the entire SLDS.

EdInsight Version 1.0 was released in early October 2009 and has linked data from these three sources resulting in new and meaningful analysis opportunities for a limited number of IDE, area education agency (AEA), and local district staff. These identified stakeholders have access to data in preformatted reports (See Appendix A for list) and will have access to more sophisticated analytical tools for use with up to four years of data, depending on their expertise and security clearances. (See Appendix A for a list of reports in v. 1.0, those in development for v. 1.25, and those planned for v. 2.0.)

Two other activities that were proposed as part of the 2009 IES grant are contained within EdInsight: reporting the National Governor's Association (NGA) graduation rate through EdInsight and expanding the data sets that could be reported on in EdInsight. The IES funding allows Iowa to add dropout information to EdInsight for the calculation of graduation and cohort dropout rates with greater accuracy. Currently, IDE is performing the calculation using statistical software outside of EdInsight. Once IDE has perfected the process, it intends to augment EdInsight with EDFacts specifications and additional data which will satisfy EDFacts reporting requirements. Ultimately, EdInsight has the ability to become Iowa's reporting platform to EDFacts provided the requisite additional source data are loaded.

There are plans to expand the data sets in EdInsight to include:

- Teacher data which are already populated in an eScholar template within EdInsight for use in district equity reviews per Title VI of the Civil Right Act of 1964. The review requires data on race/ethnicity of school personnel per classification per building per district. While loading these data and making them operational for the equity report was a major step, several structural barriers remain before teacher data can be linked to students and their achievement data even though all three data sets currently exist in EdInsight.
- Finance data will be added to EdInsight using the 2009 IES grant funding beginning in 2010. A RFP is in the process of being written to develop business requirements for reports based on the finance data available through the state of Iowa Departments of Management, Revenue, and Education.
- Additional assessments will be included in EdInsight. ITP is under contract as part of the 2009 IES grant to develop an end of course assessment report for EdInsight that corresponds to the end of course assessment students will take as part of the new Iowa Core Curriculum Initiative. ITP researchers, in conjunction with The University of Iowa, are also providing psychometric support for other report designs, as well. There are plans to include other vendor assessments in EdInsight, also. Potentially Dynamic Indicators of Basic Early Literacy (DIBELS) data are scheduled to be included because it supports early development inquiry, but adding third party assessment data to EdInsight means committing long term to an ongoing cost which could become a maintenance issue later.
- P-12 transcript data will be collected as part of the Electronic Transcript and Student Record Exchange Project and will be added to EdInsight and will be discussed in that section.

- The Division of Community Colleges and Workforce Preparation within the IDE collects data from Iowa's 15 community colleges and is willing to incorporate that data into EdInsight. Unfortunately, the willingness of those involved was not enough to finance the integration in these lean budget times. Further, after review, it was ascertained that the process will require more technical engineering to make the division's system interoperable with P-12 data and that additional validation capabilities would be needed to ensure that the community college data are accurate and reliable when used for decision making.
- Disaster mitigation data will be collected. The Iowa Transcript Repository component of the electronic transcript system will provide IDE data to contribute to the enterprise. Further, two area education agencies (AEAs 10 and 11) are in the process of constructing data bunkers – physical structures designed to withstand natural disasters. All that remains to begin implementation in this area is the releases of the National Center for Education Statistics (NCES) monograph for protocol.

The fourth 2009 IES grant activity was a Standards-Based System for Interoperability. A system for the automatic transmission of student data would enable IDE and local education agencies (LEAs) in Iowa to improve the accuracy and timeliness of data; it would also free valuable human resources currently expended in the manual data submission processes. A standards-based transmission system would also give LEAs the ability to quickly locate information on students transferring between districts. The interoperability is planned to extend to those other education stakeholders that already regularly share data with IDE: AEA, community colleges, and ITP.

There was an attempt to bid a School Interoperability Framework (SIF) network for Iowa education stakeholders as part of the electronic transcript contract which was signed in June of 2009. There was an internal ruling by the contracting office that the SIF compliant requirement for the electronic transcript system (a hub and spoke network among LEAs, AEAs, community colleges, Regent institutions, and the IDE) was not sufficient for notification to vendors who might have wanted to bid on SIF implementation for Iowa. To be completely transparent, IDE is currently writing a separate RFP explicitly for a SIF implementation.

From responses to the electronic transcript proposal, at least one vendor proposed a large scale pilot, over two-thirds of Iowa's districts, for the entire amount in Iowa's SIF line items for the 2009 IES grant. Iowa intends to pay for the fullest extent of SIF implementation it can afford with the 2009 IES grant. It is clear at this point in project initiation phase[3] that program implementation will need to include direct SIF support to each LEA in order to bring the less technologically savvy online: this is a significant additional cost at $5,000 for 361 districts – over $1.5 million more than included in the 2009 IES grant.

Activity five of the 2009 IES grant was to create interoperability with postsecondary systems at the Regent institutions. Currently, there is no practical interoperability; however, in some instances limited data have been matched manually for narrow purposes. Given there were no bridges between the systems, the concrete goal for the 2009 IES grant had been a simple one: deliver the "Freshman Report," individual student level analysis of incoming Regent freshman,

[3] Refer to Project Management Book of Knowledge (PMBOK) in the Project Management Section for further details.

back to their local school districts through EdInsight. The Freshman Report had been something the Regents were delivering to LEAs directly and independent of other data sources. Unfortunately, between the writing of the IES 2009 grant and its award in May of 2009, there was an opinion by the Iowa Board of Regents legal counsel that the Freshman Report may be in violation of the Family Educational Rights and Privacy Act (FERPA), so the reporting was discontinued.

The interoperability with postsecondary component of the 2009 IES grant was to start and incrementally build a relationship that would lead to a data sharing culture. Only one tangible deliverable had been identified: the focus was on incrementally establishing a relationship and process that would allow sharing to evolve. Hence, little monetary assistance had been requested from the 2009 IES grant for this facet of the plan. The ARRA assurance requiring an SLDS has necessarily expedited this process and increased the tangible outcomes considerably, thereby requiring dedication of considerable resources.

While there were some setbacks, there have also been substantial successes. First, the Board of Regents Office, and each Regent institution, have a representative on the Iowa Longitudinal Data System Steering Committee. These representatives attended their first Steering Committee meeting on October 15, 2009, to discuss the ARRA assurances and grant among other issues. IDE was glad to establish this formal relationship after numerous less formal meetings over the summer on these issues. Further, data sharing to some extent is in process of being implemented: limited, uni-direction (from secondary to postsecondary) sharing in the form of electronic transcripts.

Activity six of the 2009 IES grant was to link workforce and educational data systems. To assess the preparedness of high school graduates for future employment or education, IDE plans to link workforce information and IDE P-12 and community college data. There have been some one-time manual matches between these entities. Both Iowa Workforce Development (IWD) and IDE's Division of Community Colleges and Workforce Preparation are interested in sharing data regularly, so an integrated infrastructure is desired rather than the mere ability to have interoperability.

Minimal resources were requested from the 2009 IES grant. Beyond meeting expenses, the only significant financial expenditure was for EdInsight licenses for IWD. Resources from the 2009 IES grant were used for meetings to investigate the most appropriate location and structure for organizing and sharing this information. Initial exploration of the process and legal issues suggested a structure where wage and employment data were brought into EdInsight and oversight was provided with a jointly supervised person. IWD would be able to run analyses on individual data, but would only see aggregated results in the reports.

With a structure and process secured, the next step taken was to look for funding. IDE, along with IWD and the Iowa College Student Aid Commission (ICSAC) submitted a request to the Technology Governance Board (TGB), a board which oversees the statewide multi-agency information technology enterprise, in July of 2009 for the TGB annual Return on Investment (ROI) request for proposals to be funded. This collective application asked TGB for $500,000 to connect the agencies: design, map, code, hardware, etc. (It also included the jointly supervised data analyst: IWD employee IDE supervised when accessing data, which is what is proposed in this grant.) One of the arguments in asking for the ROI money was that it would help the state satisfy part of an ARRA assurance. At the TGB full committee hearing, there were questions

regarding why ARRA money was not used to accomplish these tasks. (Iowa is unique: The Iowa Legislature actually appropriated the ARRA State Fiscal Stabilization Funds (SFSF) and they chose to reserve none for IDE.) Ultimately, TGB had considerably less money to award this year and this application was not funded.

The final activity and the other cornerstone of Iowa's SLDS are the Electronic Transcript and Student Record Exchange Project. This has been a long-term goal of IDE with $1 million secured prior to 2009 IES support (half from the aforementioned TGB process and the other half from legislative appropriation).

During the summer of 2009, IDE initiated the Electronic Transcript and Student Record Exchange Project which has four components: 1) the electronic exchange of transcript data from high schools to postsecondary institutions, 2) the electronic exchange of transcript data between postsecondary institutions, 3) the electronic exchange of P-12 student records between school districts when students transfer, and 4) the creation of a transcript repository for final high school transcripts that will house high school records for perpetuity and facilitate disaster recovery and mitigation as well as provide an additional data source for IDE and EdInsight. The transcript repository will also serve the citizens of the state by its capability to generate copies of transcripts on request.

Two committees of practitioners, the Postsecondary High School Transcript Committee and the P-12 Electronic Transcript and Student Record Task Force have provided ongoing support and guidance for this project. A major contribution of the committees was the content identification of a standardized four-year institution postsecondary transcript, community college transcript, Iowa high school transcript, and student record. Members also participated in the Request for Information and Request for Proposal vendor presentations that ultimately lead to the selection of Pearson as the project vendor. Following the vendor selection, the two committees were merged into one Electronic Transcript and Student Record Exchange Advisory Committee.

Ten project milestones have been identified by Pearson, the Electronic Transcript and Student Record Exchange Project selected vendor, and committees composed of IDE and vendor members have been formed for each. A weekly conference call for all vendor and IDE project personnel provides for ongoing milestone updates and continuous planning. The first of the four components – secondary to postsecondary – is targeted for spring 2010.

Capabilities and Elements to be Developed or Improved with this Grant

Considerable work has been done, is underway, or is being planned in Iowa to implement an education SLDS. Obviously, gaps remain in the development, especially when compared to the required 19 specific capabilities and elements in the current grant. Fortunately, the initial ground work in these areas has lead to a more refined view of where gaps actually exist. It will be the intent of this Request for Application (RFA) to target identified gaps to address the 19 capabilities and elements in the grant. The next section of the narrative requires outcomes for each of the capabilities and elements to be delineated, so only a general overview of what the grant will target to improve will be presented here.

Generally speaking, there are some fairly well developed education data infrastructures in Iowa. For the most part they are distinct – prekindergarten, K-12, community college, public

postsecondary, private postsecondary, and financial aid. What needs to be done is to connect required data and get them into a common repository for analysis. As previously explained the 2009 IES grant, along with Iowa's initial investment and continuing commitment, began to move Iowa toward this interconnectivity and analysis goal.

Interconnectivity needs to be expanded. Hierarchically speaking, the original funding in the 2009 IES grant should SIF enable approximately 300 of the 361 Iowa LEAs. As previously mentioned, Iowa is in the process of writing an RFP for SIF implementation. Electronic transcript access and data element standardization is limited to public Institutions of Higher Education (IHEs), which is only a subset of the ARRA requirement, so that area needs expanded.

The continuum also needs expanded in regard to cohorts. Currently, only children who attend an LEA prekindergarten program or who receive special education services are captured by a data system that could be included in EdInsight. Unfortunately, that is only a portion of the prekindergarten student population in Iowa as many are enrolled in federally funded programs or Iowa Department of Human Services regulated day care. This grant will facilitate the integration of these programs' data into EdInsight and thus provide the resources to create comprehensive reports on this preschool population.

The SLDS needs support integrating the other end of the continuum as well. IDE's Division of Community Colleges and Workforce Preparation is in the process of examining and re-engineering the way it collects data from the community colleges themselves (it may not be SIF). So per the 2009 IES grant, this objective moves forward. However, once the community college data are provided to IDE they will still be segregated inside the Division of Community College and Workforce Preparation's separate data system. Given the lack of state funding, federal assistance is needed to integrate these two systems, to ensure real time capture of administrative outputs once interconnectivity is achieved. Once integrated, the processes and technologies can be maintained, so that data flow into and are reported from EdInsight.

Other postsecondary and workforce data systems also need interconnectivity. The unique student identifier is now required in state funded public education entities, prekindergarten through postsecondary thereby facilitating the linking of data. The e-transcript system would be augmented to carry required data back from the postsecondary to IDE with this grant. Further, this grant would fund resources to participate in a National Clearinghouse pilot, which would provide more robust data. By including the unique student identifier as an element to the Clearinghouse, that organization becomes the crosswalk from the unique student identifier to the social security number for matching with IWD.

There are two other major categories of students who are not captured in any electronic data system: 1) children in state detention and psychiatric facilities, and 2) children that leave Iowa's borders. The grant would provide a statewide student information system for children in state facilities who receive their educational programs in those facilities. This would create a data collection mechanism for these facilities and also allow them to participate in the electronic student record exchange component of the Electronic Transcript and Student Record Exchange Project, thereby directly addressing the issue of students' records keeping pace with students who transition in and out of these facilities. The funds will also be used for a joint project among the states in the Midwest Education Information Consortium (MEIC) for a student locator

application to allow students to be identified who cross state borders within the region[4]. In this region, many large urban centers are located on state borders. This project component will provide more complete data on these border students who transfer which will directly impact such reporting as graduation rates and the Annual Yearly Progress (AYP) for the high stakes reporting of No Child Left Behind.

The grant will fund improving the quality of data that go into and reporting that comes from EdInsight. The continuum will span prekindergarten through higher education entities and the workforce. Prekindergarten data will be more inclusive and will generate comprehensive reports from several programs. Most importantly, the mechanism to answer unique early childhood developmental questions will be available. The quality and completeness of the K-12 data will be improved, by addressing the systematic leakages previously referenced. Community college data, due to underlying improved standardization of curricula, will have higher quality data (and more consistent programming) to include in the SLDS. Linking with Regent's data will move beyond the limited potential of reproducing one existing report – the Freshman Report – to interconnectivity and presumably the creation of several reports. There will also potentially be federal reporting with refreshed data on developmental courses in postsecondary, students' entry and exit from the education system, and other research questions yet to be determined on preparing students for their postsecondary education experience: a considerable increase over the 2009 IES grant expectations.

How These Capabilities and Key Elements Support Iowa's Education Improvement Efforts, Goals, and Accountability System

More precisely, it is how IDE and its partners propose to implement the capabilities and key elements in this grant that support Iowa's education improvement efforts, goals, and accountability system. Iowa has a triumvirate strategic vision and was in the process of implementing an SLDS prior to this grant opportunity. Each of the solutions being proposed in this response to bridge the gap from the parameters of the SLDS underway in Iowa to those further expectations delineated in the ARRA assurances, and specifically this grant, are designed to coincide with our education improvement efforts, goals, and accountability system. There is not space to examine each proposed solution with this lens; however, the following provides an expansive overview of the different levels of integration.

EdInsight, Iowa's SLDS reporting tool, has been focused on the state's education improvement efforts, goals, and accountability system since its inception as evidenced by its four goals: 1) provide the education community a repository of combined data from multiple sources on one common system, 2) provide tools and training in the use of data for benchmarking and longitudinal and comparative analysis, 3) empower data driven decision making for education stakeholders, and 4) increase confidence in data by defining and implementing processes to improve data consistency, reliability, and quality.

Practically, that means EdInsight contains those data educators want, need, and can use for continuous improvement. Review EdInsight's initial reports in Appendix A: assessment reports over time, Annual Progress Report, expulsion rates for special education (a federal indicator), curriculum reports for school improvement, etc. As has been stated, these reports

[4] MEIC member states: MN, IA, MO, ND, SD, NE, KS

were designed with user input and system planning so they address the need for data and how it's delivered to the education community. Recall, how each data set that is to be added to EdInsight, previously described in the Current Status of Iowa's SLDS subsection, was being added for the reason of supporting Iowa's education improvement efforts: teacher data for racial/ethnic equality among others, end of course assessment data for the new Iowa Core Curriculum initiative, finance data for per pupil financial equity (an Iowa constitutional requirement), etc.

Using EdInsight's efforts to be customer centric and its explicit goals as the SLDS expands into new domains of data, such as postsecondary, will be crucial. The SLDS Steering Committee with P-20 representation from field staff to administrators has already agreed to recommend a research agenda for some of the less clearly defined elements, such as Elements 11 and 12; the research agendas must be approved by the respective governing bodies. Further, the 2009 IES grant includes market research money so direct end user input can again be gathered to chart the future development of EdInsight reports. Maintaining this focus is how these grant capabilities and elements will support Iowa on a collaborative level that is geared to localized solutions.

Another way these capabilities and elements support Iowa is future policy direction. As webinars on this RFA stressed, this grant should reinforce states' other ARRA educational assistance: State Fiscal Stabilization Funds (SFSF) Phase II and Race to the Top. Iowa has been engaged in a dialogue with Kansas, Nebraska, and Wisconsin regarding the formation of a consortium to apply for Race to the Top funds. While the group is soliciting other states to join, it should be noted that three of the four states participating in the initial MEIC student locator project would also be involved in this one. This consortium has already put a list of participant expectations together that will necessarily engage Iowa's SLDS (see Appendix A for Task List).

EdInsight becomes an integral part of the solution as a delivery mechanism. The consortium plans, which Iowa would actualize include student, building, and district level student performance reports in agreed upon common core areas. The reports, that are largely the Iowa Core Curriculum reports previously referenced, will be generated in teacher-friendly formats. Emphasis in this reporting will focus on growth and improvement over time as well as the use of trend analysis, which is already an emphasis in EdInsight reporting.

A further expectation of the consortium is for teachers and administrators to make data-informed instructional decisions based upon formative, interim, and summative assessment results. Given that the summative data are being delivered through EdInsight, the interim test results would be as well.

The consortium also has the expectation that the interim assessment would draw from an item bank with the capabilities for adaptive testing. From this item bank, common benchmark tests will be developed across the collaborative states. Each state will contribute field-tested items to the bank. This bank will be used to diagnose student strengths and deficiencies and serve as an "early warning" system. Common performance standards and cut scores will be set across the consortium states. The common tests will be loaded into the University of Kansas' Computerized Assessment and Learning (CAL) system for immediate data turnaround. This online engine will be available to port results from assessments directly to the SLDS. The national core standards could then be used to identify sub-scores to include in the SLDS to be used in monitoring gaps, assessing teacher/principal quality, and other information connected with federal assurances (e.g., the common tests will be available to all buildings and districts

within each state, but will be a requirement for the persistently low-performing schools). The grant capabilities and elements focused on timeliness and wider distribution (i.e., an enhanced security model) facilitate this reality.

A third level at which the grant capabilities and elements support Iowa are as a by-product. Take Capability 1 that requires a unified P-20 system. There are pupils that are not systematically captured by the current system, specifically those in state placements. The student information system (SIS) being proposed would address this data leakage from the system with the "Residential Educators Student Information System." This SIS adds to the completeness of Iowa's SLDS and produces the practical outcomes:

1) Assist students in residential facilities and/or the foster care system to retain the partial credits and units earned during multiple moves or placement transfers. Iowa does not have a standardized credit system and creates "credit" disparity if a student moves in and out of districts with different credit requirements.
2) Assist school district personnel in tracking partial records/credits earned in non-school-district settings. District personnel are already overwhelmed with trying to "count" hours or "add" pieces of time or work completed by students. The database will assist districts in having this information in one place and units tracked will match the Iowa Core Curriculum Essential Concepts and Skill Sets.
3) Assist child placement agencies in making the most educationally appropriate placement for students awaiting placement and use the database for easing the record transfer as required by federal and state regulations.

Another readily apparent example of how the grant capabilities and elements support Iowa's educational efforts is Element 9 that reflects student-level transcript information, including information on courses completed and grades earned. Iowa's K-12 course data are relatively standardized using the NCES coding structure and School Codes for the Exchange of Data (SCED) codes. Iowa's community college data are not nearly as standardized. For example, when the Iowa Legislature changed the per pupil weighting for concurrent enrollment in 2008, more financial state assistance was given for career and technical education (CTE) courses than to arts and sciences courses when secondary pupils enrolled in postsecondary courses. The next year, the community colleges offered significantly more CTE courses without any significant change in their programs. (The adjustment which was analyzed to be revenue neutral actually resulted in a jump from $6 million to $13 million.)

Clearly, community college course data need more standardization so they are meaningful when integrated into the SLDS for analysis. To standardize Iowa's community college courses and programs both intra- and inter-state, thereby improving data quality on the front-end and analytical potential on the backend, the Division of Community Colleges and Workforce Preparation views CurricUNET as the solution. This proprietary application among its many features allows community college faculty to consult a database of course titles and content to discern how to categorize a course. This is a much more organic approach to course and program coding; as evidenced by the fact that two of the largest community college systems in the country, California and Illinois, have already adopted this system.

Training and Technical Assistance Needed Throughout Iowa on EdInsight to Support Improvement Efforts

Now that EdInsight has been developed and is currently deployed to a pilot group of educators, a statewide rollout to the education community is the next step to actual implementation and will involve hands-on training of end-users. To accomplish this, IDE will need to hire additional staff to develop training materials and conduct the hands-on training sessions for AEA and LEA personnel. (The 2009 IES grant has money to address this issue for deployment to the extent that was envisioned within that scope; the SFSF Phase II now requires a considerably larger audience.) The potential impact of EdInsight will become a reality as these end-users become comfortable and familiar with it as a data quality tool that can assist in data driven decision making thereby increasing confidence in data which will lead to the implementation of processes that will improve data consistency, reliability, and quality.

SLDS data quality needs to be addressed at the front-end, not just as an afterthought process once data are submitted. IDE currently has a process in place to run validation checks on the data coming from the three source systems feeding EdInsight by running complete edit checks and resolving glaring data issues. This grant could leverage this process by augmenting 2009 IES grant resources. An example would be using the director of data quality to create some proactive reports and metrics that would be used by local school districts.

The reports built for EdInsight will allow IDE to coordinate data quality checks on districts' data with the goal of continued improvement of data being submitted. This feature would enhance Iowa's state data audit system being proposed in Element 5 and would ultimately result in a data quality mechanism that would provide districts with an ongoing opportunity to review and correct data over time. Such a process will enhance data quality conversations throughout the education community.

Data security is often the first concern voiced in group discussions of the SLDS regardless of the make-up of the audience. Therefore, training that includes the parameters of FERPA will be needed to alleviate this concern. Also, SFSF Phase II requires appropriate access to data by nearly everyone in a school district. In Iowa, a distributed security model is currently used to grant access to secure applications. In the future, since districts will need to grant access to more personnel, training will need to reach audiences that have generally not been included in data security conversations. An example of the need for training is demonstrated by results from a fall 2007 survey of LEA staff conducted by a third party vendor for IDE. A few of the indicator responses were unsettlingly low: 1) 46 percent responded yes their district had a written FERPA policy; 2) 3 percent responded yes their district had a policy on minimum cell size when presenting aggregated data; and 30 percent could track who accessed a student record.

Significant training will also be needed in how to appropriately conduct analysis using Iowa's SLDS. Currently, gaining access to EdInsight requires mandatory training and testing to discern analysis competency. ITP has been involved in data literacy training. There has also been significant training on the functionality of the application, which this is distinctly different from data literacy. The New ARRA legislative requirements will mean expanding the use of data for accountability purposes. This variability in the audience, including non-researchers and non-educators, will call for more data literacy training geared towards those without a foundation in these types of analyses and the use of mass delivery media, such as online modules.

How Iowa's SLDS Will Support the Requirements of the State Fiscal Stabilization Fund

The only way Iowa can meet the explicit requirements of SFSF is with the support of this grant. Without grant support, the probability of constructing new data flows with additional ETL and report generation is infinitesimally small. Granted, Iowa has committed to building a SLDS beginning with legislative appropriations and IDE efforts and most recently as the recipient of a 2009 IES grant. These funding sources have provided the opportunity to build a foundation in necessary areas with a general long-term vision consistent with the tenants in the array of ARRA educational funding opportunities: recall, Iowa's triumvirate vision from the beginning of the narrative. However, without additional financial assistance, the IDE will not be able to accomplish the additional work necessary to meet the additional SFSF requirements.

IDE does not have the financial or human resources to accomplish the additional data collection, linking, and reporting that are explicitly stated in the Phase II application and that will result from further definition of requirements in the SFSF. Like most applicant states, Iowa's budget is in dire circumstances. This fiscal year, state agencies had a 10 percent across-the-board cut and IDE will be reducing in force (RIF, e.g., lay-offs). Next fiscal year, the state is projected to have slightly more than a $1 billion shortfall in revenues for a roughly $6 billion budget. K-12 education accounts for roughly 40 percent of the budget and nearly 60 percent when the Regent institutions are included; hence, there must be further significant reductions to education to balance the budget, making it impossible for additional data system funding and making it likely there will be less.

IDE has an additional fiscal reality that makes it unique. IDE received no SFSF money: it all was allocated to LEAs, AEAs, community colleges, and Regent institutions. As part of a larger political dynamic, the Governor received legislative approval to use a large portion of the Government Services Fund for an infrastructure bonding program and in turn the legislature was given the authority to allocate the SFSF monies. There were no additional monies neither proposed nor approved for IDE to meet the four assurances of the SFSF.

To transform the foundational SLDS that is underway in Iowa into the one more explicitly defined by the SFSF will be a matter of filling in the gaps with the grant resources from this RFA. Many of the gaps are relatively minor though they require considerable labor: inclusion of more source data that are readily available from a participating partner - the Alternate Assessment from ITP – or adding additional special education data elements from IMS – two of three current EdInsight source systems. These requirements will mean profiling; defining; extracting, transferring, and loading (ETL); and mapping data and then designing and generating reports, which is something the core EdInsight project team is familiar with and has accomplished successfully. All that will be necessary to meet the expedited timeline is additional labor.

Some of the gaps that must be spanned are technical. Throughout the SFSF there is the requirement for more widespread reporting of data, such that all indicators and descriptors in the SFSF are transparent and attainable by education stakeholders. These raise technical questions, such as the following: What are the technical security solutions to widespread access and what different impacts do these models have on transparency and some data warehouse functionality not inherently 508 electronic access compliant? What is available to make public portals 508 Level I compliant? Additional funding, for both additional servers and report generation, will be needed to address these technical issues. However, the grant also affords the opportunity for

consultation with other grantees and educational opportunities thereby making available a more robust solution set from which state level decision makers then choose.

Spanning these gaps uses the financial resource of the grant, but it also leverages the technical insights that come from collaborations and learning with other grantees. Opportunities provided through grantee meetings, including those at larger venues have allowed IDE to air its system issues with a knowledge base and consult with other grantees about vendor performance one on one. Due to the budget crisis in Iowa, the only out-of-state travel in Iowa is federally or foundation funded; hence some funds will be used for collaboration with other grantees and regional initiatives (e.g., MEIC).

Finally, there are gaps that span both the technical and cultural: educator evaluation and linking with postsecondary data. Educator evaluation will require a rewrite of the Basic Educational Data System (BEDS), an IDE source system, and then will need reports designed for EdInsight's public portal. This all assumes that a standard educator evaluation exists, is meaningful, and is integrated into data systems for upload. This is not the case in Iowa, so considerable development work will need to be done on a standard tool even before data collection can be considered. This has security and integration technical issues embedded in it, but it also has cultural ones, such as the hot button issues of educators' performances being judged based on test scores. There is apprehension throughout the education community about the utility of these data.

Integration with Regent and private postsecondary institutions in Iowa is a significant technical and cultural undertaking. The manual linking of postsecondary data referenced earlier has been with the Division of Community Colleges and Workforce Preparation data to IWD and ICSAC. Regent data have traditionally been independent from K-12 data systems. FERPA has had a distinct impact in Iowa, recall the Freshman Report ruling. Additional legal resources will be needed.

The Regents have highly developed data systems that recognize and use various accepted postsecondary data protocol and transmission standards. Regent systems could independently satisfy Elements 1 and 2 in the grant; however, they are distinct from those at IDE. The Iowa Legislature mandated that postsecondary data systems contain the K-12 unique identifier for Iowa educated students thereby setting the stage for the logical conclusion with the additional SFSF requirements: the K-12 unique identifier system becomes the unique identifier for analytical purposes for the entire education system.

Many private postsecondary institutions are in the same situation regarding data systems as the Regents. However, the size and data systems vary widely in Iowa; many of Iowa's 31 private colleges are under 1,000 students. The SFSF requirements will force Iowa IHE to share data; the initial expense of connecting those to systems for data sharing would be borne by the grant. There would be expenses for the initial electronic transcript system and for SIF given the timelines.

In fact, meeting the timelines will require early adoption of an interim system solution that might later be replaced when it comes to the actual infrastructure used for interoperability between K-12 and postsecondary. The public reporting requirement of the students enrolled in postsecondary per Iowa high schools per subpopulation within 16 months of their secondary graduation could be reported by the National Clearinghouse; however, the additional reporting

requirement of the number of students who complete one year's worth of credits in two years could only be answered with data from students' particular institutions.

In summary, this grant will take Iowa from the foundation laid with EdInsight to a robust, comprehensive SLDS that will close existing gaps, support Iowa's efforts to improve education through collaboration with multiple institutions, agencies and states, and achieve the objectives of the State Fiscal Stabilization Fund.

b) Project Outcomes Related to System Requirements and Implementation

List of Outcomes per System Requirement	
System Requirement	Outcomes (Products, Features and Benchmarks)
System Capability 1: The system must enable States to examine student progress and outcomes over time including students' preparation to meet the demands of postsecondary education, the 21st century workforce, and the Armed Forces. Such a system must include data at the individual student level from preschool through postsecondary education and into the workforce (e.g., employment, wage, and earnings information).	Products A more robust data warehouse (EdInsight) containing data from all the prescribed data sources. A SIS for students in state placement so they may be integrated into the SLDS and served more efficiently and effectively. Features Reports in EdInsight (data warehouse) available to all levels of the education community. Student-level information about points at which students exit, transfer in, transfer out, drop out or complete P-16 education programs and course credit completion federal reporting. PK-12 student level information for other federal reporting requirements. Benchmarks Expand use of unique identifier to include 13-16 by 2010. Expand EdInsight to include more comprehensive preschool data by 2014. Expand EdInsight to include more IWD data that will capture employment, wage, and earnings information by 2011. Integrate data from highly transient students who are in state placement into the SLDS.
System Capability 2: The system must facilitate and enable the exchange of data among agencies and	Products Interoperability for all K-12 state education entities. Legal opinions on compliance with confidentiality and security statutes, especially FERPA.

institutions within the State and between States so that data may be used to inform policy and practice. Such a system would support interoperability by using standard data structures, data formats, and data definitions to ensure linkage and connectivity among the various levels and types of data.	Support services for LEA information technology to learn SIF agent support. A Research Review Board. Third party security audit to ensure compliance and reassure stakeholders. Features SIF infrastructure in all LEAs and AEAs. Automated flow of reporting data. Research policies and protocols developed by the SLDS Steering Committee and approved by respective governing bodies. Research agenda developed by the SLDS Steering Committee and approved by respective governing bodies. Benchmarks Expand SIF initiative by implementing standard data structures, data formats, data load schedules, and data definitions to ensure linkage and connectivity beyond the current RFP pilot to all LEAs and AEAs by 2013. Student locator interoperability between four of the seven MEIC states and plans to expand to the remaining states by 2012 (K-12 initiative). Potentially leverage the e-transcript system communication capacity to provide the medium for interconnectivity between Regents and K-12 data.
System Capability 3: The system must link student data with teachers, i.e., it must enable the matching of teachers and students so that a given student may be matched with the particular	Products Linking all the different data sets: teacher, student, and a bridging element provided by the LEA (e.g., schedules and transcripts). ETL of bridging element. Collection/data flow of bridging element (SIF modification).

teachers primarily responsible for providing instruction in various subjects.	Features Reports in EdInsight (data warehouse) available to education community, including teacher impact on individual students with appropriate security access established in the security model. Benchmarks Create a linkage that will match students in grades P-8 with the teachers primarily responsible for their core instruction and match students in grades 9-12 with the teachers in each of their courses by 2013.
System capability 4: The system must enable the matching of teachers with information about their certification and teacher preparation programs, including the institutions at which the teachers receive their training.	Products Linking all the different data sets: teacher, Board of Educational Examiners (BOEE) teacher folder information. ETL of data. BOEE participation in e-transcript project to receive teacher preparation data electronically. BOEE data inclusion in SIF conversion. Features Reports in EdInsight (data warehouse) available to education community with appropriate security access established in the security model. BOEE teacher licensure application data electronically flowing from Iowa postsecondary institutions. Benchmarks Data on teachers, their licensure, and preparation programs integrated into the SLDS by 2012.
System Capability 5: The system must enable data to be easily generated for continuous improvement and	Products Continual ETL to refresh data sets as required. Create portal in EdInsight for K-12 education community and postsecondary researchers consistent with policies and protocols developed by SLDS and approved by respective agencies.

decision-making, including timely reporting to parents, teachers, and school leaders on the achievement of their students.	Create a portal for the public that is 508 Level I compliant. Features License (software access) and certify (data literacy training and testing) P-postsecondary researchers so that they have appropriate access to EdInsight. Timely data for decision making. Benchmarks Postsecondary access to EdInsight by 2012.
System Capability 6: The system must ensure the quality and integrity of data contained in the system.	Products Data audit protocol developed by SLDS Steering Committee and source system owners. Data audit procedure communicated to the field. EdInsight training developed and delivered; also curricula for training to various user groups developed for ongoing trainings. Data governance committee structure developed for all IDE source systems: process for defining and resolving conflicts over mutual data elements in agency's source collections. CurricUNET (curricula management and accreditation system) for the community college network in Iowa. Features Further data quality expectations communicated through the audit procedure and in turn communicated to the field. Sampling of source documentation as part of audit for validity testing. Data literacy training as part of gaining access to EdInsight. Consistency among mutual data elements in different IDE collections.

	Standardization of curricula content per course titles and numbering among community colleges using CurricUNET. Increased, systematized accreditation oversight of community college courses and series requirements by IDE's Division of Community Colleges and Workforce Preparation using CurricUNET. Standardized postsecondary program nomenclature using the Classification of Instructional Programs (CIP) codes. Any new collection comes with a set of data quality reports for validity auditing. Benchmarks Improved data quality – validity checks and feedback for improvement – by 2013. Statewide training on uses of data in EdInsight and materials for ongoing training of new users completed by 2013. Expand data governance to all the source systems the IDE collects by 2013. System in place to standardize community college curricula course content and numbering across the community college network, and thereby the data, by 2013.
Capability 7: The system must provide the State with the ability to meet reporting requirements of the Department, especially reporting progress on the metrics established for the State Fiscal Stabilization Fund (SFSF) and the reporting requirements included in the EDFacts data collection and reporting system.	Products New source systems for data not currently collected, but required by this initiative. A more robust data warehouse (EdInsight) containing data from all the prescribed data sources: ETL, data model, and data profiling. Process for defining new standard reports and ad hoc queries in EdInsight (data warehouse) and making those results and/or data available at the appropriate security level. Agreement on variable definitions: lowest performing schools, out-of-field teachers, etc. Public portal for reporting SFSF Phase II elements that require public transparency to the public.

	Features Reports in EdInsight (data warehouse) available to education community with appropriate security access established in the security model. Create a portal for the public that is 508 Level I compliant. Security model that ensures appropriate access to the data by a plethora of different users. EDFacts reporting straight out of EdInsight (expansion of NGA concept in current IES grant). Benchmarks Expand EdInsight to include district/building assignments of teachers, number of years of teaching, college degree/teaching endorsements by 2011. Identify additions necessary to the eScholar data model as well as additional existing data that can be loaded into the existing templates in the model. Identify where additional data elements exist or must be collected from. Design systems. Implement new source systems by 2013.
Element 1: A unique statewide student identifier that does not permit a student to be individually identified by users of the system (except as allowed by Federal and State law)	Products Electronic transcripts sent from Iowa secondary to Iowa postsecondary. Interface for Iowa postsecondary to IDE's unique student identifier application. Features A data element in the electronic transcript data set will be the Iowa unique identifier, obviously for those pupils that have graduated from an Iowa secondary education institution. Ability for Iowa postsecondary to receive a unique identifier from IDE's student identifier application for out-of-state students enrolling in Iowa postsecondary. Ability for Iowa postsecondary to query IDE's student identifier application for students enrolling from out-

	of-state secondary that at one time have had an Iowa unique identifier issued as a student in either elementary or secondary education in Iowa. Benchmarks The unique identifier has existed in P-12 data since 2004; this identifier will be carried forward into Iowa postsecondary in the fall of 2010 as a data element in the electronic transcript system; it is a legislative mandate in Iowa for postsecondary to have the element in their data systems. Batch claiming of students by Iowa postsecondary from IDE's unique student identifier application by fall of 2011. Interoperability between Iowa postsecondary data systems and IDE's unique student identifier application by spring of 2012. Automated data requests and processing from Iowa postsecondary data systems and IDE's unique student identifier application by September of 2013.
P-16 Student Level Data: Element 2: Student-level enrollment, demographic, and program participation information Element 3: Student-level information about the points at which students exit, transfer in, transfer out, drop out or complete P-16 education programs	Products A more robust data warehouse (EdInsight) containing data from all the prescribed data sources. A process and protocol for Iowa IHEs to use on reporting back to out-of-state secondary on enrollment. Features Reports in EdInsight (data warehouse) available to education community: • student-level information about points at which students exit, transfer in, transfer out, drop out or complete P-16 education programs; • Those that address students' needs for developmental course; • Those mandated by the United States Department of Education (USDE); • Those from the agreed LDS Steering Committee research agenda, and • Those to report back to out-of-state secondary on out-of-state postsecondary enrollees issued an Iowa unique identifier form eScholar.

	Benchmarks Student-level enrollment, demographic, and program participation information, including points at which students exit, transfer in, transfer out, drop out or complete these grades exist and are already loaded into EdInsight for P-12 data. E-transcript system flows unique identifier to participating postsecondary. A statewide exchange of data between public and participating private postsecondary institutions in Iowa through the National Clearinghouse by 2011 (allows for expedited collection of Element 3). Postsecondary access to the eScholar unique identifier in 2011 and automated in 2012. Expand EdInsight to include required postsecondary data by 2012.
Element 4: The capacity to communicate with higher education data systems	Products A phased implementation plan for sharing data between IDE and Regents. Integration of IDE's Division of Community Colleges and Workforce Preparation data into the K-12 data domain. Features Reports in EdInsight (data warehouse) available to education community: student-level information about points at which students exit, transfer in, transfer out, drop out or complete P-16 education programs. Potential future EdInsight reporting that examines preparation of Iowa students for postsecondary and preparation of Iowa's teachers. Community college data available in EdInsight for report design (Division of Community Colleges and Workforce Preparation integral part of process). Benchmarks A statewide exchange of data between public and participating private postsecondary institutions in Iowa

	through the National Clearinghouse by 2011 to address the specific elements in America Competes (students exit, transfer in, transfer out, drop out or complete P-16 education programs). Expansion of the current e-transcript infrastructure from public IHEs only to include private and for-profit postsecondary institutions in Iowa. Agreement to a process, which includes the technical and legal structure, to exchange data in an automated way for ongoing research and decision making that does not rely on an outside vendor by 2013. Agreement between IDE and Regents on a research agenda by 2012 to address Element 12. Re-engineering of underlying the Division of Community Colleges and Workforce Preparation's data architecture, including infrastructure, so the data model revolves around the individual student.
Element 5: A state data audit system assessing data quality, validity, and reliability	Products IDE will establish audit procedures for its collections: these would include sampling procedures of original documentation to assess validity. SLDS Steering Committee agrees upon audit protocol - areas, procedures and standards – between source data that come from different SLDS entities (agencies, etc.). Features Regular data quality audits of IDE data directed by the director of data quality. Trainings based on potential areas of improvements identified from analysis of audit results. Benchmarks Data audit process instituted by 2012. Process for integrating areas of improvement in data audit integrated into annual source system trainings (EASIER, BEDS, Certified Annual Report [CAR], etc).

Element 6: Yearly test records of individual students with respect to assessments under section 1111 (b) of the Elementary and Secondary Education Act of 1965	Done
Element 7: Information on students not tested, by grade and subject	In progress under current IES SLDS grant.
Element 8: A teacher identifier system with the ability to match teachers to students	This element is the same as system requirement System Capability 3: The system must link student data with teachers, i.e., it must enable the matching of teachers and students so that a given student may be matched with the particular teachers primarily responsible for providing instruction in various subjects. Please see that response.
Element 9: Student-level transcript information, including information on courses completed and grades earned.	Products The current IES grant includes resources for report development. A technology infrastructure to serve as the source system for IDE to maintain. The hardware and configuration of the e-transcript/student record exchange with the Iowa High School Transcript Repository. Features Reports in EdInsight (data warehouse) available to education community with appropriate security access established in the security model. Benchmarks Full implementation of the e-transcript system within the first six months of 2012. Expansion of the system to include private and for-profit postsecondary institutions in Iowa by mid-2013.

	The state of Iowa will be able to maintain its commitment to the first year of the implementation: $1 million. There has also been some support to maintain the licensing for e-transcripts and EdInsight through a $600,000 annual legislative appropriation. Thus the benchmark would be the annual Rebuild Iowa Infrastructure Fund (RIIF) appropriation: passed by the end of May and signed within 30 days of passage, each year. Senior Year Plus funds, a bill also included the legislative directive to create the system, were redirected to cover federal maintenance of effort requirements for school lunches and vocational rehabilitation.
Element 10: Student-level college readiness test scores	Products Research into predictive models for college readiness. State access to test specific ACT scores and the right to re-disclose. Features Findings on the correlation between ITP test scores and ACT test scores. A crosswalk between ACT and ITP test scores, which by extension allows the findings associated with the ACT to transitively be associated with the ITP scores. Benchmarks Initial research findings, with confirmatory findings, by 2011; peer review findings by 2012. Contract for ongoing costs associated with accessing the ACT scores by 2011.
Element 11: Data that provide information regarding the extent to which students transition successfully from secondary school to postsecondary education, including whether students enroll in remedial coursework	Products Data from public and private Iowa IHEs that satisfy Elements 11 and 12. Research questions and research designs on mutual data elements agreed to by IDE and Regents. Commitment of participation by private and for-profit postsecondary. Features

Element 12: Data that provide other information determined necessary to address alignment and adequate preparation for success in postsecondary education	Requirements for future EdInsight reports that examines preparation of Iowa students for success in postsecondary education and teacher preparation. Reports in EdInsight (data warehouse) available to education community with appropriate security access established in the security model. Benchmarks Agreement between IDE and Regents on a research agenda to address alignment and adequate preparation for success in postsecondary education by 2012. Agreement among IDE and all postsecondary institutions in Iowa on a research agenda to address alignment and adequate preparation for success in postsecondary education by 2013.

IDE, in conjunction with its SLDS partners, is appreciative of this grant opportunity and would use the funding to accomplish the previously described outcomes. The investment made by Iowa and the USDE through the 2009 IES grant have provided a foundationally solid SLDS. However, to successfully meet the explicit additional requirements of the SFSF, additional ARRA SLDS grant resources are needed.

c) Timeline for Project Outcomes

The following Gantt Chart from Microsoft Project presents the timeline for Iowa's proposed response to this RFA. The timeline also reflects the 2009 IES grant activities, and the activities Iowa has underway of its own volition. As the point has already been made, Iowa has an SLDS and is expanding it with 2009 IES grant funds in a way relatively consistent with the ARRA requirements. So, this request for funding is to fill the gaps between this reality and this grant's requirements and the other ARRA funding: SFSF and Race to the Top. Therefore, it makes sense to convey these together for that reason alone.

Another concern raised in the RFA is that these ARRA SLDS funds supplement, not supplant current efforts. It's a legitimate concern given the dire condition of states' budgets. Hence, setting the tasks out together further makes sense to ensure they are not duplicative. Additionally for the record, IDE is complying with the account coding necessary to track ARRA funds separately, and is one of the handful of states also subject to a Government Accountability Office (GAO) audit, a sample state, on the matter.

IDE only intends to keep this grant separate from an accounting aspect. For the SLDS to be a success, these activities must dovetail into a larger system. What funding source pays which bills will be kept separate and how this is accomplished will be noted in the project management section. In the Gantt Chart, the funding source, as well as who is accountable will be denoted. ARRA SLDS funded activities can be discerned by italic and underline font versus the regular Arial font for IES 2009 and Iowa funded activities.

Multi-State Collaboration - MEIC Initiative: States and school districts are required to comply with national standard graduation rates. Both the NGA and the National Graduation Cohort Analysis requires states to submit the graduation rates utilizing standard definitions. Each of these approaches requires LEAs and states to keep track of the students that are part of their annual graduation cohort. Most districts are only able to track students that are enrolled in another school in their state. School districts are penalized if they are unable to document that students have enrolled in another school. Federal guidance allows several forms of documentation, including whether the student has been reported as enrolled in a state longitudinal data system. School districts and states would benefit if they could track students that move to neighboring states.

Outcome: Interstate Student Locator Framework

Four states in the Midwest will create a mechanism for searching the student identifier databases in partner states to locate students they have "lost" and have been reported as dropouts. Missouri, Iowa, Nebraska and Kansas each have purchased the license to the eScholar UniqID product. Over the past seven years, these states have assigned student identifiers to all their K-12 students, none of which are duplicated within or between the states that use the eScholar product. The long-term goal of this Outcome is to track all students who move between states to provide a longitudinal inter-state education record. During this grant period, the goal is to locate students that have been reported as dropouts by districts, but have moved to one of the partner states.

With the support of the four participating states, eScholar will create an optional Interstate component that will offer ID Verification/Retrieval between participating states without direct login access to the other state systems. This process would allow states to perform an Interstate search manually by uploading files in their own Interstate component. The Interstate component would in turn submit the files for ID Verification/Retrieval to all of the participating states. The results from the participating states would be returned to the Interstate component and would allow an administrator to review additional data on the matched students.

- I.1 Work with partner states and eScholar to identify format and protocol for a student locator framework (SLF) for the eScholar states. This collaboration will include the MEIC states that use eScholar's UniqID for students, including Kansas, Iowa, Nebraska, and Missouri. The work includes collaborating regarding the selection of students, data elements and standards, file specifications, schedule, and protocols for submitting to UniqID in partner states; as well as the protocol and agreements for retrieving and processing students who are "found." Note, that for this collaboration, each state will act as its own fiscal agent.
- I.2 Develop the student locator framework software.
- I.3 Identify ways to implement the SLF in non eScholar states.

This will include working with other MEIC states that do not use eScholar UniqID for students to determine how the SLF established in Activity 1 can be implemented in their environments. The work will include sharing the process documentation from Activity 1 and meeting with technical and leadership staff in all MEIC states in order to determine the applicability of the SLF to their environment, and to establish and document next steps. Note that for this collaboration each state will act as its own fiscal agent.

d) Project Management and Governance Plan

There are three divisions that form the operational core of the IDE: Division of PK-12 Education, Division of Community Colleges and Workforce Preparation, and Division of School Support and Information. Technically, there is also a Library Division and a Vocational Rehabilitation Division; however, these function relatively autonomously not falling under the ultimate control of the director. Functionally, Iowa's SLDS is located in the School Support and Information Division of IDE. As might be inferred from the division titles, this division generally houses all education activities that are not directly curriculum: research; information technology; finance policy; and health, nutrition, and transportation.

Contractually, the management controls are a documented process and a chain of command. Where vendors are involved, a work breakdown schedule with specific milestones is agreed upon with payment predicated on satisfactorily meeting the terms of the contract. Institutionally, the sign-off would come from the project co-chairs, then the division administrator, followed by IDE Internal Administrative Services contracting which provides additional review and oversight on technical accounting compliance.

Policy management controls are exercised through the SLDS Steering Committee. It is a venue for all entities that will include data in the system to discuss and come to agreement upon

the issues at hand. The SLDS Steering Committee will be discussed in greater detail in the following subsection on Governance.

Operational control of the project will be managed through a traditional project management structure. As was eluded in contractual controls, Project Management Professional (PMP) certified project managers will be used to run project implementation using a PMBOK methodology. Compressed timelines require additional resources to produce deliverables quickly. Further, IDE's small information technology unit has the potential to incur RIFs thereby reducing that resource. The best model for this project would be to bring on short-term staff for additional reporting, ETL, and even augmentation of source systems. Without additional dedicated resources, any and all alterations to source systems may not get made due to shrinking state resources and priority realignments.

This approach unites proven business intelligence and data warehousing techniques with the project management guidelines adapted from the Project Management Institute's Guide to the PMBOK. PMBOK describes the following standard management processes for any project:

Initiating:	Identifying project requirements and authorizing the project phase.
Planning:	Defining objectives and selecting actionable tasks to attain the objectives.
Implementing:	Coordinating people and other resources to carry out the project.
Controlling:	Guiding to achieve project objectives by monitoring progress to identify variances from the plan so that corrective action can be taken when necessary.
Closing:	Formalizing acceptance of the project or phase.

This methodology will manage all activities (Statements of Work, Change Requests) authorized using the above standard practices. For each project/program phase, an initial Work Breakdown Structure (WBS) with appropriate plans – such as Scope Management, Costing, Project Management, and Resource and Risk Management Plans – will be created prior to any work being started.

In addition, the specific documents establish a foundation for each project that increases the probability of cost-effective execution and success. An example of these documents include: Resource Plan, Change Management Plan, Communication Plan, Implementation Plan, Risk Management Plan, and Quality Assurance Plan. This foundation is comprised of a clear designation of short- and long-term priorities, methodology tailored to the specific aspects of this project, a fully articulated process for project oversight and timely executive decision making, the construction of a joint IDE and stakeholder team, and the implementation of a certified technical infrastructure.

Governance

The governance of EdInsight proved to dovetail into the SLDS. Currently, a multi-tier governance structure is in process for SLDS, EdInsight, and agency specific data: it has been agreed to conceptually, but some details remain to be finalized. This multi-tier approach allows

the discussion of specific issues with the appropriate audiences. That helps keep the communication process among the stakeholders iterative and ongoing because it is relevant. The four governance committees are steering, advisory, data governance, and project management. These committees support the entire SLDS in different ways: Steering directs; advisory shapes; data governance defines; and project management engineers. For a better understanding of their roles, each will be delineated. See Appendix A for a list of committee members, including agency affiliation.

SLDS Steering Committee: The objective of the Steering Committee is to keep the project on course to successful completion. Projects such as this that span multiple offices or programs within IDE create a natural complexity requiring direct discourse between senior leadership. Committee members are decision makers positioned to consider and resolve internal and external policy issues that surface as the project develops, and which go beyond the authority of the Project Management Team and the purview of IDE or any one entity. Currently, this committee includes members from partner agencies representing current or potential data sources: special education, ITP, AEAs, LEAs, Iowa Board of Regents, each Regent institution, community colleges, Board of Educational Examiners, Iowa Association of School Boards, Iowa State Education Association, Iowa Workforce Development, and ICSAC. As data are included from additional partner agencies, e.g., the Iowa Department of Human Services will begin to participate as their educational facilities for children in state placement data are brought into the SLDS. While not currently involved, representatives of private four-year postsecondary institutions will be added to this committee to meet the recent SFSF definition of institutions of higher education.

The Steering Committee serves to ensure that the project reflects the overall intent for data sharing in the four SFSF assurances, the objectives of the organizations contributing to the SLDS, including IDE's triumvirate vision set out at the beginning of the narrative taking into account the unique needs and challenges of individual programs and offices. It is the decision-making body regarding project data governance, acting upon the recommendations of the Data Governance Committee and the Research Review Board (RRB). The RRB will function similarly to an institutional review board in that it will review and approve research and data requests. Finally, the Steering Committee coordinates the implementation of separate but related projects that may share issues and resources, such as electronic transcripts and student record exchange. Each agency and entity involved is still obviously the ultimate authority on its internal data definitions and procedures.

EdInsight Advisory Committee: The Advisory Committee provides a practitioner's perspective to the design, architecture, and implementation of EdInsight, to ensure the project meets the needs of the clients. The group of subject matter experts, who were intentionally selected to represent various local and state stakeholder groups, provides granular input regarding the education systems data needs and feedback on EdInsight products. Members of the committee shape the project by collectively and individually lending their expertise to defining the content of EdInsight education data reports and its functionality. They interact directly with the Project Management Team and provide feedback from the field regarding project developments prior to their release. In addition to being a chief source of information in the requirements process, they serve as a test group for user acceptance testing and are key to delineating professional development for clients and local information technology support staff. They are lead by a member of the Project Management Team and generally work independently

of the Steering Committee. The Advisory Committee serves solely in an advisory capacity, and is not expected to be a decision-making body.

EdInsight and IDE Data Governance Committee: The Data Governance Committee serves as a separate and specialized advisory committee that currently only defines the IDE's approach to master data management. The Data Governance Committee creates its mission statement, goals, and objectives, which ultimately define the data culture of IDE. The chief role of the Data Governance Committee is to identify data issues and propose recommended solutions. Since it has no policy making authority, the Data Governance Committee provides recommendations needed to adopt policies that ensure the quality, availability, security, and usability of Iowa education data. The group is the subject matter authority regarding data definitions. The Data Governance Committee identifies the business rules required to make certain data are current, consistent, and accurate. It maintains a log of critical data issues, including their status and resolution and shares the updated list with the department appropriately.

The scope of the group initially is limited, but is planned to, and out of necessity, must expand its scope. Agreement among the three data sets included in EdInsight is the current focus. Plans are in motion to expand to other areas of IDE based on this successful implementation of data governance for EdInsight. Further, with the coming integration of postsecondary data into the SLDS, and other non-department data, into the K-12 analytical system, there will naturally be need to more explicitly define data elements for reporting.

Project Management Team: The Project Management Team oversees the day-to-day operations of the planning, design, production, and implementation of EdInsight. It has decision-making authority for all policy that is exclusive to project implementation and maintenance. It combines the talents and expertise of IDE and contractors to develop a project vision, plan, and accompanying foundation documents that direct the steps and processes needed to fulfill the project. The team functions as one unit to develop a detailed project plan and schedule that sets the pace of the project. It determines what resources are needed to complete tasks and provides the documentation of project work that allows the team to approve a task as satisfactorily completed.

The Project Management Team continuously evaluates the execution of the project, identifying potential risks to the project, and actions to mitigate them. The team engages both the Steering Committee and the Advisory Committee on a regular basis, and calls additional meetings of these groups as needed. Additionally, they refer data issues to the Data Governance Committee as they arise, and support the committee in developing a resolution. Ultimately, it is the responsibility of the Project Management Team to deliver. These staff would be utilized in conjunction with IDE project managers to oversee a scaled-up implementation of the Iowa's SLDS.

The Midwest Education Information Consortium (MEIC) four-state proposal does not hold the same risks as previous cross-state consortiums that have been proposed and failed. The financial management and interconnected participation of all players is not necessitated. MEICs goal is the construction of a cross-state automated student locator protocol and process, based on a functionality all states have in a product they own and/or in version upgrades they will own. In actuality, it would only require two of the four states to participate to pilot the concept. Further, some MEIC states with larger information staff may wish to engineer the process entirely in-

house with existing resources. So the financing to capitalize on the student locator functionality is discreet by state as is the action to implement.

e) Staffing

IDE has assembled an outstanding dedicated team focused on success. IDE has positioned senior level personnel with experience deploying similar type systems in lead roles. All of the proposed personnel for this RFA worked together previously on the EdInsight project, a factor that will contribute to the success of the current project and should instill confidence in IES. Resumes of the team are provided in Appendix A.

Additional resources would allow EdInsight to add more data sources, develop more reports, and expand the portal to accommodate the additional reporting capabilities thereby supporting continuous improvement within the Iowa education community. An infrastructure already exists as well as a knowledgeable core data warehouse project team committed to the report areas promised in the 2009 IES grant.

With the reduction in IDE information technology and research staff due to state budget cuts, there will be fewer specialized staff supporting the source systems that EdInsight draws its reports upon. Some of the potential reporting requirements asked for in the proposed SFSF rules would necessitate new source systems that require this very subject matter experts (SME) knowledge. The good news is IDE has an infrastructure and a knowledge base; and the ARRA postsecondary and expanded unique student identifier provide opportunities to covert the data flow of source systems into the eScholar templates the Cognos reporting in EdInsight is based upon; hence, implementing a new approach that will serve as a lifeline for some collections.

The expedited timeline of the SFSF and even this grant requires a larger labor force. The current staff have committed to integrating and reporting on the areas in Appendix A: reports generated with considerable field input on what they needed for continuous improvement. Also, the IES 2009 commits these staff to the new Iowa Core Curriculum, explicitly including end of course assessment, which supports the assessment assurance in the SFSF. The additional data to be included to satisfy the SFSF Assurances and America Competes Act requirements and reporting to be accomplished in the given time simply require more people.

IDE will use a project team composed of members with limited-term positions to build the system. The implementation will be guided by the permanent core team who will be able to maintain the system from the knowledge gained through the implementation. To direct the additional labor, the core IDE project team will provide the oversight and coordination function: temporary contract staff that comprise the labor force will work at the direction of IDE staff. Obviously, each project team member has experience in project management. Each team member has also received additional project management training within the last year provided through the Iowa Department of Administrative Services (IDAS) by a certified PMP. Some core project team staff will assume more explicit project management roles, while others would assume senior roles and be the first point of contact for clarification.

IDE will contract for this additional help through the Request for Services (RFS) approved by IDAS, where pre-qualified information technology companies submit names of

qualified applicants in response to postings[5]. In certain instances formal RFPs would be let, such as the SIF RFP. In other instances for specialized, smaller scopes of work less than $50,000, such as general market research and specific client research with a deliverable of financial reports business requirements, a less formal RFP process is available and will be the approach used to fill these niche gaps.

This model will provide direct, ongoing oversight of the product deliverable. It is important to have state specific content knowledge when designing a system, as some of those data idiosyncrasies must be accounted for in delivering business intelligence reports. What may seem like insignificant, therefore unconfirmed, design specifications can lead to cost overruns: that is why direct control is necessary.

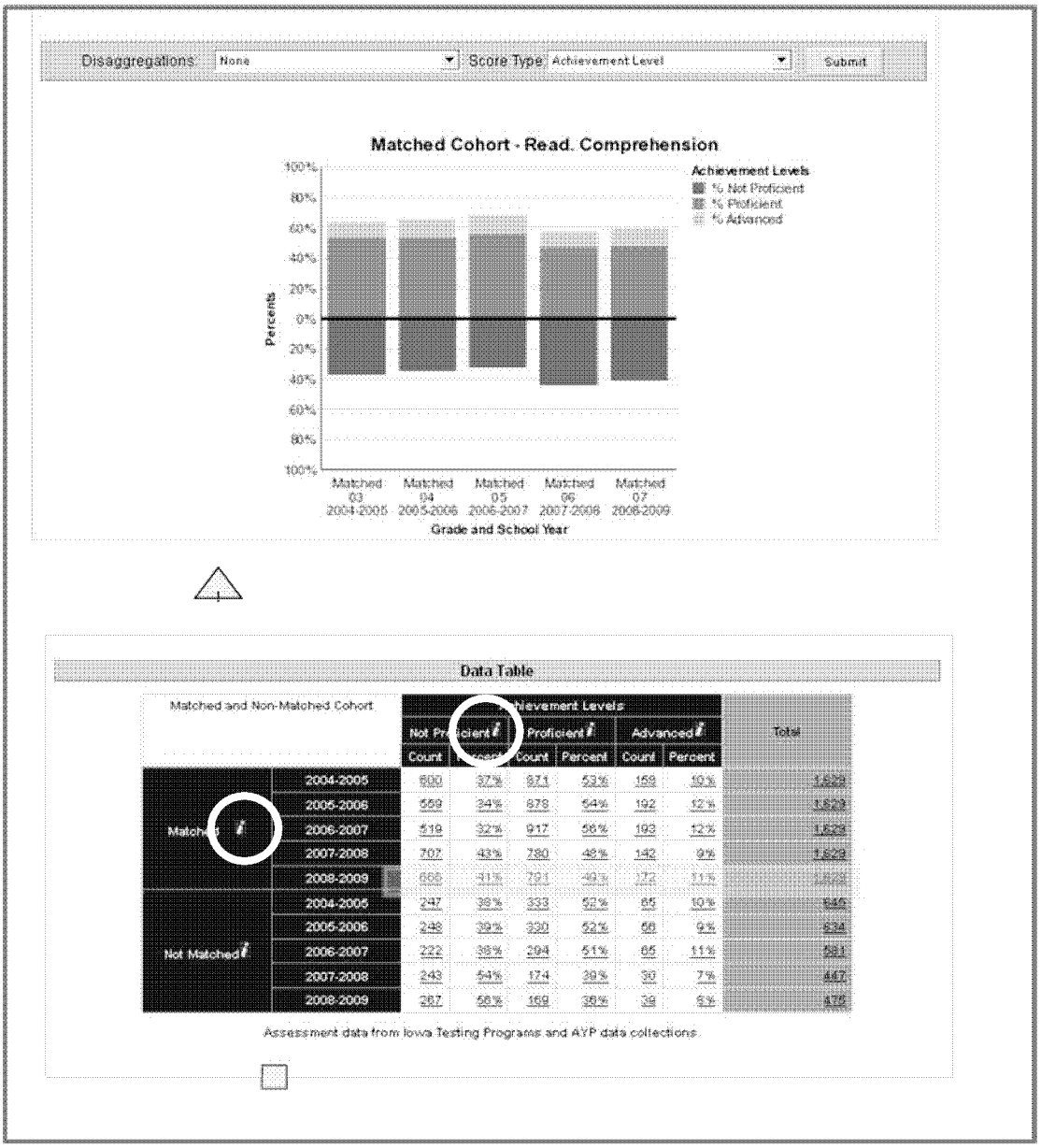
[5] An information technology specialist or education program consultant that is laid off could "bump" into a temporary contract programmer, provided that person had or could reasonably acquire that skill set with training.

Iowa Data Warehouse (EdInsight) Data Training

As it pertains to the Educational Data Warehouse, there are three primary methods to receive information about the data contained in a report.

1.) Tool Tips

Within each report, terms with an italicized 'i" enable the user to display a definition for the term when you mouse over the icon.



Below is an example of the actual script (between the quotes) that would appear when you mouseover:

```
toolTips["Matched"] = "A cohort containing students that have been present in
each of the consecutive years selected in the cohort time period.";

toolTips["Not Proficient"] = "NCLB performance category given to a student
scoring less than the 41st national percentile in Reading, Math or Science.";
```

2.) Report Definitions

In each Data Warehouse report are links to a Report Definition. For the Cohort Report above, the following is an example of the text for the Cohort Report Definition (please excuse the formatting).

ASMT 1.3 Cohort Report Definition

REPORT PURPOSE

Cohort Performance will identify the performance of a cohort group, based upon Iowa Test of Basic Skills (ITBS) or Iowa Test of Educational Development (ITED) National Percentile Rank (NPR), across a given grade, subject and time period.

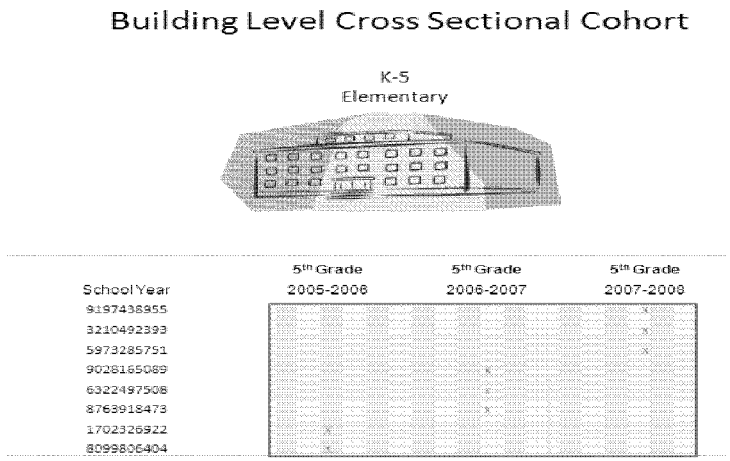
The Cohort graphic is a visual representation of the group's proficiency. For No Child Left Behind subjects, the graphic displays the distribution of students by proficiency level. For other subjects, the graphic represents the students above or below the 41st percentile.

By using '0' as the Y axis baseline, the user is able to make a very quick visual determination of the group's ITBS/ITED performance.

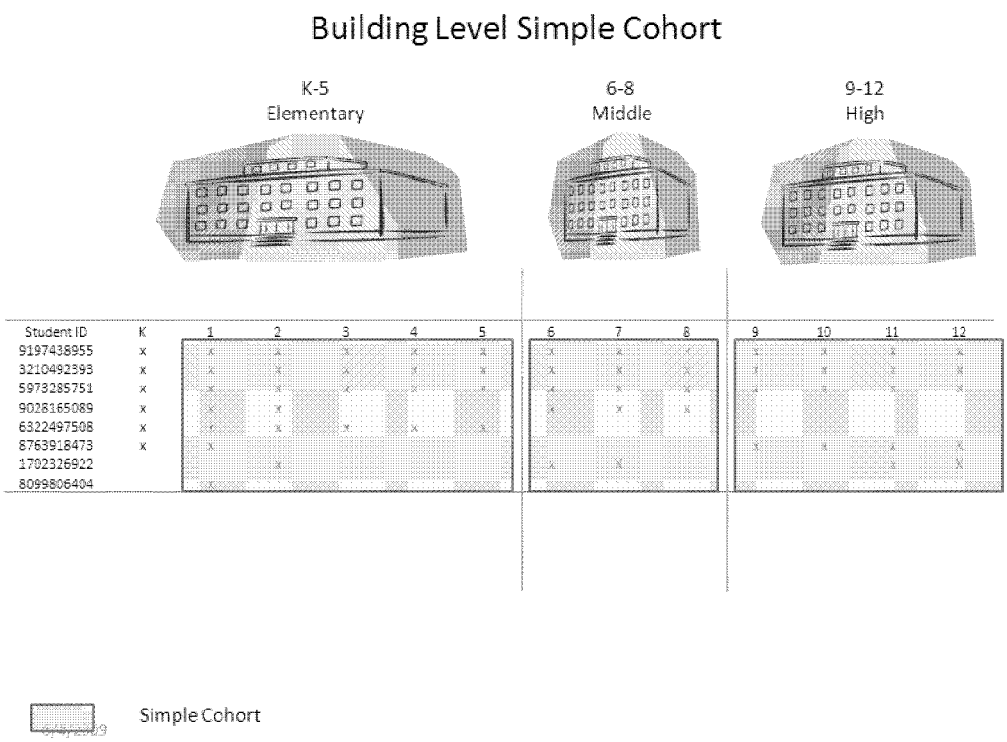
TYPES OF COHORTS

Three Cohort Report types are available in ASMT 1.3:

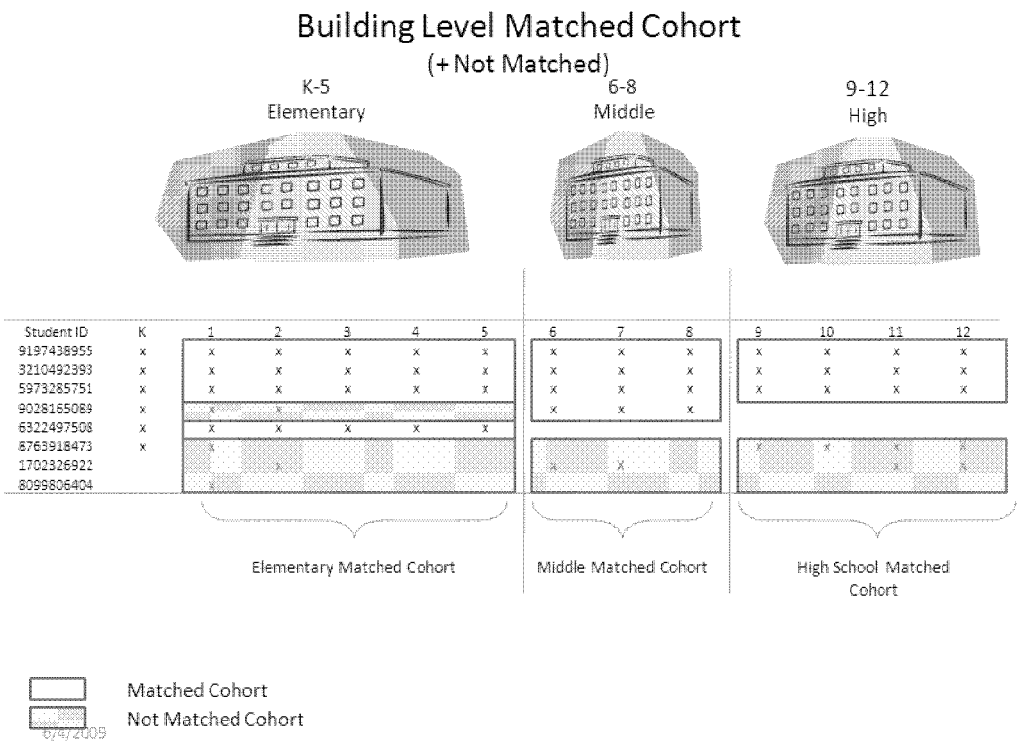
1. Cross Sectional – A Cross Sectional Cohort reports on the same grade over the selected time period.



2. Simple – A Simple Cohort reports on the performance of all students present for each of the years selected (including move ins and move outs).



3. Matched – A Matched Cohort is the same students who were present in each of the years selected. For example, a Matched Cohort is the same students from 3rd grade in 05-06, 4th grade in 06-07 and in 5th grade in 07-08. The Not Matched group describes the students who were NOT present for all of the years selected in the cohort. Providing both Matched and Not Matched counts allows the user to evaluate students that have been within your instruction for the time period, and for comparison, those students who have not.



In this example, the National Percentile Rank, summarized in proficiency levels and deciles would be displayed.

A WORD ON DISAGGREGATIONS

Viewing disaggregated data (eg: Gender, Free and Reduced Lunch) is a powerful way to evaluate the differences between variables. ASMT 1.3 disaggregates student data on a yearly basis. For instance, if a student had an IEP in years 1 and 2, but not in three, this would be reflected in the graphic and the data table. Current status is NOT retroactively applied. Because of this, you will notice that the student counts vary from year to year.

WHAT DATA ARE INCLUDED / WHAT DATA ARE EXCLUDED

This report is accessible only to those users granted access and only to those specific schools, districts or AEA's to which the user has been granted access.

Because EdInsight restricts access to data to specific buildings the user is associated with, Cohorts will span only the grade levels offered at a particular building. If the user selects grade levels that are not present, or extends the number of years back past the levels offered at the building, no results will be returned.

Data are available for:

- All public schools in the State of Iowa from School Year 2004-2005 to 2007-2008.

Data are NOT available for:

- School Years prior to 2004-2005
- Department of Corrections Facilities
- Non-Public Buildings

For data prior to this school year, please contact your school or Iowa Testing Programs (ITP).

Information found in this report originates from ITBS or ITED data. Student location and demographic values represent the information at the time of the test as reported from the bar code information or hand entered from the student at the time of the test. At year's end, student location and demographic information can change based on the data cleaning that occurs as part of the No Child Left Behind Adequate Yearly Progress (AYP) determinations. This cleansed version of demographic data is certified each summer by district superintendent or designee. This AYP version of student information is the system of record. If AYP determinations have not occurred in the current year, the bar code information is loaded directly into EdInsight from Iowa Testing Programs. Please note that information can vary for a given student or group in the current year due to the cleaning process of AYP.

HOW TO USE OR INTERPRET THIS REPORT

Matched Cohort enables you to evaluate the performance of students that have been under your instruction during the specified time period. Comparing Matched students to Not Matched allows you to compare the performance differential between the two groups.

Simple Cohorts enable you to make general performance observations over the entire class of students.

Cross Sectional Cohorts enable you to evaluate the performance of a given grade. This answers the question: How are we doing with the 5th grade class?

Deciles are the most accurate way to represent student performance distribution. Deciles divide students, by NPR, into ten equal increments (deciles) of performance. By indicating the count and percentage of students in each performance decile, users can clearly see where students exist in the performance ranges. Averages do not illustrate this concept with the same level of clarity. The user can observe that students perform at all performance ranges (deciles) where an average would imply that performance is centered in one particular performance area.

HOW *NOT* TO USE OR INTERPRET THIS REPORT

For a thorough explanation of appropriate and inappropriate uses of test scores, please consult the Iowa Tests *Interpretive Guide*.

EXPLANATION OF CALCULATIONS WITHIN THIS REPORT (if applicable)

No calculations are present in this report. Scores are displayed directly from the reported ITBS or ITED data.

EXPORT TO MICROSOFT EXCEL OR ADOBE READER

This report may be exported to Microsoft Excel or Adobe Reader using Cognos View options found in the upper right hand corner of the report display.

In some cases, Microsoft Internet Explorer may require modification to security settings to permit the Excel application to launch.

In Internet Explorer, select:

- 'Tools' from the menu bar
- Internet Options
- Security

- Highlight Local Intranet'
- After highlighting, click on sites
- In pop-up box, click on 'Advanced'
- Enter the EdInsight site into zone; Click 'Add'
- Click 'Ok'
- Close out browser
- Try exporting to excel

For additional assistance or concerns regarding this report, please contact edinsight@iowa.gov.

3.) Classroom Training

Each user of the Data Warehouse has had classroom training on data content, application and Cognos navigation prior to gaining access.

Classroom training uses real-world, but generic data to simulate real-world scenarios and application of the reports to answer questions and solve problems.

APPENDIX D

Appendix D

Attachment Number	Attachment Title	Relevant Criterion	Page Number
(D)(1)–1	IC* 272.2: Board of Examiners Created	(D)(1)(i)	Appendix D–1
(D)(1)–2	IC 282—13.9: Issuance of Teacher Licenses and Endorsements	(D)(1)(i)	Appendix D–4
(D)(1)–3	IAC 281—77**: Standards for Intern Teacher Preparation Program	(D)(1)(i)	Appendix D–30
(D)(1)–4	Educational Examiners Board [282] Notice of Intended Action	(D)(1)(i)	Appendix D–36
(D)(1)–5	Shortage Areas, 2008–2010	(D)(1)(iii)	Appendix D–37
(D)(2)–1	IAC 282.19 Evaluator Endorsement and License	(D)(2)(ii)	Appendix D–38
(D)(2)–2	IC 284 Teacher Performance, Compensation, and Career Development	(D)(2)(ii)	Appendix D–40
(D)(2)–3	Chapter 83: Teacher and Administrator Quality Programs	(D)(2)(ii)	Appendix D–55
(D)(2)–4	IC 279.19 Probationary period.	(D)(2)(iv)(c)	Appendix D–69
(D)(2)–5	IC 279.24 Contract with administrators—automatic continuation or termination.	(D)(2)(iv)(c)	Appendix D–70
(D)(3)–1	Title II A (§1112(C)(1)(l) Regulatory Guidance	(D)(3)(i)	Appendix D–73
(D)(3)–2	Talent to Teach, Lead and Change: Project TQ(3)	(D)(3)(ii)	Appendix D–76
(D)(5)–1	The Iowa Professional Development Model: Training Manual	(D)(5)(i)	Appendix D–77
(D)(5)–2	The Iowa Professional Development Model: Operating Principles	(D)(5)(i)	Appendix D–79
(D)(5)–3	IC 284.5 Beginning teacher mentoring and induction program.	(D)(5)(i)	Appendix D–80
(D)(5)–4	IC 284A.5 Beginning administrator mentoring and induction program.	(D)(5)(i)	Appendix D–82
(D)(5)–5	Project Narrative: State of Iowa Teacher Quality Partnership Grant	(D)(5)(i)	Appendix D–83
(D)(5)–6	Summary, Improving School Leadership: The Promise of a Cohesive Leadership System	(D)(5)(i)	Appendix D–133

*IC refers to the Iowa Code. **IAC refers to the Iowa Administrative Code.

272.2 Board of examiners created.

The board of educational examiners is created to exercise the exclusive authority to:

1. *a.* License practitioners, which includes the authority to establish criteria for the licenses; establish issuance and renewal requirements; create application and renewal forms; create licenses that authorize different instructional functions or specialties; develop a code of professional rights and responsibilities, practices, and ethics, which shall, among other things, address the failure of a practitioner to fulfill contractual obligations under section 279.13; and develop any other classifications, distinctions, and procedures which may be necessary to exercise licensing duties. In addressing the failure of a practitioner to fulfill contractual obligations, the board shall consider factors beyond the practitioner's control.

b. Notwithstanding section 272.28, subsection 1, a teacher shall be licensed in accordance with rules adopted pursuant to chapter 272, Code 2001, if the teacher successfully completes a beginning teacher mentoring program approved pursuant to chapter 256E, Code 2001, on or before June 30, 2002, or is employed by a school district that does not offer a beginning teacher mentoring and induction program approved in accordance with this chapter during the school year beginning July 1, 2001.

2. Establish, collect, and refund fees for a license.

3. Enter into reciprocity agreements with other equivalent state boards or a national certification board to provide for licensing of applicants from other states or nations.

4. Enforce rules adopted by the board through revocation or suspension of a license, or by other disciplinary action against a practitioner or professional development program licensed by the board of educational examiners. The board shall designate who may or shall initiate a licensee disciplinary investigation and a licensee disciplinary proceeding, and who shall prosecute a disciplinary proceeding and under what conditions, and shall state the procedures for review by the board of findings of fact if a majority of the board does not hear the disciplinary proceeding. However, in a case alleging failure of a practitioner to fulfill contractual obligations, the person who files a complaint with the board, or the complainant's designee, shall represent the complainant in a disciplinary hearing conducted in accordance with this chapter.

5. Apply for and receive federal or other funds on behalf of the state for purposes related to its duties.

6. Evaluate and conduct studies of board standards.

7. Hire an executive director, legal counsel, and other personnel and control the personnel administration of persons employed by the board.

8. Hear appeals regarding application, renewal, suspension, or revocation of a license. Board action is final agency action for purposes of chapter 17A.

9. Establish standards for the determination of whether an applicant is qualified to perform the duties required for a given license.

10. Issue statements of professional recognition to school service personnel who have attained a minimum of a baccalaureate degree and who are licensed by another professional licensing board.

11. Make recommendations to the state board of education concerning standards for the approval of professional development programs.

12. Establish, under chapter 17A, rules necessary to carry out board duties, and establish a budget request.

13. Adopt rules to provide for nontraditional preparation options for licensing persons who hold a bachelor's degree from an accredited college or university, who do not meet other requirements for licensure.

14. Adopt rules to determine whether an applicant is qualified to perform the duties for which a license is sought. The rules shall include all of the following:

a. The board may deny a license to or revoke the license of a person upon the board's finding by a preponderance of evidence that either the person has been convicted of a crime or that there has been a founded report of child abuse against the person. Rules adopted in accordance with this paragraph shall provide that in determining whether a person should be denied a license or that a practitioner's license should be revoked, the board shall consider the nature and seriousness of the founded abuse or crime in relation to the position sought, the time elapsed since the crime was committed, the degree of rehabilitation which has taken place since the incidence of founded abuse or the commission of the crime, the likelihood that the person will commit the same abuse or crime again, and the number of founded abuses committed by or criminal convictions of the person involved.

b. Notwithstanding paragraph *"a"*, the rules shall require the board to disqualify an applicant for a license or to revoke the license of a person for any of the following reasons:

(1) The person entered a plea of guilty to, or has been found guilty of, any of the following offenses established pursuant to Iowa law or offenses of a similar nature established under the laws of any other state or of the United States, or any other country, whether or not a sentence is imposed:

(a) Any of the following forcible felonies included in section 702.11: child endangerment, assault, murder, sexual abuse, or kidnapping.

(b) Any of the following sexual abuse offenses, as provided in chapter 709, involving a child:

(i) First, second, or third degree sexual abuse committed on or with a person who is under the age of eighteen years.

(ii) Lascivious acts with a child.

(iii) Detention in a brothel.

(iv) Assault with intent to commit sexual abuse.

(v) Indecent contact with a child.

(vi) Sexual exploitation by a counselor.

(vii) Lascivious conduct with a minor.

(viii) Sexual exploitation by a school employee.

(c) Incest involving a child under section 726.2.

(d) Dissemination and exhibition of obscene material to minors under section 728.2.

(e) Telephone dissemination of obscene material to minors under section 728.15.

(2) The applicant is less than twenty-one years of age except as provided in section 272.31, subsection 1, paragraph *"e"*. However, a student enrolled in a practitioner preparation program who meets board requirements for a temporary, limited-purpose license who is seeking to teach as part of a practicum or internship may be less than twenty-one years of age.

(3) The applicant's application is fraudulent.

(4) The applicant's license or certification from another state is suspended or revoked.

(5) The applicant fails to meet board standards for application for an initial or renewed license.

c. Qualifications or criteria for the granting or revocation of a license or the determination of an individual's professional standing shall not include membership or nonmembership in any teachers' organization.

d. An applicant for a license or certificate under this chapter shall demonstrate that the requirements of the license or certificate have been met and the burden of proof shall be on the applicant.

15. Adopt rules that require specificity in written complaints that are filed by individuals who have personal knowledge of an alleged violation and which are accepted by the board, provide that the jurisdictional requirements as set by the board in administrative rule are met on the face of the complaint before initiating an investigation of allegations, provide that any investigation be limited to the allegations contained on the face of the complaint, provide for an adequate interval between the receipt of a complaint and public notice of the complaint, permit parties to a complaint to mutually agree to a resolution of the complaint filed with the board, allow the respondent the right to review any investigative report upon a finding of probable cause for further action by the board, require that the conduct providing the basis for the complaint occurred within three years of discovery of the event by the complainant unless good cause can be shown for an extension of this limitation, and require complaints to be resolved within one hundred eighty days unless good cause can be shown for an extension of this limitation.

16. Adopt criteria for administrative endorsements that allow a person to achieve the endorsement authorizing the person to serve as an elementary or secondary principal without regard to the grade level at which the person accrued teaching experience.

17. Adopt rules to require that a background investigation be conducted by the division of criminal investigation of the department of public safety on all initial applicants for licensure. The board shall also require all initial applicants to submit a completed fingerprint packet and shall use the packet to facilitate a national criminal history background check. The board shall have access to, and shall review the sex offender registry information under section 692A.13, the central registry for child abuse information established under chapter 235A, and the dependent adult abuse records maintained under chapter 235B for information regarding applicants for license renewal.

[C97, §2629; S13, §2629; C24, 27, 31, §3863; C35, §3858-e1; C39, §**3858.1;** C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, §260.2]

86 Acts, ch 1245, §1442; 89 Acts, ch 265, §2; 90 Acts, ch 1249, §5, 6

C93, §272.2

96 Acts, ch 1189, §1; 96 Acts, ch 1215, §46; 2001 Acts, ch 103, §1; 2001 Acts, ch 161, §15, 16; 2001 Acts, ch 177, §13, 15; 2002 Acts, ch 1084, §1; 2002 Acts, ch 1128, §1; 2003 Acts, ch 108, §48; 2003 Acts, ch 180, §14, 15; 2006 Acts, ch 1152, §9; 2007 Acts, ch 108, §9; 2008 Acts, ch 1008, §2

Subsection 1, paragraph a amended

CHAPTER 13
ISSUANCE OF TEACHER LICENSES AND ENDORSEMENTS

[Prior to 1/14/09, see Educational Examiners Board[282] Ch 14]

282—13.1(272) All applicants desiring Iowa licensure. Licenses are issued upon application filed on a form provided by the board of educational examiners and upon completion of the following:

13.1(1) *National criminal history background check.* An initial applicant will be required to submit a completed fingerprint packet that accompanies the application to facilitate a national criminal history background check. The fee for the evaluation of the fingerprint packet will be assessed to the applicant.

13.1(2) *Iowa division of criminal investigation background check.* An Iowa division of criminal investigation background check will be conducted on initial applicants. The fee for the evaluation of the DCI background check will be assessed to the applicant.

13.1(3) *Temporary permits.* The executive director may issue a temporary permit to an applicant for any type of license, certification, or authorization issued by the board, after receipt of a fully completed application, including certification from the applicant of completion of the Praxis II examination, if required; determination that the applicant meets all applicable prerequisites for issuance of the license, certification, or authorization; and satisfactory evaluation of the Iowa criminal history background check. The temporary permit shall serve as evidence of the applicant's authorization to hold a position in Iowa schools, pending the satisfactory completion of the national criminal history background check and the board's receipt of verification of completion of the Praxis II examination. The temporary permit shall expire upon issuance of the requested license, certification, or authorization or 90 days from the date of issuance of the permit, whichever occurs first, unless the temporary permit is extended upon a finding of good cause by the executive director.

282—13.2(272) Applicants from recognized Iowa institutions. An applicant for initial licensure shall complete either the teacher, administrator, or school service personnel preparation program from a recognized Iowa institution or an alternative program recognized by the Iowa board of educational examiners. A recognized Iowa institution is one which has its program of preparation approved by the state board of education according to standards established by said board, or an alternative program recognized by the state board of educational examiners. Applicants shall complete the requirements set out in rule 282—13.1(272) and shall also have the recommendation for the specific license and endorsement(s) or the specific endorsement(s) from the designated recommending official at the recognized education institution where the preparation was completed.

282—13.3(272) Applicants from recognized non-Iowa institutions. An applicant for initial licensure who completes the teacher, administrator, or school service personnel preparation program from a recognized non-Iowa institution shall verify the requirements of either subrule 13.18(4) or 13.18(5).

13.3(1) Requirements for an alternative preparation license for out-of-state candidates. An applicant who holds a valid license from another state and whose preparation was completed through a state-approved alternative teacher preparation program must:

a. Hold a baccalaureate degree with a minimum cumulative grade point average of 2.50 on a 4.0 scale from a regionally accredited institution.

b. Provide a valid out-of-state teaching license based on a state-approved alternative preparation program.

c. Provide a recommendation from a regionally accredited institution, department of education, or a state's standards board indicating the completion of an approved alternative teacher preparation program.

d. Provide an official institutional transcript(s) to be analyzed for the requirements necessary for full Iowa licensure based on 13.9(4)*"a"*(1) to (7) and 13.9(4)*"c"*(1) to (5).

e. If the applicant has completed fewer than three years of teaching experience, provide verification from the state licensing agency/department in the state where the alternative preparation program was completed indicating that the applicant has successfully passed that state's mandated tests.

f. Verify three years of teaching experience, which will waive the student teaching requirement.

13.3(2) A recognized non-Iowa teacher preparation institution is one that is state-approved and is accredited by the regional accrediting agency for the territory in which the institution is located.
[**ARC 8139B**, IAB 9/9/09, effective 10/14/09]

282—13.4(272) Applicants from foreign institutions. An applicant for initial licensure whose preparation was completed in a foreign institution must obtain a course-by-course credential evaluation report completed by one of the board-approved credential evaluation services and then file this report with the board of educational examiners for a determination of eligibility for licensure.

282—13.5(272) Teacher licenses. A license may be issued to applicants who fulfill the general requirements set out in subrule 13.5(1) and the specific requirements set out for each license.

13.5(1) *General requirements.* The applicant shall:

a. Have a baccalaureate degree from a regionally accredited institution.

b. Have completed a state-approved teacher education program which meets the requirements of the professional education core.

c. Have completed an approved human relations component.

d. Have completed the exceptional learner component.

e. Have completed the requirements for one of the basic teaching endorsements.

f. Meet the recency requirement of subrule 13.10(3).

13.5(2) *Renewal requirements.* Renewal requirements for teacher licenses are set out in 282—Chapter 20.

282—13.6(272) Specific requirements for an initial license. An initial license valid for two years may be issued to an applicant who meets the general requirements set forth in subrule 13.5(1).

282—13.7(272) Specific requirements for a standard license. A standard license valid for five years may be issued to an applicant who:

1. Meets the general requirements set forth in subrule 13.5(1), and
2. Shows evidence of successful completion of a state-approved mentoring and induction program by meeting the Iowa teaching standards as determined by a comprehensive evaluation and two years' successful teaching experience. In lieu of completion of an Iowa state-approved mentoring and induction program, the applicant must provide evidence of three years' successful teaching experience in an Iowa nonpublic school or three years' successful teaching experience in an out-of-state K-12 educational setting.

282—13.8(272) Specific requirements for a master educator's license. A master educator's license is valid for five years and may be issued to an applicant who:

1. Is the holder of or is eligible for a standard license as set out in rule 282—13.7(272), and
2. Verifies five years of successful teaching experience, and
3. Completes one of the following options:

- Master's degree in a recognized endorsement area, or
- Master's degree in curriculum, effective teaching, or a similar degree program which has a focus on school curriculum or instruction.

282—13.9(272) Teacher intern license.

13.9(1) *Authorization.* The teacher intern is authorized to teach in grades 7 to 12.

13.9(2) *Term.* The term of the teacher intern license will be one year from the date of issuance. This license is nonrenewable. The fee for the teacher intern license is in 282—Chapter 12.

13.9(3) *Teacher intern requirements.* A teacher intern license shall be issued upon application provided that the following requirements have been met. The applicant shall:

a. Hold a baccalaureate degree with a minimum cumulative grade point average of 2.50 on a 4.0 scale from a regionally accredited institution.

b. Meet the requirements of at least one of the board's secondary (5-12) teaching endorsements listed in rule 282—13.28(272).

c. Possess a minimum of three years of postbaccalaureate work experience. An authorized official at a college or university with an approved teacher intern program will evaluate this experience.

d. Successfully complete the teacher intern program requirements listed in subrule 13.9(4) and approved by the state board of education.

e. Successfully pass a basic skills test at the level approved by the teacher education institution.

13.9(4) *Program requirements.* The teacher intern shall:

a. Complete the following requirements prior to the internship year:

(1) Learning environment/classroom management. The intern uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.

(2) Instructional planning. The intern plans instruction based upon knowledge of subject matter, students, the community, curriculum goals, and state curriculum models.

(3) Instructional strategies. The intern understands and uses a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills.

(4) Student learning. The intern understands how students learn and develop and provides learning opportunities that support intellectual, career, social, and personal development.

(5) Diverse learners. The intern understands how students differ in their approaches to learning and creates instructional opportunities that are equitable and are adaptable to diverse learners.

(6) Collaboration, ethics and relationships. The intern fosters relationships with parents, school colleagues, and organizations in the larger community to support students' learning and development.

(7) Assessment. The intern understands and uses formal and informal assessment strategies to evaluate the continuous intellectual, social, and physical development of the learner.

(8) Field experiences that provide opportunities for interaction with students in an environment that supports learning in context. These experiences shall total at least 50 contact hours in the field prior to the beginning of the academic year of the candidate's initial employment as a teacher intern.

b. Complete four semester hours of a teacher intern seminar during the teacher internship year to include support and extension of coursework from the teacher intern program.

c. Complete the coursework and competencies in the following areas:

(1) Foundations, reflection, and professional development. The intern continually evaluates the effects of the practitioner's choices and actions on students, parents, and other professionals in the learning community and actively seeks out opportunities to grow professionally.

(2) Communication. The intern uses knowledge of effective verbal, nonverbal, and media communication techniques, and other forms of symbolic representation, to foster active inquiry and collaboration and to support interaction in the classroom.

(3) Exceptional learner program, which must include preparation that contributes to the education of individuals with disabilities and the gifted and talented.

(4) Preparation in the integration of reading strategies into the content area.

(5) Computer technology related to instruction.

(6) An advanced study of the items set forth in 13.9(4)*"a"*(1) to (7) above.

13.9(5) *Local school district requirements.* The local school district shall:

a. Provide an offer of employment to an individual who has been evaluated by a college or university for eligibility or acceptance in the teacher intern program.

b. Participate in a mentoring and induction program.

c. Provide a district mentor for the teacher intern.

d. Provide other support and supervision, as needed, to maximize the opportunity for the teacher intern to succeed.

e. Not overload the teacher intern with extracurricular duties not directly related to the teacher intern's teaching assignment.

f. Provide evidence to the board from a licensed evaluator that the teacher intern is participating in a mentoring and induction program.

g. At the board's request, provide information including, but not limited to, the teacher intern selection and preparation program, institutional support, local school district mentor, and local school district support.

13.9(6) *Requirements to convert the teacher intern license to the initial license.*

a. An initial license shall be issued upon application provided that the teacher intern has met all of the following requirements:

(1) Successful completion of the coursework and competencies in the teacher intern program approved by the state board of education.

(2) Verification from a licensed evaluator that the teacher intern served successfully for a minimum of 160 days.

(3) Verification from a licensed evaluator that the teacher intern is participating in a mentoring and induction program and is being assessed on the Iowa teaching standards.

(4) Recommendation by a college or university offering an approved teacher intern program that the individual is eligible for an initial license.

(5) At the board's request, the teacher intern shall provide to the board information including, but not limited to, the teacher intern selection and preparation program, institutional support, local school district mentor, and local school district support.

b. The teacher intern year will count as one of the years that is needed for the teacher intern to convert the initial license to the standard license if the conditions listed in paragraph 13.9(6)*"a"* have been met.

13.9(7) *Requirements to obtain the initial license if the teacher intern does not complete the internship year.* An initial license shall be issued upon application provided that the teacher intern has met all of the following requirements:

a. Successful completion of the coursework and competencies in the teacher intern program approved by the state board of education.

b. Verification by a college or university that the teacher intern successfully completed the college's or university's state-approved student teaching requirements.

c. Recommendation by a college or university offering an approved teacher intern program that the individual is eligible for an initial license.

d. At the board's request, the teacher intern shall provide to the board information including, but not limited to, the teacher intern selection and preparation program, institutional support, local school district mentor, and local school district support.

282—13.10(272) Specific requirements for a Class A license. A nonrenewable Class A license valid for one year may be issued to an individual who has completed a teacher education program under any one of the following conditions:

13.10(1) *Professional core requirements.* The individual has not completed all of the required courses in the professional core, 13.18(4)*"a"* through *"j."*

13.10(2) *Human relations component.* The individual has not completed an approved human relations component.

13.10(3) *Recency.* The individual meets the requirements for a valid license, but has had fewer than 160 days of teaching experience during the five-year period immediately preceding the date of application or has not completed six semester hours of college credit from a recognized institution within the five-year period. To obtain the desired license, the applicant must complete recent credits and, where recent credits are required, these credits shall be taken in professional education or in the applicant's endorsement area(s).

13.10(4) *Degree not granted until next regular commencement.* Rescinded IAB 9/9/09, effective 10/14/09.

13.10(5) *Based on an expired Iowa certificate or license, exclusive of a Class A or Class B license.* The holder of an expired license, exclusive of a Class A or Class B license, shall be eligible to receive a Class A license upon application. This license shall be endorsed for the type of service authorized by the expired license on which it is based.

13.10(6) *Based on a mentoring and induction program.* An applicant may be eligible for a Class A license if the school district, after conducting a comprehensive evaluation, recommends and verifies that the applicant shall participate in the mentoring program for a third year.

13.10(7) *Based on an administrative decision.* The executive director is authorized to issue a Class A license to an applicant whose services are needed to fill positions in unique need circumstances.
[**ARC 7987B**, IAB 7/29/09, effective 9/2/09; **ARC 8134B**, IAB 9/9/09, effective 10/14/09]

282—13.11(272) Specific requirements for a Class B license. A Class B license, which is valid for two years and which is nonrenewable, may be issued to an individual under the following conditions:

13.11(1) *Endorsement in progress.* The individual has a valid license and one or more endorsements, but is seeking to obtain some other endorsement. A Class B license may be issued if requested by an employer and if the individual seeking to obtain some other endorsement has completed at least two-thirds of the requirements, or one-half of the content requirements in a state-designated shortage area, leading to completion of all requirements for the endorsement.

13.11(2) *Program of study for special education endorsement.* The college or university must outline the program of study necessary to meet the special education endorsement requirements. This program of study must be attached to the application.

13.11(3) *Request for exception.* A school district administrator may file a written request with the board for an exception to the minimum content requirements on the basis of documented need and benefit to the instructional program. The board will review the request and provide a written decision either approving or denying the request.

13.11(4) *Provisional occupational license.* If an individual is eligible for a provisional occupational license but has not met all of the experience requirements, a Class B license may be issued while the individual earns the necessary experience.

13.11(5) *Expiration.* This license will expire on June 30 of the fiscal year in which it was issued plus one year.
[**ARC 7987B**, IAB 7/29/09, effective 9/2/09; **ARC 8133B**, IAB 9/9/09, effective 10/14/09]

282—13.12(272) Specific requirements for a Class C license. Rescinded IAB 7/29/09, effective 9/2/09.

282—13.13(272) Specific requirements for a Class D occupational license. Rescinded IAB 7/29/09, effective 9/2/09.

282—13.14(272) Specific requirements for a Class E license. A nonrenewable license valid for one year may be issued to an individual as follows:

13.14(1) *Expired license.* Based on an expired Class A, Class B, or teacher exchange license, the holder of the expired license shall be eligible to receive a Class E license upon application and submission of all required materials.

13.14(2) *Application.* The application process will require transcripts of coursework completed during the term of the expired license, a program of study indicating the coursework necessary to obtain full licensure, and registration for coursework to be completed during the term of the Class E license. The Class E license will be denied if the applicant has not completed any coursework during the term of the Class A or Class B license unless extenuating circumstances are verified.
[**ARC 7987B**, IAB 7/29/09, effective 9/2/09]

282—13.15(272) Specific requirements for a Class G license. A nonrenewable Class G license valid for one year may be issued to an individual who must complete a school guidance counseling practicum or internship in an approved program in preparation for the school guidance counselor endorsement. The Class G license may be issued under the following limited conditions:

1. Verification of a baccalaureate degree from a regionally accredited institution.
2. Verification from the institution that the individual is admitted and enrolled in an approved school guidance counseling program.

3. Verification that the individual has completed the coursework and competencies required prior to the practicum or internship.

4. Written documentation of the requirements listed in "1" to "3" above, provided by the official at the institution where the individual is completing the approved school guidance counseling program and forwarded to the Iowa board of educational examiners with the application form for licensure.

282—13.16(272) Specific requirements for a substitute teacher's license.

13.16(1) *Substitute teacher requirements.* A substitute teacher's license may be issued to an individual who:

a. Has been the holder of, or presently holds, a license in Iowa; or holds or held a regular teacher's license or certificate in another state, exclusive of temporary, emergency, or substitute certificate or license, or a certificate based on an alternative certification program; or

b. Has successfully completed all requirements of an approved teacher education program and is eligible for the initial license, but has not applied for and been issued this license, or who meets all requirements for the initial license with the exception of the degree but whose degree will be granted at the next regular commencement; or

c. Has successfully completed all requirements of an approved Iowa teacher education program, but did not apply for an Iowa teacher's license at the time of completion of the approved program.

13.16(2) *Validity.* A substitute license is valid for five years and for not more than 90 days of teaching in one assignment during any one school year. A school district administrator may file a written request with the board for an extension of the 90-day limit in one assignment on the basis of documented need and benefit to the instructional program. The board will review the request and provide a written decision either approving or denying the request.

13.16(3) *Authorization.* The holder of a substitute license is authorized to teach in any school system in any position in which a regularly licensed teacher was employed to begin the school year. In addition to the authority inherent in the initial, standard, master educator, professional administrator, two-year exchange, and permanent professional licenses and the endorsement(s) held, the holder of one of these regular licenses may substitute on the same basis as the holder of a substitute license while the regular license is in effect.

282—13.17(272) Specific requirements for exchange licenses. An applicant seeking Iowa licensure who completes the teacher preparation program from a recognized non-Iowa institution shall verify the requirements of subrules 13.18(4) and 13.18(5) through traditional course-based preparation program and transcript review. A recognized non-Iowa teacher preparation institution is one that is state-approved and is accredited by the regional accrediting agency for the territory in which the institution is located.

13.17(1) *One-year teacher exchange license.*

a. A one-year nonrenewable exchange license may be issued to an applicant under the following conditions:

(1) The applicant has completed a state-approved, regionally accredited teacher education program; and

(2) The applicant has the recommendation for the specific license and endorsement(s) from the designated recommending official at the recognized non-Iowa institution where the preparation was completed; and

(3) The applicant holds and submits a copy of a valid regular certificate or license in the state in which the preparation was completed, exclusive of a temporary, emergency or substitute license or certificate; and

(4) If the applicant has fewer than three years of teaching experience or is being recommended for a K-6 elementary education endorsement, the applicant must verify successful completion of mandated tests in the state in which the applicant is currently licensed; and

(5) Each exchange license shall be limited to the area(s) and level(s) of instruction as determined by an analysis of the application, the transcripts and the license or certificate held in the state in which the basic preparation for licensure was completed or of the application and the credential evaluation report.

The applicant must have completed at least 50 percent of the endorsement requirements through a two- or four-year institution in order for the endorsement to be included on the exchange license; and

(6) The applicant is not subject to any pending disciplinary proceedings in any state or country; and

(7) The applicant complies with all requirements with regard to application processes and payment of licensure fees.

b. After the term of the exchange license has expired, the applicant may apply to be fully licensed if the applicant has completed all requirements and is eligible for full licensure.

13.17(2) *Two-year nonrenewable school counseling exchange license.*

a. A two-year nonrenewable school counseling exchange license may be issued to an individual, provided that the individual:

(1) Has completed a regionally accredited master's degree program in school guidance counseling.

(2) Holds a valid school counseling certificate or license issued by an examining board which issues certificates or licenses based on requirements which are substantially equivalent to those of the board of educational examiners.

(3) Meets the qualifications in Iowa Code section 272.6.

(4) Is not subject to any pending disciplinary proceeding in any state.

b. Each exchange license shall be limited to the area(s) and level(s) of counseling as determined by an analysis of the application, the transcripts, and the license or certificate held in the state in which the basic preparation for the school counseling license was completed.

c. Each applicant for the exchange license shall comply with all requirements with regard to application processes and payment of licensure fees.

d. Each individual receiving the two-year exchange license must complete any identified licensure deficiencies in order to be eligible for a regular educational license in Iowa.

e. Individuals licensed under this provision are subject to the administrative rules of the board.

13.17(3) *International teacher exchange license.*

a. A nonrenewable international exchange license may be issued to an applicant under the following conditions:

(1) The applicant has completed a teacher education program in another country; and

(2) The applicant is not subject to any pending disciplinary proceedings in any state or country; and

(3) The applicant complies with all requirements with regard to application processes and payment of licensure fees; and

(4) The applicant is a participant in a teacher exchange program administered through the Iowa department of education.

b. Each exchange license shall be limited to the area(s) and level(s) of instruction as determined by an analysis of the application and the credential evaluation report.

c. This license shall not exceed three years.

d. After the term of the exchange license has expired, the applicant may apply to be fully licensed if the applicant has completed all requirements and is eligible for full licensure.

[**ARC 8138B**, IAB 9/9/09, effective 10/14/09]

282—13.18(272) General requirements for an original teaching subject area endorsement. Following are the general requirements for the issuance of a license with an endorsement.

13.18(1) Baccalaureate degree from a regionally accredited institution.

13.18(2) Completion of an approved human relations component.

13.18(3) Completion of the exceptional learner program, which must include preparation that contributes to the education of individuals with disabilities and the gifted and talented.

13.18(4) Professional education core. Completed coursework or evidence of competency in:

a. Student learning. The practitioner understands how students learn and develop, and provides learning opportunities that support intellectual, career, social and personal development.

b. Diverse learners. The practitioner understands how students differ in their approaches to learning and creates instructional opportunities that are equitable and are adaptable to diverse learners.

c. Instructional planning. The practitioner plans instruction based upon knowledge of subject matter, students, the community, curriculum goals, and state curriculum models.

d. Instructional strategies. The practitioner understands and uses a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills.

e. Learning environment/classroom management. The practitioner uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.

f. Communication. The practitioner uses knowledge of effective verbal, nonverbal, and media communication techniques, and other forms of symbolic representation, to foster active inquiry, collaboration, and support interaction in the classroom.

g. Assessment. The practitioner understands and uses formal and informal assessment strategies to evaluate the continuous intellectual, social, and physical development of the learner.

h. Foundations, reflection and professional development. The practitioner continually evaluates the effects of the practitioner's choices and actions on students, parents, and other professionals in the learning community, and actively seeks out opportunities to grow professionally.

i. Collaboration, ethics and relationships. The practitioner fosters relationships with parents, school colleagues, and organizations in the larger community to support students' learning and development.

j. Computer technology related to instruction.

k. Completion of pre-student teaching field-based experiences.

l. Methods of teaching with an emphasis on the subject and grade level endorsement desired.

m. Student teaching in the subject area and grade level endorsement desired.

n. Preparation in reading programs, including reading recovery, and integration of reading strategies into content area methods coursework.

13.18(5) Content/subject matter specialization. The practitioner understands the central concepts, tools of inquiry, and structure of the discipline(s) the practitioner teaches and creates learning experiences that make these aspects of subject matter meaningful for students. This is evidenced by completion of a 30-semester-hour teaching major which must minimally include the requirements for at least one of the basic endorsement areas, special education teaching endorsements, or secondary level occupational endorsements.

282—13.19(272) NCATE-accredited programs. Rescinded IAB 6/17/09, effective 7/22/09.

282—13.20 Reserved.

282—13.21(272) Human relations requirements for practitioner licensure. Preparation in human relations shall be included in programs leading to teacher licensure. Human relations study shall include interpersonal and intergroup relations and shall contribute to the development of sensitivity to and understanding of the values, beliefs, lifestyles and attitudes of individuals and the diverse groups found in a pluralistic society.

13.21(1) Beginning on or after August 31, 1980, each applicant for an initial practitioner's license shall have completed the human relations requirement.

13.21(2) On or after August 31, 1980, each applicant for the renewal of a practitioner's license shall have completed an approved human relations requirement.

13.21(3) Credit for the human relations requirement shall be given for licensed persons who can give evidence that they have completed a human relations program which meets board of educational examiners criteria (see rule 282—13.24(272)).

282—13.22(272) Development of human relations components. Human relations components shall be developed by teacher preparation institutions. In-service human relations components may also be

developed by educational agencies other than teacher preparation institutions, as approved by the board of educational examiners.

13.22(1) *Advisory committee.* Education agencies developing human relations components shall give evidence that in the development of their programs they were assisted by an advisory committee. The advisory committee shall consist of equal representation of various minority and majority groups.

13.22(2) *Standards for approved components.* Human relations components will be approved by the board of educational examiners upon submission of evidence that the components are designed to develop the ability of participants to:

a. Be aware of and understand the values, lifestyles, history, and contributions of various identifiable subgroups in our society.

b. Recognize and deal with dehumanizing biases such as sexism, racism, prejudice, and discrimination and become aware of the impact that such biases have on interpersonal relations.

c. Translate knowledge of human relations into attitudes, skills, and techniques which will result in favorable learning experiences for students.

d. Recognize the ways in which dehumanizing biases may be reflected in instructional materials.

e. Respect human diversity and the rights of each individual.

f. Relate effectively to other individuals and various subgroups other than one's own.

13.22(3) *Evaluation.* Educational agencies providing the human relations components shall indicate the means to be utilized for evaluation.

282—13.23 to **13.25** Reserved.

282—13.26(272) Requirements for elementary endorsements.

13.26(1) *Teacher—prekindergarten-kindergarten.*

a. *Authorization.* The holder of this endorsement is authorized to teach at the prekindergarten/kindergarten level.

b. *Program requirements.*

(1) Degree—baccalaureate, and

(2) Completion of an approved human relations program, and

(3) Completion of the professional education core. See subrule 13.18(3).

c. *Content.*

(1) Human growth and development: infancy and early childhood, unless completed as part of the professional education core. See subrule 13.18(4).

(2) Curriculum development and methodology for young children.

(3) Child-family-school-community relationships (community agencies).

(4) Guidance of young children three to six years of age.

(5) Organization of prekindergarten-kindergarten programs.

(6) Child and family nutrition.

(7) Language development and learning.

(8) Kindergarten: programs and curriculum development.

13.26(2) *Teacher—prekindergarten through grade three.*

a. *Authorization.* The holder of this endorsement is authorized to teach children from birth through grade three.

b. *Program requirements.*

(1) Degree—baccalaureate.

(2) Completion of an approved human relations program.

(3) Completion of the professional education core. See subrules 13.18(3) and 13.18(4).

(4) Highly qualified teacher (HQT) status. Applicants from non-Iowa institutions who have completed the requirements for this endorsement must verify their HQT status. The board shall determine the test and the minimum passing score for HQT status. Verification must be provided through one of the following:

1. Written verification from the department of education in the state in which the applicant completed the elementary teacher preparation program that the applicant has achieved HQT status in that state; or

2. Written verification from the department of education in the state where the applicant is currently teaching that the applicant has achieved HQT status in that state; or

3. Submission of the official test score report indicating the applicant has met the qualifying score for licensure in the state in which the applicant completed the elementary teacher preparation program; or

4. Obtaining the qualifying score set by the Iowa board of educational examiners if the applicant has not been teaching within the last five years and completion of a teacher preparation program prior to enactment of the federal highly qualified teacher legislation (June 2006). This option may also be utilized by applicants from outside the United States.

5. For applicants who have completed the requirements for one of the Iowa elementary endorsements, verification of HQT status by meeting the minimum score set by the Iowa board of educational examiners if the applicant has not been teaching within the last five years and completion of a teacher preparation program prior to enactment of the federal highly qualified teacher legislation (June 2006). This option may also be utilized by applicants who have been teaching outside the United States.

c. Content.

(1) Child growth and development with emphasis on cognitive, language, physical, social, and emotional development, both typical and atypical, for infants and toddlers, preprimary, and primary school children (grades one through three), unless combined as part of the professional education core. See subrule 13.18(4) of the licensure rules for the professional core.

(2) Historical, philosophical, and social foundations of early childhood education.

(3) Developmentally appropriate curriculum with emphasis on integrated multicultural and nonsexist content including language, mathematics, science, social studies, health, safety, nutrition, visual and expressive arts, social skills, higher-thinking skills, and developmentally appropriate methodology, including adaptations for individual needs, for infants and toddlers, preprimary, and primary school children.

(4) Characteristics of play and creativity, and their contributions to the cognitive, language, physical, social and emotional development and learning of infants and toddlers, preprimary, and primary school children.

(5) Classroom organization and individual interactions to create positive learning environments for infants and toddlers, preprimary, and primary school children based on child development theory emphasizing guidance techniques.

(6) Observation and application of developmentally appropriate assessments for infants and toddlers, preprimary, and primary school children recognizing, referring, and making adaptations for children who are at risk or who have exceptional educational needs and talents.

(7) Home-school-community relationships and interactions designed to promote and support parent, family and community involvement, and interagency collaboration.

(8) Family systems, cultural diversity, and factors which place families at risk.

(9) Child and family health and nutrition.

(10) Advocacy, legislation, and public policy as they affect children and families.

(11) Administration of child care programs to include staff and program development and supervision and evaluation of support staff.

(12) Pre-student teaching field experience with three age levels in infant and toddler, preprimary, and primary programs, with no less than 100 clock hours, and in different settings, such as rural and urban, socioeconomic status, cultural diversity, program types, and program sponsorship.

(13) Student teaching experiences with two different age levels, one before kindergarten and one from kindergarten through grade three.

13.26(3) *Teacher—prekindergarten through grade three, including special education.*

a. Authorization. The holder of this endorsement is authorized to teach children from birth through grade three.

b. Program requirements.

(1) Degree—baccalaureate, and

(2) Completion of an approved human relations program, and

(3) Completion of the professional education core. See subrules 13.18(3) and 13.18(4).

(4) Highly qualified teacher (HQT) status. Applicants from non-Iowa institutions who have completed the requirements for this endorsement must verify their HQT status. The board shall determine the test and the minimum passing score for HQT status. Verification must be provided through one of the following:

1. Written verification from the department of education in the state in which the applicant completed the elementary teacher preparation program that the applicant has achieved HQT status in that state; or

2. Written verification from the department of education in the state where the applicant is currently teaching that the applicant has achieved HQT status in that state; or

3. Submission of the official test score report indicating the applicant has met the qualifying score for licensure in the state in which the applicant completed the elementary teacher preparation program; or

4. Obtaining the qualifying score set by the Iowa board of educational examiners if the applicant has not been teaching within the last five years and completion of a teacher preparation program prior to enactment of the federal highly qualified teacher legislation (June 2006). This option may also be utilized by applicants from outside the United States.

5. For applicants who have completed the requirements for one of the Iowa elementary endorsements, verification of HQT status by meeting the minimum score set by the Iowa board of educational examiners if the applicant has not been teaching within the last five years and completion of a teacher preparation program prior to enactment of the federal highly qualified teacher legislation (June 2006). This option may also be utilized by applicants who have been teaching outside the United States.

c. Content.

(1) Child growth and development.

1. Understand the nature of child growth and development for infants and toddlers (birth through age 2), preprimary (age 3 through age 5) and primary school children (age 6 through age 8), both typical and atypical, in areas of cognition, language development, physical motor, social-emotional, aesthetics, and adaptive behavior.

2. Understand individual differences in development and learning including risk factors, developmental variations and developmental patterns of specific disabilities and special abilities.

3. Recognize that children are best understood in the contexts of family, culture and society and that cultural and linguistic diversity influences development and learning.

(2) Developmentally appropriate learning environment and curriculum implementation.

1. Establish learning environments with social support, from the teacher and from other students, for all children to meet their optimal potential, with a climate characterized by mutual respect, encouraging and valuing the efforts of all regardless of proficiency.

2. Appropriately use informal and formal assessment to monitor development of children and to plan and evaluate curriculum and teaching practices to meet individual needs of children and families.

3. Plan, implement, and continuously evaluate developmentally and individually appropriate curriculum goals, content, and teaching practices for infants, toddlers, preprimary and primary children based on the needs and interests of individual children, their families and community.

4. Use both child-initiated and teacher-directed instructional methods, including strategies such as small and large group projects, unstructured and structured play, systematic instruction, group discussion and cooperative decision making.

5. Develop and implement integrated learning experiences for home-, center- and school-based environments for infants, toddlers, preprimary and primary children.

6. Develop and implement integrated learning experiences that facilitate cognition, communication, social and physical development of infants and toddlers within the context of parent-child and caregiver-child relationships.

7. Develop and implement learning experiences for preprimary and primary children with focus on multicultural and nonsexist content that includes development of responsibility, aesthetic and artistic development, physical development and well-being, cognitive development, and emotional and social development.

8. Develop and implement learning experiences for infants, toddlers, preprimary, and primary children with a focus on language, mathematics, science, social studies, visual and expressive arts, social skills, higher-thinking skills, and developmentally appropriate methodology.

9. Develop adaptations and accommodations for infants, toddlers, preprimary, and primary children to meet their individual needs.

10. Adapt materials, equipment, the environment, programs and use of human resources to meet social, cognitive, physical motor, communication, and medical needs of children and diverse learning needs.

(3) Health, safety and nutrition.

1. Design and implement physically and psychologically safe and healthy indoor and outdoor environments to promote development and learning.

2. Promote nutritional practices that support cognitive, social, cultural and physical development of young children.

3. Implement appropriate appraisal and management of health concerns of young children including procedures for children with special health care needs.

4. Recognize signs of emotional distress, physical and mental abuse and neglect in young children and understand mandatory reporting procedures.

5. Demonstrate proficiency in infant-child cardiopulmonary resuscitation, emergency procedures and first aid.

(4) Family and community collaboration.

1. Apply theories and knowledge of dynamic roles and relationships within and between families, schools, and communities.

2. Assist families in identifying resources, priorities, and concerns in relation to the child's development.

3. Link families, based on identified needs, priorities and concerns, with a variety of resources.

4. Use communication, problem-solving and help-giving skills in collaboration with families and other professionals to support the development, learning and well-being of young children.

5. Participate as an effective member of a team with other professionals and families to develop and implement learning plans and environments for young children.

(5) Professionalism.

1. Understand legislation and public policy that affect all young children, with and without disabilities, and their families.

2. Understand legal aspects, historical, philosophical, and social foundations of early childhood education and special education.

3. Understand principles of administration, organization and operation of programs for children from birth to age 8 and their families, including staff and program development, supervision and evaluation of staff, and continuing improvement of programs and services.

4. Identify current trends and issues of the profession to inform and improve practices and advocate for quality programs for young children and their families.

5. Adhere to professional and ethical codes.

6. Engage in reflective inquiry and demonstration of professional self-knowledge.

(6) Pre-student teaching field experiences. Complete 100 clock hours of pre-student teaching field experience with three age levels in infant and toddler, preprimary, and primary programs and in different settings, such as rural and urban, encompassing differing socioeconomic status, ability levels, cultural and linguistic diversity and program types and sponsorship.

(7) Student teaching. Complete a supervised student teaching experience of a total of at least 12 weeks in at least two different classrooms which include children with and without disabilities in two of three age levels: infant and toddler, preprimary, and primary.

13.26(4) *Teacher—elementary classroom.*

a. Authorization. The holder of this endorsement is authorized to teach in kindergarten and grades one through six.

b. Program requirements.

(1) Degree—baccalaureate, and

(2) Completion of an approved human relations component, and

(3) Completion of the professional education core. See subrules 13.18(3) and 13.18(4).

(4) Highly qualified teacher (HQT) status. Applicants from non-Iowa institutions who have completed the requirements for this endorsement must verify their HQT status. The board shall determine the test and the minimum passing score for HQT status. Verification must be provided through one of the following:

1. Written verification from the department of education in the state in which the applicant completed the elementary teacher preparation program that the applicant has achieved HQT status in that state; or

2. Written verification from the department of education in the state where the applicant is currently teaching that the applicant has achieved HQT status in that state; or

3. Submission of the official test score report indicating the applicant has met the qualifying score for licensure in the state in which the applicant completed the elementary teacher preparation program; or

4. Obtaining the qualifying score set by the Iowa board of educational examiners if the applicant has not been teaching within the last five years and completion of a teacher preparation program prior to enactment of the federal highly qualified teacher legislation (June 2006). This option may also be utilized by applicants from outside the United States.

5. For applicants who have completed the requirements for one of the Iowa elementary endorsements, verification of HQT status by meeting the minimum score set by the Iowa board of educational examiners if the applicant has not been teaching within the last five years and completion of a teacher preparation program prior to enactment of the federal highly qualified teacher legislation (June 2006). This option may also be utilized by applicants who have been teaching outside the United States.

c. Content.

(1) Child growth and development with emphasis on the emotional, physical and mental characteristics of elementary age children, unless completed as part of the professional education core. See subrule 13.18(4).

(2) Methods and materials of teaching elementary language arts.

(3) Methods and materials of teaching elementary reading.

(4) Elementary curriculum (methods and materials).

(5) Methods and materials of teaching elementary mathematics.

(6) Methods and materials of teaching elementary science.

(7) Children's literature.

(8) Methods and materials of teaching elementary social studies.

(9) Methods and materials in two of the following areas:

1. Methods and materials of teaching elementary health.

2. Methods and materials of teaching elementary physical education.

3. Methods and materials of teaching elementary art.

4. Methods and materials of teaching elementary music.

(10) Pre-student teaching field experience in at least two different grades.

(11) A field of specialization in a single discipline or a formal interdisciplinary program of at least 12 semester hours.

[**ARC 8400B**, IAB 12/16/09, effective 1/20/10; **ARC 8401B**, IAB 12/16/09, effective 1/20/10; **ARC 8402B**, IAB 12/16/09, effective 1/20/10]

282—13.27(272) Requirements for middle school endorsements.

13.27(1) *Authorization.* The holder of this endorsement is authorized to teach in the two concentration areas in which the specific requirements have been completed as well as in other subject areas in grades five through eight which are not the core content areas. The holder is not authorized to teach art, industrial arts, music, reading, physical education and special education.

13.27(2) *Program requirements.*

a. Be the holder of a currently valid Iowa teacher's license with either the general elementary endorsement or one of the subject matter secondary level endorsements set out in rule 282—13.28(272) or 282—subrules 17.1(1) and 17.1(3).

b. A minimum of 9 semester hours of required coursework in the following:

(1) Coursework in the growth and development of the middle school age child, specifically addressing the social, emotional, physical and cognitive characteristics and needs of middle school age children in addition to related studies completed as part of the professional education core in subrule 13.18(4).

(2) Coursework in middle school design, curriculum, instruction, and assessment including, but not limited to, interdisciplinary instruction, teaming, and differentiated instruction in addition to related studies completed as part of the professional education core in subrule 13.18(4).

(3) Coursework to prepare middle school teachers in literacy (reading, writing, listening and speaking) strategies for students in grades five through eight and in methods to include these strategies throughout the curriculum.

c. Thirty hours of middle school field experiences included in the coursework requirements listed in 13.27(2)*"b"*(1) to (3).

13.27(3) *Concentration areas.* To obtain this endorsement, the applicant must complete the coursework requirements in two of the following content areas:

a. *Social studies concentration.* The social studies concentration requires 12 semester hours of coursework in social studies to include coursework in United States history, world history, government and geography.

b. *Mathematics concentration.* The mathematics concentration requires 12 semester hours in mathematics to include coursework in algebra.

c. *Science concentration.* The science concentration requires 12 semester hours in science to include coursework in life science, earth science, and physical science.

d. *Language arts concentration.* The language arts concentration requires 12 semester hours in language arts to include coursework in composition, language usage, speech, young adult literature, and literature across cultures.

282—13.28(272) Minimum content requirements for teaching endorsements.

13.28(1) *Agriculture.* 5-12. Completion of 24 semester credit hours in agriculture and agriculture education to include:

a. Foundations of vocational and career education.

b. Planning and implementing courses and curriculum.

c. Methods and techniques of instruction to include evaluation of programs and students.

d. Coordination of cooperative education programs.

e. Coursework in each of the following areas and at least three semester credit hours in five of the following areas:

(1) Agribusiness systems.

(2) Power, structural, and technical systems.

(3) Plant systems.

(4) Animal systems.

(5) Natural resources systems.

(6) Environmental service systems.

(7) Food products and processing systems.

13.28(2) *Art.* K-8 or 5-12. Completion of 24 semester hours in art to include coursework in art history, studio art, and two- and three-dimensional art.

13.28(3) *Business—all.* 5-12. Completion of 30 semester hours in business to include 6 semester hours in accounting, 3 semester hours in business law to include contract law, 3 semester hours in computer and technical applications in business, 6 semester hours in marketing to include consumer studies, 3 semester hours in management, 6 semester hours in economics, and 3 semester hours in business communications to include formatting, language usage, and oral presentation. Coursework in entrepreneurship and in financial literacy may be a part of, or in addition to, the coursework listed above. Individuals who were licensed in Iowa prior to October 1, 1988, and were allowed to teach marketing without completing the endorsement requirements must complete the endorsement requirements by July 1, 2010, in order to teach or continue to teach marketing. A waiver provision is available through the board of educational examiners for individuals who have been successfully teaching marketing.

13.28(4) *Driver education.* 5-12. Completion of 9 semester hours in driver education to include coursework in accident prevention that includes drug and alcohol abuse; vehicle safety; and behind-the-wheel driving.

13.28(5) *English/language arts.*

a. K-8. Completion of 24 semester hours in English and language arts to include coursework in oral communication, written communication, language development, reading, children's literature, creative drama or oral interpretation of literature, and American literature.

b. 5-12. Completion of 24 semester hours in English to include coursework in oral communication, written communication, language development, reading, American literature, English literature and adolescent literature.

13.28(6) *Language arts.* 5-12. Completion of 40 semester hours in language arts to include coursework in the following areas:

a. Written communication.

(1) Develops a wide range of strategies and appropriately uses writing process elements (e.g., brainstorming, free-writing, first draft, group response, continued drafting, editing, and self-reflection) to communicate with different audiences for a variety of purposes.

(2) Develops knowledge of language structure (e.g., grammar), language conventions (e.g., spelling and punctuation), media techniques, figurative language and genre to create, critique, and discuss print and nonprint texts.

b. Oral communication.

(1) Understands oral language, listening, and nonverbal communication skills; knows how to analyze communication interactions; and applies related knowledge and skills to teach students to become competent communicators in varied contexts.

(2) Understands the communication process and related theories, knows the purpose and function of communication and understands how to apply this knowledge to teach students to make appropriate and effective choices as senders and receivers of messages in varied contexts.

c. Language development.

(1) Understands inclusive and appropriate language, patterns and dialects across cultures, ethnic groups, geographic regions and social roles.

(2) Develops strategies to improve competency in the English language arts and understanding of content across the curriculum for students whose first language is not English.

d. Young adult literature, American literature, and world literature.

(1) Reads, comprehends, and analyzes a wide range of texts to build an understanding of self as well as the cultures of the United States and the world in order to acquire new information, to respond to the needs and demands of society and the workplace, and for personal fulfillment. Among these texts are fiction and nonfiction, graphic novels, classic and contemporary works, young adult literature, and nonprint texts.

(2) Reads a wide range of literature from many periods in many genres to build an understanding of the many dimensions (e.g., philosophical, ethical, aesthetic) of human experience.

(3) Applies a wide range of strategies to comprehend, interpret, evaluate, and appreciate texts. Draws on prior experience, interactions with other readers and writers, knowledge of word meaning and of other texts, word identification strategies, and an understanding of textual features (e.g., sound-letter correspondence, sentence structure, context, graphics).

(4) Participates as a knowledgeable, reflective, creative, and critical member of a variety of literacy communities.

e. Creative voice.

(1) Understands the art of oral interpretation and how to provide opportunities for students to develop and apply oral interpretation skills in individual and group performances for a variety of audiences, purposes and occasions.

(2) Understands the basic skills of theatre production including acting, stage movement, and basic stage design.

f. Argumentation/debate.

(1) Understands concepts and principles of classical and contemporary rhetoric and is able to plan, prepare, organize, deliver and evaluate speeches and presentations.

(2) Understands argumentation and debate and how to provide students with opportunities to apply skills and strategies for argumentation and debate in a variety of formats and contexts.

g. Journalism.

(1) Understands ethical standards and major legal issues including First Amendment rights and responsibilities relevant to varied communication content. Utilizes strategies to teach students about the importance of freedom of speech in a democratic society and the rights and responsibilities of communicators.

(2) Understands the writing process as it relates to journalism (e.g., brainstorming, questioning, reporting, gathering and synthesizing information, writing, editing, and evaluating the final media product).

(3) Understands a variety of forms of journalistic writing (e.g., news, sports, features, opinion, Web-based) and the appropriate styles (e.g., Associated Press, multiple sources with attribution, punctuation) and additional forms unique to journalism (e.g., headlines, cutlines, and/or visual presentations).

h. Mass media production.

(1) Understands the role of the media in a democracy and the importance of preserving that role.

(2) Understands how to interpret and analyze various types of mass media messages in order for students to become critical consumers.

(3) Develops the technological skills needed to package media products effectively using various forms of journalistic design with a range of visual and auditory methods.

i. Reading strategies (if not completed as part of the professional education core requirements).

(1) Uses a variety of skills and strategies to comprehend and interpret complex fiction, nonfiction and informational text.

(2) Reads for a variety of purposes and across content areas.

13.28(7) *Foreign language.* K-8 and 5-12. Completion of 24 semester hours in each foreign language for which endorsement is sought.

13.28(8) *Health.* K-8 and 5-12. Completion of 24 semester hours in health to include coursework in public or community health, consumer health, substance abuse, family life education, mental/emotional health, and human nutrition.

13.28(9) *Family and consumer sciences—general.* 5-12. Completion of 24 semester hours in family and consumer sciences to include coursework in human development, parenthood education, family studies, consumer resource management, textiles and apparel, housing, and foods and nutrition.

13.28(10) *Industrial technology.* 5-12. Completion of 24 semester hours in industrial technology to include coursework in manufacturing, construction, energy and power, graphic communications and transportation. The coursework is to include at least 6 semester hours in three different areas.

13.28(11) *Journalism.* 5-12. Completion of 15 semester hours in journalism to include coursework in writing, editing, production and visual communications.

13.28(12) *Mathematics.*

a. *K-8.* Completion of 24 semester hours in mathematics to include coursework in algebra, geometry, number theory, measurement, computer programming, and probability and statistics.

b. *5-12.* Completion of 24 semester hours in mathematics to include a linear algebra or an abstract (modern) algebra course, a geometry course, a two-course sequence in calculus, a computer programming course, a probability and statistics course, and coursework in discrete mathematics.

13.28(13) *Music.*

a. *K-8.* Completion of 24 semester hours in music to include coursework in music theory (at least two courses), music history, and applied music.

b. *5-12.* Completion of 24 semester hours in music to include coursework in music theory (at least two courses), music history (at least two courses), applied music, and conducting.

13.28(14) *Physical education.*

a. *K-8.* Completion of 24 semester hours in physical education to include coursework in human anatomy, human physiology, movement education, adapted physical education, physical education in the elementary school, human growth and development of children related to physical education, and first aid and emergency care.

b. *5-12.* Completion of 24 semester hours in physical education to include coursework in human anatomy, kinesiology, human physiology, human growth and development related to maturational and motor learning, adapted physical education, curriculum and administration of physical education, assessment processes in physical education, and first aid and emergency care.

13.28(15) *Reading.*

a. *K-8 requirements.* Completion of 24 semester hours in reading to include all of the following requirements:

(1) Foundations of reading. This requirement includes the following competencies:

1. The practitioner demonstrates knowledge of the psychological, sociocultural, and linguistic foundations of reading and writing processes and instruction.

2. The practitioner demonstrates knowledge of a range of research pertaining to reading, writing, and learning, including scientifically based reading research, and knowledge of histories of reading. The range of research encompasses research traditions from the fields of the social sciences and other paradigms appropriate for informing practice.

3. The practitioner demonstrates knowledge of the major components of reading, such as phonemic awareness, word identification, phonics, vocabulary, fluency, and comprehension, and effectively integrates curricular standards with student interests, motivation, and background knowledge.

(2) Reading in the content areas. This requirement includes the following competencies:

1. The practitioner demonstrates knowledge of text structure and the dimensions of content area vocabulary and comprehension, including literal, interpretive, critical, and evaluative.

2. The practitioner provides content area instruction in reading and writing that effectively uses a variety of research-based strategies and practices.

(3) Practicum. This requirement includes the following competencies:

1. The practitioner works with licensed professionals who observe, evaluate, and provide feedback on the practitioner's knowledge, dispositions, and performance of the teaching of reading and writing.

2. The practitioner effectively uses reading and writing strategies, materials, and assessments based upon appropriate reading and writing research and works with colleagues and families in the support of children's reading and writing development.

(4) Language development. This requirement includes the following competency: The practitioner uses knowledge of language development and acquisition of reading skills (birth through sixth grade), and the variations related to cultural and linguistic diversity to provide effective instruction in reading and writing.

(5) Oral communication. This requirement includes the following competencies:

1. The practitioner has knowledge of the unique needs and backgrounds of students with language differences and delays.

2. The practitioner uses effective strategies for facilitating the learning of Standard English by all learners.

(6) Written communication. This requirement includes the following competency: The practitioner uses knowledge of reading-writing-speaking connections; the writing process; the stages of spelling development; the different types of writing, such as narrative, expressive, persuasive, informational and descriptive; and the connections between oral and written language development to effectively teach writing as communication.

(7) Reading assessment, diagnosis and evaluation. This requirement includes the following competencies:

1. The practitioner uses knowledge of a variety of instruments, procedures, and practices that range from individual to group and from formal to informal to alternative for the identification of students' reading proficiencies and needs, for planning and revising instruction for all students, and for communicating the results of ongoing assessments to all stakeholders.

2. The practitioner demonstrates awareness of policies and procedures related to special programs, including Title I.

(8) Children's nonfiction and fiction. This requirement includes the following competency: The practitioner uses knowledge of children's literature for:

1. Modeling the reading and writing of varied genres, including fiction and nonfiction; technology- and media-based information; and nonprint materials;

2. Motivating through the use of texts at multiple levels, representing broad interests, and reflecting varied cultures, linguistic backgrounds, and perspectives; and

3. Matching text complexities to the proficiencies and needs of readers.

(9) Reading instructional strategies. This requirement includes the following competency: The practitioner uses knowledge of a range of research-based strategies and instructional technology for designing and delivering effective instruction across the curriculum, for grouping students, and for selecting materials appropriate for learners at various stages of reading and writing development and from varied cultural and linguistic backgrounds.

b. 5-12 requirements. Completion of 24 semester hours in reading to include all of the following requirements:

(1) Foundations of reading. This requirement includes the following competencies:

1. The practitioner demonstrates knowledge of the psychological, sociocultural, and linguistic foundations of reading and writing processes and instruction.

2. The practitioner demonstrates knowledge of a range of research pertaining to reading, writing, and learning, including scientifically based reading research, and knowledge of histories of reading. The range of research encompasses research traditions from the fields of the social sciences and other paradigms appropriate for informing practice.

3. The practitioner demonstrates knowledge of the major components of reading such as phonemic awareness, word identification, phonics, vocabulary, fluency, and comprehension, and integrates curricular standards with student interests, motivation, and background knowledge.

(2) Reading in the content areas. This requirement includes the following competencies:

1. The practitioner demonstrates knowledge of text structure and the dimensions of content area vocabulary and comprehension, including literal, interpretive, critical, and evaluative.

2. The practitioner provides content area instruction in reading and writing that effectively uses a variety of research-based strategies and practices.

(3) Practicum. This requirement includes the following competencies:

1. The practitioner works with licensed professionals who observe, evaluate, and provide feedback on the practitioner's knowledge, dispositions, and performance of the teaching of reading and writing.

2. The practitioner effectively uses reading and writing strategies, materials, and assessments based upon appropriate reading and writing research, and works with colleagues and families in the support of students' reading and writing development.

(4) Language development. This requirement includes the following competency: The practitioner uses knowledge of the relationship of language acquisition and language development with the

acquisition and development of reading skills, and the variations related to cultural and linguistic diversity to provide effective instruction in reading and writing.

(5) Oral communication. This requirement includes the following competency: The practitioner demonstrates knowledge of the unique needs and backgrounds of students with language differences and uses effective strategies for facilitating the learning of Standard English by all learners.

(6) Written communication. This requirement includes the following competency: The practitioner uses knowledge of reading-writing-speaking connections to teach the skills and processes necessary for writing narrative, expressive, persuasive, informational, and descriptive texts, including text structures and mechanics such as grammar, usage, and spelling.

(7) Reading assessment, diagnosis and evaluation. This requirement includes the following competencies:

1. The practitioner uses knowledge of a variety of instruments, procedures, and practices that range from individual to group and from formal to informal to alternative for the identification of students' reading proficiencies and needs, for planning and revising instruction for all students, and for communicating the results of ongoing assessments to all stakeholders.

2. The practitioner demonstrates awareness of policies and procedures related to special programs.

(8) Adolescent or young adult nonfiction and fiction. This requirement includes the following competency: The practitioner uses knowledge of adolescent or young adult literature for:

1. Modeling the reading and writing of varied genres, including fiction and nonfiction; technology and media-based information; and nonprint materials;

2. Motivating through the use of texts at multiple levels, representing broad interests, and reflecting varied cultures, linguistic backgrounds and perspectives; and

3. Matching text complexities to the proficiencies and needs of readers.

(9) Reading instructional strategies. This requirement includes the following competency: The practitioner uses knowledge of a range of research-based strategies and instructional technology for designing and delivering instruction across the curriculum, for grouping students, and for selecting materials appropriate for learners at various stages of reading and writing development and from varied cultural and linguistic backgrounds.

13.28(16) *Reading specialist.* K-12. The applicant must have met the requirements for the standard license and a teaching endorsement, and present evidence of at least one year of experience which included the teaching of reading as a significant part of the responsibility.

a. Authorization. The holder of this endorsement is authorized to serve as a reading specialist in kindergarten and grades one through twelve.

b. Program requirements. Degree—master's.

c. Content. Completion of a sequence of courses and experiences which may have been a part of, or in addition to, the degree requirements. This sequence is to be at least 27 semester hours to include the following:

(1) Educational psychology/human growth and development.
(2) Educational measurement and evaluation.
(3) Foundations of reading.
(4) Diagnosis of reading problems.
(5) Remedial reading.
(6) Psychology of reading.
(7) Language learning and reading disabilities.
(8) Practicum in reading.
(9) Administration and supervision of reading programs at the elementary and secondary levels.

13.28(17) *Science.*

a. Science—basic. K-8.

(1) Required coursework. Completion of at least 24 semester hours in science to include 12 hours in physical sciences, 6 hours in biology, and 6 hours in earth/space sciences.

(2) Competencies.

1. Understand the nature of scientific inquiry, its central role in science, and how to use the skills and processes of scientific inquiry.
2. Understand the fundamental facts and concepts in major science disciplines.
3. Be able to make conceptual connections within and across science disciplines, as well as to mathematics, technology, and other school subjects.
4. Be able to use scientific understanding when dealing with personal and societal issues.

b. *Biological science.* 5-12. Completion of 24 semester hours in biological science or 30 semester hours in the broad area of science to include 15 semester hours in biological science.

c. *Chemistry.* 5-12. Completion of 24 semester hours in chemistry or 30 semester hours in the broad area of science to include 15 semester hours in chemistry.

d. *Earth science.* 5-12. Completion of 24 semester hours in earth science or 30 semester hours in the broad area of science to include 15 semester hours in earth science.

e. *General science.* 5-12. Completion of 24 semester hours in science to include coursework in biological science, chemistry, and physics.

f. *Physical science.* 5-12. Completion of 24 semester hours in physical sciences to include coursework in physics, chemistry, and earth science.

g. *Physics.* 5-12. Completion of 24 semester hours in physics or 30 semester hours in the broad area of science to include 15 semester hours in physics.

h. *All science I.* 5-8. The holder of this endorsement must also hold the middle school endorsement listed under rule 282—13.27(272).

(1) Required coursework. Completion of at least 24 semester hours in science to include 6 hours in chemistry, 6 hours in physics or physical sciences, 6 hours in biology, and 6 hours in the earth/space sciences.

(2) Competencies.

1. Understand the nature of scientific inquiry, its central role in science, and how to use the skills and processes of scientific inquiry.
2. Understand the fundamental facts and concepts in major science disciplines.
3. Be able to make conceptual connections within and across science disciplines, as well as to mathematics, technology, and other school subjects.
4. Be able to use scientific understanding when dealing with personal and societal issues.

i. *All science II.* 9-12.

(1) Required coursework.

1. Completion of one of the following endorsement areas listed under subrule 13.28(17): biological science 5-12 or chemistry 5-12 or earth science 5-12 or physics 5-12.
2. Completion of at least 12 hours in each of the other three endorsement areas.

(2) Competencies.

1. Understand the nature of scientific inquiry, its central role in science, and how to use the skills and processes of scientific inquiry.
2. Understand the fundamental facts and concepts in major science disciplines.
3. Be able to make conceptual connections within and across science disciplines, as well as to mathematics, technology, and other school subjects.
4. Be able to use scientific understanding when dealing with personal and societal issues.

13.28(18) *Social sciences.*

a. *American government.* 5-12. Completion of 24 semester hours in American government or 30 semester hours in the broad area of social sciences to include 15 semester hours in American government.

b. *American history.* 5-12. Completion of 24 semester hours in American history or 30 semester hours in the broad area of social sciences to include 15 semester hours in American history.

c. *Anthropology.* 5-12. Completion of 24 semester hours in anthropology or 30 semester hours in the broad area of social sciences to include 15 semester hours in anthropology.

d. *Economics.* 5-12. Completion of 24 semester hours in economics or 30 semester hours in the broad area of social sciences to include 15 semester hours in economics, or 30 semester hours in the broad area of business to include 15 semester hours in economics.

e. *Geography.* 5-12. Completion of 24 semester hours in geography or 30 semester hours in the broad area of social sciences to include 15 semester hours in geography.

f. *History.* K-8. Completion of 24 semester hours in history to include at least 9 semester hours in American history and 9 semester hours in world history.

g. *Psychology.* 5-12. Completion of 24 semester hours in psychology or 30 semester hours in the broad area of social sciences to include 15 semester hours in psychology.

h. *Social studies.* K-8. Completion of 24 semester hours in social studies, to include coursework from at least three of these areas: history, sociology, economics, American government, psychology and geography.

i. *Sociology.* 5-12. Completion of 24 semester hours in sociology or 30 semester hours in the broad area of social sciences to include 15 semester hours in sociology.

j. *World history.* 5-12. Completion of 24 semester hours in world history or 30 semester hours in the broad area of social sciences to include 15 semester hours in world history.

k. *All social sciences.* 5-12. Completion of 51 semester hours in the social sciences to include 9 semester hours in each of American and world history, 9 semester hours in government, 6 semester hours in sociology, 6 semester hours in psychology other than educational psychology, 6 semester hours in geography, and 6 semester hours in economics.

13.28(19) *Speech communication/theatre.*

a. *K-8.* Completion of 20 semester hours in speech communication/theatre to include coursework in speech communication, creative drama or theatre, and oral interpretation.

b. *5-12.* Completion of 24 semester hours in speech communication/theatre to include coursework in speech communication, oral interpretation, creative drama or theatre, argumentation and debate, and mass media communication.

13.28(20) *English as a second language (ESL).* K-12.

a. *Authorization.* The holder of this endorsement is authorized to teach English as a second language in kindergarten and grades one through twelve.

b. *Program requirements.*

(1) Degree—baccalaureate, and

(2) Completion of an approved human relations program, and

(3) Completion of the professional education core. See subrules 13.18(3) and 13.18(4).

c. *Content.* Completion of 18 semester hours of coursework in English as a second language to include the following:

(1) Knowledge of pedagogy to include the following:

1. Methods and curriculum to include the following:

- Bilingual and ESL methods.
- Literacy in native and second language.
- Methods for subject matter content.
- Adaptation and modification of curriculum.

2. Assessment to include language proficiency and academic content.

(2) Knowledge of linguistics to include the following:

1. Psycholinguistics and sociolinguistics.
2. Language acquisition and proficiency to include the following:

- Knowledge of first and second language proficiency.
- Knowledge of first and second language acquisition.
- Language to include structure and grammar of English.

(3) Knowledge of cultural and linguistic diversity to include the following:

1. History.
2. Theory, models, and research.
3. Policy and legislation.

(4) Current issues with transient populations.

d. *Other.* Individuals who were licensed in Iowa prior to October 1, 1988, and were allowed to teach English as a second language without completing the endorsement requirements must complete

the endorsement requirements by July 1, 2012, in order to teach or continue to teach English as a second language. A waiver provision is available through the board of educational examiners for individuals who have been successfully teaching English as a second language.

13.28(21) *Elementary school teacher librarian.*

a. Authorization. The holder of this endorsement is authorized to serve as a teacher librarian in kindergarten and grades one through eight.

b. Program requirements.

(1) Degree—baccalaureate.

(2) Completion of an approved human relations program.

(3) Completion of the professional education core. See subrules 13.18(3) and 13.18(4).

c. Content. Completion of 24 semester hours in school library coursework to include the following:

(1) Knowledge of materials and literature in all formats for elementary children.

(2) Selection, utilization and evaluation of library resources and equipment.

(3) Design and production of instructional materials.

(4) Acquisition, cataloging and classification of library materials.

(5) Information literacy, reference services and networking.

(6) Planning, evaluation and administration of school library programs.

(7) Practicum in an elementary school media center/library.

13.28(22) *Secondary school teacher librarian.*

a. Authorization. The holder of this endorsement is authorized to serve as a teacher librarian in grades five through twelve.

b. Program requirements.

(1) Degree—baccalaureate.

(2) Completion of an approved human relations program.

(3) Completion of the professional education core. See subrules 13.18(3) and 13.18(4).

c. Content. Completion of 24 semester hours in school library coursework to include the following:

(1) Knowledge of materials and literature in all formats for adolescents.

(2) Selection, utilization and evaluation of library resources and equipment.

(3) Design and production of instructional materials.

(4) Acquisition, cataloging and classification of library materials.

(5) Information literacy, reference services and networking.

(6) Planning, evaluation and administration of school library programs.

(7) Practicum in a secondary school media center/library.

13.28(23) *School teacher librarian.* K-12.

a. Authorization. The holder of this endorsement is authorized to serve as a teacher librarian in kindergarten and grades one through twelve. The applicant must be the holder of or eligible for the initial license.

b. Program requirements. Degree—master's.

c. Content. Completion of a sequence of courses and experiences which may have been part of, or in addition to, the degree requirements. This sequence is to be at least 30 semester hours in school library coursework, to include the following:

(1) Planning, evaluation and administration of school library programs.

(2) Curriculum development and teaching and learning strategies.

(3) Instructional development and communication theory.

(4) Selection, evaluation and utilization of library resources and equipment.

(5) Acquisition, cataloging and classification of library materials.

(6) Design and production of instructional materials.

(7) Methods for instruction and integration of information literacy skills into the school curriculum.

(8) Information literacy, reference services and networking.

(9) Knowledge of materials and literature in all formats for elementary children and adolescents.

(10) Reading, listening and viewing guidance.
(11) Utilization and application of computer technology.
(12) Practicum at both the elementary and secondary levels.
(13) Research in library and information science.

13.28(24) *Talented and gifted teacher.*

a. Authorization. The holder of this endorsement is authorized to serve as a teacher or a coordinator of programs for the talented and gifted from the prekindergarten level through grade twelve. This authorization does not permit general classroom teaching at any level except that level or area for which the holder is eligible or holds the specific endorsement.

b. Program requirements—content. Completion of 12 undergraduate or graduate semester hours of coursework in the area of the talented and gifted to include the following:

(1) Psychology of the gifted.
1. Social needs.
2. Emotional needs.
(2) Programming for the gifted.
1. Prekindergarten-12 identification.
2. Differentiation strategies.
3. Collaborative teaching skills.
4. Program goals and performance measures.
5. Program evaluation.
(3) Practicum experience in gifted programs.

NOTE: Teachers in specific subject areas will not be required to hold this endorsement if they teach gifted students in their respective endorsement areas.

c. Other. Individuals who were licensed in Iowa prior to August 31, 1995, and were allowed to teach talented and gifted classes without completing the endorsement requirements must complete the endorsement requirements by July 1, 2012, in order to teach or continue to teach talented and gifted classes. A waiver provision is provided through the board of educational examiners for individuals who have been successfully teaching students who are talented and gifted.

13.28(25) *American Sign Language endorsement.*

a. Authorization. The holder of this endorsement is authorized to teach American Sign Language in kindergarten and grades one through twelve.

b. Program requirements.

(1) Degree—baccalaureate.
(2) Completion of an approved human relations program.
(3) Completion of the professional education core.

c. Content. Completion of 18 semester hours of coursework in American Sign Language to include the following:

(1) Second language acquisition.
(2) Sociology of the deaf community.
(3) Linguistic structure of American Sign Language.
(4) Language teaching methodology specific to American Sign Language.
(5) Teaching the culture of deaf people.
(6) Assessment of students in an American Sign Language program.

d. Other. Be the holder of or be eligible for one other teaching endorsement listed in rules 282—13.26(272) and 282—13.27(272) and this rule.

13.28(26) *Elementary counselor.* Rescinded IAB 7/29/09, effective 9/2/09.

13.28(27) *Secondary counselor.* Rescinded IAB 7/29/09, effective 9/2/09.

13.28(28) *School nurse endorsement.* The school nurse endorsement does not authorize general classroom teaching, although it does authorize the holder to teach health at all grade levels. Alternatively, a nurse may obtain a statement of professional recognition (SPR) from the board of educational examiners, in accordance with the provisions set out in 282—Chapter 16, Statements of Professional Recognition (SPR).

a. Authorization. The holder of this endorsement is authorized to provide service as a school nurse at the prekindergarten and kindergarten levels and in grades one through twelve.

b. Program requirements.

(1) Degree—baccalaureate, and

(2) Completion of an approved human relations program, and

(3) Completion of the professional education core. See subrules 13.18(3) and 13.18(4).

c. Content.

(1) Organization and administration of school nurse services including the appraisal of the health needs of children and youth.

(2) School-community relationships and resources/coordination of school and community resources to serve the health needs of children and youth.

(3) Knowledge and understanding of the health needs of exceptional children.

(4) Health education.

d. Other. Hold a license as a registered nurse issued by the Iowa board of nursing.

13.28(29) *Athletic coach.* K-12. An applicant for the coaching endorsement must hold a teacher's license with one of the teaching endorsements.

a. Authorization. The holder of this endorsement may serve as a head coach or an assistant coach in kindergarten and grades one through twelve.

b. Program requirements.

(1) One semester hour college or university course in the structure and function of the human body in relation to physical activity, and

(2) One semester hour college or university course in human growth and development of children and youth as related to physical activity, and

(3) Two semester hour college or university course in athletic conditioning, care and prevention of injuries and first aid as related to physical activity, and

(4) One semester hour college or university course in the theory of coaching interscholastic athletics.

[**ARC 7986B**, IAB 7/29/09, effective 9/2/09; **ARC 8248B**, IAB 11/4/09, effective 10/12/09; **ARC 8403B**, IAB 12/16/09, effective 1/20/10]

282—13.29(272) Adding, removing or reinstating a teaching endorsement.

13.29(1) *Adding an endorsement.* After the issuance of a teaching license, an individual may add other endorsements to that license upon proper application, provided current requirements for that endorsement have been met. An updated license with expiration date unchanged from the original or renewed license will be prepared.

a. Options. To add an endorsement, the applicant must follow one of these options:

(1) Option 1. Receive the Iowa teacher education institution's recommendation that the current approved program requirements for the endorsement have been met.

(2) Option 2. Receive verification from the Iowa teacher education institution that the minimum state requirements for the endorsement have been met in lieu of the institution's approved program.

(3) Option 3. Receive verification from a state-approved and regionally accredited institution that the Iowa minimum requirements for the endorsement have been met.

(4) Option 4. Apply for a review of the transcripts by the board of educational examiners' staff to determine if all Iowa requirements have been met. The applicant must submit documentation that all of the Iowa requirements have been met by filing transcripts and supporting documentation for review. The fee for the transcript evaluation is in 282—Chapter 12. This fee shall be in addition to the fee for adding the endorsement.

b. Additional requirements for adding an endorsement.

(1) In addition to meeting the requirements listed in rules 282—13.18(272) and 282—13.28(272), applicants for endorsements shall have completed a methods class appropriate for teaching the general subject area of the endorsement added.

(2) Practitioners who are adding an elementary or early childhood endorsement and have not student taught on the elementary or early childhood level shall complete a teaching practicum appropriate for teaching at the level of the new endorsement.

(3) Practitioners who are adding a secondary teaching endorsement and have not student taught on the secondary level shall complete a teaching practicum appropriate for teaching at the level of the new endorsement.

(4) Practitioners holding the K-8 endorsement in the content area of the 5-12 endorsement being added may satisfy the requirement for the secondary methods class and the teaching practicum by completing all required coursework and presenting verification of competence. This verification of competence shall be signed by a licensed evaluator who has observed and formally evaluated the performance of the applicant at the secondary level. This verification of competence may be submitted at any time during the term of the Class B license. The practitioner must obtain a Class B license while practicing with the 5-12 endorsement.

13.29(2) *Removal of an endorsement; reinstatement of removed endorsement.*

a. Removal of an endorsement. A practitioner may remove an endorsement from the practitioner's license as follows:

(1) To remove an endorsement, the practitioner shall meet the following conditions:

1. A practitioner who holds a standard or master educator license is eligible to request removal of an endorsement from the license if the practitioner has not taught in the subject or assignment area of the endorsement in the five years prior to the request for removal of the endorsement, and

2. The practitioner must submit a notarized written application form furnished by the board of educational examiners to remove an endorsement at the time of licensure renewal (licensure renewal is limited to one calendar year prior to the expiration date of the current license), and

3. The application must be signed by the superintendent or designee in the district in which the practitioner is under contract. The superintendent's signature shall serve as notification and acknowledgment of the practitioner's intent to remove an endorsement from the practitioner's license. The absence of the superintendent's or designee's signature does not impede the removal process.

(2) The endorsement shall be removed from the license at the time of application.

(3) If a practitioner is not employed and submits an application, the provisions of 13.29(2)*"a"*(1)"3" shall not be required.

(4) If a practitioner submits an application that does not meet the criteria listed in 13.29(2)*"a"*(1)"1" to "3," the application will be rendered void and the practitioner will forfeit the processing fee.

(5) The executive director has the authority to approve or deny the request for removal. Any denial is subject to the appeal process set forth in rule 282—11.35(272).

b. Reinstatement of a removed endorsement.

(1) If the practitioner wants to add the removed endorsement at a future date, all coursework for the endorsement must be completed within the five years preceding the application to add the endorsement.

(2) The practitioner must meet the current endorsement requirements when making application.

[**ARC 8248B**, IAB 11/4/09, effective 10/12/09]

282—13.30(272) Licenses—issue dates, corrections, duplicates, and fraud.

13.30(1) *Issue date on original license.* A license is valid only from and after the date of issuance.

13.30(2) *Correcting licenses.* If a licensee notifies board staff of a typographical or clerical error on the license within 30 days of the date of the board's mailing of a license, a corrected license shall be issued without charge to the licensee. If notification of a typographical or clerical error is made more than 30 days after the date of the board's mailing of a license, a corrected license shall be issued upon receipt of the fee for issuance of a duplicate license. For purposes of this rule, typographical or clerical errors include misspellings, errors in the expiration date of a license, errors in the type of license issued, and the omission or misidentification of the endorsements for which application was made. A licensee requesting the addition of an endorsement not included on the initial application must submit a new application and the appropriate application fee.

13.30(3) *Duplicate licenses.* Upon application and payment of the fee set out in 282—Chapter 12, a duplicate license shall be issued.

13.30(4) *Fraud in procurement or renewal of licenses.* Fraud in procurement or renewal of a license or falsifying records for licensure purposes will constitute grounds for filing a complaint with the board of educational examiners.

These rules are intended to implement Iowa Code chapter 272.

Filed 12/23/08, Notice 10/8/08—published 1/14/09, effective 2/18/09]
[Filed 12/24/08, Notice 10/22/08—published 1/14/09, effective 2/18/09]
[Filed ARC 7869B (Notice ARC 7600B, IAB 2/25/09), IAB 6/17/09, effective 7/22/09]
[Filed ARC 7987B (Notice ARC 7751B, IAB 5/6/09), IAB 7/29/09, effective 9/2/09]
[Filed ARC 7986B (Notice ARC 7744B, IAB 5/6/09), IAB 7/29/09, effective 9/2/09]
[Filed ARC 8133B (Notice ARC 7778B, IAB 5/20/09), IAB 9/9/09, effective 10/14/09]
[Filed ARC 8134B (Notice ARC 7860B, IAB 6/17/09), IAB 9/9/09, effective 10/14/09]
[Filed ARC 8138B (Notice ARC 7871B, IAB 6/17/09), IAB 9/9/09, effective 10/14/09]
[Filed ARC 8139B (Notice ARC 7872B, IAB 6/17/09), IAB 9/9/09, effective 10/14/09]
[Filed Emergency ARC 8248B, IAB 11/4/09, effective 10/12/09]
[Filed ARC 8400B (Notice ARC 8125B, IAB 9/9/09), IAB 12/16/09, effective 1/20/10]
[Filed ARC 8401B (Notice ARC 8121B, IAB 9/9/09), IAB 12/16/09, effective 1/20/10]
[Filed ARC 8402B (Notice ARC 8126B, IAB 9/9/09), IAB 12/16/09, effective 1/20/10]
[Filed ARC 8403B (Notice ARC 8129B, IAB 9/9/09), IAB 12/16/09, effective 1/20/10]

CHAPTER 77
STANDARDS FOR TEACHER INTERN PREPARATION PROGRAMS

281—77.1(256) General statement. Programs of teacher intern preparation leading to licensure in Iowa are subject to approval by the state board of education, as provided in Iowa Code chapter 256.

281—77.2(256) Definitions. For purposes of clarity, the following definitions are used throughout the chapter:

"AEA" means area education agency.

"BOEE" means the board of educational examiners, the board responsible for establishing licensure requirements and issuing licenses.

"Cooperating teachers" means classroom teachers who provide guidance and supervision to teacher candidates during the candidates' field experiences in the schools.

"Department" means the department of education.

"Director" means the director of education.

"Institution" means a four-year college or university in Iowa offering teacher intern preparation and seeking state board approval of its teacher intern preparation program.

"INTASC" means the Interstate New Teacher Assessment and Support Consortium, the source of national standards for beginning teachers.

"Intern" means an individual who is enrolled in a teacher intern preparation program leading to teacher intern licensure.

"Mentor" means an individual, employed by a school district or area education agency as a classroom teacher, or a retired teacher, who holds a valid license issued under Iowa Code chapter 272. The individual must have a record of four years of successful teaching practice with at least two of the four years on a nonprobationary basis and must demonstrate professional commitment to both the improvement of teaching and learning and the development of beginning teachers or teacher interns.

"Practitioner" means a teacher, administrator, or other school personnel holding a license issued by the board of educational examiners.

"Program" means the program for teacher intern preparation at colleges and universities leading to licensure of teacher interns.

"State board" means the state board of education.

"Teacher intern candidate" means an individual who is enrolled in a teacher intern preparation program leading to teacher intern licensure.

"Teacher intern preparation program" means the program for teacher intern preparation at colleges and universities leading to licensure of teacher interns.

"Unit" means the organizational entity within an institution with the responsibility of administering the teacher intern preparation program.

281—77.3(256) Institutions affected. All Iowa colleges and universities engaged in the preparation of teacher interns and seeking state board approval of their programs shall meet the standards contained in this chapter.

281—77.4(256) Criteria for Iowa teacher intern preparation programs. Each institution seeking approval of its program of teacher intern preparation shall file evidence of the extent to which it meets the standards contained in this chapter by means of a written self-evaluation report and an evaluation conducted by the department. For institutions not already offering practitioner preparation programs approved by the state board, the evaluation process shall include a site visit by representatives of the department and additional documentation as needed. After the state board has approved the teacher intern preparation program filed by an institution, teacher intern candidates who complete the program and are recommended by the authorized official of that institution will be issued the appropriate license and endorsement(s).

281—77.5(256) Approval of programs. For initial approval, institutions shall submit written documentation of the teacher intern preparation program's compliance with program approval rules 77.10(256) through 77.16(256). For institutions that do not already have practitioner preparation programs approved by the state board, the evaluation process shall include a site visit by representatives of the department and additional documentation as needed. Approval by the state board of the institutions' teacher intern preparation programs shall be based on the recommendation of the director after study of the factual and evaluative evidence on record about each program in terms of the standards contained in this chapter. Approval, if granted, shall cover the period of time between initial approval and the institution's next regularly scheduled state review under rules 281 IAC 79.5(256) and 281 IAC 79.6(256). After the initial approval period, approval of the teacher intern preparation program will be included as part of the institution's reapplication for approval of its entire practitioner preparation program. Approval, if granted to institutions offering only teacher intern preparation programs, shall be for a term of five years; however, approval for a lesser tern may be granted by the state board if it determines conditions so warrant.

If approval is not granted, the applying institution will be advised concerning the areas in which improvement or changes appear to be essential for approval. In this case, the institution shall be given the opportunity to present factual information concerning its programs at the next regularly scheduled meeting of the state board. The institution may also reapply at its discretion when it is ready to show what actions have been taken to address the areas suggested for improvement.

281—77.6(256) Periodic reports. Institutions with approved teacher intern preparation programs shall make periodic reports upon request of the department. The reports shall provide basic information necessary to keep up-to-date records of each teacher intern preparation program and to carry out research studies relating to teacher intern preparation.

281—77.7(256) Approval of program changes. Upon application for approval of program changes by an institution, the director is authorized to approve minor additions to, or changes within, the curricula of an institution's approved teacher intern preparation program. When an institution proposes a revision that exceeds the primary scope of its programs, the revision shall become operative only after having been approved by the state board.

281—77.8(256) Governance and resources. As a component of the program, the institution shall work collaboratively with the local school district(s) or AEA.

77.8(1) The institution's responsibilities shall include but not be limited to:

a. Organizing and implementing the screening of prospective teacher interns;

b. Submitting a recommendation by the authorized official of the institution to the BOEE for a teacher intern license. The recommendation from the institution must be submitted to the BOEE upon the teacher intern candidate's completion of the coursework and competencies, as outlined in the program content in subrule 77.12(1), and prior to the beginning of the teacher internship year;

c. Supervising the teacher intern during the internship year;

d. Verifying that the teacher intern has successfully completed all required coursework and demonstrated all required competencies in the approved teacher intern program;

e. Submitting a recommendation to the BOEE that the teacher intern candidate is eligible to move from the teacher intern license to the initial license;

f. Preparing data in response to the department's request for information regarding, but not limited to, the selection of teacher interns and the institution's teacher intern preparation program, institutional support, local school district or AEA mentors, and local school district or AEA support.

77.8(2) The local school district's or AEA's responsibilities shall include, but not be limited to:

a. Offering employment to an individual who has been evaluated by a college or university and is eligible for or accepted in the approved teacher intern preparation program;

b. Participating in a mentoring and induction program;

c. Providing a district mentor for the teacher intern;

d. Ensuring that an assignment does not unnecessarily overload the teacher intern with extracurricular duties not related to the teaching assignment;

e. Providing other support and supervision, as needed, to the teacher intern to maximize the opportunity for the teacher intern to succeed;

f. Preparing data in response to the department's request for information regarding, but not limited to, the selection of teacher interns and the district's or AEA's teacher intern preparation program, institutional support, the local school district or AEA mentors, and local school district or AEA support.

Mentors serve the role of coaching, guiding, and providing feedback to the intern. This relationship is not a supervisory situation and evaluation is not part of this model.

77.8(3) A teacher intern committee, with membership including, but not limited to, a program director from the institution, teacher education faculty, and 7-12 school district personnel, shall design the teacher intern preparation program.

The teacher intern committee shall develop program goals, the program of study including field experiences, a system of support for teacher interns including mentoring and supervision by program faculty, an assessment plan for documenting teacher intern candidates' progress during preparation, and other items deemed appropriate to the program design.

Upon implementation of the teacher intern preparation program, a teacher intern committee shall monitor progress of the program toward goals, examine formative and summative data about candidates and the program, and recommend ways to address issues arising during implementation or subsequent to analysis of evaluative data.

77.8(4) Resources shall support quality clinical practice for all teacher intern candidates, professional development for faculty, and technological and instructional needs of faculty to prepare teacher intern candidates with the dispositions, knowledge, and skills necessary to support student learning.

77.8(5) Teacher intern candidates' and faculty's access to books, journals, and electronic information shall support teaching and scholarship.

77.8(6) Sufficient numbers of faculty and administrative, clerical, and technical staff shall be available to ensure the consistent planning, delivery, and quality of the teacher intern program.

77.8(7) The use of part-time faculty and graduate students in teaching roles shall be managed to ensure integrity, quality, and continuity of the teacher intern preparation program.

77.8(8) Institutional commitment shall include financial resources, facilities and equipment to ensure the fulfillment of the institution's and unit's missions, delivery of a quality program, and preparation of teacher intern candidates.

281—77.9(256) Diversity.

77.9(1) Recruitment, admissions, hiring, and retention policies and practices shall support a diverse faculty and teacher intern candidate population in the program.

77.9(2) Efforts toward racial, ethnic, and gender diversity among teacher intern candidates and program faculty shall be documented. In addition, diversity efforts shall include persons with disabilities, persons from different language and socioeconomic backgrounds, and persons from different regions of the country and world.

77.9(3) Unit efforts in increasing or maintaining diversity shall be reflected in plans, monitoring of plans and efforts, and results.

77.9(4) The institution, the program and members of the partnership shall maintain a climate that supports diversity in general as well as supporting teacher intern candidates and faculty from underrepresented groups in the program.

281—77.10(256) Faculty.

77.10(1) Faculty members from the institution and others in the partnership shall have preparation and have had experiences in situations similar to those for which the teacher interns are being prepared.

77.10(2) The collective competence and background of the entire teacher intern preparation program faculty shall reflect a balance of theory, experience, and knowledge appropriate to the teacher intern preparation program being offered.

77.10(3) The program shall administer a systematic and comprehensive evaluation system and professional development activities to enhance the teaching competence and intellectual vitality of the teacher intern preparation program faculty.

77.10(4) Policies and assignments shall allow faculty to be involved effectively in teaching, scholarship, and supervision of teacher intern candidates.

77.10(5) Teacher intern faculty members shall maintain an ongoing, meaningful involvement in activities in schools where teacher interns are employed. Activities of full-time permanent teacher intern faculty members from the institution preparing teacher interns shall include at least 40 hours of team teaching during a period not to exceed five years in duration at the middle or secondary school level. This five-year period shall align with the institution's scheduled cycle of state review.

281—77.11(256) Teacher intern selection.

77.11(1) Representatives from the teacher intern committee shall be actively involved in the identification of criteria for selecting teacher intern candidates. Representatives from the teacher intern committee shall be actively involved in the screening, interviewing and selection of teacher intern candidates.

77.11(2) Rigorous screening shall be used to select teacher intern candidates. The screening shall include, but not be limited to:

a. Verification of the prospective candidate's completion of a baccalaureate degree from a regionally accredited institution. If any candidate's undergraduate grade point average is less than 2.5 on a 4.0 scale, the program admission criteria shall specify the additional criteria that an applicant must satisfy for provisional admittance to the teacher intern preparation program;

b. Evaluation of the prospective candidate's transcripts to determine if the prospective candidate meets the state minimum requirements for at least one of the board of educational examiners' secondary (7-12) endorsement areas listed in 282 IAC 14.141(272);

c. Evaluation of the prospective candidate's minimum of three years of postbaccalaureate work experience;

d. An in-person interview of the prospective candidate designed to generate information related to the attributes identified as essential for candidates by the partnership;

e. Examination of references submitted by the prospective teacher intern;

f. Evaluation of an impromptu writing sample submitted by the prospective teacher intern; and

g. Verification that the prospective candidate has successfully passed a basic skills test at the level approved by the teacher education institution.

281—77.12(256) Curriculum and instruction.

77.12(1) *Content.* Teacher intern candidates shall develop the dispositions, knowledge, and performance expectations of the INTASC standards embedded in the professional education core for an Iowa teaching license at a level appropriate for a novice teacher. The teacher intern preparation program content shall include:

a. Coursework and competencies equivalent to a minimum of 12 semester hours specified by the board of educational examiners to be completed prior to the beginning of the candidate's initial employment as a teacher intern. The coursework and competencies shall include, but not be limited to:

(1) Learning environment/classroom management. The intern shall demonstrate an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.

(2) Instructional planning. The intern shall plan instruction based upon knowledge of subject matter, students, the community, curriculum goals, and state curriculum models.

(3) Instructional strategies. The intern shall demonstrate an understanding of and shall use a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills.

(4) Student learning. The intern shall demonstrate an understanding of how students learn and develop and provide learning opportunities that support intellectual, career, social, and personal development.

(5) Diverse learners. The intern shall demonstrate an understanding of how students differ in their approaches to learning and create instructional opportunities that are equitable and are adaptable to diverse learners.

(6) Collaboration, ethics and relationships. The intern shall foster relationships with parents, school colleagues, and organizations in the larger community to support students' learning and development.

(7) Assessment. The intern shall demonstrate an understanding of and shall use formal and informal assessment strategies to evaluate the continuous intellectual, social, and physical development of the learner.

(8) Field experiences that provide opportunities for interaction with students in an environment that supports learning in context. These experiences shall total at least 50 contact hours in the field prior to the beginning of the academic year of the candidate's initial employment as a teacher intern.

b. A minimum of 4 semester hours of a teacher intern seminar during the teacher internship year to include support and extension of coursework from the teacher intern introductory content.

c. Coursework and competencies equivalent to a minimum of 12 semester hours specified by the BOEE to be completed prior to the recommendation for an initial teaching license. The coursework and competencies shall include but not be limited to:

(1) Foundations, reflection, and professional development. The intern shall continually evaluate the effects of practitioners' choices and actions on students, parents, and other professionals in the learning community and actively seek out opportunities to grow professionally.

(2) Communication. The intern shall use knowledge of effective verbal, nonverbal, and media communication techniques, and other forms of symbolic representation, to foster active inquiry and collaboration and to support interaction in the classroom.

(3) Exceptional learner. The intern shall use knowledge of exceptional learners that contributes to the education of individuals with disabilities and the gifted and talented.

(4) Reading strategies. The intern shall integrate reading strategies into the teaching of the content area.

(5) Computer technology. The intern shall use knowledge of technology, including computers, to enhance instruction.

(6) An advanced study of the items set forth in 77.12(1)*"a"*(1) to (7).

77.12(2) *Instructional practices.* The program faculty shall:

a. Apply adult learning theory and its impact on professional development;

b. Utilize innovative instructional practice supported by research;

c. Reintegrate active engagement of teacher intern candidates and facilitate teacher intern reflection; and

d. Connect professional education studies prior to, during, and following the internship year with teacher intern candidates' field experiences.

281—77.13(256) Candidate support.

77.13(1) The program shall provide an orientation for teacher intern candidates prior to the internship year including but not limited to the program goals and expectations, licensure requirements, support to be provided by the supervisor from the institution and the teacher mentor at the site of the internship, and cohort-building.

77.13(2) Teacher intern faculty shall provide teacher intern candidates with academic advising, monitoring of their performance throughout the program, and consultation opportunities.

77.13(3) Teacher intern faculty shall provide regular supervision in teacher intern candidates' classrooms with additional supervision and assistance as needed.

77.13(4) The program shall coordinate support between the teacher intern candidate's local district mentor and program supervisor. In some cases, the institution may wish to hire its own on-site cooperating teacher to serve as a second mentor who could also provide evaluative feedback to the institution.

77.13(5) The program shall offer the teacher intern candidate access to support services offered by the institution.

281—77.14(256) Candidate assessment.

77.14(1) Performance of teacher intern candidates shall be measured against national professional standards, state licensure standards, and the program's learning outcomes.

77.14(2) The program shall utilize a coherent, sequential assessment system for individual teacher intern candidates. The assessment system shall clearly document candidates' attainment of the unit's and the board of educational examiners' licensure standards by providing evidence via multiple measures of content knowledge, professional and pedagogical knowledge, and effect on student learning and achievement. Whenever possible, this assessment system shall document teacher intern candidates' performance of content specified in 77.12(1)*"a"*(1) to (7) and 77.12(1)*"c"*(1) to (5) in the teacher intern candidates' classrooms and shall document candidates' performance toward meeting the Iowa teaching standards.

77.14(3) The institution shall document teacher intern candidates' completion of licensure requirements, and the authorized official of the institution shall recommend eligible candidates for licensure.

281—77.15(256) Program evaluation. The institution shall:

77.15(1) Demonstrate how the information gathered via the individual teacher intern candidate assessment system is utilized to refine and revise the program's goals, content, delivery strategies, and candidate support.

77.15(2) Document the quality of programs through the collective presentation of assessment data related to performance of teacher intern candidates and demonstrate how the data are used for continuous program improvement.

a. This documentation shall include evidence of evaluative data collected by the teacher intern preparation program through studies of teacher intern candidates while they are in the program and data collected from the district(s) or AEA employing the candidates. This evidence shall include, but is not limited to, candidates' content and pedagogical knowledge and performance, level of support for candidates provided by the institution and the local district or AEA, and perceived quality of preparation throughout the program.

b. This documentation shall include evidence of evaluative data collected by the teacher intern preparation program through follow-up studies of teacher intern preparation program graduates and their employers.

77.15(3) Submit an annual report to the department including, but not limited to, a composite of evaluative data collected by the program.

These rules are intended to implement Iowa Code sections 256.7 and 256.16.

[Filed 5/9/02, Notice 4/3/02—published 5/29/02, effective 7/3/02]
[Filed 11/21/02, Notice 10/2/02—published 12/11/02, effective 1/15/03]
[Filed 11/16/05, Notice 8/31/05—published 12/7/05, effective 1/11/06]

EDUCATIONAL EXAMINERS BOARD[282]

Notice of Intended Action

Twenty-five interested persons, a governmental subdivision, an agency or association of 25 or more persons may demand an oral presentation hereon as provided in Iowa Code section 17A.4(1)*"b."*

Notice is also given to the public that the Administrative Rules Review Committee may, on its own motion or on written request by any individual or group, review this proposed action under section 17A.8(6) at a regular or special meeting where the public or interested persons may be heard.

Pursuant to the authority of Iowa Code section 272.2, the Board of Educational Examiners hereby gives Notice of Intended Action to amend Chapter 13, "Issuance of Teacher Licenses and Endorsements," Iowa Administrative Code.

The proposed amendment to the rules for the portfolio review and evaluation process ensures that applicants who are completing nontraditional teacher preparation programs meet the same basic requirements as other applicants for Iowa licensure.

A waiver provision is not included. The Board has adopted a uniform waiver rule.

Any interested party or persons may present their views either orally or in writing at the public hearing that will be held Wednesday, November 25, 2009, at 1 p.m. in Room 3 Southwest, Third Floor, Grimes State Office Building, East 14th Street and Grand Avenue, Des Moines, Iowa.

At the hearing, persons will be asked to give their names and addresses for the record and to confine their remarks to the subject of the proposed amendment. Persons who wish to make oral presentations at the public hearing may contact the Executive Director, Board of Educational Examiners, Grimes State Office Building, East 14th Street and Grand Avenue, Des Moines, Iowa 50319-0147, or at (515)281-5849, prior to the date of the public hearing.

Any person who intends to attend the public hearing and requires special accommodations for specific needs, such as a sign language interpreter, should contact the office of the Executive Director at (515)281-5849.

Any interested person may make written comments or suggestions on the proposed amendment before 4 p.m. on Monday, November 30, 2009. Written comments and suggestions should be addressed to Kim Cunningham, Board Secretary, Board of Educational Examiners, at the above address, or sent by E-mail to kim.cunningham@iowa.gov, or by fax to (515)281-7669.

This amendment is intended to implement Iowa Code chapter 272.

The following amendment is proposed.

Amend rule 282—13.3(272) as follows:

13.3(3)*h.* If through a transcript analysis the professional education core requirements set forth in 13.9(4)*"a"*(1) to (7), 13.9(4)*"c"*(1) to (5), and 13.18(2) and the content endorsement requirements may be identified by course titles, published course descriptions, and grades, then the transcripts will be reviewed to determine the applicant's eligibility for an Iowa teaching license. However, if the professional education core requirements of 13.9(4)*"a"*(1) to (7), 13.9(4)*"c"*(1) to (5), and 13.18(2) and the content endorsement requirements cannot be reviewed in this manner, a portfolio review and evaluation process will be utilized.

13.3(4) *Portfolio review and evaluation process.* An applicant whose professional education core requirements pursuant to 13.9(4)*"a"*(1) to (7), 13.9(4)*"c"*(1) to (5), and 13.18(2) or whose content endorsement requirements for special education could not be reviewed through transcript analysis may submit to the board a portfolio in the approved format for review and evaluation.

a. An applicant must demonstrate proficiency in seven of the nine standards in the Iowa professional education core, set forth in 13.18(4)*"a"* to *"i,"* to be eligible to receive a license.

b. An applicant must have completed at least 50 percent of the endorsement requirements through a two- or four-year institution in order for the endorsement to be included on the license. An applicant who does not have at least 50 percent of one content endorsement area completed will not be issued a license.

c. An applicant must meet with the board of educational examiners to answer any of the board's questions concerning the portfolio.

d. Any deficiencies in the professional education core as set forth in 13.18(4)*"a"* to *"i"* or in the special education content endorsement area that are identified during the portfolio review and evaluation process shall be met through coursework with course credits completed at a state-approved, regionally accredited institution or through courses approved by the executive director. Other content deficiencies may be met through coursework in a two- or four-year institution in which course credits are given.

~~**13.3(2)**~~ **13.3(5)** *Definitions.* ~~A recognized non-Iowa teacher preparation institution is one~~

"Recognized non-Iowa teacher preparation institution" means an institution that is state-approved and is accredited by the regional accrediting agency for the territory in which the institution is located.

"Nontraditional" means any method of teacher preparation that falls outside the traditional method of preparing teachers, that provides at least a one- or two-year sequenced program of instruction taught at regionally accredited and state-approved colleges or universities, that includes commonly recognized pedagogy classes being taught for course credit, and that requires a student teaching component.

"Proficiency," for the purposes of 13.3(4)*"a,"* means that an applicant has passed all parts of the standard.

Shortage Areas, 2008-2010

2008-2009 & 2009-2010

Iowa Teacher Shortage Areas

Special Education:	**General Education:**
Instructional Strategist I (Formerly K-6 & 7-12 Multi-categorical Resource and K-6 & 7-12 Special Class with Integration)	**5-12 Science (all)**
Instructional Strategist II LD-BD (Formerly K-6 & 7-12 Learning Disabilities and K-6 & 7-12 Behavior Disorders)	**5-12 Mathematics**
Instructional Strategist II MD (Formerly K-6 & 7-12 Mental Disabilities and K-12 Moderate/Severe/Profoundly Handicapped)	**K-12 English as a Second Language**
Pk-K Early Childhood Special Education	**5-12 Foreign Language (all)**
Instructional Strategist II PD (Formerly K-6 Physically Handicapped)	**K-8 & 5-12 Music**
Birth to 21 Itinerant Hearing Impaired	**5-12 Industrial Technology**
Birth to 21 Itinerant Visually Impaired	**5-12 Agriculture**
5-12 Family & Consumer Science	
K-8 & 5-12 School Media Specialist	
K-12 Talented & Gifted	
K-8 & 5-12 Counselor	

CHAPTER 19
EVALUATOR ENDORSEMENT AND LICENSE
[Prior to 1/14/09, see Educational Examiners Board[282] Ch 20]

These rules are to accompany rule 281—83.5(284), Evaluator Approval Training, adopted by the department of education.

282—19.1(272) Evaluator endorsement and license. This endorsement or this license authorizes services as required by Iowa Code section 284.10.

282—19.2(272) Initial evaluator endorsement. To obtain this authorization as an endorsement on an administrator, evaluator, or teaching license, an applicant must complete the requirements as specified in 281—83.5(284).

282—19.3(272) Evaluator endorsement. The requirements for the evaluator endorsement shall be included in each program leading to administrator licensure and administrator endorsements in Iowa colleges and universities approved to offer these programs.

282—19.4(272) Applicants for administrator licensure. Each applicant for an initial administrator license shall have completed the evaluator endorsement requirements.

282—19.5(272) Evaluator license. Applicants may apply for the five-year evaluator license upon completion of the evaluator training required in Iowa Code section 284.10.

282—19.6(272) Out-of-state applicants. An out-of-state applicant who seeks an administrator license after July 1, 2003, will be granted a Class A license valid for one year in order to complete the evaluator endorsement requirements. If the person does not hold an administrator license in the state where the person completed the administrative program, then a Class A license will be granted. The Class A license is valid for one year and is nonrenewable. The requirements for the evaluator endorsement must be met before the issuance of the administrator license.

282—19.7(272) Renewal of administrator licenses.

19.7(1) Each applicant for renewal of an administrator license shall have completed the evaluator endorsement requirements. A waiver of this requirement may apply if a person submits appropriate documentation of either of the following:

a. A person is engaged in active duty in the military service of this state or of the United States.

b. A person is practicing a licensed profession outside this state.

19.7(2) Extension of an administrator license:

a. Will be granted to an applicant who has not completed the new evaluator renewal training course before the expiration date on the applicant's license; and

b. Will be granted for a one-year period; and

c. Will not be issued, pursuant to this subrule, on or after July 1, 2008.

282—19.8(272) Renewal of evaluator endorsement or license. Coursework for renewal of the evaluator license or the license with the evaluator endorsement must complement the initial requirements. This coursework, approved by the Iowa department of education, must be completed for at least one semester hour of college or university credit or for at least one renewal unit from an approved Iowa staff development program.

19.8(1) *Child and dependent adult abuse training.* All applicants renewing an evaluator license must submit documentation of completion of the child and dependent adult abuse training approved by the state abuse education review panel. A waiver of this requirement may apply if a person submits appropriate documentation of any of the following:

a. A person is engaged in active duty in the military service of this state or of the United States.

b. The application of this requirement would impose an undue hardship on the person for whom the waiver is requested.

c. A person is practicing a licensed profession outside this state.

d. A person is otherwise subject to circumstances that would preclude the person from satisfying the approved child and dependent adult abuse training in this state.

19.8(2) *Conversion.* An individual holding the evaluator license may convert this license to an endorsement at the time of renewal. The fee for this conversion process will equal the fee for license renewal. The endorsement will be placed on the administrator or teaching license.

282—19.9(272) Holder of permanent professional certificate. The holder of the permanent professional certificate with an administrator endorsement must hold a valid evaluator license if the person serves as an administrator who evaluates licensed personnel. The holder of the permanent professional certificate with an administrator endorsement cannot use the option in subrule 19.8(2).

282—19.10(272) Licenses—issue dates, corrections, duplicates, and fraud.

19.10(1) *Issue date on original license.* A license is valid only from and after the date of issuance.

19.10(2) *Correcting licenses.* If a licensee notifies board staff of a typographical or clerical error on the license within 30 days of the date of the board's mailing of a license, a corrected license shall be issued without charge to the licensee. If notification of a typographical or clerical error is made more than 30 days after the date of the board's mailing of a license, a corrected license shall be issued upon receipt of the fee for issuance of a duplicate license. For purposes of this rule, typographical or clerical errors include misspellings, errors in the expiration date of a license, errors in the type of license issued, and the omission or misidentification of the endorsements for which application was made. A licensee requesting the addition of an endorsement not included on the initial application must submit a new application and the appropriate application fee.

19.10(3) *Duplicate licenses.* Upon application and payment of the fee set out in 282—Chapter 12, a duplicate license shall be issued.

19.10(4) *Fraud in procurement or renewal of licenses.* Fraud in procurement or renewal of a license or falsifying records for licensure purposes will constitute grounds for filing a complaint with the board of educational examiners.

These rules are intended to implement Iowa Code chapter 272.

[Filed 12/24/08, Notice 10/22/08—published 1/14/09, effective 2/18/09]

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 6 SCHOOL DISTRICTS/CHAPTER 284 TEACHER PERFORMANCE, COMPENSATION, AND CAREER DEVELOPMENT

CHAPTER 284
TEACHER PERFORMANCE, COMPENSATION, AND CAREER DEVELOPMENT

Legislative intent; 2001 Acts, ch 161, §1

284.1 Student achievement and teacher quality program.
284.2 Definitions.
284.3 Iowa teaching standards.
284.3A Teacher compensation - single salary system.
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284.5 Beginning teacher mentoring and induction program.
284.6 Teacher professional development.
284.7 Iowa teacher career path.
284.8 Performance review requirements for teachers.
284.9 Review panel.
284.10 Evaluator training program.
284.11 Market factor teacher incentives. Repealed by 2008 Acts, ch 1181, §86.
284.12 Reports - rules.
284.13 State program allocation.
284.14 Pay-for-performance program.
284.14A Career ladder pilots.

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 6 SCHOOL DISTRICTS/CHAPTER 284 TEACHER PERFORMANCE, COMPENSATION, AND CAREER DEVELOPMENT/284.1 Student achievement and teacher quality program.

284.1 Student achievement and teacher quality program.

A student achievement and teacher quality program is established to promote high student achievement. The program shall consist of the following five major elements:

1. Mentoring and induction programs that provide support for beginning teachers in accordance with section 284.5.
2. Career paths with compensation levels that strengthen Iowa's ability to recruit and retain teachers.
3. Professional development designed to directly support best teaching practices.
4. Evaluation of teachers against the Iowa teaching standards.

2001 Acts, ch 161, §2; 2006 Acts, ch 1182, §5, 6; 2007 Acts, ch 108, §12

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII

EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 6 SCHOOL DISTRICTS/CHAPTER 284 TEACHER PERFORMANCE, COMPENSATION, AND CAREER DEVELOPMENT/284.2 Definitions.

284.2 Definitions.

As used in this chapter, unless the context otherwise requires:

1. *"Beginning teacher"* means an individual serving under an initial or intern license, issued by the board of educational examiners under chapter 272, who is assuming a position as a teacher. For purposes of the beginning teacher mentoring and induction program created pursuant to section 284.5, *"beginning teacher"* also includes preschool teachers who are licensed by the board of educational examiners under chapter 272 and are employed by a school district or area education agency. *"Beginning teacher"* does not include a teacher whose employment with a school district or area education agency is probationary unless the teacher is serving under an initial or teacher intern license issued by the board of educational examiners under chapter 272.

2. *"Comprehensive evaluation"* means a summative evaluation of a beginning teacher conducted by an evaluator for purposes of determining a beginning teacher's level of competency, for recommendation for licensure based upon the Iowa teaching standards, and to determine whether the teacher's practice meets the school district expectations for a career teacher.

3. *"Department"* means the department of education.

4. *"Director"* means the director of the department of education.

5. *"Evaluator"* means an administrator or other practitioner who successfully completes an evaluator training program pursuant to section 284.10.

6. *"Intensive assistance"* means the provision of organizational support and technical assistance to teachers, other than beginning teachers, for the remediation of identified teaching and classroom management concerns for a period not to exceed twelve months.

7. *"Mentor"* means an individual employed by a school district or area education agency as a teacher or a retired teacher who holds a valid license issued under chapter 272. The individual must have a record of four years of successful teaching practice, must be employed on a nonprobationary basis, and must demonstrate professional commitment to both the improvement of teaching and learning and the development of beginning teachers.

8. *"Performance review"* means a summative evaluation of a teacher other than a beginning teacher and used to determine whether the teacher's practice meets school district expectations and the Iowa teaching standards, and to determine whether the teacher's practice meets school district expectations for career advancement in accordance with section 284.7.

9. *"School board"* means the board of directors of a school district, a collaboration of boards of directors of school districts, or the board of directors of an area education agency, as the context requires.

10. *"State board"* means the state board of education.

11. *"Teacher"* means an individual who holds a practitioner's license issued under chapter 272, or a statement of professional recognition issued under chapter 272 who is employed in a nonadministrative position by a school district or area education agency pursuant to a contract issued by a board of directors under section 279.13. A teacher may be employed in both an administrative and a nonadministrative position by a board of directors and shall be considered a part-time teacher for the portion of time that the teacher is employed in a nonadministrative position.

2001 Acts, ch 161, §3; 2002 Acts, ch 1152, §7, 8; 2003 Acts, ch 180, §37; 2006 Acts, ch 1182, §7 - 10; 2007 Acts, ch 108, §13, 14; 2008 Acts, ch 1181, §76; 2009 Acts, ch 177, §34

Subsection 1 amended

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Source:

Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 6 SCHOOL DISTRICTS/CHAPTER 284 TEACHER

PERFORMANCE, COMPENSATION, AND CAREER DEVELOPMENT/284.3 Iowa teaching standards.

284.3 Iowa teaching standards.

1. For purposes of this chapter and for developing teacher evaluation criteria under chapter 279, the Iowa teaching standards are as follows:

a. Demonstrates ability to enhance academic performance and support for and implementation of the school district's student achievement goals.

b. Demonstrates competence in content knowledge appropriate to the teaching position.

c. Demonstrates competence in planning and preparing for instruction.

d. Uses strategies to deliver instruction that meets the multiple learning needs of students.

e. Uses a variety of methods to monitor student learning.

f. Demonstrates competence in classroom management.

g. Engages in professional growth.

h. Fulfills professional responsibilities established by the school district.

2. A school board shall provide for the following:

a. For purposes of comprehensive evaluations for beginning teachers required to allow beginning teachers to progress to career teachers, standards and criteria that are the Iowa teaching standards specified in subsection 1 and the criteria for the Iowa teaching standards developed by the department in accordance with section 256.9, subsection 45. These standards and criteria shall be set forth in an instrument provided by the department. The comprehensive evaluation and instrument are not subject to negotiations or grievance procedures pursuant to chapter 20 or determinations made by the board of directors under section 279.14. A local school board and its certified bargaining representative may negotiate, pursuant to chapter 20, evaluation and grievance procedures for beginning teachers that are not in conflict with this chapter. If, in accordance with section 279.19, a beginning teacher appeals the determination of a school board to an adjudicator under section 279.17, the adjudicator selected shall have successfully completed training related to the Iowa teacher standards, the criteria adopted by the state board of education in accordance with subsection 3, and any additional training required under rules adopted by the public employment relations board in cooperation with the state board of education.

b. For purposes of performance reviews for teachers other than beginning teachers, evaluations that contain, at a minimum, the Iowa teaching standards specified in subsection 1, as well as the criteria for the Iowa teaching standards developed by the department in accordance with section 256.9, subsection 45. A local school board and its certified bargaining representative may negotiate, pursuant to chapter 20, additional teaching standards and criteria. A local school board and its certified bargaining representative shall negotiate, pursuant to chapter 20, evaluation and grievance procedures for teachers other than beginning teachers that are not in conflict with this chapter.

3. The state board shall adopt by rule pursuant to chapter 17A the criteria developed by the department in accordance with section 256.9, subsection 45.

2001 Acts, ch 161, §4; 2002 Acts, ch 1152, §9, 10; 2003 Acts, ch 108, §49; 2003 Acts, ch 180, §38, 39; 2007 Acts, ch 108, §15

Section not amended; internal reference changes applied

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 6 SCHOOL DISTRICTS/CHAPTER 284 TEACHER PERFORMANCE, COMPENSATION, AND CAREER DEVELOPMENT/284.3A Teacher compensation - single salary system.

284.3A Teacher compensation - single salary system.

1. *a.* For the school year beginning July 1, 2009, if the licensed employees of a school district or area education agency receiving funds pursuant to sections 257.10 and 257.37A are organized under chapter

20 for collective bargaining purposes, the school board and the certified bargaining representative for the licensed employees shall negotiate the distribution of the funds among the teachers employed by the school district or area education agency according to chapter 20.

b. If the licensed employees of a school district or area education agency are not organized for collective bargaining purposes, the board of directors shall determine the method of distribution of such funds.

c. For the school years beginning July 1, 2008, and July 1, 2009, a school district or area education agency receiving funds pursuant to sections 257.10 and 257.37A, shall determine the amount to be paid to teachers in accordance with this subsection and the amount determined to be paid to an individual teacher shall be divided evenly by the appropriate number of pay periods and paid in each pay period of the fiscal year beginning with the October payroll.

2. *a.* For the school budget year beginning July 1, 2010, and each succeeding school year, school districts and area education agencies shall combine payments made to teachers under sections 257.10 and 257.37A with regular wages and create one salary system. If a school district or area education agency uses a salary schedule, one salary schedule shall be used for regular wages and for distribution of payments under sections 257.10 and 257.37A, incorporating the salary minimums required in section 284.7.

b. If the licensed employees of a school district or area education agency are organized under chapter 20 for collective bargaining purposes, the creation of the new salary system shall be subject to the scope of negotiations specified in section 20.9. A reduction in the teacher salary supplement per pupil amount shall also be subject to the scope of negotiations specified in section 20.9.

c. If the licensed employees of a school district or area education agency are not organized for collective bargaining purposes, the board of directors shall create the new salary system. The board of directors shall determine adjustments in salaries resulting from a reduction in the teacher salary supplement per pupil amount.

3. A school district or area education agency shall not be required to maintain a separate account within its budget based on source of funds for payments received and expenditures made pursuant to this section. The school district or area education agency shall annually certify to the department of education that funding received pursuant to sections 257.10 and 257.37A was expended on salaries for qualified teachers.

2009 Acts, ch 68, §9
NEW section

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 6 SCHOOL DISTRICTS/CHAPTER 284 TEACHER PERFORMANCE, COMPENSATION, AND CAREER DEVELOPMENT/284.4 Participation.

284.4 Participation.

1. A school district or area education agency is eligible to receive moneys appropriated for purposes specified in this chapter if the school board applies to the department to participate in the student achievement and teacher quality program and submits a written statement declaring the school district's or agency's willingness to do all of the following:

a. Commit and expend local moneys to improve student achievement and teacher quality.

b. Implement a beginning teacher mentoring and induction program as provided in this chapter.

c. Create a teacher quality committee. The committee shall have equal representation of administrators and teachers. The teacher members shall be appointed by the certified employee organization if one exists, and if not, by the school district's or agency's administration. The administrator members shall be appointed by the school board. However, if a school district can demonstrate that an existing professional development, curriculum, or student improvement committee

has significant stakeholder involvement and a leadership role in the school district, the appointing authorities may mutually agree to assign to the existing committee the responsibilities set forth in this paragraph *"c"*, to appoint members of the existing committee to the teacher quality committee, or to authorize the existing committee to serve in an advisory capacity to the teacher quality committee. The committee shall do all of the following:

(1) Monitor the implementation of the requirements of statutes and administrative code provisions relating to this chapter, including requirements that affect any agreement negotiated pursuant to chapter 20.

(2) Monitor the evaluation requirements of this chapter to ensure evaluations are conducted in a fair and consistent manner throughout the school district or agency. In addition to any negotiated evaluation procedures, develop model evidence for the Iowa teaching standards and criteria. The model evidence will minimize paperwork and focus on teacher improvement. The model evidence will determine which standards and criteria can be met with observation and which evidence meets multiple standards and criteria.

(3) Determine, following the adoption of the Iowa professional development model by the state board of education, the use and distribution of the professional development funds calculated and paid to the school district or agency as provided in section 257.9, subsection 10, or section 257.10, subsection 10, based upon school district or agency, attendance center, and individual teacher and professional development plans.

(4) Monitor the professional development in each attendance center to ensure that the professional development meets school district or agency, attendance center, and individual professional development plans.

(5) Ensure the agreement negotiated pursuant to chapter 20 determines the compensation for teachers on the committee for work responsibilities required beyond the normal work day.

d. Adopt school district, attendance center, and teacher professional development plans in accordance with this chapter.

e. Adopt a teacher evaluation plan that, at minimum, requires a performance review of teachers in the district at least once every three years based upon the Iowa teaching standards and individual professional development plans, and requires administrators to complete evaluator training in accordance with section 284.10.

f. Adopt teacher career paths based upon demonstrated knowledge and skills in accordance with this chapter.

2. By July 1, 2002, each school district shall participate in the student achievement and teacher quality program if the general assembly appropriates moneys for purposes of the student achievement and teacher quality program established pursuant to this chapter.

2001 Acts, ch 161, §5; 2001 Acts, ch 177, §3, 15; 2002 Acts, ch 1152, §11, 12; 2003 Acts, ch 180, §40; 2005 Acts, ch 169, §29; 2006 Acts, ch 1182, §11; 2007 Acts, ch 108, §16 - 19; 2009 Acts, ch 177, §35

Subsection 1, paragraph c, subparagraph (3) amended

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 6 SCHOOL DISTRICTS/CHAPTER 284 TEACHER PERFORMANCE, COMPENSATION, AND CAREER DEVELOPMENT/284.5 Beginning teacher mentoring and induction program.

284.5 Beginning teacher mentoring and induction program.

1. A beginning teacher mentoring and induction program is created to promote excellence in teaching, enhance student achievement, build a supportive environment within school districts and area education agencies, increase the retention of promising beginning teachers, and promote the personal and professional well-being of teachers.

2. The state board shall adopt rules to administer this section.

3. Each school district and area education agency shall provide a beginning teacher mentoring and induction program for all teachers who are beginning teachers, and notwithstanding section 284.4, subsection 1, a school district and an area education agency shall be eligible to receive moneys under section 284.13, subsection 1, paragraph *"b"*, for purposes of implementing a beginning teacher mentoring and induction program in accordance with this section.

4. Each school district and area education agency shall develop an initial beginning teacher mentoring and induction plan. A school district shall include its plan in the school district's comprehensive school improvement plan submitted pursuant to section 256.7, subsection 21. The beginning teacher mentoring and induction plan shall, at a minimum, provide for a two-year sequence of induction program content and activities to support the Iowa teaching standards and beginning teacher professional and personal needs; mentor training that includes, at a minimum, skills of classroom demonstration and coaching, and district expectations for beginning teacher competence on Iowa teaching standards; placement of mentors and beginning teachers; the process for dissolving mentor and beginning teacher partnerships; district organizational support for release time for mentors and beginning teachers to plan, provide demonstration of classroom practices, observe teaching, and provide feedback; structure for mentor selection and assignment of mentors to beginning teachers; a district facilitator; and program evaluation.

5. A beginning teacher shall be informed by the school district or the area education agency, prior to the beginning teacher's participation in a mentoring and induction program, of the criteria upon which the beginning teacher shall be evaluated and of the evaluation process utilized by the school district or area education agency.

6. Upon completion of the program, the beginning teacher shall be comprehensively evaluated to determine if the teacher meets expectations to move to the career level. The school district or area education agency that employs the beginning teacher shall recommend for a standard license a beginning teacher who is determined through a comprehensive evaluation to demonstrate competence in the Iowa teaching standards. A school district or area education agency may offer a beginning teacher a third year of participation in the program if, after conducting a comprehensive evaluation, the school district determines that the teacher is likely to successfully complete the mentoring and induction program by the end of the third year of eligibility. A teacher granted a third year of eligibility shall develop a teacher's mentoring and induction program plan in accordance with this chapter and shall undergo a comprehensive evaluation at the end of the third year. The board of educational examiners shall grant a one-year extension of the beginning teacher's initial license upon notification by the school district that the teacher will participate in a third year of the school district's program.

7. If a beginning teacher who is participating in a mentoring and induction program leaves the employ of a school district or area education agency prior to completion of the program, the school district or area education agency subsequently hiring the beginning teacher shall credit the beginning teacher with the time earned in the program prior to the subsequent hiring.

8. If the general assembly appropriates moneys for purposes of this section, a school district or area education agency is eligible to receive state assistance for up to two years under this section for each teacher the school district or area education agency employs who was formerly employed in an accredited nonpublic school or in another state as a first-year teacher. The school district or area education agency employing the teacher shall determine the conditions and requirements of a teacher participating in a program in accordance with this subsection. The school district or area education agency that employs the teacher shall recommend the teacher for an educational license if the teacher, through a comprehensive evaluation, is determined to demonstrate competence in the Iowa teaching standards.

2001 Acts, ch 161, §6; 2001 Acts, ch 177, §4, 15; 2002 Acts, ch 1152, §13; 2003 Acts, ch 180, §41; 2003 Acts, ch 182, §15; 2006 Acts, ch 1182, §12

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 6 SCHOOL DISTRICTS/CHAPTER 284 TEACHER PERFORMANCE, COMPENSATION, AND CAREER DEVELOPMENT/284.6 Teacher professional development.

284.6 Teacher professional development.

1. The department shall coordinate a statewide network of professional development for Iowa teachers. A school district or professional development provider that offers a professional development program in accordance with section 256.9, subsection 45, shall demonstrate that the program contains the following:

a. Support that meets the professional development needs of individual teachers and is aligned with the Iowa teaching standards.

b. Research-based instructional strategies aligned with the school district's student achievement needs and the long-range improvement goals established by the district.

c. Instructional improvement components including student achievement data, analysis, theory, classroom demonstration and practice, technology integration, observation, reflection, and peer coaching.

d. An evaluation component that documents the improvement in instructional practice and the effect on student learning.

2. The department shall identify models of professional development practices that produce evidence of the link between teacher training and improved student learning.

3. A school district shall incorporate a district professional development plan into the district's comprehensive school improvement plan submitted to the department in accordance with section 256.7, subsection 21. The district professional development plan shall include a description of the means by which the school district will provide access to all teachers in the district to professional development programs or offerings that meet the requirements of subsection 1. The plan shall align all professional development with the school district's long-range student learning goals and the Iowa teaching standards. The plan shall indicate the school district's approved professional development provider or providers.

4. In cooperation with the teacher's evaluator, the career teacher employed by a school district shall develop an individual teacher professional development plan. The evaluator shall consult with the teacher's supervisor on the development of the individual teacher professional development plan. The purpose of the plan is to promote individual and group professional development. The individual plan shall be based, at minimum, on the needs of the teacher, the Iowa teaching standards, and the student achievement goals of the attendance center and the school district as outlined in the comprehensive school improvement plan. The individual plan shall include goals for the individual which are beyond those required under the attendance center professional development plan developed pursuant to subsection 7.

5. The teacher's evaluator shall annually meet with the teacher to review progress in meeting the goals in the teacher's individual plan. The teacher shall present to the evaluator evidence of progress. The purpose of the meeting shall be to review the teacher's progress in meeting professional development goals in the plan and to review collaborative work with other staff on student achievement goals and to modify as necessary the teacher's individual plan to reflect the individual teacher's and the school district's needs and the individual's progress in meeting the goals in the plan. The teacher's supervisor and the evaluator shall review, modify, or accept modifications made to the teacher's individual plan.

6. School districts, a consortium of school districts, area education agencies, higher education institutions, and other public or private entities including professional associations may be approved by the state board to provide teacher professional development. The professional development program or offering shall, at minimum, meet the requirements of subsection 1. The state board shall adopt rules for the approval of professional development providers and standards for the district development plan.

7. Each attendance center shall develop an attendance center professional development plan. The purpose of the plan is to promote group professional development. The attendance center plan shall be

based, at a minimum, on the needs of the teachers, the Iowa teaching standards, district professional development plans, and the student achievement goals of the attendance center and the school district as set forth in the comprehensive school improvement plan.

8. For each year in which a school district receives funds calculated and paid to school districts for professional development pursuant to section 257.10, subsection 10, or section 257.37A, subsection 2, the school district shall create quality professional development opportunities. The goal for the use of the funds is to provide one additional contract day or the equivalent thereof for professional development and use of the funds is limited to providing professional development to teachers, including additional salaries for time beyond the normal negotiated agreement; pay for substitute teachers, professional development materials, speakers, and professional development content; and costs associated with implementing the individual professional development plans. The use of the funds shall be balanced between school district, attendance center, and individual professional development plans, making every reasonable effort to provide equal access to all teachers.

9. Moneys received pursuant to section 257.10, subsection 10, or section 257.37A, subsection 2, shall be maintained as a separate listing within its* budget for funds received and expenditures made pursuant to this subsection. A school district shall certify to the department of education how the school district allocated the funds and that moneys received under this subsection were used to supplement, not supplant, the professional development opportunities the school district would otherwise make available.

10. If funds are allocated for purposes of professional development pursuant to section 284.13, subsection 1, paragraph *"d"*, the department shall, in collaboration with the area education agencies, establish teacher development academies for school-based teams of teachers and instructional leaders. Each academy shall include an institute and shall provide follow-up training and coaching.

2001 Acts, ch 161, §7; 2002 Acts, ch 1152, §14; 2003 Acts, ch 180, §42; 2006 Acts, ch 1182, §13, 14; 2007 Acts, ch 108, §20 - 23; 2009 Acts, ch 177, §36

*The words "a school district's or area education agency's" may be intended; corrective legislation is pending

Subsections 8 and 9 amended

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 6 SCHOOL DISTRICTS/CHAPTER 284 TEACHER PERFORMANCE, COMPENSATION, AND CAREER DEVELOPMENT/284.7 Iowa teacher career path.

284.7 Iowa teacher career path.

To promote continuous improvement in Iowa's quality teaching workforce and to give Iowa teachers the opportunity for career recognition that reflects the various roles teachers play as educational leaders, an Iowa teacher career path is established for teachers employed by school districts. A school district shall use funding calculated and paid pursuant to section 257.10, subsection 9, to raise teacher salaries to meet the requirements of this section. The Iowa teacher career path and salary minimums are as follows:

1. The following career path levels are established and shall be implemented in accordance with this chapter:

a. Beginning teacher.

(1) A beginning teacher is a teacher who meets the following requirements:

(a) Has successfully completed an approved practitioner preparation program as defined in section 272.1 or holds an intern teacher license issued by the board of educational examiners under chapter 272.

(b) Holds an initial or intern teacher license issued by the board of educational examiners.

(c) Participates in the beginning teacher mentoring and induction program as provided in this chapter.

(2) Beginning July 1, 2008, the minimum salary for a beginning teacher shall be twenty-eight thousand dollars.

b. Career teacher.

(1) A career teacher is a teacher who holds a statement of professional recognition issued by the board

of educational examiners under chapter 272 or who meets the following requirements:

(a) Has successfully completed the beginning teacher mentoring and induction program and has successfully completed a comprehensive evaluation as provided in this chapter.

(b) Is reviewed by the school district as demonstrating the competencies of a career teacher.

(c) Holds a valid license issued by the board of educational examiners.

(d) Participates in teacher professional development as set forth in this chapter and demonstrates continuous improvement in teaching.

(2) Beginning July 1, 2008, the minimum salary for a first-year career teacher shall be thirty thousand dollars.

2. It is the intent of the general assembly to establish and require the implementation of and provide for the implementation of the following additional career path levels:

a. Career II teacher.

(1) A career II teacher is a teacher who meets the requirements of subsection 1, paragraph *"b"*, has met the requirements established by the school district that employs the teacher, and is evaluated by the school district as demonstrating the competencies of a career II teacher. The teacher shall have successfully completed a performance review in order to be classified as a career II teacher.

(2) It is the intent of the general assembly that the participating district shall establish a minimum salary for a career II teacher that is at least five thousand dollars greater than the minimum career teacher salary. It is further intended that the district shall adopt a plan that facilitates the transition of a career teacher to a career II level.

b. Advanced teacher.

(1) An advanced teacher is a teacher who meets the following requirements:

(a) Receives the recommendation of the review panel that the teacher possesses superior teaching skills and that the teacher should be classified as an advanced teacher.

(b) Holds a valid license from the board of educational examiners.

(c) Participates in teacher professional development as outlined in this chapter and demonstrates continuous improvement in teaching.

(d) Possesses the skills and qualifications to assume leadership roles.

(2) It is the intent of the general assembly that the participating district shall establish a minimum salary for an advanced teacher that is at least thirteen thousand five hundred dollars greater than the minimum career teacher salary. In conjunction with the development of the review panel pursuant to section 284.9, the department shall make recommendations to the general assembly by January 1, 2002, regarding the appropriate district-to-district recognition for advanced teachers and methods that facilitate the transition of a teacher to the advanced level.

3. A teacher shall be promoted one level at a time and a teacher promoted to the next career level shall remain at that level for at least one year before requesting promotion to the next career level.

4. A teacher employed in a district shall not receive less compensation in that district than the teacher received in the school year preceding participation, as set forth in section 284.4 due to implementation of this chapter. A teacher who achieves national board for professional teaching standards certification and meets the requirements of section 256.44 shall continue to receive the award as specified in section 256.44 in addition to the compensation set forth in this section.

5. A school district that is unable to meet the provisions of subsection 1 with funds calculated and paid to the school district pursuant to section 257.10, subsection 9, may request a waiver from the department to use funds calculated and paid under section 257.10, subsection 11, to meet the provisions of subsection 1 if the difference between the funds calculated and paid pursuant to section 257.10, subsection 9, and the amount required to comply with subsection 1 is not less than ten thousand dollars. The department shall consider the average class size of the school district, the school district's actual unspent balance from the preceding year, and the school district's current financial position.

2001 Acts, ch 161, §8; 2001 Acts, ch 177, §5, 6, 15; 2002 Acts, ch 1152, §15, 16; 2003 Acts, ch 180, §43 - 46; 2006 Acts, ch 1182, §15 - 21; 2007 Acts, ch 108, §24 - 30; 2008 Acts, ch 1181, §77 - 80; 2009 Acts, ch 68, §8; 2009 Acts, ch 177, §37 - 39

Unnumbered paragraph 1 amended

Subsection 1, paragraph b, subparagraph (1), unnumbered paragraph 1 amended
Former subsection 5 stricken
NEW subsection 5

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 6 SCHOOL DISTRICTS/CHAPTER 284 TEACHER PERFORMANCE, COMPENSATION, AND CAREER DEVELOPMENT/284.8 Performance review requirements for teachers.

284.8 Performance review requirements for teachers.

1. A school district shall review a teacher's performance at least once every three years for purposes of assisting teachers in making continuous improvement, documenting continued competence in the Iowa teaching standards, identifying teachers in need of improvement, or to determine whether the teacher's practice meets school district expectations for career advancement in accordance with section 284.7. The review shall include, at minimum, classroom observation of the teacher, the teacher's progress, and implementation of the teacher's individual professional development plan, subject to the level of resources provided to implement the plan; and shall include supporting documentation from parents, students, and other teachers.

2. If a supervisor or an evaluator determines, at any time, as a result of a teacher's performance that the teacher is not meeting district expectations under the Iowa teaching standards specified in section 284.3, subsection 1, paragraphs *"a"* through *"h"*, the criteria for the Iowa teaching standards developed by the department in accordance with section 256.9, subsection 45, and any other standards or criteria established in the collective bargaining agreement, the evaluator shall, at the direction of the teacher's supervisor, recommend to the district that the teacher participate in an intensive assistance program. The intensive assistance program and its implementation are subject to negotiation and grievance procedures established pursuant to chapter 20. All school districts shall be prepared to offer an intensive assistance program.

3. If a teacher is denied advancement to the career II or advanced teacher level based upon a performance review, the teacher may appeal the decision to an adjudicator under the process established under section 279.17. However, the decision of the adjudicator is final.

4. A teacher who is not meeting the applicable standards and criteria based on a determination made pursuant to subsection 2 shall participate in an intensive assistance program.

2001 Acts, ch 161, §9; 2002 Acts, ch 1152, §17; 2003 Acts, ch 180, §47; 2006 Acts, ch 1182, §22; 2007 Acts, ch 108, §31, 32; 2007 Acts, ch 215, §253; 2008 Acts, ch 1181, §81

Section not amended; internal reference change applied

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 6 SCHOOL DISTRICTS/CHAPTER 284 TEACHER PERFORMANCE, COMPENSATION, AND CAREER DEVELOPMENT/284.9 Review panel.

284.9 Review panel.

1. A career II teacher seeking to receive an advanced designation shall submit a portfolio of work evidence aligned with the Iowa teaching standards to a review panel established in accordance with subsection 2. A majority of the evidence in the portfolio shall be classroom-based. The review panel shall evaluate the career II teacher's portfolio to determine whether the teacher demonstrates superior teaching skills and shall make a recommendation to the board of educational examiners whether or not the teacher shall receive an advanced designation. The standards for recommendation include, but are

not limited to, meeting the Iowa teaching standards at an advanced level.

2. The department shall establish up to five regional review panels consisting of five members per panel. Each panel shall include, at a minimum, a nationally board-certified teacher and a school district administrator. Panel members shall be appointed by the director and shall possess the knowledge necessary to determine the quality of the evidence submitted in an applicant's portfolio. Panel members shall serve staggered three-year terms and may be reappointed to a second term. The department shall provide support and evaluation training for panel members and convene panels as needed. Panel members shall be reimbursed for mileage expenses incurred while engaged in the performance of official duties and shall receive per diem compensation by the department.

3. To assure fairness and consistency in the evaluation process, the review panels may perform random audits of the comprehensive evaluations and performance reviews conducted by evaluators throughout the state, and may randomly review how the evaluators are evaluating teachers based upon the Iowa teaching standards.

4. A teacher who does not receive a recommendation from a review panel may appeal that denial to an administrative law judge located in the department of inspections and appeals. The state shall not be liable for a teacher's attorney fees, costs, or damages that may result from an appeal of a review panel's decision. The state board shall adopt rules to administer this section.

2001 Acts, ch 161, §10; 2001 Acts, ch 177, §7, 15; 2003 Acts, ch 180, §48

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 6 SCHOOL DISTRICTS/CHAPTER 284 TEACHER PERFORMANCE, COMPENSATION, AND CAREER DEVELOPMENT/284.10 Evaluator training program.

284.10 Evaluator training program.

1. The department shall establish an evaluator training program to improve the skills of school district evaluators in making employment decisions, making recommendations for licensure, and moving teachers through a career path as established under this chapter. The department shall consult with persons representing teachers, national board-certified teachers, administrators, school boards, higher education institutions with approved practitioner and administrator preparation programs, and with persons from the private sector knowledgeable in employment evaluation and evaluator training in order to develop standards and requirements for the program. Evaluator training programs offered pursuant to this chapter may be provided by a public or private entity. The department shall distribute a list of evaluator training program providers to each school district.

2. An administrator licensed under chapter 272 who conducts evaluations of teachers for purposes of this chapter shall complete the evaluator training program. A practitioner licensed under chapter 272 who is not an administrator may enroll in the evaluator training program. Enrollment preference shall be given to administrators. Upon successful completion, the provider shall certify that the administrator or other practitioner is qualified to conduct evaluations for employment, make recommendations for licensure, and make recommendations that a teacher is qualified to advance from one career path level to the next career path level pursuant to this chapter. Certification is for a period of five years and may be renewed.

3. A higher education institution approved by the state board to provide an administrator preparation program shall incorporate the evaluator training program into the program offered by the institution.

4. The board of educational examiners shall require certification as a condition of issuing or renewing an administrator's license.

5. By July 1, 2007, the director shall develop and implement an evaluator training certification renewal program for administrators and other practitioners who need to renew a certificate issued pursuant to this section.

2001 Acts, ch 161, §11, 25; 2001 Acts, ch 177, §8, 15; 2002 Acts, ch 1152, §18; 2003 Acts, ch 180, §49; 2004 Acts, ch

1175, §95; 2006 Acts, ch 1182, §23

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 6 SCHOOL DISTRICTS/CHAPTER 284 TEACHER PERFORMANCE, COMPENSATION, AND CAREER DEVELOPMENT/284.11 Market factor teacher incentives. Repealed by 2008 Acts, ch 1181, § 86.

284.11 Market factor teacher incentives. Repealed by 2008 Acts, ch 1181, § 86.

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 6 SCHOOL DISTRICTS/CHAPTER 284 TEACHER PERFORMANCE, COMPENSATION, AND CAREER DEVELOPMENT/284.12 Reports - rules.

284.12 Reports - rules.

1. The department shall annually report the statewide progress on the following:

a. Student achievement scores in mathematics and reading at the fourth and eighth grade levels on a district-by-district basis as reported to the local communities pursuant to section 256.7, subsection 21, paragraph *"c"*.

b. Evaluator training program.

c. Changes and improvements in the evaluation of teachers under the Iowa teaching standards.

2. The report shall be made available to the chairpersons and ranking members of the senate and house committees on education, the deans of the colleges of education at approved practitioner preparation institutions in this state, the state board, the governor, and school districts by January 1. School districts shall provide information as required by the department for the compilation of the report and for accounting and auditing purposes.

3. In developing administrative rules for consideration by the state board, the department shall consult with persons representing teachers, administrators, school boards, approved practitioner preparation institutions, and other appropriate education stakeholders.

2001 Acts, ch 161, §13; 2001 Acts, ch 177, §11, 15; 2003 Acts, ch 45, §1; 2005 Acts, ch 19, §39; 2007 Acts, ch 108, §34, 35

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 6 SCHOOL DISTRICTS/CHAPTER 284 TEACHER PERFORMANCE, COMPENSATION, AND CAREER DEVELOPMENT/284.13 State program allocation.

284.13 State program allocation.

1. For each fiscal year in which moneys are appropriated by the general assembly for purposes of the student achievement and teacher quality program, the moneys shall be allocated as follows in the following priority order:

a. For the fiscal year beginning July 1, 2009, and ending June 30, 2010, to the department of education, the amount of one million one hundred twenty-five thousand dollars for the issuance of national board certification awards in accordance with section 256.44. Of the amount allocated under this paragraph, not less than eighty-five thousand dollars shall be used to administer the ambassador to education position in accordance with section 256.45.

b. For the fiscal year beginning July 1, 2009, and succeeding fiscal years, an amount up to three

million nine hundred forty-nine thousand seven hundred fifty dollars for first-year and second-year beginning teachers, to the department of education for distribution to school districts and area education agencies for purposes of the beginning teacher mentoring and induction programs. A school district or area education agency shall receive one thousand three hundred dollars per beginning teacher participating in the program. If the funds appropriated for the program are insufficient to pay mentors, school districts, and area education agencies as provided in this paragraph, the department shall prorate the amount distributed to school districts and area education agencies based upon the amount appropriated. Moneys received by a school district or area education agency pursuant to this paragraph shall be expended to provide each mentor with an award of five hundred dollars per semester, at a minimum, for participation in the school district's or area education agency's beginning teacher mentoring and induction program; to implement the plan; and to pay any applicable costs of the employer's share of contributions to federal social security and the Iowa public employees' retirement system or a pension and annuity retirement system established under chapter 294, for such amounts paid by the district or area education agency.

c. For each fiscal year of the fiscal period beginning July 1, 2007, and ending June 30, 2010, up to six hundred ninety-five thousand dollars to the department for purposes of implementing the professional development program requirements of section 284.6, assistance in developing model evidence for teacher quality committees established pursuant to section 284.4, subsection 1, paragraph *"c"*, and the evaluator training program in section 284.10. A portion of the funds allocated to the department for purposes of this paragraph may be used by the department for administrative purposes and for not more than four full-time equivalent positions.

d. For each fiscal year in which funds are appropriated for purposes of this chapter, an amount up to one million eight hundred forty-five thousand dollars to the department for the establishment of teacher development academies in accordance with section 284.6, subsection 10. A portion of the funds allocated to the department for purposes of this paragraph may be used for administrative purposes.

e. Notwithstanding section 8.33, any moneys remaining unencumbered or unobligated from the moneys allocated for purposes of paragraph *"a"*, *"b"*, or *"c"* shall not revert but shall remain available in the succeeding fiscal year for expenditure for the purposes designated. The provisions of section 8.39 shall not apply to the funds appropriated pursuant to this subsection.

2. Moneys received by a school district under this chapter are miscellaneous income for purposes of chapter 257 or are considered encumbered. A school district shall maintain a separate listing within its budget for payments received and expenditures made pursuant to this section.

2001 Acts, ch 177, §12, 15; 2002 Acts, ch 1152, §19, 20; 2003 Acts, ch 179, §116, 117; 2003 Acts, ch 182, §16, 17, 19, 20; 2004 Acts, ch 1175, §97, 98, 100; 2005 Acts, ch 169, §30 - 33; 2006 Acts, ch 1180, §26, 27; 2006 Acts, ch 1182, §25, 26; 2007 Acts, ch 108, §36 - 45, 64; 2007 Acts, ch 215, §103; 2008 Acts, ch 1181, §82 - 85; 2009 Acts, ch 177, §40 - 42, 45, 48

For text of former subsection 1, paragraph f, in effect from May 26, 2009, until June 30, 2009, concerning the allocation of funds to the beginning teacher mentoring and induction program, see 2009 Acts, ch 177, §45, 48

See Code editor's note to chapter 7K

Subsection 1, paragraphs a - c amended

Subsection 1, paragraph d stricken and former paragraph e redesignated as d

Subsection 1, paragraphs f - i stricken and former paragraph j amended and redesignated as e

Subsection 2 stricken and former subsection 3 renumbered as 2

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 6 SCHOOL DISTRICTS/CHAPTER 284 TEACHER PERFORMANCE, COMPENSATION, AND CAREER DEVELOPMENT/284.14 Pay-for-performance program.

284.14 Pay-for-performance program.

1. *Intent.* The intent of this section is to create a process by which select Iowa school districts

research, develop, and implement projects designed to identify promising practices related to enhanced teacher compensation career ladders and performance pay models.

2. *Commission.* A pay-for-performance commission is established to design and implement a pay-for-performance pilot project and provide a study relating to teacher and staff compensation containing a pay-for-performance component. The study shall measure the cost and effectiveness in raising student achievement of a compensation system that provides financial incentives based on student performance. The commission is part of the executive branch of government.

3. *Development of program.* Beginning July 1, 2006, the commission shall gather sufficient information to identify a pay-for-performance program based upon student achievement gains and global content standards where student achievement gains cannot be easily measured. The commission shall review pay-for-performance programs in both the public and private sectors.

a. Commencing with the school year beginning July 1, 2007, the commission shall initiate planning pilots, in selected kindergarten through grade twelve schools, to test the effectiveness of the pay-for-performance program. The purpose of the planning pilots is to identify the strengths and weaknesses of various pay-for-performance program designs, evaluate cost effectiveness, analyze student achievement needs, select formative and summative student achievement measures that align to identify needs, consider necessary supports related to the student achievement goals in the school district's comprehensive school improvement plan, review assessment needs, identify mechanisms to account for existing teacher contract provisions within the proposed career ladder salary increments, allow thorough review of data, and make necessary adjustments before proposing implementation of the pay-for-performance program statewide.

b. Commencing with the school year beginning July 1, 2007, the commission shall select two school districts as planning pilots. Participants shall provide reports or other information as required by the commission.

c. Commencing with the school year beginning July 1, 2008, the commission shall administer two implementation pilots in the school districts selected for planning pilots under paragraph *"b"*.

4. *Reports and final study.* Based on the information generated by the planning and implementation pilots, the commission shall prepare an interim report by January 14, 2008, followed by interim progress reports annually, followed by a final study report analyzing the effectiveness of pay-for-performance in raising student achievement levels. The final study report shall be completed no later than six months after the completion of the planning and implementation pilots. The commission shall provide copies of the final study report to the department of education and to the general assembly.

5. *Iowa excellence fund.* An Iowa excellence fund is created within the office of the treasurer of state, to be administered by the commission. Notwithstanding section 8.33, moneys in the fund that remain unencumbered or unobligated at the close of the fiscal year shall not revert but shall remain in the fund.

The commission may provide grants from this fund, according to criteria developed by the commission, for implementation of the pay-for-performance program.

2006 Acts, ch 1182, §27; 2007 Acts, ch 108, §46 - 48

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 6 SCHOOL DISTRICTS/CHAPTER 284 TEACHER PERFORMANCE, COMPENSATION, AND CAREER DEVELOPMENT/284.14A Career ladder pilots.

284.14A Career ladder pilots.

1. *Intent.* The intent of this section is to create a process by which select Iowa school districts research, develop, and implement pilots designed to identify promising practices related to enhanced teacher compensation career ladder models.

2. *Pilot established.* A career ladder pilot is established to be designed, implemented, and

administered by the department. The department shall gather sufficient information to identify a career ladder pilot.

a. For the school year beginning July 1, 2007, and ending June 30, 2008, the department shall select up to eight school districts as planning pilots. Participants shall provide reports or other information as required by the department.

b. For the school year beginning July 1, 2008, and ending June 30, 2009, the department shall administer up to eight implementation pilots in the school districts selected for planning pilots under paragraph *"a"*.

3. *Interim and final reports.* Based on the information generated by the planning and implementation pilots, the department shall submit an interim report to the general assembly by January 14 annually, and shall submit a final report summarizing the effectiveness of the pilots in raising student achievement levels to the general assembly no later than six months after the completion of the planning and implementation pilots.

2007 Acts, ch 108, §49

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CHAPTER 83
TEACHER AND ADMINISTRATOR QUALITY PROGRAMS

DIVISION I
GENERAL STANDARDS APPLICABLE TO BOTH ADMINISTRATOR AND TEACHER QUALITY PROGRAMS

281—83.1(284,284A) Purposes. The goal of the teacher quality program is to enhance the learning, achievement, and performance of all students through the recruitment, support, and retention of quality Iowa teachers. The program shall contain specific strategies that include a mentoring and induction program for beginning teachers, teacher evaluations, and district and building support for professional development that includes best practice aimed at increasing student achievement.

The goal of the administrator quality program is to promote high student achievement and enhanced educator quality. The program consists of mentoring and induction programs that provide support for administrators, professional development designed to directly support best practice for leadership, and evaluation of administrators against the Iowa standards for school administrators.

281—83.2(284,284A) Definitions. For the purpose of these rules, the following definitions shall apply:

"Administrator" or *"school leader"* means an individual holding a professional administrator license issued under Iowa Code chapter 272, who is employed in a school district administrative position by a school district or area education agency pursuant to a contract issued by a board of directors under Iowa Code section 279.23. An administrator may be employed in both an administrative and a nonadministrative position by a board of directors and shall be considered a part-time administrator for the portion of time that the individual is employed in an administrative position.

"Beginning administrator" means an individual serving under an initial administrator license, issued by the board of educational examiners under Iowa Code chapter 272, who is assuming a position as a school district administrator for the first time.

"Beginning teacher" means an individual serving under an initial, Class A, exchange, or intern license, issued by the board of educational examiners under Iowa Code chapter 272, who is assuming a position as a teacher. For purposes of the beginning teacher mentoring and induction program created pursuant to Iowa Code section 284.5, "beginning teacher" also includes preschool teachers who are licensed by the board of educational examiners under Iowa Code chapter 272 and are employed by a school district or area education agency.

"Comprehensive evaluation" means, with respect to a beginning teacher, a summative evaluation of a beginning teacher conducted by an evaluator for purposes of determining a beginning teacher's level of competency relative to the Iowa teaching standards and for recommendation for licensure based upon models developed pursuant to Iowa Code section 256.9, subsection 50, and to determine whether the teacher's practice meets the school district expectations for a career teacher. With respect to a beginning administrator, "comprehensive evaluation" means a summative evaluation of a beginning administrator conducted by an evaluator in accordance with 2007 Iowa Code Supplement section 284A.3 for purposes of determining a beginning administrator's level of competency for recommendation for licensure based on the Iowa standards for school administrators adopted pursuant to 2007 Iowa Code Supplement section 256.7(27).

"Department" means the department of education.

"Director" means the director of the department of education.

"District facilitator" means an individual in Iowa who serves as a coordinator for a district mentoring and induction program.

"Evaluator" means an administrator or other practitioner who successfully completes an evaluator training program pursuant to Iowa Code section 284.10.

"Intensive assistance" means the provision of organizational support and technical assistance to teachers, other than beginning teachers, for the remediation of identified teaching and classroom management concerns for a period not to exceed 12 months.

"Leadership standards" are synonymous with the Iowa standards for school administrators adopted pursuant to 2007 Iowa Code Supplement section 256.7(27).

"Mentor" means, with respect to a beginning teacher, an individual employed by a school district or area education agency as a teacher or a retired teacher who holds a valid license issued under Iowa Code chapter 272. The individual must have a record of four years of successful teaching practice, must be employed on a nonprobationary basis, and must demonstrate professional commitment to both the improvement of teaching and learning and the development of beginning teachers. With respect to a beginning administrator, "mentor" means an individual employed by a school district or area education agency as a school district administrator or a retired administrator who holds a valid license issued under Iowa Code chapter 272. The individual must have a record of four years of successful administrative experience and must demonstrate professional commitment to both the improvement of teaching and learning and the development of beginning administrators.

"Performance review" means a summative evaluation of a teacher other than a beginning teacher and used to determine whether the teacher's practice meets school district expectations and the Iowa teaching standards, and to determine whether the teacher's practice meets school district expectations for career advancement in accordance with Iowa Code section 284.7.

"School board" means the board of directors of a school district, a collaboration of boards of directors of school districts, or the board of directors of an area education agency, as the context requires.

"School district" means a public school district.

"State board" means the state board of education.

"Teacher" means an individual holding a practitioner's license or a statement of professional recognition issued under Iowa Code chapter 272, who is employed in a nonadministrative position by a school district or area education agency pursuant to a contract issued by a board of directors under Iowa Code section 279.13. A teacher may be employed in both an administrative and a nonadministrative position by a board of directors and shall be considered a part-time teacher for the portion of time that the teacher is employed in a nonadministrative position.

[**ARC 7785B**, IAB 5/20/09, effective 6/24/09]

DIVISION II
SPECIFIC STANDARDS APPLICABLE TO TEACHER QUALITY PROGRAMS

281—83.3(284) Mentoring and induction program for beginning teachers.

83.3(1) *Purpose.* The beginning teacher mentoring and induction program is created to promote excellence in teaching, enhance student achievement, build a supportive environment within school districts and area education agencies, increase the retention of promising beginning teachers, and promote the personal and professional well-being of teachers.

83.3(2) *Participation.* All school districts and area education agencies shall provide a beginning teacher mentoring and induction program for all beginning teachers. A beginning teacher, as defined in this chapter, shall be informed by the school district or area education agency, prior to the beginning teacher's participation in a mentoring and induction program, of the Iowa teaching standards and criteria upon which the beginning teacher shall be evaluated and of the evaluation process utilized by the school district or area education agency. The beginning teacher shall be comprehensively evaluated by the end of the beginning teacher's second year of teaching to determine whether the teacher meets expectations to move to the career level. The school district or area education agency shall recommend for a standard license a beginning teacher who has successfully met the Iowa teaching standards as determined by a comprehensive evaluation.

If a beginning teacher who is participating in a mentoring and induction program leaves the employ of a school district or area education agency prior to completion of the program, the school district or area education agency subsequently hiring the beginning teacher shall credit the beginning teacher with the time earned in a program prior to the subsequent hiring. If the general assembly appropriates moneys for purposes of Iowa Code section 284.5, a school district or area education agency is eligible to receive state assistance for up to two years for each beginning teacher the school district or area education agency employs who was formerly employed in an accredited nonpublic school or in another state as a

first-year teacher. The school district or area education agency employing the teacher shall determine the conditions and requirements of a teacher participating in a mentoring and induction program.

A school district or area education agency may offer a teacher a third year of participation in the program if, after conducting a comprehensive evaluation, the school district or area education agency determines that the teacher is likely to successfully complete the mentoring and induction program by meeting the Iowa teaching standards by the end of the third year of eligibility. The third year of eligibility is offered at the employing district's or area education agency's expense. A teacher granted a third year of eligibility shall, in cooperation with the teacher's evaluator, develop a plan to meet the Iowa teaching standards and district or area education agency career expectations. This plan will be implemented by the teacher and supported through the district's or area education agency's mentoring and induction program. The school district or area education agency shall notify the board of educational examiners that the teacher will participate in a third year of the school district's program. The teacher shall undergo a comprehensive evaluation at the end of the third year.

For purposes of comprehensive evaluations for beginning teachers, including the comprehensive evaluation required for the beginning teacher to progress to career teacher, the Iowa teaching standards and criteria shall be as described in rule 281—83.4(284). A school district or area education agency shall participate in state program evaluations.

83.3(3) *Plan.* Each school district or area education agency shall develop a sequential two-year beginning teacher mentoring and induction plan based on the Iowa teaching standards. The plan shall be included in the school district's comprehensive school improvement plan submitted pursuant to Iowa Code section 256.7, subsection 21. A school district or area education agency shall have the board adopt a beginning teacher mentoring and induction program plan and written procedures for the program. At the board's discretion, the district or area education agency may choose to use or revise the model plan provided by the area education agency or develop a plan locally. The components of a district's or area education agency's beginning teacher mentoring and induction program shall include, but are not limited to, the following:

a. Goals for the program.

b. A process for the selection of mentors.

c. A mentor training process which shall:

(1) Be consistent with effective staff development practices and adult professional needs to include skills needed for teaching, demonstration, and coaching.

(2) Address mentor needs, indicating a clear understanding of the role of the mentor.

(3) Result in the mentor's understanding of the personal and professional needs of new teachers.

(4) Provide the mentor with an understanding of the district expectations for beginning teacher competencies based on the Iowa teaching standards.

(5) Facilitate the mentor's ability to provide guidance and support to new teachers.

d. A supportive organizational structure for beginning teachers which shall include:

(1) Activities that provide access and opportunities for interaction between mentor and beginning teacher that at a minimum provide:

1. Released time for mentors and beginning teachers to plan;
2. The demonstration of classroom practices;
3. The observation of teaching; and
4. Feedback.

(2) Selection process for who will be in the mentor/beginning teacher partnership.

(3) Roles and responsibilities of the mentor.

e. Evaluation process for the program, which shall include:

(1) An evaluation of the district and area education agency program goals,

(2) An evaluation process that provides for the minor and major program revisions, and

(3) A process for how information about the program will be provided to interested stakeholders.

f. The process for dissolving mentor and beginning teacher partnerships.

g. A plan that reflects the needs of the beginning teacher employed by the district or area education agency.

h. Activities designed to support beginning teachers by:

(1) Developing and enhancing competencies for the Iowa teaching standards, and

(2) Providing research-based instructional strategies.

83.3(4) *Budget.* Funds received by a school district or area education agency from the beginning teacher mentoring and induction program shall be used for any or all of the following purposes:

a. To pay mentors as they implement the plan. A mentor in a beginning teacher induction program approved under this chapter shall be eligible for an award of $500 per semester for full participation in the program. A district or area education agency may use local dollars to increase the mentor award.

b. To pay any applicable costs of the employer's share of contributions to federal social security and the Iowa public employees' retirement system for a pension and annuity retirement system established under Iowa Code chapter 294 for such amounts paid by the district or area education agency.

These funds are miscellaneous funds or are considered encumbered. A school district or area education agency shall maintain a separate listing within its budget for payments received and expenditures made for this program. Funds that remain unencumbered or unobligated at the end of the fiscal year will not revert, but will remain available for expenditure for the purposes of the program until the close of the succeeding fiscal year.

281—83.4(284) Iowa teaching standards and criteria. The Iowa teaching standards and supporting criteria represent a set of knowledge and skills that reflects the best evidence available regarding effective teaching. The purpose of the standards and supporting criteria is to provide Iowa school districts and area education agencies with a consistent representation of the complexity and the possibilities of quality teaching. The standards shall serve as the basis for comprehensive evaluations of teachers and as a basis for professional development plans. Each standard with supporting criteria is outlined as follows:

83.4(1) Demonstrates ability to enhance academic performance and support for and implementation of the school district's student achievement goals.

a. The teacher:

(1) Provides evidence of student learning to students, families, and staff.

(2) Implements strategies supporting student, building, and district goals.

(3) Uses student performance data as a guide for decision making.

(4) Accepts and demonstrates responsibility for creating a classroom culture that supports the learning of every student.

(5) Creates an environment of mutual respect, rapport, and fairness.

(6) Participates in and contributes to a school culture that focuses on improved student learning.

(7) Communicates with students, families, colleagues, and communities effectively and accurately.

b. Alternative criteria for area education agency staff who meet the definition of "teacher" herein. The staff member:

(1) Uses knowledge and understanding of the area education agency's mission, goals, and strategic priorities to provide services that enhance academic performance.

(2) Understands and uses knowledge of area education agency and district goals and data to provide services that enhance academic performance.

(3) Participates in and contributes to a positive learning culture.

(4) Communicates with students, families, colleagues, and communities effectively and accurately.

(5) Uses area education agency, district, and student data as a guide for decision making.

83.4(2) Demonstrates competence in content knowledge appropriate to the teaching position.

a. The teacher:

(1) Understands and uses key concepts, underlying themes, relationships, and different perspectives related to the content area.

(2) Uses knowledge of student development to make learning experiences in the content area meaningful and accessible for every student.

(3) Relates ideas and information within and across content areas.

(4) Understands and uses instructional strategies that are appropriate to the content area.

b. Alternative criteria for area education agency staff who meet the definition of "teacher" herein. The staff member:

(1) Understands, communicates, and uses key concepts and best practice in fulfillment of area education agency roles and responsibilities.

(2) Uses knowledge of child and adolescent development and of adult learning to make interventions and strategies meaningful, relevant, and accessible.

(3) Relates professional knowledge and services within and across multiple content and discipline areas.

(4) Understands and supports strategies and interventions that are best practice across content and discipline areas.

83.4(3) Demonstrates competence in planning and preparing for instruction.

a. The teacher:

(1) Uses student achievement data, local standards, and the district curriculum in planning for instruction.

(2) Sets and communicates high expectations for social, behavioral, and academic success of all students.

(3) Uses students' developmental needs, backgrounds, and interests in planning for instruction.

(4) Selects strategies to engage all students in learning.

(5) Uses available resources, including technologies, in the development and sequencing of instruction.

b. Alternative criteria for area education agency staff who meet the definition of "teacher" herein. The staff member:

(1) Demonstrates the ability to organize and prioritize time, resources, and responsibilities.

(2) Demonstrates the ability to individually and collaboratively plan and prepare professional services that address the range of district, teacher, parent, and student needs.

(3) Uses district and student data to develop goals and interventions.

(4) Demonstrates the flexibility to plan for professional services based on changing conditions of the work context and environment.

(5) Uses available resources, including technology, to plan and develop professional services.

83.4(4) Uses strategies to deliver instruction that meets the multiple learning needs of students.

a. The teacher:

(1) Aligns classroom instruction with local standards and district curriculum.

(2) Uses research-based instructional strategies that address the full range of cognitive levels.

(3) Demonstrates flexibility and responsiveness in adjusting instruction to meet student needs.

(4) Engages students in varied experiences that meet diverse needs and promote social, emotional, and academic growth.

(5) Connects students' prior knowledge, life experiences, and interests in the instructional process.

(6) Uses available resources, including technologies, in the delivery of instruction.

b. Alternative criteria for area education agency staff who meet the definition of "teacher" herein. The staff member:

(1) Aligns service delivery to district, teacher, parent, and student needs.

(2) Provides consultation, instruction, interventions, and strategies that align with learner needs.

(3) Demonstrates flexibility and responsiveness in adjusting services to meet diverse learner needs.

(4) Uses and supports research-based and evidence-based practices to meet learner needs.

(5) Uses available resources, including technology, to provide professional services that meet learner needs.

83.4(5) Uses a variety of methods to monitor student learning.

a. The teacher:

(1) Aligns classroom assessment with instruction.

(2) Communicates assessment criteria and standards to all students and parents.

(3) Understands and uses the results of multiple assessments to guide planning and instruction.

(4) Guides students in goal setting and assessing their own learning.

(5) Provides substantive, timely, and constructive feedback to students and parents.

(6) Works with other staff and building and district leadership in analysis of student progress.

b. Alternative criteria for area education agency staff who meet the definition of "teacher" herein. The staff member:

(1) Uses appropriate assessment, data collection, and data analysis methods that support alignment of services with learner needs.

(2) Works collaboratively within the learning community to establish measurable goals and to identify formative and summative methods to monitor progress and the quality of implementation.

(3) Communicates the rationale and criteria of assessment and monitoring methods.

(4) Elicits and provides timely and quality feedback on assessment and monitoring.

83.4(6) Demonstrates competence in classroom management.

a. The teacher:

(1) Creates a learning community that encourages positive social interaction, active engagement, and self-regulation for every student.

(2) Establishes, communicates, models, and maintains standards of responsible student behavior.

(3) Develops and implements classroom procedures and routines that support high expectations for student learning.

(4) Uses instructional time effectively to maximize student achievement.

(5) Creates a safe and purposeful learning environment.

b. Alternative criteria for area education agency staff who meet the definition of "teacher" herein. The staff member:

(1) Models respectful dialogue and behaviors within and across job responsibilities.

(2) Promotes and maintains a positive, safe, and productive environment.

(3) Works collaboratively and is flexible.

(4) Communicates accurately and effectively.

83.4(7) Engages in professional growth.

a. The teacher:

(1) Demonstrates habits and skills of continuous inquiry and learning.

(2) Works collaboratively to improve professional practice and student learning.

(3) Applies research, knowledge, and skills from professional development opportunities to improve practice.

(4) Establishes and implements professional development plans based upon the teacher's needs aligned to the Iowa teaching standards and district/building student achievement goals.

b. Alternative criteria for area education agency staff who meet the definition of "teacher" herein. The staff member:

(1) Demonstrates habits and skills of continuous inquiry and learning.

(2) Works collaboratively to improve professional practices.

(3) Applies and shares research, knowledge, and skills from professional development.

(4) Establishes and implements professional development plans aligned to area education agency, district, and student learning goals.

83.4(8) Fulfills professional responsibilities established by the school district.

a. The teacher:

(1) Adheres to board policies, district procedures, and contractual obligations.

(2) Demonstrates professional and ethical conduct as defined by state law and district policy.

(3) Contributes to efforts to achieve district and building goals.

(4) Demonstrates an understanding of and respect for all learners and staff.

(5) Collaborates with students, families, colleagues, and communities to enhance student learning.

b. Alternative criteria for area education agency staff who meet the definition of "teacher" herein. The staff member:

(1) Adheres to board policies, area education agency procedures, federal and state rules, and contractual obligations.

(2) Demonstrates professional and ethical conduct as defined by state law and area education agency policies.

(3) Contributes to efforts to achieve area education agency goals.

(4) Demonstrates an understanding of and respect for all learners.

(5) Collaborates with all learners.

83.4(9) The school board shall provide comprehensive evaluations for beginning teachers using the Iowa teaching standards and criteria listed in rule 281—83.4(284). The school board, for the purposes of performance reviews for teachers other than beginning teachers, shall provide evaluations that contain, at a minimum, the Iowa teaching standards and criteria listed in rule 281—83.4(284). A local school board and its certified bargaining representative may negotiate, pursuant to Iowa Code chapter 20, additional teaching standards and criteria for use in a performance review. In any school district or area education agency where there is no certified bargaining unit, additional standards and criteria may be determined by the board.

281—83.5(284) Evaluator approval training. The department shall approve eligible providers and their programs to conduct evaluator training. Only individuals certified through programs approved by the department shall qualify for evaluator certification by the board of educational examiners. A beginning teacher who has evaluator certification from the board of educational examiners shall not evaluate other teachers until the beginning teacher is no longer a probationary employee. Approved evaluator training programs shall be designed to align with the Iowa teaching standards and criteria, provide evaluators with the skills to conduct comprehensive evaluations and performance reviews as required by Iowa Code chapter 284, and provide for the evaluation of the progress made on individual professional development plans. This training for evaluators shall incorporate components of theory, demonstration, practice, and application of evaluation knowledge and skills.

83.5(1) *Application requirements for providers of evaluator approval training.* Approved applications for the provision of evaluator approval training shall include, but are not limited to, the following components:

a. A curriculum that addresses participant skill development in the areas of:

(1) The identification of quality instruction and practices based on the Iowa teaching standards and criteria;

(2) The use of multiple forms of data collection for identifying and supporting performance and development;

(3) The understanding and development of conferencing and feedback skills; and

(4) The development of skills in data-based decision making.

b. Demonstration that the evaluator approval training process design provides training as specified in this rule.

c. A description of the process used to deliver the training to participants.

d. A description of the procedures developed to certify the skill attainment of the evaluator being trained.

e. A budget.

f. Staff qualifications.

g. Evidence of the provider's expertise in evaluation design and training processes.

h. Provisions for leadership to support and implement ongoing professional development focused on student learning.

i. A process that evaluates the effectiveness of the implementation of the training process and demonstrates that the trainees have attained the knowledge and skills as described in paragraph *"a."* This evaluation shall be conducted on an annual basis and submitted to the department.

83.5(2) *Process used for the approval of evaluator approval training program applications.* Eligible providers shall submit an application on forms prescribed by the department. Applications for new providers will be accepted and reviewed by the department by July 1 of each year. A review panel shall be convened to review applications for evaluator approval training programs based on the requirements listed in subrule 83.5(1). The panel shall recommend for approval and the department shall approve the

evaluator approval training programs that meet the requirements listed in subrule 83.5(1). Applicants shall be notified of their status within 30 days of the application deadline. An approved list of private providers shall be maintained on the department Web site with an annual notification to school districts and area education agencies of the Web site address that contains provider information.

Eligible providers may be public or private entities, including, but not limited to, school districts, consortia, and other public or private entities including professional organizations. Applicants shall meet all applicable federal, state, and local health, safety and civil rights laws. Higher education administrative practitioner preparation institutions shall meet the review process through the state board approval and accreditation process for these institutions.

83.5(3) *Local teacher evaluation plans.* Local districts and area education agencies shall develop and implement a teacher evaluation plan that contains the following components:

a. The use of the Iowa teaching standards and criteria;

b. Provisions for the comprehensive evaluation of beginning teachers that include a review of the teacher's progress on the Iowa teaching standards as set forth in rule 281—83.4(284) and the use of the comprehensive evaluation instrument developed by the department;

c. Provisions for the performance reviews of teachers other than beginning teachers once every three years that include, at a minimum, classroom observation of the teacher, a review of the teacher's progress on the Iowa teaching standards as set forth in rule 281—83.4(284) and additional standards and criteria if established under subrule 83.4(9), a review of the implementation of the teacher's individual professional development plan, and supporting documentation from other evaluators, teachers, parents, and students;

d. Provisions for individual professional development plans for teachers other than beginning teachers;

e. Provisions for an intensive assistance program as provided in Iowa Code section 284.8 that addresses the remediation defined under subrules 83.4(1) through 83.4(8) or any other standards or criteria established by a collective bargaining agreement.

A local school board and its certified bargaining representative shall negotiate, pursuant to Iowa Code chapter 20, evaluation and grievance procedures for beginning teachers and for teachers other than beginning teachers that are not in conflict with Iowa Code chapter 284. If a supervisor or an evaluator determines, at any time, as a result of a teacher's performance that the teacher is not meeting district expectations under subrules 83.4(1) through 83.4(8) or any other standards or criteria established in the collective bargaining agreement, the evaluator shall, at the direction of the teacher's supervisor, recommend to the district that the teacher participate in an intensive assistance program. The intensive assistance program and its implementation are subject to negotiation or grievance procedures established pursuant to Iowa Code chapter 20.

[**ARC 7785B**, IAB 5/20/09, effective 6/24/09]

281—83.6(284) Professional development for teachers.

83.6(1) *Individual teacher professional development plan.* Each school district and area education agency shall support the development and implementation of the individual teacher professional development plan for teachers other than beginning teachers. The purpose of the individual plan is to promote individual and collective professional development. At a minimum, the goals for an individual teacher professional development plan must be based on the relevant Iowa teaching standards that support the student achievement goals of the attendance center and school district or area education agency, as appropriate, as outlined in the comprehensive school improvement plan, and the needs of the teacher. The goals shall go beyond those required under the attendance center professional development plan described in subrule 83.6(2), paragraph *"c."* The learning opportunities provided to meet the goals of the individual teacher plan include individual study and collaborative study of district-determined or area education agency-determined content to the extent possible. The individual plan shall be developed by the teacher in collaboration with the teacher's evaluator. An annual meeting shall be held between the teacher's evaluator and the teacher to review the goals and refine the plan.

83.6(2) *Professional development for school districts and area education agencies.* The following requirements shall apply to professional development for school districts and area education agencies.

a. District or area education agency professional development plan. Each school district shall incorporate the district professional development plan into its comprehensive school improvement plan pursuant to Iowa Code subsection 284.6(3). Each area education agency shall develop a professional development plan for the agency as a whole and shall incorporate the same into its comprehensive improvement plan pursuant to rule 281—72.9(273). The district or area education agency professional development plan shall be a long-term plan designed and implemented to increase student achievement and shall include all site and district or area education agency personnel responsible for instruction. The district or area education agency professional development plan shall contain, but not be limited to, the following:

(1) Documentation that the professional development is based on student data and other needs assessment; aligned with district student achievement goals; and focused on instruction, curriculum, and assessment.

(2) Documentation that professional development learning opportunities are research-based and aligned with the Iowa teaching standards and criteria.

(3) Identification of the approved professional development provider(s).

(4) A description of a process that includes theory, demonstration, practice, observation, collaboration, and the study of implementation.

(5) A description of a program evaluation design for formative and summative evaluation processes.

b. Professional development standards. Implementation of a school district's or area education agency's professional development plan shall meet the following standards:

(1) Align with the Iowa teaching standards and criteria;

(2) Deliver research-based instructional strategies aligned with the student achievement goals established by the district;

(3) Deliver professional development training and learning opportunities that are targeted at instructional improvement and designed with the following components:

1. Student achievement data and analysis;
2. Theory;
3. Classroom demonstration and practice;
4. Observation and reflection;
5. Teacher collaboration and study of implementation; and
6. Integration of instructional technology, if applicable;

(4) Include an evaluation component of professional development that documents the improvement in instructional practice and the effect on student learning; and

(5) Support the professional development needs of district licensed staff responsible for instruction.

c. Attendance center professional development plans. Each attendance center within a school district shall develop an attendance center professional development plan as a means of promoting group professional development. An attendance center professional development plan shall further the needs of the teachers in the attendance center and shall enhance the student achievement goals of the attendance center and the goals of the district.

d. Individual professional development plans. The school district and area education agency shall support the development and implementation of the individual teacher professional development plan for each teacher as outlined in subrule 83.6(1). Each individual teacher professional development plan shall align to the fullest extent possible with the district professional development plan.

e. Beginning teacher mentoring and induction. The school district shall support the development and implementation of a beginning teacher mentoring and induction plan as outlined in subrule 83.3(3). The district beginning teacher mentoring and induction plan shall be included in the comprehensive school improvement plan submitted pursuant to Iowa Code section 256.7(21), paragraph *"a,"* and shall align with the district professional development plan described in subrule 83.6(2), paragraph *"a."*

f. Organizational support for professional development. The school district shall provide resources and support for the district professional development plan, including professional development provider(s), time for collaborative work of staff, budget, policies, and procedures.

83.6(3) *Professional development provider requirements.*

a. A provider may be a school district, an area education agency, a higher education institution, a public or private entity including a professional organization that provides long-term, ongoing support of the district's or area education agency's professional development plan, or a consortium of any of the foregoing. An educational organization or program with specific professional development accreditation or approval from the department is an approved provider.

b. Provider approval procedures must be followed to approve providers identified in the district's or area education agency's professional development plan that are not currently accredited or approved through state accreditation procedures. The potential provider must submit to the school district a written application that provides the following documentation:

(1) How the provider will deliver technical assistance that meets the Iowa professional development standards provided in subrule 83.6(2), paragraph *"b."*

(2) How the provider intends to assist the local district in designing, implementing, and evaluating professional development that meets the requirements established in subrule 83.6(2), paragraph *"a."*

(3) A description of the qualifications of the provider.

(4) Evidence of the provider's expertise in professional development.

(5) A budget.

(6) Procedures for evaluating the effectiveness of the technical assistance delivered by the provider.

281—83.7(284) Teacher quality committees. Each school district and area education agency shall create a teacher quality committee pursuant to 2007 Iowa Code Supplement section 284.4. The committee is subject to the requirements of the Iowa open meetings law (Iowa Code chapter 21). To the extent possible, committee membership shall have balanced representation with regard to gender. The committee shall do all of the following:

1. Monitor the implementation of the requirements of statutes and administrative code provisions relating to this chapter, including requirements that affect any agreement negotiated pursuant to Iowa Code chapter 20.

2. Monitor the evaluation requirements of this chapter to ensure evaluations are conducted in a fair and consistent manner throughout the school district or agency. In addition to any negotiated evaluation procedures, develop model evidence for the Iowa teaching standards and criteria. The model evidence will minimize paperwork and focus on teacher improvement. The model evidence will determine which standards and criteria can be met through observation and which evidence meets multiple standards and criteria.

3. Determine, following the adoption of the Iowa professional development model by the state board of education, the use and distribution of the professional development funds distributed to the school district or agency as provided in 2007 Iowa Code Supplement section 284.13, subsection 1, paragraph *"d,"* based upon school district or agency, attendance center, and individual teacher professional development plans.

4. Monitor the professional development in each attendance center to ensure that the professional development meets school district or agency, attendance center, and individual teacher professional development plans.

5. Ensure the agreement negotiated pursuant to Iowa Code chapter 20 determines the compensation for teachers on the committee for work responsibilities required beyond the normal workday.

6. Make recommendations to the school board and the certified bargaining representative regarding the expenditures of market factor incentives.

DIVISION III
SPECIFIC STANDARDS APPLICABLE TO ADMINISTRATOR QUALITY PROGRAMS

281—83.8(284A) Administrator quality program. An administrator quality program is established to promote high student achievement and enhanced educator quality. The program shall consist of the following four major components:

1. Adherence to the Iowa school leadership standards and criteria as the minimum basis for evaluations of administrators and as the basis for professional development plans for administrators.
2. Mentoring and induction programs that provide support for administrators in accordance with 2007 Iowa Code Supplement section 284A.5.
3. Professional development designed to directly support best practice for leadership.
4. Evaluation of administrators against the Iowa standards for school administrators.

281—83.9(284A) Mentoring and induction program for administrators.

83.9(1) *Purpose.* A beginning administrator mentoring and induction program is created to promote excellence in school leadership, improve classroom instruction, enhance student achievement, build a supportive environment within school districts, increase the retention of promising school leaders, and promote the personal and professional well-being of administrators.

83.9(2) *District participation.* Each school board shall establish an administrator mentoring program for all beginning administrators. The school board may adopt the model program developed by the department or develop the program locally. Each school board's beginning administrator mentoring and induction program shall, at a minimum, provide for one year of programming to support the Iowa standards for school administrators adopted pursuant to 2007 Iowa Code Supplement section 256.7(27), and to support beginning administrators' professional and personal needs. Each school board shall include in the program the mentor selection process, supports for beginning administrators, and the organizational and collaborative structures. Each district must also provide the budget, establish a process for sustainability of the program, and establish a process for program evaluation. The school board employing an administrator shall determine the conditions and requirements of an administrator participating in a program established pursuant to this rule. A school board shall include its plan in the school district's comprehensive school improvement plan.

83.9(3) *Recommendation for licensure.* By the end of a beginning administrator's first year of employment, the beginning administrator shall be comprehensively evaluated to determine if the administrator meets expectations to move to a professional administrator license. The school district or area education agency shall recommend the beginning administrator for a professional administrator license to the board of educational examiners upon the administrator's completion of a successful comprehensive evaluation. The evaluation process must include documented evidence of the administrator's competence in meeting the Iowa leadership standards. A school district or area education agency may allow a beginning administrator a second year to demonstrate competence in the Iowa standards for school administrators if, after conducting a comprehensive evaluation, the school district or area education agency determines that the administrator is likely to successfully demonstrate competence in the Iowa standards for school administrators by the end of the second year. Upon notification by the school district or area education agency, the board of educational examiners shall grant a beginning administrator who has been allowed a second year to demonstrate competence a one-year extension of the beginning administrator's initial license. An administrator granted a second year to demonstrate competence shall undergo a comprehensive evaluation at the end of the second year.

281—83.10(284A) Iowa school leadership standards and criteria for administrators. The Iowa school leadership standards and criteria represent a set of knowledge and skills that reflects the best evidence available regarding effective leadership. The standards and criteria provide school districts with a consistent basis for evaluations of administrators and serve as the basis for professional development plans for administrators. A local school board may establish additional administrator standards and related criteria, but shall at a minimum utilize the following standards, with supporting

criteria listed after each, in evaluating its school leaders and adopting individual professional development plans therefor:

83.10(1) *Shared vision.* An educational leader promotes the success of all students by facilitating the development, articulation, implementation, and stewardship of a vision of learning that is shared and supported by the school community. The administrator:

a. In collaboration with others, uses appropriate data to establish rigorous, concrete goals in the context of student achievement and instructional programs.

b. Uses research and best practice in improving the educational program.

c. Articulates and promotes high expectations for teaching and learning.

d. Aligns and implements the educational program, plans, actions, and resources with the district's vision and goals.

e. Provides leadership for major initiatives and efforts to effectuate change.

f. Communicates effectively with various stakeholders regarding progress with school improvement plan goals.

83.10(2) *Culture of learning.* An educational leader promotes the success of all students by advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional development. The administrator:

a. Provides leadership for assessing, developing, and improving the climate and culture of learning.

b. Systematically and fairly recognizes and celebrates accomplishments of staff and students.

c. Provides leadership, encouragement, opportunities, and structure for staff to continually design more effective teaching and learning experiences for all students.

d. Monitors and evaluates the effectiveness of curriculum, instruction, and assessment.

e. Evaluates staff and provides ongoing coaching for improvement.

f. Ensures that staff members have professional development that directly enhances their performance and improves student learning.

g. Uses current research and theory about effective schools and leadership to develop and revise the administrator's professional growth plan.

h. Promotes collaboration with all stakeholders.

i. Is easily accessible and approachable to all stakeholders.

j. Is highly visible and engaged in the school community.

k. Articulates the desired school culture and shows evidence about how it is reinforced.

83.10(3) *Management.* An educational leader promotes the success of all students by ensuring management of the organization, operations, and resources for a safe, efficient, and effective learning environment. The administrator:

a. Complies with state and federal mandates and local school board policies.

b. Recruits, selects, inducts, and retains staff to support quality instruction.

c. Addresses current and potential issues in a timely manner.

d. Manages fiscal and physical resources responsibly, efficiently, and effectively.

e. Protects instructional time by designing and managing operational procedures to maximize learning.

f. Communicates effectively with both internal and external audiences about the operations of the school.

83.10(4) *Family and community.* An educational leader promotes the success of all students by collaborating with families and community members, responding to diverse community interests and needs, and mobilizing community resources. The administrator:

a. Engages family and community by promoting shared responsibility for student learning and support of the educational system.

b. Promotes and supports a structure for family and community involvement in the educational system.

c. Facilitates the connections of students and families to the health and social services that support a focus on learning.

d. Collaboratively establishes a culture that welcomes and honors families and community and seeks ways to engage them in student learning.

83.10(5) *Ethics.* An educational leader promotes the success of all students by acting with integrity and fairness and in an ethical manner. The administrator:

a. Demonstrates ethical and professional behavior.

b. Demonstrates values, beliefs, and attitudes that inspire others to higher levels of performance.

c. Fosters and maintains caring professional relationships with staff.

d. Demonstrates appreciation for and sensitivity to diversity in the school community.

e. Is respectful of divergent opinions.

83.10(6) *Societal context.* An educational leader promotes the success of all students by understanding the profile of the community and by responding to and influencing the larger political, social, economic, legal, and cultural context. The administrator:

a. Collaborates with service providers and other decision makers to improve teaching and learning.

b. Advocates for the welfare of all members of the learning community.

c. Designs and implements appropriate strategies to reach desired goals.

281—83.11(284A) Evaluation. The board of directors of a school district shall conduct an evaluation of an administrator who holds a professional administrator license issued under Iowa Code chapter 272 at least once every three years for purposes of assisting the administrator in making continuous improvements, documenting continued competence in the Iowa standards for school administrators adopted pursuant to 2007 Iowa Code Supplement section 256.7(27), and determining whether the administrator's practice meets the board's expectations for the school district. The review shall include, at a minimum, an assessment of the administrator's competence in meeting the Iowa standards for school administrators and the goals of the administrator's individual professional development plan, including supporting documentation or artifacts aligned to the Iowa standards for school administrators and the individual administrator's professional development plan.

281—83.12(284A) Professional development of administrators.

83.12(1) *Responsibility of district.* Each school district shall be responsible for the provision of professional growth programming for individuals employed in a school district administrative position by the school district or area education agency as deemed appropriate by the board of directors of the school district or area education agency. School districts may collaborate with other educational stakeholders, including other school districts, area education agencies, professional organizations, higher education institutions, and private providers, regarding the provision of professional development for school district administrators. Professional development programming for school district administrators may include support that meets the individual administrator's professional development needs as aligned to the Iowa standards for school administrators adopted pursuant to 2007 Iowa Code Supplement section 256.7(27), and that meets individual administrator professional development plans.

83.12(2) *Individual plans.* In cooperation with the administrator's evaluator, an administrator who has a standard administrator's license issued by the board of educational examiners pursuant to Iowa Code chapter 272 and is employed by a school district or area education agency in a school district administrative position shall develop an individual administrator professional development plan. The purpose of the plan is to promote individual and group professional development. The individual plan shall be based, at a minimum, on the needs of the administrator. The individual plan shall be aligned, as appropriate, to the Iowa standards for school administrators adopted pursuant to 2007 Iowa Code Supplement section 256.7(27), and the student achievement goals of the attendance center and the school district as set forth in the comprehensive school improvement plan.

83.12(3) *Role of evaluator.* The administrator's evaluator shall meet annually as provided in Iowa Code section 279.23A with the administrator to review progress in meeting the goals in the administrator's individual professional development plan. The purpose of the meeting shall be to review collaborative work with other staff on student achievement goals and to modify as necessary the administrator's individual professional development plan to reflect the individual administrator's

and the school district's needs and the administrator's progress in meeting the goals in the plan. The administrator shall provide evidence of progress toward meeting the goals. Modifications to the plan may be made jointly by the administrator and the administrator's supervisor, or the supervisor may adjust the plan. Any changes in the plan made unilaterally by a supervisor must be clearly documented for the administrator.

These rules are intended to implement Iowa Code chapters 284 and 284A as amended by 2007 Iowa Acts, chapter 108.

[Filed emergency 8/16/99—published 9/8/99, effective 8/20/99]
[Filed 10/21/99, Notice 9/8/99—published 11/17/99, effective 12/22/99]
[Filed 8/4/00, Notice 6/28/00—published 8/23/00, effective 9/27/00]
[Filed 8/10/01, Notice 6/27/01—published 9/5/01, effective 10/10/01]
[Filed 5/9/02, Notice 2/6/02—published 5/29/02, effective 7/3/02]
[Filed 3/14/03, Notice 2/5/03—published 4/2/03, effective 5/7/03]
[Filed 1/16/04, Notice 12/10/03—published 2/4/04, effective 3/10/04]
[Filed 2/8/08, Notice 12/19/07—published 2/27/08, effective 4/2/08]
[Filed ARC 7785B (Notice ARC 7489B, IAB 1/14/09), IAB 5/20/09, effective 6/24/09]

279.19 Probationary period.

The first three consecutive years of employment of a teacher in the same school district are a probationary period. However, if the teacher has successfully completed a probationary period of employment for another school district located in Iowa, the probationary period in the current district of employment shall not exceed one year. A board of directors may waive the probationary period for any teacher who previously has served a probationary period in another school district and the board may extend the probationary period for an additional year with the consent of the teacher.

In the case of the termination of a probationary teacher's contract, the provisions of sections 279.15 and 279.16 shall apply. However, if the probationary teacher is a beginning teacher who fails to demonstrate competence in the Iowa teaching standards in accordance with chapter 284, the provisions of sections 279.17 and 279.18 shall also apply.

The board's decision shall be final and binding unless the termination was based upon an alleged violation of a constitutionally guaranteed right of the teacher or an alleged violation of public employee rights of the teacher under section 20.10.

Notwithstanding any provision to the contrary, the grievance procedures of section 20.18 relating to job performance or job retention shall not apply to a teacher during the first two years of the teacher's probationary period. However, this paragraph shall not apply to a teacher who has successfully completed a probationary period in a school district in Iowa.

[C77, 79, 81, §279.19]

98 Acts, ch 1215, §43; 98 Acts, ch 1216, §26, 41; 2001 Acts, ch 161, §18; 2002 Acts, ch 1152, §5

279.24 Contract with administrators - automatic continuation or termination.

1. An administrator's contract shall remain in force and effect for the period stated in the contract. The contract shall be automatically continued in force and effect for additional one-year periods beyond the end of its original term, except and until the contract is modified or terminated by mutual agreement of the board of directors and the administrator, or until terminated as provided by this section.

2. If the board of directors is considering termination of an administrator's contract, prior to any formal action, the board may arrange to meet in closed session, in accordance with the provisions of section 21.5, with the administrator and the administrator's representative. The board shall review the administrator's evaluation, review the reasons for nonrenewal, and give the administrator an opportunity to respond. If, following the closed session, the board of directors and the administrator are unable to mutually agree to a modification or termination of the administrator's contract, or the board of directors and the administrator are unable to mutually agree to enter into a one-year nonrenewable contract, the board of directors shall follow the procedures in this section.

3. An administrator may file a written resignation with the secretary of the school board on or before May 1 of each year or the date specified by the school board for return of the contract, whichever date occurs first.

4. Administrators employed in a school district for less than two consecutive years are probationary administrators. However, a school board may waive the probationary period for any administrator who has previously served a probationary period in another school district and the school board may extend the probationary period for an additional year with the consent of the administrator. If a school board determines that it should terminate a probationary administrator's contract, the school board shall notify the administrator not later than May 15 that the contract will not be renewed beyond the current year. The notice shall be in writing by letter, personally delivered, or mailed by certified mail. The notification shall be complete when received by the administrator. Within ten days after receiving the notice, the administrator may request a private conference with the school board to discuss the reasons for termination. The school board's decision to terminate a probationary administrator's contract shall be final unless the termination was based upon an alleged violation of a constitutionally guaranteed right of the administrator.

5. The school board may, by majority vote of the membership of the school board, cause the contract of an administrator to be terminated. If the school board determines that it should consider the termination of a nonprobationary administrator's contract, the following procedure shall apply:

a. On or before May 15, the administrator shall be notified in writing by a letter personally delivered or mailed by certified mail that the school board has voted to consider termination of the contract. The notification shall be complete when received by the administrator.

b. The notice shall state the specific reasons to be used by the school board for considering termination which for all administrators except superintendents shall be for just cause.

c. Within five days after receipt of the written notice that the school board has voted to consider termination of the contract, the administrator may request in writing to the secretary of the school board that the notification be forwarded to the board of educational examiners along with a request that the board of educational examiners submit a list of five qualified administrative law judges to the parties. Within three days from receipt of the list the parties shall select an administrative law judge by alternately removing a name from the list until only

one name remains. The person whose name remains shall be the administrative law judge. The parties shall determine by lot which party shall remove the first name from the list. The hearing shall be held no sooner than ten days and not later than thirty days following the administrator's request unless the parties otherwise agree. If the administrator does not request a hearing, the school board, not later than May 31, may determine the continuance or discontinuance of the contract and, if the board determines to continue the administrator's contract, whether to suspend the administrator with or without pay for a period specified by the board. School board action shall be by majority roll call vote entered on the minutes of the meeting. Notice of school board action shall be personally delivered or mailed to the administrator.

d. The administrative law judge selected shall notify the secretary of the school board and the administrator in writing concerning the date, time, and location of the hearing. The school board may be represented by a legal representative, if any, and the administrator shall appear and may be represented by counsel or by representative, if any. A transcript or recording shall be made of the proceedings at the hearing. A school board member or administrator is not liable for any damage to an administrator or school board member if a statement made at the hearing is determined to be erroneous as long as the statement was made in good faith.

e. The administrative law judge shall, within ten days following the date of the hearing, make a proposed decision as to whether or not the administrator should be dismissed, and shall give a copy of the proposed decision to the administrator and the school board. Findings of fact shall be prepared by the administrative law judge. The proposed decision of the administrative law judge shall become the final decision of the school board unless within ten days after the filing of the decision the administrator files a written notice of appeal with the school board, or the school board on its own motion determines to review the decision.

f. If the administrator appeals to the school board, or if the school board determines on its own motion to review the proposed decision of the administrative law judge, a private hearing shall be held before the school board within five days after the petition for review, or motion for review, has been made or at such other time as the parties agree. The private hearing is not subject to chapter 21. The school board may hear the case de novo upon the record as submitted before the administrative law judge. In cases where there is an appeal from a proposed decision or where a proposed decision is reviewed on motion of the school board, an opportunity shall be afforded to each party to file exceptions, present briefs, and present oral arguments to the school board which is to render the final decision. The secretary of the school board shall give the administrator written notice of the time, place, and date of the hearing. The school board shall meet within five days after the hearing to determine the question of continuance or discontinuance of the contract and, if the board determines to continue the administrator's contract, whether to suspend the administrator with or without pay for a period specified by the board. The school board shall make findings of fact which shall be based solely on the evidence in the record and on matters officially noticed in the record.

g. The decision of the school board shall be in writing and shall include findings of fact and conclusions of law, separately stated. Findings of fact, if set forth in statutory language, shall be accompanied by a concise and explicit statement of the underlying facts supporting the findings. Each conclusion of law shall be supported by cited authority or by reasoned opinion.

h. When the school board has reached a decision, opinion, or conclusion, it shall convene in open meeting and by roll call vote determine the continuance or discontinuance of the administrator's contract and, if the board votes to continue the administrator's contract, whether to suspend the administrator with or without pay for a period specified by the board. The record

of the private conference and findings of fact and exceptions shall be exempt from the provisions of chapter 22. The secretary of the school board shall immediately personally deliver or mail notice of the school board's action to the administrator.

i. The administrator may within thirty days after notification by the school board of discontinuance of the contract appeal to the district court of the county in which the administrative office of the school district is located.

6. The court may affirm the school board's action. The court shall reverse, modify, or grant any other appropriate relief from the school board's action, equitable or legal, and including declaratory relief, if substantial rights of the administrator have been prejudiced because the school board's action is any of the following:

a. In violation of constitutional or statutory provisions.

b. In excess of the statutory authority of the school board.

c. In violation of school board policy or rule.

d. Made upon unlawful procedure.

e. Affected by other error of law.

f. Unsupported by a preponderance of the evidence in the record made before the school board when that record is reviewed as a whole.

g. Unreasonable, arbitrary, or capricious, or characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

[C77, 79, 81, §279.24]

87 Acts, ch 39, §1; 88 Acts, ch 1109, §21; 90 Acts, ch 1249, §13; 92 Acts, ch 1009, §1; 92 Acts, ch 1227, §20; 93 Acts, ch 32, §3, 4; 2001 Acts, ch 62, §2

Iowa Department of Education

TITLE II A (§1112(C)(1)(I) REGULATORY GUIDANCE

September, 2009

This document is intended for use by public school districts needing guidance in developing strategies to ensure that poor and minority students are not taught at a higher rate than other students by inexperienced (a beginning teacher who does not have at least two years of teaching experience), unqualified (a person who has not completed an approved teacher preparation program and who does not qualify for an Iowa teaching license), or out-of-field teachers (a person who is licensed to teach in one subject area but is teaching in another subject area for which the person is not licensed). In the past, Iowa schools have typically used Title II, Part A funds for either class size reduction or limited professional development activities. This guidance is intended to expand current practices for the Title II, Part A program. Title II, Part A funds may be used to support strategies implemented by Iowa schools to lead teachers to the highly qualified status.

Consider the following suggestions in addressing this issue:

- Monitor and identify classrooms with certified and experienced teachers in high-poverty schools and provide them with incentives and assistance. Consider the following suggestions for supporting certified and experienced teachers, as well as to increase the number of certified and experienced teachers:
    - Ensure a district-wide procedure is in place to review enrollment rates of poor and minority students assigned to inexperienced, unqualified, or out-of-field teachers.
    - Establish a procedure to avoid placing first and second year teachers in high-poverty classrooms.
    - Provide financial incentives to highly qualified teachers who hold an assignment in a high-poverty classroom.
    - Provide financial support for an inexperienced or unqualified teacher to complete professional development leading to highly qualified status. If the teacher is not meeting one of the Iowa teaching standards, for example- classroom management, then Title II, Part A funds could be used for this person to learn additional strategies to improve the teacher's classroom management skills. Because of this professional development, the teacher then meets the Iowa teaching standard for classroom management and is recommended for a standard teaching license.
    - Provide other school-based incentives such as additional planning periods, professional development days, and assigned support staff.

- Decrease the number of highly qualified teachers who are teaching out-of-field through various strategies. For example, consider reassignment or sharing teachers with another district. It might be beneficial to provide financial support to complete college course work in a subject area. Perhaps Title II, Part A funds could be used as an incentive for someone to complete additional math credits to obtain the math endorsement. Additional consideration may be given for participation in distance learning through the Iowa Communications Network or other technologies.

- Increase teacher retention rates for less experienced teachers by paying for an additional year of mentoring and induction programs so they stay in their original school, or at least in the

profession. Title II, Part A funds could also be used to repay a portion of the college loans for each year the person continues to teach in that school district.

- As an administrative team review the hiring process to ensure the process is not contributing to poor and minority students being taught at a higher rate than other students by inexperienced, unqualified, or out-of-field teachers. For example, review the application, interview process, selection and placement decisions, and mentoring and induction program.

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Kevin, Del, Jim, and Marietta:

Site Visit Team Leaders will include a statement in each report, either a strength statement or a recommendation. Sample statements are as follows:

Strength:
The district reported the use of strategies that ensure poor and minority students are not taught at a higher rate than others students by inexperienced, unqualified, or out-of-field teachers. Examples included . . . . . .

Recommendation:
The district is expected to develop strategies to ensure that poor and minority students are not taught at a higher rate than other students by inexperienced, unqualified, or out-of-field teachers. The district might consider the following suggestions:

- Monitor and identify classrooms with certified and experienced teachers in high-poverty schools and provide them with incentives and assistance. Consider the following suggestions for supporting certified and experienced teachers, as well as to increase the number of certified and experienced teachers:
    - Ensure a district-wide procedure is in place to review enrollment rates of poor and minority students assigned to inexperienced, unqualified, or out-of-field teachers.
    - Establish a procedure to avoid placing first and second year teachers in high-poverty classrooms.
    - Provide financial incentives to highly qualified teachers who hold an assignment in a high-poverty classroom.
    - Provide financial support for an inexperienced teacher to complete professional development leading to highly qualified status.
    - Provide other school-based incentives such as additional planning periods, professional development days, and assigned support staff.
- Decrease the number of highly qualified teachers who are teaching out-of-field through various strategies. For example, consider reassignment, sharing teachers with another district, or distance learning through the Iowa Communications Network and other technologies.
- Increase teacher retention rates for less experienced teachers through mentoring and induction programs so they stay in their original school, or at least in the profession.
- As an administrative team review the hiring process to ensure the process is not contributing to poor and minority students being taught at a higher rate than other students by inexperienced, unqualified, or out-of-field teachers. For example, review the application, interview process, selection and placement decisions, and mentoring and induction program.

Talent to Teach, Lead and Change: Project TQ(3)

proposal for a
Teacher Quality Partnership Grant

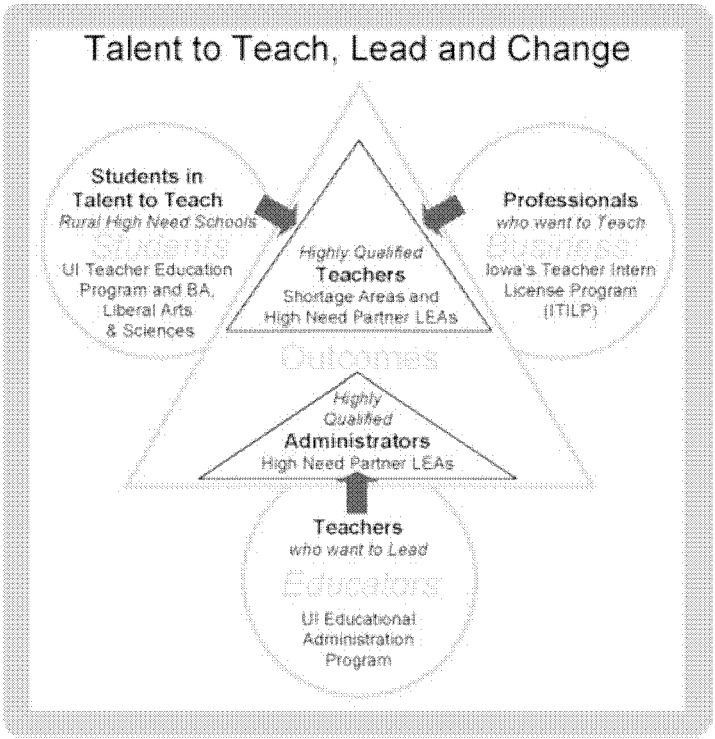
> **"In a global economy where the most valuable skill you can sell is your knowledge, a good education is no longer just a pathway to opportunity-it is a pre-requisite. The countries that out teach us today will out compete us tomorrow."**
>
> *President Barack Obama, (2009)*

ABSTRACT: *Project TQ(3): Developing a Pool of Diverse and Highly Qualified Teachers and Administrators for Iowa's Rural Students* [TQ(3)] is a new initiative by The University of Iowa (UI) College of Education to increase student achievement in Iowa's K-12 schools by developing highly qualified teachers. The UI College of Education is partnering with the UI College of Liberal Arts and Sciences (CLAS), UI Division of Continuing Education, UI Center for Enrichment and Diversity, the Iowa Department of Education, William Penn University, Iowa's ten Area Education Agencies, Rockwell Collins, Dardis Communications, and 48 qualified LEAs and 63 schools in Iowa. This project addresses the critical need for highly qualified teachers in shortage areas (i.e. Math Education, Science Education, Special Education, ESL/ELL, and Literacy) and administrators to work in high-need rural schools in Iowa. Project TQ(3) will develop an integrated system for the identification and development of teacher and administrator talent, generating a diverse pool of future teachers and administrators prepared to work in Iowa's high-need rural LEAs.

Project TQ(3) has three strands: 1) **Talent to Teach** (serving a. teacher candidates and b. para-educators), 2) **Talent to Lead** (serving teachers qualified to become administrators), and 3) **Talent to Change** (serving second career professionals to become teachers). Each strand has similar objectives: 1. **Identify** a pool of underserved candidates to teach in high-need schools; 2. **Recruit** participants to enroll in UI and William Penn University's' teacher preparation programs, UI's Educational Administration program or the Iowa Teacher Intern License Pathway (ITILP Residency) Program; 3) **Graduate/License** 80% of the participants in each strand as highly qualified teachers/administrators, 4) **Place** 80% of participants in high-need rural LEAs within one year of graduation/licensure, and 5) **Retain** teachers/administrators in high-need rural schools for a minimum of three years. TQ(3) project staff will recruit 480 participants from Iowa into the three strands in distinct cohorts beginning in Fall 2011: pre-service teachers (25/year); para-educators (25/year); second career professional (20/year) and teachers to administrators (25/year). To achieve project objectives, program activities include aggressive recruitment, active mentorship, and the delivery of high quality professional development support.

Project outcomes include: 1) increased numbers of highly qualified diverse teachers/administers in Iowa's high-need rural schools, 2) increased retention of highly qualified diverse teachers/administrators, 3) increased number of diverse licensed teachers in shortage areas, 4) broader collaboration between partners to identify, recruit, train, mentor and provide on-going professional development for future teachers, and 5) improved student achievement. Finally, this project will create a new model of teacher/administrative preparation that includes scaffolded supports to maximize participant success.

Project TQ(3) will develop a sustainable infrastructure for identifying and developing teacher and administrator talent, expand dramatically Iowa's pool of diverse and highly qualified teachers and administrators and positively impact achievement in Iowa's K-12 schools. Project partners will recruit and mentor participants, develop and deliver quality programming. UI faculty and staff will provide curricular support, professional development and technology training to all participants. The Iowa Department of Education will provide mentoring and induction support. A rigorous evaluation design will provide information about the project's efficacy and inform practice in how to develop diverse highly qualified teachers and administrators prepared to serve in high-need rural schools. The combination of expertise, commitment and resources of TQ(3) will have a significant impact on student achievement in Iowa.



The Iowa Professional Development Model
Training Manual

The Iowa Professional Development Model (IPDM) described in this training manual is a collaborative effort of the Iowa Department of Education and a stakeholders group representing area education agencies (AEAs), professional organizations (teachers, administrators, school boards), local education agencies (LEAs), higher education, and other providers of professional development in the state of Iowa. The model reflects their study, collaboration, reflection and negotiation and provides an invaluable roadmap to the conduct of staff development for educators in Iowa.

To access all the parts of the IPDM training manual on this site, you may click on the links in the left column below. Additionally, to explore the components of the model itself, you may click on components shown on the graphic. The manual is offered in two formats: .doc files are helpful for customizing manual pages for your school, and .pdf* files are preferred for reliable printing.

Parts of Manual

- **Front**
(Leads to pdf* file including list of officials, Table of Contents, and a background statement)

- **Part 1**
(Leads to web page for "Introduction to Training," individual related Tools, and links to video segments)

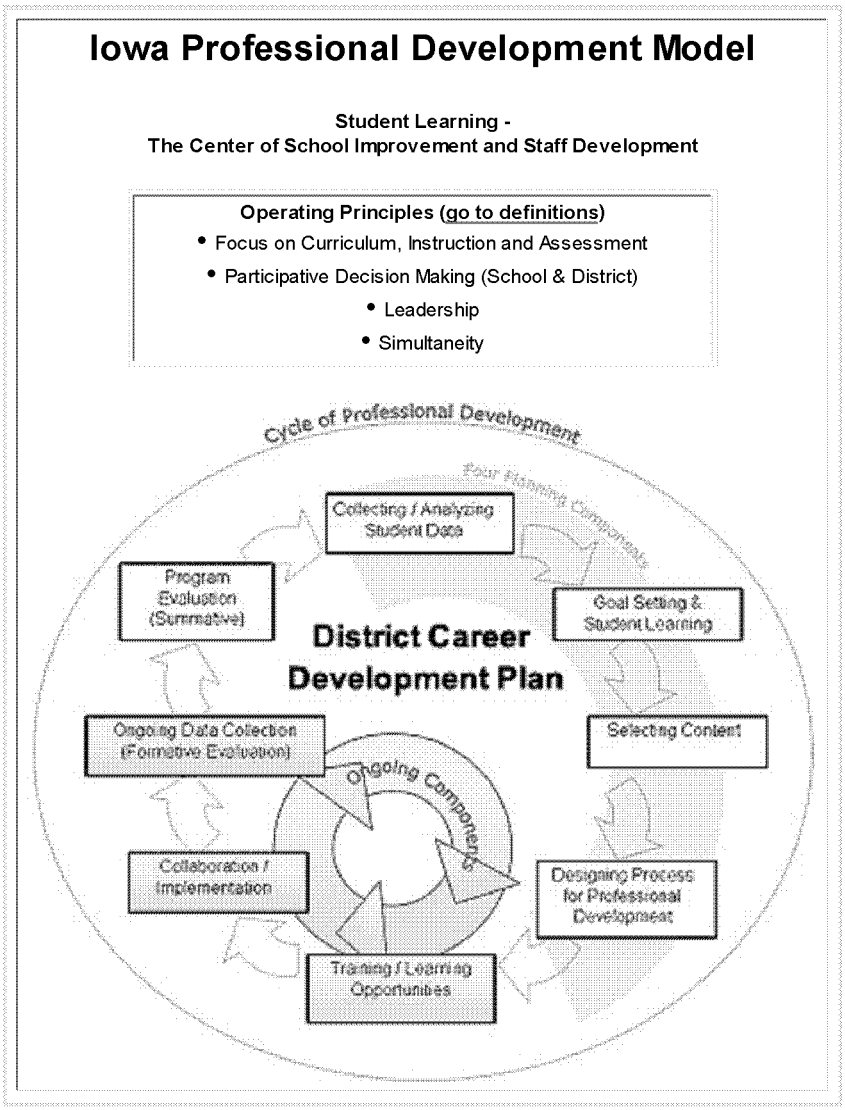
- **Part 2**
(Leads to web page for "Tour of the Model Components," individual related Tools, and links to video segments)

- **Part 3**
(Leads to web page for "Iowa Standards for Professional Development and Teaching," individual related Tools, and links to video segments)

- **Part 4**
(For high speed internet connections: leads to large pdf* file, 958K, of all "Tools and Resources")

- **Case Studies**
(Leads to case studies about model implementation in schools/districts)

- **References / Works Cited**
(Leads to pdf* file)



- **Video segments**
(Leads to Windows Media and RealPlayer video files as well as transcripts in doc and pdf* files)

Revised 2/8/05

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The Iowa Professional Development Model
Operating Principles

Return to Manual Home

- **Focus on Curriculum, Instruction, and Assessment**

A clear focus on instruction is essential. Deliberate alignment of instruction, curriculum, and assessment increases the likelihood that professional development efforts will be effective. If the goal is increased student achievement, use the most powerful tools over which the school has control.

- **Participative Decision Making**

Collective action requires a democratic process. Teachers are engaged in decision making and planning for professional development that is aligned with identified student needs. Communication and governance processes are in place to increase the likelihood that decisions made about staff development are binding. When professional development decisions affect a group (rather than an individual), group members must participate in those decisions.

- **Leadership**

Strong leaders are essential for successful professional development efforts. Leaders facilitate the engagement of all faculty members responsible for instruction, address time and resource issues and balance both the pressure and support required to sustain professional development efforts as a priority. For leadership to be pervasive and intense enough to make things happen at the district, building, and classroom levels, it must be distributed through the organization - involving the school board, central office administration, building-level administration, and teachers. Collective professional development aimed at student learning goals requires focused leadership.

- **Simultaneity**

Schools and districts often have to attend to multiple concerns simultaneously. Professional development efforts balance the resources directed toward and the efforts invested in content, context and processes. To accomplish student achievement gains, focusing on new content is the priority but simultaneously issues of context and process may also need to be addressed. Select a priority in which to invest professional development time and resources and then seek ways to integrate other concerns without losing focus on the major initiative. If multiple initiatives receive equal effort, the probability of succeeding with any of them is reduced.

rev. 9/28/04

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284.5 Beginning teacher mentoring and induction program.

1. A beginning teacher mentoring and induction program is created to promote excellence in teaching, enhance student achievement, build a supportive environment within school districts and area education agencies, increase the retention of promising beginning teachers, and promote the personal and professional well-being of teachers.

2. The state board shall adopt rules to administer this section.

3. Each school district and area education agency shall provide a beginning teacher mentoring and induction program for all teachers who are beginning teachers, and notwithstanding section 284.4, subsection 1, a school district and an area education agency shall be eligible to receive moneys under section 284.13, subsection 1, paragraph *"b"*, for purposes of implementing a beginning teacher mentoring and induction program in accordance with this section.

4. Each school district and area education agency shall develop an initial beginning teacher mentoring and induction plan. A school district shall include its plan in the school district's comprehensive school improvement plan submitted pursuant to section 256.7, subsection 21. The beginning teacher mentoring and induction plan shall, at a minimum, provide for a two-year sequence of induction program content and activities to support the Iowa teaching standards and beginning teacher professional and personal needs; mentor training that includes, at a minimum, skills of classroom demonstration and coaching, and district expectations for beginning teacher competence on Iowa teaching standards; placement of mentors and beginning teachers; the process for dissolving mentor and beginning teacher partnerships; district organizational support for release time for mentors and beginning teachers to plan, provide demonstration of classroom practices, observe teaching, and provide feedback; structure for mentor selection and assignment of mentors to beginning teachers; a district facilitator; and program evaluation.

5. A beginning teacher shall be informed by the school district or the area education agency, prior to the beginning teacher's participation in a mentoring and induction program, of the criteria upon which the beginning teacher shall be evaluated and of the evaluation process utilized by the school district or area education agency.

6. Upon completion of the program, the beginning teacher shall be comprehensively evaluated to determine if the teacher meets expectations to move to the career level. The school district or area education agency that employs the beginning teacher shall recommend for a standard license a beginning teacher who is determined through a comprehensive evaluation to demonstrate competence in the Iowa teaching standards. A school district or area education agency may offer a beginning teacher a third year of participation in the program if, after conducting a comprehensive evaluation, the school district determines that the teacher is likely to successfully complete the mentoring and induction program by the end of the third year of eligibility. A teacher granted a third year of eligibility shall develop a teacher's mentoring and induction program plan in accordance with this chapter and shall undergo a comprehensive evaluation at the end of the third year. The board of educational examiners shall grant a one-year extension of the beginning teacher's initial license upon notification by the school district that the teacher will participate in a third year of the school district's program.

7. If a beginning teacher who is participating in a mentoring and induction program leaves the employ of a school district or area education agency prior to completion of the program, the school district or area education agency subsequently hiring the beginning teacher shall credit the beginning teacher with the time earned in the program prior to the subsequent hiring.

8. If the general assembly appropriates moneys for purposes of this section, a school district or area education agency is eligible to receive state assistance for up to two years under this section

for each teacher the school district or area education agency employs who was formerly employed in an accredited nonpublic school or in another state as a first-year teacher. The school district or area education agency employing the teacher shall determine the conditions and requirements of a teacher participating in a program in accordance with this subsection. The school district or area education agency that employs the teacher shall recommend the teacher for an educational license if the teacher, through a comprehensive evaluation, is determined to demonstrate competence in the Iowa teaching standards.

2001 Acts, ch 161, §6; 2001 Acts, ch 177, §4, 15; 2002 Acts, ch 1152, §13; 2003 Acts, ch 180, §41; 2003 Acts, ch 182, §15; 2006 Acts, ch 1182, §12

284A.5 Beginning administrator mentoring and induction program.

1. A beginning administrator mentoring and induction program is created to promote excellence in school leadership, improve classroom instruction, enhance student achievement, build a supportive environment within school districts, increase the retention of promising school leaders, and promote the personal and professional well-being of administrators.

2. The department, in collaboration with other educational partners, shall develop a model beginning administrator mentoring and induction program for all beginning administrators.

3. Each school board shall establish an administrator mentoring program for all beginning administrators. The school board may adopt the model program developed by the department pursuant to subsection 2. Each school board's beginning administrator mentoring and induction program shall, at a minimum, provide for one year of programming to support the Iowa standards for school administrators adopted pursuant to section 256.7, subsection 27, and beginning administrators' professional and personal needs. Each school board shall develop an initial beginning administrator mentoring and induction plan. The plan shall describe the mentor selection process, describe supports for beginning administrators, describe program organizational and collaborative structures, provide a budget, provide for sustainability of the program, and provide for program evaluation. The school board employing an administrator shall determine the conditions and requirements of an administrator participating in a program established pursuant to this section. A school board shall include its plan in the school district's comprehensive school improvement plan submitted pursuant to section 256.7, subsection 21.

4. A beginning administrator shall be informed by the school district or the area education agency, prior to the beginning administrator's participation in a mentoring and induction program, of the criteria upon which the administrator will be evaluated and of the evaluation process utilized by the school district or area education agency.

5. By the end of a beginning administrator's first year of employment, the beginning administrator may be comprehensively evaluated to determine if the administrator meets expectations to move to a standard administrator license. The school district or area education agency that employs a beginning administrator shall recommend the beginning administrator for a standard license if the beginning administrator is determined through a comprehensive evaluation to demonstrate competence in the Iowa standards for school administrators adopted pursuant to section 256.7, subsection 27. A school district or area education agency may allow a beginning administrator a second year to demonstrate competence in the Iowa standards for school administrators if, after conducting a comprehensive evaluation, the school district or area education agency determines that the administrator is likely to successfully demonstrate competence in the Iowa standards for school administrators by the end of the second year. Upon notification by the school district or area education agency, the board of educational examiners shall grant a beginning administrator who has been allowed a second year to demonstrate competence a one-year extension of the beginning administrator's initial license. An administrator granted a second year to demonstrate competence shall undergo a comprehensive evaluation at the end of the second year.

2006 Acts, ch 1182, §29
C2007, §284A.2
2007 Acts, ch 108, §51 - 53, 61
CS2007, §284A.5

Project Narrative: State of Iowa Teacher Quality Partnership Grant

Introduction

The State of Iowa is fully committed to the belief that all students can learn at a high level. Iowa knows and agrees that the single most important element in improving student learning and achievement is to provide high quality teachers for every Iowa student. To realize this belief that all students can excel in learning requires a commitment to support and foster a wide array of partnerships that work together to reform and enhance Iowa's education system. If Iowa is to live by its guiding educational principle that a quality education is essential to a successful democracy, lifelong learning, and a vibrant economy, new methods must be engaged so that Iowa will best prepare teachers and leaders to serve in our schools—especially those schools who are faced with the biggest financial challenges and high teacher turnover.

Strong and Supportive Partnerships

The purpose of the Iowa Teacher Quality Partnership Grant is to forge a partnership among the Iowa Department of Education, the University of Northern Iowa, one of the state's leading teacher preparation institutions, and Dr. Raymond L. Pecheone, a nationally recognized education assessment scholar and Co-Executive Director of the Stanford University School Redesign Network to achieve the goal of significantly increased learning and achievement for Iowa's PK-12 students. The primary areas of focus provided by the plan are 1) to develop more highly effective teachers by defining emerging attributes of effective teaching and integrating those attributes into both pre-service programs and professional development for beginning and practicing teachers and 2) to examine and integrate a diverse set of teacher and student artifacts to document effective teaching featuring teacher work samples supported by an Iowa Integrated Technology Platform.

Support for this project comes from a diverse set of persons and organizations with nationally recognized expertise in this area. Formal supporters and partners include Dr. Linda Darling-Hammond (serving as principal investigator), Stanford University; Dr. Raymond L. Pecheone (serving as project director for TPA component of grant), Stanford University; Margaret Heritage, UCLA Center for Research on Evaluation, Standards, and Student Testing (CRESST); Iowa Association of School Boards; Iowa State Education Association; School Administrators of Iowa; State Board of Education and Iowa Association of Colleges of Teacher Education (IACTE).

In summary, this application meets the criteria for eligibility through a partnership developed among high-need local education agencies (LEAs), Iowa Department of Education, and institution of higher education (IHE) partner the University of Northern Iowa. Further documentation is provided in Appendix A.

A Clear Focus on Specific Grant Priorities and Competitive Preferences

This grant proposal addresses the following *absolute priorities* and *competitive preferences* which will subsequently be explained in more detail in this narrative and in the *Preferences and Invitations* attachment:

- **Absolute Priority 1: Partnership Grants for the Preparation of Teachers.** The eligible partner will carry out a reformed and enhanced effective pre-baccalaureate teacher preparation program. The grant project will be held accountable for the preparation and professional development of new and prospective teachers to understand empirically-based practice and scientifically valid research related to teaching and learning and the applicability of such practice and research including through the effective use of technology, instruction and strategies consistent with the principles of

universal design for learning positive behavioral intervention support strategies to improve student learning.

- **Competitive Preference Priority 1: Student Achievement and Continuous Program Improvement.** The eligible partner will collect and use data on student achievement to assess the effect of teachers prepared through the pre-baccalaureate teacher preparation program. Additionally, demonstrated will be capacity to provide longitudinal data capturing student achievement by teacher from year to year through the grant performance period. Applicant will provide for continuous improvement of participating teachers and of the pre-baccalaureate teacher preparation program based on longitudinal student achievement data. Relevant data would reflect the effectiveness of both teachers in the program and teachers not in the program on student learning and achievement. NOTE: Additional explanation is offered in the "Project Narrative Competitive Preference Priorities Narrative" which is attached as part of the electronic submission.
- **Competitive Preference Priority 4: Partnership with Digital Education Content Developer.** The applicant will partner with Iowa Public Television, an entity which is a partner within the structure of the Iowa Department of Education, to develop digital educational content to improve the quality of teacher preparation programs **and** enhance the equality of pre-service training for prospective teachers. NOTE: Additional explanation is offered in the "Project Narrative Competitive Preference Priorities Narrative", which is attached as part of the electronic submission.

Research Foundation for TQP Project: Developing Highly Effective Teachers and the Role of University of Northern Iowa in Developing Teacher Work Samples

The mission of the Teacher Quality Partnership Grant is to increase the learning and achievement of Iowa PK-12 students by developing more highly effective teachers. The grant will achieve this mission by tapping into the best research to assist in identifying the emerging attributes of effective teaching followed by the integration of a diverse set of teacher and student artifacts to document content knowledge of academic major and effective teaching featuring teacher work samples supported by an integrated technology platform.

The research supporting this approach is substantial. In a to-be-published book, *Improving Teacher Quality: Using the Teacher Work Sample to Make Evidence-Based Decisions* by John E. Henning, Frank W. Kohler, Victoria L. Robinson and Barry Wilson, the authors confirm that teacher work samples TWS consists of a description of a complete unit of instruction during student teaching, including the context of the unit, learning goals, a description of instructional decisions made during the lesson, a plan for assessment, a design for instruction, an analysis of student learning, and the student teacher's reflections on both learning and teaching. It should be noted that the authors were members of the ***Renaissance Group*** and leaders of the implementation effort at one of the ***Renaissance Group*** universities, the University of Northern Iowa, who is a partner in this grant project.

Initially, the TWS was introduced at the University of Northern Iowa (UNI) through a pilot project that began in 2000 and was officially adopted in 2003. The primary purpose for requiring completion of a teacher work sample was to ensure that student teachers had attained a minimal level of competency.

Over time, however, the implementation of the TWS has catalyzed a gradual series of changes. Those changes have had a widespread impact on teacher education programs in areas

that include assessment, teaching, and the revision of the TWS. Each of these changes was undertaken to better align the TWS with our program of instruction.

Emerging Role of Teacher Work Samples

The TWS originated at Western Oregon University in the 1980s under the leadership of Del Schalock. Its emergence was consonant with the shift away from the traditional view of educational assessment as objective testing and toward the increased utilization of performance-based assessments and multiple measures (Hambleton, 1996). The initial and primary purpose of the TWS was to provide authentic evidence of a minimal level of competency before receiving licensure (Schalock & Myton, 1988).

However, Girod (2002), also at Western Oregon, noted that the process of creating a TWS helped student teachers 1) develop a greater awareness of the relationship between student performance and their teaching behaviors and 2) make deeper connections between the processes of planning, teaching, and assessing student learning. The contents of Western Oregon's TWS are organized around the following sections:

Linking context to student learning

In this section of the prompt, student teachers describe the context of learning, including the school and community culture, demographics, school policies (e.g. dress code), their classroom, and their students.

Goals and objectives aligned with school, district and state goals

Goals and objectives for the instructional unit should be specific, thoughtful, and aligned with the rationale for the unit, the state and national standards, assessment strategies and the needs of students in the class.

Rationale for unit

The rationale for the unit should include an explanation of its significance, a justification for teaching it, a graphic organizer illustrating its sequence and conceptual overview and a description of the instructional decisions made when teaching it.

Pre/post assessment

Pre and post assessments should be clearly described, aligned, trustworthy, feasible, varied, and developmentally appropriate.

Lesson plans with adaptations

The lesson plans included in the TWS should be detailed and aligned, include motivational strategies, correspond with the pre and post assessments, use a variety of instructional strategies, and contain adaptations for students with special needs.

Data analysis

An analysis of student achievement data should be performed by groups (e.g., students with special needs), by clusters, by class, and for each student. The data analysis should also include a graphic display of pre/post differences and the learning gains made from pre to post assessment and an interpretive essay of the results.

Reflective essay

The TWS concludes with a reflective essay on classroom management, the evolving philosophy of the student teacher and an explication of the student teacher's personal/professional goals.

How Valid and Reliable is the TWS?

In a study by Denner, Salzman, and Bangert (2001), a group of cooperating teachers and college faculty were surveyed about the content validity of the TWS after serving as a team of expert raters during the scoring process. The expert raters consisted of nine public school

representatives, one principal and eight teachers, three of whom were Nationally Board Certified. The median years of teaching experience for this group was 18, ranging from 11 to 30 years.

When participants were asked whether the TWS represented the skills necessary for a beginning teacher, 68.8 % (n=11) said "absolutely yes," 18.8 % (n=3) said "yes," and 12.5 % (n=2) were "uncertain." When asked about the importance of these skills, the expert raters responded in the same percentages to "Critical" (68.8%), "Important" (18.8%), and "Somewhat Important" (12.5%). Finally, 68 % of the respondents agreed that practicing teachers used the tasks required by the TWS more than a few times a week.

Work on scoring reliability has been pioneered by Denner et al. (2001, 2003), who demonstrated that an acceptable level of inter-rater agreement can be achieved with as few as two raters. In another study at Western Oregon University, McConney and Ayres (1998) reported 81% to 98 % level of agreement between cooperating teachers and university supervisors when scoring the TWS.

What Makes the TWS Different from Previous Licensure Requirements?

What distinguishes the TWS from previous licensure requirements is its emphasis on improving P-12 student achievement. In contrast to National Board Certification, Interstate New Teacher Assessment and Support Consortium (INTASC), or Praxis III, the TWS provides written evidence of the student teacher's ability to have a positive impact on student learning (Girod, 2002; Schalock, Shalock, & Myton, 1998).

As part of the TWS, student teachers design a plan for collecting pre, post, and formative assessment data, and then use that data to conduct an analysis of student learning that considers the whole class, subgroups of the class, and at least two individual students.

The relationships uncovered during the analysis are included in the TWS in the form of charts, graphs, or other visual representations. Denner et al. (2001) found that if student teachers can do well on the Analysis of Student Learning, they are likely to receive a high overall score on the TWS. While student teachers at the University of Northern Iowa often feel challenged by this component of the TWS, they also express appreciation for the insights it affords. As one graduate commented, "This was a rewarding experience because I was able to prove that my students will leave third grade knowing more because of my teaching. I can make a difference."

How Can the TWS Improve Teacher Education Programs?

The data from the TWS are based directly on student achievement. Thus, they can provide programs and professors with valuable insights into the impact of their student teachers on PK-12 learning. To foster these insights, faculty members at the University of Northern Iowa teacher education are encouraged to serve as TWS scorers. Reading a completed TWS can emphasize to faculty that "coverage" is not equivalent to the deep learning needed for a successful teaching performance. The TWS also tends to reinforce the awareness that the performance of their former students—and less directly their own performance— will increasingly be viewed in light of student achievement at the P-12 level.

The initial informal readings of the TWS have gradually evolved to a system of more systematic and in-depth analysis since the rubric scores have been shared with the 240 members of the University of Northern Iowa teacher education faculty. Teacher educators are given an opportunity to review these data to determine growth areas or continued patterns of concern within their program areas and to determine specific course revisions and realignment of curriculum.

While faculty have always believed they were preparing future teachers with needed skills and knowledge to impact student learning, systematic feedback was not available regarding student strengths and weaknesses in areas such as assessment, lesson design, attention to individual difference, or reflective practice. Now professors of preparation courses have the opportunity to analyze how well the students can actually *apply* the knowledge or skills learned in the class.

The TWS is a potentially rich source of data, not only for assessing the instructional efficacy of the faculty, but also for investigating the thinking practices and professional development of pre-service teachers (McConney & Ayres, 1998). This data collection and recording is a continuous part of the University of Northern Iowa's accountability system.

Exploration within Pre-service Teacher Education

New approaches have been offered by researchers relative to pre-service education such as experiment with new TWS formats. For example, universities and school districts adopting the TWS might experiment with these variations to best meet their needs. In addition, other universities might also examine variations that are more substantial in nature. For example, perhaps the TWS could be modified to make it more relevant for special area educators, such as special education teachers, literacy specialists, or childhood teachers (PK – 2nd grade).

A second suggestion from the research is to develop new methods for preparing pre-service teachers for completing the TWS. As noted above, one of the primary purposes of the TWS is to provide evidence that program graduates are able to meet minimum competencies. Researchers suggest universities provide candidates with frequent and intensive opportunities to learn the TWS processes **before the actual student teaching experience**. A meaningful "future

direction" for teacher preparation programs is to explore additional ways to utilize TWSM during the entire preparation program.

A third suggestion is to integrate or combine the TWS with other evaluation methods. One of the primary purposes or functions of the TWS is to provide evidence that student teachers are able to meet minimum competencies. However, the TWS does not serve as the sole method of evaluation. As teacher educators examine ways to demonstrate accountability and address the standards that they operate under, the task is to find ways to have the TWS complement other measures of candidate performance and knowledge.

Extending the TWS to New Contexts

Currently, much of TWS is limited to pre-service teachers at the time of their enrollment in our teacher education program. The heaviest concentration of TWSM begins during the junior year and ends with student teaching. As teacher educators focus more on the issues of teacher induction, teacher quality, professional development, and school improvement, there may be advantages to expanding the utilization of the TWS to other contexts. The TWS possesses five traits that would make it a useful tool to facilitate reflection for other educators in contexts other than student teaching.

Extending to Graduate Students

The TWS could be implemented in a graduate program to meet a requirement for a masters paper or a culminating project. With the addition of a literature review, the TWS would have many similarities with an action research study. The Analysis of Learning section requires a similar analysis as typically performed in the Results section of a research study. Gains from pre to post assessment can be compared against existing baseline data analyzed to determine the efficacy of instructional strategies (Streifer, 2002). Similarly, the Reflection and Self-Evaluation section perform as a comparable function as the Discussion section in a study. Thus, the structure

of the TWS lends itself to the type of analytical reflection commonly done with action research studies.

Inducting Beginning Teachers

The research notes that TWS could be useful when evaluating beginning teachers by serving as evidence of teacher's ability to manage a sustained teaching performance. It would help beginning teachers focus on student learning, reflection, and improving instruction based on student performance. It would also provide a common professional language between new and mentoring teachers. A rapid acquisition of common terminology could also bring the new teacher into school improvement issues much more quickly. This would provide a smoother transition from inductee to fully functioning and participating member of the staff. It would also facilitate a seamless continuum of professional development from beginning to master teacher.

Finally, it would enable the collection of follow up data from program graduates who completed the TWS during student teaching. Implementing the TWS into the first the first 3-5 years of teaching could provide additional, relevant feedback to teacher education programs. As part of this process, it would be important to determine which measures would provide the most benefit to beginning teachers and teacher education programs.

Extending to Professional Development

Girod (2002) suggests the TWS could be expanded to include veteran teachers, perhaps to include an entire semester. Given the current interest with student achievement and standards, the TWS offers considerable potential as a practical tool for both professional development and licensure renewal among veteran teachers. Teachers could be offered Continuing Education Units (CEUs) for participating in professional development sessions.

A TWS for master teachers might look different from the Renaissance TWS for student teachers. But two essential components of TWSM would need to be preserved. Master teachers should supply evidence of student growth as well as documentation showing the alignment between their instruction and the teaching standards. Maintaining the two elements would ensure that TWSM could be adapted to serve the licensure process for practicing professionals.

The increased focus on student learning often has benefit for practice. As one cooperating teacher stated, "The TWS process helped me focus more on student learning. It was a form of professional development for me!" The authors agree and also would like to suggest it could be used as the focus of study group conversations or as a key source of data to be included in school improvement processes. Teachers could discuss the TWS a section at a time, and later score each other's TWS.

Extending to P-12 Administrators

Adopting the TWS would offer several advantages for principals. First, it would provide a coherent, performance-based assessment tool that addressed essential planning and assessment processes. Second, the seven teaching processes provide a template for principals, so they are less likely to overlook a critical component of teaching such as pre assessment. Thus, the use of the TWS would reinforce the role of the principal as an instructional leader. Iowa principals are required to receive training that could help them evaluate beginning teachers. The TWS could be used as a practice assessment tool when principals receive training to evaluate beginning teachers.

The TWS could also help principals by keeping their teachers focused on student achievement, providing a measure of professional development based on student achievement and fostering a shared language common to pre-service teachers, beginning teachers, and in-

service teachers. Thus, the TWS can enable a more seamless transition across a continuum of professional development experiences and maintain a strong connection between student achievement, professional development, and school improvement.

Role of a Digital Platform

Emphasized in this grant proposal is the need to develop an integrated technology platform that will provide a method to store artifacts of effective teaching. In addition, the platform allows for the scaling of artifact attributes. Based the research and development of Dr. Raymond Pecheone from Stanford University, a key partner in this grant project, advantages of such a platform have been explored and applied with success in other states such as California. In such as system, teacher work samples can be recorded for later review by the student, mentors, administrators and other stakeholders. The work plan and subsequent budget narrative explores the requirements to implement this platform. Also, there is an extensive discussion of the platform in the check list narrative section of this document.

Current Iowa Initiatives to Reform and Enhance Teacher Effectiveness

In addition to the national research that contributes to this project, Iowa specific initiatives serve to develop the foundation for this grant proposal. Selections of Iowa-specific research and initiatives have been placed in Appendix D of this application package for review. Initiatives include Adolescence Literacy, Authentic Intellectual Work, Concept-Oriented Reading Instruction, Cognitively Guided Instruction, Enhanced Assessment Grant –Formative Assessment, Every Child Reads, Every Learner Inquires, Every Student Counts, Instructional Decision Making, Iowa Arts Educators Mentor Program-Model of Excellence, Iowa Department of Education EdInsight Data Warehouse Project, Journey to Excellence Model Program, Our Kids, Picture Word Inductive Model, Question Answer Relationships, Second Chance Reading,

Teacher Development Academies, State Wide Reading Team, The Iowa Core Curriculum, and The Strategic Instruction Model.

Integration of Research with State of Iowa TQP Grant Proposal

The grant development team integrated much of this research into the design of the project mission, goals, and objectives. The grant will focus on developing a diverse set of teacher and student artifacts to document content knowledge of academic major and effective teaching featuring teacher work samples supported by an integrated technology platform. The purpose is to enhance and support the professional development of prospective and current teachers in Iowa and to improve decision making of evaluators, teacher and administrators in determining student growth, teacher growth and documentation of teacher effectiveness from the time an individual enters a preparation program to the time of exit of teaching.

Overview of Proposal: A Work Plan Summary

Provided below is a work plan summary which is intended to provide an overview of the mission, goals, objectives, activities, outcomes, and measures. Following the work plan summary will be discussion of the LEA schools identified for attention, details of how the partnership will support the work plan and the role of an integrated technology platform in creating higher quality teachers who will improve the educational performance of the students they teach.

PROJECT MISSION: The mission of the Teacher Quality Partnership Grant is to increase the learning and achievement of Iowa PK-12 students by developing more highly effective teachers. The grant will achieve this mission by 1) defining emerging attributes of effective teaching and integrating those attributes into both pre-service programs and professional development for beginning teachers and 2) examining and integrating a diverse set

of teacher and student artifacts to document content knowledge of academic major and effective teaching featuring teacher work samples supported by an integrated technology platform. The purpose is to enhance and support the professional development of prospective and current teachers in Iowa. Indicators of grant success for partner high-need local education agencies and institutions of higher education will be 1) a higher percentage of teacher education program completers recommended for licensure who demonstrate competence for teaching in high-need districts in multiple ways including improved scores leading to teacher licensure, 2) increased retention of prospective, beginning and experienced teachers, 3) a greater number of prospective, beginning and experienced teachers with electronic portfolios/integrated technology platforms evaluated through a consistent set of matrices and 4) enhanced professional development for pre-service faculty and evaluators and mentors of practicing teachers all with the result of measurably improved student learning and achievement.

GOAL #1—Emerging attributes of effective teaching will be examined, identified and defined in preparation for integration into a partner Institution of Higher Education pre-service program and into partner Local Education Agency professional development.

Objective #1: A review of research will result in a comprehensive study that identifies current and emerging attributes of teacher effectiveness.

Activities	Benchmarks	Timelines	Responsible Parties
Research team selected and recommended by advisory group to facilitate study	Agreement reached with research team	By end of month two	Project Director and IHE partner
Study facilitated and presented to advisory group	Research study accepted	By end of month five	Research team and Project Director

Advisory group accepts and communicates finds to all grant partners	Grant partners receive findings	By end of month six	Project Director
Outcome: All grant partners will have the benefit of study findings to develop pilot program			
Measurement: Grant partners confirm that they have received and considered research			

Objective #2: A collaborative team, which includes the partner institution of higher learning, partner local educational agencies and the Iowa Department of Education, will utilize findings to develop an enhanced and reformed definition of effective teaching.

Activities	**Benchmarks**	**Timelines**	**Responsible Parties**
Collaborative team members identified and meetings scheduled	Team member list and schedule	End of month seven	Project Director
Collaborative team members meet and develop definition of effective teaching	Definition developed	End of month eight	Project Director and Advisory Group
Definition communicated to grant partners	Document received by partners	End of month eight	Project Director
Grant partners received definition and confirm agreement	Grant partners communicate agreement	End of month eight	Project Director and partners
Outcome: Agreed upon definition of effective teaching accepted and agreed upon by grant partners			
Measurement: Grant partners confirm agreement of definition of effective teaching			

Objective #3: Develop scaling of digital artifacts aligned to the Interstate New Teacher Assessment Support Consortium (INTASC) and Iowa Teaching Standards (ITS).

Activities	**Benchmarks**	**Timelines**	**Responsible Parties**
Assessment consultant identified and selected	Consultant agreement secured	End of month two	Project Director, IHE and Advisory Group
An assessment team from grant partners formed	Team members listed and meeting scheduled	End of month two	Project Director, IHE and Advisory Group

A measurement system will be created by assessment team working with consultant and communicated to partners	Report created detailing measurement system presented to grant partners	End of month ten	Assessment Team
Outcome: Measurement system for scaling digital artifacts accepted and agreed upon by grant partners will be created			
Measurement: Grant partners provide documentation that system has been completed			

GOAL #2—Pre-service faculty will integrate the attributes of effective teaching into pre-service program, which will be documented in prospective teacher-created integrated technology platform.

Objective #1: A collaborative team, which includes the partner institution of higher learning, partner local educational agencies and the Iowa Department of Education, will utilize the attributes outlined in the study to develop and pilot a pre-service program.

Activities	Benchmarks	Timelines	Responsible Parties
Pilot team to develop pilot project formed	Team created and first meeting scheduled	By end of month two	IHE and Project Director
Pilot team creates pilot project for review by grant partners	Pilot model presented to grant partners	End of month 12	Pilot Team and Project Director
Pilot project finalized with feedback from all grant partners	Final pilot document shared with grant partners	End of month 14	Pilot Team and Project Director
Pilot project implementation plan developed by pilot team	Plan submitted to Project Director	End of month 15	Project Director and pilot implementing team
Pilot project implemented and assessed	Implementing partners submit results	Fall of 2012 through spring 2013	IHE partner, Project Director and pilot team
Outcome: Results from pilot project provide grant team with assessment of pre-service program enabling adjustments prior to full scale implementation			
Measurement: A summary result will be reviewed by grant partners and assessed regarding validity for full scale implementation			

Objective #2: A collaborative team, which includes the partner institution of higher learning, partner local educational agencies and the Iowa Department of Education, will utilize the results

of the pilot experience to revise and implement a pre-service program to be utilized by the partner institution of higher learning.

Activities	Benchmarks	Timelines	Responsible Parties
IHE will use pilot results to develop reformed and enhanced pre-service program	Creation of program	Summer of 2012	IHE partner institution
IHE will develop a phased implementation schedule for the program	Schedule created and published	Final year of program	IHE partner institution
Outcome: IHE will have developed and implemented a new pre-service program			
Measurement: Implementation to be evaluated			

Objective #3: Prospective teachers enrolled in the partner Institution of Higher Education will implement pedagogy reflecting emerging attributes of effective teaching and document through the creation of artifacts which are placed into integrated technology platforms.

Activities	Benchmarks	Timelines	Responsible Parties
IHE partner will incorporate attributes and artifact collection system into pre-service programs	IHE curricula document attributes and collection system	Beginning academic year of 2012/2013	IHE faculty
Prospective teachers will implement attributes during field experiences	Prospective teachers document implementation	Beginning academic year of 2012/2013	IHE faculty and prospective teachers
Prospective teachers will identify artifacts and place into integrated technology platform	Prospective teachers document implementation	Beginning academic year of 2012/2013	IHE faculty and prospective teachers
Outcome: All prospective teachers completing field experiences will demonstrate enhanced teacher effectiveness compared with previous pre-service teachers			
Measurement: Evaluation of pre-service teachers who complete field experiences			

Objective #4: Educational administration faculty will incorporate digital artifacts to reform and enhance the PK-12 administrator preparation program to provide support and retain effective beginning and practicing teachers.

Activities	Benchmarks	Timelines	Responsible Parties
IHE partner will incorporate attributes and artifact collection system into administrator preparation program	IHE curricula document attributes and collection system	Beginning academic year of 2012/2013	IHE faculty
Prospective administrators will use scaling of digital artifacts to support beginning and practicing teachers	Prospective administrators document implementation	Beginning academic year of 2012/2013	IHE faculty and prospective administrators
Outcome: Prospective administrators completing internships will demonstrate enhanced effectiveness compared with previous prospective administrators			
Measurement: Evaluation of administrators who complete internships			

GOAL #3—Partner Local Education Agencies will integrate the attributes of effective teaching into professional development, which will be documented in teacher-created integrated technology platforms.

Objective #1: A collaborative team, which includes the partner institution of higher learning, partner local educational agencies and the Iowa Department of Education, will utilize the attributes outlined in the study to pilot reformed and enhanced professional development.

Activities	Benchmarks	Timelines	Responsible Parties
Pilot team to develop pilot project formed	Team created and first meeting scheduled	By end of month two	IHE and Project Director
Pilot team creates pilot project model for review by grant partners	Pilot model presented to grant partners	By end of month 12	Pilot Team, IHE and Project Director

Pilot project finalized with feedback from all grant partners	Final pilot document shared with grant partners	By end of month 14	Pilot Team, IHE and Project Director
Pilot project implementation plan developed by pilot team	Plan submitted to project director	By end of month 15	IHE, Project Director and pilot implementing team
Pilot project implemented and assessed	Implementing partners submit results	Fall of 2011 through spring 2012	IHE, Project Director and pilot team
Outcome: Results from pilot project provide grant team with assessment of professional development enabling adjustments prior to full scale implementation			
Measurement: A summary result will be reviewed by grant partners and assessed regarding validity for full scale implementation			

Objective #2: A collaborative team, which includes the partner institution of higher learning, partner local educational agencies and the Iowa Department of Education, will utilize the results of the pilot experience to reform and improve practices for effective teaching professional development to be utilized by partner local education agencies.

Activities:	**Benchmarks**	**Timelines**	**Responsible Parties**
Pilot team to develop pilot project formed	Team created and first meeting scheduled	By end of month two	IHE and Project Director
Pilot team creates pilot project model for review by grant partners	Pilot model presented to grant partners	By end of month 12	Pilot Team, IHE and Project Director
Pilot project finalized with feedback from all grant partners	Final pilot document shared with grant partners	By end of month 14	Pilot team, IHE and Project Director
Pilot project implementation plan developed by pilot team	Plan submitted to project director	By end of month 15	IHE, Project Director and pilot implementing team
Pilot project implemented and assessed	Implementing partners submit results	Fall of 2011 through spring 2012	IHE, Project Director and pilot team
Outcome: Results from pilot project provide grant team with assessment of professional development enabling adjustments prior to full scale implementation			
Measurement: A summary result will be reviewed by grant partners and assessed regarding validity for full scale implementation			

Objective #3: Practicing teachers in partner Local Education Agencies will implement pedagogy reflecting emerging attributes of effective teaching and document through the creation of artifacts which will be placed into integrated technology platform.

Activities	Benchmarks	Timelines	Responsible Parties
LEA partners will incorporate attributes of effective teaching into pedagogy	LEA teachers document implementation	Beginning school year of 2012/2013	LEA faculty and IHE
LEA teachers will identify and/or create effective teaching artifacts and place into integrated technology platform that includes access through public television partnership	LEA teachers document implementation	Beginning school year of 2012/2013	LEA faculty, Iowa Department of Education, Iowa Public Television and IHE
Outcome: Student achievement will be measurably increased			
Measurement: Evaluation of student achievement including, but not limited to, student work samples and test scores			

Objective #4: Evaluator trainers will incorporate digital artifacts to reform and enhance evaluator training of PK-12 administrators to support and retain beginning and practicing teachers.

Activities	Benchmarks	Timelines	Responsible Parties
Evaluator trainers will incorporate attributes of effective teaching, artifact collection and artifact scaling into evaluator training	Evaluator training materials will indicate new evaluation process	Beginning academic year of 2012/2013	Evaluator trainers
Evaluators will use electronic artifact scaling to support teacher effectiveness	Evaluators report compliance	Beginning academic year of 2012/2013	LEA administrators
Outcome: Evaluators demonstrate effective use of digital artifact scaling in beginning and practicing teacher support			
Measurement: Survey report indicating compliance			

Objective #5: The Department of Education will develop an in-house integrated technology platform and system of storage, maintenance and retrieval to support pre-service and practicing teachers long term.

Activities	Benchmarks	Timelines	Responsible Parties
Team is assembled to investigate, plan, create and implement state platform	Team members meet	Month ten of project	Project Director
Team works with partner's platform, the DOE, and IHE to develop state of Iowa platform	Platform developed	By end of year two	Team, Project Director and IHE
Transition of data to new platform	Platform in use	Beginning of year three	Team, Project Director and IHE
Outcome: Iowa Integrated Technology Platform in use			
Measurement: Evaluation of utilization			

Indentifying Partner LEAs

As noted in the above work plan summary, a partnership with high-need schools will be developed. The criteria for selection follows the directives listed in the grant application under "eligibility." All districts indentified are included on the Small Rural School Achievement Program (SRSA) list. Additionally, the districts identified meet the criteria of teacher turnover rate of 16 percent or higher. Once a district has been identified, the individual schools selected will meet the criteria of residing in the highest quartile for percentage of students eligible for free and reduced lunch within the district. Attached as a separate file in this application package is the documentation relative to how partner LEAs will be identified.

Narrative of Program Requirements: Refer to Optional Checklist, Appendix B

The Iowa Teacher Quality Partnership Grant is designed to meet the goals of ***Absolute Priority 1***, ***Competitive Preference Priority 1*** and ***Competitive Preference Priority 4***. The

following narrative is organized to provide reviewers with more specific information beyond that detailed in the above work plan. The format aligns the information relative to the selected priorities with **Optional Checklist, Appendix B** which is included as part of this application package. Please note that aspects of the checklist that are not applicable to the priority elements selected are marked "NA" in the checklist.

General Application Requirements Checklist Narrative

In the following section of narrative, the grant team provides narrative addressing the General application requirements listed in the Optional Checklist. The application includes a completed optional checklist located in Appendix B. Please note that this section was organized to match the order provided in the optional checklist.

1. An application reflecting the eligibility of the partnership is effectively submitted by the result of this application. Also included is documentation detailing the partnership and the eligibility of each member.
    a. A **three part needs assessments** has been provided in **Appendix D** that addresses the requirements with respect to preparation, ongoing training, professional development and retention of general education and special education teachers and principals. Included are a summary of an alumni survey from UNI, the IDE new teacher retention data and the Iowa survey conducted by the New Teacher Center at UCSC survey report on prospective and beginning teachers.
    b. The purpose of the grant is to provide prospective and beginning teachers with pre-service training and professional development based on research supported attributes of effective teaching. Furthermore, evidence of strong teaching skills will be

documented through the collection of artifacts, which is an essential element of the integrated technology platform.

c. The understanding and use of research and data to modify and improve classroom instruction is embedded within teacher work sample, which is already in use by the IHE partner, and within the artifact collection and scaling through the integrated technology platform to be developed through this grant project.

d. (i) The eligible partnership is aware of and committed to the provisions provided under the Elementary and Secondary Education Act, the Individuals with Disabilities Education Act, and the National Science Foundation. (ii) Activities of this partnership will be consistent with state, local and other education reform activities in that this work will connect the IHE partner and pre-service teachers to the work practicing teachers and administrators in the state of Iowa are currently engaged in within the Iowa Core Curriculum.

e. The funding strategy presented in the budget and budget narrative for this project reflects how funds are integrated from other related sources. The strategy includes notation of (i) state match in years three through five, (ii) the intended use of funds such as developing a definition of effective teaching with subsequent pre-service programming and professional development and integration and eventual development of technology platforms to document artifacts of effective teaching and (iii) the commitment of the resources of the partnership to other activities assisted including financial support, faculty participation and time commitments. The continuation plan for this document rests primarily with the transition to an in-house integrated technology platform beginning in year three. Additionally, the IHE partner

will have adopted new and reformed methods of teaching pedagogy for pre-service programs that will offer improved outcomes following the conclusion of the grant period. The IHE will have developed new relationship with LEAs which will be ongoing after the end of the grant period. Administrators and mentors will benefit following the conclusion of the grant in their work with beginning teachers because they will have developed tools that will become a permanent part of their practice. In addition, it is expected that other institutions of higher education will join this effort. Therefore, the positive impact of this grant project will continue for years after the conclusion of year five.

f. (i, ii) In addition to the description of how this grant supports pre-service and beginning teachers, the project's overarching goal is to improve student academic achievement by providing more effective teachers in high-need schools. As described in the project work plan, pre-service and beginning teachers will receive support and professional development aligned to the attributes of effective teaching indentified through research. (iii) It is the intention of this grant that all teachers working with all students will be engaged with appropriate pre-service training and ongoing professional development with the goal of improving student academic achievement. Through ongoing professional development for administrators and mentors, the project will also focus on retention of general education teachers, special education teachers, talented and gifted teachers and English-language learner teachers. (iv) The evaluation plan which supports this section of the grant is included in the Accountability and Evaluation section of this document. (v I) NA, (vII) the University of Northern Iowa's method-based teacher education course require the

embedding of Iowa's academic standards within coursework. This would include the use of these standards as the students develop units and/or lessons that are taught during clinical experiences. Thus, these standards provide the pre-service students' frame work for instructional design and implementation. This issue is also addressed in the state of Iowa's Standards for Practitioner Preparation Programs: Instructional Planning. The candidate plans instruction based upon knowledge of subject matter, students, the community, curriculum goals and state curriculum models. (vi) University of Northern Iowa pre-service teachers will receive intensive instruction in meeting the needs of students with disabilities and serving as a member of the IEP team. A three-pronged approach will be used to address this need: (1) coursework specific to meeting the needs of students with disabilities, taught by faculty from the Department of Special Education, (2) infusion of special education content, including principles of universal design for learning, into education coursework, through collaboration between faculty from Special Education, faculty from the other departments, and teachers in the high-needs schools and (3) clinical experiences in classrooms serving children with disabilities in inclusive settings and, where appropriate, self-contained special education classrooms. (vii) Specific instruction on meeting the needs of English-language learners will be included in coursework. Professional development workshops will be offered for practicing teachers and clinical experiences with English-language learners in high-needs schools will occur. (viii, viii I, viii II) Collaborative teams, or Communities of Practice (CoPs) will work together to strengthen and reform teacher preparation and K-12 rural education, drawing on the expertise of both faculties. Teams will include content area specialists

from UNI's Colleges of Education, Humanities and Fine Arts, Natural Sciences, Social and Behavioral Sciences, as well as specialists in literacy, special education, learning theory, child and adolescent development, curriculum and instruction, and pedagogy from the College of Education and highly qualified practicing teachers (both beginning teachers and more experienced teachers) in the high-need schools.

The work of the CoPs, organized around endorsement areas (for example, Elementary Education, Secondary Mathematics, Secondary Social Studies, etc.) will focus on strengthening the pre-service teacher preparation programs through developing shared operational definitions of what effective teaching looks like in each subject area and/or grade band. Feedback loops will insure that the work of the CoPs will inform K-12 instructional practice and coursework for pre-service teachers at the university, promoting consistency between the content of coursework and clinical experiences in the rural high-needs schools.

Activities of the CoPs will include the following:

1. Participation in shared professional development efforts, building upon the Iowa Department of Education's Teacher Development Academies and other state professional initiatives such as *Adolescent Literacy* (focused on literacy instruction for adolescents), *Authentic Intellectual Work* (focused on cognitive complexity and teaching for understanding), *Concept-Oriented Reading Instruction* (focused on upper elementary and middle school literacy), *Every Child Reads* (focused on the five components of reading, reading strategies, using data to drive instructional decisions, and the use of classroom-based

assessments for frequent, ongoing monitoring of student progress), *Our Kids* (professional development for teachers of English-language learners); *Question Answer Relationships* (focused on middle and high school reading comprehension), *Second Chance Reading* (focused on helping struggling readers at the middle and high school levels), *Every Student Counts* (focused on teaching mathematics for understanding), *Cognitively Guided Instruction* (focused on the use of authentic formative assessment to plan instructional activities), and *Every Learner Inquires* (focused on inquiry-based science education K-12);

2. Summits on topics of need as identified by the CoPs and the PAIT (anticipated topics include meeting the needs of English-language learners, using principles of universal design for learning, differentiating instruction for students with diverse learning needs and using positive behavioral interventions, etc.);
3. Electronic communication using video conferencing, video streaming, blogs and other web-based systems to provide year-long opportunities for enrichment by extending university students' clinical experiences into geographically distant classrooms and
4. Use of the PAIT (described above) to document and assess teacher effectiveness, direct professional development efforts, and support supervision of pre-service teachers and mentoring of beginning teachers.

After the research study identifies the attributes of effective teaching, it will be the responsibility of the Department of Education in partnership with the IHE to align those attributes with the Iowa Core Curriculum and design professional development for teachers, mentors and administrators in elementary and secondary schools to develop attributes of effective teaching, to deepen content knowledge and implement literacy programs that incorporate essential components of reading instruction. (ix) All pre-service teachers at the University of Northern Iowa participate in at least 25 hours of clinical experience in the semester prior to student teaching (the methods semester). Most programs include many more than 25 hours (range 25-100 hours of pre-student teaching field experience). For the purpose of this proposed project, this year-long clinical experience will occur in the high-needs schools and will be augmented with other forms of communication between pre-service teachers, university faculty, and teachers in the high-needs schools. (x) See section viii. (xi) A system that collects this data is already in place. The IDE collects retention data annually. To further draw benefit from the data, the mission of this project provides for outcomes that will be reflected and analyzed using the retention data collected from the partner LEAs to evaluate the effectiveness of the program.

g. (i, ii) The state of Iowa has an induction program in place that includes mentoring by more experienced teachers. UNI will participate in this program through working directly with the beginning teachers and their mentors in the high-needs schools. Central to this work is the use of the integrated technology platform and the Performance Assessment for Iowa Teachers (PAIT) (described in greater detail below). The PAIT will provide a common system for collecting a wide array of

artifacts that demonstrate teacher effectiveness and that will be consistent from teacher preparation programs to the induction process for beginning teachers. Pre-service teachers who use the PAIT in their coursework and clinical experiences will continue to use it in the induction process. The PAIT serves as both a formative and a summative assessment of teacher effectiveness and provides detailed information that can be used to plan and design professional development experiences. UNI faculty will collaborate with the LEAs to provide professional development in areas of need as identified through the use of the PAIT. Components of the PAIT assess content expertise, teaching expertise, differentiation of instruction for diverse learners, ability to implement and appropriately use the results of assessments to adapt teaching, and meeting the needs of English-language learners. Mentor teachers will be adequately compensated through stipends and course credit for working with UNI faculty. (iii) In addition to the state mentoring program, the University of Northern Iowa will build upon its partnership with the National Commission on Teaching and America's Future (NCTAF), a nonpartisan, nonprofit, advocacy group dedicated to improving teacher quality and leading education company Pearson which is based on NCTAF's *Teachers Learning in Networked Communities* (TLINC) project funded in part by the *Fund for Improvement of Postsecondary Education* (FIPSE) . This partnership offers an online learning community designed to support teacher candidates and novice teachers with a broad network of mentors and experienced talent and to connect UNI educator preparation faculty with their K-12 district partners. (iv) UNI faculty will be provided release time to work with beginning and mentor teachers in the high-needs schools. If needed, they will be provided summer stipends to design and implement

professional development. They will also be provided with instructional designers to assist them with designing professional development experiences that integrate technology appropriately and meet the needs of distance learners. Additionally, they will be able to maintain the use of PAIT as a basis for continuing the examination of the new teacher's teaching effectiveness with the mentoring team of appropriate university faculty and district mentors.

Accountability and Evaluation

The University of Iowa Center for Evaluation and Assessment (CEA) will support the evaluation of the Iowa DE TQ partnership. Evaluation activities will occur for each of the project goals as well as for the initiative as a whole. Since 1992, the CEA has successfully completed more than 100 evaluations of educational and social programs and curriculum development and technology infusion projects, including projects funded by various private and non-profit foundations and NIH, NSF, FIPSE, HRSA, HHS, the Department of Education and state and local agencies. Completed evaluations include the Consortium for Minorities in Teaching Careers (CMTC) in the mid-1990s (Yarbrough, 1997) and the English-language learner component of the recently completed Teacher Quality Enhancement project awarded to the state of Iowa.

The evaluation will follow current best practice guidelines and conform to the *Program Evaluation Standards, 3rd Edition* (Yarbrough, Shulha, Hopson, & Caruthers, in press; Joint Committee, 1994), the American Evaluation Association Guiding Principles (AEA, 2005). The evaluation will serve multiple purposes, including:

- ***Accountability***, to determine if resources are used as proposed and if the activities and processes take place as proposed.

- ***Formative evaluation***, for project improvement to determine if resources are used as efficiently and effectively as possible, if collaborations among the partners and other activities take place effectively and efficiently, and whether barriers or impediments can be removed or reduced.
- ***Summative evaluation***, for the generation of new general and specific knowledge for dissemination about the recruitment and preparation of highly-qualified teachers and administrators, and the outcomes and impacts of highly-qualified teachers on student achievement.

Accountability and Evaluation

1. (A) The evaluation will investigate ***the achievement for all prospective and beginning teachers***, as measured by the eligible partnership with the University of Northern Iowa (UNI) through multiple, comprehensive activities. First, a *process evaluation* will be implemented to document the changes made to the teacher preparation program as a result of the Teacher Quality Partnership. Included in the process evaluation will be an investigation of how collaboration occurs between partners (Iowa DE, UNI, and LEAs) and within partner institutions. In addition, evaluation staff will work with project leaders and collaborators to evaluate the implementation of electronic portfolios, and the effects on intermediate outcomes such as the ability of participants to find employment.

   Second, an *outcomes evaluation* will be implemented to investigate changes in achievement for new and prospective teachers. During the first year of the project, the evaluation team will identify and select initial evaluation questions and the methods with which to investigate them in collaboration with project staff and representatives

from partner institutions. The evaluation team will work with stakeholders and project leaders to determine the strengths and weaknesses of various types of evidence. Then useful and accurate evidence will be collected based on current best standards of evaluation practice (Donaldson, Christie, & Mark, 2009; Frechtling, 2002; Mark, Henry, & Julnes, 2000; Stevens, Lawrenz, & Sharp, 1993; Worthen, & Sanders, 1997). Key clusters of questions will address the effectiveness of identification strategies, success identifying members of underrepresented groups, and how the identification and implementation processes can be augmented and improved.

During Year 1, evaluation staff will work with project staff and stakeholders to create logic models to address each of the major objectives of the TQP (Wyatt-Knowlton & Phillips, 2008). These models will also be informed by program theories. Program evaluation science (Chen, 2005; Chen & Rossi, 1983, 1990; Donaldson, 2007) has increasingly focused on the role of theory in guiding program implementation and the extent to which proposed and implemented programs are grounded in sound theoretical bases from multiple research paradigms and disciplines. In keeping with these new understandings, the evaluation of the TQP will focus on the explicit and implicit program theories that guides selection, programming and research facilitation, including the theories that help identify the talent to be developed (diagnostic theories), the programming to be developed (intervention theories) and the theories that guide program management and service delivery (process theories).

In addition to output tracking (described in section D), the CEA will identify outcomes for students, teachers, teacher candidates, and administrators. A pre-post survey instrument will be used to measure changes in prospective and beginning teachers' self-efficacy, interest in teaching, attitudes toward teaching, and views on the status of teaching. Results of a factor analysis of the survey instrument, using data from a national teacher recruitment program, led to these four areas (Yarbrough, 1997).

Teacher and student artifacts will be evaluated as instructional or curricular products. This will allow for a more nuanced investigation into the instructional abilities of the teachers, and will allow for some evidence of student processes and learning. The evaluation team will work with project staff, AEAs, and LEAs to finalize evaluation questions and the processes (e.g., rubrics or matrices). The process used to evaluate these artifacts will be reviewed with project staff and stakeholders annually.

(B). ***Teacher retention*** will be evaluated by examining both outputs (changes in retention rates) and outcomes (reasons for any changes in teacher retention rates). The evaluation team will work with project staff, the partner IHE, and identified LEAs to identify current teacher retention rates and processes for establishing a system to evaluate retention rates on an annual basis. Participants will be asked to complete a one-page "Participant Tracking" form to facilitate the evaluation of longer-term outputs, outcomes, and impacts. The tracking form will include information such as current contact phone number(s) and address, alternative (or

permanent) contact information, and the names and contact information for three friends or relatives who would be likely to know how to contact the participant.

At the end of the Teacher Quality Partnership funding, these annual rates will be used to produce summative information on changes in retention rates in the first three years of a teacher's career.

(C). Improvement in the pass rates and scaled scores for initial State certification or licensure of teachers. CEA staff will work with the Educational Placement Office at the UNI to investigate any changes in pass rates on the Praxis I and admissions standards into the teacher education program. In addition, information on teacher licensure rates will be tracked and documented throughout the project, and changes in these rates will be further investigated.

(D). *Methods that address the evaluation requirements of section 204(a) of the HEA*

Multiple methods will be implemented to track the project outputs required by section 204(a) of the HEA, including the participant tracking form. Evaluation staff will also work with staff at the partner institution and at the Area Education Associations to identify additional processes to track project participants, including the use of campus or school groups, or social networking sites.

The tracking form will allow the evaluation team to track the following outputs:

i. the percentage of highly-qualified teachers hired by the high-need local educational agency participating in the eligible partnership

ii. the percentage of highly qualified teachers hired by the high-need local educational agency who are members of underrepresented groups.

iii. The percentage of highly qualified teachers hired by the high-need local educational agency who teach high-need academic subject areas (such as reading, mathematics, science, and foreign language, including less commonly taught languages and critical foreign languages)

iv. The percentage of highly qualified teachers hired by the high-need local educational agency who teach in high-need area (including special education, language instruction educational programs for limited English proficient students, and early childhood education)

v. The percentage of highly qualified teachers hired by the high-need local educational agency who teach in high-need schools, disaggregated by the elementary school and secondary school levels

The evaluation team will collaborate with the AEA, partner IHE, and LEAs to track outputs and document outcomes for the percentage of teachers trained to integrate technology into instruction, including the extent that technology infusion is consistent with universal design for learning. Evaluation instruments will be created to examine the effects of this technology infusion, including barriers to success, teacher attitudes, and effects on students. Participating high quality teachers who use technology to collect, manage, and analyze data will be compared with teachers at similar schools who do not use technology in this manner. Differences in the outcomes for students of project and control teachers may include engagement, attitude, and achievement.

Reporting

Formative evaluation results will be reported in a timely manner to the staff at The University of Iowa, William Penn University, identified LEAs, and other stakeholders. The evaluation team will engage in rapid response reporting of any challenges or key problems for immediate improvement. In addition, annual reports will be constructed for accountability purposes, along with the GPRA reports. These annual reports will also focus on reporting more summative and generalizable information about identification, recruitment, and training of highly-qualified teachers and administrators. Finally, conference presentations and publications grounded in program theories will disseminate results to a wider audience.

Metaevaluation and establishment of a continuous feedback loop

An internal metaevaluation will be conducted. Metaevaluation is a specific type of evaluation, with a focus on accountability and quality assurance of another evaluation. The Program Evaluation Standards (3rd edition, forthcoming) propose that evaluations be held accountable for their utility, propriety, feasibility and accuracy. One aspect of the metaevaluation might examine the utility of evaluation results for various groups of stakeholders, such as project staff, participating teachers and administrators, or IHE partners.

In addition to annual reports, the evaluation team will work with project staff to establish routine meetings to share and discuss formative evaluation results. Processes will be developed to disseminate evaluation results to project stakeholders in a manner that is responsive to their needs. These processes will be reviewed annually for effectiveness and efficiency.

Evaluator Qualifications

The CEA Director, Dr. Yarbrough, has published widely using a variety of mixed methods, including experimental and naturalistic designs as well as quantitative and qualitative information types. He is currently a member and Chair of the Joint Committee on Standards for

Educational Evaluation (JCSEE) and also chairs the task force completing the third edition of the *Program Evaluation Standards* (in press). The CEA Associate Director, Dr. Melissa Chapman, will lead the evaluation of the TQ(3) program with the support of CEA staff. Dr. Chapman provided leadership and evaluation expertise for a state-wide Teacher Quality Enhancement project, and has led a number of other evaluations of projects that involved teacher professional development, English-language learners, analysis of a large statewide dataset, evaluation of program outputs and impacts, and the recruitment and improvement of teachers in STEM areas.

Pre-Baccalaureate Experience: Implementing Reforms within Each Teacher Education Program

(1) Implement Reforms Within each Teacher Preparation Program

1 (A I, II and B i, ii)The proposed project consists of significant reforms to the teacher preparation programs at the University of Northern Iowa (UNI), the largest teacher preparation institution in the state of Iowa. This project will involve university faculty, teacher education students, and beginning and practicing teachers (those who teach multiple subjects, special educators, and teachers of students who are English-language learners) in a seamless program of coursework, clinical experiences, and professional development. (B, ii) The goals of these reform efforts are to improve the selection and preparation of teacher candidates and to increase the effectiveness of beginning and practicing teachers in Iowa, so that all teachers in high-needs LEAs are highly qualified; well-versed in the application of empirically-based practices and scientifically valid research on teaching and learning, principles of universal design for learning, and positive behavioral interventions; and skilled in the effective use of technology to support student learning.

(B ii, II, and IV) Central to the proposed reforms are four components: (1) an integrated technology platform that will support the use of a performance-based system for assessing pre-service teacher quality, (2) intensive collaboration among practicing teachers in high-needs rural LEAs and faculty from across four colleges of Arts and Sciences at the university (Education, Natural Sciences, Social and Behavioral Sciences, and Humanities and Fine Arts) to strengthen content knowledge, pedagogy, student learning methods, and effective teaching strategies for all teachers in rural areas, (3) embedded clinical experiences in high-needs rural schools and (4) use of authentic settings by pre-service teachers for the analysis of student academic achievement data and its impact on improving and differentiating classroom instruction for all students including students with individualized education programs. These are described below. (B IV, bb) and (B IV, aa)

Integrated Technology Platform

(B VI, iii through vi) The use of the integrated technology platform (ITP) to enhance and assess teacher effectiveness is the centerpiece of the proposed project. The project capitalizes on the development and validation of the Performance Assessment for California Teachers (PACT), a performance-based system for assessing pre-service teacher quality designed and piloted by 16 California universities (Pecheone & Chung, 2006). The PACT draws from the INTASC (Interstate New Teacher Assessment and Support Consortium) Standards and the National Board for Professional Teaching Standards, adjusted to take account of teaching issues (such as the teaching of English-language learners) that are important in California. It includes a structured performance assessment and a regimen for scoring that has been honed over several years of research.

The PACT consists of a common assessment, called the Teaching Event (TE), and draws from artifacts created while teaching, accompanied by teacher commentaries that provide context and rationales needed to understand and interpret the artifacts. The PACT uses multiple sources of data (teacher plans, teacher artifacts, student work samples, video clips of teaching, and personal reflections and commentaries) that are organized into four categories of teaching: planning, instruction, assessment, and reflection. The assessment places student learning at the center with special attention to subject-specific pedagogy and the teaching of English-language learners. The PACT thus provides a rich and detailed picture of the teacher's knowledge, skills, and dispositions, and has the potential to inform individual teachers about their performance and drive individual professional development efforts. Specifically, the PACT documents how well the teacher or teacher candidate can:

- plan lessons with consideration for English-language learners and other students with learning challenges,
- teach the lessons to the K-12 students in public school classrooms,
- plan and give student assessments or tests based on the lessons,
- reflect on their own instruction, and
- examine student work and assessment results as evidence of the effectiveness of their instruction.

Reliability and validity of the PACT has been established by Dr. Pecheone and his team at Stanford University over several years of work with 16 teacher preparation programs across California (Pecheone & Chung, 2006). In the proposed project, a partnership with Dr. Pecheone will make it possible for the project team to customize the

PACT to address Iowa teaching standards and state licensure requirements and to establish reliability and validity of the assessment for use with pre-service and beginning teachers. The UNI faculty's considerable contributions to the development and validation of the Teacher Work Sample currently in use in Iowa uniquely qualifies UNI to work with the Stanford team on the customization of the PACT for Iowa.

In their work with teacher preparation programs in California, Dr. Pecheone and his team have found that implementation of the PACT is a powerful tool for identifying strengths and weaknesses of teacher preparation programs and serves as a catalyst for program improvement (Pecheone & Chung, 2006). Results include increased dialogue among program faculty about what constitutes effective teaching; articulation across courses, structures and roles; changes in content of some courses, and structural changes in teacher preparation programs.

The proposed project will build a system for collecting and documenting teacher effectiveness that will be consistent from teacher preparation programs through beginning teacher induction programs. The Iowa version of the PACT, the Performance Assessment of Iowa Teachers (PAIT). Will be used in five ways: (1) in coursework and clinical experiences with pre-service teachers, as a formative assessment, (2) with student teachers, as a summative assessment of their teacher preparation, (3) with beginning teachers in their first two years of teaching in the high-needs schools, as part of the induction and mentoring process, (4) with the teachers in the high-needs schools, as a mechanism for supporting supervision of pre-service teachers, mentoring of beginning teachers, and collaboration and communication between university faculty and teachers in the high-needs schools and (5) by university faculty, as a source of feedback

concerning the effectiveness of specific coursework and entire teacher preparation programs, identifying strengths and weaknesses of programs, and informing reform efforts. Analysis of the results of the PAIT with pre-service teachers will assist university faculty in identifying gaps in the teacher preparation programs.

Collaborations

One of the challenges of rural education is professional isolation. Iowa has over 300 small rural school districts, some that consist of only one school serving as few as 250-300 students. In small rural school districts, individual teachers frequently are the only person in the school with a particular area of expertise, so that they cannot identify colleagues with whom to consult and collaborate. Distance between schools can be a substantial barrier to professional collaborations. To combat this isolation, the proposed project will create a mechanism for using technology to bring together collaborative teams of university faculty and faculty from the high-needs schools participating in the project. These collaborative teams, or Communities of Practice (CoPs) will work together to strengthen and reform teacher preparation and K-12 rural education, drawing on the expertise of both faculties. Teams will include content area specialists from UNI's Colleges of Education, Humanities and Fine Arts, Natural Sciences, Social and Behavioral Sciences, as well as specialists in literacy, special education, learning theory, child and adolescent development, curriculum and instruction, and pedagogy from the College of Education, and beginning and experienced teachers in the high-needs schools.

The work of the CoPs, organized around endorsement areas (for example, Elementary Education, Secondary Mathematics, Secondary Social Studies, etc.) will focus on strengthening the pre-service teacher preparation programs through developing

shared operational definitions of what effective teaching looks like in each subject area and/or grade band. Feedback loops will insure that the work of the CoPs will inform K-12 instructional practice and coursework for pre-service teachers at the university, promoting consistency between the content of coursework and clinical experiences in the rural high-needs schools.

Activities of the CoPs will include the following:

- Participation in shared professional development efforts, building upon the Iowa Department of Education's Teacher Development Academies and other state professional initiatives such as *Adolescent Literacy* (focused on literacy instruction for adolescents), *Authentic Intellectual Work* (focused on cognitive complexity and teaching for understanding), *Concept-Oriented Reading Instruction* (focused on upper elementary and middle school literacy), *Every Child Reads* (focused on the five components of reading, reading strategies, using data to drive instructional decisions, and the use of classroom-based assessments for frequent, ongoing monitoring of student progress), *Our Kids* (professional development for teachers of English-language learners), *Question Answer Relationships* (focused on middle and high school reading comprehension), *Second Chance Reading* (focused on helping struggling readers at the middle and high school levels), *Every Student Counts* (focused on teaching mathematics for understanding), *Cognitively Guided Instruction* (focused on the use of authentic formative assessment to plan instructional activities), and *Every Learner Inquires* (focused on inquiry-based science education K-12),

- Summits on topics of need as identified by the CoPs and the PAIT (anticipated topics include meeting the needs of English-language learners, using principles of universal design for learning, differentiating instruction for students with diverse learning needs, using positive behavioral interventions, etc.),
- Electronic communication using video conferencing, video streaming, blogs and other web-based systems to provide year-long opportunities for enrichment by extending university students' clinical experiences into geographically distant classrooms and
- Use of the PAIT (described above) to document and assess teacher effectiveness, direct professional development efforts, and support supervision of pre-service teachers and mentoring of beginning teachers.

(2) Embedded Clinical Experiences

2 (A-H) Pre-service students will participate in clinical experiences in the high-needs schools during their final year in the teacher preparation programs. There are four required clinical experiences at the University of Northern Iowa. The first one is embedded in multiple schools. The second one takes place in Iowa's Research and Development School, UNI's Price Laboratory School. The final two semesters of the university's teacher preparation programs consist of methods classes (Level 3) and student teaching (Level 4), in that order. The methods semester includes a minimum of 25 hours of clinical field experiences (range 25-100 hours clinical experience pre-student teaching), depending on the program.

Field experiences for UNI students have been difficult to embed regularly in small rural schools, due primarily to geographic barriers. For this project, technology will be used to link the teachers in the high-needs schools with students at the university. Poly-coms and video streaming will make it possible for students in university coursework to observe in classrooms, get to know their supervising teachers, and become familiar with their teaching in addition to their face-to-face clinical experiences in the teachers' classrooms, thus providing the pre-service students with a clinical based experience throughout the course of their programs. Instructional designers will assist university faculty in designing coursework that can be completed on-line, increasing the amount of student time available for clinical experiences at Level 3.

The close collaboration between university faculty and teachers in the high-needs schools, fostered by the CoPs and the teachers' experiences using the PAIT in their own classrooms will make it possible for UNI faculty and classroom teachers to work together to integrate pedagogy and classroom practice. That is, students will experience continuity between what they learn about research-based practices and what they observe, implement, and reflect on in real classrooms, using the PAIT as a formative assessment. The use of the PAIT will support pre-service teachers in learning how to choose, implement, and analyze student assessment data and use the results to improve classroom instruction.

The use of the PAIT in the pre-student teaching clinical experiences will make it possible for students to receive specific feedback on their teaching from

UNI faculty and supervising teachers in the high-needs schools. Clinical experiences will focus on learning how to meet the specific learning needs of a diverse range of students including students with disabilities, English-language learners, students who are gifted and talented and students with low literacy levels. Clinical experiences will also provide students with opportunities to learn how to participate effectively as a member of an IEP team and collaborate with other specialists to identify strategies for meeting the needs of students with disabilities. Finally, practicing teachers in the high-needs schools will work with university faculty to insure that all pre-service teachers in the project receive instruction in how to use effective strategies for reading instruction, use appropriate screening tools and assessments to diagnose reading difficulties, individualize literacy instruction for students with deficiencies in literacy skills and integrate literacy skills across subject areas.

Students who participate in the project will complete their Level 4 student teaching in these small rural schools. The PAIT will serve as a summative assessment of pre-service teachers' knowledge, skills, and dispositions during the student teacher experience, insuring that graduates are qualified and ready to enter the field as highly effective teachers. Although the project cannot compel high-needs LEAs to hire these graduates, it is logical to assume that the knowledge and skill demonstrated by these graduates will make them highly sought-after by the rural schools in which they conduct their student teaching.

In addition to being used at the level of the individual teacher, data from the PAITs conducted by student teachers in the high-needs schools will be fed back to the programs in a feedback loop that will drive program reform.

Academic Achievement Data

The formal pre-baccalaureate classroom and clinical setting will provide pre-service teachers opportunities to analyze student academic achievement data and other measures of student learning to improve classroom instruction. The proficient use of well designed assessment tools supports learner-centered teaching as required in the new Iowa Core Curriculum.

UNI and LEA faculty will incorporate sound assessment technologies and strategies that provide continuous feedback on what is being learned, enabling teams of teachers to make necessary revisions that personalize learning resources and activities to individual needs. The use of the PAIT process will serve to immerse pre-service students and faculty participants in an example of comprehensive assessment model. This can assist in understanding the use of data from other scientifically valid and research based assessment tools. Regular discussions within the CoPs groups will establish a learning culture that will link the full learning cycle to ongoing student and program enhancement. These collaborative efforts will support learning and program improvement at both the local and university levels. The process of collaboration between faculty and pre-service student supports and encourages continuous learning, sustained teamwork, and agility in an ever-changing environment.

(3) Induction Program for Beginning Teachers

The project will make it possible for university faculty to participate actively in the induction program for beginning teachers in the high-needs schools. Specific activities in the induction program include the following:

- Mentors will receive professional development on how to use the PAIT as a tool in mentoring beginning teachers.
- Beginning teachers will complete the PAIT three times each year of the induction program.
- Mentors and university faculty will use the results of the PAIT to identify strengths and weaknesses and plan professional development experiences specifically targeted at areas of need.
- Beginning teachers will participate in Communities of Practice (CoPs) (see previous language in narrative) alongside university faculty and mentors.
- Integrate Teacher Work Samples process for measuring professional growth in "Journey to Excellence", an Iowa model for mentoring and induction for beginning teachers

(5) (a.b.c) **Teacher Recruitment**

The grant partnership will develop and implement strategies to recruit and retain highly qualified teachers from wider representative populations, including minorities, those will disabilities and teachers for whom their first language is not English. The IHE partner will implement an alternative licensure program in order to attract professionals from other fields to meet the needs of high-need, rural schools and shortages in specific content areas such as math, science, special education, and instruction for English-language learners.

The Iowa Mentoring and Induction Program and the Journey to Excellence Model Program support the recruitment and retention of beginning teachers by providing funding, public policy and training for PK-12 schools. Beginning teachers in high-need partner schools will be able to teach in an environment that provides guidance from a trained mentor and a supportive organizational structure at building and district levels.

A loan forgiveness program offer by the state of Iowa offers loan cancellation benefits to teachers who teach in shortage areas. The maximum annual award is 20 percent of the teacher's total federal Stafford loan balance, including principal and interest, not to exceed the average resident tuition rate established for students attending universities governed by the Iowa Board of Regents for the first year following the recipient's graduation. For 2008 graduates, the maximum award is $6,420.

(6) Literacy Training

The literacy component of the proposal will be based on research-based professional development models and programs, which the Department of Education and Area Education Agencies provide and continue to enhance for practicing teachers and administrators in Iowa. As listed previously and as described in Appendix D, faculty will be invited to participate in train-the-trainer professional development activities with the intention of integrating these literacy models and programs into the preparation program to strengthen literacy teaching skills of prospective and beginning teachers.

Iowa literacy models and programs incorporate the essential components of reading and writing across subject areas, including the use of screening, diagnostic, formative and summative assessments to improve classroom instruction for all students and provide individualized, intensive, targeted literacy instruction for students with deficiencies in literacy skills.

In Summary

The narrative provided details the background, research and project plan that will enable the Iowa Teacher Quality Partnership Grant to successfully meet the challenge of significantly improving the learning of Iowa's PK-12 students.

Summary

Improving the nation's public schools is one of the highest priorities of America's federal, state, and local governments. Among the imperatives gaining attention in recent years is the need to develop school leaders who are capable of exercising more vigilance over instruction and developing an institutional culture that supports effective teaching practices. To catalyze improvements in student learning, many states have enacted new leadership standards for principals and revised criteria for leader training programs. Districts, too, have begun to pay more heed to their own human resource pipelines by establishing programs to train aspiring principals and to develop the skills of mid-career principals. Recent research supports these efforts by finding that the quality of the principal is, among school-based factors, second only to the quality of the teacher in contributing to what students learn in the classroom (Leithwood et al., 2004).

These achievements, however, are not likely to have their desired effect if new policies and initiatives are inconsistent with other state and district policies affecting school leadership. If, for example, new leadership standards are implemented by the state but fail to influence the curriculum of professional preparation programs, they will have only marginal impact. And if principals receive strong leadership training aligned with standards but find that they have little authority over their school budgets or hiring, they will not be able to put the best practices they have learned into effect at their schools.

The Wallace Foundation, which has focused its grantmaking in education primarily on school leadership, has long recognized the need for more-coordinated state and district policies in this area. The Foundation's grants to states and districts over the past nine years have been designed to overcome the isolation of targeted reforms and to forge policy connections that could lead to more-cohesive and high-performing systems. The working hypothesis, or theory of action, behind these investments is that a cohesive leadership system (CLS), defined as well-coordinated policies and initiatives across state agencies and between the state and its districts, will increase the ability of principals to improve instruction in their schools. In particular, the hypothesis holds that coordinating the development of leadership standards, high-quality training, and the conditions that affect principals' work (such as access to data and sufficient

resources) will facilitate successful school leadership and support improved teaching and student learning. The Foundation commissioned RAND to document the results of its initiative and in the process to examine this hypothesis.

Study Purpose and Approach

This study had three objectives:

1. To document the actions taken by Wallace Foundation grantees to create a more cohesive set of policies and initiatives to improve instructional leadership in schools
2. To describe how states and districts have worked together to forge more-cohesive policies and initiatives around school leadership
3. To examine the hypothesis that more-cohesive systems do in fact improve school leadership.

To document what the grantees at selected sites had accomplished, the RAND research team addressed three questions:

1. What policies and initiatives have states and districts pursued to improve school leadership?
2. How are the states and districts interacting to improve school leadership?
3. To what extent have they built cohesion among school leadership policies and initiatives?

To describe system development, we addressed several other questions, including, What strategies have sites used to build CLSs and why are some sites more cohesive than others? And how are sites attempting to scale up and sustain their work?

The third objective—examining The Wallace Foundation's hypothesis—proved to be a difficult analytic challenge. Linking improved cohesion with student outcomes was beyond the scope of this two-year project. We chose instead to focus on the link between the conditions within which principals work and their reports on (and satisfaction with) time spent on specific instructional practices.

We performed a cross-case analysis, using a purposive sample of 10 Wallace grantee sites consisting of 10 states and their 17 affiliated districts. Before conducting site visits, we reviewed the literature on system-building and policy coherence and developed an understanding of the indicators of cohesive systems that we used to structure, compare, and interpret our findings. We then conducted site visits during which we interviewed 300 representatives of districts, state government, and pre-service principal preparation programs. We also fielded a survey of more than 600 principals and collected information in an online log in which nearly 170 principals described how

they spent their time every day for two weeks. We supplemented this information by interviewing 100 principals.

Results

The study found that it is possible to build more-cohesive leadership systems and that such efforts appear to be a promising approach to developing school leaders engaged in improving instruction. Perhaps the most useful result of the analysis is our account of the strategies state and district actors have devised to build stronger working relationships and greater cohesion around policies and initiatives to improve education. By identifying those sites that had built more-cohesive systems, we were able to compare their strategies and historical contexts with those of sites that had not yet achieved fully cohesive systems. In this way, we were able to identify effective approaches to this work and local conditions that fostered success. These findings should be useful to others building statewide systems to improve education. Although we could not provide evidence that the full underlying theory behind the Wallace initiative is sound, we did find a correlation between improved conditions for principals and their engagement in instructional practices.

What Are States and Districts Doing to Improve School Leadership?

Policies and initiatives. All the study sites had done something to improve school leadership. Their efforts were focused on six areas: standards, pre-service and recruitment, licensure, evaluation, in-service, and the conditions in which principals work. The policies and initiatives differed across sites in their focus, scope, stage of implementation, and the degree to which they challenged the status quo. We found that states and districts were equally likely to be engaged in this work. We also found that state and district domains of responsibility were converging. For example, states we studied were mandating evaluation systems and professional development for principals, which used to be primarily the domain of districts. Conversely, districts were developing their own pre-service programs (on their own, in partnership with local universities, or in partnership with nontraditional providers), a domain once dominated by state government.

Roles and interactions. We observed two patterns of interaction across the sites. In one, districts were, for the most part, improving school leadership on their own, without support or intervention from the state. In the other, the state was clearly the leader, with districts involved in primarily reactive ways. Kentucky was an exception; there, the school district and the state were equal partners in improving school leadership at the district and state levels. In Kentucky, and in some other sites falling into one of the two patterns above, the state was adept at identifying, supporting, and spreading good practices that were developed at the district level.

Degree of cohesion. We use the term *cohesion* to describe systems built in concert by the state and its affiliated districts. We identified sites with more- and less-advanced CLSs so that we could determine which strategies and contexts seemed to be beneficial in this work. Our analysis of interview data indicated that three sites—Delaware, Iowa, and Kentucky—had the most advanced CLSs at the time of our research. Compared with other sites, they exhibited all five characteristics we identified as present in highly cohesive leadership systems: comprehensiveness in the scope of their initiatives, alignment of policies and practices, broad stakeholder engagement, agreement on how to improve leadership, and coordination achieved through strong leadership. We also determined that although districts and states were equally likely to be taking action to improve leadership, states tended to lead efforts to build CLSs.

How Have Sites Built Cohesive Leadership Systems?

States, rather than districts, have played the key role in creating connections among state and district policies and initiatives on leadership. State agencies are better positioned than districts to foster broad stakeholder engagement and agreement among stakeholders, coordinate initiatives, and ensure statewide alignment of resulting policies. Organizations with a statewide purview are also more aware of other education reforms and how leadership improvements can be integrated into the broader agenda. A comparison of lead organizations, strategies, and contextual factors highlighted some important differences among state efforts.

Organizations leading efforts. Sites differed a great deal in the organizations that assumed the lead role in developing cohesiveness. In some sites, it was the state education agency (SEA); in others, it was a university or a professional association; in still others, a large district was an equal partner in the work. There appeared to be no "best" approach: The appropriate constellation of actors depended on the local context, including who had the power, capacity, and inclination to move the work forward.

In the sites with more-cohesive systems (Delaware, Iowa, and Kentucky), the lead agency was chosen strategically. For example, state leaders assessed the internal capacity of their own SEAs, taking into account whether staff would be able to think and work outside the boundaries created by categorical federal programs and the overall credibility of the SEA and its political priorities. These sites proactively developed distributed systems of leadership with key roles assigned to different types of organizations, including SEAs, universities, leadership academies, professional associations, regional education offices, and districts.

Strategies used to build cohesion. Interview data suggested that eight strategies were the most important for building cohesion:

1. Building trust
2. Creating formal and informal networks
3. Fostering communications

4. Exerting pressure and influence
5. Promoting improved quality of leadership policies and initiatives
6. Building capacity for the work
7. Identifying strong individuals with political and social capital to lead the work
8. Connecting to other reform efforts.

The sites with the most-cohesive leadership systems shared several distinctive approaches to implementing these strategies. First, unlike other sites, they were pursuing all eight strategies and working more intensively than others on three strategies in particular: building organizational capacity to accomplish the work, identifying leaders with strong social and political capital, and connecting the efforts on leadership improvement to other reform efforts in the state. Leaders who can connect school leadership reforms with other education initiatives in their states help build sustainability for their efforts and may reduce burdens on districts and schools. Also, in Delaware, Iowa, and Kentucky, distributed leadership systems were built with key state-level organizations, as described above.

Second, leaders in these states pursued strategic communications. Delaware and Iowa routinely gathered key state and district leaders into the same room to both learn about leadership and develop policies and initiatives to improve it. Kentucky accomplished the same goals in a serial fashion by holding town hall meetings throughout the state that were credited with creating "learning systems for leadership."

Third, all three sites combined pressure tactics and support in effective ways. In Kentucky, for example, to create an incentive for all higher education institutions to engage in pre-service redesign, Jefferson County Public Schools (JCPS) and the Department of Education sought approval from the State Board of Education to design their own program, applying pressure that succeeded in making the universities more active partners in the process. But Kentucky did not rely on pressure alone: CLS leaders also offered support for the redesign process in a number of ways.

Contextual factors that promoted or hindered the work. Interviewees reported a range of factors that enabled or inhibited efforts to build cohesion:

Enabling factors

- Common structures and policies
- A history of collaboration
- Strong preexisting social networks
- Participation of nontraditional actors
- Funding and technical assistance from The Wallace Foundation
- Political support
- Supportive, stable, and aligned superintendents and school boards

Inhibiting factors

- Limited resources
- Limited SEA capacity
- Turnover of key staff
- Too many organizations, too far apart
- Cultures of independence
- Discord across organizations
- Reform overload

Sites with the strongest record in building cohesion shared a number of enabling factors and were less limited by inhibiting factors. Delaware and Iowa both had a history of relatively positive relationships among deeply networked state-level stakeholders, as well as a history of collaboration among them. Although Kentucky did not have a history of positive collaboration between state and district actors, the Wallace funding and technical assistance created the opportunity for leaders from the SEA and JCPS to work collaboratively.

These sites also enjoyed a higher and more consistent level of political support than other sites in our sample. All three states have a history of activism in education reform, and their political leaders have long shared a commitment to school reform which created fertile ground for leadership initiatives.

Finally, the three sites were collectively less likely to face some of the key barriers to building a cohesive system, such as staff turnover, a culture of independence, or discord across organizations. Other barriers, however, were present, including limited resources and SEA capacity, organizations that were geographically far apart, and, in the case of Kentucky, a history of discord across organizations. We found some evidence that these three sites were more resourceful than others in developing strategies to overcome contextual challenges such as limited SEA capacity and a history of discord. Less-cohesive sites showed more limited capacity—and perhaps more limited will—to overcome such obstacles.

Sustaining and scaling up the work. Our interviews suggested that in more-cohesive sites, the CLS initiative is likely to continue beyond the period of Foundation support. Although many interviewees described challenges to sustaining this work once funding and technical assistance ends—challenges such as insufficient time, staff, and resources and the eventual loss of dynamic leaders—they also described creative strategies they were adopting to sustain and build on their achievements, including passing legislation, embedding the initiative into their state's education agenda, and vesting future leadership of the initiative in organizations outside government to help shield it from political changes in SEAs.

Many interviewees felt that their success in creating cohesion provided in itself some assurance that the initiative would survive. In some states, leaders felt their efforts had reached the point of no return: They had established bonds among people and

agencies, a common language and vision, and widespread commitment to the goal of improving school leadership.

Did We Find Support for the CLS Hypothesis?

We were not able to determine whether more-cohesive systems were correlated with the ability of principals to spend more time on practices that are reported to be effective in improving the quality of instruction. However, we did find that principals reporting favorable conditions also reported that they spent more time on a series of instructional leadership practices. Our analysis does not provide evidence of causation—there could be other explanations for this correlation—nor can we demonstrate that principals spending more time on these practices has improved student learning. But our findings do offer some support for the theory that positive conditions for principals promote stronger instructional leadership.

Recommendations

Our study findings provide some practical lessons drawn from the experiences of the hundreds of people we interviewed. Although we focus on lessons learned about system-building to improve school leadership, our recommendations are intended to be helpful to anyone engaged in developing closer working relationships between states and districts that can result in better aligned policies for improving education.

Early Steps

Consider local contexts and address the challenges they pose. Our analysis showed that local context can work either for or against efforts to develop cohesion. Clearly, sites with a culture and history of collaboration and strong social networks are better suited for such efforts. A supportive political structure for public education reform is also important. We found that building cohesive systems under challenging conditions, such as limited resources, cultures of independence, or reform "burnout," was difficult. However, some sites found ways to surmount barriers. Other sites interested in emulating these reform efforts could closely examine their context and their capacity for them. In particular, they may want to address potential barriers before launching new reform efforts.

Identify strong lead organizations and individuals. Although lead agencies in the sites we studied varied, what the most advanced sites had in common—and what distinguished them from most others—was a strategic approach to the selection of people and organizations to lead the work. It is critical to find strong leaders who can form significant bases of power, garner political support for improving school leadership, and connect school leadership efforts to broader reform initiatives in the state. We recommend that sites determine which of their agencies or organizations is best poised

to lead the effort to develop a CLS. In particular, sites should question whether the SEA is the best choice for this role, factoring in its overall capacity and credibility and its willingness to think and work outside the boundaries created by categorical federal programs.

Capitalize on external funding and expertise. All of the sites we studied benefited from funding and technical assistance from The Wallace Foundation. However, we found that many of the sites also capitalized on diverse sources of funding, such as local foundations, both before and during the course of the Wallace funding. They also sought technical assistance from others; all of the sites engaged external organizations, such as the Southern Regional Education Board (SREB), and key experts in school leadership to help them develop their capacity to do this work. The sites also met with each other to discuss strategies for success. Although securing a level of funding similar to the amounts awarded to the Wallace grantees may be challenging, new sites could investigate local foundations and businesses as possible sources. Furthermore, the sites described in this monograph are willing to provide technical assistance and guidance to other sites embarking on this work. Prospective sites could also learn from engaging expert organizations such as The Wallace Foundation and SREB as they explore options for building more-cohesive leadership systems.

The Implementation Phase

Build trust and mend fences. Relationships between state and district actors are sometimes acrimonious. The sites we studied reported that certain approaches to building trust were useful; such approaches included acknowledging that the state and the districts were "in this together" and ensuring that state actors took the time to understand district contexts and to develop the capacity to provide useful technical assistance. A "fresh face" also had benefits: New state actors repaired previously broken relationships between district and state organizations. Sites may need to address possible trust issues before undertaking efforts to develop CLSs. Once trust has been established, it should be easier to develop common understandings, shared goals, and joint ownership of the work.

Engage a broad coalition of stakeholders. Building cohesion requires serious efforts to engage stakeholders and foster agreement. Engagement for coordination requires time and resources. Sites should recognize the importance of involving relevant stakeholders and giving them the authority to make decisions, thereby fostering buy-in. Key state and district leaders would also benefit from meeting in the same room to discuss leadership and to develop policies and initiatives for improving it.

Hone skills at applying pressure while providing support. The most successful sites in this study combined pressure with support. This strategy benefited both states and districts. Applying pressure was effective when people perceived the state as willing and able to exercise its powers, and offering support was effective only when state actors

and agencies could provide expertise that districts needed. Sites that can apply pressure while being supportive might accomplish the greatest policy reforms.

Recognize innovative districts as "lead learners." A number of innovative and sustainable policies and initiatives that began in the districts we studied spread to other districts and/or to state policy. States whose districts have made progress in improving school leadership should recognize these achievements and hold the districts up as possible models for others. State officials would benefit from partnering with such "lead learners" and creating mechanisms for scaling up relevant initiatives.

Connect school leadership efforts to standards and to other reforms in the state. Savvy leaders we interviewed knew how to link their efforts to build CLSs to other reforms in their states, such as high school and middle school reform programs. This approach helped to provide a platform from which to align policies and initiatives and appeared to foster both viability and sustainability. To bolster the success of leadership efforts, new sites could integrate leadership policies with other educational reforms in their districts and state.

Evaluation, Sustainment, and Expansion

Solidify programs and funding through legislation and regulations. Widespread and long-term reform was achieved through legislation and mandates that ensured that initiatives such as mentoring, evaluation systems, and the redesign of pre-service programs were implemented and funded. Other sites could include regulatory and funding designs in their efforts to build cohesion.

Engage in continuous learning and improvement. Leaders and organizations involved in building a CLS sought and shared expertise by participating in networks, attending conferences, and sharing ideas from research. They collected data to demonstrate that building a CLS had made a difference and to attract future funding. Other sites would benefit from similar commitments to continuous improvements.

Commit to engaging in this work over the long term. As many people told us, aligning policies and practices and building collaborative relationships between states and districts is hard work. Four of our study sites had been able to implement only a few initiatives despite receiving levels of funding and support similar to those of other, more successful sites. Even leaders in sites that have relatively advanced CLSs reported that only after nine years of effort were they beginning to see a real difference. Those who choose to embark on such an initiative should be prepared to engage in the work over the long term.

Final Thoughts

We found that it is possible to develop cohesive leadership systems between states and districts to improve school leadership, and we have identified the approaches that

appear most effective for developing such systems, as well as local conditions that create a favorable environment for this work. Although we did not attempt to prove the hypothesis that such systems improve student outcomes, we affirmed the link between principals' conditions and the time they spend on instructional leadership practices. It is our hope that this analysis will help guide other states and districts in working collaboratively toward the common goal of improving school leadership.

APPENDIX E

Appendix E

Attachment Number	Attachment Title	Relevant Criterion	Page Number
(E)(1)-1	Senate File 2033—Reprinted	(E)(1)	Appendix E–1
(E)(2)-1	Defining Persistently Low-Achieving Schools	(E)(2)(i)	Appendix E–10
(E)(2)-2	Iowa Support System for Schools and Districts in Need of Assistance (SINA & DINA)	(E)(2)(i)	Appendix E–14
(E)(2)-3	Persistently Lowest Achieving Schools Memorandum of Understanding	(E)(2)(i)	Appendix E–19
(E)(2)-4	Fact Sheet: School Administrator Manager (SAM) Project	(E)(2)(i)	Appendix E–21

(E)(1)-1

Senate File 2033 - Reprinted

SENATE FILE _____
BY COMMITTEE ON EDUCATION

(SUCCESSOR TO SSB 3031)

(As Amended and Passed by the Senate January 13, 2010)

A BILL FOR

1 An Act relating to school improvement and the approval
2 and revocation of charter schools, the establishment of
3 innovation zone schools by consortia of school districts
4 and area education agencies, and the implementation of
5 interventions for persistently lowest=achieving schools.
6 BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF IOWA:
TLSB 5609SV (4) 83
kh/rj

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1 1 Section 1. Section 256.9, Code Supplement 2009, is amended
1 2 by adding the following new subsection:
1 3 NEW SUBSECTION. 60. a. Require a school district that has
1 4 one or more attendance centers identified by the department as
1 5 a persistently lowest=achieving school to implement one or more
1 6 of the interventions mandated by the United States department
1 7 of education for a persistently lowest=achieving school
1 8 pursuant to the federal No Child Left Behind Act of 2001, Pub.
1 9 L. No.107=110 { 1003(g), 20 U.S.C. { 6303(g), and any federal
1 10 regulations adopted pursuant to the federal Act.
1 11 b. A school district required to implement one or more
1 12 interventions pursuant to paragraph "a" and the employee
1 13 organization representing the school district's teachers
1 14 shall meet at reasonable times to negotiate a memorandum of
1 15 understanding that contains an agreement on the specific
1 16 intervention to be implemented and a provision stating that
1 17 the terms of any collective bargaining agreement between
1 18 the parties shall remain in effect and unaltered except as
1 19 specifically agreed to in the memorandum of understanding.
1 20 If the parties are unable to reach an agreement on the
1 21 memorandum of understanding within forty=five days of the date
1 22 the school district is notified that it has a persistently
1 23 lowest=achieving school, the school district and the employee
1 24 organization representing the school district's teachers shall,
1 25 within five days, select an impartial and disinterested person
1 26 to serve as a mediator. The mediator shall attempt to bring
1 27 the parties together to effectuate a settlement of the dispute,
1 28 but the mediator shall not compel the parties to agree. If
1 29 mediation fails to result in a mutually agreed to memorandum
1 30 of understanding, not later than thirty days after selecting
1 31 the mediator the school district shall not receive any school
1 32 improvement funds under Tit.I of the federal Elementary and
1 33 Secondary Education Act of 1965 for the attendance center
1 34 identified as a persistently lowest=achieving school. The
1 35 memorandum of understanding remains in effect for the period of
2 1 time that an attendance center is identified as a persistently
2 2 lowest=achieving school unless a duration period is included in

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2 3 the memorandum of understanding or the parties mutually agree
2 4 to amend the memorandum of understanding.
2 5 Sec. 2. Section 256F.1, subsection 1, Code 2009, is amended
2 6 to read as follows:
2 7 1. Charter schools and innovation zone schools shall be part
2 8 of the state's program of public education.
2 9 Sec. 3. Section 256F.1, subsection 3, unnumbered paragraph
2 10 1, Code 2009, is amended to read as follows:
2 11 The purpose of a charter school or an innovation zone
2 12 school established pursuant to this chapter shall be to
2 13 accomplish the following:
2 14 Sec. 4. Section 256F.1, subsection 3, Code 2009, is amended
2 15 by adding the following new paragraphs:
2 16 NEW PARAGRAPH. g. Create different organizational
2 17 structures for continuous learner progress.
2 18 NEW PARAGRAPH. h. Allow greater flexibility to meet the
2 19 education needs of a diverse and constantly changing student
2 20 population.
2 21 NEW PARAGRAPH. i. Allow for the allocation of resources in
2 22 innovative ways through implementation of specialized school
2 23 budgets for the benefit of the schools served.
2 24 Sec. 5. Section 256F.1, Code 2009, is amended by adding the
2 25 following new subsection:
2 26 NEW SUBSECTION. 4. An innovation zone school may be
2 27 established pursuant to this chapter to encourage diverse
2 28 approaches to learning and education within individual schools.
2 29 Sec. 6. Section 256F.2, subsection 1, Code 2009, is amended
2 30 to read as follows:
2 31 1. "Advisory council" means a council appointed by the
2 32 school board of directors of a charter school or an innovation
2 33 zone consortium pursuant to section 256F.5, subsection 4.
2 34 Sec. 7. Section 256F.2, Code 2009, is amended by adding the
2 35 following new subsection:
3 1 NEW SUBSECTION. 1A. "Area education agency board" means
3 2 the board of directors of an area education agency established
3 3 pursuant to chapter 273.
3 4 Sec. 8. Section 256F.2, subsection 3, Code 2009, is amended
3 5 to read as follows:
3 6 3. "Charter school" means a ~~state public~~ charter school
3 7 ~~operated as a pilot program~~ established in accordance with this
3 8 chapter.
3 9 Sec. 9. Section 256F.2, subsection 4A, Code 2009, is amended
3 10 by striking the subsection and inserting in lieu thereof the
3 11 following:
3 12 4A. "Innovation zone consortium" means a consortium of two
3 13 or more school districts and an area education agency in which
3 14 one or more of the school districts is located, that receives
3 15 approval to establish an innovation zone school pursuant to
3 16 this chapter. In addition, the innovation zone consortium
3 17 may receive technical assistance from an accredited higher
3 18 education institution.
3 19 4B. "Innovation zone school" means a public school
3 20 administered by a principal that is, pursuant to an innovation
3 21 zone school contract entered into by an innovation zone
3 22 consortium pursuant to section 256F.6, established as an
3 23 innovation zone school.
3 24 Sec. 10. Section 256F.3, Code 2009, is amended to read as
3 25 follows:
3 26 256F.3 ~~Pilot program -- application~~ Application.
3 27 1. The state board of education shall apply for a federal
3 28 grant under Pub.L. No.107=110, cited as the federal No
3 29 Child Left Behind Act of 2001 ~~(Title~~, Tit.V, ~~Part~~ Pt.B,
3 30 ~~Subpart~~ Subpt.1~~)~~, for purposes of providing financial
3 31 assistance for the planning, program design, and initial
3 32 implementation of public charter schools. The department shall

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3 33 ~~initiate a pilot program to test~~ monitor the effectiveness of
3 34 charter schools and shall implement the applicable provisions
3 35 of this chapter.
4 1 2. a. To receive approval to establish a charter school
4 2 in accordance with this chapter, the principal, teachers,
4 3 or parents or guardians of students at an existing public
4 4 school shall submit an application to the school board to
4 5 convert an existing attendance center to a charter school.
4 6 An attendance center shall not enter into a charter school
4 7 contract with a school district under this chapter unless the
4 8 attendance center is located within the school district. The
4 9 application shall demonstrate the support of at least fifty
4 10 percent of the teachers employed at the school on the date of
4 11 the submission of the application and fifty percent of the
4 12 parents or guardians voting whose children are enrolled at the
4 13 school, provided that a majority of the parents or guardians
4 14 eligible to vote participate in the ballot process, according
4 15 to procedures established by rules of the state board.
4 16 b. To receive approval to establish an innovation zone
4 17 school in accordance with this chapter, an innovation zone
4 18 consortium shall submit an application to the state board
4 19 which demonstrates the support of at least fifty percent of
4 20 the teachers employed at each proposed innovation zone school
4 21 on the date of the submission of the application and fifty
4 22 percent of the parents or guardians voting whose children are
4 23 enrolled at each proposed innovation zone school, provided
4 24 that a majority of the parents or guardians eligible to vote
4 25 participate in the ballot process, according to procedures
4 26 established by rules of the state board.
4 27 c. A parent or guardian voting in accordance with this
4 28 subsection must be a resident of this state.
4 29 3. A school board shall receive and review all applications
4 30 for converting an existing building or creating a new building
4 31 for a charter school. Applications received on or before
4 32 October 1 of a calendar year shall be considered for charter
4 33 schools to be established at the beginning of the school
4 34 district's next school year or at a time agreed to by the
4 35 applicant and the school board. However, a school board may
5 1 receive and consider applications after October 1 at its
5 2 discretion.
5 3 4. A school board shall by a majority vote approve or
5 4 deny an application relating to a charter school no later
5 5 than sixty calendar days after the application is received.
5 6 An application approved by a school board and subsequently
5 7 approved by the state board pursuant to subsection 6 shall
5 8 constitute, at a minimum, an agreement between the school board
5 9 and the charter school for the operation of the charter school.
5 10 A school board that denies an application for a conversion
5 11 to a charter school shall provide notice of denial to the
5 12 applicant in writing within thirty days after board action.
5 13 The notice shall specify the exact reasons for denial and
5 14 provide documentation supporting those reasons.
5 15 5. An applicant may appeal school board denial of the
5 16 applicant's charter school application to the state board
5 17 in accordance with the procedures set forth in chapter 290.
5 18 The state board shall affirm, modify, or reverse the school
5 19 board's decision on the basis of the information provided in
5 20 the application indicating the ability and willingness of the
5 21 proposed charter school to meet the requirements of section
5 22 256F.1, subsection 3, and section 256F.4.
5 23 6. Upon approval of an application for the proposed
5 24 establishment of a charter school, the school board shall
5 25 submit an application for approval to establish the charter
5 26 school to the state board in accordance with section 256F.5.
5 27 7. ~~The~~ An application submitted to the state board pursuant

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5 28 to subsection 2, paragraph "b", or subsection 6 shall set forth
5 29 the manner in which the charter school or innovation zone
5 30 school will provide special instruction, in accordance with
5 31 section 280.4, to students who are limited English proficient.
5 32 The application shall set forth the manner in which the charter
5 33 school or innovation zone school will comply with federal and
5 34 state laws and regulations relating to the federal National
5 35 School Lunch Act and the federal Child Nutrition Act of 1966,
6 1 42 U.S.C. {$N1751?1785, and chapter 283A. The state board shall
6 2 approve only those applications that meet the requirements
6 3 specified in section 256F.1, subsection 3, and sections 256F.4
6 4 and 256F.5. The state board may deny an application if the
6 5 state board deems that approval of the application is not in
6 6 the best interest of the affected students. ~~The state board~~
~~6 7 shall approve not more than twenty charter school applications.~~
~~6 8 The state board shall approve not more than one charter school~~
~~6 9 application per school district. The state board shall adopt~~
~~6 10 rules in accordance with chapter 17A for the implementation of~~
~~6 11 this chapter.~~
6 12 8. The state board shall approve not more than ten
6 13 innovation zone consortium applications.
6 14 ~~7.~~ 9. The state board shall adopt rules in accordance
6 15 with chapter 17A for the implementation of this chapter. If
6 16 federal rules or regulations relating to the distribution
6 17 or utilization of federal funds allocated to the department
6 18 pursuant to this section are adopted that are inconsistent with
6 19 the provisions of this chapter, the state board shall adopt
6 20 rules to comply with the requirements of the federal rules or
6 21 regulations. The state board shall identify inconsistencies
6 22 between federal and state rules and regulations as provided
6 23 in this subsection and shall submit recommendations for
6 24 legislative action to the chairpersons and ranking members of
6 25 the senate and house standing committees on education at the
6 26 next meeting of the general assembly.
6 27 Sec. 11. Section 256F.4, subsection 1, Code 2009, is amended
6 28 to read as follows:
6 29 1. Within fifteen days after approval of a charter school
6 30 or innovation zone school application submitted in accordance
6 31 with section 256F.3, subsection 2, a school board or innovation
6 32 zone consortium shall report to the department the name of the
6 33 charter school applicant if applicable, the proposed charter
6 34 school or innovation zone school location, and ~~its~~ the charter
6 35 school or innovation zone school's projected enrollment.
7 1 Sec. 12. Section 256F.4, subsection 2, unnumbered paragraph
7 2 1, Code 2009, is amended to read as follows:
7 3 Although a charter school or innovation zone school may
7 4 elect to comply with one or more provisions of statute or
7 5 administrative rule, a charter school or innovation zone
7 6 school is exempt from all statutes and rules applicable to a
7 7 school, a school board, or a school district, except that the
7 8 charter school or innovation zone school shall do all of the
7 9 following:
7 10 Sec. 13. Section 256F.4, subsection 2, paragraphs a, g, and
7 11 j, Code 2009, are amended to read as follows:
7 12 a. Meet all applicable federal, state, and local health and
7 13 safety requirements and laws prohibiting discrimination on the
7 14 basis of race, creed, color, sex, sexual orientation, gender
7 15 identity, national origin, religion, ancestry, or disability.
7 16 A charter school or innovation zone school shall be subject to
7 17 any court=ordered desegregation plan in effect for the school
7 18 district at the time the ~~school's~~ charter school or innovation
7 19 zone school application is approved.
7 20 g. Be subject to and comply with chapter 284 relating to
7 21 the student achievement and teacher quality program. A charter
7 22 school or innovation zone school that complies with chapter

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7 23 284 shall receive state moneys or be eligible to receive state
7 24 moneys calculated as provided in ~~chapter 284~~ section 257.10,
7 25 subsections 9 and 10, and section 257.37A as if it did not
7 26 operate under a charter school or innovation zone school
7 27 contract.
7 28 j. Meetings and records of the advisory council are subject
7 29 to the provisions of chapters 21 and 22.
7 30 Sec. 14. Section 256F.4, subsections 3 through 8, Code 2009,
7 31 are amended to read as follows:
7 32 3. A charter school or innovation zone school shall not
7 33 discriminate in its student admissions policies or practices
7 34 on the basis of intellectual or athletic ability, measures
7 35 of achievement or aptitude, or status as a person with a
8 1 disability. However, a charter school or innovation zone
8 2 school may limit admission to students who are within a
8 3 particular range of ages or grade levels or on any other
8 4 basis that would be legal if initiated by a school district.
8 5 Enrollment priority shall be given to the siblings of students
8 6 enrolled in a charter school or innovation zone school.
8 7 4. A charter school or innovation zone school shall
8 8 enroll an eligible resident student who submits a timely
8 9 application unless the number of applications exceeds the
8 10 capacity of a program, class, grade level, or building. In
8 11 this case, students must be accepted by lot. A charter school
8 12 or innovation zone school may enroll an eligible nonresident
8 13 student who submits a timely application in accordance with
8 14 the student admission policy established pursuant to section
8 15 256F.5, subsection 1. If the charter school or innovation zone
8 16 school enrolls an eligible nonresident student, the charter
8 17 school or innovation zone school shall notify the school
8 18 district of residence and the sending district not later than
8 19 March 1 of the preceding school year. Transportation for the
8 20 student shall be in accordance with section 282.18, subsection
8 21 10. The sending district shall make payments to the charter
8 22 school or innovation zone consortium in the manner required
8 23 under section 282.18, subsection 7. If the nonresident pupil
8 24 is also an eligible pupil under section 261E.6, the innovation
8 25 zone consortium shall pay the tuition reimbursement amount to
8 26 an eligible postsecondary institution as provided in section
8 27 261E.7.
8 28 5. A charter school or innovation zone school shall provide
8 29 instruction for at least the number of days required by section
8 30 279.10, subsection 1, or shall provide at least the equivalent
8 31 number of total hours.
8 32 6. Notwithstanding subsection 2, a charter school or
8 33 innovation zone school shall meet the requirements of section
8 34 256.7, subsection 21.
8 35 7. a. A charter school shall be considered a part of the
9 1 school district in which it is located for purposes of state
9 2 school foundation aid pursuant to chapter 257.
9 3 b. Students enrolled in an innovation zone school shall
9 4 be counted, for state school foundation aid purposes, in the
9 5 student's district of residence.
9 6 8. A charter school or innovation zone consortium may enter
9 7 into contracts in accordance with chapter 26.
9 8 Sec. 15. Section 256F.5, unnumbered paragraph 1, Code 2009,
9 9 is amended to read as follows:
9 10 An application to the state board for the approval of a
9 11 charter school or innovation zone school shall include~~,~~ but
9 12 shall not be limited to~~,~~ a description of the following:
9 13 Sec. 16. Section 256F.5, subsections 1, 2, 4, 6, 7, 10,
9 14 12, 13, 14, 15, 16, and 17, Code 2009, are amended to read as
9 15 follows:
9 16 1. The method for admission to the charter school or
9 17 innovation zone school.

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9 18 2. The mission, purpose, innovation, and specialized focus
9 19 of the charter school or innovation zone school.
9 20 4. The method for appointing or forming an advisory
9 21 council for the charter school or innovation zone school.
9 22 The membership of an advisory council appointed or formed in
9 23 accordance with this chapter shall not include more than one
9 24 member of ~~the~~ a participating school board.
9 25 6. The charter school or innovation zone school governance
9 26 and bylaws.
9 27 7. The financial plan for the operation of the
9 28 charter school or innovation zone school including, at a
9 29 minimum, a listing of the support services the school district
9 30 or innovation zone consortium will provide, and the charter
9 31 ~~school's~~ school or innovation zone school's revenues, budgets,
9 32 and expenditures.
9 33 10. The organization of the school or innovation zone
9 34 school in terms of ages of students or grades to be taught
9 35 along with an estimate of the total enrollment of the
10 1 charter school or innovation zone school.
10 2 12. A statement indicating how the charter school or
10 3 innovation zone school will meet the requirements of section
10 4 256F.1, ~~subsection 3~~ as applicable; section 256F.4, subsection
10 5 2, paragraph "a"; and section 256F.4, subsection 3.
10 6 13. Assurance of the assumption of liability by the charter
10 7 school or the innovation zone consortium for the innovation
10 8 zone school.
10 9 14. The types and amounts of insurance coverage to be
10 10 obtained by the charter school or innovation zone consortium
10 11 for the innovation zone school.
10 12 15. A plan of operation to be implemented if the charter
10 13 school or innovation zone consortium revokes or fails to renew
10 14 its contract.
10 15 16. The means, costs, and plan for providing transportation
10 16 for students ~~attending~~ enrolled in the charter school or
10 17 innovation zone school.
10 18 17. The specific statutes, administrative rules, and school
10 19 board policies with which the charter school or innovation zone
10 20 school does not intend to comply.
10 21 Sec. 17. Section 256F.6, subsection 1, Code 2009, is amended
10 22 to read as follows:
10 23 1. a. An approved charter school or innovation zone
10 24 school application shall constitute an agreement, the terms
10 25 of which shall, at a minimum, be the terms of a four=year
10 26 enforceable, renewable contract between ~~the~~ a school board, or
10 27 the boards participating in an innovation zone consortium, and
10 28 the state board. The contract shall include an operating
10 29 agreement for the operation of the charter school or innovation
10 30 zone school. The terms of the contract may be revised at
10 31 any time with the approval of both the state board and the
10 32 school board or the boards participating in the innovation
10 33 zone consortium, whether or not the stated provisions of the
10 34 contract are being fulfilled.
10 35 b. A contract may be renewed by agreement of the school
11 1 board or the boards participating in an innovation zone
11 2 consortium, as applicable, and the state board.
11 3 c. The charter school or innovation zone consortium shall
11 4 provide parents and guardians of students enrolled in the
11 5 charter school or innovation zone school with a copy of the
11 6 charter school or innovation zone school application approved
11 7 pursuant to section 256F.5.
11 8 Sec. 18. Section 256F.7, Code 2009, is amended to read as
11 9 follows:
11 10 256F.7 Employment and related matters.
11 11 1. A charter school or the boards participating in an
11 12 innovation zone consortium shall employ or contract with

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11 13 necessary teachers and administrators, as defined in section
11 14 272.1, who hold a valid license with an endorsement for the
11 15 type of service for which the teacher or administrator is
11 16 employed.
11 17 2. The school board or innovation zone consortium, as
11 18 specified in the application, in consultation with the advisory
11 19 council, shall decide matters related to the operation of the
11 20 charter school or innovation zone school, including budgeting,
11 21 curriculum, and operating procedures.
11 22 3. a. Employees of a charter school shall be considered
11 23 employees of the school district.
11 24 b. Employees of an innovation zone school shall be
11 25 considered employees of a board participating in the innovation
11 26 zone consortium.
11 27 Sec. 19. Section 256F.8, subsections 1, 2, 3, 4, and 6, Code
11 28 2009, are amended to read as follows:
11 29 1. A contract for the establishment of a charter school
11 30 or innovation zone school may be revoked by the state
11 31 board, ~~or~~ the school board that established the charter
11 32 school, or the innovation zone consortium that established
11 33 the innovation zone school if the appropriate board or
11 34 consortium determines that one or more of the following
11 35 occurred:
12 1 a. Failure of the charter school or innovation zone
12 2 school to abide by and meet the provisions set forth in the
12 3 contract, including educational goals.
12 4 b. Failure of the charter school or innovation zone
12 5 school to comply with all applicable law.
12 6 c. Failure of the charter school or innovation zone
12 7 school to meet generally accepted public sector accounting
12 8 principles.
12 9 d. The existence of one or more other grounds for revocation
12 10 as specified in the contract.
12 11 e. Assessment of student progress, which is administered
12 12 in accordance with state and locally determined indicators
12 13 established pursuant to rules adopted by the state board,
12 14 does not show improvement in student progress over that
12 15 which existed in the same student population prior to the
12 16 establishment of the charter school or the innovation zone
12 17 school.
12 18 2. The decision by a school board or an innovation zone
12 19 consortium to revoke or to fail to take action to renew a
12 20 charter school or innovation zone school contract is subject to
12 21 appeal under procedures set forth in chapter 290.
12 22 3. A school board or a board participating in an innovation
12 23 zone consortium that is considering revocation or nonrenewal
12 24 of a charter school or innovation zone school contract shall
12 25 notify the advisory council, the parents or guardians of the
12 26 students enrolled in the charter school or innovation zone
12 27 school, and the teachers and administrators employed by the
12 28 charter school or innovation zone school, sixty days prior to
12 29 revoking or the date by which the contract must be renewed, but
12 30 not later than the last day of classes in the school year.
12 31 4. If the state board determines that a charter school or
12 32 innovation zone school is in substantial violation of the terms
12 33 of the contract, the state board shall notify the school board
12 34 or innovation zone consortium and the advisory council of its
12 35 intention to revoke the contract at least sixty days prior to
13 1 revoking a contract and the school board or the school boards
13 2 participating in the innovation zone consortium shall assume
13 3 oversight authority, operational authority, or both oversight
13 4 and operational authority. The notice shall state the
13 5 grounds for the proposed action in writing and in reasonable
13 6 detail. The school board or innovation zone consortium may
13 7 request in writing an informal hearing before the state board

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13 8 within fourteen days of receiving notice of revocation of
13 9 the contract. Upon receiving a timely written request for a
13 10 hearing, the state board shall give reasonable notice to the
13 11 school board or innovation zone consortium of the hearing
13 12 date. The state board shall conduct an informal hearing before
13 13 taking final action. Final action to revoke a contract shall
13 14 be taken in a manner least disruptive to students enrolled in
13 15 the charter school or innovation zone school. The state board
13 16 shall take final action to revoke or approve continuation of
13 17 a contract by the last day of classes in the school year. If
13 18 the final action to revoke a contract under this section occurs
13 19 prior to the last day of classes in the school year, a charter
13 20 school or innovation zone school student may enroll in the
13 21 resident district.
13 22 6. A school board revoking a contract or a school board,
13 23 innovation zone consortium, or advisory council that fails
13 24 to renew a contract under this chapter is not liable for
13 25 that action to the charter school or innovation zone school,
13 26 a student enrolled in the charter school or innovation zone
13 27 school or the student's parent or guardian, or any other
13 28 person.
13 29 Sec. 20. Section 256F.8, subsection 7, Code 2009, is amended
13 30 by striking the subsection.
13 31 Sec. 21. Section 256F.9, Code Supplement 2009, is amended
13 32 to read as follows:
13 33 256F.9 Procedures after revocation == student enrollment.
13 34 If a charter school or innovation zone school contract is
13 35 revoked in accordance with this chapter, a nonresident student
14 1 who attended the school, and any siblings of the student,
14 2 shall be determined to have shown "good cause" as provided in
14 3 section 282.18, subsection 4, paragraph "b", and may submit an
14 4 application to another school district according to section
14 5 282.18 at any time. Applications and notices required by
14 6 section 282.18 shall be processed and provided in a prompt
14 7 manner. The application and notice deadlines in section 282.18
14 8 do not apply to a nonresident student application under these
14 9 circumstances.
14 10 Sec. 22. Section 256F.10, subsections 1 and 2, Code 2009,
14 11 are amended to read as follows:
14 12 1. A charter school or innovation zone school shall
14 13 report at least annually to the school board or innovation
14 14 zone consortium, advisory council, and the state board the
14 15 information required by the school board or innovation zone
14 16 consortium, advisory council, or the state board. The reports
14 17 are public records subject to chapter 22.
14 18 2. Not later than December 1~~, 2003, and~~ annually ~~thereafter~~,
14 19 the state board shall submit a comprehensive report~~,~~ with
14 20 findings and recommendations~~,~~ to the ~~senate and house standing~~
~~14 21 committees on education~~ general assembly. The report shall
14 22 evaluate the state's charter school and innovation zone
14 23 school programs generally, including but not limited to, an
14 24 evaluation of whether the ~~pilot programs~~ charter schools
14 25 and innovation zone schools are fulfilling the purposes
14 26 set forth in section 256F.4, subsection 2. The report also
14 27 shall contain, for each charter school or innovation zone
14 28 school, a copy of the charter ~~school's~~ school or innovation
14 29 zone school's mission statement, attendance statistics and
14 30 dropout rate, aggregate assessment test scores, projections of
14 31 financial stability, the number and qualifications of teachers
14 32 and administrators, and number of and comments on supervisory
14 33 visits by the department of education.
14 34 Sec. 23. REPEAL. Section 256F.11, Code 2009, is repealed.
15 1 EXPLANATION
15 2 This bill relates to the approval and revocation of charter
15 3 schools, the establishment of innovation zone schools by

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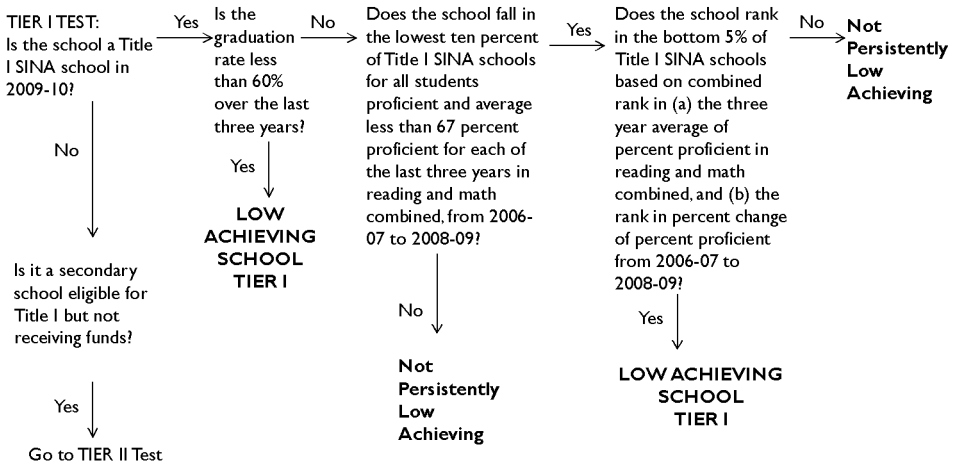
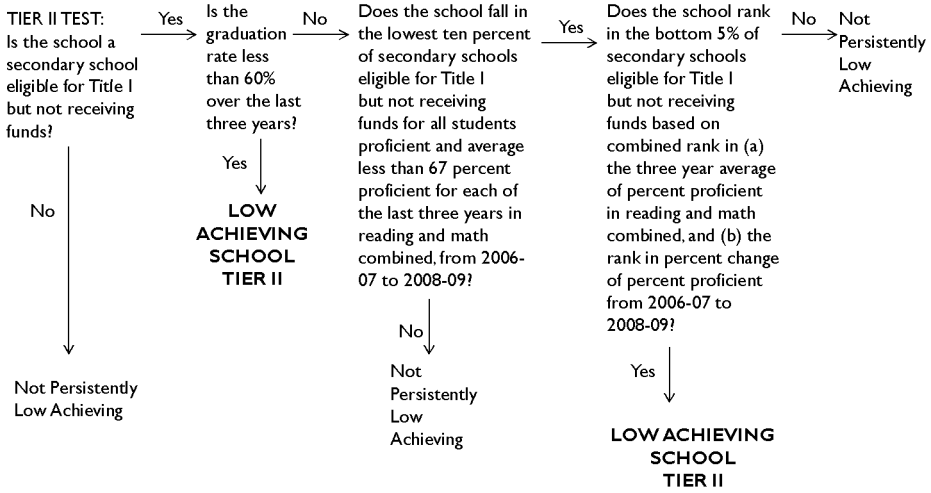
15 4 a consortium of two or more school districts and an area
15 5 education agency, and provides for the implementation of
15 6 interventions for lowest=achieving schools.
15 7 PERSISTENTLY LOWEST=ACHIEVING SCHOOLS. The bill directs the
15 8 director of the department of education to require a school
15 9 district that has one or more attendance centers identified by
15 10 the department as a persistently lowest=achieving school to
15 11 implement one or more of the interventions mandated by the U.S.
15 12 department of education.
15 13 A school district required to implement one or more
15 14 interventions and the employee organization representing the
15 15 school district's teachers must meet at reasonable times to
15 16 negotiate a memorandum of understanding that contains an
15 17 agreement on the specific intervention to be implemented and a
15 18 provision stating that the terms of any collective bargaining
15 19 agreement between the parties shall remain in effect and
15 20 unaltered except as specifically agreed to in the memorandum
15 21 of understanding. If the parties are unable to reach an
15 22 agreement within 45 days, the school district and the employee
15 23 organization shall select an impartial and disinterested
15 24 person to serve as a mediator, who shall not compel the
15 25 parties to agree. If mediation fails, the school district
15 26 shall not receive any school improvement funds, under Tit.I
15 27 of the federal Elementary and Secondary Act of 1965, for the
15 28 attendance center identified as a persistently lowest=achieving
15 29 school. The memorandum of understanding remains in effect for
15 30 the period of time that an attendance center is identified as a
15 31 persistently lowest=achieving school unless a duration period
15 32 is included in the memorandum of understanding or the parties
15 33 mutually agree to amend the memorandum of understanding.
15 34 CHARTER SCHOOLS.The bill eliminates references to the
15 35 pilot program status of the state's charter school law;
16 1 eliminates a limitation on the number of charter schools the
16 2 state board of education may approve for operation; adds a
16 3 factor for which a charter school contract may be revoked;
16 4 and eliminates the future repeal of Code chapter 256F, which
16 5 provides for the creation or conversion of charter schools by
16 6 school districts.
16 7 The additional factor for which the state board or a
16 8 school board may revoke a charter school contract is when an
16 9 assessment of student progress administered in accordance
16 10 with state and locally determined indicators does not show
16 11 improvement in student progress over that which existed in the
16 12 same student population prior to establishment of the charter
16 13 school.
16 14 INNOVATION ZONES.The bill provides for the establishment
16 15 of innovation zone schools by two or more school districts and
16 16 an area education agency as part of the state's program of
16 17 public education. The purpose of an innovation zone school
16 18 is to improve student learning. Like charter schools, an
16 19 innovation zone school is not required to comply with state
16 20 statutes, rules, or regulations applicable to a school, a
16 21 school board, or a school district, except those relating
16 22 to applicable federal, state, and local health and safety
16 23 requirements; civil and human rights; financial audit
16 24 requirements; collective bargaining and practitioner contracts;
16 25 professional development and practitioner evaluation; special
16 26 education; transportation of students; comprehensive school
16 27 improvement plan requirements; and core curriculum and core
16 28 content standards requirements. Innovation zone schools are
16 29 subject to the same general operating, contract, renewal and
16 30 revocation, and report requirements as charter schools.
LSB 5609SV (4) 83
kh/rj

Defining Persistently Low Achieving Schools



SINA stands for Schools in Need of Assistance.

Defining Persistently Low Achieving Schools



Step 1: Measuring Percent Proficient

$$\text{Percent proficient in reading and math} = \left(\frac{(\text{n proficient reading} + \text{n proficient math})}{(\text{n tested reading} + \text{n tested math})} \right) * 100$$

Step 2: Three-Year Average

$$\text{Average} = \left(\frac{(\%\ \text{prof } 2009 + \%\ \text{prof } 2008 + \%\ \text{prof } 2007)}{3} \right) * 100$$

Only schools that are in the bottom ten percent of the Tier I or II groups (Title I SINA schools or secondary school eligible for Title I but not receiving funds) and average below 67 percent proficient for each of the last three years are considered in the next step.

Step 3: Measuring Change

$$\text{Change} = \left(\frac{(\%\ \text{proficient } 2009 - \%\ \text{proficient } 2007)}{(\%\ \text{proficient } 2007)} \right) * 100$$

Step 4: Proficiency Change Ranking

Each school in the bottom ten percent of the Tier I or II groups and average below 67 percent proficient for each of the last three years is ranked (the groups are ranked separately) in ascending order of the percent change in percent proficient.

School	Proficiency Change	Change Rank
B	-14.90	1
A	0.34	2
C	5.62	3

Step 5: Proficiency Ranking

Each school in the bottom ten percent of the Tier I or II groups and average below 67 percent proficient for each of the last three years is ranked (the groups are ranked separately) in ascending order of the three year average of percent proficient.

School	Average Proficiency	Proficiency Rank
A	35.90	1
B	45.00	2
C	64.87	3

Step 6: Multiply Ranks

The proficiency and change ranks are multiplied to determine the final ranking. The lowest five percent of each Tier I and II group (or five, whichever is greater) are determined to be Persistently Low Achieving Schools.

School	Proficiency Rank	Change Rank	Final Rank
A	1	2	2
B	2	1	2
C	3	3	9

Iowa Support System for Schools and Districts in Need of Assistance (SINA & DINA)

Audit Phase

Series of Events

Date	Event
	1) Meet with the building and/or district team. (approximately 1 hour) • Share the purpose of the SINA/DINA support process and phases, Audit Phase in particular, the audit process, and the product. The product is a profile of the building/district with identified potential areas of concern. • Share the audit domains, questions, and tools including the *Practices Inventory*. • Determine the interest in working through the SINA/DINA support process. • Arrange next meetings and determine which documents on the checklist the building/district will collect and which the Audit Team will collect. • Arrange when teachers will complete the *Practices Inventory* (optional). • Tools: Guiding Principles for Iowa Support System, Graphic of State Support for Schools in Need of Assistance, "Official" SINA/DINA Timetable, School Improvement for Schools Facing Challenging Circumstances (article), Reflective Activity – Scenarios, Leverage Points for a Strong System for Learning, Audit Narrative, Series of Events, Review of Series of Events, Audit Profile, Questions for Developing the Building/District Profile, Documents for Review, Practices Inventory, Sample of Practices Inventory
	2) Review building/district documents (spread over approximately 5 school days) • The SINA/DINA Audit Team will review the documents and begin answering the audit questions. This is the first step in constructing the building/district profile. • As the team reviews documents, they may wish to write questions for the interviews with the administration and/or teachers. • If the building/district has completed the Practices Inventory, be sure to review those data and include them in the profile and use them to generate more interview questions. • Complete the review of the documents prior to the interviews with administrators and teachers (See Events 3 and 4). • Tools: Audit Profile, Documents for Review, Practices Inventory, Audit Narrative, Event 2 Activity Packet
	3) Interview the building/district administration (approximately 1 - 2 hours) • The Support Team will interview the building/district administrators in order to clarify the initial findings in the profile and answer additional questions raised during the review of documents and data from the Practices Inventory. (See Event 2). • Tools: Audit Narrative, Series of Events, Review of Series of Events, Sample Reflective Conversation Questions for Administrators and Teachers, Audit Profile
	4) Interview the teachers (typically 45 minutes to 1 hour) (Optional in the completion of DINA audit) • The Support Team will interview teachers (group of 6 to 8) from the building/district in order to further clarify the profile and answer additional questions raised during the review of documents and data from the Practices Inventory. • The group of teachers to be interviewed can be determined in several ways. Refer to the Audit Narrative for guidance in this area. • Tools: Audit Narrative, Series of Events, Review of Series of Events, Sample Reflective Conversation Questions for Administrators and Teachers, Audit Profile
	5) Create a final version of the building/district profile. • The SINA/DINA Audit Team will draft a final version of the profile that incorporates the findings from the documents, Practices Inventory, and interviews. • All audit questions need to be addressed either with data or by noting "No evidence at this time." • For each *Area for Further Study*, there should be a question that describes the concern and leads to further investigation by the Diagnosis Team. • The Audit Team should create a summary, highlighting strengths and *Areas for Further Study*. The *Areas for Further Study* should be placed in a prioritized list. See the Audit Narrative for guidance on prioritization. • Tools: Audit Narrative, Series of Events, Review of Series of Events, Audit Profile, Guidance for Reviewing Building/District Profile, Gold Standard Sample of Audit Profile, Guidance for Reviewing Profile – Gold Standard Example, Sample of Audit Profile 2, Guidance for Reviewing Profile – Audit Profile Sample 2, Sample of Audit Profile 3, Guidance for Reviewing Profile – Audit Profile Sample 3
	6) Meet with building/district administrators and/or leadership team (approximately 1 - 2 hours) • Invite Diagnosis Team members if not already on team • The Audit Team will share the summary of the findings, the final profile, the data report from the Practices Inventory, and the prioritized list of Areas for Further Study with the building/district administrators, and/or the building/district leadership team and possibly the entire building staff. Presentations may also be made to the district's board of education. • This discussion will lead directly into the next phase, Diagnosis. • Tools: Audit Profile, Audit Profile - Gold Star Example, Audit Narrative, Series of Events, Review of Series of Events, Guidance for Reviewing the Building Profile

Iowa Support for Schools and Districts in Need of Assistance (SINA & DINA)
Design Phase: Steps for Completion of Action Plan

Date	Steps
	1) Preparation for Completion of Action Plan: ● Reviews the federal requirements for action plan. ● Reviews the completed Diagnosis Worksheet from Phase II. ● Plans for the evaluation which may include the theory of change, KASAB, logic model, and the evaluation framework. (See Evaluation for further details) ● Reviews the essential elements of the action plan – alignment with CSIP, incorporation of actions for appropriate critical elements for the domains based on identified areas of concern, provision for formative and summative data, development of two-year plan with one-year budget, grounded in scientifically based/evidence-based research, and reflection of the principles in the Iowa Professional Development Model. **Tools: The Domains and Critical Elements, Diagnosis Worksheet, Diagnosis Worksheet for Westlake Middle School, KASAB**
	2) Completion of the Introduction of the Action Plan: ● Identifies the district's long-range CSIP goal for identified area. ● Identifies the persons writing the plan. ● Completes the diagnosis summary that includes an explanation of why previous improvement efforts were unsuccessful. ● Answers the Constant Conversation Question: What do data tell us about student learning needs? **Tools: Action Plan, Supporting Information for the Title I SINA/DINA Action Plan, Diagnosis Worksheet for Westlake Middle School**
	3) Finalization of the Building/District Goal Statement: ● Addresses student achievement. ● Supports prioritized learning needs. ● Is specific, measurable, attainable, results-driven, and time bound. **Tools: Action Plan, Supporting Information for the Title I SINA Action Plan, Diagnosis Worksheet for Westlake Middle School**
	4) Identification of Indicators of Progress: ● Identifies the summative evaluation question(s), the indicators of progress, and the measurement tools providing the data noting progress toward the student achievement goal(s). ● Identifies the formative data question(s), the indicators of progress, and the measurement tools providing the formative data indicating progress toward the goal(s). ● Answers the Constant Conversation Question: How will/do we know student learning has changed? **Tools: Action Plan, Supporting Information for the Title I SINA/DINA Action Plan, Diagnosis Worksheet for Westlake Middle School, Writing Evaluation Questions, Data Collection Methods**
	5) Identification of Scientifically Based/Evidence-Based Research and the Content for the Professional Development Identified through Research: ● Focuses on the content of the professional development identified through research. ● Chronicles the research citation. ● Answers the Constant Conversation Question: What will be done to meet student learning needs? **Tools: Action Plan, Supporting Information for the Title I SINA/DINA Action Plan, Diagnosis Worksheet for Westlake Middle School**
	6) Identification of Peer Review Process: ● Identifies schools/AEA/districts/individuals involved in peer review, process for peer review, and date of completed process. **Tools: Action Plan, Supporting Information for the Title I SINA/DINA Action Plan, Diagnosis Worksheet for Westlake Middle School, Configuration Map for Action Plan, Tuning Protocol, Checklist for Analysis of SINA/DINA Action Plan, Peer Review Agenda Sample**
	7) Identification of Implementation – How Will the Goal Be Achieved? ● Identifies specific action steps and appropriate activities. ● Answers the Constant Conversation Question: What actions/activities will we use to address prioritized needs, established goals, and any gaps between current and research-based practice? ● Addresses expected changes in students/learning and teachers/teaching and other stakeholders as well as the formative and summative data to support each. ● Notes the alignment and responsibilities of each action. ● Provides for the periodic monitoring and adjustment of the action plan. **Tools: Action Plan, Supporting Information for the Title I SINA/DINA Action Plan, Diagnosis Worksheet for Westlake Middle School, Configuration Map for Action Plan, Checklist for Analysis of SINA/DINA Action Plan**
	8) Identification of Professional Development and Building/District Leadership Team: ● Identifies dates, times, and focus of professional development. ● Identifies building/district leadership team, including names and roles. ● Identifies projected meeting dates and times of building/district leadership team. **Tools: Action Plan, Supporting Information for the Title I SINA/DINA Action Plan, Diagnosis Worksheet for Westlake Middle School, Configuration Map for Action Plan, Checklist for Analysis of SINA/DINA Action Plan**

Iowa Support for Schools and Districts in Need of Assistance (SINA & DINA) Diagnosis Phase - Steps of Diagnosis

Date	Step
	1) Current Reality: • Review the audit. • Review student achievement data. • Request additional data as needed. • Organize and analyze multiple sources/points of data for deeper understanding. • Request additional data as needed. • Document prioritized areas from the audit and the refined current reality on the Diagnosis Worksheet. • Tools: Diagnosis Worksheet , Questions for Areas of Concern/Red Flags, Item Analysis Summary for ITBS/ITED, Performance Profile Analysis, Questioning Your Data , Westlake Middle School Audit Profile, Guidance for Reviewing Building Profile – Westlake Middle School, Diagnosis Worksheet for Westlake Middle School, Grade 6 Math Data, Grade 7 Math Data, Grade 8 Math Data
	2) Desired State: • Consult expert content specialist(s). • Review research. • Develop the picture of your desired state. • Document the desired state on the Diagnosis Worksheet. • Tools: Structured Response Sheet, Content Network Tool for Reviewing Research, Content Network Review Article - Math, Diagnosis Worksheet of Westlake Middle School
	3) Gap Analysis: • Summarize the Current Reality. • Summarize the Desired State. • Identify deficits or the gap between desired state and current reality. • Identify themes and patterns across deficit areas/gaps, using guiding questions. • Document the gap analysis on the Diagnosis Worksheet. • Tools: Diagnosis Worksheet for Westlake Middle School, Gap Identification Worksheet, Forced Field Analysis, Planning Template, Fishbone Graphic Organizer (Current Reality and Desired State), Diagnosis Worksheet
	4) Root Causes: • Given what you identified in your gap analysis, determine the critical cause/effect relationships from your prioritized areas • Document the root cause(s) on the Diagnosis Worksheet. • Tools: Diagnostic Tree, Pareto Diagram, Cause and Effect Diagram, Relations Diagram, Five Whys – *Iowa Evaluator Approval Training Program* (adapted), Diagnosis Worksheet
	5) Solutions: • Identify possible solutions correlated to root causes - if the solution is related to instruction or professional development, it must be research based. • Prioritize based on research (e.g. greatest impact on student achievement, response to intervention). • Document the solution(s) on the Diagnosis Worksheet. • Tools: Nominal Group Technique, Diagnosis Worksheet
	6) Theory of Change/If… Then Statements: • Based on prioritized solution(s), complete a theory of change and/or write "if…then" statement(s). • The Theory of change results in specific actions to achieve the goal(s). "If…then" statements may either result in student achievement goal statements or action plan steps toward a student achievement goal. • Document theory of change and/or "if…then" statements on the Diagnosis Worksheet. • Tools: If . . . Then Worksheet, Theory of Change activities, ORID Questioning PowerPoint – *Iowa Evaluator Approval Training Program* (adapted), Diagnosis Worksheet, Completed Diagnosis Worksheet for Westlake Middle School

See Steps for Evaluation that include Planning for Evaluation.

Iowa Support for Schools and Districts in Need of Assistance (SINA & DINA) Monitoring and Assessment Phase: Steps for Evaluation

Adapted from Source: ***Training Manual for Assessing Impact: Evaluating Staff Development***
by Joellen Killion with Linda Munger, Pat Roy, and Parker McMullen © 2003

Date	Steps
	1) Planning the Evaluation – Assessing Evaluability: • Set goal. • Determine standards of success. • Identify indicators of success. • Articulate the theory of change, the sequence of components and underlying assumptions that achieve the intended results. • Create the logic model, including the inputs/resources, activities/processes, initial outcomes (usually knowledge and skills) of the activities, intermediate outcomes (usually attitudes, aspirations, and behaviors) of the activities, and long-term result(s) intended from the activities. • Tools: Guiding Principles for Iowa Support System; The Iowa Professional Development Cycle; Evaluation of Action Plan/Professional Development; Writing SMART Goals, Standards of Success, Indicators of Success, and Data Points; Creating a Theory of Change – Blue and Green Card Activity; Charting the Logic Model
	2) Planning the Evaluation - Formulating Evaluation Questions: • Formulate evaluation questions that provide structure and focus to the evaluation framework. Consideration should be given to each question being reasonable, appropriate, answerable, specific in terms of program success, and specific in terms of measure of performance. • Tools: Guiding Principles for Iowa Support System; Evaluation Questions – Examples and Commentary; Writing Evaluation Questions
	3) Planning the Evaluation – Constructing Evaluation Framework: • Construct evaluation questions based on what we need to know, how we will know, who/what will tell us, and how we will collect the data. • Tools: Evaluation Framework Worksheet; Data Collection Methods
	4) Conducting the Evaluation – Collecting Data: • Collect data systematically. • Tools: Guiding Principles for Iowa Support System; Monitoring Key Activities; Data Collection Plan
	5) Conducting the Evaluation – Organizing and Analyzing Data: • Organize, analyze, and display the data. • Tools: Data Analysis Methods, Evaluation Framework Worksheet
	6) Conducting the Evaluation - Interpreting Data: • Make meaning from the data, resulting in changes based on merit and impact. • Tools: Evidence vs Claim
	7) Reporting the Evaluation – Disseminating Results and Findings: • Consider the audiences for the information. • Send same message to all audiences but use forms of communication appropriate to each audience. • Tools: Guiding Principles for Iowa Support System
	8) Reporting the Evaluation – Evaluating the Evaluation: • Answer the questions, "What have we learned from the evaluation process?" "What would we do again?" and "What would we change?" • Tools: Configuration Map for Phase V

Iowa Support for Schools and Districts in Need of Assistance (SINA & DINA) Implementation Phase Actions for Implementation

Date	Steps
	1) Assure Delivery of the Interventions/Strategies: • Meet regularly to monitor the delivery of actions and activities identified in the approved action plan. • Have a focused review process which encourages timely completion of scheduled activities and offers opportunities to revise components of the plan as needed. • Tools: Action Plan, How Will You Monitor Your Implementation, Monitoring Key Activities, Monitor the Promotion of Action Plan
	2) Facilitate Ongoing Support to the Building/District Staff Members: • Provide adequate time for professional development. • Check for individual and organizational change. • Provide frequent opportunities for teachers to collaborate with peers. • Plan for assistance to both new and experienced staff. • Assure adequate resources. • Tools: Collaborative Log for Monitoring Implementation of Data
	3) Monitor Teacher Implementation of Professional Development and Learnings: • Check on a regular basis for frequency and fidelity of implementation of professional development. • Modify or adjust delivery of professional development and/or actions of plan based upon analysis of implementation data. • Report progress on a regular basis • Celebrate successes. • Tools: How Will You Monitor Your Implementation? Collaborative Log for Monitoring Implementation Data, Checklist for Monitoring Implementation, Checklist for Monitoring Implementation – AEA 12, Monitoring Implementation - Example
	4) Provide for Ongoing Formative Assessment of Student Performance: • Use formative data on a regular basis to assure increase in student performance. • Modify or adjust delivery of actions/activities of action plan based upon analysis of formative data. • Report progress on a regular basis. • Celebrate successes. • Tools: Looking at the Data – Answering the Questions
	5) Direct and Organize Data Collection Relative to Both Implementation and Impact on Student Performance: • Follow the evaluation plan within the action plan, including both formative and summative assessments that check implementation of professional development and impact on student learning. • Tools: Analyzing and Reporting Our Data, Looking at the Data – Answering the Questions, Looking at Implementation Data – Example, Initial Study of Implementation Data, Advanced Study of Implementation Data, Westlake Middle School Action Plan, Math Log and Example
	6) Build the Capacity of the District/School for Ongoing School Improvement: • Share the plan with building staff, district office, board of education, students, parents, and community. • Provide regular updates of progress with action plan. • Tools: Guiding Principles for Iowa Support System, Monitor the Promotion of Action Plan, How Will You Monitor Your Implementation?

PERSISTENTLY LOWEST ACHIEVING SCHOOL
MEMORANDUM OF UNDERSTANDING

Pursuant to Iowa Code section 256.9, as amended by 2010 Iowa Acts (SF 2033), this Memorandum of Understanding (MOU) is entered into by and between the _____ (name of school district) and the _____ (name employee organization representing school district teacher). The purpose of this agreement is to establish a framework of collaboration as well as articulate specific roles and responsibilities in support of implementing one of the intervention models for the persistently lowest achieving school for _____ (name of school).

The terms of this MOU were reached (circle one) mutually as a result of negotiation OR as a result of mediation.
(Optional language) The terms of this MOU take effect when _____ school district is awarded a School Improvement Grant.

I. AGREED TO INTERVENTION MODEL

___A. ***Turnaround model***. Replace the principal and rehire no more than 50 percent of the staff, and grant the principal sufficient operational flexibility (including in staffing, calendars/time, and budgeting) to implement fully a comprehensive approach to substantially improve student outcomes.

___B. ***Restart model***. Convert a school or close and reopen it under a charter school operator, a charter management organization, or an education management organization that has been selected through a rigorous review process.

___C. ***School closure***. Close a school and enroll the students who attended that school in other schools in the LEA that are higher achieving.

___ D. ***Transformation model***. Implement each of the following strategies: (1) replace the principal and take steps to increase teacher and school leader effectiveness; (2) institute comprehensive instructional reforms; (3) increase learning time and create community-oriented schools; and (4) provide operational flexibility and sustained support.

II. RESPONSIBILITIES

1. The school district and the employee organization representing school district teachers will collaborate in good faith to ensure alignment and coordination of all planning and implementation activities in order to effectively and efficiently achieve the implementation of the selected intervention model.

2. The school district and the employee organization representing school district teachers will each appoint a key contact person for this school improvement effort.

3. The school district contact and employee organization contact will maintain frequent communication to facilitate cooperation and coordination under this MOU.

4. The school district contact and employee organization contact will work together to assure that implementation of the agreed upon intervention model is occurring.

5. The school district and employee organization will negotiate in good faith to continue to achieve the overall goals actions of the school district's approved School Improvement Grant application.

III. ASSURANCES

The signees hereby certify and represent that they have all requisite power and authority to execute this MOU and will collaborate in good faith to support and advance the implementation of the selected intervention model.

IV. MODIFICATIONS

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

V. DURATION AND TERMINATION

This Memorandum of Understanding shall remain in effect beginning _____ (list start date) and ending upon the expiration of the grant period.

Nothing in this Memorandum of Understanding shall be construed to alter or otherwise affect the rights, remedies and procedures afforded school or school district employees under Federal, State, or local laws or under the terms of collective bargaining agreements, memoranda of understanding, or other agreements between such employees and their employers. By way of the signatures below, the school district and the employee organization representing school district teachers agree to confer in good faith over matters within the scope of the MOU and agree further that those portions of the MOU subject to collective bargaining shall be implemented only upon the agreement of the school district and the employee organization representing school district teachers.

VI.

The school district and teachers' association agree that the following modifications to the collective bargaining agreement will be made:

VII.

SIGNATURES

_____ _____

Superintendent (required) **Date**

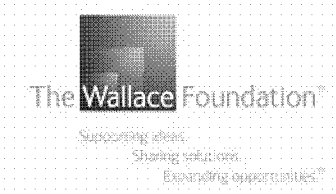
_____ _____

President of Local School Board (required) **Date**

_____ _____

Local Teachers Union Leader (required) **Date**

Authorized Department of Education Official (required)



FACT SHEET: SCHOOL ADMINISTRATION MANAGER (SAM) PROJECT

Research makes it clear that effective leadership is critical to improving student achievement. In an era of limited resources and increasing pressure to turn around low-performing schools, promoting more effective school leadership is the best way to help students and schools meet higher expectations. Principals make this happen by helping change schools into professional learning communities that focus on improving teaching and learning.

Principals, however, continue to see their roles and responsibilities expand. It was once enough for principals to be good building managers. Today, they are held accountable for improving student achievement. Even though principals want to be more involved in leading instructional improvement, data show that principals can spend up to 75 percent of their time on management duties. With support to share non-instructional tasks, principals can change this equation and spend dramatically more time on practices that lead to improved student learning, including:

- **Setting directions**, including a vision, goals and high expectations;
- **Becoming a leader of leaders** by working with other key staff members to distribute various leadership roles;
- **Developing teachers and other staff members** by providing instructional leadership and quality professional development and building strong professional learning communities; and
- **Redesigning and transforming the school** by building a culture that is focused on teaching and learning to achieve goals.

SAM: A PROCESS TO GIVE PRINCIPALS THE TIME THEY NEED TO IMPROVE INSTRUCTION AND INCREASE LEARNING

The national School Administration Manager (SAM) Project brings together tools, training and strategies to help principals focus more time on instructional leadership. The project's goal is to direct a greater percentage of the principal's time to teaching practice, student learning and school improvement, rather than management responsibilities. It is an efficient and cost-effective way to give principals tools and strategies to focus more time on instructional leadership.

Funded by The Wallace Foundation, the SAM Project has been in development for several years as a pilot in districts nationwide. It began in Louisville, KY, in 2002 as the Alternative School Administration Study. The study looked at conditions that prevented principals from making instructional leadership a priority and developed strategies to help change those conditions.

Preliminary results in three Louisville schools are promising. Three years after participating in the SAM Project, principals spent more than 70 percent of their time on instructional issues and student achievement increased.

Today, educators in nine Wallace partner states are developing and implementing the SAM Project, including California, Delaware, Georgia, Illinois, Iowa, Kentucky, Missouri, New York and Texas. Their efforts are being reviewed by a team of researchers. The results, expected in mid-2009, will help inform next steps for the work.

THE NATIONAL SAM PROJECT IS A STATEWIDE/DISTRICTWIDE CHANGE STRATEGY

The SAM Project goes beyond simply helping individual principals improve instruction in their schools. It aims to ensure that the entire community is aware that understanding and changing principal time use is critical to transforming schools. This is a complex change strategy that SAMs can help facilitate.

How the SAM Project Works

The core elements of the SAM Project are:

1) Willingness to commit to increasing time for instructional leadership. Districts and principals voluntarily participate in the SAM Project.

2) Baseline Time/Task Analysis™ Data Collection. Data collectors shadow principals for five days and record in five-minute increments how much time they spend on management, instructional or personal tasks. Principals use this data to create goals for the time they spend on instructional leadership.

3) Engagement with a SAM. The School Administration Manager or SAM may be a new staff position or an existing staff person who takes on new duties. The SAM meets with the principal daily to analyze how time is being used and to shift managerial duties to others. During meetings, they use a software calendar program, TimeTrack™, which was developed for this purpose. The goals are to help shift managerial duties to others and to increase the principal's time on leading instructional improvement.

4) External coaching. The principal and SAM also meet monthly with a Time Change Coach, a retired school administrator who is selected and trained to discuss progress and challenges and identify training needs with the principal/SAM team. The Time Change Coach also builds support networks of principals and SAMs throughout the SAM network.

5) Follow-up Time/Task Analysis Data Collection one year later to assess improvement.

The SAM Project Helps Principals Transform Their Schools

The SAM Project helps principals use data to reflect on their practice and develop a plan to reframe their roles, become more effective leaders and improve student achievement. The process gives principals tools to analyze results from school and community surveys, establish baseline data and set goals to increase time spent on instruction.

The SAM Project also encourages principals to build strong professional development communities. As part of the process, principals not only agree to engage in their own professional development using data to guide self-reflection, but also to work with staff to distribute leadership responsibilities and share decisionmaking roles. The project is an objective, low-stakes assessment that gives principals constructive feedback.

In addition, the SAM Project helps principals strengthen relationships with their school communities to help improve teaching and learning. It asks that principals voluntarily seek assistance and advice on how to be better school leaders from the teachers, staff, parents and students at their schools.

While more research is underway to understand the promise and challenges of expanding the SAM Project, preliminary community surveys note that teachers, parents and students notice and appreciate how SAMs are helping principals change their focus to improving instruction in order to raise achievement for all students.

For more information and research on the SAM Project, visit www.wallacefoundation.org/SAM. For information and research about other education leadership issues, visit The Wallace Foundation's Knowledge Center, www.wallacefoundation.org.

The SAM Project is led by Mark Shellinger, who has created two tools for which he claims trademark status: Time/Task Analysis and TimeTrack. For more information, contact Mark Shellinger at 502-777-7760; Fairbanks@insightbb.com; or www.SAMsConnect.com.

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APPENDIX F

Appendix F

Attachment Number	Attachment Title	Relevant Criterion	Page Number
(F)(1)–1	Iowa Code 257.1 State School Foundation Program—State Aid	(F)(1)(ii)	Appendix F–1
(F)(2)–1	Iowa Code Chapter 256F	(F)(2)(iv)	Appendix F–7

257.1 STATE SCHOOL FOUNDATION PROGRAM -- STATE AID.

1. *Program established.* A state school foundation program is established for the school year commencing July 1, 1991, and succeeding school years.

2. *State school foundation aid -- foundation base.*

a. For a budget year, each school district in the state is entitled to receive foundation aid, in an amount per pupil equal to the difference between the amount per pupil of foundation property tax in the district, and the combined foundation base per pupil or the combined district cost per pupil, whichever is less. However, if the amount of foundation aid received by a school district under this chapter is less than three hundred dollars per pupil, the district is entitled to receive three hundred dollars per pupil unless the receipt of three hundred dollars per pupil plus the per pupil amount raised by the foundation property tax exceeds the combined district cost per pupil of the district for the budget year. In that case, the district is entitled to receive an amount per pupil equal to the difference between the per pupil amount raised by the foundation property tax for the budget year and the combined district cost per pupil for the budget year.

b. For the budget year commencing July 1, 1999, and for each succeeding budget year the regular program foundation base per pupil is eighty-seven and five-tenths percent of the regular program state cost per pupil. For the budget year commencing July 1, 1991, and for each succeeding budget year the special education support services foundation base is seventy-nine percent of the special education support services state cost per pupil. The combined foundation base is the sum of the regular program foundation base, the special education support services foundation base, the total teacher salary supplement district cost, the total professional development supplement district cost, the total early intervention supplement district cost, the total area education agency teacher salary supplement district cost, and the total area education agency professional development supplement district cost.

c. For the budget year commencing July 1, 1999, the department of management shall add the amount of the additional budget adjustment computed in section 257.14, subsection 1, to the combined foundation base.

3. *Computations rounded.* In making computations and payments under this chapter, except in the case of computations relating to funding of special education support services, media services, and educational services provided through the area education agencies, and the teacher salary supplement, the professional development supplement, and the early intervention supplement, the department of management shall round amounts to the nearest whole dollar.

4. *Legislative review.* The provisions of this chapter shall be subject to legislative review at least every five years. The review shall be based upon a school finance formula status report containing the recommendations of a legislative interim committee appointed to conduct a review of the school finance formula, to be prepared with the assistance of the department of education, in association with the departments of management and revenue. The report shall include recommendations for school finance formula changes or revisions based upon demographic changes, enrollment trends, and property tax valuation fluctuations observed during the preceding five-year interval; an analysis of the operation of the

school finance formula during the preceding five-year interval; and a summary of issues that have arisen since the previous review and potential approaches for their resolution. The first such report shall be submitted to the general assembly no later than January 1, 2005, with subsequent reports developed and submitted by January 1 at least every fifth year thereafter.

Section History: Recent Form

89 Acts, ch 135, § 1; 91 Acts, ch 267, §517; 95 Acts, ch 130, §1; 96 Acts, ch 1197, §5, 6; 99 Acts, ch 2, §1, 4; 99 Acts, ch 178, §1, 10; 2000 Acts, ch 1186, §2; 2003 Acts, ch 145, §286; 2008 Acts, ch 1181, §93, 94

Referred to in § 257.3, 257.4, 257.12, 257.34

257.8 STATE PERCENT OF GROWTH -- ALLOWABLE GROWTH.

1. *State percent of growth.* The state percent of growth for the budget year beginning July 1, 2009, is four percent. The state percent of growth for the budget year beginning July 1, 2010, is two percent. The state percent of growth for each subsequent budget year shall be established by statute which shall be enacted within thirty days of the submission in the year preceding the base year of the governor's budget under section 8.21. The establishment of the state percent of growth for a budget year shall be the only subject matter of the bill which enacts the state percent of growth for a budget year.

2. *Categorical state percent of growth.* The categorical state percent of growth for the budget year beginning July 1, 2010, is two percent. The categorical state percent of growth for each budget year shall be established by statute which shall be enacted within thirty days of the submission in the year preceding the base year of the governor's budget under section 8.21. The establishment of the categorical state percent of growth for a budget year shall be the only subject matter of the bill which enacts the categorical state percent of growth for a budget year. The categorical state percent of growth may include state percents of growth for the teacher salary supplement, the professional development supplement, and the early intervention supplement.

3. *Allowable growth calculation.* The department of management shall calculate the regular program allowable growth for a budget year by multiplying the state percent of growth for the budget year by the regular program state cost per pupil for the base year and shall calculate the special education support services allowable growth for the budget year by multiplying the state percent of growth for the budget year by the special education support services state cost per pupil for the base year.

4. *Alternate allowable growth -- gifted and talented programs.* Notwithstanding the calculation in subsection 3, the department of management shall calculate the regular program allowable growth for the budget year beginning July 1, 1999, by multiplying the state percent of growth for the budget year by the regular program state cost per pupil for the base year, and add to the resulting product thirty-eight dollars. For purposes of determining the amount of a budget adjustment as defined in section 257.14, for a school district which calculated allowable growth for

the budget year beginning July 1, 1999, pursuant to this subsection, thirty-eight dollars shall be subtracted from the school district's regular program cost per pupil for the budget year beginning July 1, 1999, prior to determining the amount of the adjustment.

5. *Alternate allowable growth -- regular program state cost.* A school district which calculated allowable growth for the budget year beginning July 1, 1999, pursuant to the provisions of subsection 4, shall calculate allowable growth pursuant to the provisions of subsection 3 for the school budget year beginning July 1, 2000, and succeeding budget years, utilizing a regular program state cost per pupil figure which incorporates the thirty-eight dollar increase in regular program allowable growth calculated for the budget year beginning July 1, 1999.

6. *Combined allowable growth.* The combined allowable growth per pupil for each school district is the sum of the regular program allowable growth per pupil and the special education support services allowable growth per pupil for the budget year, which may be modified as follows:

a. By the school budget review committee under section 257.31.

b. By the department of management under section 257.36.

7. *Alternate allowable growth -- definitions.* For budget years beginning July 1, 2000, and subsequent budget years, references to the terms *"allowable growth"*, *"regular program state cost per pupil"*, and *"regular program district cost per pupil"* shall mean those terms as calculated for those school districts that calculated regular program allowable growth for the school budget year beginning July 1, 1999, with the additional thirty-eight dollars.

Section History: Recent Form

89 Acts, ch 135, § 8; 92 Acts, ch 1227, §15; 95 Acts, ch 11, §1; 96 Acts, ch 1001, §1; 98 Acts, ch 1005, § 1, 2; 99 Acts, ch 1, §1, 2; 99 Acts, ch 178, §2, 10; 2000 Acts, ch 1001, §1, 2; 2001 Acts, ch 2, §1, 2; 2002 Acts, ch 1159, §1, 2; 2002 Acts, ch 1167, §1, 6; 2003 Acts, ch 1, §1, 2; 2004 Acts, ch 1175, §234, 287; 2005 Acts, ch 1, §1, 2; 2006 Acts, ch 1154, §1, 2; 2007 Acts, ch 3, §1, 2; 2008 Acts, ch 1002, §1, 2; 2008 Acts, ch 1181, §96; 2009 Acts, ch 5, §1, 2; 2009 Acts, ch 6, §1, 2

Referred to in § 257.2, 257.9, 257.41, 273.23

Footnotes

2009 amendments to subsections 1 and 2 are applicable for computing state aid under the state school foundation program for the school budget year beginning July 1, 2010; 2009 Acts, ch 5, §2; 2009 Acts, ch 6, §2

257.9 STATE COST PER PUPIL.

1. *Regular program state cost per pupil for 1991-1992.*

a. For the budget year beginning July 1, 1991, for the regular program state cost per pupil, the department of management shall add together the sum of the products of each district's regular program district cost per pupil for the base year, as regular program

district cost per pupil would have been calculated under section 442.9, Code 1989, multiplied by its budget enrollment as budget enrollment would have been calculated under section 442.4, Code 1989, for the base year, plus the sum of the amounts added to the district cost of school districts pursuant to section 442.21, Code 1989.

b. The total calculated under this subsection shall be divided by the total of the budget enrollments of all school districts for the budget year beginning July 1, 1990, calculated under section 257.6, subsection 4, if section 257.6, subsection 4, had been in effect for that budget year. The regular program state cost per pupil for the budget year beginning July 1, 1991, is the amount calculated by the department of management under this subsection plus an allowable growth amount that is equal to the state percent of growth for the budget year multiplied by the amount calculated by the department of management under this subsection.

2. *Regular program state cost per pupil for 1992-1993 and succeeding years.* For the budget year beginning July 1, 1992, and succeeding budget years, the regular program state cost per pupil for a budget year is the regular program state cost per pupil for the base year plus the regular program allowable growth for the budget year.

3. *Special education support services state cost per pupil for 1991-1992.* For the budget year beginning July 1, 1991, for the special education support services state cost per pupil, the department of management shall divide the total of the approved budgets of the area education agencies for special education support services for that year approved by the state board of education under section 273.3, subsection 12, by the total of the weighted enrollment for special education support services in the state for the budget year. The special education support services state cost per pupil for the budget year is the amount calculated by the department of management under this subsection.

4. *Special education support services state cost per pupil for 1992-1993 and succeeding years.* For the budget year beginning July 1, 1992, and succeeding budget years, the special education support services state cost per pupil for the budget year is the special education support services state cost per pupil for the base year plus the special education support services allowable growth for the budget year.

5. *Combined state cost per pupil.* The combined state cost per pupil is the sum of the regular program state cost per pupil and the special education support services state cost per pupil.

6. *Teacher salary supplement state cost per pupil.* For the budget year beginning July 1, 2009, for the teacher salary supplement state cost per pupil, the department of management shall add together the teacher compensation allocation made to each district for the fiscal year beginning July 1, 2008, pursuant to section 284.13, subsection 1, paragraph *"h"*, Code 2009, and the phase II allocation made to each district for the fiscal year beginning July 1, 2008, pursuant to section 294A.9, Code 2009, and divide that sum by the statewide total budget enrollment for the fiscal year beginning July 1, 2009. The teacher salary supplement state cost per pupil for the budget year beginning July 1, 2010, and succeeding budget years, shall be the amount calculated by the department of management under this subsection for the base year plus an allowable growth amount that is equal to the teacher salary supplement categorical state percent of growth, pursuant to section 257.8,

subsection 2, for the budget year, multiplied by the amount calculated by the department of management under this subsection for the base year.

7. *Professional development supplement state cost per pupil.* For the budget year beginning July 1, 2009, for the professional development supplement state cost per pupil, the department of management shall add together the professional development allocation made to each district for the fiscal year beginning July 1, 2008, pursuant to section 284.13, subsection 1, paragraph *"d"*, Code 2009, and divide that sum by the statewide total budget enrollment for the fiscal year beginning July 1, 2009. The professional development supplement state cost per pupil for the budget year beginning July 1, 2010, and succeeding budget years, shall be the amount calculated by the department of management under this subsection for the base year plus an allowable growth amount that is equal to the professional development supplement categorical state percent of growth, pursuant to section 257.8, subsection 2, for the budget year, multiplied by the amount calculated by the department of management under this subsection for the base year.

8. *Early intervention supplement state cost per pupil.* For the budget year beginning July 1, 2009, for the early intervention supplement state cost per pupil, the department of management shall add together the early intervention allocation made to each district for the fiscal year beginning July 1, 2008, pursuant to section 256D.4,{ and divide that sum by the statewide total budget enrollment for the fiscal year beginning July 1, 2009. The early intervention supplement state cost per pupil for the budget year beginning July 1, 2010, and succeeding budget years, shall be the amount calculated by the department of management under this subsection for the base year plus an allowable growth amount that is equal to the early intervention supplement categorical state percent of growth, pursuant to section 257.8, subsection 2, for the budget year, multiplied by the amount calculated by the department of management under this subsection for the base year.

9. *Area education agency teacher salary supplement state cost per pupil.* For the budget year beginning July 1, 2009, for the area education agency teacher salary supplement state cost per pupil, the department of management shall add together the teacher compensation allocation made to each area education agency for the fiscal year beginning July 1, 2008, pursuant to section 284.13, subsection 1, paragraph *"i"*, Code 2009, and the phase II allocation made to each area education agency for the fiscal year beginning July 1, 2008, pursuant to section 294A.9, Code 2009, and divide that sum by the statewide special education support services weighted enrollment for the fiscal year beginning July 1, 2009. The area education agency teacher salary supplement state cost per pupil for the budget year beginning July 1, 2010, and succeeding budget years, shall be the amount calculated by the department of management under this subsection for the base year plus an allowable growth amount that is equal to the teacher salary supplement categorical state percent of growth, pursuant to section 257.8, subsection 2, for the budget year, multiplied by the amount calculated by the department of management under this subsection for the base year.

10. *Area education agency professional development supplement state cost per pupil.* For the budget year beginning July 1, 2009, for the area education agency professional development supplement state cost per pupil, the department of management shall add together

the professional development allocation made to each area education agency for the fiscal year beginning July 1, 2008, pursuant to section 284.13, subsection 1, paragraph *"d"*, Code 2009, and divide that sum by the statewide special education support services weighted enrollment for the fiscal year beginning July 1, 2009. The area education agency professional development supplement state cost per pupil for the budget year beginning July 1, 2010, and succeeding budget years, shall be the amount calculated by the department of management under this subsection for the base year plus an allowable growth amount that is equal to the professional development supplement categorical state percent of growth, pursuant to section 257.8, subsection 2, for the budget year, multiplied by the amount calculated by the department of management under this subsection for the base year.

Section History: Recent Form

89 Acts, ch 135, § 9; 90 Acts, ch 1190, § 3; 2008 Acts, ch 1181, §97; 2009 Acts, ch 68, §2; 2009 Acts, ch 177, §16
Referred to in § 257.2, 284.4

Footnotes

{The words "Code 2009" probably intended; corrective legislation is pending

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 1 ELEMENTARY AND SECONDARY EDUCATION/CHAPTER 256F CHARTER SCHOOLS/256F.1 Authorization and purpose.

256F.1 Authorization and purpose.

1. Charter schools shall be part of the state's program of public education.

2. A charter school may be established by creating a new school within an existing public school or converting an existing public school to charter status.

3. The purpose of a charter school established pursuant to this chapter shall be to accomplish the following:

a. Improve student learning.

b. Increase learning opportunities for students.

c. Encourage the use of different and innovative methods of teaching.

d. Require the measurement of learning outcomes and create different and innovative forms of measuring outcomes.

e. Establish new forms of accountability for schools.

f. Create new professional opportunities for teachers and other educators, including the opportunity to be responsible for the learning program at the school site.

2002 Acts, ch 1124, §1, 16; 2003 Acts, ch 79, §7, 8

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 1 ELEMENTARY AND SECONDARY EDUCATION/CHAPTER 256F CHARTER SCHOOLS/256F.2 Definitions.

256F.2 Definitions.

1. *"Advisory council"* means a council appointed by the school board of directors of a charter school pursuant to section 256F.5, subsection 4.

2. *"Attendance center"* means a public school building that contains classrooms used for instructional purposes for elementary, middle, or secondary school students.

3. *"Charter school"* means a state public charter school operated as a pilot program.

4. *"Department"* means the department of education.

4A. *"Pilot program"* means a pilot program created under this chapter that creates a new school within an existing public school or converts an existing public school to charter status in accordance with this chapter.

5. *"School board"* means a board of directors regularly elected by the registered voters of a school district.

6. *"State board"* means the state board of education.

2002 Acts, ch 1124, §2, 16; 2003 Acts, ch 79, §7, 8

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 1 ELEMENTARY AND SECONDARY EDUCATION/CHAPTER 256F CHARTER SCHOOLS/256F.3 Pilot program - application.

256F.3 Pilot program - application.

1. The state board of education shall apply for a federal grant under Pub. L. No. 107-110, cited as the federal No Child Left Behind Act of 2001 (Title V, Part B, Subpart 1), for purposes of providing financial assistance for the planning, program design, and initial implementation of public charter schools. The department shall initiate a pilot program to test the effectiveness of charter schools and shall implement the applicable provisions of this chapter.

2. To receive approval to establish a charter school in accordance with this chapter, the principal, teachers, or parents or guardians of students at an existing public school shall submit an application to the school board to convert an existing attendance center to a charter school. An attendance center shall not enter into a charter school contract with a school district under this chapter unless the attendance center is located within the school district. The application shall demonstrate the support of at least fifty percent of the teachers employed at the school on the date of the submission of the application and fifty percent of the parents or guardians voting whose children are enrolled at the school, provided that a majority of the parents or guardians eligible to vote participate in the ballot process, according to procedures established by rules of the state board. A parent or guardian voting in accordance with this subsection must be a resident of this state.

3. A school board shall receive and review all applications for converting an existing building or creating a new building for a charter school. Applications received on or before October 1 of a calendar year shall be considered for charter schools to be established at the beginning of the school district's next school year or at a time agreed to by the applicant and the school board. However, a school board may receive and consider applications after October 1 at its discretion.

4. A school board shall by a majority vote approve or deny an application no later than sixty calendar days after the application is received. An application approved by a school board and subsequently approved by the state board pursuant to subsection 6 shall constitute, at a minimum, an agreement between the school board and the charter school for the operation of the charter school. A school board that denies an application for a conversion to a charter school shall provide notice of denial to the applicant in writing within thirty days after board action. The notice shall specify the exact reasons for denial and provide documentation supporting those reasons.

5. An applicant may appeal school board denial of the applicant's charter school application to the state board in accordance with the procedures set forth in chapter 290. The state board shall affirm, modify, or reverse the school board's decision on the basis of the information provided in the application indicating the ability and willingness of the proposed charter school to meet the requirements of section 256F.1, subsection 3, and section 256F.4.

6. Upon approval of an application for the proposed establishment of a charter school, the school board shall submit an application for approval to establish the charter school to the state board in accordance with section 256F.5. The application shall set forth the manner in which the charter school will provide special instruction, in accordance with section 280.4, to students who are limited English proficient. The application shall set forth the manner in which the charter school will comply with federal and state laws and regulations relating to the federal National School Lunch Act and the federal Child Nutrition Act of 1966, 42 U.S.C. § 1751 - 1785, and chapter 283A. The state board shall approve only those applications that meet the requirements specified in section 256F.1, subsection 3, and sections 256F.4 and 256F.5. The state board may deny an application if the state board deems that approval of the application is not in the best interest of the affected students. The state board shall approve not more

than twenty charter school applications. The state board shall approve not more than one charter school application per school district. The state board shall adopt rules in accordance with chapter 17A for the implementation of this chapter.

7. If federal rules or regulations relating to the distribution or utilization of federal funds allocated to the department pursuant to this section are adopted that are inconsistent with the provisions of this chapter, the state board shall adopt rules to comply with the requirements of the federal rules or regulations. The state board shall identify inconsistencies between federal and state rules and regulations as provided in this subsection and shall submit recommendations for legislative action to the chairpersons and ranking members of the senate and house standing committees on education at the next meeting of the general assembly.

2002 Acts, ch 1124, §3, 16; 2003 Acts, ch 79, §1, 7, 8; 2006 Acts, ch 1152, §7, 17

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 1 ELEMENTARY AND SECONDARY EDUCATION/CHAPTER 256F CHARTER SCHOOLS/256F.4 General operating requirements.

256F.4 General operating requirements.

1. Within fifteen days after approval of a charter school application submitted in accordance with section 256F.3, subsection 2, a school board shall report to the department the name of the charter school applicant, the proposed charter school location, and its projected enrollment.

2. Although a charter school may elect to comply with one or more provisions of statute or administrative rule, a charter school is exempt from all statutes and rules applicable to a school, a school board, or a school district, except that the charter school shall do all of the following:

a. Meet all applicable federal, state, and local health and safety requirements and laws prohibiting discrimination on the basis of race, creed, color, sex, national origin, religion, ancestry, or disability. A charter school shall be subject to any court-ordered desegregation plan in effect for the school district at the time the school's charter application is approved.

b. Operate as a nonsectarian, nonreligious public school.

c. Be free of tuition and application fees to Iowa resident students between the ages of five and twenty-one years.

d. Be subject to and comply with chapters 216 and 216A relating to civil and human rights.

e. Provide special education services in accordance with chapter 256B.

f. Be subject to the same financial audits, audit procedures, and audit requirements as a school district. The audit shall be consistent with the requirements of sections 11.6, 11.14, 11.19, 256.9, subsection 19, and section 279.29, except to the extent deviations are necessary because of the program at the school. The department, the auditor of state, or the legislative services agency may conduct financial, program, or compliance audits.

g. Be subject to and comply with chapter 284 relating to the student achievement and teacher quality program. A charter school that complies with chapter 284 shall receive state moneys or be eligible to receive state moneys as provided in chapter 284 as if it did not operate under a charter.

h. Be subject to and comply with chapters 20 and 279 relating to contracts with and discharge of teachers and administrators.

i. Be subject to and comply with the provisions of chapter 285 relating to the transportation of students.

j. Meetings of the advisory council are subject to the provisions of chapters 21 and 22.

3. A charter school shall not discriminate in its student admissions policies or practices on the basis of intellectual or athletic ability, measures of achievement or aptitude, or status as a person with a disability. However, a charter school may limit admission to students who are within a particular range of ages or grade levels or on any other basis that would be legal if initiated by a school district. Enrollment priority shall be given to the siblings of students enrolled in a charter school.

4. A charter school shall enroll an eligible resident student who submits a timely application unless the number of applications exceeds the capacity of a program, class, grade level, or building. In this case, students must be accepted by lot. A charter school may enroll an eligible nonresident student who submits a timely application in accordance with the student admission policy established pursuant to section 256F.5, subsection 1. If the charter school enrolls an eligible nonresident student, the charter school shall notify the school district and the sending district not later than March 1 of the preceding school year. Transportation for the student shall be in accordance with section 282.18, subsection 10. The sending district shall make payments to the charter school in the manner required under section 282.18, subsection 7.

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5. A charter school shall provide instruction for at least the number of days required by section 279.10, subsection 1, or shall provide at least the equivalent number of total hours.

6. Notwithstanding subsection 2, a charter school shall meet the requirements of section 256.7, subsection 21.

7. A charter school shall be considered a part of the school district in which it is located for purposes of state school foundation aid pursuant to chapter 257.

8. A charter school may enter into contracts in accordance with chapter 26.

2002 Acts, ch 1124, §4, 16; 2002 Acts, ch 1175, §81; 2003 Acts, ch 35, §46, 49; 2003 Acts, ch 79, §2, 7, 8; 2006 Acts, ch 1185, §127

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 1 ELEMENTARY AND SECONDARY EDUCATION/CHAPTER 256F CHARTER SCHOOLS/256F.5 Application - definition.

256F.5 Application - definition.

An application to the state board for the approval of a charter school shall include, but shall not be limited to, a description of the following:

1. The method for admission to the charter school.
2. The mission, purpose, innovation, and specialized focus of the charter school.
3. Performance goals and objectives in addition to those required under section 256.7, subsection 21, by which the school's student achievement shall be judged, the measures to be used to assess progress, and the current baseline status with respect to the goals.
4. The method for appointing or forming an advisory council for the charter school. The membership of an advisory council appointed or formed in accordance with this chapter shall not include more than one member of the school board.
5. Procedures for teacher evaluation and professional development for teachers and administrators.
6. The charter school governance and bylaws.
7. The financial plan for the operation of the school including, at a minimum, a listing of the support services the school district will provide, and the charter school's revenues, budgets, and expenditures.
8. The educational program and curriculum, instructional methodology, and services to be offered to students.
9. The number and qualifications of teachers and administrators to be employed.
10. The organization of the school in terms of ages of students or grades to be taught along with an estimate of the total enrollment of the school.
11. The provision of school facilities.
12. A statement indicating how the charter school will meet the requirements of section 256F.1, subsection 3; section 256F.4, subsection 2, paragraph *"a"*; and section 256F.4, subsection 3.
13. Assurance of the assumption of liability by the charter school.
14. The types and amounts of insurance coverage to be obtained by the charter school.
15. A plan of operation to be implemented if the charter school revokes or fails to renew its contract.
16. The means, costs, and plan for providing transportation for students attending the charter school.
17. The specific statutes, administrative rules, and school board policies with which the charter school does not intend to comply.

2002 Acts, ch 1124, §5, 16; 2003 Acts, ch 79, §7, 8

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 1 ELEMENTARY AND SECONDARY EDUCATION/CHAPTER 256F CHARTER SCHOOLS/256F.6 Contract.

256F.6 Contract.

1. An approved charter school application shall constitute an agreement, the terms of which shall, at a minimum, be the terms of a four-year enforceable, renewable contract between the school board and the state board. The contract shall include an operating agreement for the operation of the charter school. The terms of the contract may be revised at any time with the approval of both the state board and the school board, whether or not the stated provisions of the contract are being fulfilled. The charter school shall provide parents and guardians of students enrolled in the charter school with a copy of the charter school application approved pursuant to section 256F.5.

2. The contract shall outline the reasons for revocation or nonrenewal of the charter.

3. The state board of education shall provide by rule for the ongoing review of a school board's compliance with a contract entered into in accordance with this chapter.

2002 Acts, ch 1124, §6, 16; 2003 Acts, ch 79, §7, 8

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 1 ELEMENTARY AND SECONDARY EDUCATION/CHAPTER 256F CHARTER SCHOOLS/256F.7 Employment and related matters.

256F.7 Employment and related matters.

1. A charter school shall employ or contract with necessary teachers and administrators, as defined in section 272.1, who hold a valid license with an endorsement for the type of service for which the teacher or administrator is employed.

2. The school board, in consultation with the advisory council, shall decide matters related to the operation of the school, including budgeting, curriculum, and operating procedures.

3. Employees of a charter school shall be considered employees of the school district.

2002 Acts, ch 1124, §7, 16; 2003 Acts, ch 79, §7, 8

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 1 ELEMENTARY AND SECONDARY EDUCATION/CHAPTER 256F CHARTER SCHOOLS/256F.8 Procedures for revocation or nonrenewal of contract.

256F.8 Procedures for revocation or nonrenewal of contract.

1. A contract for the establishment of a charter school may be revoked by the state board or the school board that established the charter school if the appropriate board determines that one or more of the following occurred:

a. Failure of the charter school to abide by and meet the provisions set forth in the contract, including educational goals.

b. Failure of the charter school to comply with all applicable law.

c. Failure of the charter school to meet generally accepted public sector accounting principles.

d. The existence of one or more other grounds for revocation as specified in the contract.

2. The decision by a school board to revoke or to fail to take action to renew a charter school contract is subject to appeal under procedures set forth in chapter 290.

3. A school board considering revocation or nonrenewal of a charter school contract shall notify the advisory council, the parents or guardians of the students enrolled in the charter school, and the teachers and administrators employed by the charter school, sixty days prior to revoking or the date by which the contract must be renewed, but not later than the last day of classes in the school year.

4. If the state board determines that a charter school is in substantial violation of the terms of the contract, the state board shall notify the school board and the advisory council of its intention to revoke the contract at least sixty days prior to revoking a contract and the school board shall assume oversight authority, operational authority, or both oversight and operational authority. The notice shall state the grounds for the proposed action in writing and in reasonable detail. The school board may request in writing an informal hearing before the state board within fourteen days of receiving notice of revocation of the contract. Upon receiving a timely written request for a hearing, the state board shall give reasonable notice to the school board of the hearing date. The state board shall conduct an informal hearing before taking final action. Final action to revoke a contract shall be taken in a manner least disruptive to students enrolled in the charter school. The state board shall take final action to revoke or approve continuation of a contract by the last day of classes in the school year. If the final action to revoke a contract under this section occurs prior to the last day of classes in the school year, a charter school student may enroll in the resident district.

5. The decision of the state board to revoke a contract under this section is solely within the discretion of the state board and is final.

6. A school board revoking a contract or a school board or advisory council that fails to renew a contract under this chapter is not liable for that action to the charter school, a student enrolled in the charter school or the student's parent or guardian, or any other person.

7. In the case of a revocation or a nonrenewal of the charter, the school board is exempt from the state board's "Barker guidelines", as provided in 1 D.P.I. App. Dec. 145 (1977).

2002 Acts, ch 1124, §8, 16; 2003 Acts, ch 79, §7, 8

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 1 ELEMENTARY AND SECONDARY EDUCATION/CHAPTER 256F CHARTER SCHOOLS/256F.9 Procedures after revocation - student enrollment.

256F.9 Procedures after revocation - student enrollment.

If a charter school contract is revoked in accordance with this chapter, a nonresident student who attended the school, and any siblings of the student, shall be determined to have shown "good cause" as provided in section 282.18, subsection 4, paragraph *"b"*, and may submit an application to another school district according to section 282.18 at any time. Applications and notices required by section 282.18 shall be processed and provided in a prompt manner. The application and notice deadlines in section 282.18 do not apply to a nonresident student application under these circumstances.

2002 Acts, ch 1124, §9, 16; 2003 Acts, ch 79, §7, 8; 2009 Acts, ch 133, §234

Section amended

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 1 ELEMENTARY AND SECONDARY EDUCATION/CHAPTER 256F CHARTER SCHOOLS/256F.10 Reports.

256F.10 Reports.

1. A charter school shall report at least annually to the school board, advisory council, and the state board the information required by the school board, advisory council, or the state board. The reports are public records subject to chapter 22.

2. Not later than December 1, 2003, and annually thereafter, the state board shall submit a comprehensive report, with findings and recommendations, to the senate and house standing committees on education. The report shall evaluate the state's charter school programs generally, including but not limited to, an evaluation of whether the pilot programs are fulfilling the purposes set forth in section 256F.4, subsection 2. The report also shall contain, for each charter school, a copy of the charter school's mission statement, attendance statistics and dropout rate, aggregate assessment test scores, projections of financial stability, the number and qualifications of teachers and administrators, and number of and comments on supervisory visits by the department of education.

2002 Acts, ch 1124, §10, 16; 2003 Acts, ch 79, §7, 8

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Source:
Iowa Code/Statutes (Code Chapters & Sections)/2009 Merged Iowa Code and Supplement/TITLE VII EDUCATION AND CULTURAL AFFAIRS/SUBTITLE 1 ELEMENTARY AND SECONDARY EDUCATION/CHAPTER 256F CHARTER SCHOOLS/256F.11 Future repeal.

256F.11 Future repeal.

This chapter is repealed effective July 1, 2011.

2002 Acts, ch 1124, §11, 16; 2003 Acts, ch 79, §3, 7, 8

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