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BUDGET PART I: BUDGET SUMMARY TABLE

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	$ 4,207,500	$ 4,708,396	$ 5,304,746	$ 5,483,316	$ 19,703,958
2. Fringe Benefits	$ 841,500	$ 875,013	$ 914,283	$ 949,997	$ 3,580,792
3. Travel	$ 539,550	$ 899,177	$ 904,222	$ 921,048	$ 3,263,997
4. Equipment	$ 476,298	$ 137,500	$ -	$ -	$ 613,798
5. Supplies	$ 108,375	$ 108,250	$ 108,125	$ 60,125	$ 384,875
6. Contractual	$ 23,680,300	$ 29,083,127	$ 20,653,359	$ 15,322,744	$ 88,739,530
7. Training Stipends	$ -	$ 600,000	$ 630,000	$ -	$ 1,230,000
8. Other	$ 4,583,354	$ 11,282,033	$ 16,426,646	$ 13,664,853	$ 45,956,886
9. Total Direct Costs (lines 1-8)	$ 34,436,877	$ 47,693,495	$ 44,941,380	$ 36,402,084	$ 163,473,835
10. Indirect Costs*	$ 888,118	$ 972,077	$ 987,802	$ 971,265	$ 3,819,262
11.Funding for Involved LEAs	$ -	$ -	$ -	$ -	$ -
12. Supplemental Funding for Participating LEAs	$ -	$ 8,267,805	$ 12,734,848	$ -	$ 21,002,653
13. Total Costs (lines 9-12)	**$ 35,324,994**	**$ 56,933,377**	**$ 58,664,029**	**$ 37,373,349**	**$ 188,295,749**
14. Funding Subgranted to Participating LEAs (50% of Total Grant)	$ 25,319,992	$ 54,819,118	$ 73,385,852	$ 34,770,787	$ 188,295,749
15. Total Budget (lines 13-14)	**$ 60,644,987**	**$ 111,752,495**	**$ 132,049,882**	**$ 72,144,135**	**$ 376,591,499**

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

BUDGET PART I: BUDGET SUMMARY NARRATIVE

Colorado's Race to the Top $377 million budget is oriented toward each of the State priorities in the application. The size and scope of the budget reflects strong statewide support for Colorado's education reform plans fostered through the public outreach process (as described in Exhibit VI.A(1)i-1), and demonstrated by broad participation in the Race to the Top proposal (participating LEAs represent 94% of students). The diversity of participating LEAs and the students they serve (94% of students eligible for free or reduced lunch, 95% of minority students, high as well as persistently low achieving students in urban, suburban and rural LEAs) is critical to create significant and sustainable improvements in student achievement. Consequently, the budget includes substantial support from the state portion of grant funds to support those participating LEAs that will not receive adequate funding through their Title I-based allocation of the grant to execute the State's plan. Additionally, the budget includes several state-level activities that will distribute funds across the state as part of the roll out of new standards, assessments, data systems, educator evaluation systems and school turnaround activities. Each of the projects is directed toward one or more of the selection criteria or sections in the application as summarized below:

Project #	Project	Description	Section(s) Addressed
1	**RttT Implementation**	State-level capacity building and project management to implement the State's Race to the Top plan.	(A)(2)
2	**Transitioning to Enhanced Standards and Use of Data to Improve Instruction**	Content Collaboratives and Regional Learning Communities encompassing both the roll out and support for new standards and assessments and the roll out and populating of content for the SchoolView instructional improvement system.	(B)(3), (C)(3), (D)(2)(iv), (D)(5)
3	**High-Quality Instructional Materials and Formative Assessment**	Subsidies and incentives for LEAs and educators to create and share curricula and content. Partial subsidies for the purchase of formative items and assessments.	(B)(3), (D)(2), (D)(5)

	Development		
4	**Interim Assessment Development**	State-level review and validation of available interim assessments and partial subsidies for LEA purchase of validated interim assessments.	(B)(3), (D)(2)
5	**SchoolView - Capture & Link**	Creation of an integrated data platform that (1) improves capture of data from schools and LEAs, and (2) links P-20 data across the Department of Education (CDE), Higher Education (CDHE), Human Services (CDHS), Labor and Employment (CDLE), and Corrections (DOC). In addition, this project creates a statewide enrollment system and subsidizes the purchase of student information systems for low capacity LEAs.	(A)(2), (C)(2),(C)(3), (D)(4), (D)(5)
6	**SchoolView - Provide & Perform**	Build out and annual support for an integrated instructional improvement system (IIS) including: student, parent, administrator, other portals; augmentation of the Colorado Growth Model with postsecondary attainment, educator effectiveness, early warning reporting, and financial measures; provision of online courseware; teacher preparation program dashboard; new teacher accountability visualizations; and provision of a P-20 research data mart. Includes incentives for content seeding and funds for training and implementation.	(C)(2), (C)(3)
7	**Colorado Center for Educator Excellence**	Nonprofit that will serve as an independent data analysis and communication node focused on teacher and leader performance measured by student growth. The Center will conduct research, analyze available data, and engage vendors to evaluate and support (1) the implementation of teacher and principal evaluation systems, (2) dissemination of research based professional development, and (3) effective educator preparation programs. The Center will consolidate learnings, disseminate best practices and make recommendations to the Governor's Council for Educator Effectiveness, as well as to LEAs and administrators.	(A)(2), (D)(2), (D)(3), (D)(4), (D)(5)
8	**Colorado Department of Education (CDE) Office of Educator Effectiveness Initiatives**	Team of temporary state personnel and consultants, who will provide technical assistance to LEAs in developing and implementing new systems to evaluate, promote, support, compensate and remove educators. Additionally, the Office will oversee alignment of existing and planned state initiatives to ensure they directly support and advance the reform plan, manage the biannual administration of the TELL survey on school-level working conditions, direct the State's Alternative Compensation Grants program, and coordinate with the CCEE.	(A)(2), (D)(2), (D)(3), (E)(2)

9	**Governor's Council for Educator Effectiveness**	The Governor's Council for Educator Effectiveness will be charged with identifying rigorous, transparent and fair measures of teacher and principal effectiveness for use by participating LEAs, as well as making recommendations regarding possible state statute and rules intended to ensure that all state systems support the definitions of "educator effectiveness" adopted by the Council. The Council will make recommendations, as needed, to inform educator development, compensation, retention, promotion, employment status and dismissal.	(A)(2), (D)(2), (D)(3)
10	**Roll Out of High-Quality Evaluation Systems**	Funds to identify, develop, and implement high-quality evaluation systems in all participating LEAs. Each participating LEA that does not already have an evaluation system meeting the criteria set by the Governor's Council for Educator Effectiveness must adopt and implement one by SY 2011-2012. Each LEA will use Race to the Top funds to provide temporary full-time staff positions for two years to direct the selection and implementation of these new evaluation systems and to provide extensive training and support to teachers and principals on these new systems.	(A)(2), (D)(2), (D)(4)
11	**Teacher Pipeline Development (Teach For America)**	Over the four-year grant period, Teach For America (TFA) will provide Colorado with: a corps of more than 1,000 high-quality teachers in low-performing LEAs and schools; a thorough data-management system focused on teacher improvement and student outcomes in order to measure teacher effectiveness; shared research, methodology and strategies for teacher evaluation, teacher improvement tools, and teacher effectiveness data; and human capital for turnaround schools through the TFA corps members and an alumni leadership initiative. Additionally, TFA has committed to raise $36.8 million in matching funds. The CDE will use the TFA tools to provide customized data dashboards to the 19 institutions of higher education that have educator preparation programs to enhance their ability to track and support graduates, while improving the capacity of individual LEAs to provide rapid feedback and support to teachers and principals based on the growth of their students.	(C)(3), (D)(2), (D)(3), (D)(4), (F)(2)
12	**Dissemination of Best Demonstrated Practices**	Grant fund to reward the State's most effective educators and to incent them to disseminate their best instructional practices statewide. In years three and four of the grant, the CDE will identify highly effective teachers in each of the content	(C)(3), (D)(2), (D)(5)

		areas and grades and award $10,000 grants to each teacher and a matching grant to their schools to incentivize the use of their classrooms as models to other educators and/or the dissemination of teachers' best practices using SchoolView. Additional grants will be paid to teachers whose uploaded resources receive the highest rating from other educators on SchoolView.	
13	**High-Quality Prep Program Grants**	Grants jointly approved by the State Board of Education and Commission on Higher Education to increase the number of graduates from those preparation programs identified as successful in preparing effective educators, with priority given to those that prepare graduates in high-need subjects and/or to serve high-need schools. Grants will be made based upon analysis of available data conducted by the Colorado Center for Educator Excellence and recommendations from LEAs. LEAs will be given matching funds to support partnerships with these identified programs.	(D)(3), (D)(4)
14	**School Leadership Academy (SLA)**	State-level office created within the CDE under existing statutory authority to provide training and support of principals and teacher leaders, with a focus on training leaders for both schools in turnaround and those with the largest achievement gaps. The SLA will also direct the Leadership Residency Program and will be run by a director who will coordinate with the CDE Turnaround Office and the Executive Director of Educator Effectiveness Initiatives.	(D)(3), (D)(5), (E)(2)
15	**Colorado's Advanced Placement Initiative**	Program to provide training, teacher and student support, and incentives to dramatically increase the number of students taking and passing AP math, science, and English exams, and expand access to rigorous, college-preparation coursework to traditionally under-represented students. Over the four-year grant period, this initiative will train 400 teachers in 64 high-poverty / high-minority schools and serve more than 15,000 students.	(D)(3), (D)(4) (D)(5), Priority 2
16	**Alternative Compensation Grants**	Program to provide planning grants to LEAs to implement new effectiveness-based compensation systems for teachers and principals. LEAs with sufficient funds to do so will use their LEA Race to the Top subgrants for this program, while LEAs with insufficient Race to the Top funds will receive grants from the CDE Office of Educator Effectiveness Initiatives.	(D)(2), (D)(5)

17	**High-Need Endorsements Grant Program**	Program whereby LEAs receive grants for current effective and highly effective teachers to obtain additional endorsements and credentials in high-need areas, including English Language Acquisition, STEM and Early Childhood Education. LEAs with sufficient funds to do so will use their LEA Race to the Top subgrants for this program, while LEAs with insufficient Race to the Top funds will receive grants from the CDE Office of Educator Effectiveness Initiatives	(D)(3), (D)(5), Priority 2
18	**Colorado Turnaround Center**	Nonprofit that will build human capital pipelines to support successful turnaround efforts, build the supply of qualified operators to restart in struggling schools and open high-quality new schools across the state, generate and share knowledge about successful strategies and approaches, mobilize an array of supports for students who attend failing schools, and build public support for dramatic change. The CDE will oversee and support the creation of the Colorado Turnaround Center whose Board will be appointed by the Commissioner of Education.	(A)(2), (D)(4), (E)(2)
19	**Colorado Department of Education (CDE) Turnaround Office**	State-level office within the CDE whose director reports to the Commissioner of Education and which will mobilize the full authority vested in the State by the Colorado Education Accountability Act and its control of federal and state dollars to create local conditions that are conducive to successful turnaround. The CDE Turnaround Office will guide and support the work of the Colorado Turnaround Center and provide powerful, aligned incentives for LEAs statewide to engage in the bold action necessary to eradicate chronic low performance.	(A)(2), (E)(2)
20	**Innovation Acceleration Grant Program**	Grant program administered by the Leadership Investment Board in close cooperation with researchers selected for the project. The Innovation Acceleration Grant Program will identify, select, and rapidly disburse funds to proven school operators that can replicate highly-successful approaches in chronically underperforming Colorado schools, including funding for new school creation. It will also analyze strategies and results in turnaround schools to identify the critical turnaround support services that contribute most to successful school turnarounds and deploy resources to rapidly scale up those services in a larger number of underperforming Colorado schools.	(D)(2), (E)(2)

Colorado Race to the Top (RttT) projects are aligned with the State's strategic plan for educational reform, and as such the funding request for RttT intersects in several ways with other funding streams. Most notably:

1) The SchoolView - Capture & Link project is part of Colorado's pending State Longitudinal Data Systems (SLDS) application ($17.9 million) and represents a duplicate funding request so that should the SLDS application not be awarded, this critical building block of the State's data system plans can still be completed.

2) The SchoolView Provide & Perform project will leverage local funds for ongoing support to sustain the system and refresh content development. It is the State's expectation that the ongoing maintenance costs, estimated at $6 million dollars per year will be funded by a combination of state appropriations and a percentage of per-pupil funding provided to LEAs through Colorado's school finance formula.

3) The Teacher Pipeline Development project involves Colorado partnering with Teach For America (TFA) to supply hundreds of teachers to Colorado's neediest schools. As part of this effort, TFA has agreed to share the code of their teacher evaluation and instruction management platforms to accelerate Colorado's SchoolView - Provide & Perform project, and roll out of teacher evaluation systems. Additionally, TFA has agreed to raise significant private funds in the amount of $36.8 million ($31.9 million from private and national TFA funding; $4.9 million additional funding for an operating reserve) to support their efforts in Colorado, more than doubling the impact of the $24.5 million of federal funding for this effort.

4) The nonprofit Colorado Center for Educator Excellence (CCEE) project will raise private funds to accelerate and build upon its efforts over the RttT grant period. Additionally, this capacity will fund its ongoing operation beyond the grant period.

5) The nonprofit Colorado Turnaround Center (CTC) will raise private funds to accelerate and build upon its efforts over the RttT grant period. Additionally, this capacity will fund its ongoing operation beyond the grant period.

6) Plans developed using funds from the Alternative Compensation Grants project will be implemented by funding from Teacher Incentive Fund (TIF) grants which will be applied for concurrently.

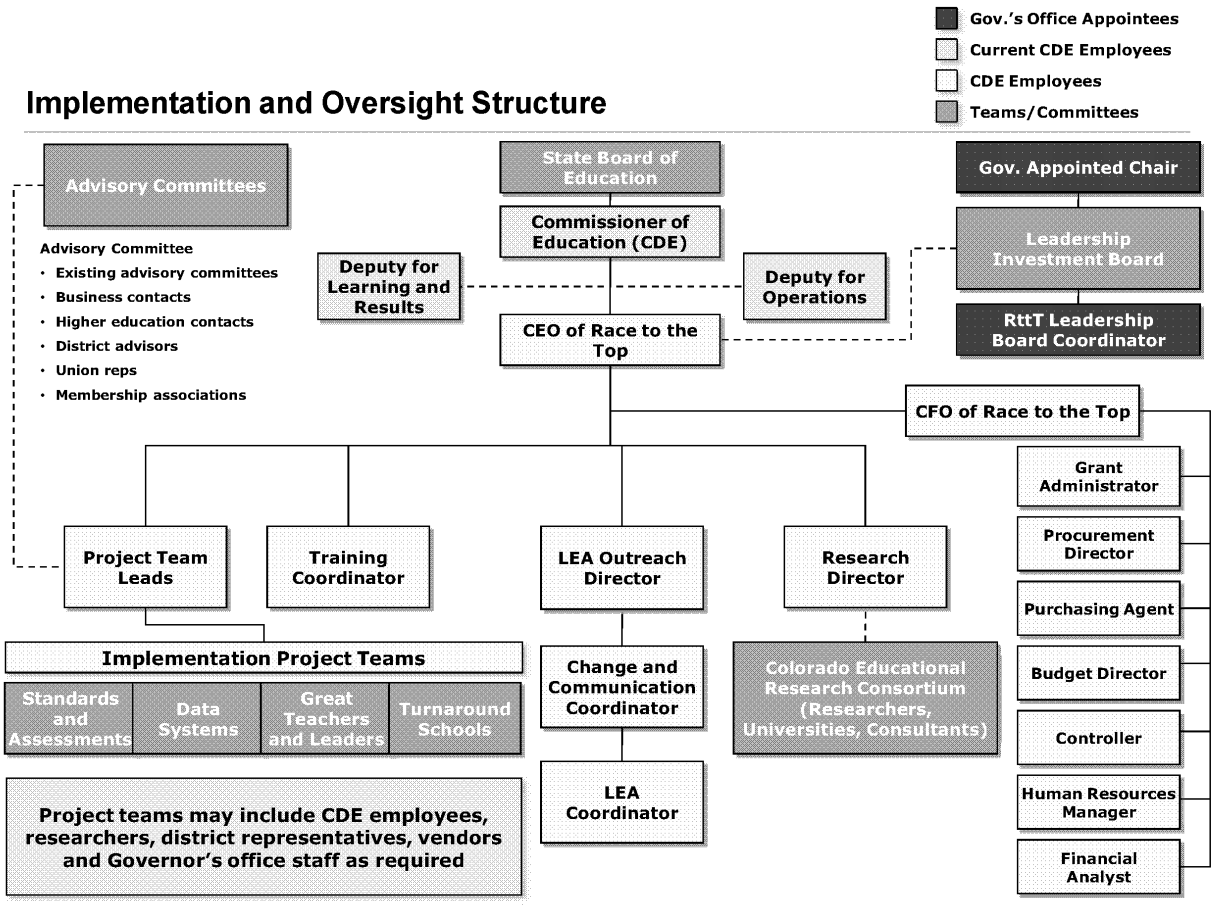
7) Colorado's Advanced Placement Initiative will be sustained beyond the four-year grant period through private funding raised by the nonprofit board of the entity in which the project is housed.

8) The Innovation Acceleration Grant Program will raise private funds to support efforts to accelerate the replication of successful school models and valuable critical turnaround support in high-need areas.

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE – RACE TO THE TOP IMPLEMENTATION

The implementation of the Race to the Top grant in Colorado will be executed through significant investment in state-level capacity to coordinate, manage and monitor the projects which comprise the State's plan. The overall responsibility for implementation will rest with the Commissioner of Education, who will hire a CEO of Race to the Top to oversee and manage the day-to-day execution of the grant. The structure of the teams to be hired to execute the grant is summarized on the following page.

State-level implementation efforts will be supplemented by $10 million from key LEAs to fund the research and analysis functions of the Colorado Education Research Consortium (CERC).


Gov.'s Office Appointees
Current CDE Employees
CDE Employees
Teams/Committees
Implementation and Oversight Structure
Advisory Committees
Advisory Committee
• Existing advisory committees
• Business contacts
• Higher education contacts
• District advisors
• Union reps
• Membership associations
State Board of Education
Commissioner of Education (CDE)
Deputy for Learning and Results
Deputy for Operations
CEO of Race to the Top
Gov. Appointed Chair
Leadership Investment Board
RttT Leadership Board Coordinator
CFO of Race to the Top
Grant Administrator
Procurement Director
Purchasing Agent
Budget Director
Controller
Human Resources Manager
Financial Analyst
Project Team Leads
Training Coordinator
LEA Outreach Director
Research Director
Implementation Project Teams
Standards and Assessments
Data Systems
Great Teachers and Leaders
Turnaround Schools
Change and Communication Coordinator
LEA Coordinator
Colorado Educational Research Consortium (Researchers, Universities, Consultants)
Project teams may include CDE employees, researchers, district representatives, vendors and Governor's office staff as required

Budget Part II: Project-Level Budget Table
Project Name: Race to the Top Implementation
Associated with Criteria: (A)(2)
(Evidence for selection criterion (A)(2)(i)(d))

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Total (e)
1. Personnel	$ 1,615,000	$ 1,695,750	$ 1,780,538	$ 1,869,564	$ 6,960,852
2. Fringe Benefits	$ 323,000	$ 339,150	$ 356,108	$ 373,913	$ 1,392,170
3. Travel	$ -	$ -	$ -	$ -	$ -
4. Equipment	$ 128,355	$ -	$ -	$ -	$ 128,355
5. Supplies	$ 10,750	$ 10,750	$ 10,750	$ 10,750	$ 43,000
6. Contractual	$ 1,200,000	$ -	$ -	$ -	$ 1,200,000
7. Training Stipends	$ -	$ -	$ -	$ -	$ -
8. Other	$ 201,725	$ 201,725	$ 201,725	$ 201,725	$ 806,900
9. Total Direct Costs (lines 1-8)	$ 3,478,830	$ 2,247,375	$ 2,349,120	$ 2,455,952	$ 10,531,277
10. Indirect Costs*	$ 231,511	$ 235,974	$ 246,658	$ 257,875	$ 972,018
11.Funding for Involved LEAs	$ -	$ -	$ -	$ -	$ -
12. Supplemental Funding for Participating LEAs	$ -	$ -	$ -	$ -	$ -
13. Total Costs (lines 9-12)	$ 3,710,341	$ 2,483,349	$ 2,595,778	$ 2,713,827	$ 11,503,296

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

Budget Narrative – Race to the Top Implementation

1) Personnel

Description/Rationale	Year 1 Salary (+ 5% Annual Increase)	Allocation per year	# of FTEs	Total
Chief Executive Officer (CEO) of Race to the Top Implementation will oversee and coordinate the State's plan; responsible to the Commissioner of Education for delivery of the State's plan; salary based on state pay scales	$ 150,000	Incurred annually (years 1-4)	1 FTE	$ 646,519
Chief Financial Officer (CFO) of the Race to the Top Implementation will be responsible for accounting and grant management; salary based on state pay scales	$ 125,000	Incurred annually (years 1-4)	1 FTE	$ 538,766
Leadership Investment Board Chair will be responsible for convening the Leadership Investment Board and directing the Innovation Acceleration Grants Program – volunteer position	Volunteer Position	Incurred annually (years 1-4)	1 Board Chair	$ 0
Leadership Investment Board Coordinator will be responsible for assisting Board Chair in convening the Investment Board; salary based on state pay scales	$ 60,000	Incurred annually (years 1-4)	50% FTE	$ 129,304
Procurement Director will lead and streamline procurement efforts; salary based on state pay scales	$ 100,000	Incurred annually (years 1-4)	1 FTE	$ 431,013
Purchasing Agent will be responsible for RFP and RFI execution; salary based on state pay scales	$ 60,000	Incurred annually (years 1-4)	1 FTE	$ 258,608
Grant Administrator will be responsible for federal and state reporting; salary based on state pay scales	$ 80,000	Incurred annually (years 1-4)	1 FTE	$ 344,810
HR Manager will be responsible for hiring and training staff while monitoring feedback and workplace issues; salary based on state pay scales	$ 80,000	Incurred annually (years 1-4)	1 FTE	$ 344,810

Budget Director will be responsible for budgeting, scope-of-work compliance, and project budget coordination; salary based on state pay scales	$ 80,000	Incurred annually (years 1-4)	1 FTE	$ 344,810
Controller will be responsible for execution of fiscal duties; salary based on state pay scales	$ 80,000	Incurred annually (years 1-4)	1 FTE	$ 344,810
Financial Analyst will support the CFO and Budget Director; salary based on state pay scales	$ 50,000	Incurred annually (years 1-4)	1 FTE	$ 215,506
Training Coordinator will be responsible for coordination of all training and convening logistics and planning; salary based on state pay scales	$ 60,000	Incurred annually (years 1-4)	1 FTE	$ 258,608
LEA Outreach Director will be responsible for LEA strategy, public relations and inter-LEA coordination; salary based on state pay scales	$ 80,000	Incurred annually (years 1-4)	1 FTE	$ 344,810
LEA Coordinator will facilitate LEA-level project expectations; salary based on state pay scales	$ 60,000	Incurred annually (years 1-4)	1 FTE	$ 258,608
Research Director will lead monitoring of student impact, make recommendations for project changes, and guide the efforts of subcontractors and the Colorado Education Research Consortium (CERC); salary based on state pay scales	$ 80,000	Incurred annually (years 1-4)	1 FTE	$ 344,810
Change and Communication Coordinator will facilitate capturing the best practices of the Regional Learning Communities and Content Collaboratives; salary based on state pay scales	$ 60,000	Incurred annually (years 1-4)	1 FTE	$ 258,608
Project Team Leads will direct project management within each assurance area; salary based on state pay scales	$ 80,000	Incurred annually (years 1-4)	4 FTEs	$ 1,379,240
Project Assistants will support the scheduling, coordination and day-to-day operations of the RttT Implementation Team; salary based on state pay scales	$ 40,000	Incurred annually (years 1-4)	3 FTEs	$ 517,215

2) Fringe Benefits

Description/Rationale	Applicable Salaries	State Employee Benefits Rate	Total
Employee State Benefits for Personnel – calculated at 20% of base salary	$ 6,960,852	20%	$ 1,392,170

3) Travel - None

4) Equipment

Description/Rationale	Unit Cost	# of FTEs	Total
Computers: to supply the needs of new employees; based on current equipment costs within the CDE (one-time expense in Y1; 1 per FTE)	$ 2,200	21.5 FTEs	$ 47,300
Computer software suite: to supply the needs of new employees; based on current equipment costs within the CDE (one-time expense in Y1; 1 per FTE)	$ 330	21.5 FTEs	$ 7,095
Office equipment (desk, chair) for each new employee; based on current equipment costs within the CDE (one-time expense in Y1; 1 per FTE)	$ 3,440	21.5 FTEs	$ 73,960

5) Supplies

Description/Rationale	Unit Cost	# of FTEs	Total
Basic consumable office supplies costing $500 per FTE, based on current supply costs within the CDE; Incurred annually	$ 500	21.5 FTEs	$ 43,000

6) Contractual

Description/Rationale	Unit Cost	Rate	Total
Scope-of-Work consultants: consultancy that will assist in executing the scopes of work with participating LEAs and jump-starting the hiring process for CDE staff and the implementation teams; $250K per month + 20% expense rate for four months; based on benchmarking of costs of proposals from strategy consulting firms; incurred in year 1 only	$300,000 per month	4 months in year 1	$1,200,000

7) Training Stipends - None

8) Other

Description/Rationale	Unit Cost	Rate	Total
Commercial Office Space Rent: 250 square feet per person x $30 fixed rent cost per SF per year (based on Downtown Denver benchmarking); incurred annually	$ 7,500	21.5 FTEs	$ 645,000
Telephone service, including landline and mobile service, per FTE; based on current CDE telephone rates; incurred annually	$ 1,650	21.5 FTEs	$ 141,900
Advisory Committee and Leadership Investment Board meeting costs; includes space rental and meeting supplies; five meetings per year for four years	$ 1,000	5 meetings per year incurred annually	$ 20,000

9) Total Direct Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Direct Costs (lines 1-8)	$ 3,478,830	$ 2,247,375	$ 2,349,120	$ 2,455,952	$ 10,531,277

10) Indirect Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Indirect Cost – 10.5% of applicable direct costs (including all personnel-related costs and meeting costs)	$ 231,511	$ 235,974	$ 246,658	$ 257,875	$ 972,018

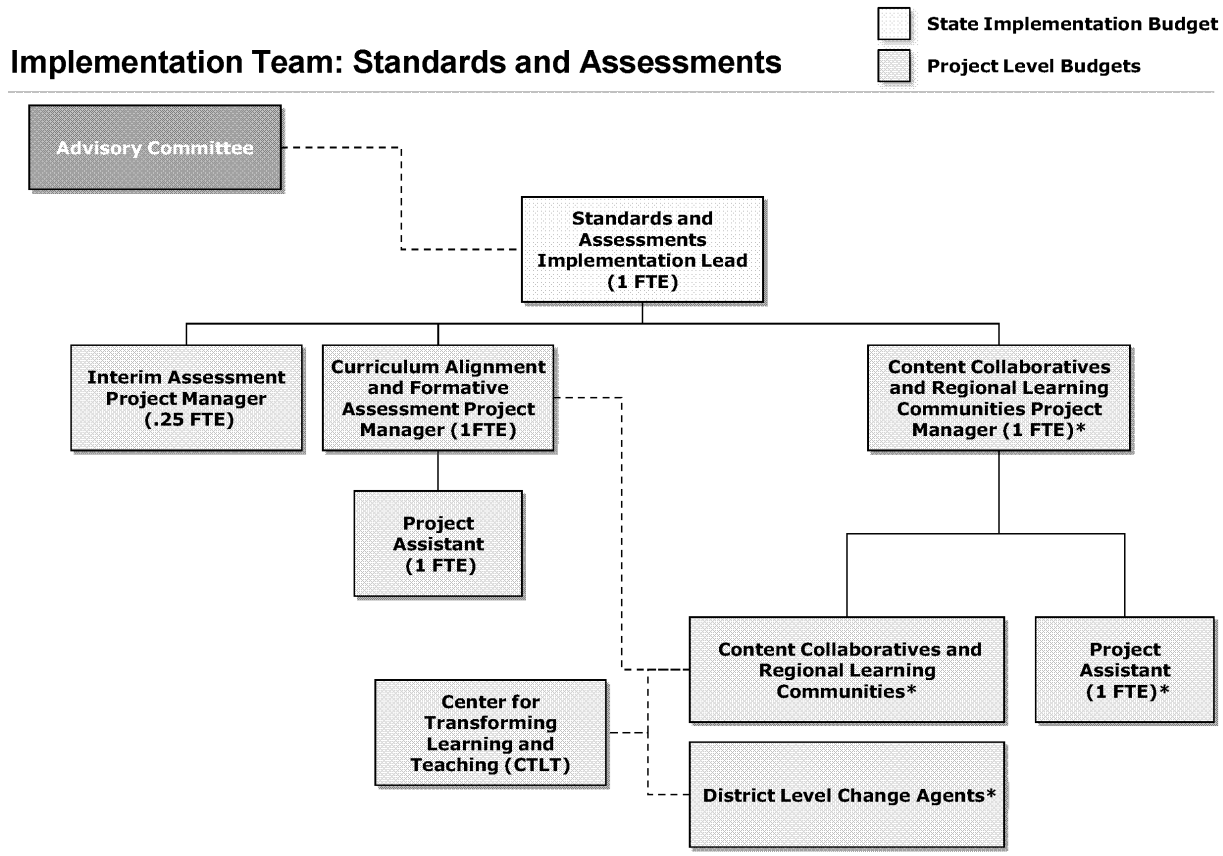
11) Funding for Involved LEAs - None

12) Supplemental Funding for Participating LEAs - None

13) Total Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Costs (lines 9-12)	$ 3,710,341	$ 2,483,349	$ 2,595,778	$ 2,713,827	$ 11,503,296

Implementation Team: Standards and Assessments



* Indicates that the personnel/contractors are shared with the Data Systems Assurance Area

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE –
TRANSITIONING TO ENHANCED STANDARDS AND USE OF DATA TO IMPROVE INSTRUCTION

The purpose of this project is to: 1) develop and deliver high-quality professional development to support the transition to new standards and the use of data to improve instruction, and 2) engage in change management in order to create a sustained culture of standards-based, data-driven instruction.

The project has four major activities: 1) development of learning communities (Content Collaboratives and Regional Learning Communities) to develop standards and assessments content and provide differentiated professional development, 2) implementation of an integrated training plan for all users and stakeholders, 3) development and deployment of change agents to support transitions and help ensure adoption by LEAs and other stakeholders, and 4) provision of LEA peer reviews to help implement policies and practices to translate standards and data from assessments into classroom practice.

$8.5 million of LEA RttT subgrants will pay for the following:

- A portion of release time and travel costs of educators in the Content Collaboratives and Regional Learning Communities, and
- A portion of the contracted change agent salaries

Budget Part II: Project-Level Budget Table
Project Name: Transitioning to Enhanced Standards and Use of Data to Improve Instruction
Associated with Criteria: (B)(3), (C)(3), (D)(2)(iv), (D)(5)
(Evidence for selection criterion (A)(2)(i)(d))

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Total (e)
1. Personnel	$ 125,000	$ 131,250	$ 137,813	$ 144,703	$ 538,766
2. Fringe Benefits	$ 25,000	$ 26,250	$ 27,563	$ 28,941	$ 107,753
3. Travel	$ 293,800	$ 302,614	$ 311,692	$ 321,043	$ 1,229,150
4. Equipment	$ 11,940	$ -	$ -	$ -	$ 11,940
5. Supplies	$ 33,000	$ 33,000	$ 33,000	$ 33,000	$ 132,000
6. Contractual	$ 720,400	$ 1,910,400	$ 2,091,700	$ 2,093,905	$ 6,816,405

7. Training Stipends	$ -	$ -	$ -	$ -	$ -
8. Other	$ 1,347,500	$ 1,327,900	$ 1,380,000	$ 1,426,305	$ 5,481,705
9. Total Direct Costs (lines 1-8)	$ 2,556,640	$ 3,731,414	$ 3,981,767	$ 4,047,897	$ 14,317,718
10. Indirect Costs*	$ 230,765	$ 236,356	$ 243,607	$ 250,319	$ 961,048
11.Funding for Involved LEAs	$ -	$ -	$ -	$ -	$ -
12. Supplemental Funding for Participating LEAs	$ -	$ -	$ -	$ -	$ -
13. Total Costs (lines 9-12)	$ 2,787,405	$ 3,967,770	$ 4,225,374	$ 4,298,216	$ 15,278,766
All applicants must provide a break-down by the applicable budget categories shown in lines 1-15. Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category. Column (e): Show the total amount requested for all project years. *If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.					

Budget Narrative – Transitioning to Enhanced Standards and Use of Data to Improve Instruction

1) Personnel

Description/Rationale	Year 1 Salary (+ 5% Annual Increase)	Allocation per year	# of FTEs	Total
Project Manager will be responsible for oversight of the coordination of and output from the Content Collaboratives and Regional Learning Communities; salary based on state pay scales	$ 80,000	Incurred annually (years 1-4)	1 FTE	$ 344,810
Project Assistant will provide support for operational and organizational needs, including accounts payable and receivable, payroll and human resources, communications, and events scheduling; salary based on state pay scales	$ 45,000	Incurred annually (years 1-4)	1 FTE	$ 193,956

2) Fringe Benefits

Description/Rationale	Applicable Salaries	State Employee Benefits Rate	Total
Employee State Benefits for Project Managers – calculated at 20% of salary	$ 538,766	20%	$ 107,753

3) Travel

Description/Rationale	Travel Cost per Day (+3% annual increase)	Attendees per Meeting	Meetings per Year	Total
In-state travel stipend for Regional Learning Community members (LEA staff) to travel to summer academy (ten days) + two in-person meetings per year in support of the transition to new standards and assessments; $275 per day for summer academy; $100 per day for in-person meetings; includes 3% annual travel rate increase; based on FY10 federal rates in CO; incurred annually	$275/day for summer academy; $100 per day for in-person meetings	40 Regional Learning Com-munity members	12 per year (10 summer academy; 2 in-person) over 4 years	$ 493,668
Cost of travel/lodging of regional change agents to provide on-site trainings for each Regional Learning Community for a total of 50 day trips at $100 and 50 overnight trips at $275; includes 3% annual rate increase; based on FY10 federal rates in CO; incurred annually	$275/day for overnight trips; $100 per day for day trips	8 Regional Learning Com-munities	50 overnight/ 50 day per region	$ 627,544
Travel costs for eight CDE content specialists to attend summer academies, Content Collaborative meetings, and Regional Learning Community meetings as needed; ten summer academy days and one Regional Learning Community meeting @ $275; two in-person Content Collaborative meetings @ $100; includes 3% annual rate increase; based on FY10 federal rates in CO; incurred annually	$275/day for overnight trips; $100 per day for day trips	8 content specialists	11 overnight travel days; 2 day trips per year incurred annually	$ 107,938

4) Equipment

Description/Rationale	Unit Cost	# of FTEs	Total
Computers: to supply the needs of new employees; based on current equipment costs within the CDE; 1 per FTE; one time cost in year 1 only	$ 2,200	2 FTEs	$ 4,400
Computer software suite: to supply the needs of new employees; based on current equipment costs within the CDE; 1 per FTE; one time cost in year 1 only	$ 330	2 FTEs	$ 660
Office equipment (desk, chair) for each new employee; based on current equipment costs within the CDE; 1 per FTE; one time cost in year 1 only	$ 3,440	2 FTEs	$ 6,880

5) Supplies

Description/Rationale	Unit Cost	Rate	Total
Basic consumable office supplies costing $500 per FTE; based on current supply costs within the CDE; incurred annually	$ 500	2 FTEs	$ 4,000
Training session supplies (chart pads, etc.) for the 100 annual change agent on-site trainings per Regional Learning Communities; incurred annually	$40 per training day	100 training days per region per year x 8 regions x 4 years	$ 128,000

6) Contractual

Description/Rationale	Unit Cost	Rate	Unit Count	Total
Costs for content development in preparation for the facilitation of in-person and virtual meetings as part of the summer academies, Content Collaboratives, and Regional Learning Communities (80 total days of content development per year over 4 years); contract with CTLT and other vendors; rate based on previous contracts; incurred annually years 1-4	$1,000 per day	--	80 days per year over 4 years	$ 320,000

Costs for expert facilitation and training as part of the Content Collaborative and Regional Learning Community meetings and summer academies; 80 Content Collaborative facilitation and training days; 80 Regional Learning Communities facilitation and training days; 60 days summer academy facilitation and training days; contract with CTLT and other vendors; rate based on previous contracts; incurred annually years 1-4	$1,500 per facilitator	220 meetings/ year over 4 years	1 facilitator per meeting	$ 1,320,000
Funding for implementation partners (CTLT and other vendors) to coordinate among key stakeholders, including the Implementation Leads for Standards & Assessments and Data Systems, the Project Manager, Collaborative members, change agents, and the CDE; contract with CTLT and other vendors; rate based on previous contracts; incurred annually years 1-4	$1,000 per day	--	20 days per year over 4 years	$ 80,000
Provision of professional development (training) to support change agents' work in translating standards and assessments into classroom practice; incurred annually years 1-4	$3,000 annual training cost per change agent	Incurred annually over 4 yrs	40 change agents	$ 480,000
50% of an FTE contracted to manage the Colorado STEM Network of community STEM partners to interface with Math and Science Collaboratives for development of high-quality STEM instructional materials; rate based on state pay scales; incurred annually years 1-4	$ 80,000 base salary + 5% annual increase	Incurred annually over 4 yrs	50% FTE	$ 172,405
Coordination and production of videos capturing innovative and effective practice in Colorado on standards-based instruction and the use of data from assessments to drive classroom practice; videos will be disseminated on a variety of platforms, including SchoolView (five videos per year per content area @ $25K per video); rate based on local competitive rates; incurred years 2-4	$25,000 per video (based on benchmarked rates)	5 videos/ content area/ year (years 2-4)	8 content areas	$ 3,000,000

STEM in Action funding for development of applied STEM content for SchoolView by industry experts, museums, universities, research centers and STEM-related community partners; incurred years 2-4	$200,000 annually	Incurred annually starting in year 2	--	$ 600,000
Virtual collaboration meeting costs including software licensing, virtual meeting capability costs (meeting/software), and meetings costs (meeting space and supplies) to support translation of standards and assessments into classroom practice; incurred annually years 1-4	$300 per meeting	16 Collab-oratives	8 virtual meetings per Collaborative per year	$ 153,600
Virtual collaboration training costs (12 days with one trainer per day @ $1,000 per trainer); year 1 only	$1,000 per trainer per day	12 days of virtual coll-aboration training in year 1	1 trainer per day	$ 12,000
Contract implementation peer review teams to review LEA implementation of standards-based and data-driven instruction (20 reviews per year x one week per review x six reviewers per team x $1100 per week per reviewer); years 3 and 4 only	$6,600 per review (6 reviewers x $1,100 each)	1 week per review for 2 years (years 3 & 4 only)	20 reviews per year	$ 264,000
Trainer costs for implementation review team trainings in years 3 & 4 (four cohorts x two day trainings = 8 trainer days)	$1,500 per trainer (1 per day)	2 days per cohort per year (years 3 & 4 only)	4 cohorts (20 reviewers per cohort)	$ 24,000
Subsidy for 80 implementation reviewers to attend two days of training in years 3 and 4	$220 subsidy per reviewer per day	2 days per year (in years 3 & 4)	80 reviewers	$ 70,400
Contract with student organizations to train and support student involvement in the Content Collaboratives; incurred annually years 1-4	$80,000 annual cost	Incurred annually	--	$ 320,000

7) Training Stipends - None

8) Other

Description/Rationale	Unit Cost	Rate	Unit Count	Total
Change agent costs: State share - covers regional change agent costs for Colorado's six rural regions (of eight total regions) x two change agents per Regional Learning Community; incurred annually years 1-4; supplemented by LEA subgrants	$70,000 per change agent + 5% annual increase	6 low-capacity regions	2 change agents per region	$ 3,620,505
Collaborative and Learning Community member reimbursement to attend summer academies (ten days per year) and release time to attend ten meetings per year - state share covers 25% of total cost; incurred annually years 1-4	$220 release time cost per day	20 training days/year over 4 years	280 members x 25% covered by state share	$ 1,232,000
Meeting costs for space and materials for 26 days of Content Collaboratives meetings and 26 days of Regional Learning Communities meetings in support of transition to new standards and assessments; urban rate of $2,500 per meeting [(two in-person days x eight Collaboratives) + ten days of summer academy per year = 26 meeting days]; incurred annually	$2,500 per meeting	2 Colla-borative types	26 days per year over 4 years	$ 520,000
Meeting costs for implementation peer review team trainings (four trainings/year x two days per training); rural rate of $1,000 per meeting; incurred in years 3 & 4	$1,000 per meeting	2 days per meeting	4 meetings per year in years 3 & 4	$ 16,000
Release time for Content Collaborative and Regional Learning Community members to attend a one-day training in year 1 on effective virtual collaboration (280 members at $220 per day)	$220 per person	1 day in Year 1 only	280 members	$ 61,600
Office space rent: annual cost of renting office space for each FTE; based on current CDE rent rate; incurred annually	$ 2,300	--	2 FTEs	$ 18,400
Telephone service, including landline and Mobile service, per FTE; based on current CDE telephone rates; incurred annually	$ 1,650	--	2 FTEs	$ 13,200

9) Total Direct Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Direct Costs (lines 1-8)	$ 2,556,640	$ 3,731,414	$ 3,981,767	$ 4,047,897	$ 14,317,718

10) Indirect Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Indirect Cost – 10.5% of applicable direct costs (including all personnel, content development, change agents, travel, meeting, and personnel costs)	$ 230,765	$ 236,356	$ 243,607	$ 250,319	$ 961,048

11) Funding for Involved LEAs - None

12) Supplemental Funding for Participating LEAs - None

13) Total Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Costs (lines 9-12)	$ 2,787,405	$ 3,967,770	$ 4,225,374	$ 4,298,216	$ 15,278,766

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE –
HIGH-QUALITY INSTRUCTIONAL MATERIALS AND FORMATIVE ASSESSMENT DEVELOPMENT

The purpose of this project is to work with LEAs to develop and acquire high-quality instructional materials and assessments to support the statewide transition to the common core of internationally benchmarked standards that build toward college and career readiness by the time of high school graduation, including Colorado's P-12 Academic Standards adopted by the Colorado State Board of Education on December 10, 2009. Formative assessments and instructional materials are interdependent and will be developed together. Colorado will use learning communities of educators from LEAs (Content Collaboratives) to identify and develop these materials. These learning communities will build the sustainable LEA capacity to identify, purchase, develop and implement aligned instructional materials and formative assessments.

LEA RttT subgrants ($15.5 million) will be used to support educator time in the learning communities and to subsidize the purchase of aligned instructional materials and formative assessments. State expenses are focused on professional development, expert technical assistance and management of the learning communities, quality-control review of materials, and incentives for effective educators to submit high-quality instructional materials and assessments. All of these materials will be disseminated through the SchoolView educator portal.

Budget Part II: Project-Level Budget Table
Project Name: High-Quality Instructional Materials and Formative Assessment Development
Associated with Criteria: (B)(3), (D)(2), (D)(5)
(Evidence for selection criterion (A)(2)(i)(d))

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Total (e)
1. Personnel	$ 125,000	$ 131,250	$ 137,813	$ 144,703	$ 538,766
2. Fringe Benefits	$ 25,000	$ 26,250	$ 27,563	$ 28,941	$ 107,753
3. Travel	$ -	$ -	$ -	$ -	$ -
4. Equipment	$ 11,940	$ -	$ -	$ -	$ 11,940
5. Supplies	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 4,000
6. Contractual	$ -	$ -	$ 25,000	$ 25,000	$ 50,000
7. Training Stipends	$ -	$ -	$ -	$ -	$ -
8. Other	$ 7,900	$ 774,567	$ 774,567	$ 774,567	$ 2,331,600

9. Total Direct Costs (lines 1-8)	$ 170,840	$ 933,067	$ 965,942	$ 974,210	$ 3,044,059
10. Indirect Costs*	$ 17,216	$ 17,472	$ 18,299	$ 19,167	$ 72,154
11.Funding for Involved LEAs	$ -	$ -	$ -	$ -	$ -
12. Supplemental Funding for Participating LEAs	$ -	$ -	$ -	$ -	$ -
13. Total Costs (lines 9-12)	$ 188,056	$ 950,539	$ 984,241	$ 993,378	$ 3,116,213
All applicants must provide a break-down by the applicable budget categories shown in lines 1-15. Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category. Column (e): Show the total amount requested for all project years. *If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.					

Budget Narrative – High-Quality Instructional Materials and Formative Assessment Development

1) Personnel

Description/Rationale	Year 1 Salary (+ 5% Annual Increase)	Allocation per year	# of FTEs	Total
Project Manager will supervise the development, coordination, and facilitation of the Content Collaboratives, effective educators, and review teams that are developing high-quality instructional materials and formative assessments; salary based on state pay scales	$ 80,000	Incurred annually (years 1-4)	1 FTE	$ 344,810
Project Assistant will provide support for operational and organizational needs, including accounts payable and receivable, payroll and human resources, communications, and events scheduling; salary based on state pay scales	$ 45,000	Incurred annually (years 1-4)	1 FTE	$ 193,956

2) Fringe Benefits

Description/Rationale	Applicable Salaries	State Employee Benefits Rate	Total
Employee State Benefits for Personnel – calculated at 20% of salary (based on CDE benchmarks)	$ 538,766	20%	$ 107,753

3) Travel - None

4) Equipment

Description/Rationale	Unit Cost	# of FTEs	Total
Computers: to supply the needs of new employees overseeing instructional materials and formative assessment development; based on current equipment costs within the CDE; 1 per FTE; one-time expense in year 1	$2,200 per FTE (year 1 only)	2 FTEs	$ 4,400
Computer software suite: to supply the needs of new employees; based on current equipment costs within the CDE; 1 per FTE; one-time expense in year 1	$330 per FTE (year 1 only)	2 FTEs	$ 660
Office equipment (desk, chair) for each new employee; based on current equipment costs within the CDE; 1 per FTE; one-time expense in year 1	$3,440 per FTE (year 1 only)	2 FTEs	$ 6,880

5) Supplies

Description/Rationale	Unit Cost	# of FTEs	Total
Basic consumable office supplies costing $500 per FTE, based on current supply costs within the CDE; incurred annually	$500 per FTE per year	2 FTEs	$ 4,000

6) Contractual

Description/Rationale	Unit Cost	Rate	Unit Count	Total
Technical review and analysis of the efficacy of formative items that are posted / shared on the SchoolView platform so that users will have better information on the effectiveness of materials; capacity will come from partners with national technical expertise (e.g., WestEd, NCIEA, or LEARN) who can conduct this analysis on an ongoing basis; funded at 25% FTE @ $100K; incurred in years 3 & 4 only	$100,000 per reviewer	25% FTE over years 3 & 4	1 reviewer (@ 25% FTE)	$ 50,000

7) Training Stipends - None

8) Other

Description/Rationale	Unit Cost	Rate	Unit Count	Total
Incentives to highly-effective educators in each of the six subject areas to contribute 1) instructional materials and 2) formative assessment materials to the SchoolView platform; incurred in years 2-4	$2,500 incentive per teacher	6 subjects x 2 content types	20 teachers per subject per year (years 2-4)	$ 1,800,000
Expert peer review teams responsible for reviewing content (instructional and formative items) that emerge from the Collaboratives; years 2-4	$100,000 annual cost per reviewer	2 months per year; years 2-4	10 reviewers	$ 500,000
Office space rent: cost of renting office space for each FTE; based on current CDE rent rate; incurred annually	$2,300 per FTE per year	--	2 FTEs	$ 18,400
Telephone service, including landline and mobile service, per FTE; based on current CDE telephone rates; incurred annually	$1,650 per FTE per year	--	2 FTEs	$ 13,200

9) Total Direct Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Direct Costs (lines 1-8)	$ 170,840	$ 933,067	$ 965,942	$ 974,210	$ 3,044,059

10) Indirect Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Indirect Cost – 10.5% of applicable direct costs (including all personnel and related costs)	$ 17,216	$ 17,472	$ 18,299	$ 19,167	$ 72,154

11) Funding for Involved LEAs - None

12) Supplemental Funding for Participating LEAs - None

13) Total Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Costs (lines 9-12)	$ 188,056	$ 950,539	$ 984,241	$ 993,378	$ 3,116,213

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE – INTERIM ASSESSMENT DEVELOPMENT

The purpose of this project is to identify, develop and acquire high-quality interim assessments. Colorado will carry out a review process to vet interim assessments that are aligned with the common core of internationally benchmarked standards that build toward college and career readiness by the time of high school graduation, including those adopted by the Colorado State Board of Education on December 10, 2009. LEAs will receive a portion of funds to purchase these assessments. The State will provide subsidies to smaller LEAs that do not receive sufficient funding from the RttT grant to ensure that all LEAs have high-quality interim assessments by the end of the grant period. RttT funds subgranted to LEAs will cover $2.5 million of the cost of interim assessment licenses and test administration (the remainder of the cost will be distributed through the state share in the form of direct grants to LEAs).

Budget Part II: Project-Level Budget Table
Project Name: Interim Assessment Development
Associated with Criteria: (B)(3), (D)(2)
(Evidence for selection criterion (A)(2)(i)(d))

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Total (e)
1. Personnel	$ 20,000	$ 21,000	$ 22,050	$ 23,153	$ 86,203
2. Fringe Benefits	$ 4,000	$ 4,200	$ 4,410	$ 4,631	$ 17,241
3. Travel	$ -	$ -	$ -	$ -	$ -
4. Equipment	$ 1,493	$ -	$ -	$ -	$ 1,493
5. Supplies	$ 125	$ 125	$ 125	$ 125	$ 500
6. Contractual	$ 75,000	$ 75,000	$ -	$ -	$ 150,000
7. Training Stipends	$ -	$ -	$ -	$ -	$ -
8. Other	$ 988	$ 1,960,988	$ 1,960,988	$ 1,960,988	$ 5,883,950
9. Total Direct Costs (lines 1-8)	$ 101,605	$ 2,061,313	$ 1,987,573	$ 1,988,896	$ 6,139,386
10. Indirect Costs*	$ 2,703	$ 2,763	$ 2,895	$ 3,034	$ 11,395
11.Funding for Involved LEAs	$ -	$ -	$ -	$ -	$ -

12. Supplemental Funding for Participating LEAs	$ -	$ -	$ -	$ -	$ -
13. Total Costs (lines 9-12)	$ 104,308	$ 2,064,075	$ 1,990,468	$ 1,991,930	$ 6,150,781
All applicants must provide a break-down by the applicable budget categories shown in lines 1-15. Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category. Column (e): Show the total amount requested for all project years. *If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.					

Budget Narrative – Interim Assessment Development

1) Personnel

Description/Rationale	Year 1 Salary (+ 5% Annual Increase)	Allocation per year	# of FTEs	Total
Quarter time Project Manager will oversee RFI development, assessment submission and review of assessments for alignment with new standards; salary based on state pay scales	$ 80,000	Incurred annually (years 1-4)	25% FTE	$ 86,203

2) Fringe Benefits

Description/Rationale	Applicable Salaries	State Employee Benefits Rate	Total
Employee Benefits – calculated at 20% of salary (based on CDE benchmarks)	$ 86,203	20%	$ 17,241

3) Travel - None

4) Equipment

Description/Rationale	Unit Cost	# of FTEs	Total
Computers: to supply the needs of new employee (prorated); based on current equipment costs within the CDE; 1 per FTE; one-time expense in year 1	$2,200 per FTE (year 1 only)	1 FTE @ 25%	$ 550
Computer software suite: to supply the needs of new employee (prorated); based on current equipment costs within the CDE; 1 per FTE; one-time expense in year 1	$330 per FTE (year 1 only)	1 FTE @ 25%	$ 83
Office equipment (desk, chair) for each new employee (prorated); based on current equipment costs within the CDE; 1 per FTE; one-time expense in year 1	$3,440 per FTE (year 1 only)	1 FTE @ 25%	$ 860

5) Supplies

Description/Rationale	Unit Cost	# of FTEs	Total
Basic consumable office supplies costing $500 per FTE (prorated); based on current supply costs within the CDE; incurred annually	$500 per FTE per year	1 FTE @ 25%	$ 500

6) Contractual

Description/Rationale	Unit Cost	Rate	Unit Count	Total
Contract with experts to vet interim assessments in years 1 & 2 for alignment with Colorado's P-12 Academic Standards; partners could include WestEd, NCIEA, or LEARN; year 1 focused on vetting tested subjects; year 2 focused on vetting non-tested subjects	$1,500 per reviewer per day	10 days per year in years 1 & 2	5 reviewers	$ 150,000

7) Training Stipends - None

8) Other

Description/Rationale	Unit Cost	Rate	# of FTEs/ Students	Total
Office space rent: cost of renting office space for each FTE; based on current CDE rent rate; incurred annually	$2,300 per FTE per year	25% FTE	1 FTE (@ 25%)	$ 2,300
Telephone service, including landline and mobile service, per FTE; based on current CDE telephone rates; incurred annually	$1,650 per FTE per year	25% FTE	1 FTE (@ 25%)	$ 1,650
Annual cost of license and administration of interim assessments; State subsidizes 50% of $14/student cost; RttT covers 50% of students; 35% through a direct grants to LEAs and the remaining 15% through LEA subgrants; incurred in years 2-4	$7 per student	35% of students covered per year over years 2-4	800K students	$ 5,880,000

9) Total Direct Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Direct Costs (lines 1-8)	$ 101,605	$ 2,061,313	$ 1,987,573	$ 1,988,896	$ 6,139,386

10) Indirect Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Indirect Cost – 10.5% of applicable direct costs (including all personnel and related costs)	$ 2,703	$ 2,763	$ 2,895	$ 3,034	$ 11,395

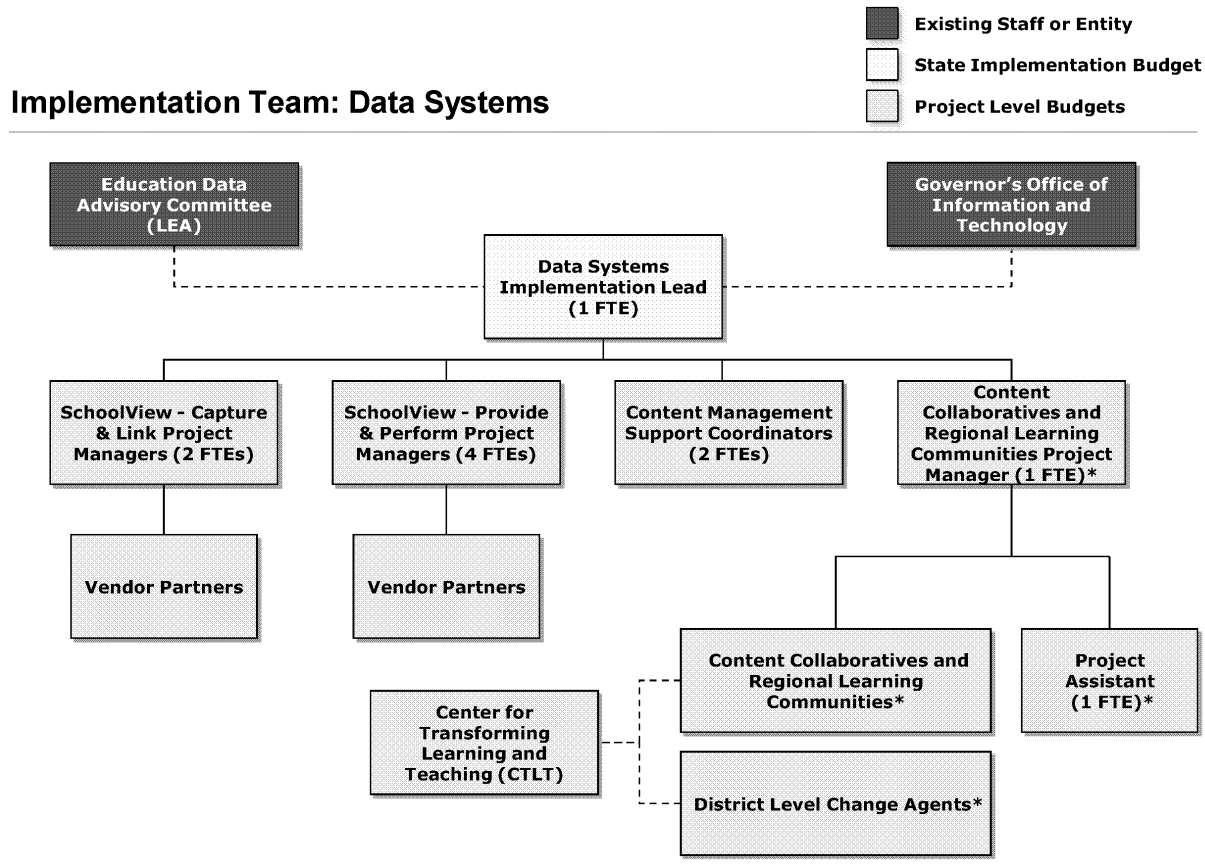
11) Funding for Involved LEAs - None

12) Supplemental Funding for Participating LEAs

13) Total Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Costs (lines 9-12)	$ 104,308	$ 2,064,075	$ 1,990,468	$ 1,991,930	$ 6,150,781

Implementation Team: Data Systems



* Indicates that the personnel are shared with the Standards & Assessments Assurance Area

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE – SCHOOLVIEW – CAPTURE & LINK

The SchoolView - Capture & Link project will complete the build out of the CDE's longitudinal data system in a manner that provides the required system elements and capabilities of Colorado's P-20 education reform agenda. This agenda implements true P-20 education alignment across the State's education systems and is anchored by a common definition of postsecondary and workforce readiness to ensure students exit K-12 prepared for success. The Capture project activities ensure robust, effective, and efficient collection of P-20 data on students, educators, schools, programs, and LEAs across multiple data sources. The Link project activities ensure information can be related vertically across the P-20 system and horizontally across agencies and organizations (human services, K-12, higher education, labor, corrections) and levels (LEA, state, federal) to promote accountability, inform policy, and ensure a holistic view of student success. SchoolView - Capture & Link completes the necessary longitudinal data foundation upon which SchoolView's instructional improvement system (IIS) will rest.

This budget includes but is not limited to the $17.9 million request from the State's SY 2009-2010 SLDS application in the event those funds are not awarded, as they are foundational to SchoolView. In the SchoolView - Capture & Link project budget, this translates to $9.1 million of the $12.6 million state share. Budget items requested in the SLDS application are noted in the item description.

The $11.8 million of LEA RttT subgrants for this project include software costs for SchoolView – Capture & Link, implementation of a statewide student enrollment system, SchoolView portal enhancements, half shares of implementation contracts, support costs for local SIS licenses, and training.

Budget Part II: Project-Level Budget Table
Project Name: SchoolView – Capture & Link
Associated with Criteria: (A)(2), (C)(2), (C)(3), (D)(4), (D)(5)
(Evidence for selection criterion (A)(2)(i)(d))

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Total (e)
1. Personnel	$ -	$ -	$ -	$ -	$ -
2. Fringe Benefits	$ -	$ -	$ -	$ -	$ -
3. Travel	$ 10,000	$ 10,000	$ 10,000	$ -	$ 30,000
4. Equipment	$ 137,500	$ 137,500	$ -	$ -	$ 275,000
5. Supplies	$ 48,000	$ 48,000	$ 48,000	$ -	$ 144,000

6. Contractual	$ 3,319,900	$ 4,762,400	$ 2,831,275	$ 500,000	$ 11,413,575
7. Training Stipends	$ -	$ -	$ -	$ -	$ -
8. Other	$ 189,292	$ 189,292	$ 189,292	$ -	$ 567,875
9. Total Direct Costs (lines 1-8)	$ 3,704,692	$ 5,147,192	$ 3,078,567	$ 500,000	$ 12,430,450
10. Indirect Costs*	$ 57,414	$ 57,414	$ 46,715	$ -	$ 161,543
11.Funding for Involved LEAs	$ -	$ -	$ -	$ -	$ -
12. Supplemental Funding for Participating LEAs	$ -	$ -	$ -	$ -	$ -
13. Total Costs (lines 9-12)	$ 3,762,106	$ 5,204,606	$ 3,125,282	$ 500,000	$ 12,591,993
All applicants must provide a break-down by the applicable budget categories shown in lines 1-15. Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category. Column (e): Show the total amount requested for all project years. *If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.					

Budget Narrative – SchoolView – Capture & Link

** Indicates that the line item is included in Colorado's SLDS application, whose full project narrative can be referenced in Exhibit VI.C(2)-3*

1) Personnel - None

2) Fringe Benefits – None

3) Travel

Description/Rationale	Cost per Meeting	Attendees per Meeting	Meeting per Year	Total
Airfare, lodging, per diem and registration for Project SchoolView representatives to attend national conferences relevant to the proposed work in each project year; incurred in years 1-3*	$2,500 per meeting	2 reps per meeting	2 meetings per year over 3 years (1-3)	$ 30,000

4) Equipment

Description/Rationale	Unit Cost	Rate	Total
SchoolView - Capture: Operational data store hardware - high performance database servers, including storage and memory; provides the platform to store transaction-based data captured from LEA systems; costs based on comparative state projects; incurred over years 1-2*	$75,000 total cost	50% allocated per year over years 1 & 2	$ 75,000
SchoolView - Link: Hardware for unique identifier implementation calculated at 12% of development costs (~$1.7 million); provides the platform to streamline the integration of longitudinal data among P-20 and other state agencies; costs based on comparative state projects; incurred in years 1 and 2*	$200,000 total cost	50% allocated per year over years 1 & 2	$ 200,000

5) Supplies

Description/Rationale	Unit Cost	Rate	Total
Contractor workspace and supplies ($2,000 per year per contractor for space, phone, and internet connection in leased space); contractors will provide own laptop and software; incurred in years 1-3*	$2,000 per contractor	24 contractors per year over 3 years (years 1-3)	$ 144,000

6) Contractual

Description/Rationale	Unit Cost	Rate	Unit Count	Total
Project Management services: 2 FTEs x $140/hr, includes communication facilitation among stakeholders, business analysts, vendors, and technologists, identification of project barriers and resolution paths, project tracking, and project status reporting; incurred in years 1-3*	$140 per hour	2 project managers	2,080 hours per year (years 1-3)	$ 1,747,200

Data Modeling: Design and implementation of an enterprise-wide data model that efficiently stores transaction-type data in a centralized, standardized database schema; incurred in year 1 only*	$200,000 annual cost	3 months (25%) in year 1 only	--	$ 50,000
Implement standardized Operational Data Store (ODS) and capture student data: (1) Develop and implement new standardized ODS (2) Develop and implement 'pull' data collection mechanisms (3) Migrate legacy student reports; allocated over years 1 & 2; remaining 50% covered by LEA subgrants*	$1,725,000 annual cost	50% covered by state share	Incurred for 2 years (years 1 & 2)	$ 1,725,000
Implement and capture educator data: A current project is underway to capture educator information, which will be completed before the Operational Data Store (ODS); this cost item covers posting of educator data to new ODS as referenced above; allocated over years 1 & 2; remaining 50% covered by LEA subgrants*	$500,000 annual cost	50% covered by state share	Incurred for 2 years (years 1 & 2)	$ 500,000
Implement and capture program data: (1) Develop, implement, and capture program data in new, standardized ODS ($650,000) (2) Rewrite legacy program reports that point against existing ODS ($250,000) – one-time cost in year 3; remaining 50% covered by LEA subgrants*	$900,000 annual cost	50% covered by state share	One time cost in year 3	$ 450,000
Implement and capture finance data: (1) Design, develop, implement, and capture finance data in new, standardized ODS ($50,000 total allocated over years 2-3) (2) Design, develop, and implement State Disbursement (formerly called 'State Equal') system ($575,000 total allocated over years 2-3); remaining 50% covered by LEA subgrants*	$312,500 annual cost	50% covered by state share	Incurred for 2 years (years 2 & 3)	$ 312,500
Implement Unique Identifier architecture: (1) Integration - SOA and Service Bus ($1,100,000 total allocated over two years) (2) Identity, access, authentication management ($3,200,000 total allocated over two years); supplemented by 50% LEA subgrants*	$2,150,000 annual Cost	50% covered by state share	Incurred over 2 years (years 1 & 2)	$ 2,150,000
Implement Unique Identifier interface: Data conversion program to assign unique identifier based on current file of all SASIDs [$.50/record x 1,430,000 records (815,000 currently enrolled	$715,000 annual cost	50% covered by state share	One-time cost in year 2	$ 357,500

students + 560,000 seven prior years of graduates @ 80,000 graduates/year + 55,000 administrators/ educators/staff)]; SASIDs are the State assigned student identifier numbers currently used by CDE for K-12 students; year 2 only cost; supplemented by 50% LEA subgrants*				
Implement Unique Identifier interfaces: (1) Match and data verification for Colorado Department of Higher Education records ($1.25/record x 255,000 records (200,000 currently enrolled students + 50,000 four prior years of graduates + 5,000 administrators/educators/ staff) = $318,750 (2) .5 FTE for one year to resolve initial near-matches @ $25 per hour = $50,000; year 3 cost only; supplemented by 50% LEA subgrants*	$368,750 annual cost	50% covered by state share	One-time cost in year 3	$ 184,375
Implement Unique Identifier interface: (1) Match and data verification for Colorado Department of Human Services records ($1.25/record x 75,200 records = $94,000) (2) .5 FTE for one year to resolve initial near matches @ $25 per hour and 2,000 hours = $25,000; year 3 cost only; supplemented by 50% LEA subgrants*	$119,000 annual cost	50% covered by state share	One-time cost in year 3	$ 59,500
Implement Unique Identifier interface: Match and data verification for Colorado Department of Labor and Employment records ($1.25/record x 668,000 records = $835,000 allocated over years2 & 3); supplemented by 50% LEA subgrants*	$417,500 annual cost	50% covered by state share	Incurred over 2 years (years 2 & 3)	$ 417,500
Student Information System (SIS) annual licensing; incurred annually years 1-4	$10 annual license fee per student	100% covered by state share	50K students per year over 4 years	$ 2,000,000
Train the Trainer Leaders/Instructional Designers - 8 FTE dedicated as contractual resources at a base salary of $50,000; incurred in years 2 & 3	$50,000 per FTE	100% covered by state share	8 FTEs per year over years 2 & 3	$ 800,000
Training costs for data systems for all LEAs; assumes ~10% of the total non-SLDS Capture & Link cost (~$6.6 million); incurred in years 2 & 3	$660,000 total cost	100% covered by state share	--	$ 660,000

7) Training Stipends - None

8) Other

Description/Rationale	Unit Cost	Rate	Total
Training for existing CDE staff and other users on technologies for sustainability; budgeted at $60,000 per year + 8% of SchoolView - Capture budget + 5% of SchoolView - Link budget; incurred in years 1-3; supplemented by 50% LEA subgrants*	$378,583 annual cost	50% covered by state share per year over 3 years	$ 567,875

9) Total Direct Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Direct Costs (lines 1-8)	$ 3,704,692	$ 5,147,192	$ 3,078,567	$ 500,000	$ 12,430,450

10) Indirect Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Indirect Cost – 10.5% of applicable direct costs (includes travel, supplies, and other costs)	$ 57,414	$ 57,414	$ 46,715	$ -	$ 161,543

11) Funding for Involved LEAs - None

12) Supplemental Funding for Participating LEAs - None

13) Total Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Costs (lines 9-12)	$ 3,762,106	$ 5,204,606	$ 3,125,282	$ 500,000	$ 12,591,993

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE – SCHOOLVIEW – PROVIDE & PERFORM

The SchoolView - Provide & Perform project vastly enhances the SchoolView platform by providing complete P-20 longitudinal data and incorporating an extensive instructional improvement system (IIS) into its open architecture. SchoolView will serve as the common platform for a variety of views organized by user needs and interests and accessed through customized portals for LEA leaders, principals, teachers and administrators (either directly or through local instructional improvement systems), for researchers (via data marts), and for students, parents, policymakers and the general public. SchoolView will provide the primary means of communication and support for learning communities by offering a combination of collaboration tools and rich classroom, online, and professional development content. IIS support and maintenance as well as online course support funding will be supplemented by $7.5 million from LEA RttT subgrants.

Budget Part II: Project-Level Budget Table
Project Name: SchoolView – Provide & Perform
Associated with Criteria: (C)(2), (C)(3)
(Evidence for selection criterion (A)(2)(i)(d))

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Total (e)
1. Personnel	$ 440,000	$ 462,000	$ 485,100	$ 509,355	$ 1,896,455
2. Fringe Benefits	$ 88,000	$ 92,400	$ 97,020	$ 101,871	$ 379,291
3. Travel	$ -	$ -	$ -	$ -	$ -
4. Equipment	$ 35,820	$ -	$ -	$ -	$ 35,820
5. Supplies	$ 3,000	$ 3,000	$ 3,000	$ 3,000	$ 12,000
6. Contractual	$ 14,250,000	$ 14,610,000	$ 6,541,000	$ 5,984,100	$ 41,385,100
7. Training Stipends	$ -	$ -	$ -	$ -	$ -
8. Other	$ 23,700	$ 523,700	$ 523,700	$ 23,700	$ 1,094,800
9. Total Direct Costs (lines 1-8)	$ 14,840,520	$ 15,691,100	$ 7,649,820	$ 6,622,026	$ 44,803,466
10. Indirect Costs*	$ 59,837	$ 61,016	$ 63,926	$ 66,982	$ 251,761
11.Funding for Involved LEAs	$ -	$ -	$ -	$ -	$ -

12. Supplemental Funding for Participating LEAs	$ -	$ -	$ -	$ -	$ -
13. Total Costs (lines 9-12)	$ 14,900,357	$ 15,752,116	$ 7,713,746	$ 6,689,008	$ 45,055,227
All applicants must provide a break-down by the applicable budget categories shown in lines 1-15. Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category. Column (e): Show the total amount requested for all project years. *If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.					

Budget Narrative – SchoolView – Provide & Perform

1) Personnel

Description/Rationale	Year 1 Salary (+5% Annual Increase)	Allocation per year	# of FTEs	Total
Project Managers (4) will be responsible for overseeing the development and implementation of the SchoolView platform and associated functionality as well as working with external vendors and internal resources to ensure accuracy and timeliness of development work; salary based on state pay scales	$ 80,000	Incurred annually (years 1-4)	4 FTEs	$ 1,379,240
Content Support Managers, CSMs, (2) will be responsible for supporting content providers (educators, third party providers, et. al.) to upload and share content on the SchoolView platform; salary based on state pay scales	$ 60,000	Incurred annually (years 1-4)	2 FTEs	$ 517,215

2) Fringe Benefits

Description/Rationale	Applicable Salaries	State Employee Benefits Rate	Total
Employee Benefits – calculated at 20% of salary (based on CDE benchmarks)	$ 1,896,455	20%	$ 379,291

3) Travel - None

4) Equipment

Description/Rationale	Unit Cost	# of FTEs	Total
Computers: to supply the needs of new employees; based on current equipment costs within the CDE; 1 per FTE; one-time expense in year 1	$ 2,200	6 FTEs	$ 13,200
Computer software suite: to supply the needs of new employees; based on current equipment costs within the CDE; 1 per FTE; one-time expense in year 1	$ 330	6 FTEs	$ 1,980
Office equipment (desk, chair) for each new employee; based on current equipment costs within the CDE; 1 per FTE; one-time expense in year 1	$ 3,440	6 FTEs	$ 20,640

5) Supplies

Description/Rationale	Unit Cost	# of FTEs	Total
Basic consumable office supplies costing $500 per FTE, based on current supply costs within the CDE; incurred annually	$ 500	6 FTEs	$ 12,000

6) Contractual

Description/Rationale	Unit Cost	Rate	Unit Count	Total
National Student Clearinghouse (NSC) data contract - Provides data on the postsecondary enrollment and graduation status across the nation of recent Colorado high school graduates; queries graduates from the last eight years; supports goal of complete P-20 tracking; estimates obtained from the NSC; incurred in years 3 & 4	$31,000 annual cost + 10% annual increase	--	Incurred in years 3 & 4	$ 65,100
Phase 1 Deployment / Content Management: Build out of the IIS (instructional improvement system) provision of all stakeholder portals incorporating collaboration tools, content / knowledge management and business intelligence, student assessment reporting, individual educational plan implementation, STEM interface development, and single sign-on functionality; includes system integration, customization, and deployment; estimates based on vendor quotes for IIS functionality and historical costs of expanding SchoolView; support costs are provided out of LEA subgrants; incurred in years 1 & 2 only	$30 per student	50% subsidized per year for years 1 & 2	800,000 students	$24,000,000
Content Management: Online courseware for instructional improvement and its incorporation into the student portal of SchoolView; cost driven by license fees for semester long online courses with unlimited distribution rights; courses will focus on STEM subjects for grades 7 – 12; supports goal of providing learning and instruction management software, specifically content; estimates based on sampling of costs from leading courseware providers; annual support costs are provided out of LEA subgrants; incurred over years 2 & 3	$40,000 per license per course	2 years (years 2 & 3)	9 courses per year	$720,000

Phase 1 Deployment: Accountability measurement functionality - Implementation of a new teacher accountability system that matches educator identifiers to course identifiers to student identifiers for reporting of student performance measures. Provides to all stakeholders all state and federally required performance information in a transparent, engaging, useful manner with drill down, export, and social collaboration tools. Key components include the school and LEA performance reports against Colorado's four key performance indicators and federal metrics. Results will be available on SchoolView and be used to hold educators accountable within and across LEAs. Supports goals of implementing an IIS based on foundation of rich longitudinal data, available to LEA administrators and researchers; estimate based on CDE cost experience with similarly sized systems providing similar functionality; incurred over years 1 and 2	$1,500,000 one-time cost incurred over two years	--	Incurred over years 1 & 2	$ 1,500,000
Phase 2 Deployment: Implementation of the teacher prep program dashboard into SchoolView - Funds will be used to develop the pipeline and equitable distribution of teachers through the creation of a shared technology resource / platform on SchoolView for Colorado higher education preparation programs. Dashboard also will provide teacher performance information back to placing universities so that teacher preparation programs can be improved; modeled on Teach For America performance tracking; supports goal of providing data that can be used to improve educator performance; estimates are based on historical cost experience of building SchoolView to-date and functionality anticipated to be added; incurred over years 3 & 4	$2,000,000 total cost	--	50% incurred per for 2 years (years 3 & 4)	$ 2,000,000
Phase 2 Deployment: Capacity for reporting / analysis on financial data including ROI analysis on interventions at the LEA-, school-, and classroom-levels; contractor rate of $750K per year based on similar current contracts; incurred in years 3 & 4	$750,000 annual cost	--	Incurred in years 3 & 4	$1,500,000

Development and implementation of augmented Colorado Growth Model that presents linked P-20 / cross-agency longitudinal data, as well as assessment, educator effectiveness, financial and post-secondary attainment, and other metrics of interest. Multidimensional visualizations will allow users to understand relationships in data. Supports goal of providing rich longitudinal data as a basis for identifying instructional improvement needs and also early warning detection of at-risk students; estimates are based on historical cost experience of building SchoolView to-date and scope of functionality to be added; incurred annually	$1,500,000 annual cost	--	Incurred annually over 4 years	$ 6,000,000
Provide a data mart of P-20 longitudinal data via researcher and administrator portals for the development of research-based school improvement strategies and investments to improve student outcomes; estimates based on assumption that data mart can be relatively easily populated from the CDE data warehouse; includes requirements, design, development, customization, and related software; incurred in year 3 only	$ 200,000 one-time cost	--	1 year (year 3 only)	$ 200,000
Professional Development: Train the Trainer Leaders / Instructional Designers - 8 FTEs dedicated as contractual resources at rate of $50K per person who will support the execution of an integrated training strategy to encourage utilization of SchoolView IIS; incurred in years 3 & 4	$400,000 annual cost	--	Incurred in years 3 & 4	$ 800,000
Professional Development: Costs for all data systems training for all LEAs; supports the execution of an integrated training strategy to foster utilization of investments in SchoolView IIS to their full potential; assumes ~9% of the total Provide & Perform cost; incurred in years 3 & 4	$2,300,000 annual cost	--	Incurred in years 3 & 4	$ 4,600,000

7) Training Stipends - None

8) Other

Description/Rationale	Unit Cost	# of FTEs	Total
Office space rent: cost of renting office space for each FTE; based on current CDE rent rate; incurred annually	$2,300 per FTE per year	6 FTEs	$ 55,200
Telephone service, including landline and mobile service, per FTE; based on current CDE telephone rates; incurred annually	$1,650 per FTE per year	6 FTEs	$ 39,600
Incentive grants awarded to content providers (e.g., educators, third party providers) to seed the SchoolView platform with content in years 2 & 3 (e.g., lesson plans, curriculum maps, subject matter, etc.)	$5,000 per grant	100 grants per year (over years 2 & 3)	$ 1,000,000

9) Total Direct Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Direct Costs (lines 1-8)	$ 14,840,520	$ 15,691,100	$ 7,649,820	$ 6,622,026	$ 44,803,466

10) Indirect Costs

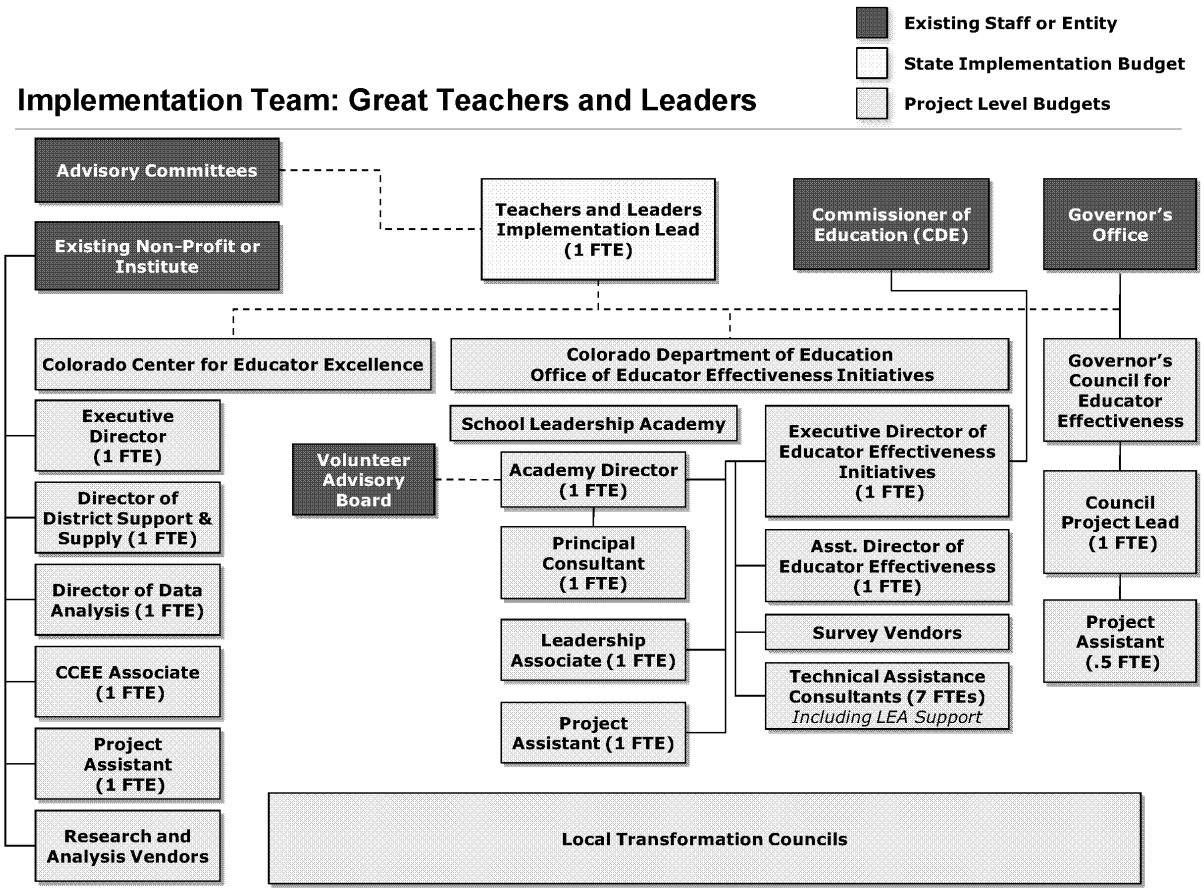
	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Indirect Cost – 10.5% of applicable direct costs (including all personnel and related costs)	$ 59,837	$ 61,016	$ 63,926	$ 66,982	$ 251,761

11) Funding for Involved LEAs - None

12) Supplemental Funding for Participating LEAs - None

13) Total Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Costs (lines 9-12)	$ 14,900,357	$ 15,752,116	$ 7,713,746	$ 6,689,008	$ 45,055,227


Existing Staff or Entity
State Implementation Budget
Project Level Budgets
Implementation Team: Great Teachers and Leaders
Advisory Committees
Existing Non-Profit or Institute
Teachers and Leaders Implementation Lead (1 FTE)
Commissioner of Education (CDE)
Governor's Office
Colorado Center for Educator Excellence
Colorado Department of Education Office of Educator Effectiveness Initiatives
Governor's Council for Educator Effectiveness
Executive Director (1 FTE)
Director of District Support & Supply (1 FTE)
Director of Data Analysis (1 FTE)
CCEE Associate (1 FTE)
Project Assistant (1 FTE)
Research and Analysis Vendors
School Leadership Academy
Volunteer Advisory Board
Academy Director (1 FTE)
Principal Consultant (1 FTE)
Leadership Associate (1 FTE)
Project Assistant (1 FTE)
Executive Director of Educator Effectiveness Initiatives (1 FTE)
Asst. Director of Educator Effectiveness (1 FTE)
Survey Vendors
Technical Assistance Consultants (7 FTEs)
Including LEA Support
Council Project Lead (1 FTE)
Project Assistant (.5 FTE)
Local Transformation Councils

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE –
COLORADO CENTER FOR EDUCATOR EXCELLENCE (CCEE)

The Colorado Center for Educator Excellence (CCEE) will engage external vendors to conduct and synthesize research on designing and implementing evaluation systems to measure educator effectiveness. The CCEE will use evaluation data to inform educator compensation, retention, promotion, and decisions regarding non-probationary status and dismissal and compile evidence-based best practices for increasing educator effectiveness. The CCEE will also engage external vendors to develop and conduct analyses of educator effectiveness data for the purposes of identifying areas of best practice, informing accountability systems, and driving state and local decision making. The research and quantitative analysis directed by the CCEE will be used to support the work of multiple Race to the Top initiatives, including the Governor's Council for Educator Effectiveness, the Colorado Department of Education (CDE) Office of Educator Effectiveness Initiatives, the program to provide grants to effective educator preparation programs, and LEA efforts to implement new educator evaluation and effectiveness management systems.

The CCEE will be housed in an existing nonprofit that already has a Board of Directors. The permanent staff of the CCEE will be a small group of educator effectiveness generalists, including an Executive Director, a Director of District Supply and Support, a Director of Data Analysis, and a small team of support staff. The Executive Director and Directors will coordinate with each of the project teams whose work the CCEE supports in order to gather the research and development needs of those initiatives and align them on a common timeline of effectiveness research and data analysis deliverables.

Budget Part II: Project-Level Budget Table
Project Name: Colorado Center for Educator Excellence (CCEE)
Associated with Criteria: (A)(2), (D)(2), (D)(3), (D)(4), (D)(5)
(Evidence for selection criterion (A)(2)(i)(d))

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Total (e)
1. Personnel	$ 365,000	$ 367,750	$ 381,138	$ 375,194	$ 1,489,082
2. Fringe Benefits	$ 73,000	$ 73,550	$ 76,228	$ 75,039	$ 297,816
3. Travel	$ 9,000	$ 9,270	$ 9,548	$ 9,835	$ 37,653
4. Equipment	$ 29,850	$ -	$ -	$ -	$ 29,850
5. Supplies	$ 2,500	$ 2,500	$ 2,500	$ 2,500	$ 10,000

6. Contractual	$ 1,330,000	$ 1,030,000	$ 580,000	$ 580,000	$ 3,520,000
7. Training Stipends	$ -	$ -	$ -	$ -	$ -
8. Other	$ 19,750	$ 19,750	$ 19,750	$ 19,750	$ 79,000
9. Total Direct Costs (lines 1-8)	$ 1,829,100	$ 1,502,820	$ 1,069,163	$ 1,062,318	$ 5,463,401
10. Indirect Costs*	$ 50,600	$ 49,646	$ 51,362	$ 50,643	$ 202,251
11.Funding for Involved LEAs	$ -	$ -	$ -	$ -	$ -
12. Supplemental Funding for Participating LEAs	$ -	$ -	$ -	$ -	$ -
13. Total Costs (lines 9-12)	$ 1,879,700	$ 1,552,466	$ 1,120,525	$ 1,112,961	$ 5,665,652

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

Budget Narrative – Colorado Center for Educator Excellence (CCEE)

1) Personnel

Description/Rationale	Year 1 Salary (+ 5% Annual Increase)	Allocation per year	# of FTEs	Total
Executive Director will coordinate with the CDE, act as a member of and chief liaison to the Governor's Council for Educator Effectiveness, manage all functions and activities of CCEE, raise private funds for ongoing sustainability of the CCEE, meet with subject area advisory boards, and report to the Board of the CCEE; salary to be increasingly covered by private funding and completely covered by year 5; based on state pay scales	$110,000 (reduced to $100K in Y2 & Y3; $80K in Y4 – remainder covered by private funding)	Incurred annually (years 1-4)	1 FTE	$ 390,000

Director of District Support & Supply will inform LEAs about research-based recommendations on educator evaluation and effectiveness management best practices and will act as the primary liaison to vendors providing research on educator evaluation and effectiveness management best practices; starting in year 5, the CCEE will use private funds to pay for employee salaries and benefits; based on state pay scales	$ 80,000	Incurred annually (years 1-4)	1 FTE	$ 344,810
Director of Data Analysis will direct the CCEE strategy for developing and conducting analyses of effectiveness data at the state-, LEA-, and school-levels and act as the primary liaison to vendors providing technical assistance in developing and conducting analyses of effectiveness data; starting in year 5, the CCEE will use private funds to pay for employee salaries and benefits; based on state pay scales	$ 80,000	Incurred annually (years 1-4)	1 FTE	$ 344,810
CCEE Associate will support the work of the Executive Director and Directors by managing the CCEE's RFP process and website maintenance; starting in year 5, the CCEE will use private funds to pay for employee salaries and benefits; based on state pay scales	$ 50,000	Incurred annually (years 1-4)	1 FTE	$ 215,506
Project Assistant will support the operational and organizational needs of the CCEE, including accounts payable and receivable, payroll and human resources, communications, and events scheduling; starting in year 5, the CCEE will use private funds to pay for employee salaries and benefits; based on state pay scales	$ 45,000	Incurred annually (years 1-4)	1 FTE	$ 193,956

2) Fringe Benefits

Description/Rationale	Applicable Salaries	Employee Benefits Rate	Total
Employee Benefits for CCEE staff – calculated at 20% of salary (based on CDE benchmarks)	$ 1,489,082	20%	$ 297,816

3) Travel

Description/Rationale	Travel Cost per Meeting (+3% annual increase)	Attendees per Trip	Meeting per Year	Total
ED and two Directors' attendance at meetings / conferences which may consist of regional meetings organized by the CCEE in Colorado to share research findings / recommendations with LEAs, or may include education industry conference attendance; assumed to be four meetings per year, three days each @ $750 per meeting ($225 per day for lodging and meals/incidentals + $75 mileage/other expenses); 3% annual travel cost increase; based on FY10 federal per diem rates in Colorado; incurred annually	$750 per meeting	3 (ED and 2 Directors)	4 meetings per year over 4 years	$ 37,653

4) Equipment

Description/Rationale	Unit Cost	# of FTEs	Total
Computers: to supply the needs of CCEE employees; based on current equipment costs within the CDE; 1 per FTE; one-time cost in year 1	$ 2,200	5 FTEs	$ 11,000
Computer software suite: to supply the needs of CCEE employees; based on current equipment costs within the CDE; 1 per FTE; one-time cost in year 1	$ 330	5 FTEs	$ 1,650
Office equipment (desk, chair) for each new employee; based on current equipment costs within the CDE; 1 per FTE; one-time cost in year 1	$ 3,440	5 FTEs	$ 17,200

5) Supplies

Description/Rationale	Unit Cost	# of FTEs	Total
Basic consumable office supplies costing $500 per FTE, based on current supply costs within the CDE; Incurred annually	$ 500	5	$ 10,000

6) Contractual

Description/Rationale	Unit Cost	Rate	Unit Count	Total
Data analysis consultancy: the CCEE will engage external vendors to develop and conduct analyses of state-, LEA-, and school-level effectiveness data for the purposes of identifying best practices, driving state and LEA evaluation and effectiveness management processes, and informing accountability structures; consultancies will be contracted at a rate of $5,000 per week for 50 weeks of work per year for years 1-4; based on benchmarked nonprofit rates	$5,000 per week	Incurred annually (years 1-4)	50 weeks per year	$ 1,000,000
Research consultancy: the CCEE will engage external vendors to conduct research in the areas of educator evaluation and effectiveness management, including topics such as working conditions, research-based professional development, educator preparation and induction, compensation, and school staffing; based on previous research contracts; incurred annually	$200,000 per year	Incurred annually (years 1-4)	--	$ 800,000
Consultant to run Colorado Growth Model: the CCEE will engage a consultant to run the Colorado Growth Model on student assessment data for the purposes of educator evaluation; based on rate of current consultant; incurred annually	$130,000 per year	Incurred annually (years 1-4)	--	$ 520,000
Expert advisors to the Governor's Council for Educator Effectiveness: the CCEE will engage psychometricians to provide technical assistance to the Governor's Council for Educator Effectiveness in their work developing rubrics, guidelines, and	$15,000 per week	Incurred years 1 & 2 only	50 weeks in year 1; 30 weeks in year 2	$ 1,200,000

recommendations for evaluation systems and the uses of evaluation data; consultants will attend some Governor's Council for Educator Effectiveness meetings in addition to conducting research and will be contracted at a rate of $15,000 per week for 50 weeks in year 1 and 30 weeks in year 2; based on current contracted rates with psychometricians				

7) Training Stipends - None

8) Other

Description/Rationale	Unit Cost	# of FTEs	Total
Office space rent: cost of renting office space for each FTE; based on current CDE rent rate; incurred annually	$ 2,300	5 FTEs	$ 46,000
Telephone service, including landline and mobile service, per FTE; based on current CDE telephone rates; incurred annually	$ 1,650	5 FTEs	$ 33,000

9) Total Direct Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Direct Costs (lines 1-8)	$ 1,829,100	$ 1,502,820	$ 1,069,163	$ 1,062,318	$ 5,463,401

10) Indirect Costs

Budget Categories	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Indirect Cost – 10.5% of applicable direct costs (including all personnel and travel related costs)	$ 50,600	$ 49,646	$ 51,362	$ 50,643	$ 202,251

11) Funding for Involved LEAs - None

12) Supplemental Funding for Participating LEAs - None

13) Total Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Costs (lines 9-12)	$ 1,879,700	$ 1,552,466	$ 1,120,525	$ 1,112,961	$ 5,665,652

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE –
COLORADO DEPARTMENT OF EDUCATION OFFICE OF EDUCATOR EFFECTIVENESS INITIATIVES

The Colorado Department of Education (CDE) Office of Educator Effectiveness Initiatives will align the educator-related activities of the CDE under a common strategy and set of state effectiveness goals and will provide technical assistance to LEAs in developing and implementing new educator evaluation and effectiveness management systems. The Office will manage the biannual administration of the statewide TELL survey of educators on school-level working conditions, direct the State's Alternative Compensation Grants program, and coordinate with the Colorado Center for Educator Excellence. The CDE Office of Educator Effectiveness Initiatives will also manage a team of effectiveness experts who will provide training (as part of the Race to the Top integrated training strategy), resources, and hands-on support to LEAs for activities including the development and implementation of new educator evaluation systems, the use of TELL survey data to drive programmatic improvements, alignment of professional development spending with evaluation and effectiveness data, and the design of new effectiveness-based systems for hiring, promoting, retaining and compensating educators. LEA RttT subgrants of $800K will be used to support technical assistance consultants in making evaluation a core function, assist in developing alternative compensation, implement performance-based pay, and communicate CDE recommendations.

Budget Part II: Project-Level Budget Table
Project Name: Colorado Department of Education Office of Educator Effectiveness Initiatives
Associated with Criteria: (A)(2), (D)(2), (D)(3), (E)(2)
(Evidence for selection criterion (A)(2)(i)(d))

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Total (e)
1. Personnel	$ 160,000	$ 168,000	$ 176,400	$ 185,220	$ 689,620
2. Fringe Benefits	$ 32,000	$ 33,600	$ 35,280	$ 37,044	$ 137,924
3. Travel	$ 124,000	$ 127,720	$ 131,552	$ 135,498	$ 518,770
4. Equipment	$ 11,940	$ -	$ -	$ -	$ 11,940
5. Supplies	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 4,000
6. Contractual	$ 500,000	$ 590,000	$ 500,000	$ 590,000	$ 2,180,000
7. Training Stipends	$ -	$ -	$ -	$ -	$ -
8. Other	$ 7,900	$ 7,900	$ 7,900	$ 7,900	$ 31,600

9. Total Direct Costs (lines 1-8)	$ 836,840	$ 928,220	$ 852,132	$ 956,662	$ 3,573,854
10. Indirect Costs*	$ 34,646	$ 35,513	$ 36,974	$ 38,500	$ 145,632
11.Funding for Involved LEAs	$ -	$ -	$ -	$ -	$ -
12. Supplemental Funding for Participating LEAs	$ -	$ -	$ -	$ -	$ -
13. Total Costs (lines 9-12)	$ 871,486	$ 963,733	$ 889,105	$ 995,162	$ 3,719,486
All applicants must provide a break-down by the applicable budget categories shown in lines 1-15. Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category. Column (e): Show the total amount requested for all project years. *If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.					

Budget Narrative – Colorado Department of Education Office of Educator Effectiveness Initiatives

1) Personnel

Description/Rationale	Year 1 Salary (+ 5% Annual Increase)	Allocation per year	# of FTEs	Total
Executive Director of Educator Effectiveness Initiatives will be the key facilitator between the CCEE, CDE, and Governor's Council for Educator Effectiveness and liaison to Local Transformational Councils on behalf of the CDE. The Director-level individual will direct and manage the educator effectiveness goals and strategy for the CDE, direct educator effectiveness programs including the alternative compensation grants program, manage the team of effectiveness technical assistance consultants, and liaise with the CCEE and deans of higher education preparation programs in Colorado; salary based on state pay scales	$ 100,000	Incurred annually (years 1-4)	1 FTE	$ 431,013
Assistant Director of Educator Effectiveness will be a CDE employee who supports the Executive Director of Educator	$ 60,000	Incurred annually	1 FTE	$ 258,608

Effectiveness Initiatives in all internal-facing activities of the CDE Office of Educator Effectiveness Initiatives. These activities include coordinating and monitoring activities of the technical assistance consultants, coordinating the CDE's relationship with TELL survey development and analysis vendors, providing input into the development of survey items, managing the CDE's strategy for increasing survey response rates, reviewing and approving reports from the survey development and analysis vendors, and managing the distribution of survey results and analysis to LEAs, state leaders, and other stakeholders; salary based on state pay scales		(years 1-4)		

2) Fringe Benefits

Description/Rationale	Applicable Salaries	State Employee Benefits Rate	Total
Employee Benefits – calculated at 20% of salary (based on CDE benchmarks)	$ 689,620	20%	$ 137,924

3) Travel

Description/Rationale	Travel Cost (+3% annual increase)	Rate	Meetings per Year	Total
Travel for Executive Director of Educator Effectiveness Initiatives to meet with LEA leaders and discuss the work of the Governor's Council for Educator Effectiveness; includes 4 four-day trips per year costing a total of $1,000 per trip ($225 per day for lodging and meals/incidentals + $100 mileage/other travel expenses); 3% annual travel cost increase; based on FY10 federal per diem rates in Colorado; incurred annually	$1,000 per trip (4 days each)	1 person per meeting	4 meetings per year over 4 years	$ 16,735
Travel stipends for consultants to visit regions to conduct trainings and provide hands-on technical assistance; 30 total two-day trips	$250 per day	30, 2-day trips per	8 regions	$ 502,035

per year to each of the 8 regions @ $250 per day ($225 per day for lodging and meals/incidentals + $25 per day mileage/other travel expenses); 3% annual travel cost increase; based on FY10 federal per diem rates in Colorado; incurred annually		year per region (years 1-4)		

4) Equipment

Description/Rationale	Unit Cost	# of FTEs	Total
Computers: to supply the needs of new employees; based on current equipment costs within the CDE; 1 per FTE; one-time cost in year 1	$ 2,200	2 FTEs	$ 4,400
Computer software suite: to supply the needs of new employees; based on current equipment costs within the CDE; 1 per FTE; one-time cost in year 1	$ 330	2 FTEs	$ 660
Office equipment (desk, chair) for each new employee; based on current equipment costs within the CDE; 1 per FTE; one-time cost in year 1	$ 3,440	2 FTEs	$ 6,880

5) Supplies

Description/Rationale	Unit Cost	# of FTEs	Total
Basic consumable office supplies costing $500 per FTE, based on current supply costs within the CDE; incurred annually	$500 per FTE per year	2 FTEs	$ 4,000

6) Contractual

Description/Rationale	Unit Cost	Rate	Unit Count	Total

TELL Survey Coordinator - Years 2 & 4: Manages logistical aspects of conducting a working conditions survey, including staffing of the working conditions survey help desk, troubleshooting technical difficulties, and conducting outreach to increase survey response rate; based on benchmarking of external survey vendors	$60,000 annual cost	Incurred in years 2 & 4 only	--	$ 120,000
TELL Survey Development / Analysis Vendor – Years 2 & 4: External vendor that develops the survey for Colorado; provides an online platform for survey administration; provides school- and LEA-level reports on survey results; analyzes survey results to assess the connection between working conditions and teacher retention and student achievement; and produces training materials for LEAs and schools in the use of TELL survey data; based on benchmarking of survey vendors	$30,000 annual cost	Incurred in years 2 & 4 only	--	$ 60,000
Technical Assistance Consultants: Translate research provided by CCEE vendors into tools for implementation to be used by participating LEAs; conduct trainings and provide in-person support to LEA educators and administrators as they adopt new evaluation and effectiveness management systems; work with LEAs to implement new compensation systems; work with LEA leaders to identify ways to develop alternative compensation options through funding from the Alternative Compensation Grant Program; provide technical support to LEAs to improve working conditions in schools; and provide targeted technical assistance on increasing effectiveness to high-need schools; five consultants will be hired for the four-year grant period @ $100K per year per consultant based on current technical assistance consultancy contracts (Note: An LEA allocation for technical assistance will pay for an additional 2 technical assistance consultants); incurred annually	$100,000 per consultant per year	Incurred annually over 4 years	5 consultants per year	$ 2,000,000

7) Training Stipends – None

8) Other

Description/Rationale	Unit Cost	# of FTEs	Total
Office space rent: cost of renting office space for each FTE; based on current CDE rent rate; incurred annually	$ 2,300	2 FTEs	$ 18,400
Telephone service, including landline and mobile service, per FTE; based on current CDE telephone rates; incurred annually	$ 1,650	2 FTEs	$ 13,200

9) Total Direct Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Direct Costs (lines 1-8)	$ 836,840	$ 928,220	$ 852,132	$ 956,662	$ 3,573,854

10) Indirect Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Indirect Cost – 10.5% of applicable direct costs (includes personnel and travel costs)	$ 34,646	$ 35,513	$ 36,974	$ 38,500	$ 145,632

11) Funding for Involved LEAs - None

12) Supplemental Funding for Participating LEAs - None

13) Total Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Costs (lines 9-12)	$ 871,486	$ 963,733	$ 889,105	$ 995,162	$ 3,719,486

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE –
GOVERNOR'S COUNCIL FOR EDUCATOR EFFECTIVENESS

The State will engage in two key processes to accomplish policy changes which may help LEAs transition to a system in which they use student growth data as a significant factor in high-quality educator evaluation systems and use evaluation data to inform educator development, compensation, retention, promotion, and decisions regarding non-probationary status and dismissal. First, the Governor's Council for Educator Effectiveness, comprised of state leaders and stakeholder representatives, will work over an 18-month period to adopt a definition of educator effectiveness, develop criteria for high-quality evaluation systems that measure effectiveness, and recommend statutory and regulatory changes needed to support the use of evaluation data in educator development, compensation, retention, promotion, and decisions regarding non-probationary status and dismissal. Second, in alignment with the State change management plan, each LEA will form a Local Transformation Council, including LEA administrators, teachers and principals, to adopt evaluation systems meeting the criteria established by the Governor's Council for Educator Effectiveness and to implement uses of evaluation data for educator development, compensation, retention, promotion, and dismissal. LEA RttT subgrants totaling $201K will cover release time, travel, and meeting costs for Local Transformation Council members in participating LEAs.

Budget Part II: Project-Level Budget Table
Project Name: Governor's Council for Educator Effectiveness
Associated with Criteria: (A)(2), (D)(2), (D)(3)
(Evidence for selection criterion (A)(2)(i)(d))

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Total (e)
1. Personnel	$ 22,500	$ 11,813	$ -	$ -	$ 34,313
2. Fringe Benefits	$ 4,500	$ 2,363	$ -	$ -	$ 6,863
3. Travel	$ 42,000	$ 21,000	$ -	$ -	$ 63,000
4. Equipment	$ 2,985	$ -	$ -	$ -	$ 2,985
5. Supplies	$ 250	$ 125	$ -	$ -	$ 375
6. Contractual	$ 100,000	$ 50,000	$ -	$ -	$ 150,000
7. Training Stipends	$ -	$ -	$ -	$ -	$ -
8. Other	$ 81,975	$ 40,988	$ -	$ -	$ 122,963

9. Total Direct Costs (lines 1-8)	$ 254,210	$ 126,288	$ -	$ -	$ 380,498
10. Indirect Costs*	$ 16,011	$ 8,010	$ -	$ -	$ 24,022
11.Funding for Involved LEAs	$ -	$ -	$ -	$ -	$ -
12. Supplemental Funding for Participating LEAs	$ -	$ -	$ -	$ -	$ -
13. Total Costs (lines 9-12)	$ 270,221	$ 134,298	$ -	$ -	$ 404,519

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

Budget Narrative – Governor's Council for Educator Effectiveness

1) Personnel

Description/Rationale	Year 1 Salary (+ 5% Annual Increase)	Allocation per year	# of FTEs	Total
Project Assistant (at 50% FTE) will support the operational and organizational needs of the Governor's Council, including accounts payable and receivable, payroll and human resources, communications, and events scheduling over 1.5 years for which Council is in existence; salary based on state pay scales	$45,000	1.5 years for which Council is in existence	50% FTE	$ 34,313

2) Fringe Benefits

Description/Rationale	Applicable Salaries	State Employee Benefits Rate	Total
Employee Benefits – calculated at 20% of salary (based on CDE benchmarks)	$ 34,313	20%	$ 6,863

3) Travel

Description/Rationale	Travel Cost per Meeting (+3% annual increase)	Attendees per Meeting	Meeting Days	Total
Travel stipends for the 14 members of the Governor's Council for Educator Effectiveness to travel to 40 meetings in year 1 and 20 meetings in year 2; $75 per day ($66 meals per diem + $9 mileage / other expenses); based on FY10 federal per diems in CO	$75 per day	14	60 total meetings over years 1 & 2	$ 63,000

4) Equipment

Description/Rationale	Unit Cost	# of FTEs	Total
Computers: to supply the needs of the Project Assistant (prorated); based on current equipment costs within the CDE; 1 per FTE; one-time cost in year 1	$2,200 per FTE	50% FTE	$ 1,100
Computer software suite: to supply the needs of the Project Assistant (prorated); based on current equipment costs within the CDE; 1 per FTE; one-time cost in year 1	$330 per FTE	50% FTE	$ 165
Office equipment (desk, chair) for the Project Assistant (prorated); based on current equipment costs within the CDE; 1 per FTE; one-time cost in year 1	$3,440 per FTE	50% FTE	$ 1,720

5) Supplies

Description/Rationale	Unit Cost	# of FTEs	Total
Basic consumable office supplies costing $500 per FTE (prorated), based on current supply costs within the CDE; incurred for the 1.5 years that the Council is in existence	$500 per FTE per year x 1.5 years	50% FTE	$ 375

6) Contractual

Description/Rationale	Unit Cost	Rate	Unit Count	Total
Project Lead Consultant to organize and facilitate meetings and drive the agenda and goals of the Council as stated in the Executive Order; contracted outside consultant for the 1.5 years for which the Council is in existence; rate in line with state pay scale	$100,000 annual cost	1.5 years	1 lead consultant	$ 150,000

7) Training Stipends - None

8) Other

Description/Rationale	Unit Cost	# of FTEs	Total
Meeting costs (lunch expense) for 14 Council members to meet for 2-day meetings, 40 times a year in year 1 and 20 times per year in year 2	$10 per member per day x 60 total days over years 1 & 2	14 panel members	$ 8,400
Release time for teachers on Council; State pays for substitute teachers at rate of $220 / day for three teacher panel members to attend 40 meetings first year of RttT grant period and 20 meetings during the second year	$220 per day x 60 total days over years 1 & 2	3 teachers per meeting	$ 39,600
Release time for principals on Council; State pays for substitute principals at rate of $400 / day for three principal panel members to attend 40 meetings during first year of RttT grant period and 20 meetings during the second year	$400 per day x 60 total days over years 1 & 2	3 principals per meeting	$ 72,000
Office space rent: cost of renting office space for each FTE (prorated); based on current CDE rent rate; incurred for the 1.5 years that the Council is in existence	$2,300 per FTE per year x 1.5 years	50% FTE	$ 1,725
Telephone service, including landline and mobile service, per FTE (prorated); based on current CDE telephone rates; incurred for the 1.5 years that the Council is in existence	$1,650 per FTE per year x 1.5 years	50% FTE	$ 1,238

9) Total Direct Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Direct Costs (lines 1-8)	$ 254,210	$ 126,288	$ -	$ -	$ 380,498

10) Indirect Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Indirect Cost – 10.5% of applicable direct costs (including meeting costs, travel, and release time)	$ 16,011	$ 8,010	$ -	$ -	$ 24,022

11) Funding for Involved LEAs - None

12) Supplemental Funding for Participating LEAs - None

13) Total Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Costs (lines 9-12)	$ 270,221	$ 134,298	$ -	$ -	$ 404,519

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE –
ROLL OUT OF HIGH-QUALITY EVALUATION SYSTEMS

Each participating LEA that does not already have an evaluation system meeting the criteria set by the Governor's Council for Educator Effectiveness must adopt and implement one by the 2012-2013 school year. Each LEA will use Race to the Top funds to provide temporary full-time staff positions for two years to direct the selection and implementation of these new evaluation systems and to provide extensive training and support to teachers and principals in these new systems. LEAs may also use their RttT funds to support the transition to the use of evaluation data to inform educator development, compensation, promotion, retention, and dismissal.

The supplemental funding for participating LEAs was calculated through a two-step process of determining: 1) overall evaluation system costs based on the number of LEAs in each of nine possible size-evaluation system tier categorizations and 2) total required funds by each participating LEA based on the LEA's categorization, number of teachers, and number of principals and the associated costs of evaluation based on each metric (see Exhibits VI.D(2)ii-1a,b for methodology and tiers of participating LEAs). In cases where a participating LEA's funding needs were greater than the allocation they would receive from the overall evaluation system costs based on their Title 1 allocation, that LEA would receive the difference in the form of supplemental funding. The outcome is $21.0 million in supplemental funding in addition to the $46.8 million that LEAs will receive through LEA RttT subgrants.

Budget Part II: Project-Level Budget Table
Project Name: Roll Out of High-Quality Evaluation Systems
Associated with Criteria: (A)(2), (D)(2), (D)(4)
(Evidence for selection criterion (A)(2)(i)(d))

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Total (e)
1. Personnel	$ -	$ -	$ -	$ -	$ -
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	$ -	$ 8,267,805	$ 12,734,848	$ -	$ 21,002,653
13. Total Costs (lines 9-12)	$ -	$ 8,267,805	$ 12,734,848	$ -	$ 21,002,653

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

Budget Narrative – Roll Out of High-Quality Evaluation Systems

1) Personnel - None

2) Fringe Benefit - None

3) Travel - None

4) Equipment - None

5) Supplies - None

6) Contractual - None

7) Training Stipends - None

8) Other - None

9) Total Direct Costs - None

10) Indirect Costs - None

11) Funding for Involved LEAs - None

12) Supplemental Funding for Participating LEAs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Supplemental Funding for Participating LEAs	$ -	$ 8,267,805	$ 12,734,848	$ -	$ 21,002,653

13) Total Costs

Budget Categories	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Costs (lines 9-12)	$ -	$ 8,267,805	$ 12,734,848	$ -	$ 21,002,653

Summary of Supplemental Funding for Participating LEAs:

Supplemental funding is the difference between "Total Expected Evaluation Cost by LEA" and "Evaluation System Cost Allocated by Title 1 Share"

LEA Information				Evaluation System Estimates		Supplemental Funding for LEAs (to completely fund each LEA)
LEA Name	Type of LEA	Evaluation System Implementation Tier	% of LEA Funding (Based on FY2009 Title 1)	Evaluation System Cost Allocated by Title 1 Share	Total Expected Evaluation Cost by LEA	
Douglas County School District RE-1	Large	3	0.7%	$307,953	$ 1,576,493	$1,268,540
Academy School District 20	Large	3	0.3%	$150,456	$ 974,083	$823,627
Eagle County School District RE 50	Medium	1	0.3%	$137,939	$ 644,590	$506,651
Pueblo County Rural School District 70	Large	3	0.8%	$363,147	$ 855,315	$492,168
Colorado School for the Deaf and Blind	Small	3	0.0%	$0	$ 490,566	$490,566
Falcon School District 49	Medium	3	0.3%	$153,232	$ 610,014	$456,782
Colorado Charter School Institute	Medium	3	0.0%	$0	$ 441,971	$441,971
Lewis-Palmer School District 38	Medium	3	0.2%	$78,565	$ 435,918	$357,353
Windsor School District RE-4	Medium	3	0.1%	$60,573	$ 404,677	$344,103
Summit School District RE-1	Medium	3	0.1%	$62,073	$ 398,291	$336,219
Cheyenne Mountain School District 12	Medium	3	0.2%	$89,660	$ 417,531	$327,871
Brighton School District 27J	Medium	3	0.5%	$255,652	$ 579,438	$323,786
Garfield School District RE-2	Medium	3	0.2%	$104,354	$ 411,562	$307,208
Durango School District 9-R	Medium	3	0.3%	$146,635	$ 438,435	$291,800
Roaring Fork School District RE-1	Medium	3	0.4%	$188,317	$ 458,653	$270,336
Aspen School District 1	Small	3	0.0%	$0	$ 207,736	$207,736
Elizabeth School District C-1	Small	3	0.0%	$16,931	$ 221,755	$204,824
Fort Morgan School District RE-3	Medium	3	0.4%	$202,457	$ 392,758	$190,301
Boulder Valley School District RE-2	Large	3	2.0%	$944,231	$ 1,121,971	$177,741
Widefield School District 3	Medium	3	0.7%	$329,201	$ 506,202	$177,000
Delta County School District 50J	Medium	3	0.6%	$290,047	$ 458,653	$168,606

Branson Reorganized School District 82	Small	3	0.0%	$5,512	$ 171,482	$165,970
Park (Estes Park) School District R-3	Small	3	0.1%	$25,656	$ 191,450	$165,794
Telluride School District R-1	Small	3	0.0%	$16,193	$ 181,570	$165,377
East Grand School District 2	Small	3	0.1%	$33,585	$ 198,106	$164,520
Lone Star School District 101	Small	3	0.0%	$0	$ 163,890	$163,890
Ridgway School District R-2	Small	3	0.0%	$9,896	$ 173,770	$163,874
South Routt School District RE-3	Small	3	0.0%	$11,095	$ 174,248	$163,153
Otis School District R-3	Small	3	0.0%	$4,798	$ 166,885	$162,087
Buffalo School District RE-4	Small	3	0.0%	$7,797	$ 169,880	$162,083
Rangely School District RE-4	Small	3	0.0%	$11,995	$ 174,019	$162,024
Idalia School District RJ-3	Small	3	0.0%	$4,798	$ 166,198	$161,401
Weldon Valley School District RE-20J	Small	3	0.0%	$6,030	$ 166,656	$160,626
Swink School District 33	Small	3	0.0%	$9,296	$ 169,630	$160,334
Johnstown-Milliken Weld School District RE-5J	Small	3	0.1%	$56,975	$ 216,909	$159,934
Plainview School District RE-2	Small	3	0.0%	$3,882	$ 162,746	$158,864
Eads School District RE-1	Small	3	0.0%	$8,830	$ 166,885	$158,055
De Beque School District 49 JT	Small	3	0.0%	$9,736	$ 167,342	$157,607
Bayfield School District 10 JT-R	Small	3	0.1%	$31,486	$ 188,912	$157,426
Plateau School District RE-5	Small	3	0.0%	$9,545	$ 166,885	$157,339
Meeker School District RE1	Small	3	0.0%	$19,491	$ 176,536	$157,045
Hanover School District 28	Small	3	0.0%	$13,674	$ 170,566	$156,893
Norwood School District R-2J	Small	3	0.0%	$13,494	$ 170,338	$156,844
Platte Valley School District RE-3	Small	3	0.0%	$9,722	$ 165,970	$156,247
Cripple Creek-Victor School District RE-1	Small	3	0.0%	$17,392	$ 173,312	$155,920
Silverton School District 1	Small	3	0.0%	$6,500	$ 162,288	$155,788
Campo School District RE-6	Small	3	0.0%	$8,851	$ 164,597	$155,746
Agate School District 300	Small	3	0.0%	$9,677	$ 164,826	$155,149
Eaton School District RE-2	Small	3	0.1%	$44,680	$ 199,728	$155,048
Julesburg School District RE-1	Small	3	0.0%	$13,977	$ 168,965	$154,988
Strasburg School District 31J	Small	3	0.1%	$27,888	$ 182,277	$154,389

Ouray School District R-1	Small	3	0.0%	$5,997	$ 160,229	$154,231
Haxtun School District RE-2J	Small	3	0.0%	$13,537	$ 167,571	$154,035
Calhan School District RJ-1	Small	3	0.0%	$23,090	$ 176,765	$153,675
Mc Clave School District RE-2	Small	3	0.0%	$14,568	$ 167,800	$153,232
West Grand School District 1-JT	Small	3	0.0%	$19,491	$ 172,626	$153,134
Cheraw School District 31	Small	3	0.0%	$16,657	$ 166,656	$149,999
Wray School District RJ-2	Small	3	0.1%	$28,188	$ 177,909	$149,721
Walsh School District RE-1	Small	3	0.0%	$16,805	$ 166,427	$149,622
Buena Vista School District R-31	Small	3	0.1%	$35,684	$ 185,251	$149,567
Clear Creek School District RE-1	Small	3	0.1%	$36,284	$ 185,501	$149,217
Frenchman School District RE-3	Small	3	0.0%	$18,024	$ 167,114	$149,089
Holyoke School District RE-1J	Small	3	0.1%	$27,288	$ 175,371	$148,083
North Park School District R-1	Small	3	0.0%	$17,551	$ 165,491	$147,940
Peyton School District 23 JT	Small	3	0.1%	$28,787	$ 176,536	$147,749
Akron School District R-1	Small	3	0.1%	$24,353	$ 171,253	$146,899
Mancos School District RE-6	Small	3	0.1%	$24,172	$ 171,024	$146,852
Limon School District RE-4J	Small	3	0.1%	$27,352	$ 173,083	$145,731
Manitou Springs School District 14	Small	3	0.1%	$47,329	$ 193,051	$145,723
Springfield School District RE-4	Small	3	0.0%	$23,017	$ 168,258	$145,241
Canon City School District RE-1	Medium	3	0.6%	$260,942	$ 405,862	$144,920
Sanford School District 6J	Small	3	0.1%	$25,040	$ 169,880	$144,840
Genoa-Hugo School District C113	Small	3	0.0%	$21,644	$ 166,198	$144,554
Sargent School District RE-33J	Small	3	0.1%	$28,222	$ 172,168	$143,946
Keenesburg School District RE-3J	Small	3	0.2%	$71,968	$ 214,642	$142,673
Plateau Valley School District 50	Small	3	0.1%	$31,917	$ 174,248	$142,331
Cotopaxi School District RE-3	Small	3	0.1%	$27,666	$ 169,651	$141,986
West End School District RE-2	Small	3	0.1%	$32,264	$ 172,646	$140,383
Thompson School District R-2J	Medium	3	1.1%	$501,052	$ 640,840	$139,788
Brush School District RE-2J	Small	3	0.1%	$57,575	$ 197,190	$139,616
Custer County School District C-1	Small	3	0.1%	$36,203	$ 175,621	$139,418
Dolores School District RE-4A	Small	3	0.1%	$37,716	$ 175,829	$138,112

Burlington School District RE-6J	Small	3	0.1%	$43,394	$ 178,824	$135,430
Moffat School District 2	Small	3	0.2%	$77,066	$ 211,896	$134,830
Big Sandy School District 100J	Small	3	0.1%	$37,567	$ 171,710	$134,144
Granada School District RE-1	Small	3	0.1%	$34,930	$ 168,486	$133,557
Wiggins School District RE-50J	Small	3	0.1%	$41,098	$ 172,854	$131,756
Park County School District RE-2	Small	3	0.1%	$51,754	$ 180,675	$128,921
Holly School District RE-3	Small	3	0.1%	$42,257	$ 169,880	$127,623
Fowler School District R-4J	Small	3	0.1%	$44,735	$ 172,168	$127,433
Mountain Valley School District RE-1	Small	3	0.1%	$40,343	$ 166,427	$126,084
Yuma School District 1	Small	3	0.1%	$57,878	$ 183,421	$125,543
Moffat County School District RE: No 1	Small	3	0.1%	$47,750	$ 170,338	$122,588
Sangre de Cristo School District RE-22J	Small	3	0.1%	$49,741	$ 170,566	$120,825
Sierra Grande School District R-30	Small	3	0.1%	$49,397	$ 169,880	$120,483
Centennial School District R-1	Small	3	0.1%	$50,632	$ 170,109	$119,477
Montezuma-Cortez School District RE-1	Medium	3	0.6%	$275,986	$ 393,715	$117,729
Fountain School District 8	Medium	3	0.8%	$351,418	$ 467,430	$116,013
Ellicott School District 22	Small	3	0.2%	$71,605	$ 185,958	$114,354
Lake County School District R-1	Small	3	0.2%	$84,918	$ 188,475	$103,557
Salida School District R-32	Small	3	0.2%	$82,600	$ 185,002	$102,402
Weld County School District RE-1	Small	3	0.2%	$109,152	$ 210,960	$101,808
Poudre School District R-1	Large	3	1.9%	$900,953	$ 999,938	$98,984
Crowley County School District RE-1J	Small	3	0.2%	$85,986	$ 175,392	$89,406
Archuleta County School District 50 JT	Small	3	0.2%	$108,060	$ 196,046	$87,987
Las Animas School District RE-1	Small	3	0.2%	$87,870	$ 174,456	$86,586
Weld County School District RE-8	Small	3	0.3%	$131,342	$ 213,498	$82,155
North Conejos School District RE-1J	Small	3	0.2%	$106,988	$ 188,018	$81,030
Del Norte School District C-7	Small	3	0.2%	$96,743	$ 177,680	$80,937
Monte Vista School District C-8	Small	3	0.2%	$112,208	$ 187,768	$75,560
Englewood School District 1	Medium	3	0.7%	$320,066	$ 391,635	$71,569
Trinidad School District 1	Small	3	0.3%	$124,597	$ 193,072	$68,475
Huerfano School District RE-1	Small	3	0.2%	$114,419	$ 180,218	$65,799

Valley School District RE-1	Small	3	0.3%	$152,821	$ 215,328	$62,507
Littleton School District 6	Medium	3	1.2%	$581,320	$ 635,598	$54,279
Fremont RE-2 School District	Small	3	0.3%	$162,553	$ 200,414	$37,862
Mapleton School District 1	Medium	3	0.9%	$405,774	$ 428,826	$23,051
TOTAL						$21,002,653

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE –
TEACHER PIPELINE DEVELOPMENT – TEACH FOR AMERICA

Over the four-year grant period, Teach For America (TFA) will expand the size of its Colorado corps to more than 1,000 teachers and extend its reach into additional underserved areas of the state. In addition, TFA will provide the Colorado Department of Education and participating LEAs with open-source access to its cutting-edge tools for managing teacher performance and using student growth data to evaluate teacher effectiveness which will integrate with SchoolView.

Specifically, Teach For America's work with Colorado will include the following:

- High-quality teachers in low-performing LEAs and schools
- A thorough data management system focused on teacher improvement and student outcomes to measure teacher effectiveness
- Sharing of research, methodology and strategies of teacher evaluation, teacher improvement tools, teacher effectiveness data and the like to partner LEAs and the State of Colorado
- Teachers and leaders for turnaround schools through the TFA corps members / teachers and an alumni leadership initiative

State funding will be supplemented by $19.7 million from LEA RttT subgrants.

Budget Part II: Project-Level Budget Table
Project Name: Teacher Pipeline Development – Teach For America
Associated with Criteria: (C)(3), (D)(2), (D)(3), (D)(4), (F)(2)
(Evidence for selection criterion (A)(2)(i)(d))

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Total (e)
1. Personnel	$ -	$ -	$ -	$ -	$ -
2. Fringe Benefits	$ -	$ -	$ -	$ -	$ -
3. Travel	$ -	$ -	$ -	$ -	$ -
4. Equipment	$ -	$ -	$ -	$ -	$ -
5. Supplies	$ -	$ -	$ -	$ -	$ -
6. Contractual	$ -	$ 857,827	$ 1,807,884	$ 2,135,989	$ 4,801,700
7. Training Stipends	$ -	$ -	$ -	$ -	$ -

8. Other	$ -	$ -	$ -	$ -	$ -
9. Total Direct Costs (lines 1-8)	$ -	$ 857,827	$ 1,807,884	$ 2,135,989	$ 4,801,700
10. Indirect Costs*	$ -	$ -	$ -	$ -	$ -
11.Funding for Involved LEAs	$ -	$ -	$ -	$ -	$ -
12. Supplemental Funding for Participating LEAs	$ -	$ -	$ -	$ -	$ -
13. Total Costs (lines 9-12)	$ -	$ 857,827	$ 1,807,884	$ 2,135,989	$ 4,801,700

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

Budget Narrative – Teach For America

1) **Personnel - None**
2) **Fringe Benefit - None**
3) **Travel - None**
4) **Equipment - None**
5) **Supplies - None**
6) **Contractual**

Description/Rationale	Total
Funds will be used to develop pipeline of teachers and ensure their equitable distribution; funds also cover shared technology resources and platforms. RttT will fund $16,090 per teacher for recruitment and selection, pre-service training, corps member professional development, alumni program and support, local program administration, local development, and regional share of national support. State funds will be used to pay for the above-mentioned costs of placing 315 teachers over the four year grant period in the following LEAs: Greeley, Southwest corner (multiple districts), and San Luis Valley (multiple districts). Details of the plan are included in Selection Criterion (D)(3) of the application and in Exhibit VI.D(3)i-4.	$ 4,801,700

7) Training Stipends - None

8) Other - None

9) Total Direct Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Direct Costs (lines 1-8)	$ -	$ 857,827	$ 1,807,884	$ 2,135,989	$ 4,801,700

10) Indirect Costs - None

11) Funding for Involved LEAs - None

12) Supplemental Funding for Participating LEAs - None

13) Total Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Costs (lines 9-12)	$ -	$ 857,827	$ 1,807,884	$ 2,135,989	$ 4,801,700

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE–
DISSEMINATION OF BEST DEMONSTRATED PRACTICES

The CDE Office of Educator Effectiveness Initiatives will direct a grant fund to reward the State's most effective educators and to disseminate their instructional practices statewide. In years three and four of the grant period, the CDE will identify approximately 40 of the most highly effective teachers in the state on the basis of student growth data and award $10,000 to each of these teachers and an additional $10,000 each to their schools in exchange for the teacher allowing his/her classroom to be used as a model for other educators and/or for the teacher developing in-depth materials on his/her best practices to be made available via SchoolView. In addition, all teachers from across the state will be able to upload instructional resources onto SchoolView. Those educators whose resources receive the highest rating from other educators will receive $1,000 awards.

Budget Part II: Project-Level Budget Table
Project Name: Dissemination of Best Demonstrated Practices
Associated with Criteria: (C)(3), (D)(2), (D)(5)
(Evidence for selection criterion (A)(2)(i)(d))

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Total (e)
1. Personnel	$ -	$ 333,333	$ 733,333	$ 733,333	$ 1,800,000
2. Fringe Benefits	$ -	$ -	$ -	$ -	$ -
3. Travel	$ -	$ -	$ -	$ -	$ -
4. Equipment	$ -	$ -	$ -	$ -	$ -
5. Supplies	$ -	$ -	$ -	$ -	$ -
6. Contractual	$ -	$ -	$ -	$ -	$ -
7. Training Stipends	$ -	$ -	$ -	$ -	$ -
8. Other	$ -	$ -	$ 400,000	$ 400,000	$ 800,000
9. Total Direct Costs (lines 1-8)	$ -	$ 333,333	$ 1,133,333	$ 1,133,333	$ 2,600,000
10. Indirect Costs*	$ -	$ -	$ -	$ -	$ -

11.Funding for Involved LEAs	$ -	$ -	$ -	$ -	$ -
12. Supplemental Funding for Participating LEAs	$ -	$ -	$ -	$ -	$ -
13. Total Costs (lines 9-12)	$ -	$ 333,333	$ 1,133,333	$ 1,133,333	$ 2,600,000
All applicants must provide a break-down by the applicable budget categories shown in lines 1-15. Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category. Column (e): Show the total amount requested for all project years. *If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.					

Budget Narrative – Dissemination of Best Demonstrated Practices

1) Personnel

Description/Rationale	Award per Teacher	Allocation per year	# of Teachers	Total
Educator Bonuses: Incentives to populate content onto SchoolView, allow classroom observation by other educators, etc.; granted at discretion of the State and administered through the CDE; a select group of educators (40 per year in years 3 and 4) will be identified for bonus grants once educator effectiveness measures have been implemented	$10,000 bonus per educator	2 years (years 3 & 4)	40 educators per year	$ 800,000
Royalty Payments: Educators from across the state will be able to upload instructional resources onto SchoolView and those whose resources receive the highest ratings from other educators will receive $1,000 awards; assumption is that starting in year 3, educators will start using SchoolView; incurred in years 3-4	$1,000 incentive grant per educator	500 educators per year	1,000 total educators over years 3 & 4	$ 1,000,000

2) Fringe Benefit - None
3) Travel - None
4) Equipment - None

5) Supplies - None
6) Contractual - None
7) Training Stipends - None

8) Other

Description/Rationale	Matching grant per school	Allocation	# of Schools	Total
Matching grants from the State to the host schools where educator bonus recipients teach; grants will be given in exchange for the educator allowing his/her classroom to be used as a model for other educators and/or for the in-depth materials developed by the educator on his/her best practices to be made available via SchoolView; incurred in years 3 & 4	$10,000 per school	2 years (years 3 & 4)	40 schools per year	$ 800,000

9) Total Direct Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Direct Costs (lines 1-8)	$ -	$ 333,333	$ 1,133,333	$ 1,133,333	$ 2,600,000

10) Indirect Costs- None

11) Funding for Involved LEAs - None

12) Supplemental Funding for Participating LEAs - None

13) Total Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Costs (lines 9-12)	$ -	$ 333,333	$ 1,133,333	$ 1,133,333	$ 2,600,000

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE – HIGH-QUALITY PREP PROGRAM GRANTS

In grant years three and four, the Colorado Center for Educator Excellence will use data on the effectiveness of graduates of preparation programs to identify effective preparation programs in the state. These programs will receive grants to expand areas of best practice and increase the supply of effective educators that they provide to the State. The grants will be matched by $3 million from select LEA subgrants.

Budget Part II: Project-Level Budget Table
Project Name: High-Quality Prep Program Grants
Associated with Criteria: (D)(3), (D)(4)
(Evidence for selection criterion (A)(2)(i)(d))

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

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

Budget Narrative – High-Quality Prep Program Grants

1) Personnel - None
2) Fringe Benefit - None
3) Travel - None
4) Equipment - None
5) Supplies - None
6) Contractual - None
7) Training Stipends - None

8) Other

Description/Rationale	Funding per Institution	Allocation per Year	Total
In RttT grant years 3 and 4, the CCEE will use data on the effectiveness of graduates of preparation programs (gathered during years 1-2) to identify effective preparation programs; the CCEE will recommend that the CDE distribute grants to the most effective preparation programs in Colorado and for schools to use the grant funds to expand areas of best practice, increase supply of effective educators, and support high-quality induction programs; the goal is to impact both high-need and rural areas of the state; supplemented by a matching LEA subgrant	Anticipated minimum grant amount is $100,000	$1 million to be distributed in year 3; $2 million to be distributed in year 4	$ 3,000,000

9) Total Direct Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Direct Costs (lines 1-8)	$ -	$ -	$ 1,000,000	$ 2,000,000	$ 3,000,000

10) Indirect Costs- None

11) Funding for Involved LEAs - None

12) Supplemental Funding for Participating LEAs - None

13) Total Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Costs (lines 9-12)	$ -	$ -	$ 1,000,000	$ 2,000,000	$ 3,000,000

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE – SCHOOL LEADERSHIP ACADEMY

The School Leadership Academy (SLA) will provide development capacity for current and future Colorado school leaders. The SLA will provide capacity and support to the CDE Office of Educator Effectiveness Initiatives in developing and training teacher and principal leaders. The SLA will direct the Leadership Residency Program and the Turnaround Leaders Academy.

The Leadership Residency Program is an innovative development opportunity for instructional teams from 10 schools in each of the last three years of the grant. Priority for participation in the program will be given to instructional teams from turnaround schools and to schools with the largest achievement gaps. These instructional teams will each be paired with a host school with sustained student growth where they will engage in a series of monthly site visits. Host schools will consist of five high-poverty schools each year who have demonstrated high achievement levels. Additionally, the instructional teams will attend SLA staff-facilitated cohort meetings with their colleagues from other participating schools for the purpose of sharing best practices, problem-solving, and building communities of excellence. Funding for this initiative will pay for teacher/principal release time, travel and meeting costs, as well as grants to host schools.

The SLA will select curriculum and a provider for the Turnaround Leaders Academy in consultation with the Colorado Turnaround Center. The Turnaround Leaders Academy will recruit, select, and train 20 high potential leaders using customized leadership development / business administration (MBA) models similar to national exemplars. Funding will pay the tuition and fees of high-potential turnaround leaders as well as stipends that enable candidates to spend a year preparing to lead failing schools. Candidates completing the program will have a three-year obligation to serve in a turnaround leadership role in the state.

Budget Part II: Project-Level Budget Table
Project Name: School Leadership Academy
Associated with Criteria: (D)(3), (D)(5), (E)(2)
(Evidence for selection criterion (A)(2)(i)(d))

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Total (e)
1. Personnel	$ 280,000	$ 294,000	$ 308,700	$ 324,135	$ 1,206,835
2. Fringe Benefits	$ 56,000	$ 58,800	$ 61,740	$ 64,827	$ 241,367
3. Travel	$ -	$ 366,000	$ 376,980	$ 388,289	$ 1,131,269
4. Equipment	$ 23,880	$ -	$ -	$ -	$ 23,880

5. Supplies	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 8,000
6. Contractual	$ -	$ 900,000	$ 945,000	$ -	$ 1,845,000
7. Training Stipends	$ -	$ 600,000	$ 630,000	$ -	$ 1,230,000
8. Other	$ 15,800	$ 409,900	$ 409,900	$ 409,900	$ 1,245,500
9. Total Direct Costs (lines 1-8)	$ 377,680	$ 2,630,700	$ 2,734,320	$ 1,189,151	$ 6,931,851
10. Indirect Costs*	$ 38,212	$ 117,411	$ 120,416	$ 123,548	$ 399,587
11.Funding for Involved LEAs	$ -	$ -	$ -	$ -	$ -
12. Supplemental Funding for Participating LEAs	$ -	$ -	$ -	$ -	$ -
13. Total Costs (lines 9-12)	$ 415,892	$ 2,748,111	$ 2,854,736	$ 1,312,700	$ 7,331,438
All applicants must provide a break-down by the applicable budget categories shown in lines 1-15. Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category. Column (e): Show the total amount requested for all project years. *If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.					

Budget Narrative – School Leadership Academy

1) Personnel

Description/Rationale	Year 1 Salary (+ 5% Annual Increase)	Allocation per year	# of FTEs	Total
Academy Director will serve as a coordinator between the CDE Turnaround Office and the CDE Office of Educator Effectiveness Initiatives. The SLA Director will report to the Commissioner and a volunteer Advisory Board; salary based on state pay scales	$ 90,000	Incurred annually (years 1-4)	1 FTE	$ 387,911

Principal Consultant will support the implementation of the initiatives of the SLA, coordinate with the CDE Turnaround Office and CDE Office of Educator Effectiveness Initiatives, and organize regional meetings of Leadership Residency Program instructional teams to gather best practices and provide support. Specific activities include coordination of instructional teams as part of the Leadership Residency Program, outreach to host high poverty/high growth schools, and oversight of the Turnaround Leaders Academy (including leader selection, coordination of program curriculum with the Academy, and coordination of placement in turnaround schools); salary based on state pay scales	$ 80,000	Incurred annually (years 1-4)	1 FTE	$ 344,810
Leadership Associate will support the work of the Academy Director and Principal Consultant on outreach, communications, and data gathering; salary based on state pay scales	$ 65,000	Incurred annually (years 1-4)	1 FTE	$ 280,158
Project Assistant will support the operational and organizational needs of the SLA, including accounts payable and receivable, payroll and human resources, communications, and events scheduling; salary based on state pay scales	$ 45,000	Incurred annually (years 1-4)	1 FTE	$ 193,956

2) Fringe Benefits

Description/Rationale	Applicable Salaries	State Employee Benefits Rate	Total
Employee Benefits – calculated at 20% of salary (based on CDE benchmarks)	$ 1,206,835	20%	$ 241,367

3) Travel

Description/Rationale	Travel Costs (+3% annual increase)	Attendees per Meeting	Meetings per Year	Total

Travel for Academy Director to hold regional meetings with instructional teams during residency programs at host schools, beginning in year 2 through year 4; 12 two-day trips per year @ $500 per trip ($225 per day for lodging and meals/incidentals + $50 mileage/other expenses); 3% annual travel cost increase; based on FY10 federal per diem rates in Colorado	$500 per trip	1 person	12 per year over years 2-4	$ 18,545
Travel costs for Leadership Residency Program instructional teams (one team of three teachers and one principal per two identified turnaround schools) to attend three-day residency programs at host schools each month; starting in year 2 though year 4, ten instructional teams will participate in monthly three-day residency programs at a travel cost of $750 per trip ($225 per day for lodging and meals/incidentals + $75 mileage/other expenses); 3% annual travel cost increase; based on FY10 federal per diem rates in Colorado	$750 per trip	10 instructional teams consisting of 4 people each	12 per year over years 2-4	$ 1,112,724

4) Equipment

Description/Rationale	Unit Cost	# of FTEs	Total
Computers: to supply the needs of new employees; based on current equipment costs within the CDE; 1 per FTE; one-time cost in year 1	$ 2,200	4 FTEs	$ 8,800
Computer software suite: to supply the needs of new employees; based on current equipment costs within the CDE; 1 per FTE; one-time cost in year 1	$ 330	4 FTEs	$ 1,320
Office equipment (desk, chair) for each new employee; based on current equipment costs within the CDE; 1 per FTE; one-time cost in year 1	$ 3,440	4 FTEs	$ 13,760

5) Supplies

Description/Rationale	Unit Cost	# of FTEs	Total
Basic consumable office supplies costing $500 per FTE, based on current supply costs within the CDE; Incurred annually	$ 500	4	$ 8,000

6) Contractual

Description/Rationale	Unit Cost	Rate	# of FTEs	Total
Contract with Turnaround Leaders Academy to recruit and train 20 new leaders for school turnaround to be placed in 20 of the 67 lowest-achieving schools (excludes those identified for 1003(g) or Mass Insight funding); $90K program costs per leader based on benchmarks of one-year MBA programs ($80K tuition + $10K program coordination costs); assumes 5% annual cost increase; incurred in years 2 & 3	$90,000 per leader + 5% annual cost increase	Incurred over years 2 & 3	20 turnaround school leaders (10 per year)	$ 1,845,000

7) Training Stipends

Description/Rationale	Unit Cost	Rate	# of FTEs	Total
Training stipends for the 20 new leaders recruited and trained through the Turnaround Leaders Academy; $60K stipend per leader; assumes 5% annual cost increase; incurred in years 2 & 3	$60,000 stipend per leader + 5% annual increase	Incurred in years 2 & 3	20 turnaround school leaders (10 per year)	$ 1,230,000

8) Other

Description/Rationale	Unit Cost	Rate	# of FTEs	Total
Office space rent: cost of renting office space for each FTE; based on current CDE rent rate; incurred annually	$ 2,300	--	4 FTEs	$ 36,800

Telephone service, including landline and mobile service, per FTE; based on current CDE telephone rates; incurred annually	$ 1,650	--	4 FTEs	$ 26,400
Release time for Leadership Residency Program instructional team teachers consisting of state payment for substitute teachers (three per instructional team,10 instructional teams) at $220/day to attend residency program three days per month (for 12 months) in years 2-4 of the RttT grant period	$220 release time cost per teacher	36 days per year over years 2-4	30 teachers	$ 712,800
Release time for instructional team principals consisting of state payment for substitute principals (one per instructional team, 10 instructional teams) at $400/day to attend residency program three days per month (for 12 months) in years 2-4 of the RttT grant period	$400 release time cost per principal	36 days per year over years 2-4	10 principals	$ 432,000
Grants to compensate schools for hosting/receiving instructional teams at their schools. Of the 161 schools in Colorado with 3 years of sustained growth, 28% are high poverty; of those 45 schools, ~10% are expected to participate, resulting in five schools who will host ten instructional teams (two per school) three days per month for years 2-4 of the RttT grant period	$2,500 per school	--	5 schools per year over years 2-4	$ 37,500

9) Total Direct Costs

	Project Year 1	**Project Year 2**	**Project Year 3**	**Project Year 4**	**Total**
Total Direct Costs (lines 1-8)	$ 377,680	$ 2,630,700	$ 2,734,320	$ 1,189,151	$ 6,931,851

10) Indirect Costs

	Project Year 1	**Project Year 2**	**Project Year 3**	**Project Year 4**	**Total**
Indirect Cost – 10.5% of applicable direct costs (including all personnel, travel, and release time)	$ 38,212	$ 117,411	$ 120,416	$ 123,548	$ 399,587

11) Funding for Involved LEAs - None

12) Supplemental Funding for Participating LEAs - None

13) Total Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Costs (lines 9-12)	$ 415,892	$ 2,748,111	$ 2,854,736	$ 1,312,700	$ 7,331,438

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE –
COLORADO'S ADVANCED PLACEMENT INITIATIVE

Colorado's Advanced Placement Initiative is a comprehensive approach that increases teacher effectiveness and student achievement through training, teacher and student support, open enrollment, extended learning time and incentives. The program will dramatically increase the number of students taking and passing AP math, science, and English exams, and expands access to traditionally under-represented students. Over the four-year grant period, this initiative will train 400 teachers in 64 schools and serve more than 15,000 students.

The State will cover $3.2 million for hiring personnel within an established nonprofit entity for program implementation, management and content support (such as the Colorado Legacy Foundation) and contracting with a consultancy with expertise in math, science and English training, curriculum management and incentive models (for example, the National Math and Science Initiative, NMSI). LEA RttT subgrants will cover the remaining $5.0 million of the total cost for the project which will include teacher training, incentives, professional development stipends, and study sessions for students.

Budget Part II: Project-Level Budget Table
Project Name: Colorado's Advanced Placement Initiative
Associated with Criteria: (D)(3), (D)(4), (D)(5), Priority 2
(Evidence for selection criterion (A)(2)(i)(d))

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Total (e)
1. Personnel	$ 445,000	$ 467,250	$ 490,613	$ 515,143	$ 1,918,006
2. Fringe Benefits	$ 89,000	$ 93,450	$ 98,123	$ 103,029	$ 383,601
3. Travel	$ 24,000	$ 24,720	$ 25,462	$ 26,225	$ 100,407
4. Equipment	$ 32,835	$ -	$ -	$ -	$ 32,835
5. Supplies	$ 2,750	$ 2,750	$ 2,750	$ 2,750	$ 11,000
6. Contractual	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 400,000
7. Training Stipends	$ -	$ -	$ -	$ -	$ -
8. Other	$ 21,725	$ 21,725	$ 21,725	$ 21,725	$ 86,900

9. Total Direct Costs (lines 1-8)	$ 715,310	$ 709,895	$ 738,672	$ 768,872	$ 2,932,749
10. Indirect Costs*	$ 62,621	$ 64,039	$ 67,061	$ 70,232	$ 263,952
11.Funding for Involved LEAs	$ -	$ -	$ -	$ -	$ -
12. Supplemental Funding for Participating LEAs	$ -	$ -	$ -	$ -	$ -
13. Total Costs (lines 9-12)	$ 777,931	$ 773,934	$ 805,732	$ 839,104	$ 3,196,701
All applicants must provide a break-down by the applicable budget categories shown in lines 1-15. Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category. Column (e): Show the total amount requested for all project years. *If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.					

Budget Narrative – Colorado's Advanced Placement Initiative

1) Personnel

Description/Rationale	Year 1 Salary (+ 5% Annual Increase)	Allocation per year	# of FTEs	Total
Program Director will drive the creation of an effective training and incentive program for AP and pre-AP courses in the state. The Director's responsibilities include: providing vision and guidance for the program, project oversight, making personnel decisions, fundraising, managing the budget, communicating with those involved in the program's implementation (i.e., schools, donors, and board members), and finding strong schools and LEAs to be potential partners. This person must be committed to the success of the program and will be responsible for driving progress and managing toward intended outcomes; salary based on state pay scales	$ 100,000	Incurred annually (years 1-4)	1 FTE	$ 431,013

Content Directors (3) for math, science, and English (one Director per subject area) will be responsible for implementing an effective training and incentive program across the state. This person must play many roles, which include: coordinating the subject area's program to ensure consistency of subject area delivery across the state, developing intellectual capital, and advocating for the training and incentive program; salary based on state pay scales.	$ 85,000	Incurred annually (years 1-4)	3 FTEs	$ 1,099,082
Program Associate will work alongside the Program Director to ensure that the organization operates smoothly and effectively. This person must play many logistical and strategic roles, which include: overseeing the finances of the organization, managing all necessary data and reports, and supervising other technical support. This person will be responsible for driving progress and managing toward intended outcomes; salary based on state pay scales	$ 60,000	Incurred annually (years 1-4)	1 FTE	$ 258,608
Financial Analyst will be responsible for accounting and report auditing of the program; salary based on state pay scales	$ 60,000	Incurred annually (years 1-4)	50% FTE	$ 129,304

2) Fringe Benefits

Description/Rationale	Applicable Salaries	State Employee Benefits Rate	Total
Employee Benefits – calculated at 20% of salary (based on CDE benchmarks)	$1,918,006	20%	$ 383,601

3) Travel

Description/Rationale	Travel Costs (+3% annual increase)	Attendees per Meeting	Meetings per Year	Total
Program Director and Content Directors' travel costs for school site visits and relationship and awareness building among stakeholders (education, business, foundation communities) estimated @ $500	$500 per person per month	4 (Program and Content Directors)	12 months	$ 100,407

per month ($225 lodging and meals/incidentals x two days per month + $50 mileage reimbursement); 3% annual travel cost increase; based on FY10 federal rates for CO; incurred annually				

4) Equipment

Description/Rationale	Unit Cost	# of FTEs	Total
Computers: to supply the needs of new employees; based on current equipment costs within the CDE; 1 per FTE; one-time cost in year 1	$ 2,200	5.5 FTEs	$ 12,100
Computer software suite: to supply the needs of new employees; based on current equipment costs within the CDE; 1 per FTE; one-time cost in year 1	$ 330	5.5 FTEs	$ 1,815
Office equipment (desk, chair) for each new employee; based on current equipment costs within the CDE; 1 per FTE; one-time cost in year 1	$ 3,440	5.5 FTEs	$ 18,920

5) Supplies

Description/Rationale	Unit Cost	# of FTEs	Total
Basic consumable office supplies costing $500 per FTE, based on current supply costs within the CDE; incurred annually	$ 500	5.5 FTEs	$ 11,000

6) Contractual

Description/Rationale	Unit Cost	Rate	Total

Contracted consultancy with direct experience implementing this type of enhanced AP and/or teacher incentive program in other states which will operate the program and will be responsible for: partner and vendor relationships, Pre-AP and AP trainings, ongoing monitoring of program implementation, and summative evaluation of program impact; incurred annually	$100,000 per year	Incurred annually (years 1-4)	$ 400,000

7) Training Stipends – None

8) Other

Description/Rationale	Unit Cost	# of FTEs	Total
Office space rent: cost of renting office space for each FTE; based on current CDE rent rate; incurred annually	$ 2,300	5.5 FTEs	$ 50,600
Telephone service, including landline and mobile service, per FTE; based on current CDE telephone rates; incurred annually	$ 1,650	5.5 FTEs	$ 36,300

9) Total Direct Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Direct Costs (lines 1-8)	$ 715,310	$ 709,895	$ 738,672	$ 768,872	$ 2,932,749

10) Indirect Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Indirect Cost – 10.5% of applicable direct costs (including all personnel and travel related costs)	$ 62,621	$ 64,039	$ 67,061	$ 70,232	$ 263,952

11) Funding for Involved LEAs - None

12) Supplemental Funding for Participating LEAs - None

13) Total Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Costs (lines 9-12)	$ 777,931	$ 773,934	$ 805,732	$ 839,104	$ 3,196,701

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE – ALTERNATIVE COMPENSATION GRANTS

In grant years one through three, the Alternative Compensation Grants program will provide planning grants for LEAs to implement new effectiveness-based compensation systems. LEAs with sufficient subgrants to do so will use their LEA Race to the Top funds for this program, while LEAs with insufficient Race to the Top funds will receive grants from the CDE Office of Educator Effectiveness Initiatives. The LEA RttT funds for this project will cover $2 million of grant distributions.

Budget Part II: Project-Level Budget Table
Project Name: Alternative Compensation Grants
Associated with Criteria: (D)(2), (D)(5)
(Evidence for selection criterion (A)(2)(i)(d))

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Total (e)
1. Personnel	$ -	$ -	$ -	$ -	$ -
2. Fringe Benefits	$ -	$ -	$ -	$ -	$ -
3. Travel	$ -	$ -	$ -	$ -	$ -
4. Equipment	$ -	$ -	$ -	$ -	$ -
5. Supplies	$ -	$ -	$ -	$ -	$ -
6. Contractual	$ -	$ -	$ -	$ -	$ -
7. Training Stipends	$ -	$ -	$ -	$ -	$ -
8. Other	$ 873,500	$ 1,747,000	$ 873,500	$ -	$ 3,494,000
9. Total Direct Costs (lines 1-8)	$ 873,500	$ 1,747,000	$ 873,500	$ -	$ 3,494,000
10. Indirect Costs*	$ -	$ -	$ -	$ -	$ -
11.Funding for Involved LEAs	$ -	$ -	$ -	$ -	$ -
12. Supplemental Funding for Participating LEAs	$ -	$ -	$ -	$ -	$ -
13. Total Costs (lines 9-12)	$ 873,500	$ 1,747,000	$ 873,500	$ -	$ 3,494,000

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

Budget Narrative – Alternative Compensation Grants

1) Personnel - None
2) Fringe Benefit - None
3) Travel - None
4) Equipment - None
5) Supplies - None
6) Contractual - None
7) Training Stipends - None

8) Other

Description/Rationale	Allocation per LEA	% of LEAs	Number of LEAs	Total
Planning grants ($41K per LEA – state plus LEA subgrants) which will be administered by the Executive Director of Educator Effectiveness Initiatives for LEAs to transition to effectiveness-based compensation systems; TIF grants will be applied for and used to potentially double grants available to LEAs; technical assistance consultants will be available to LEAs to support planning process (See Technical Assistance Consultants under the CDE Office of Educator Effectiveness Initiatives) - *$2 million of grants distributed through LEA subgrants*	$41,000 per LEA total (~$26K covered by the State); $2 million covered by LEA subgrants)	25% in year 1; 50% in year 2; 25% in year 3	134 (participating LEAs)	$ 3,494,000

9) Total Direct Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Direct Costs (lines 1-8)	$ 873,500	$ 1,747,000	$ 873,500	$ -	$ 3,494,000

10) Indirect Costs- None

11) Funding for Involved LEAs - None

12) Supplemental Funding for Participating LEAs - None

13) Total Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Costs (lines 9-12)	$ 873,500	$ 1,747,000	$ 873,500	$ -	$ 3,494,000

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE – HIGH-NEED ENDORSEMENTS GRANT PROGRAM

In grant years three and four, LEAs will receive grants for current effective and highly effective teachers to obtain additional endorsements and credentials in high-need areas, including English Language Acquisition, Early Childhood Education, Special Education, and National Board Certification. LEAs with sufficient subgrants to do so will use their LEA Race to the Top funds for this program, while LEAs with insufficient Race to the Top funds will receive grants from the CDE Office of Educator Effectiveness Initiatives. State funds will be supplemented by $2.5 million from LEA RttT subgrants.

Budget Part II: Project-Level Budget Table **Project Name:** High-Need Endorsements Grant Program **Associated with Criteria:** (D)(3), (D)(5), Priority 2 **(Evidence for selection criterion (A)(2)(i)(d))**					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	$ -	$ -	$ -	$ -	$ -
2. Fringe Benefits	$ -	$ -	$ -	$ -	$ -
3. Travel	$ -	$ -	$ -	$ -	$ -
4. Equipment	$ -	$ -	$ -	$ -	$ -
5. Supplies	$ -	$ -	$ -	$ -	$ -
6. Contractual	$ -	$ -	$ -	$ -	$ -
7. Training Stipends	$ -	$ -	$ -	$ -	$ -
8. Other	$ -	$ -	$ 1,250,000	$ 1,250,000	$ 2,500,000
9. Total Direct Costs (lines 1-8)	$ -	$ -	$ 1,250,000	$ 1,250,000	$ 2,500,000
10. Indirect Costs*	$ -	$ -	$ -	$ -	$ -
11.Funding for Involved LEAs	$ -	$ -	$ -	$ -	$ -
12. Supplemental Funding for Participating LEAs	$ -	$ -	$ -	$ -	$ -

13. Total Costs (lines 9-12)	$ -	$ -	$ 1,250,000	$ 1,250,000	$ 2,500,000

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

Budget Narrative – High-Need Endorsements Grant Program

1) Personnel - None
2) Fringe Benefit - None
3) Travel - None
4) Equipment - None
5) Supplies - None
6) Contractual - None
7) Training Stipends - None

8) Other

Description/Rationale	Grant per Teacher	% Allocation (State Share)	Number of Teachers per Year	Total
High-Need Endorsement Grants - state share: Individual grants to teachers to be used towards tuition costs to attain endorsements in high-need subject areas; total grants will be made in the amount of $5,000 per teacher (50% from state share; 50% from LEA subgrants) to 1,000 teachers over years 3 and 4	$ 5,000	50% covered by state share	500 teachers per year over years 3 & 4 (1,000 teachers total)	$ 2,500,000

9) Total Direct Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Direct Costs (lines 1-8)	$ -	$ -	$1,250,000	$1,250,000	$ 2,500,000

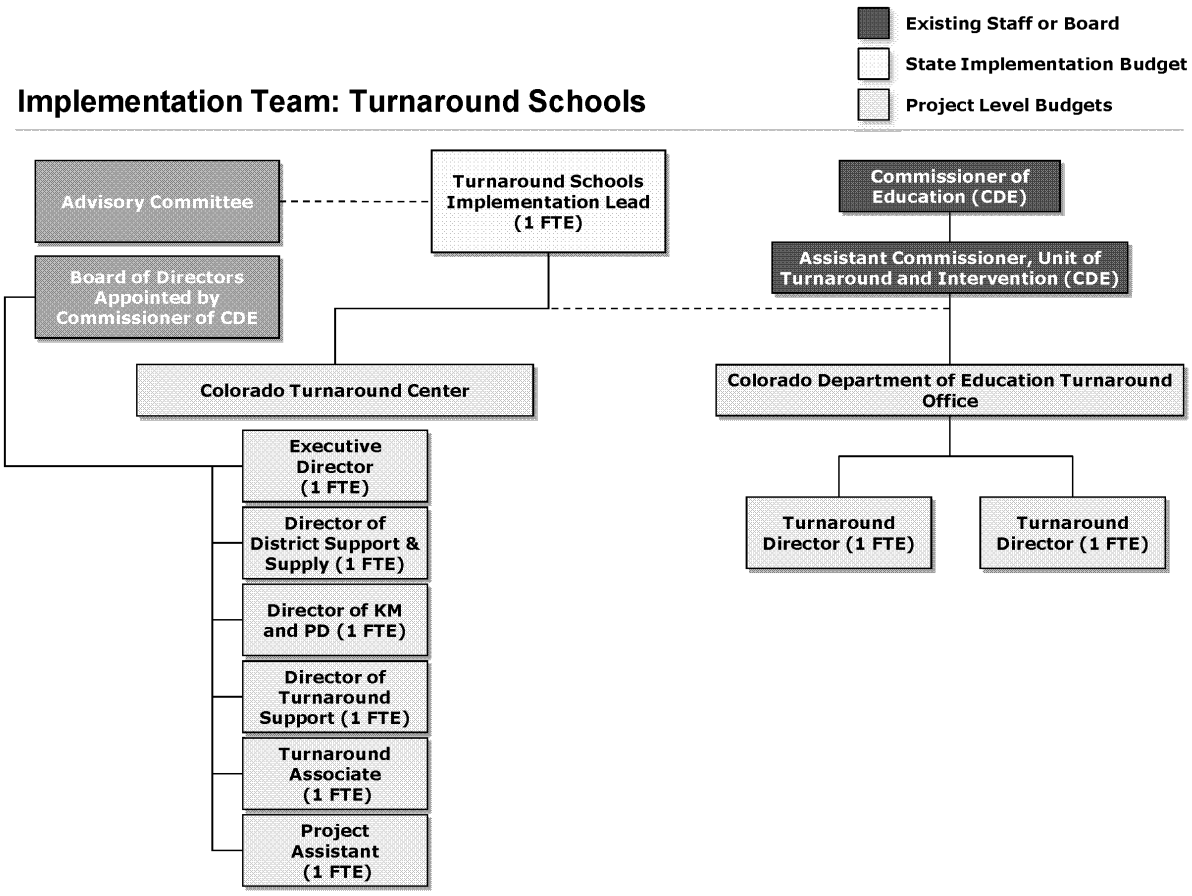
10) Indirect Costs- None

11) Funding for Involved LEAs - None

12) Supplemental Funding for Participating LEAs - None

13) Total Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Costs (lines 9-12)	$ -	$ -	$1,250,000	$1,250,000	$ 2,500,000


Existing Staff or Board
State Implementation Budget
Project Level Budgets
Implementation Team: Turnaround Schools
Advisory Committee
Turnaround Schools Implementation Lead (1 FTE)
Commissioner of Education (CDE)
Board of Directors Appointed by Commissioner of CDE
Assistant Commissioner, Unit of Turnaround and Intervention (CDE)
Colorado Turnaround Center
Colorado Department of Education Turnaround Office
Executive Director (1 FTE)
Director of District Support & Supply (1 FTE)
Director of KM and PD (1 FTE)
Director of Turnaround Support (1 FTE)
Turnaround Associate (1 FTE)
Project Assistant (1 FTE)
Turnaround Director (1 FTE)
Turnaround Director (1 FTE)

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE – COLORADO TURNAROUND CENTER

As a critical component of its strategy for supporting dramatic improvement in the State's persistently lowest-achieving schools, the Colorado Department of Education will oversee and support the creation of the Colorado Turnaround Center to build the supply of human capital and school operators for low-achieving schools, generate and share knowledge about successful improvement strategies and approaches, mobilize an array of supports for students who attend failing schools, and build public support for dramatic change.

The LEA subgrant support for this project is $15.4 million. These funds will go toward incentives to reward and motivate teachers for contributing to a knowledge management system for turnarounds, subgrants for new schools and replication of highly-effective new schools, and additional funding to build out a support program, critical turnaround support services and other turnaround efforts.

Budget Part II: Project-Level Budget Table
Project Name: Colorado Turnaround Center
Associated with Criteria: (A)(2), (D)(4), (E)(2)
(Evidence for selection criterion (A)(2)(i)(d))

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Total (e)
1. Personnel	$ 450,000	$ 457,000	$ 474,850	$ 473,593	$ 1,855,443
2. Fringe Benefits	$ 90,000	$ 91,400	$ 94,970	$ 94,719	$ 371,089
3. Travel	$ 15,000	$ 15,450	$ 15,914	$ 16,391	$ 62,754
4. Equipment	$ 35,820	$ -	$ -	$ -	$ 35,820
5. Supplies	$ 3,000	$ 3,000	$ 3,000	$ 3,000	$ 12,000
6. Contractual	$ 2,085,000	$ 3,717,500	$ 3,687,500	$ 2,833,750	$ 12,323,750
7. Training Stipends	$ -	$ -	$ -	$ -	$ -
8. Other	$ 1,533,700	$ 3,523,700	$ 3,523,700	$ 2,523,700	$ 11,104,800
9. Total Direct Costs (lines 1-8)	$ 4,212,520	$ 7,808,050	$ 7,799,934	$ 5,945,152	$ 25,765,655
10. Indirect Costs*	$ 62,672	$ 62,008	$ 64,306	$ 64,197	$ 253,183
11.Funding for Involved LEAs	$ -	$ -	$ -	$ -	$ -

12. Supplemental Funding for Participating LEAs	$ -	$ -	$ -	$ -	$ -
13. Total Costs (lines 9-12)	$ 4,275,192	$ 7,870,058	$ 7,864,239	$ 6,009,349	$ 26,018,838

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

Budget Narrative – Colorado Turnaround Center

1) Personnel

Description/Rationale	Year 1 Salary (+ 5% Annual Increase)	Allocation per year	# of FTEs	Total
Executive Director will be responsible for the overall leadership and management of the Turnaround Center; expert in the area of turnarounds, another major education reform area, or nonprofit management and has at least six years of experience; will report to a board and be responsible for negotiating details related to the Turnaround Center activities proposed in the plan associated with Selection Criterion (E)(2); salary to be increasingly covered by private funding to the CTC resulting in complete private funding of salary by year 5	$110,000 (reduced to $100K in year 2 & year 3; $80K in year 4 – remainder covered by private funding)	Incurred annually (years 1-4)	1 FTE	$ 390,000
Director of District Support & Supply will oversee the Turnaround Center's activities involving LEA support and supply, as described in Selection Criterion (E)(2) of the proposed plan; expected to have at least three years of leadership experience directly related to turnarounds, another major education reform area, or a nonprofit; will report to the Turnaround Center's Executive Director; starting in year 5, the Colorado Turnaround Center will use private funds to	$80,000	Incurred annually (years 1-4)	1 FTE	$344,810

pay for employee salaries and benefits				
Director of Knowledge Management and Professional Development will oversee the Turnaround Center's activities involving knowledge management and professional development, as described in Selection Criterion (E)(2) of the proposed plan; expected to have at least three years of experience directly related to knowledge management; will report to the Turnaround Center's Executive Director; starting in year 5, the Colorado Turnaround Center will use private funds to pay for employee salaries and benefits	$80,000 (plus a 5% salary increase each year)	Incurred annually (years 1-4)	1 FTE	$344,810
Director of Critical Turnaround Support Services will oversee the Turnaround Center's activities involving support services related to essential elements of turnaround, as described in Selection Criterion (E)(2) of the proposed plan; expected to have at least three years of experience directly related to critical turnaround support services; will report to the Turnaround Center's Executive Director; starting in year 5, the Colorado Turnaround Center will use private funds to pay for employee salaries and benefits	$80,000	Incurred annually (years 1-4)	1 FTE	$344,810
Associates (2) will support the Directors in executing the functions of the Turnaround Center as described in Selection Criterion (E)(2) of the proposed plan; will have a strong track record of successfully executing projects and will report to the Directors; starting in year 5, the Colorado Turnaround Center will use private funds to pay for employee salaries and benefits	$50,000	Incurred annually (years 1-4)	2 FTEs	$431,013

2) Fringe Benefits

Description/Rationale	Applicable Salaries	Employee Benefits Rate	Total
Employee Benefits for Turnaround Center Personnel – calculated at 20% of salary (based on benchmarks)	$ 1,855,443	20%	$ 371,089

3) Travel

Description/Rationale	Travel Cost (+3% annual increase)	Visits per Year	Schools to Visit	Total
Two site visits per year to 40 of the 87 persistently lowest-achieving schools in participating LEAs by a Colorado Turnaround Center staff member who will observe and monitor the turnaround schools (12 1003(g) schools, 8 Mass Insight funded schools, and 20 other turnaround schools); 20 schools @ $100 per visit and 20 schools @ $275 per visit; 3% annual travel cost increase; based on FY10 federal travel per diems for Colorado; more detailed justification for this trip is explained in the narrative for Selection Criterion (E)(2)	$100 per day visit (20 schools); $275 per overnight visit (20 schools); 1 person per visit	2 per visits per school per year	40 schools	$ 62,754

4) Equipment

Description/Rationale	Unit Cost	# of FTEs	Total
Computers: needed to create a new office and supply the needs of new employees; 1 per FTE; one-time cost in year 1	$ 2,200	6 FTEs	$ 13,200
Computer software suite: needed to create a new office and supply the needs of new employees; 1 per FTE; one-time cost in year 1	$ 330	6 FTEs	$ 1,980
Office equipment (desk, chair) for each new employee in the CTC; 1 per FTE; one-time cost in year 1	$ 3,440	6 FTEs	$ 20,640

5) Supplies

Description/Rationale	Unit Cost	# of FTEs	Total
Basic consumable office supplies costing $500 per FTE each year; based on current supply costs within the CDE; incurred annually	$ 500	6 FTEs	$ 12,000

6) Contractual

Description/Rationale	Unit Cost	Rate/Further Detail	Total
Turnaround Consultancy: contracted to conduct research, analysis, or other duties related to CTC activities; the consultancy will consist of a group of nonprofit/university researchers/data analysts who will conduct a limited number of site visits to turnaround schools to gather data and will assess turnaround strategies and performance data to gather lessons learned; incurred annually over years 1-4	$100,000 per year (years 1-4)	Based on competitive audits of similar services	$400,000
Site visits to first- and second-year turnaround schools (40 total: 12 1003(g) schools, 8 Mass Insight funded schools, and 20 other turnaround schools), conducted by consulting vendors to gather data on the effectiveness of critical turnaround support services; occurs one time per school per year over years 1-4 (12 in Y1, 26 in Y2, 28 in Y3, and 14 in Y4)	$12,500 per consultant visits, 1.5 consultant per visit; 80 total visits over four years	Based on competitive audits of similar services	$1,500,000
Site visits to third-year turnaround schools, conducted by consulting vendors, to gather data on the effectiveness of critical turnaround support services; occurs one time per school during years 3 & 4 (12 in Y3, 14 in Y4)	$12,500 per consultant visits, 0.75 consultants per visit; 26 total visits	Based on competitive audits of similar services	$243,750
Contract with competency assessment / validation vendor to assess turnaround school leader effectiveness in conjunction with a financial award disbursed by the CDE Turnaround Office; each turnaround leader assessed annually (12 in Y1, 26 in Y2, 40 in Y3, 28 in Y4)	$5,000 leader per year (106 total over 4 years)	Based on competitive audits of similar services	$530,000
Contract with external vendor to analyze data regarding the effectiveness of turnaround efforts across school sites; incurred annually	$200,000 per year over four years	Based on competitive audits of similar services	$800,000

Direct School Turnaround Funding for Mass Insight Partnership schools as described in Selection Criterion (E)(2) of the proposed plan; incurred annually beginning in year 2 (through year 4)	$250,000 per school for 8 schools per year beginning in year 2	Based on Mass Insight agreement to match state dollars and recommendation to allocate $500K in direct funding for a school turnaround	$6,000,000
Creation of COSMIA, the Colorado Math and Science Innovation Academy, that will serve 400 to 600 high school students as described in Selection Criterion (E)(2); costs are explained in further detail in Exhibit VI.E(2)ii-3	$1,500,000 in year 1, $800,000 in year 2, and $550,000 in year 3	Includes start-up, salary, supplies, materials, infra-structure, professional development, and academic programs	$2,850,000

7) Training Stipends - None

8) Other

Description/Rationale	Unit Cost	Rate	Total
Office space rent: cost of renting office space for each FTE; based on current CDE rent rate; incurred annually	$ 2,300	6 FTEs	$55,200
Telephone service, including landline and mobile service, per FTE; based on current CDE telephone rates; incurred annually	$ 1,650	6 FTEs	$39,600
Funding to support critical turnaround support services (e.g., dropout prevention, parent and community engagement, time and learning, and parent education) in six schools per year from the state share and an additional four schools per year from LEA subgrants resulting in 40 schools receiving critical turnaround support over the four-year grant period; applies only to the 67 persistently lowest-achieving schools in participating LEAs not receiving 1003(g) or Mass Insight funding; 20 of the 24 schools receiving state funding are the 20 other turnaround schools; incurred annually	$250,000 per school	6 schools per year over four years	$6,000,000

Subgrants for a new school / replication program and to build out support programs for five state-funded schools as described in Selection Criterion (E)(2); supplemented by LEA subgrants for funding of four additional schools	$1,000,000 per school	5 schools (two in year 2; two in year 3; one in year 4)	$5,000,000
Colorado Turnaround Center establishment costs: include legal fees and technical assistance costs for 501(c)3 filing	$10,000 in year 1 only	One-time cost	$10,000

9) Total Direct Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Direct Costs (lines 1-8)	$ 4,212,520	$ 7,808,050	$ 7,799,934	$ 5,945,152	$ 25,765,655

10) Indirect Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Indirect Cost – 10.5% of applicable direct costs (including all personnel-related costs and travel costs for trips to turnaround schools)	$ 62,672	$ 62,008	$ 64,306	$ 64,197	$ 253,183

11) Funding for Involved LEAs - None

12) Supplemental Funding for Participating LEAs - None

13) Total Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Costs (lines 9-12)	$ 4,275,192	$ 7,870,058	$ 7,864,239	$ 6,009,349	$ 26,018,838

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE –
COLORADO DEPARTMENT OF EDUCATION TURNAROUND OFFICE

As the second component of its overall approach to intervening in the persistently lowest-achieving schools, the Colorado Department of Education will increase the capacity of its Turnaround Office to mobilize the full authority vested in the State by the Colorado Education Accountability Act and its control of federal and state dollars to create local conditions that are conducive to successful turnarounds. The CDE Turnaround Office will guide and support the work of the Colorado Turnaround Center and provide powerful, aligned incentives for LEAs statewide to engage in the bold action necessary to eradicate chronic low performance.

Budget Part II: Project-Level Budget Table
Project Name: Colorado Department of Education (CDE) Turnaround Office
Associated with Criteria: (A)(2), (E)(2)
(Evidence for selection criterion (A)(2)(i)(d))

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Total (e)
1. Personnel	$ 160,000	$ 168,000	$ 176,400	$ 185,220	$ 689,620
2. Fringe Benefits	$ 32,000	$ 33,600	$ 35,280	$ 37,044	$ 137,924
3. Travel	$ 21,750	$ 22,403	$ 23,075	$ 23,767	$ 90,994
4. Equipment	$ 11,940	$ -	$ -	$ -	$ 11,940
5. Supplies	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 4,000
6. Contractual	$ -	$ 480,000	$ 544,000	$ 480,000	$ 1,504,000
7. Training Stipends	$ -	$ -	$ -	$ -	$ -
8. Other	$ 257,900	$ 532,900	$ 889,900	$ 644,594	$ 2,325,294
9. Total Direct Costs (lines 1-8)	$ 484,590	$ 1,237,903	$ 1,669,655	$ 1,371,625	$ 4,763,772
10. Indirect Costs*	$ 23,910	$ 24,455	$ 25,584	$ 26,768	$ 100,716
11.Funding for Involved LEAs	$ -	$ -	$ -	$ -	$ -
12. Supplemental Funding for Participating LEAs	$ -	$ -	$ -	$ -	$ -

13. Total Costs (lines 9-12)	$ 508,500	$ 1,262,357	$ 1,695,238	$ 1,398,392	$ 4,864,487

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

Budget Narrative – Colorado Department of Education Turnaround Office

1) Personnel

Description/Rationale	Year 1 Salary (+ 5% Annual Increase)	Allocation per year	# of FTEs	Total
Turnaround Directors (2) will oversee the Turnaround Office's activities described in Selection Criterion (E)(2) of the proposed plan; expected to have at least three years of leadership experience directly related to turnarounds, another major education reform area, or a nonprofit; Directors will report to the Turnaround Office's existing Executive Director	$80,000	Incurred annually (years 1-4)	2 FTEs	$689,620

2) Fringe Benefits

Description/Rationale	Applicable Salaries	State Employee Benefits Rate	Total
Employee State Benefits for Personnel – calculated at 20% of base salary	$ 689,620	20%	$ 137,924

3) Travel

Description/Rationale	Cost per Trip (+3% annual increase)	Visits per School	Schools to Visit	Total
Trips by CDE Turnaround Office staff to observe and monitor the 87 persistently lowest-achieving schools in participating LEAs; each school will be visited two times total over the four years of the grant period; one person per trip @ $500 per visit (two days per trip @ $225 per day for lodging and meals + $50 mileage/other expenses); 3% annual travel cost increase; based on FY10 federal rates for Colorado; a more detailed justification for this trip is explained in the narrative for Selection Criterion (E)(2)	$500 per site visit	2 visits per school (total)	87 over four years (174 total site visits)	$ 90,994

4) Equipment

Description/Rationale	Unit Cost	# of FTEs	Total
Computers: needed to create a new office and supply the needs of new employees; 1 per FTE; one-time cost in year 1	$ 2,200	2 FTEs	$ 4,400
Computer software suite: software suites will be needed to create a new office and supply the needs of new employees; 1 per FTE; one-time cost in year 1	$ 330	2 FTEs	$ 660
Office equipment (desk/chair) for each new employee; 1 per FTE; one-time cost in year 1	$ 3,440	2 FTEs	$ 6,880

5) Supplies

Description/Rationale	Unit Cost	# of FTEs	Total
Basic consumable office supplies costing $500 per employee each year; based on current supply costs within the CDE; incurred annually	$ 500	2 FTEs	$ 4,000

6) Contractual

Description/Rationale	Unit Cost	Rate/Further Detail	Total
Contract for an external provider to conduct qualitative evaluations to help 47 of the 87 persistently lowest-achieving schools in participating LEAs determine which intervention option(s) to use (the 12 1003(g), 8 Mass Insight, and 20 other turnaround schools do not receive evaluations)	$32,000 per school (Based on competitive audits of past evaluations)	47 schools over years 2-4	$1,504,000

7) Training Stipends - None

8) Other

Description/Rationale	Unit Cost	Rate	Total
Office space rent: cost of renting office space for each FTE; based on current CDE rent rate; incurred annually	$ 2,300	2 FTEs	$18,400
Telephone service, including landline and mobile service, per FTE; based on current CDE telephone rates; incurred annually	$ 1,650	2 FTEs	$13,200
Financial incentives up to $50,000 for excellence in turnarounds for school leaders who produce exceptional results, as explained in the narrative for Selection Criterion (E)(2); of the 106 turnaround leaders over the four years, 40% are expected to receive an award	$50,000 per turnaround leader; includes an adjustment for a 5% annual increase	106 turnaround leaders x 40% of leaders receiving award over 4 years	$ 2,293,694

9) Total Direct Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Direct Costs (lines 1-8)	$ 484,590	$ 1,237,903	$ 1,669,655	$ 1,371,625	$ 4,763,772

10) Indirect Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Indirect Cost – 10.5% of applicable direct costs (including all personnel costs and travel costs for trips to turnaround schools)	$ 23,910	$ 24,455	$ 25,584	$ 26,768	$ 100,716

11) Funding for Involved LEAs - None

12) Supplemental Funding for Participating LEAs - None

13) Total Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Costs (lines 9-12)	$ 508,500	$ 1,262,357	$ 1,695,238	$ 1,398,392	$ 4,864,487

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE – INNOVATION ACCELERATION GRANT PROGRAM

This program will serve as the "research and development" arm of Colorado's overall reform plan. In close cooperation with researchers selected for this project, the Innovation Acceleration Grant program will identify, select, and rapidly disburse funds to proven school operators that can replicate highly-successful approaches in the persistently lowest-achieving Colorado schools. It will also analyze strategies and results in turnaround schools to identify the critical turnaround support services that contribute most to successful school turnarounds and deploy resources to rapidly scale up those services in a larger number of underperforming Colorado schools.

Budget Part II: Project-Level Budget Table
Project Name: Innovation Acceleration Grant Program
Associated with Criteria: (D)(2), (E)(2)
(Evidence for selection criterion (A)(2)(i)(d))

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

13. Total Costs (lines 9-12)	$ -	$ -	$ 4,000,000	$ 2,000,000	$ 6,000,000

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

Budget Narrative – Innovation Acceleration Grant Program

1) Personnel – None

2) Fringe Benefits – None

3) Travel – None

4) Equipment – None

5) Supplies – None

6) Contractual

Description/Rationale	Unit Cost	Rate	Total
Research and consulting costs to identify, select, and rapidly disburse funds to proven school operators that can replicate highly-successful approaches related to critical turnaround support services and new school supply in the persistently lowest-achieving Colorado schools; year 3 only	$1,000,000 total costs incurred in year 3 only	Based on based on audits of comparable research efforts	$1,000,000

7) Training Stipends - None

8) Other

Description/Rationale	Unit Cost	Rate/Further Detail	Total
Funding to accelerate the expansion of critical turnaround services proven to be effective over the course of the grant period; for $250,000 per turnaround school per year; incurred in years 3 and 4	$1,000,000 per year starting year 3 (when effectiveness data is available)	--	$2,000,000
Funding to accelerate the expansion of new school models proven to be effective over the course of the grant period; for start-up of three innovative autonomous schools; incurred in years 3 and 4	$2,000,000 in year 3 and $1,000,000 in year 4	--	$3,000,000

9) Total Direct Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Direct Costs (lines 1-8)	$ -	$ -	$ 4,000,000	$ 2,000,000	$ 6,000,000

10) Indirect Costs - None
11) Funding for Involved LEAs - None
12) Supplemental Funding for Participating LEAs - None

13) Total Costs

	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
Total Costs (lines 9-12)	$ -	$ -	$ 4,000,000	$ 2,000,000	$ 6,000,000

Budget: Indirect Cost Information

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

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

YES ●
NO ○

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

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

From: 7 / 1 / 2009 To: 6 / 30 / 2010

Approving Federal agency: ___ED _X_ Other

(Please specify agency): Department of Health and Human Services – Division of Cost Allocation

Explanation of Frequently Used Budget Assumptions

Personnel

- A 5% annual salary increase has been applied to all personnel salaries as part of a salary increase pool to account for inflation and merit-based salary increases.

Fringe Benefits

- Benefits were calculated at 20% of annual salary based on current CDE rates and benchmarks.

Travel

- FY10 federal per diem rates for multi-day/overnight travel in Colorado are based on rates to Denver ($66 for meals and incidentals and $158 for lodging = ~$225). Travel rates are increased by 3% per year based on historic increases over the past five years of lodging and meal per diems in Colorado.
- FY10 federal per diem rates for day trips in Colorado are based on rates to Denver ($66 for meals and incidentals). Travel rates are increased by 3% per year based on historic increases over the past five years of lodging and meal per diems in Colorado.
- A mileage / additional expenses allowance is added to all travel costs based on the nature of the activity.

Equipment

- Computers are to be purchased in year one only to supply the needs of new employees. The $2,200 per FTE rate is based on current equipment costs within the CDE.
- A computer software suite will be purchased in year one only to supply the needs of new employees. The $330 per FTE rate is based on current equipment costs within the CDE.
- Office equipment (such as a desk and chair) will be purchased in year one only for each new employee. The $3,440 per FTE rate is based on current equipment costs within the CDE.

Supplies

- Basic consumable office supplies are to be purchased annually for each FTE (and prorated for part time employees). The $500 per FTE rate is based on current supply costs within the CDE.

Other

- Office space rent is set at a $2,300 fixed rate per FTE per year based on the current CDE rental agreement and per FTE cost. The rate is applied to all personnel throughout the budget with the exception of the Project Management Office which will be renting commercial space in Denver.
- Telephone service, including landline and mobile service, is set at $1,650 per FTE based on current CDE telephone rate contracts. This cost is incurred annually

Indirect Costs

- A 10.5% indirect cost rate is used over the course of the grant period. This rate is consistent with the current indirect cost agreement disclosed to Department of Health and Human Services – Division of Cost Allocation and valid through June 2010. Although the rate may vary by year, the CDE identified the 10.5% rate as a likely median over the four-year grant period.
- The indirect costs is applied to salaries, fringe benefits, travel, equipment (excluding furniture), office supplies, rent, telephone, and other costs requiring additional support for general operations.
- The indirect cost rate is not applied to grant distributions, equipment over $5,000 (office furniture), contracts over $25,000, or funding to LEAs.

Release Time

- Teacher release time is calculated on a per day basis per teacher based on the current $22 per hour substitute teacher rate for 10 hours per day. This rate was provided by the CDE.
- Principal release time is calculated on a per day basis per principal based on the current $40 per hour substitute principal rate for 10 hours per day. This rate was provided by the CDE.

Exhibit 1A

Glossary of Acronyms Used in Colorado's Race to the Top Application

ARRA	American Recovery and Reinvestment Act
BizCARES	Business Coalition to Advance Reform of the Education System
BOCES	Boards of Cooperative Educational Services
CTE	Career and Technical Education
CEPA	Center for Education Policy Analysis
CRESST	Center for Research on Evaluation, Standards, and Student Testing
CTLT	Center for Transforming Learning and Teaching
CAP4K	Colorado Achievement Plan for Kids (SB08-212)
CASB	Colorado Association of School Boards
CASE	Colorado Association of School Executives
CCEE	Colorado Center for Educator Excellence
CCABC	Colorado Community Anchor Broadband Consortium
CDE	Colorado Department of Education
CDHE	Colorado Department of Higher Education
CEA	Colorado Education Association
CEEC	Colorado Educator Excellence Center
CLCS	Colorado League of Charter Schools
CSN	Colorado STEM Network
CSAP	Colorado Student Assessment Program
CCS	Common Core Standards
CADI	Comprehensive Appraisal for District Improvement
CCSSO	Council of Chief State School Officers
ECE	Early Childhood Education
EDGAR	Education Department General Administrative Regulations
ESEA	Elementary and Secondary Education Act
ELL	English Language Learners
GED	General Education Degree
HQT	Highly-qualified teachers
HPHM	High-poverty, high-minority
ICAP	Individual Career and Academic Plan
IDEA	Individuals with Disabilities Act
IES	Institute of Education Sciences
IIS	Instructional improvement system
K-12	Kindergarten through 12th grade
LEARN	Laboratory for Educational Assessment, Research, and innovatioN
LEA	Local education agency
MOU	Memorandum of Understanding
NAEP	National Assessment of Educational Progress
NCIEA	National Center for Improvement of Educational Assessment
NGA	National Governors' Association
COLORADO'S ADVANCED PLACEMENT INITIATIVE	National Math and Science Initiative
NCLB	No Child Left Behind
PTA	Parent Teacher Association
P-20	Preschool through grade 20 (post-secondary)

PISA	Programme for International Student Assessment
PD	Professional development
PWR	Postsecondary and Workforce Readiness
RttT	Race to the Top
RFP	Request for Proposal
RtI	Response to Intervention
REAL	Results through Early Advantages in Learning
STEM	Science, Technology, Engineering, and Mathematics
SASID	State-Assigned Student Identifier
SLDS	Statewide longitudinal data system
SBE	Colorado State Board of Education
SMARTER	Summative Multi-State Assessments Resources for Teachers and Educational Researchers
TAP	Teacher Advancement Program
TFA	Teach For America
TIF	Teacher Incentive Fund
TALON	Teaching as Leadership Online Network
TELL	Teaching, Empowering, Learning, and Leading (survey)
TIMMS	Trends in International Math and Science Study

Exhibit VI.A(1)i-1
Education Week Article Describing Public Process

Colorado Pulls Out Stops in Bid for 'Race to Top' Aid

Colorado's aggressive bid for 'Race to the Top' aid sets a fierce pace for rivals.

By Alyson Klein

November 11, 2009, Denver

If the competition for a slice of $4 billion in federal Race to the Top Fund money were a school class, Colorado would be one of the kids sitting up front, furiously taking notes, and leaping up to answer every one of the teacher's questions.

Officials here began plotting their strategy for receiving one of the coveted grants nearly as soon as the Race to the Top program was created in February as part of the American Recovery and Reinvestment Act, the $787 billion economic-stimulus package.

Gov. Bill Ritter, a Democrat, immediately tapped Lt. Gov. Barbara O'Brien to lead the State's effort. She, in turn, convened a series of open meetings to discuss the details of the application, reaching out to everyone from State and local teachers' unions to small-town mayors across the far-flung State.

So far, 650 teachers, business leaders, students, and others have taken part in those sessions, their input bolstered by the views of national experts such as Kate Walsh, the president of the National Council on Teacher Quality, a research organization in Washington.

And Ms. O'Brien and other State officials have been crisscrossing the state, letting district officials know how they will benefit if Colorado gets a grant.

The vigorous outreach campaign is partly to gain an advantage in the high-stakes national competition. States' applications will be judged, in part, on the extent to which they have buy-in from various stakeholders for their proposals. Getting groups such as the State teachers' union on board with those efforts is seen as particularly important.

But there is another reason for the emphasis here on feedback and communication: Given Colorado's tradition of local control, the State's eventual plan for the federal grant money will have to be married to a culture that prizes local prerogatives.

"It's like you teach your children to be independent, then you all have to decide where to go on vacation together," said Monte Moses, a former superintendent of the Cherry Creek school district, near Denver, who is serving as a co-chairman of a committee aimed at exploring how the State could use Race to the Top money to turn around low-performing schools.

Colorado is hardly the only state pulling out all the stops for the Race to the Top, a $4.35 billion grant program created under the recovery act to reward States for making progress on a series of "assurances" oriented to education redesign. (The U.S. Department of Education is earmarking $350 million of that fund to help States develop assessments as part of a nationwide push for common academic standards.)

Across the country, States are rushing to rework their education laws to be more competitive for a share of the funding.

California recently scrapped a law prohibiting the linking of student and teacher data. A number of states have reshaped their charter school legislation. (U.S. Secretary of Education Arne Duncan has said data "firewalls" could

put a state out of the running for Race to the Top grants, and a charter school cap could also weigh against a State's application.)

States have also put administrative and political muscle behind the effort. Oklahoma Gov. Brad Henry, a Democrat, named a chief of education strategy and innovation, a position created chiefly to pursue competitive federal grants made available under the stimulus package—particularly the Race to the Top. And Rhode Island has set up a 23-member steering committee on Race to the Top that met for the first time in September. The State is also holding community forums on the program.

But Colorado has gone further, setting up four such committees, each concentrating on one of the assurances specified in the stimulus law. They focus on low-performing schools, teacher and principal quality and distribution, State data systems, and standards and assessments.

The panels are led by business and community representatives, as well as staff members from the SBE. But Lt. Gov. O'Brien has been clear that the ultimate authority for the application rests with Gov. Ritter.

"They've been told over and over again that the State is looking for the best ideas, and the ideas have to be able to be woven together into an organic whole," she said in a recent interview, calling it a "Darwinian" process in which the best ideas will rise to the top.

Educators and policymakers in Colorado have credited the meetings with helping to accelerate discussions that they say were badly needed to advance reforms to education. They say the agenda they've begun to outline will go forward, with or without the Race to the Top resources—though the federal grant money would offer a big boost.

"We've had a lot of good ideas floating around the State for a long time, but we don't have any money to implement them," said Kelly Hupfeld, who works as an assistant dean at the University of Colorado Denver's school of public affairs, which is lending technical support to the State's effort. "This is a chance for us to really accelerate all of the things that we've been talking about."

The meetings have also provided a forum for considerable State collaboration with a key constituency: the Colorado Education Association. The union is an affiliate of the 3.2 million-member National Education Association, which lambasted the draft regulations for the Race to the Top.

Elsewhere, some teachers' unions, such as the State organization in Montana, have tried to dissuade their States from even applying for the program. But the NEA's nearly 40,000-member Colorado affiliate is sending representatives to each of the working groups to make sure the union's voice is heard.

The State union remains open to some ideas that could become part of the final application, such as providing districts with a new, model teacher-evaluation system, as long as student test scores aren't the only factor used, said Linda Barker, the director of teaching and learning for the CEA.

"It's so important that it doesn't become us against them," Ms. Barker said, referring to the union and the State. "Being part of the solution, part of the decision-making process, is better than just reacting to it."

The meetings are only one piece of an ambitious outreach effort aimed at getting broad-based support—and district buy-in—for the State's bid. In coming weeks, Ms. O'Brien, Commissioner of Education Dwight Jones, and others will be taking the Race to the Top show on the road, traveling to remote parts of the State and also selling the program to influential groups in the Denver metropolitan area.

On a recent morning in Denver, Ms. O'Brien addressed a group of mayors from around the State at the offices of the Denver Metro Chamber of Commerce. She explained the program to them and the opportunity she said it presents for Colorado.

"The ripple effects of this could be enormous," in helping to educate Colorado students to compete in a global economy, she said.

But the lieutenant governor paired the inspirational rhetoric with tough talk, telling mayors that districts that sign on to the proposal will "have to embrace charter schools." And she said that, as part of its application, the State would have to commit to turning around 88 of its lowest-performing schools.

"If you don't know what it's like to turn around a low-performing school, you don't know how frightened you should be and how frightened your school boards should be," Ms. O'Brien said.

The mayors peppered her with questions, including whether more charters would be necessary and how local leaders could help get the word out to their communities about the Race to the Top program.

"You can be talking to your school boards about being more flexible about these ideas," Ms. O'Brien answered. She said districts sometimes are "insular" in their policies and may need encouragement to embrace the kind of change needed for a successful application.

So far, about 95 out of 178 school districts Statewide have signed letters of intent signaling that they want to be part of the State's effort. But their participation will be contingent on the State's final plan.

The lieutenant governor and others aren't expecting everyone to jump on board. "It's totally voluntary for them to participate," Ms. O'Brien said. She said she would be "OK with" some districts opting out.

"We want to focus on the ones that want to change" and those that need the most help, she said. "If we end up with 12 or 15 that are really heavily invested in this, we'll be happy."

Wayne Graybeal, the superintendent of the 1,600-student Lamar school district, in the southeastern corner of the State, gives State officials high marks so far for their willingness to communicate. Still, he hasn't yet signed the letter of intent, in part because he's worried the State's plan could eventually amount to an unfunded mandate.

"If we value local control, we need to be very careful in accepting those carrots [from the federal government], because along with the carrot comes the stick," Mr. Graybeal said.

If the State wins a Race to the Top grant, the money will indeed come with strings attached. Some would have to be allocated to districts based on the formula for distributing Title I aid for disadvantaged students. But it's unclear whether Race to the Top money would flow to all districts that receive Title I aid, or just those that signed on to the State's proposal.

And it isn't clear from the federal guidance just how important it will be to a State's application to get a majority of districts on board.

Colorado would hope to use Race to the Top funding in part to carry out laws passed in recent years that appear to be in line with some of the policies Secretary Duncan is trying to advance through the program.

For instance, the State recently revamped its academic standards. It developed and adopted a "growth model" for gauging achievement to give a better picture of individual student progress. And it has a number of school districts that are using alternative pay plans for teachers.

It also has a new "innovation" law, allowing schools to opt out of certain requirements, including collective bargaining, if a certain percentage of the staff approves. That measure maybe cited in the State's Race to the Top application as a way to help turn around low-performing schools.

If Colorado is tapped for a federal award, officials here say, the State may create a computer-based test that could include a formative component to help teachers get a "real-time picture" of their students' progress toward meeting the new standards. And the State may use some of a grant to improve its data-collection system.

Gov. Ritter has already steered some federal stimulus aid toward the State's goals, including $500,000 to develop its first educator-identification system. That money was augmented by $400,000 in private funding.

Mr. Ritter also slated an additional $1.5 million to expand the State's corps of educators from the Teach For America program, a New York City-based nonprofit organization that places new college graduates in teaching jobs in under resourced schools. And he pumped $2.5 million into an effort to enhance the State's data system to better measure individual student progress.

And, although few mention it here, some are wondering whether the State's chances of winning a Race to the Top grant may be enhanced by its status as a "purple State," where both the Democratic and Republican parties have proved competitive.

Gov. Ritter himself is facing an expected uphill battle for re-election in 2010, along with a fellow Democrat who is closely identified with education issues, U.S. Sen. Michael Bennet. The governor named Mr. Bennet, then the Denver schools chief, to fill a Senate vacancy this year.

President Barack Obama, who won the Centennial State last year, may need to repeat his victory here in his own re-election bid in 2012. He traveled to Colorado last winter to sign the stimulus legislation into law.

"I'm crossing my fingers," joked Lt. Gov. O'Brien. "I would love to think this process is politicized."

But she said she'd heard Secretary Duncan was making sure those reviewing the Race to the Top applications wouldn't have conflicts of interest.

"We're not leaving it to chance," she said of Colorado's effort to win one of the grants. "We're just going to write the very best proposal we can."

Article can be referenced at:
http://www.edweek.org/ew/articles/2009/11/11/11colorado_ep.h29.hl?tkn=PRYFg7HPorYonTPCHcPWyrjLCS8upOapUC5a&print=1

Exhibit VI.A(1)i-2
Forward Thinking Plan

"FORWARD THINKING"

The Voice (and Future) of the
Colorado Department of Education

Colorado State Board of Education Strategic Plan

Mission: Provide all Colorado children equal access to quality, thorough, uniform, well-rounded educational opportunities in a safe, civil environment.

Vision: All children in Colorado will become educated and productive citizens.

Goals and Objectives

1. **Fulfill the role of the State's chief educational authority.**
   - Lead the conversation on evolution of the public education system
   - Positively and proactively impact State and federal legislation
   - Strengthen partnerships with and leadership in educational community
   - Optimize and responsibly exercise authority

2. **Maintain commitment to and support of accountability reform/accreditation.**
   - Develop and advance a plan to close the achievement gap
   - Prioritize, increase and coordinate resources to support field services
   - Lead in implementing, connecting and coordinating State standards
   - Advance collection/use of relevant, objective data about public education
   - Encourage the integrated delivery of educational services

3. **Take lead in improving long-term financial stability of educational funding.**
   - Play a constructive role in creating comprehensive school finance plan
   - Participate in the prioritization and protection of budget (including libraries)
   - Continue to lead and educate public about the School Lands Trust issue

4. **Improve educator quality, recruitment, retention and placement.**
   - Improve quality and accountability of educator preparation programs
   - Support professional development to increase achievement (teacher quality)

5. **Improve choice opportunities for Colorado students.**
   - Increase access to online educational programs
   - Increase accountability of online programs through accreditation
   - Implement accountability measures that apply to all choice models
   - Adhere to position Statement on Principles of School Choice

The CDEConcept Statement

To create a purpose-driven and dynamic system of educational leadership, service, and support that relentlessly focuses on the learning of ALL students

In a way that provides:

1. Guidance and support to meet district and school needs

2. Professional development in best practices

3. Tools to eliminate gaps and increase achievement for all students

4. A seamless, collaborative leadership system with intentional intensity, urgency and impatience

5. Efficient and effective use of federal, State and private funds

6. A reliable source for research, data, and analysis envied by all professionals

7. A model for building expanded leadership capacity

So that the CDE is a desirable place to work, agile and proactive in responding to ever-changing conditions, and is recognized as the premier source of educational leadership.

Executive Summary

It's a phrase on everyone's lips: "It is a new day in Colorado."

"Forward Thinking" marks a transition in the life cycle of the Colorado Department of Education. With a change in leadership comes a chance to create context, present possibilities and envision new futures. What does it mean to be well- educated? What are the opportunities? How does the State navigate the challenges? What will ensure high standards for all, not just a talented or privileged few? What kindles engagement and meaning in young people? How does the guarantee that school is a passport to a better life for students, a place where dreams become reality for *all* children? How can the department make its greatest contribution?

This plan begins to provide answers those questions and others like them. While safeguarding institutional knowledge, this plan seeks to enhance the positive effect the department has on public education through fresh ideas that will drive and shape new endeavors, priorities and partnerships.

The immediate objective of "Forward Thinking" is to stabilize the department during a transition in leadership. Yet its primary purpose is to challenge the department to grow in ways that advance K-12 education in the State and better serve the needs and interests of students.

Intended to complement P-20 efforts already underway, "Forward Thinking" strives to improve the education of young people by moving forward on a variety of fronts, including:

- Creating private-public partnerships that enhance the growth of K-12 education
- Establishing a Legacy Foundation (funded privately which serves K-12 interests
- Revising standards and assessments (initially funded without taxpayer dollars)
- Hosting a Summit for Colorado leaders to collaborate in addressing education issues
- Improving conditions that contribute to success (especially poor and minority)
- Setting quality standards for the provision of online education programs
- Enhancing the system of support for schools through model curriculum
- Introducing a Council on Innovation and Entrepreneurship to see that critical industry skills are embedded in standards
- Establishing a Legacy Scholars program to provide scholarships that underwrite the tuition for 100 top seniors who agree to enroll in Colorado colleges in exchange for service after graduation in hard-to-staff teaching assignments
- Restoring CDE reputation by modeling self-improvement, i.e., publicizing the results of annual stakeholders surveys
- Creating a Futures Center to support development of a vision for public education
- Making budget processes transparent and understandable
- Applying discretionary dollars to areas of greatest academic need

- Improving the collection, reporting, and management of data

"Forward Thinking" builds on and is organized around a concept Statement that the CDE staff developed in July 2007 (see page 5). Goals in this plan are linked to the strategic plan that the State board of education has adopted (see page 4 and Appendix A). They also align with priorities of the P-20 Council (see Appendix B).

The first section of this document, "Background," sets a foundation, anchoring what follows with a rationale for change and the need for improvement. "Analysis" provides a bridge to a call for action, while "Goals" identifies actions steps that set the direction for the department to accomplish objectives in the strategic plan. Lastly, "Focus on Organizational Alignment and Change" paves the way for the next generation strategic plan.

Background

What must the department of education do to ensure Colorado students are academically successful? How will the department of education focus efforts in the near future while long-range plans gain traction?

"Forward Thinking" answers these questions. Its purpose is to engage the imagination of CDE staff and enlist their commitment to goals and plans that are designed to yield greater student success. The desire among staff for personal excellence and organizational improvement creates the healthy tension needed to spark change.

The urgency is real. Of all the reasons to justify change, the most compelling is that it is our moral responsibility. Without improvement, children suffer. With change, the future brightens for both students and our society.

Since the inception of standards and assessments, K-12 education in Colorado has enjoyed modest success. Greater focus has been placed on the plight of children as standards have sharpened expectations about what it means to be well-educated. Greater attention to the topic has helped marshal more support for needed resources. Nonetheless, there are good reasons to rethink the assumptions that inform belief and guide action at the department of education.

At a very minimum, students must be able to read, write and compute at grade level. More is needed though, especially given the rapidly advancing pace of life and commerce. Educators must be able to equip young people for success in life, work or the next level of schooling. Students must be prepared to compete in an international marketplace.

The challenge of preparing all students for academic success on State assessments is daunting for many Colorado schools. Yet with a system of standards in place for 13 years (and assessments for 10), Colorado has had adequate time to show it can improve. Despite that, sustained success proves elusive.

Though the existing system addresses the current requirements of federal law, two questions remain. Is this enough? And, as one Coloradoan has observed, can anyone really claim we have adequately prepared young people even if they all were proficient on every CSAP test?

This much seems certain: "The organization we currently have is perfectly designed to deliver the results we currently get" (M. Fullan, public comments, Aug. 2, 2007). Achieving greater success requires re-evaluating how well all aspects of CDE operation provide benefit to students. In some cases, achieving greater success may require retooling and adopting new ways of doing business.

As CDE undertakes change in 2007and 2008, it is appropriate to recall that an organization which bases its culture on learning welcomes change and uses reflection, inquiry and calculated risk-taking to improve its ability to achieve its mission.

Others echo the sentiment. "You have to have a learning organization where people thirst to do everything better every day. They draw on practices from everywhere and push them to ever-higher levels of effectiveness. Without a learning culture, sustainable competitive advantage will not last" (Welch, 2005).

The recommendations (drawn from Mintzberg) that follow arise from two assumptions:

- Meaningful, sustained change arises from a healthy dissatisfaction with status quo.
- Improvement is more about changing hearts and minds than policies and practices.

1. **The wise exercise of CDE's ability to apply resources depends upon clarity with respect to roles and responsibilities:**
   - Taxpayers own our schools.
   - Students and parents are our clients.
   - Districts, universities, businesses and foundations are our partners.

2. **Four beliefs guide action and provide a foundation for recommendations that follow:**
   - Openness and transparency create understanding and trust
   - Coherence builds meaning and commitment
   - Creativity, critical thinking and receptiveness to new ideas stimulate learning.
   - Collaboration makes it possible to achieve more than individuals can achieve alone.

3. **There is a frame for this conversation, and it involves educational accountability. Educational accountability is vital for a variety of reasons:**
   - It brings transparency.
   - It helps ensure resources align with priorities.
   - It answers basic questions, including who is responsible to whom and for what?

4. **The common wisdom is that three factors drive the educational accountability discussion:**
   - *NCLB* (Adequate Yearly Progress, Highly Qualified Teachers and school choice)
   - School Accountability Reports (SARs)
   - Accreditation

At the same time, in the shadow of the Rockies educational accountability has taken on a distinctly Colorado flavor. While other States and locales have their own unique twist, educational accountability in Colorado must be viewed – for better or for worse – against the backdrop of a strong tradition of local control.

As it has unfolded in Colorado, the "theory of action" that guides and informs educational accountability in this State has come to rest on three pillars:

1. Individuals and systems thrive when:
   - Performance standards for students, staff and systems are defined.
   - Evidence of achievement is measurable.
   - A method for improvement exists.
   - Evaluation of the system takes place routinely.

2. Public disclosure of results helps improve instruction and learning by showing how accomplishment compares with expectation. It prompts educators, students and parents to focus energy and attention on the right work.
3. Learning improves when resources align with needs, when capacity is expanded through high-quality professional development, and when incentives reward creativity and support the pursuit of excellence.

Analysis

The June 2007 audit of CDE revealed a mismatch. "The primary function is related to compliance and monitoring" yet "the primary purpose of CDE is service and support." The implications are clear. "Function should follow purpose" and "the organizational structure should [be designed] to accomplish the primary purpose: service and support to schools."

As a result, CDE must focus on building capacity. Sustained improvement requires a shift from sorting and compliance to efforts aimed more at capacity-building. This is not an abandonment of the regulatory function. Nonetheless, service in the future must focus on supporting local efforts to build capacity in ways that better equip professionals in the field with the tools they need to enhance student success.

The overarching goals are the following:

- The K-12 system must not sort students according to their perceived probable destinies.
- The intent is to help students achieve their dreams, to ensure they become more than they initially thought they could be.
- The public education system in Colorado must promote high standards for all, not just a talented or privileged few.
- The purpose and effect of the K-12 education system in Colorado is to maximize talent, not reinforce advantage.

One yardstick must gauge system adequacy:

- Enhancing student performance and eliminating gaps is the measure of success.

The key to enhanced system performance is a laser-like focus on a few high leverage points:

- Because people are our greatest resource, success hinges on building staff capacity.
- School choice plays a healthy role because it gives parents a way to match programs to the needs of their students.
- Colorado's education system must be both well-adapted to current conditions and adaptable to changing conditions.

Improvements at CDE can translate into improvements in the performance of the Statewide K-12 system if:

- The initiative is taken to prepare the way for the next generation of standards and assessments.
- More attention is focused on doing what works instructionally (CDE-sponsored research will help).
- CDE structures and processes that fail to add value are revised and streamlined (e.g., data management).
- CDE collaborates with the field to a greater degree than it has in the past.

This plan represents a shift in thinking. Collaboration and interdependence are necessary to create a strong system that supports and builds upon each school's improvement plan. While CDE's past association with the field was typically a "power over" relationship, more will be accomplished through a "power with" relationship.

To that end, this plan proposes to leverage scarce resources through:

- Closer partnership with various organizations
- A rank-ordering of priorities within the Colorado Department of Education
- Repair of the State reputation by making department and State board operations more transparent and open
- Sponsorship and publication of research that uses Colorado data to illuminate program strengths and weaknesses
- Tightened priorities so that emphasis is on the high-leverage points that match up well with the new vision and beliefs

The department of education will emphasize five non-negotiable:

- Narrowing and eliminating the achievement gap
- A continued and expanded focus on literacy
- Ensuring all children quality instruction
- Continued emphasis on high standards and rigor
- Graduating college- and/or workforce-ready high school students

Other areas requiring attention:

- Integrity of online schools
- School funding
- Early childhood education (i.e., elimination of preschool wait lists and provision of full day kindergarten)
- P-20 and a partnership between K-12 and higher education
- Adequate facilities

Taken all together, these set the stage for the seven goals on which the department will focus.

Goals

The seven goals that constitute the heart of "Forward Thinking" are organized around a concept Statement that the CDE staff developed (see page 5). References are also included showing how these goals connect to and support the strategic plan that the State board developed and approved (see page 4).

1. Provide guidance and support to meet district/school needs.

a. Develop a department mission that espouses service and support to the field.

Context: "Where there is no vision, the people perish" (Proverbs 29:18, KJV). Strategy follows vision. Tactics follow strategy. The first step is to develop a public commitment to service and support.

b. Enhance the CDE brand by publicly reporting how well stakeholders perceive that the "brand experience" matches the "brand promise"; i.e., that CDE delivers on its espoused mission of service and support to the field.

Context: With the mantle of leadership comes a responsibility to model a commitment to ongoing improvement. The public disclosure of yearly survey results provides a metric of customer satisfaction that can be used to gauge progress.

2. Enhance professional development involving best practices.

a. Design and implement a more consistent and comprehensive Statewide system of support that helps schools and districts build the capacity needed to achieve ambitious student outcomes.

Context: Before students can be more successful on more challenging material, greater attention must be directed to supporting than to sorting. Presently, the current system focuses inordinately on labeling schools that are challenged and that struggle to be successful. Department structures should be revised so greater attention and energy is devoted to preparing students for life, work, or the next level of schooling. To enhance the system's capacity to provide educators in the field with high-quality technical assistance and support, the department should: (1) attract, develop, and retain talented individuals with content area expertise; (2) partner with districts, foundations, universities, and professional organizations to develop technical aid; (3) step up outreach so practitioner needs are systematically assessed and services are provided in a more timely way; and (4) provide education-based tools to enhance student learning and information access. Restore the credibility of the department by enlisting top experts in the country who have unimpeachable credentials and no record of ideological bias to serve on the technical advisory panels which the department convenes for the purpose of studying the validity, reliability and/or adequacy of standards, assessments and practices.

Context: Whether perceived or real, the department must courageously confront and manage a

public image many view as compromised.

c. Provide more and better support for content- and curriculum-based efforts through the acquisition and development of in-house expertise in math, reading, science, writing, arts (including music), social studies and languages.

Reference: This aligns with the State board's strategic plan:

SBE Goal: Improve educator quality, recruitment, retention and placement

SBE Objective: Support professional development that increases achievement through efforts to enhance teacher quality

d. Enhance support to smaller and more rural schools and districts through a partnership with the Boards of Cooperative Educational Services and do so in a way that makes it feasible for more BOCES to offer a full array of services, to include:

- Special Education and Response to Intervention (RtI is a particularly effective set of instructional strategies)
- Exceptional services (Gifted and Talented, SWAP, etc.)
- Professional development training programs, including induction and alternative teacher licensure
- Specialized programs, including migrant educational services, English language learning, career/technical education and programs for at-risk students
- Instructional support for improvement planning, research, assessment services, distance learning and curricula
- Technology support for the media, communication, data processing and digital library resources
- Business services to include assistance with grant proposal writing, management of funds, regional transportation and shared purchases
- Recruitment and support

Context: The mission of providing more and better service to the field can be an enormous undertaking. While CDE may not be prepared to do it all, the department can help bring it all together through more effective partnering with entities that already have the necessary infrastructure. More specifically, the department envisions supporting: (1) the expansion of BOCES operations from 8 to 12 providers; (2) the provision of professional

development especially that which is geared to preparing teachers for hard-to-staff positions; and (3) the training that is needed to help Response to Intervention (RtI) gain traction.

3. Develop tools to eliminate gaps and increase achievement for all.

a. Support districts and schools in ways that eliminate and narrow the race and income gap.

Context: This plan is meant to provide guidance with respect to identifying factors to close the achievement gap in Colorado. Factors to be considered include, but are not limited to:

- Achievement gap managers
- Addressing gaps early
- Understanding data
- High expectations
- Quality teachers
- Professional development
- Leadership
- Race, poverty and cultural competencies training
- More time for learning
- Literacy focus

- Research–based best practices
- Family and community involvement
- After-school programs
- Increased and aligned resources
- Health and nutrition
- Technology
- Collaborative library services

For the purpose of this plan, the achievement gap is defined in two ways – the racial gap and the income gap. Some have offered explanation (Richard Rothstein, WestEd). "How much money a family has, or a child's skin color, should not influence how well that child learns. If teachers know how to teach and if schools permit no distractions, then children should be able to learn, [regardless of] their family income or skin color." Many if not most observers conclude that the achievement gap is the fault of poor schools because it is uncharacteristic to think otherwise. Yet a family's income or a child's race should not influence how well that child learns.

Without question, there are other ways to define "achievement gap." Certainly for the purpose of calculating AYP, the federal government finds it useful to make distinctions based on a child's status with respect to English language learning (ELL) and with regard to whether a child has an Individualized Educational Plan (IEP). Others might argue that the gap that matters most is the one separating a student from the expected learning target (and hence is criterion-based). Nonetheless, for the purposes of this work, CDE has determined that narrowing the gaps attributable to income and race is a praiseworthy venture. It should not be interpreted as diluting the commitment of the department to the gaps that separate the achievement of other subgroups, including but not limited to gender, Special Education, ELL and others. Further, the department recognizes that there is significant overlap between poverty and some subgroups, such as those served by migrant educational services (more specifically, approximately 72 percent of migrant students in Colorado also qualify for free or reduced lunch).

Research has shown that there are a number of external factors that correlate with student achievement; some can be addressed through the educational environment, and others, for the most part, cannot. Factors affecting student achievement that stem from poverty include low birth weight, lead poisoning, and hunger and poor nutrition (Barton, 2004). Parent availability as a role model or as an active participant in a child's education is frequently limited in low-income families. Student mobility – moving from school to school, as parents seek work or affordable housing – occurs more frequently with children from low-income families. Students who change schools frequently also do poorly on tests and are more likely to be below grade level in reading and math than their counterparts who do not change schools (Barton, 2004).

Policymakers almost universally conclude that persistent achievement gaps must result from wrongly designed school policies – low expectations, teachers who are insufficiently qualified, curricula that are badly designed, classes that are too large, school climates that are too undisciplined, leadership that is too unfocused or any combination thereof.

This exclusive focus on schooling is wrong. Without complementary investments in early childhood preparation, health care, housing, after-school and summer programs, and other social and economic supports, the achievement gap will never be closed (WestEd, 2006).

The intent of the department is to establish an achievement advisor who can provide on-site consultation to locations that struggle. The desire is to offer local districts some flexibility regarding who the advisor may be (CDE would pre-qualify the candidates for this role). Once selected, the advisor would work with district leadership to identify three or four high-leverage points that would constitute the heart of an improvement plan.

The advisor's primary role would be to help the local superintendent ensure that improvement plans are well-conceived, focused, coherent and capable of delivering desired results.

A **no excuses approach** in tandem with research-based best practices does matter, as do well-designed, well-staffed schools. But reform must also take place in the world outside of schools so that children are supported and prepared to learn. It will take courage and it will cost.

b. Design, detail and disseminate model curricula and related assessment tools that districts may voluntarily use and that are aligned with research, proven to deliver results and supported through vendors that are competent providers of technical support.

c. Identify and implement incentives that make it easy for districts to adopt and use model curricula (and related assessment tools) that the department has developed and offered.

Context: The key is to sustain our commitment to the things that are known. As Fenwick English is fond of saying, "Avoid the tyranny of half measures." From Doug Reeves we know that systematic implementation of a few things beats superficial implementation of many things. Effective approaches include:

- Developing a close alignment between standards, curriculum, instruction, and assessment
- Deep content analysis including big ideas and essential questions
- Monitoring that is frequent and visible
- Writing and note-taking
- Use of questioning strategies, cues, and advance organizers
- Tools that help students build meaning (metaphors, analogies, etc.)
- Interdisciplinary assessment
- Instructional strategies that include comparisons and questions
- Practices that build student engagement (recognition of achievement)

d. Support to creative, innovative and high-quality choice solutions that are capable of efficiently delivering results.

Context: In order for students to acquire a quality education, the system must include a variety of opportunities and methods for learners of all ages. Empowering families to choose among schools has several benefits:

- Increased choice can have a positive effect on student achievement and closing the learning gap.
- Increased choice can help engage families in the education of their children.
- Increased choice can result in additional educational opportunities for innovation.

4. Implement a seamless, collaborative leadership system with intentional intensity, urgency and impatience.

a. Revise how schools and districts are labeled via accreditation so the label stigma is removed. Doing so will provide information that is more informative, helpful and fair to persistently lowest-achieving schools, and the results will more likely funnel resources toward schools and programs with the greatest need.

Context: Within the boundaries set by law and rule, alter the labeling process so it has a salutary effect on schools and districts. Provide alternatives to "watch" that promote partnership between districts and the department and which invite educators to help others learn from their experiences. Accomplish this by developing an "early warning system" that identifies and funnels resources to schools that are thriving at present, but which may soon begin to struggle. Take steps that better align rules concerning NCLB with accreditation, which will result in more consistent signaling and communication. For instance, consistent with federal discussions that call for differentiating the approach to AYP labeling, use percentages to describe how well schools and districts achieve accountability targets.

b. Develop and implement a revision of standards and assessments so clear expectations exist for P-3 learners. Such revisions must also occur so that opportunities and outcomes for K-12 students are enhanced and so that students exiting high school are prepared for success in life, work or the next level of schooling.

Context: With the growth of international markets, global expectations often trump State and national standards. At the same time, there is a growing mismatch. Workplace requirements are not well aligned to the skills schools teach. Content proficiency is necessary but not sufficient. Skills matter. Critical thinking, creativity and international mindedness are important. World languages grow in importance. It is said that "the top 10 jobs that will be in demand in 2010 didn't exist in 2004. The State is preparing students for jobs that do not yet exist using technologies that have not been invented in order to solve problems the State does not yet know are problems" (R. Riley). To prepare students for such a future, it is vital to lay the foundation for the next generation of standards and assessments. In the course of developing these standards and assessments, attention should also be paid to expectations the State wants its youngest learners to meet.

5. Make efficient, effective use of federal, State and private funds.

a. Make budgeting transparent and understandable so that beginning-of-the-year budget allocations and monthly reports budget managers receive heads at the show revenue by source and expenditure by function. Further, this should be done in such a fashion that it is clear to see which funds are compliance dollars and which are discretionary. Colorado needs a clear and easy distinction drawn between earmarked, specific-purpose funds – monies that are committed by law or rule and are strictly for use for compliance purposes – and those funds that are not committed by law or rule and are thus discretionary.

Context: Without tools that make it possible to see across all accounts within a span of control, it is extremely difficult for senior staff to know whether scarce resources are being leveraged in the most sensible fashion. Without tools that provide an accurate view of the ebb and flow of revenue and expenditure, managers are hindered.

b. Design and implement a position control system at CDE to manage (initially through workflow changes and later via software) human resources that provide staff with tools needed to align human resources to the highest priorities of the department. The system will meet these criteria:

- Conform to rules and laws regarding chart of accounts
- Address vacancies as well as new positions (both exempt and non-exempt)
- Guarantee accurate tracking of costs for any given position despite turnover that results in different personnel holding the same position
- Include a mechanism for adapting to new laws that impact position control and management
- Generate an auditable paper trail backed by source documents
- Include internal monitoring that provides checks and balances between and among

Human Resources, Finance and Payroll

- Prevent conversion of salary and benefit funds for other purposes and bar commingling of general funds with capital funds, reserved funds and the like
- Ensure a balanced budget with respect to human costs insofar as personnel expenditures for a given fiscal year are always less than revenues for the same fiscal year (i.e., fund accrued salaries)
- Make provision for employment of employees who may be funded via grant or "soft" money
- Produce on-demand and in real time an accurate and comprehensive list of staff within each division at the department by name, position and funding source
- Produce a list of mismatches between "what should be" according to FTE by funding source and "what is" according to FTE by actual payroll figures
- Be usable

Context: With the great majority of department funds (aside from those funds that flow directly to schools under the Public School Finance Act) flowing into compensation and benefits for salaried employees and into compensation for contracted service providers (i.e., purchased services), it is essential to know who is where. While the task of gaining position control can be considerable, it is vital to the health of the organization.

c. Develop a consistent, comprehensive Statewide system of discretionary department funding for schools that reflects priority based on student need.

Context: In part, this involves increasing the freedom which exists to reallocate fiscal resources. As some other State departments of education have done, this creates opportunities for blended State and federal funding. This also concerns a needs-based resource allocation model where funds follow academic need. Two key understandings provide a foundation. First, not all academic needs are equal. The first commitment is to help students who are not proficient to catch up. The second commitment is to help others keep up and continue to move to even higher levels of performance. In defining need, attention shifts (within limits of law and rule) from at-risk categories like SES and ELL to academic categories like unsatisfactory, partially proficient and proficient. Students persistently lowest-achieving to catch up to attain proficiency will have a greater claim to resources than those students who are already proficient. Similarly, those who are proficient but do not keep up have a greater claim to resources than those who keep up.

d. Implement quality standards for the operation and administration of multi- district online educational enterprises and develop the infrastructure (policies, procedures, curriculum, practices and management tools) needed to support this effort.

Context: The demand for choice intersects with new technologies to challenge old notions of how education is delivered. The proliferation of online learning raises questions about how to ensure both excellence and equity in a virtual education environment. Pursuant to S.B. 07-215, this effort will culminate in a uniform template for the implementation of multi-district online undertakings.

6. Become a reliable source for research, data, and analysis that is envied by all professionals.

a. Revise the data management, tool development and research request process in ways the field finds useful.

Context: The aim of this goal is to:

- Eliminate redundancies in reporting and documentation
- Make it easier for educators to access and manipulate instructionally-

meaningful data
- Enable practitioners to use data to inform decision making at school-level and instructional level
- Make data more accessible to researchers so they can determine what works or not, for which students, under which conditions, how much, and why
- Move the department into an enterprise data model that brings the many databases at CDE under a single umbrella and removes the need for "digital ditchdigging" that seeks to lay pipes so information can flow between different databases

b. Increase the reliance on longitudinal data within the State system of educational accountability.

Context: There is widespread agreement about the importance of achieving universal proficiency and year-to-year growth of students. To this end, the first concern is to help those who are not proficient to catch up. Then it is to help those who are proficient to keep up. Finally, it is to ensure all students move up to the advanced end of the achievement range.

7. Define, detail and implement a model that builds and expands leadership capacity.

a. Define, detail and implement network of distributed leadership within CDE that includes a "Principal Center," a "Superintendent and School Board Center," a "Futures Center" and a "Coaching Center."

Context: **The Principal Center** – An entry-level training program for practicing principals designed to help them earn their professional certification

The Superintendent and School Board Center – A support service offered to district superintendents, assistant superintendents and school boards

The Futures Center – Support for veteran school and district leaders with more advanced, data-focused and individually tailored training

The Coaching Center – A consultation service offered to individual principals and superintendents working on professional growth and school reform efforts

b. In concert with business and non-profit interests, launch a "21st Century Strategic Partnership" that establishes a network of activities designed to promote and enhance Statewide capacity in a way that accelerates the most promising teaching and learning efforts. This includes a "Colorado Legacy Foundation," a "Commissioner's Council on Innovation and Entrepreneurship," a "CDE Best Practices Guide," a "Commissioner's Cup," a "Commissioner's Breakfast," a "Commissioner's Summit" and a "Colorado Legacy Scholars" program.

Context: This undertaking uses outside funding to create a new position at the department of education. The Associate Commissioner for Strategic Partnerships will engage and mobilize key stakeholders, both public and private, to assist the Commissioner in tackling the complex educational issues before Colorado. In addition, this individual will identify, develop and maintain Statewide community partnerships with key public and private stakeholders, including but not limited to private sector employers, chambers of commerce, economic development agencies, workforce development groups, community and civic leaders, and non-profit organizations. Further, this person will coordinate planning, partnerships, marketing, community education and new special

projects, which will be known as the Commissioner's Initiatives.

The person in this position will coordinate the following:

Colorado Legacy Foundation

This non-partisan 501(c)(3) non-profit organizations will support innovation, entrepreneurship, 21st century teaching and learning, and the dissemination of best practices across the State.

Commissioner's Council on Innovation & Entrepreneurship This effort complements the work of the governor's P-20 Council by identifying and integrating critical industry skill sets into Colorado content standards and by infusing the reform effort
with private sector tools and strategies that can help accelerate the transformation of public education.

CDE Best Practices Guide
This guide will help promote Statewide innovation and build entrepreneurial capacity through the annual publication of leading

practices in teaching and learning, as well as the development of instructional leadership, community partnerships and 21st century school facilities.

Commissioner's Cup
An award to honor districts undertaking successful, systemic school reform

Commissioner's Breakfast

An event to honor leaders reshaping the way the State prepares Colorado students for the 21st century

Commissioner's Summit
A retreat designed to bring together P-20 leaders from across Colorado for the purpose of sharing innovative ideas. The intent is to build the capacity of districts to partner with stakeholders toward the aim of system innovation.

Colorado Legacy Scholars
A program designed to provide scholarships that underwrite the tuition for 100 top high school seniors who agree to enroll in Colorado colleges or universities in exchange for service (after graduation) in hard-to-staff teaching assignments. This effort
is about building a bench of high-quality teachers as veteran teachers retire.

Focus on Organizational Alignment and Change

As a result of our efforts in the next three years:

- Department leaders will have regular contact with each other through networks that reduce isolation, increase collegial consulting and successfully implement policies and practices.
- CDE staff will engage in effective organizational development – understanding who they are, what their work is, ways of working together, and how to obtain information to verify the effectiveness of their work.
- CDE staff, through regular contact with individuals in similar positions, will have increased access to knowledge and skills.
- Department leadership will use research-based practices to be more effective in their roles.
- CDE staff will participate in regular networking meetings to engage in sharing emergent thinking on common problems and experiencing the value of networking.

Exhibit VI.A(1)ii-1
Detailed LEA Participation Table

Detailed Table for (A)(1)
This table provides detailed information on the participation of each participating LEA (as defined in this notice). States should use this table to complete the Summary Tables above. (Note: If the State has a large number of participating LEAs (as defined in this notice), it may move this table to an appendix. States should provide in their narrative a clear reference to the appendix that contains the table.)

	LEA Demographics			Signatures on MOUs			MOU Terms	Preliminary Scope of Work – Participation in each applicable Plan Criterion														
Participating LEAs	# of Schools	# of K-12 Students	# of K-12 Students in Poverty	LEA Supt (or equivalent)	President of local school board (if applicable)	President of Local Teachers Union (if applicable)	Uses Standard Terms & Conditions?	(B)(3)	(C)(3)(i)	(C)(3)(ii)	(C)(3) (iii)	(D)(2) (i)	(D)(2) (ii)	(D)(2) (iii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2) (iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
Name of LEA here				Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Yes/ No	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA
Academy School District 20	30	22,255	2,311	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Adams 12 Five Star Schools (Northglenn-Thornton)	51	41,170	13,380	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Adams County School District 14	13	6,914	5,756	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Adams County School District 50 (Westminster)	20	9,371	7,093	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Adams-Arapahoe School District 28J	52	35,589	22,432	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Agate School District 300	2	45	24	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Akron School District R-1	2	370	180	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Archuleta County School District 50 JT	5	1,517	768	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Aspen School District 1	4	1,649	99	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Bayfield School District 10 JT-R	3	1,384	343	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Big Sandy School District 100J	3	292	144	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Boulder Valley School District RE-2	54	28,434	4,851	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Branson Reorganized School District 82	4	490	102	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Brighton School District 27J	20	13,912	4,713	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Brush School District RE-2J	4	1,409	762	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Buena Vista School District R-31	4	903	336	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Buffalo School District RE-4	2	306	106	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Burlington School District RE-6J	3	731	410	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Calhan School District RJ-1	4	615	243	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Campo School District RE-6	2	44	30	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Canon City School District RE-1	10	3,699	1,693	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Centennial School District R-1	3	209	178	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Center School District 26 JT	4	575	518	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cheraw School District 31	3	197	109	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cherry Creek School District 5	57	50,135	12,416	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cheyenne Mountain School District 12	9	4,508	670	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Clear Creek School District RE-1	5	892	214	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Colorado Charter School Institute	19	6,503	2,549	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Colorado School for the Deaf and Blind	2	280	179	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Colorado Springs School District 11	64	28,942	14,794	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cotopaxi School District RE-3	2	206	112	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cripple Creek-Victor School District RE-1	2	426	227	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Crowley County School District RE-1J	4	495	331	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Custer County School District C-1	3	457	180	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
De Beque School District 49 JT	2	132	71	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Del Norte School District C-7	4	597	409	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Delta County School District 50J	19	5,113	2,360	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Denver County School District 1	142	72,718	52,039	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Dolores School District RE-4A	3	658	264	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Douglas County School District RE-1	78	58,407	4,886	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Durango School District 9-R	10	4,579	1,262	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Eads School District RE-1	3	175	72	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Eagle County School District RE 50	18	6,031	2,183	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
East Grand School District 2	6	1,381	347	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Eaton School District RE-2	5	1,705	528	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Elizabeth School District C-1	6	2,587	350	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Ellicott School District 22	3	824	519	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Englewood School District 1	9	2,907	1,571	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Falcon School District 49	20	14,148	2,688	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fort Morgan School District RE-3	8	3,084	2,145	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fountain School District 8	11	7,088	3,177	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fowler School District R-4J	3	402	193	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fremont RE-2 School District	4	1,623	835	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Frenchman School District RE-3	2	175	73	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Garfield School District RE-2	10	4,776	2,048	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Genoa-Hugo School District C113	3	171	87	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Granada School District RE-1	2	221	110	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Greeley School District 6 (Weld County 6)	31	18,520	10,747	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Hanover School District 28	3	253	131	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Harrison School District 2	25	10,776	7,639	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Haxtun School District RE-2J	2	286	76	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Holly School District RE-3	3	265	174	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Holyoke School District RE-1J	3	589	258	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Huerfano School District RE-1	4	585	427	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Idalia School District RJ-3	2	133	74	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Jefferson County School District R-1	160	83,394	24,375	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Johnstown-Milliken Weld School District RE-5J	6	3,007	1,032	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Julesburg School District RE-1	3	1,199	159	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Keenesburg School District RE-3J	6	2,063	1,000	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Lake County School District R-1	4	1,079	762	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Lamar School District RE-2	6	1,601	1,090	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Las Animas School District RE-1	4	540	413	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Lewis-Palmer School District 38	10	5,751	496	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Limon School District RE-4J	2	448	183	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Littleton School District 6	24	15,294	2,806	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Lone Star School District 101	3	118	49	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mancos School District RE-6	3	373	204	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Manitou Springs School District 14	4	1,366	375	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mapleton School District 1	16	5,401	3,769	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mc Clave School District RE-2	2	239	124	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Meeker School District RE1	3	654	171	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mesa County Valley School District 51	42	21,372	9,612	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Moffat County School District RE: No 1	4	209	106	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Moffat School District 2	7	2,362	806	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Monte Vista School District C-8	6	1,136	733	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Montezuma-Cortez School District RE-1	10	2,865	1,660	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Montrose County School District RE-1J	14	6,233	3,213	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mountain Valley School District RE-1	3	111	66	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
North Conejos School District RE-1J	5	1,051	736	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
North Park School District	2	199	106	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

R-1																							
Norwood School District R-2J	2	245	109	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Otis School District R-3	2	185	71	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Ouray School District R-1	3	216	63	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Park (Estes Park) School District R-3	3	1,182	370	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Park County School District RE-2	5	522	225	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Peyton School District 23 JT	3	671	189	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Plainview School District RE-2	2	76	50	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Plateau School District RE-5	2	150	61	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Plateau Valley School District 50	4	464	103	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Platte Valley School District RE-3	2	115	79	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Poudre School District R-1	51	25,677	6,852	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Pueblo City School District 60	38	17,213	12,051	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Pueblo County Rural School District 70	25	8,667	3,123	Y	Y	Y	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Rangely School District RE-4	3	461	105	Y	Y	N	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Ridgway School District R-2	3	345	77	Y	Y	NA	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Roaring Fork School District RE-1	12	5,231	2,138	Y	Y	NA	Yes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Rocky Ford School District R-2	4	824	637	Y	Y	NA	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Salida School District R-32	3	1,083	368	Y	Y	Y	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Sanford School District 6J	2	315	212	Y	Y	N	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Sangre de Cristo School District RE-22J	2	304	180	Y	Y	N	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Sargent School District RE-33J	3	484	204	Y	Y	NA	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Sheridan School District 2	4	1,429	1,192	Y	Y	Y	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Sierra Grande School District R-30	3	252	195	Y	Y	NA	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Silverton School District 1	3	66	45	Y	Y	NA	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
South Routt School District RE-3	3	390	106	Y	Y	Y	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Springfield School District RE-4	3	267	140	Y	Y	NA	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**

Strasburg School District 31J	4	966	208	Y	Y	N	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Summit School District RE-1	9	2,943	863	Y	Y	Y	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Swink School District 33	2	378	155	Y	Y	NA	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Telluride School District R-1	3	681	122	Y	Y	Y	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Thompson School District R-2J	30	14,779	3,914	Y	Y	Y	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Trinidad School District 1	4	1,401	903	Y	Y	N	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Valley School District RE-1	7	2,340	1,100	Y	Y	Y	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Walsh School District RE-1	2	149	76	Y	Y	NA	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Weld County School District RE-1	6	1,784	1,007	Y	Y	NA	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Weld County School District RE-8	4	2,221	1,414	Y	Y	N	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Weldon Valley School District RE-20J	3	195	68	Y	Y	NA	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
West End School District RE-2	3	311	182	Y	Y	Y	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
West Grand School District 1-JT	3	451	159	Y	Y	N	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Widefield School District 3	16	8,475	3,572	Y	Y	NA	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Wiggins School District RE-50J	3	512	228	Y	Y	N	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Windsor School District RE-4	7	3,963	729	Y	Y	Y	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Wray School District RJ-2	3	652	332	Y	Y	Y	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Yuma School District 1	3	774	364	Y	Y	NA	**Yes**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**

Exhibit VI.A(1)ii-2
Colorado Memorandum of Understanding
Final Version: December 16, 2009

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

1. **Scope of Work**. Exhibit 1, the preliminary Scope of Work, indicates which portions of the State's proposed reform plans ("State Plan") the LEA is agreeing to implement.
2. **Project Administration**.
    a. **LEA Responsibilities**. In assisting the State in implementing the tasks and activities described in the State's Race to the Top application, the LEA will:
        i. Implement the plan identified in Exhibits I and II of this agreement ("the LEA Plan");
        ii. Actively participate in all relevant convening's, communities of practice, or other practice-sharing events that are organized or sponsored by the State or the U.S. Department of Education ("ED");
        iii. Post to any website specified by the State or ED, in a timely manner, all non-proprietary products and lessons learned or developed using funds associated with the Race to the Top grant;
        iv. Participate, as requested, in any evaluations of this grant conducted by the State or ED;
        v. Be responsive to State or ED requests for information including the status of the project, project implementation, outcomes, and any problems anticipated or encountered;
        vi. Participate in meetings and telephone conferences with the State to discuss (a) progress of the project, (b) potential dissemination of resulting non-proprietary products and lessons learned; (c) plans for subsequent years of the Race to the Top grant period; and (d) other matters related to the Race to the Top grant and associated plans.
    b. **State Responsibilities**. In assisting participating LEAs in implementing their tasks and activities described in the State's Race to the Top application, the State will:
        i. Work collaboratively with and support the LEA in carrying out the LEA Plan as identified in Exhibits 1 and 2 to this agreement;
        ii. Timely distribute the LEA's portion of Race to the Top grant funds during the course of the project period and in accordance with the LEA Plan identified in Exhibit II;
        iii. Provide feedback on the LEA's status updates, annual reports, any interim reports, and project plans and products; and
        iv. Identify sources of technical assistance for the project.
    c. **Joint Responsibilities**.

i. The State and the LEA will each appoint a key contact person for the Race to the Top grant.

ii. These key contacts from the State and the LEA will maintain frequent communication to facilitate cooperation under this MOU.

iii. State and LEA grant personnel will work together to determine appropriate timelines for project updates and status reports throughout the whole grant period.

iv. State and 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 may affect the LEA, or when the LEA Plan requires modifications.

3. **State Recourse for LEA Non-Performance**. If the State determines that the LEA is not meeting its goals, timelines, budget, or annual targets or is not fulfilling other applicable requirements, the State will take appropriate enforcement action, which could include but is not limited to a collaborative process between the State and the LEA, temporarily withholding funds, or disallowing costs.

4. **Assurances.** The LEA hereby certifies and represents that it:

   a. Has all requisite power and authority to execute this MOU;

   b. Is familiar with the State's Race to the Top grant application and is supportive of and committed to working on all or significant portions of the State Plan;

   c. Agrees to be a participating LEA and will implement those portions of the State Plan indicated in Exhibit I, if the State application is funded;

   d. Will provide a Final Scope of Work to be attached to this agreement as Exhibit II only if the State's application is funded; will do so in a timely fashion but no later than 90 days after a grant is awarded; and will describe in Exhibit II 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 (Exhibit I) and with the State Plan; and

   e. Will comply with all of the terms of the grant, the State's sub-grant, and all applicable Federal and State laws and regulations.

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

6. **Duration/Termination**. This Memorandum of Understanding shall be effective beginning with the date of the last signature hereon, and, if a grant is received, ending upon the expiration of the grant project period, or upon mutual agreement of the parties, whichever occurs first; provided, however, that in the event the LEA and State are unable to finalize the Final Scope of Work on or before the date specified in Section 4 (a) above, this MOU shall be deemed null and void.

7. **Conflicts; Collective Bargaining**. 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 and State law (including applicable regulations or court orders) or under the terms of collective bargaining agreements, memoranda of understanding, or other agreements between such

employers and their employees, unless contrary to State or federal law. Nor shall this Memorandum of Understanding prohibit the parties from entering into written agreements to alter or modify the terms of existing collective bargaining agreements or memoranda of understanding.

8. Signatures.

LEA Superintendent (or equivalent authorized signatory)

_____ _____

Signature Date

_____

Printed Name/Title

President of Local School Board (or equivalent; if applicable)

_____ _____

Signature Date

_____

Printed Name/Title

Local Teachers' Union Leader (if applicable)

_____ _____

Signature Date

_____

Printed Name/Title

Authorized State Official: By the signature below, the State hereby accepts the LEA as a participating LEA:

_____ _____

Signature Date

_____

Printed Name/Title

Exhibit 1 – Preliminary Scope of Work

LEA hereby agrees to participate in implementing the State Plan in each of the areas identified below:

Elements of State Reform Plan	LEA Participation (y/n)	Comments from LEA
B. Standards and Assessments		
(B)(3) Supporting the transition to enhanced standards and high-quality assessments		
C. Data Systems to Support Instruction		
(C)(3) Using data to improve instruction		

(i) Use of local instructional improvement systems		
(ii) Professional development on use of data		
(iii) Availability and accessibility of data to researchers		
D. Great Teachers and Leaders		
(D)(2) Improving teacher and principal effectiveness based on performance		
(i) Measure student growth		
(ii) Design and implement evaluation systems		
(iii) Conduct annual evaluations		
(iv)(a) Use evaluations to inform professional development		
(iv)(b) Use evaluations to inform compensation, promotion, and retention		
(iv)(c) Use evaluations to inform tenure and/or full certification		
(iv)(d) Use evaluations to inform removal		
(D)(3) Ensuring equitable distribution of effective teachers and principals		
(i) In high-poverty and/or high-minority schools		
(ii) In hard-to-staff subjects and specialty areas		
(D)(5) Providing effective support to teachers and principals		
(i) Quality professional development		
(ii) Measure effectiveness of professional development		
(E) Turning around the lowest-achieving schools		
(E)(2) Turning around the lowest achieving schools		

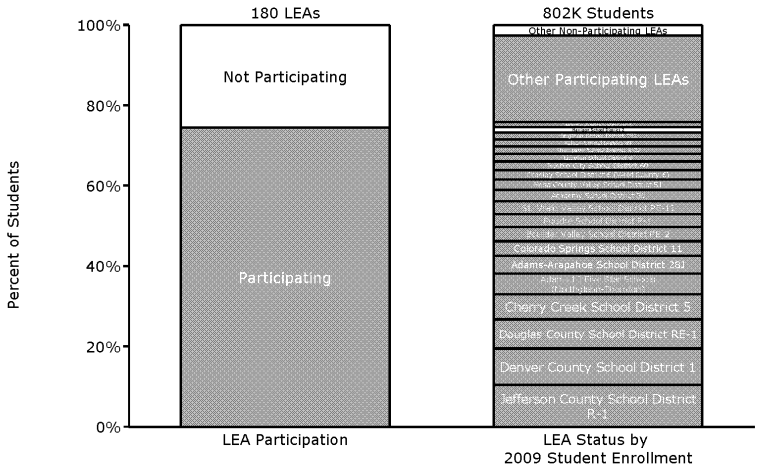
Exhibit 2 – Final Scope of Work (to be inserted within 90 days after award of grant to State)

Exhibit VI.A(1)ii-3
LEA Participation Summary Charts

134 Colorado LEAs Have Committed to Participate, Representing 94% of K-12 Students

- 19 of the 20 largest LEAs have agreed to participate

Participating Colorado LEAs and Student Enrollment

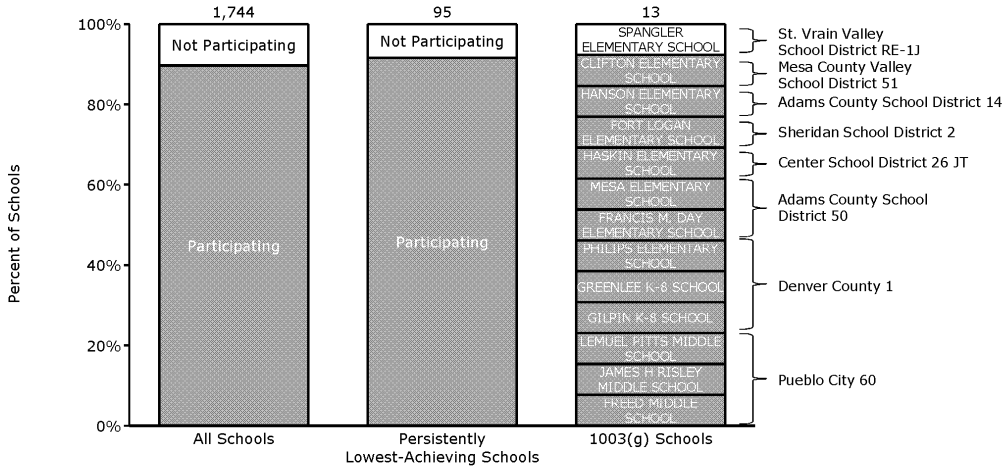


Note: Fall 2009 enrollment data; includes all districts, Charter School Institute, and the Colorado School for the Deaf and Blind; named LEAs are in the top 20 by fall 2009 K-12 enrollment
Source: Colorado Department of Education

92% of Schools that Have Been Identified as Low Performing Are in Participating LEAs, Including Twelve of the Thirteen 1003(g) Schools

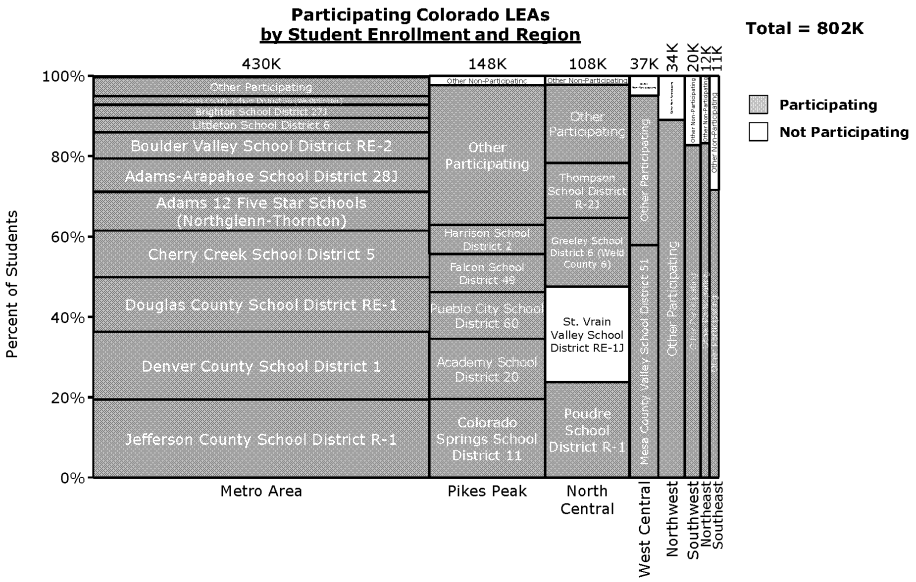
- 90% of all schools in Colorado are in participating LEAs

Participating Colorado LEAs by Number of Schools



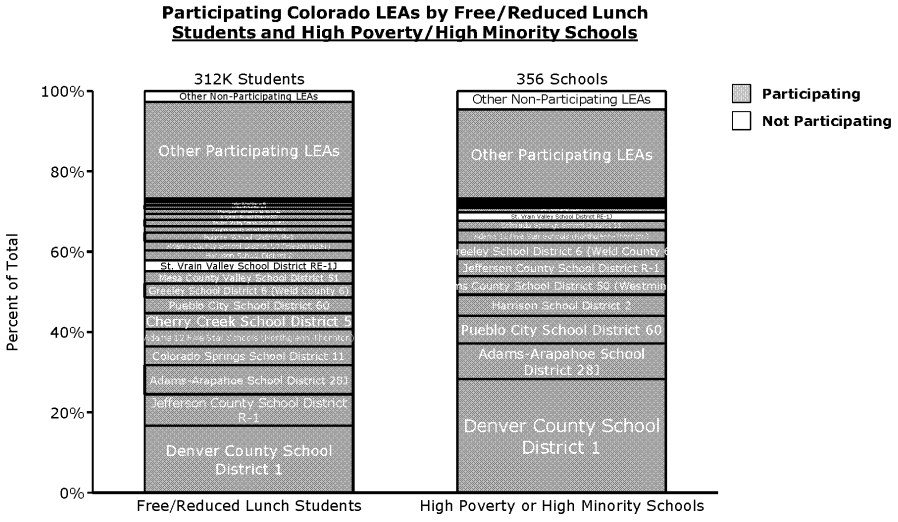
Note: Fall 2009 enrollment data; includes all districts, Charter School Institute, and the Colorado School for the Deaf and Blind; named LEAs are in the top 20 by fall 2009 K-12 enrollment
Source: Colorado Department of Education

Participating LEAs Represent All Regions of the State from the Metro Area to the More Rural Outskirts



Note: Fall 2009 enrollment data; includes all districts, Charter School Institute, and the Colorado School for the Deaf and Blind; named LEAs are in the top 20 by fall 2009 K-12 enrollment
Source: Colorado Department of Education

Furthermore, a High Percentage of Free/Reduced Lunch Students and High Poverty/High Minority Schools Are in These LEAs



Note: Fall 2009 enrollment data; includes all districts, Charter School Institute, and the Colorado School for the Deaf and Blind; named LEAs are in the top 20 by fall 2009 K-12 enrollment
Source: Colorado Department of Education

Exhibit VI.A(1)iii-1
Colorado Goals for Education Performance by 2020

COLORADO GOALS FOR EDUCATION PERFORMANCE BY 2020

Indicator	Baseline	With RttT	Without RttT
Mathematics Proficiency			
Percentage of students who are proficient or above proficient in mathematics	54.5%	85%	61.5%
Percentage of low-income students who are proficient or above proficient in mathematics	37.7%	85%	50.2%
Percentage of minority students who are proficient or above proficient in mathematics	39.5%	85%	54.5%
Mathematics Growth – Colorado Growth Model			
Percentage of students demonstrating growth in mathematics adequate to catch up to proficiency	13.9%	85%	18.9%
Percentage of students demonstrating growth in mathematics adequate to maintain proficiency	62.5%	95%	67.6%
Percentage of low-income students demonstrating growth in mathematics adequate to catch up to proficiency	12.1%	85%	16.1%
Percentage of low-income students demonstrating growth in mathematics adequate to maintain proficiency	49.8%	95%	56.3%
Percentage of minority students demonstrating growth in mathematics adequate to catch up to proficiency	12.2%	85%	17.7%
Percentage of minority students demonstrating growth in mathematics adequate to maintain proficiency	54.6%	95%	64.6%
Reading Proficiency			
Percentage of students who are proficient or above proficient in reading	68.3%	95%	73.8%
Percentage of low-income students who are proficient or above proficient in reading	49.3%	95%	65.8%
Percentage of minority students who are proficient or above proficient in reading	51.7%	85%	69.2%
Reading Growth – Colorado Growth Model			
Percentage of students demonstrating growth in reading adequate to catch up to proficiency	33.6%	85%	45.6%
Percentage of students demonstrating growth in reading adequate to maintain proficiency	82%	95%	85%
Percentage of low-income students demonstrating growth in reading adequate to catch up to proficiency	29.4%	85%	35.4%
Percentage of low-income students demonstrating growth in reading adequate to maintain proficiency	71.7%	95%	80.5%
Percentage of minority students demonstrating growth in reading adequate to catch up to proficiency	29.5%	85%	46.0%
Percentage of minority students demonstrating growth in reading adequate to maintain proficiency	75.2%	95%	87.2%

Indicator	Baseline	With RttT	Without RttT
Writing Proficiency			
Percentage of students who are proficient or above proficient in writing	54.8%	85%	59.3%
Percentage of low-income students who are proficient or above proficient in writing	34.9%	85%	47.4%
Percentage of minority students who are proficient or above proficient in writing	38.3%	85%	52.3%
Writing Growth – Colorado Growth Model			
Percentage of students demonstrating growth in writing adequate to catch up to proficiency	28.9%	85%	45.4%
Percentage of students demonstrating growth in writing adequate to maintain proficiency	74.3%	95%	77.3%
Percentage of low-income students demonstrating growth in writing adequate to catch up to proficiency	24.2%	85%	34.2%
Percentage of low-income students demonstrating growth in writing adequate to maintain proficiency	63.3%	95%	73.3%
Percentage of minority students demonstrating growth in writing adequate to catch up to proficiency	24.9%	85%	40.9%
Percentage of minority students demonstrating growth in writing adequate to maintain proficiency	67.7%	95%	78.2%
High School Graduation Rate			
Overall graduation rate	73.9%	90%	80%
Minority student graduation rate	59.7%	90%	70%
Low-income student graduation rate	59.3%	90%	70%
College Readiness – 11th-Grade ACT Scores			
Overall college readiness	42.6%	80%	53.1%
College readiness for low-income students	17.2%	80%	28.7%
College readiness for minority students	26.1%	80%	31.1%
College-Going Rates			
College continuation rates of high school graduates	62.9%	75%	68%
College continuation rates of high school graduates from high schools in the lowest SES quartile of all high schools in participating LEAs	To be determined	Increased by 20%	Increased by 5%
Postsecondary Retention			
Percentage of first-year public community college students returning for their second year	52%	75%	62%
Percentage of first-year public four-year college students returning for their second year	75%	85%	80%

Notes: Predictions of performance without RttT are based on current trajectories; Colorado's Growth Model calculates, for each individual student who is below proficiency, the growth necessary to reach proficiency by exit. For each individual student who is performing proficiently or above, the CGM calculates the rate of growth necessary to maintain proficiency by exit; Colorado requires every 11th-grade student to take the ACT exam; Data on college-going rates are from Postsecondary Opportunity.

Exhibit VI.A(2)i-1
Race to the Top Colorado Communications Collaborative

Creating buy-in and support for Race to the Top

Any significant shift in education policy will be unsustainable without winning the hearts and minds of local school districts, parents, students and community members. *Race to the Top's* overarching goals hit the reform targets, but without a Colorado designed, locally based communication strategy, it will fall flat. Colorado's strong tradition of western independence and local control makes it difficult for residents to simply accept policy mandates from the State or federal level. How does one move away from bureaucratic structures and jargon to tell the *Race to the Top* story in language that resonates with the person on the street? How does one prepare our local communities to understand and support the changes embedded in *Race to the Top*? It will take a comprehensive Statewide communications effort.

Colorado is fortunate to have in place a strong network of practicing school district and other education communicators through the Colorado School Public Relations Association (COSPRA), a blue ribbon chapter of the National School Public Relations Association. With nearly 100 members Statewide, COSPRA represents a wealth of technical and strategic public relations experience that can be tapped to create a positive climate for Colorado's Race to the Top. COSPRA will work in close collaboration with the communications office at the CDE as well as educators who may not be part of the COSPRA network to create understanding and support for Race to the Top reforms. This Colorado communications collaborative will create a coordinated Statewide communications plan that uses multiple strategies to achieve the goal of telling the *Race to the Top* story and helping communities embrace the reforms.

The strategies could include, but are not limited to:

- Creating settings for professionals, including partnerships with other professional associations, to problem solve and share how Race to the Top is having a positive impact in local districts;
- Providing tools for local PR professionals to roll out information for internal and external audiences;
- Managing a Statewide network of information by using the latest technology, including social media and traditional media, as well as face-to-face meetings with professional, business and civic organizations;
- Using a continuous quality improvement model to ensure adjustments can be made by analyzing key data points and tracking local and Statewide public opinion (by using qualitative and quantitative measures).
- Maintaining an active, engaging Web site with relevant *Race to the Top* updates and progress.
- Shining a light on best practices, early success and lessons learned.

Exhibit VI.A(2)i-2

Colorado Education Research Consortium

The mission of the Colorado Education Research Consortium (CERC) is to improve Colorado student outcomes through research, formative and summative evaluation, and policy analysis. CERC will provide key infrastructure for the development of a coordinated research community in Colorado that supports continuous improvement, openness and transparency within the Colorado P-20 education system. Partnering with the research units of Colorado Department of Education, the Department of Higher Education, the Department of Human Services, the Department of Labor and Employment, and district research and evaluation units, the CERC will serve both as a contributor of essential information to policymakers and practitioners and as a customer for high-quality data. Its first priority will be the systemic evaluation of the key initiatives in the State's RttT proposal.

As with other components of the Colorado RttT plan, Colorado is ready to develop this learning community to support improved outcomes. The design of the CERC is informed by a 2008 research consortium proposal jointly developed by CDE and partners within the Colorado university and foundation community. The CERC structure is modeled after the Consortium on Chicago School Research and the North Carolina Education Research Data Center.

Planned activities for the CERC include developing a research and evaluation agenda; providing researchers with access to needed data while maintaining appropriate user controls; and building infrastructure to sustain this community. Race to the Top will provide seed funding for this project and a business plan will be developed to support this work after the completion of the project. The CERC will be housed in a local university or research organization. Local universities and other partners will collaborate on development of this project and will be ready to launch operations in June 2010. CERC will require one FTE for an executive director, two FTE of administrative support, and seven to ten FTE of researcher/evaluator support. University partners will be selected based on their research and evaluation track record and capacity, as well as their ability to provide support including faculty, research assistants, office space, and technology support.

In particular, the CERC will:

1. Develop and make public a research and evaluation agenda to be supported through the evaluation funds contained in the CO RttT proposal and other funders interested in Colorado education
   a. Work with RttT Project Team Leads to identify short-term evaluation priorities by July 2010 and long-term priorities by September 2010
   b. Work with Project Team Leads to secure evaluators to meet short-term priority evaluation projects by August 2010 and long-term projects by October 2010
   c. Develop an understanding of additional research priorities for educators, administrators, researchers, evaluators, and funders
   d. Publish the research agenda by December 2010
   e. Develop a process by January 2011 by which research and evaluation results will be used to inform the direction of funds from the Innovation Acceleration Grant Fund
2. Provide researchers with access to non-public (i.e. unit record data) and public data in a clear and transparent manner that complies with FERPA and other applicable requirements
   a. Work with the State's Office of Information Technology (OIT) to maintain accurate data dictionaries to be placed on SchoolView by June 2011
   b. Certify compliance with FERPA and ability to maintain data by June 2011
      i. Develop a process for reviewing and certifying researchers' capacity to maintain data in secure manner
      ii. Develop a process for reviewing research requests to ensure compliance with FERPA
   c. In collaboration with SchoolView, develop a researcher interface to give approved researchers and research projects access to data by August 2011.
   d. Facilitate the ability of researchers to conduct field research in participating RttT districts and schools to be implemented by participating districts by December 2011
      i. Build and maintain a learning community of research and evaluation professionals who work in or with Colorado school districts
      ii. Work with the learning community to develop a set of standard protocols for use by all participating districts in providing access to do field work within schools and districts
3. Develop a learning community of researchers working on Colorado education related issues
   a. Work with SchoolView developers to maintain a social networking site to virtually support researchers through functionality that include:
      i. Electronically maintain a one-stop shop to existing research about education in Colorado including discussion and comment on that research

    ii. Maintain a social collaboration capacity to support increased understanding of the capacity, limits, and potential of data available on SchoolView and elsewhere in Colorado
    iii. Facilitate the development review and refinement of the research agenda discussed in activity 2
    iv. Facilitate the collaboration on research projects
  b. Work with researchers locally and nationally to comment upon, review, and support the work of the CERC including its agenda, research and evaluation plans, interim and final reports, as well as social networking support of the community
    i. Develop an advisory council by October 2010
  c. Work with researchers, funders and district leaders to broker access to between district innovations and questions with researchers and funding
4. Develop a business plan for sustainability after the end of the research project by the end of 2013.
  a. Work with consumers of services and research developed by the CERC to identify potential funding streams to support its work including user fees, membership, public or private support

Exhibit VI.A(2)i-3
Partners in Colorado's Race to the Top Planning and Implementation

The Parthenon Group: A strategy consulting firm with education market expertise.
Center for Education Policy Analysis: Part of the School of Public Affairs at the University of Colorado Denver, CEPA provides applied education research and analysis to support education reform.
Center for Transforming Learning and Teaching (CTLT): An initiative within the School of Education and Human Development at the University of Colorado Denver, CTLT works with educators across the United States to catalyze and co-create the transformation of learning environments through the use of assessment.

Standards and Assessments Partners
National Center for the Improvement of Educational Assessments: A non-profit organization working with States and other educational agencies to design and implement effective assessment and accountability policies and programs to support improved student achievement.
National Center for Research on Evaluation, Standards, and Student Testing (CRESST): A multi-university partnership that includes UCLA and the University of Colorado, focused on the assessment of educational quality and addressing persistent problems in the design and use of assessment systems to serve multiple purposes.
Laboratory for Educational Assessment, Research, and innovatioN (LEARN): An initiative within the School of Education and Human Development at the University of Colorado Denver, LEARN focuses on the development, evaluation, and use of educational assessment and its impact on instruction and learning in diverse contexts.
WestEd: A non-profit agency working at local, State, and federal levels to develop research-based programs, intervention strategies, and other resources to promote excellence, achieving equity, and improving learning for children, youth, and adults.
Colorado STEM Network: A non-profit agency formed by a grant from the National Governors' Association that serves as an intermediary in creating partnerships to promote systemic, continuous and sustainable improvement of STEM education in Colorado.

Using Data to Improve Instruction Partners
Rebound Solutions: A private consulting firm providing high-value transformation and change management solutions to government clients.
InSight Coaching and Consulting: A results-oriented coaching and consulting organization providing executive coaching, change leadership, and change management strategies.

Great Teachers and Leaders Partners
The New Teacher Project: A national nonprofit organization dedicated to closing achievement gaps by ensuring that high-need students get outstanding teachers.
Teach For America: A national nonprofit organization that recruits outstanding recent college graduates to teach for two years in urban and rural public schools.

Turning Around Low-Performing Schools Partners

Public Impact: A national education policy and management consulting firm that helps education leaders and policymakers improve student learning in K-12 education, focusing on strategies that expand the supply of quality schools, creating conditions for schools to thrive, intervene in low-performing schools, and inspiring and equipping parents to make informed choices and participate in school improvement.
Mass Insight Education and Research Institute: A nonprofit organization that organizes public schools, higher education, business and State government to significant improve student achievement, with a focus on turning around persistently low-performing schools.

Exhibit VI.A(2)i-4
RttT Implementation Timeline

			Responsible Party	SY 2010-2011 Sept-Nov	Dec-Feb	March-May	June-Aug	SY 2011-2012 Sept-Nov	Dec-Feb	March-May	June-Aug	SY 2012-2013 Sept-Nov	Dec-Feb	March-May	June-Aug	SY 2013-2014 Sept-Nov	Dec-Feb	March-May	June-Aug
1	**Capacity: Quickly build State level capacity to manage the RttT projects, implement the State plan and disburse grant funds**																		
	Hire and Train Key Personnel																		
		Identify key leader (CEO, CFO, Directors, Chairpersons, etc.) candidates	*CDE*																
		Execute hiring process for key leaders	*CDE*																
		Execute hiring process for HR and admin personnel	*RttT Implementation Team*																
		Execute hiring process for project management personnel	*RttT Implementation Team*																
		Execute hiring process for communication/outreach personnel	*RttT Implementation Team*																
		Execute hiring process for finance/grant management personnel	*RttT Implementation Team*																
	Streamline Procurement Capability																		
		Execute regulatory changes required to improve procurement process speed																	
		Hire and train procurement personnel																	
		Execute RFP and agreements as needed																	
2	**Accountability: Ensure that LEAs are implementing the State's plan and that funds are properly used and accounted for**																		
	Negotiate Scopes of Work (SOWs) with LEAs																		
		Discuss preliminary SOWs with key LEAs	*CDE*																
		Outline SOW process for participating LEAs	*CDE*																
		Execute SOW negotiations	*RttT Implementation Team*																
		Model budget based on SOW formulas	*RttT Implementation Team*																

	Monitor Compliance and Execute Accountability Reporting		
		Monitor LEA compliance with State plans and SOWs	*RttT Implementation Team*
		Coordinate accounting and Federal reporting	*RttT Implementation Team*
		Execute accountability reporting to State and Federal agencies	*RttT Implementation Team*
3	**Coordination: Execute the State plan in a coordinated and cohesive fashion to generate the greatest impact on student achievement**		
	Execute the State Plan		
		Provide start-up for non-profits	*RttT Implementation Team*
		Execute LEA outreach and support	*RttT Implementation Team*
		Support project management across all projects	*RttT Implementation Team*
		Report regularly to CDE Commissioner and other Stakeholders	*RttT Implementation Team*
	Monitor Progress and Adjust		
		Monitor impact on student outcomes	*RttT Implementation Team*
		Research and identify successful efforts	*RttT Implementation Team*
		Evaluate and adjust projects as necessary	*RttT Implementation Team*
		Invest and accelerate projects which are successful	*RttT Implementation Team*

Exhibit VI.A(2)i-5
Potential Learning Communities in Colorado

The implementation of Colorado's Race to the Top plan will catalyze the development of multiple learning communities around the work of reforming education in Colorado. Two types of learning communities will be deliberately formed using RttT funds to work on issues such as aligned instructional material development, development of new evaluation systems and use of data to inform instruction. At the same time Colorado expects additional learning communities to form organically as educators see the power and professional satisfaction that can come from working with colleagues to improve professional practice. These online and in-person groups will consist of people who face similar challenges and need similar information. They may be designed to meet indefinitely, or may only last for a few months during the summer.

Obvious communities will form around particular grades and sources of instructional materials. So the State would expect to see communities around things such as:

- Grade 3 teachers who use Everyday Math
- Grade 5 science teachers who use Full Option Science System (FOSS) materials
- Secondary teachers in Montessori schools

Colorado would also expect learning communities to grow around common practices in schools and LEAs. This could include learning communities such as

- LEA leaders participating in CDE's Closing the Achievement Gap pilot project
- Leadership teams in turnaround schools
- Principals using positive behavioral supports in elementary schools
- Instructional coaches implementing Response to Intervention in secondary schools
- District human resources directors developing strategic staffing plans
- School social workers supporting students who are recent immigrants
- CTE teachers integrating academic content into career and technology classes
- High school teachers and students who want to increase the relevance of high school classes

Learning communities may also form around specific events to help educators incorporate those events into aligned instructional offerings:

- Blogging with Astronauts: International Space Station Expedition 25
- Teaching Civics with the 2012 presidential election
- The Physics of the 2014 Winter Olympics

Learning communities could also form around specific nonprofit and government partners that provide resources for lessons:

- Arts education and the Denver Center for the Performing Arts
- Chemistry and the Denver Museum of Nature and Science
- Physics and the Space Foundation
- Social studies and the National Archives

Finally, educators could form communities based on their own professional growth interests, such as:

- Teachers reading the books of Robert Marzano
- LEA leaders discussing the reports of the Strategic Management of Human Capital project at CPRE

These are just a few examples of the types of learning communities the State hopes to catalyze through the reform initiatives in the State plan.

Exhibit VI.A(2)ii-1
Statements of Support

Statements of Support have been received from the following parties:

- Chambers Family Foundation
- Charter School Institute
- Clayton Early Learning
- Colorado Association of School Boards
- Colorado Association of School Executives
- Colorado Children's Campaign
- Colorado Commission on Indian Affairs
- Colorado Dept. Of Health and Human Services
- Colorado Dept. of Higher Education
- Colorado Software and Internet Association
- Data Systems Committee
- Denver Preschool Project
- Denver School of Science and Technology
- Get Smart Schools
- Governor Lamm
- KIPP Colorado
- Morgridge Family Foundation
- Office of Information Technology
- PeaceJam
- Public Education and Business Coalition
- Representative Markey
- Representative Perlmutter
- Representative Polis
- Representative Salazar
- Rocky Mountain PBS
- Persistently lowest-achieving Schools Committee
- Sustainable Business Group
- The Denver Foundation
- USAFA

Exhibit VI.A(2)ii-2
Letters of Support from Key Stakeholders

JAN. 11. 2010 3:51PM JARED POLIS NO. 825 P. 2

JARED POLIS
2nd District, Colorado

501 Cannon House Office Building
Washington, DC 20515-0602
(202) 225-2161
(202) 225-7640 (Fax)

website and email:
http://polis.house.gov

COMMITTEES:
COMMITTEE ON EDUCATION AND LA
SUBCOMMITTEES:
Early Childhood, Elementary Secondary Education
Higher Education, Lifelong Learning and Competitiveness
Healthy Families and Comm
COMMITTEE ON RUL
STEERING AND POLI

Congress of the United States
House of Representatives
January 8, 2010

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

Dear Secretary Duncan,

I am writing to express my support for Colorado's application to the U.S. Department of Education for a Race to the Top grant. I strongly believe that the plans outlined in Colorado's proposal will help raise the performance of children in Colorado and close the achievement gap.

Prior to being elected to the U.S. House of Representatives, I was a committed member of Colorado's education community. I founded several schools in Colorado that are devoted to students that are struggling within our current education system and supported a number of education initiatives throughout the state. Although I play a different role now, focusing on national policy, I still have a deep interest in what happens at the state and local level.

It is not only in Colorado's best interest, but the nation's as well, to ensure that all of Colorado's children receive a high quality education and graduate prepared for success in postsecondary education and the workforce. The infusions of funds through the Race to the Top grant would secure Colorado's ability to collaborate with districts and stakeholders to fully implement the state's proposal and provide educators with the necessary conditions to effectively serve all students.

I applaud Colorado for submitting a bold proposal that paves the way for improving student performance and closing achievement gaps throughout Colorado. I urge you to approve Colorado's Race to the Top grant application, in accordance with all applicable laws and regulations. Thank you in advance for your consideration.

Sincerely,

Jared Polis
Member of Congress

BOULDER OFFICE
4770 Baseline Road, Suite 220
Boulder, CO 80303
303-494-9586
303-568-8007 (Fax)

DISTRICT OFFICES

MOUNTAIN OFFICE
101 West Main Street, Suite 1010
Pueblo, CO 80443
970-560-3540

THORNTON OFFICE
1200 East 78th Avenue, Suite
Thornton, CO 80229
303-287-4159

PRINTED ON RECYCLED PAPER

General Assembly
State of Colorado
Denver

January 13, 2010

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

Dear Secretary Duncan:

As the leaders of Colorado's legislature, we enthusiastically support Colorado's Race to the Top application to the U.S. Department of Education. We are confident that the plans outlined in the application will help improve student outcomes and close the achievement gap in Colorado.

Colorado has already demonstrated the desire for and commitment to education reform. Our legislative accomplishments to date include passing comprehensive standards and assessment legislation, enabling the creation of data systems that track students from early childhood into the workforce and link their growth to educators, and providing the Colorado Department of Education with significant leverage in turning around Colorado's lowest performing schools. In addition, we have consistently sought to approach education dilemmas through a "P-20" lens, acknowledging the value of developing a comprehensive system that supports all children from early childhood, through school and into the workforce. Colorado's Race to the Top application builds on these accomplishments, laying out a plan for the future that is clear about outcomes while allowing for flexibility at the local level. It is exactly the type of approach that will drive long-lasting reform throughout our state.

We will continue to work in the Capitol, and with important stakeholders, on legislation that will further strengthen and support our education reforms. A Race to the Top grant would bring resources to deepen our ability to implement these necessary changes to our public education system. We strongly believe the plans laid out in Colorado's application will support our children and provide a national model.

Thank you in advance for your consideration.

Sincerely,

Senator Brandon Shaffer
President
Colorado Senate

Representative Terrance D. Carroll
Speaker of the House
Colorado House of Representatives

Senator Betty Boyd
President Pro Tempore
Colorado Senate

Representative Liane McFadyen
Speaker Pro Tempore
Colorado House of Representatives

CEA
COLORADO EDUCATION ASSOCIATION

Affiliated with the National Education Association

January 13, 2010

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

Dear Secretary Duncan:

With this letter, we are writing to express our support for Colorado's application to the U.S. Department of Education for a federal Race to the Top grant. As the President and Executive Director of the Colorado Education Association (CEA) representing the interests of 38,000 teachers and education support professionals across our state, we firmly believe that the detailed plans outlined in Colorado's proposal will help raise the performance of students in Colorado and close the state's achievement gap. Every child in Colorado has a right to a quality education and the state's application will make significant strides to ensure this goal is accomplished.

We commend Colorado, under the leadership of Lieutenant Governor Barbara O'Brien and State Education Commissioner Dwight Jones, for pursuing a thorough, transparent and inclusive public engagement process that honors the perspectives of all participants in the state's P-20 educational system. As far back as last spring when the Lt. Governor held the state's first public meeting in Denver on Race to the Top, CEA has been committed to actively participating in the state's reform effort. CEA leaders and staff were involved in the design of Colorado's proposal from the beginning and our commitment to the effort has carried on through to the end of this thoughtful and arduous process.

The Colorado Education Association is focused on ensuring that all Colorado's children receive a high quality education and graduate prepared for success in postsecondary education and the workforce. The infusion of funds through the Race to the Top grant will ensure Colorado's ability to fully implement the state's proposal.

On behalf of the teachers and education support professionals working in the thousands of schools across Colorado, we applaud Colorado for submitting a bold, yet realistic, proposal that paves the way for improving student performance and closing achievement gaps throughout the state. The creativity, trust and vision that have emerged from this collaborative process embody a collective spirit of optimism of which all Coloradans can and should be proud.

Thank you in advance for your consideration.

Sincerely,

Beverly Ingle
President
Colorado Education Association

Tony Salazar
Executive Director
Colorado Education Association

STATE OF COLORADO

DEPARTMENT OF HIGHER EDUCATION

Bill Ritter, Jr.
Governor

D. Rico Munn
Executive Director

January 11, 2010

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

Re: In support of Colorado's Race to the Top grant proposal

Dear Secretary Duncan:

I am writing to express my support for Colorado's application to the U.S. Department of Education for a Race to the Top grant. As Executive Director of the Colorado Department of Higher Education, I strongly believe that the plans outlined in Colorado's proposal will help raise the effectiveness of educators, the performance of children in Colorado and close the achievement gap.

The mission of the Colorado Department of Higher Education is to ensure the affordability of, and promote access to, post-secondary education for the people of Colorado. In pursuing its mission, the Department of Higher Education will act as an advocate for the students and institutions of post-secondary education, will coordinate with other stakeholders and, as needed, regulate the activities of the state's post-secondary education institutions to fully implement Colorado's Race to the Top plan.

On behalf of the Colorado Department of Higher Education, I applaud Colorado for submitting a bold proposal that paves the way for improving teacher and leader effectiveness, student performance and closing achievement gaps throughout Colorado. Thank you in advance for your consideration.

Sincerely yours,

D. Rico Munn

DRM:ikm

1560 Broadway, Suite 1600, Denver, Colorado 80202 • (303) 866-2723 • fax (303) 866-4266
http://highered.colorado.gov

United States Senate

January 15, 2010

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

Dear Secretary Duncan,

We are writing to express our support for Colorado's application to the U.S. Department of Education for a Race to the Top grant.

Colorado is already on the path to improving the quality of education for all students, leading the way in measuring student growth and implementing creative efforts to recruit effective teachers. Approval of this application would help Colorado continue to lead the way in school reform, resulting in raising student achievement and closing the achievement gap.

Colorado has a bold proposal that was developed through a public process with the input of over 600 administrators, teachers, parents and community members. The proposal will improve teacher preparation programs, evaluate teachers and improve instruction through the use of student achievement data. It will also help attract, develop and retain teachers, especially in the schools where they are needed most. The infusions of funds through the Race to the Top grant would secure Colorado's ability to collaborate with districts and stakeholders to fully implement the state's proposal and provide educators with the necessary conditions to effectively serve all students.

Colorado's bold proposal paves the way for improving student performance and closing achievement gaps throughout our state. Thank you in advance for your consideration of the Colorado application.

Sincerely,

Mark Udall
United States Senator

Michael F. Bennet
United States Senator

ULA
United Launch Alliance

Michael C. Gass
President and Chief Executive Officer

January 13, 2010

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

Dear Mr. Secretary:

I am writing to express my support for Colorado's application to the U.S. Department of Education for a Race to the Top grant. As chief executive officer of United Launch Alliance, the nation's rocket company, I strongly believe that the plans outlined in Colorado's proposal will help raise the performance of children in Colorado and close the achievement gap.

It is my honor to serve on Colorado Governor Bill Ritter's P-20 Education Commission as a co-chair with Lieutenant Governor Barbara O'Brien. In addition to my involvement in education reform, several United Launch Alliance engineers advised the Colorado team in their preparation of the state's Race to the Top grant, enriching the proposal with a business approach to the process.

As you know, our country currently lags behind other developed nations when it comes to the number of undergraduates earning math, science and engineering degrees—the lifeblood of companies like United Launch Alliance. This has a direct impact on America's technological and economic competitiveness. Therefore, we view our involvement in the Race to the Top effort as integral to our work to inspire the rocket scientists of tomorrow.

Our rockets launch satellites and spacecraft on missions to Earth orbit, the Moon, Mars and the edges of our solar system to explore our universe, enable climate and weather observation, protect our nation and even help you find your way around Washington, D.C. through the power of GPS navigation.

But we are faced with growing competition. Specifically for my company, a space launch company, we face growing competition from countries that want their own space programs. The United States used to be dominant in space, along with Russia, but this is no longer the case. One of the most important components of globalization is how our country will face the challenges in education. In aerospace, we have an aging work force and not enough students going into science and math careers in the U.S.

The infusions of funds through the Race to the Top grant is a step towards mitigating these growing concerns and would help secure Colorado's ability to collaborate with districts and stakeholders to fully implement the state's proposal and provide educators with the necessary conditions to effectively serve all students.

Mr. Secretary, thank you for your consideration of the Colorado proposal. On behalf of the United Launch Alliance, I applaud Colorado for submitting a bold proposal that paves the way for improving student performance and closing achievement gaps throughout Colorado.

Sincerely,

(b)(6)

Michael C. Gass
President and Chief Executive Officer
United Launch Alliance

bizCARES

Business Coalition to Advance Reform of the Education System

January 13, 2009

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

Dear Secretary Duncan,

BizCARES (Business Coalition to Advance Reform of the Education System) is proud to provide its full support behind Colorado's Race to the Top proposal. BizCARES is a state-wide coalition of Colorado's leading chambers of commerce, economic development councils, industry organizations, and business roundtable groups committed to an aggressive, comprehensive reform agenda to dramatically improve the state's education system and prepare our students for postsecondary and workforce success. The coalition includes 30 organizations representing businesses in every county of the state and more than half of the private workforce.

We applaud the proposal for its alignment with BizCARES five core principles—relentless focus on student achievement, great teachers and leaders, high performing schools, effective systems, and continuous improvement—, its clear and innovative strategies, and its outstanding level of stakeholder and district engagement. We are confident that successful implementation of these strategies will result in the next wave of our state's education reform efforts, for which Colorado has been a national leader.

BizCARES is committed to playing an ongoing state-wide leadership role to support the implementation of Race to the Top strategies to help ensure that, regardless of changes in political leadership, Colorado remains focused on achieving our vision of excellence for all students. Going forward, BizCARES also will support additional efforts to improve our state's education system, including legislation or other actions to improve effectiveness of our teachers and leaders. We believe teacher quality is the most important aspect that can impact student achievement and want to ensure that not only does the state have high quality teachers, but that the most effective teachers are teaching our highest-need children. The state's proposal includes several important steps (and in particular, devising a teacher evaluation system) which will serve as foundation for future efforts to improve the management and placement of our teaching force.

BizCARES greatly appreciates the opportunity to provide input into the development of this Race to the Top proposal and looks forward to playing role to see it through to successful implementation. We believe that achieving the state's vision—that all our children receive the high quality education they deserve—is not only imperative for our children, but also the key to the economic prosperity of our state in the global economy.

Sincerely,

Laurie Zeller, Executive Director
A+ Denver

Cathy Garcia, President and CEO
Action 22

Neeson Rainey, Executive Director
Alliance for Choice in Education

Sandy Steiner, Executive Director
Adams County Education Consortium

Reeves Brown, Executive Director
Club 20

John Whiteside, Executive Director
Colorado Association of Black Professional Engineers and Scientists

Darrell Green, Executive Director
Colorado Association of Career and Technical Education

Chuck Beery, President
Colorado Association of Commerce and Industry

Eric Lee, CEO
Colorado Black Chamber of Commerce

Janice Sinden, Executive Director
Colorado Concern

Gail Klapper, Executive Director
Colorado Forum

Brenda Morrison, Executive Director
Colorado's Future

Tim Taylor, President
Colorado Succeeds

Nancy Walsh, CEO
Colorado Women's Chamber of Commerce

Michael J. Karmierski, President and CEO
Colorado Springs Regional Economic Development Council

Kelly Brough, President and CEO
Denver Metro Chamber of Commerce

Maureen McDonald, Executive Director
Denver Metro Leadership Foundation

Kristin Colen, President and CEO
Denver Public Schools Foundation

Tamara Door, President and CEO
Downtown Denver Business Partnership

Danny Tomlinson, Executive Director
Economic Development Council of Colora

Dave Csinyan, President and CEO
Greater Colorado Springs Chamber of Commerce

Tom Clark, Executive Vice President
Metro Denver Economic Development Corporation

Cathy Shull, Executive Director
Progressive 15

Priscilla Fraser, Executive Director
South Central Council of Governments

John Lay, President and CEO
Southeast Business Partnership

John Brackney, President
South Metro Chamber of Commerce

Landri Taylor, President and CEO
Urban League

Richard Scharf, President and CEO
Visit Denver

Amy Sherman, President
West Chamber Serving Jefferson County

Susie Davis, Executive Director
The Youth Foundation

bizCARES

Business Coalition to Advance Reform of the Education System

Core Principles

PREAMBLE
Colorado's business community is united in pursuit of immediate and continuous improvements to the state's education system. We support an ambitious, aggressive and comprehensive reform agenda to dramatically increase the college and workforce readiness of all students, and we believe now is the time for bold and decisive action.

GOALS
1. All students exit public secondary education in Colorado prepared for successful post-secondary education and workplace experiences and for full participation in their communities and the world.
2. The current and future workforce needs of Colorado's economy are anticipated and served by the public education system.
3. Colorado's education system and processes are efficient, effective, responsive, innovative, and high-performing.

CORE PRINCIPLES

1. Relentless Focus on Student Achievement
Colorado will make all decisions about the education system by placing the highest priority on the best outcomes for students.

2. Great Teachers and Leaders
Colorado will employ data driven human capital management policies and practices that ensure the recruitment, retention, development and differentiated compensation for highly effective teachers and leaders in every school.

3. High Performing Schools
Colorado will continually build and improve its portfolio of high performing public schools with a system of effective incentives and interventions that will ensure that all students have access to a high quality education. Every Colorado student should have access to at least one high quality school of choice that meets international standards.

4. Effective Systems
Colorado will implement evidence-based data management systems, linked to internationally benchmarked standards and assessments, to drive the allocation of resources and ensure accountability for results.

5. Continuous Improvement
Colorado's public education system will be thoroughly integrated from early childhood through post secondary and will incorporate meaningful assessments and feedback to improve student achievement in a system that provides oversight and autonomy based on performance.

COLORADO LEAGUE of CHARTER SCHOOLS

January 13, 2010

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

Dear Secretary Duncan,

I am writing to express my support for Colorado's application to the U.S. Department of Education for a Race to the Top grant. As President of the Colorado League of Charter Schools, I strongly believe that the plans outlined in Colorado's proposal will help raise the performance of children in Colorado and close the achievement gap.

Colorado's plan includes strong support for charter schools in our state, which provide parents with additional quality public school options so that they may choose the educational path that best meets the needs of their children.

There are currently more than 160 charter schools across Colorado, serving approximately 66,000 children (8% of the total K-12 public school enrollment in the state). The Colorado League of Charter Schools is a non-profit, membership organization committed to helping these schools continue to reach high levels of student performance and overall success by providing information and resources including performance management, advocacy, public relations assistance, and more.

The infusion of funds through the Race to the Top grant would secure Colorado's ability to collaborate with districts and stakeholders to fully implement the state's proposal and provide educators with the necessary conditions to effectively serve all students—certainly including charter school students.

On behalf of the Colorado League of Charter Schools, I applaud Colorado for submitting a bold proposal that paves the way for improving student performance and closing achievement gaps throughout our state. Thank you in advance for your consideration.

Sincerely,

Jim Griffin
President
Colorado League of Charter Schools

Colorado STEM NETWORK

January 11, 2010

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

Dear Secretary Duncan,

This letter is to convey my full support for Colorado's application to the U.S. Department of Education for a Race to the Top grant. As Executive Director of the Colorado STEM Network, I am certain that the plans outlined in Colorado's proposal will help raise the performance of children in Colorado and close the achievement gap.

The Colorado STEM Network brings together key stakeholders of businesses, government, education, and community groups to improve STEM (science, technology, engineering and mathematics) education for all students. We offer a network-based infrastructure that informs and connects STEM initiatives through: advocacy, promotion and support, and communication. The infusions of funds through the Race to the Top grant would secure Colorado's ability to collaborate with districts and stakeholders to fully implement the state's proposal and provide educators with the necessary conditions to effectively serve all students.

On behalf of the Colorado STEM Network, I commend Colorado for submitting a forthright and audacious proposal that has brought together people throughout the state and leads the way for not only improving student performance but also inciting innovation and enthusiasm in students for learning throughout Colorado. Thank you in advance for your consideration.

Sincerely,
(b)(6)

Nicole McGee
Executive Director
Colorado STEM Network

January 13, 2010

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

Dear Secretary Duncan:

It is our pleasure and honor to provide a strong endorsement of Colorado's application to the U.S. Department of Education for Race to the Top grant funding. We are confident that the key stakeholders in our state's educational system have been deeply involved in creating smart and ambitious strategies to move education forward in Colorado.

As funders of education policy and reform, we are encouraged by the strategies identified in Colorado's application to create exemplary and sustainable learning communities that will drive dramatic improvements in student outcomes. Receipt of Race to the Top funds will build educator capacity and support structures, provide incentives for collaboration, develop cutting-edge data and accountability systems, turn around low performing schools, and offer opportunities for innovation.

Our foundations have invested millions of dollars in programs and policies statewide for decades. We've been at the forefront of such initiatives as ProComp (Denver's teacher performance compensation plan) and the new compensation system in Jefferson County (Colorado's largest school district), Healthy Schools (expanding the supply of affordable, healthy food options for public schools), Get Smart Schools (training new school leaders to open high performing autonomous schools across the Front Range), Innovation Schools (supporting implementation of the legislation in Colorado), and the Unique Teacher Identifier System. Programs like these provide opportunities for partnerships between private philanthropy, school districts, individual schools, and the state.

We applaud the leadership of Governor Bill Ritter and Lt. Governor Barbara O'Brien who put their hearts and souls into this work. We look forward with anticipation to further partnering with the state to improve educational opportunities and outcomes for Colorado students via the Race to the Top initiatives. Thank you in advance for your thoughtful consideration of our state's proposal.

Sincerely,

(b)(6)

Tony Lewis	Sheila Bugdanowitz	Linda Childears	Mary Gittings Cronin
Donnell-Kay Foundation	Rose Community Foundation	Daniels Fund	Piton Foundation

State Representative
JUDY SOLANO
Colorado State Capitol
[illegible]
Denver, CO 80203
Capitol: [illegible]
Home: [illegible]
E-mail: judy.solano.[illegible]

COLORADO
HOUSE OF REPRESENTATIVES
STATE CAPITOL
DENVER
80203

Vice Chair
Education Committee
Member
Agriculture, Livestock, and
Natural Resources Committee

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

January 13, 2010

Dear Secretary Duncan,

We are writing to express our support for Colorado's application to the U.S. Department of Education for a Race to the Top grant. As the Chairs of the Early Childhood and School Readiness Commission, we strongly believe that the plans outlined in Colorado's proposal will help raise the performance of children in Colorado and close the achievement gap.

The Early Childhood and School Readiness Commission is committed to ensuring that children enter school ready to thrive and succeed. To that end, we worked closely with our Department of Education, Office of the Governor, and the Colorado State Legislature to promote policy in early childhood that will support young children as they enter school. We applaud the state for including vital elements in early childhood in the final application. The emphasis on high quality full day kindergarten, parental engagement, supports for our Colorado Preschool Program, and support for teacher professional development all strengthen the state of education in Colorado by ensuring that our youngest, and most vulnerable citizens begin their academic careers prepared.

On behalf of the Early Childhood Commission and School Readiness Commission, we applaud Colorado for submitting a bold proposal that paves the way for improving student performance and closing achievement gaps throughout Colorado. Thank you in advance for your consideration.

Sincerely,

Rep. Judy Solano

The Honorable Judy Solano
Colorado State Representative
Chair of the Early Childhood and School Readiness Commission
Vice-Chair of the Colorado House Education Committee

Mary Hodge

The Honorable Mary Hodge
Colorado State Senator
Vice-Chair of the Early Childhood and School Readiness Commission

VI.A(3)i-1
Summary of Recent Education Reforms in Colorado

In the past ten years, Colorado has passed a number of laws that create a framework for implementing its Race to the Top plan. The State education policy framework is most notable for its combination of "tight" goals and "loose" means: policies establishing common high expectations and accountability, combined with policies designed to encourage local autonomy and innovation.

Alignment and Accountability

Colorado was an early adopter of standards-based education, passing our first set of Model Content Standards in 1993 and implementing our first Statewide assessments in 1997. Under a landmark accountability bill passed one year before No Child Left Behind (SB00-01), our State assessments were expanded to grades 3-10 and school rankings based on student assessment scores were made public in School Accountability Reports. Schools that persistently underperformed were subject to conversion into charter schools under a process led by the State Board of Education. To assess college readiness, SB 1 required all juniors to take the ACTs.

Thanks to data from the Colorado Student Assessment Program (CSAP), ACT, and from higher education, flaws in our education system quickly became apparent. In particular, many students graduating from high school and entering our State institutions of higher education needed remedial education before they were ready for college-level work. Statewide standards for remedial education allowed comparisons of the preparedness of graduates from different high schools, which began driving conversations about high school and postsecondary alignment.

In 2003, the Colorado Commission on Higher Education adopted new course taking admission requirements intended to ensure that high school graduates would be sufficiently prepared for college. The State also joined the Achieve network of States interesting in implementing the recommendations of the American Diploma Project, and then-Governor Owens formed an Educational Alignment Council to make recommendations about better aligning high school and postsecondary education requirements. In particular, the Educational Alignment Council looked at the wide variation in high school graduation requirements across school districts, and recommended that districts adopt graduation requirements that were consistent with the recommendations coming from groups such as Achieve and ACT.

Governor Ritter, elected in 2006, formed a P-20 Council to continue the focus on alignment. The P-20 Council, comprised of a broad set of stakeholders in early childhood education, K-12 education, higher education, business, education reform organizations, government, and foundations, provided numerous recommendations to the Governor for policy changes to support alignment. The cornerstone of this work, the Colorado Achievement Plan for Kids (CAP4K), passed the General Assembly with wide bipartisan support in 2008.

CAP4K requires the State to take the following actions:

- Develop definitions of school readiness and postsecondary and workforce readiness
- Revise State model content standards to reflect
- Revise State assessments to align with the new standards, including assessments of postsecondary and workforce readiness and of school readiness
- Develop high school graduation guidelines and conditions for diploma endorsement that are consistent with the new standards

The State Board of Education has already adopted school readiness and postsecondary and workforce readiness standards, and model content standards in 13 content areas. The assessment revision process is underway, advised by an Assessment Stakeholder Advisory Committee.

In 2009, Colorado closed the alignment and accountability loop by passing the Education Accountability Act of 2009, again with bipartisan support. This law requires the State to set annual Statewide goals based on four indicators – student longitudinal growth, student performance on State assessments, achievement gaps, and postsecondary and workforce readiness. LEAs and schools are required to set their own goals consistent with the State goals, and to develop plans for meeting those goals. The State holds LEAs responsible for meeting its goals, and LEAs hold their schools accountable. The State is given extensive authority to intervene in underperforming districts.

Closing Achievement Gaps

In 2003, Colorado formed the Closing the Achievement Gap Commission, which met regularly and issued a final report based on its findings. CDE is currently exploring ways to implement the recommendations in the report through its Forward Thinking on Achievement Gaps Committee.

In 2008, the legislature authorized funds for a pilot project testing different approaches to closing gaps in six districts. Each district is working with an external provider who is providing technical assistance in areas such as professional development, developing assessments, and implementing interventions. Preliminary evidence indicates that the district strategies are working and the lessons learned from this pilot will help guide future efforts.

The State is also leading LEAs in the implementation of Response to Intervention, which uses a tiered approach to intervening with students who have different academic needs. Colorado was an early adopter of RtI and provided input into the reauthorization of IDEA in this area. All districts in the State are currently implementing RtI, guided by the thinking of regional RtI cadres who met regularly during 2008-09 and using online professional development materials related to RtI. CDE is convening a technical advisory committee composed of national RtI experts to assist the State with problem-solving and best practices for this area..

Data

Colorado has consistently been a leader in the area of student achievement growth data as well as the visualization of that data. In 2008, the State put the Colorado Growth Model in place to analyze annual student growth and projected trajectories towards proficiency. In 2009, SchoolView became a central repository for the CGM data and for analysis and visualization of that data. Colorado also added an Educator Identifier to the data system.

The next steps are to implement the provisions of laws recommended by the P-20 Council and passed in 2008 that provide for improved data sharing among State agencies and between schools and other entities involved with supporting youth. The primary parties responsible for these initiatives are the Government Data Advisory Board and the Education Data Subcommittee.

Colorado Department of Education

Current State Commissioner of Education Dwight Jones, a former superintendent, was instrumental in the passage of CAP4K and the Education Accountability Act of 2009, and was a co-author of the report "Benchmarking for Success: Ensuring U.S. Students Receive a World-Class Education," released in 2008 by the National Governors' Association, the Council of Chief State School Officers, and Achieve, Inc.

Under the leadership of Commissioner Dwight Jones, the CDE has engaged in a review of its own structure and activities. Guided by a new strategic plan and the results of benchmarking its efforts against other State departments of education, the department has reorganized around strategic priorities and regained the confidence of LEAs around the State.

The Colorado Legacy Foundation is a nonprofit organization formed in 2008 to support CDE's initiatives. The Legacy Foundation is able to quickly raise private funds and leverage partnerships to help lead and support important projects.

Early Childhood Education

The Colorado Preschool Program, authorized in 1988, currently serves more than 20,000 at-risk children in 171 of Colorado's 178 school districts. CPP programs are located in a variety of early childhood education settings, including for-profit and nonprofit centers, Head Start programs, and public schools. CPP programs participate in Results Matter, a comprehensive early childhood accountability program. CPP programs contribute data on children, family, program, and system outcomes, and the results are used to impact early childhood practices and policies. Research on the impact of the CPP shows that CPP is helping to close achievement gaps.

Legislation passed in 2007 authorized the formation of Early Childhood Councils to improve access to and availability of early childhood services in the State. Thirty Early Childhood Councils across the State coordinate partnerships among providers of child care, early childhood education, child health services, and family support.

Educator Preparation and Effectiveness

Colorado has a vibrant and diverse collection of preparation programs for educators. For university-based preparation programs, the State's requirement for preservice clinical preparation is among the highest in the country. The alternative routes allow people at various stages of their careers to enter teaching, without unnecessary

restrictions but maintaining quality controls. All teacher and principal preparation programs must assure that their graduates can meet professional performance standards set by the State Board of Education.
Colorado law requires each LEA to provide an induction program for its new teachers and principals. Induction must include mentoring support. To renew professional licenses, teachers and principals must provide evidence of professional development hours that are relevant to the area in which they teach. The State has provided incentives for teachers to pursue certification from the National Board of Professional Teaching Standards.
Colorado's current evaluation law is broad enough to permit district evaluation systems that provide for annual evaluations, use student growth data as a significant factor in determining levels of performance, use multiple performance ratings, and target professional development to needs identified through the evaluation process. However, most district evaluation systems do not go this far.
Current teacher compensation law provides that LEAs must have a compensation plan that applies to all teachers in the district. This can include traditional salary schedules as well as performance-based plans.
"Tenure" is referred to in Colorado law as nonprobationary status. Teachers in their first three years of employment with a district are on probationary status, with year-to-year contracts. They can be dismissed for any reason. Teachers entering their fourth year of employment are considered nonprobationary, meaning that they cannot be dismissed except for reasons Stated in statute and according to the statutory process. Unsatisfactory performance is a valid reason for dismissing nonprobationary teachers.
Colorado does not have a public employee collective bargaining statute, and it is up to LEAs as to whether to recognize a teachers association for bargaining purposes. Some districts have collective bargaining agreements, but most do not. Principals are not represented by unions in any LEA.

Postsecondary Readiness

Colorado law provides a number of strategies for improving postsecondary readiness, in addition to the strategies contained in CAP4K (described above). The State has allowed concurrent high school and postsecondary enrollment since 1988, with the passage of the Post-Secondary Enrollment Options Act. Legislation passed in 2009 consolidated the various concurrent enrollment options, and created the Accelerating Students through Concurrent Enrollment (ASCENT), the nation's first State-level five-year dual degree program. In 2008, the State created a $5 million Counselor Corps, funding 70 new secondary level counselor positions in high-needs schools across the State. In 2004, the State created College in Colorado, an extensive website that provides postsecondary planning and access resources for students. Colorado students use College in Colorado to create Individual Career and Achievement Plans, intentionally linking middle and high school course taking to student plans after graduation.

Schools of Choice

Colorado has typically taken a bipartisan and welcoming approach to most school choice options. The State passed a Public School Choice Act in 1990 that provided that students could enroll in any public school in the State, provided that space was available. The Charter Schools Act, passed in 1992, provided even more choices to students and their families. Parents and families in Colorado actively use public school choice to attend schools outside of their neighborhood and even district boundaries.

In 2008, the State passed the Innovation Schools Act, which essentially allows a school or group of schools to request charter school-like freedoms from the school district, the State, and any applicable collective bargaining agreements.

Prepared by Kelly Hupfeld, Research Assistant Professor
Center for Education Policy Analysis
School of Public Affairs, University of Colorado Denver

Exhibit VI.A(3)i-2
The CDE and Department of Higher Education Postsecondary and Workforce Readiness (PWR) Definition

Description of PWR

"Postsecondary and workforce readiness" describes the knowledge, skills, and behaviors essential for high school graduates to be prepared to enter college and the workforce and to compete in the global economy. The description assumes students have developed consistent intellectual growth throughout their high school career as a result of academic work that is increasingly challenging, engaging, and coherent.

Postsecondary education and workforce readiness assumes that students are ready and able to demonstrate the following without the need for remediation.

I. Content Knowledge

Literacy
- Read fiction and non-fiction, understanding conclusions reached and points of view expressed
- Write clearly and coherently for a variety of purposes and audiences
- Use logic and rhetoric to analyze and critique ideas
- Access and use primary and secondary sources to explain questions being researched
- Use standard language properly: correct grammar, usage and spelling

Mathematical Sciences
- Think critically, analyze evidence, read graphs, understand logical arguments, detect logical fallacies, test conjectures, evaluate risks, and appreciate the role mathematics plays in the modern world, i.e., be quantitatively literate
- Understand and apply algebraic and geometric concepts and techniques
- Use concepts and techniques of probability and statistics
- Apply knowledge of mathematics to problem-solve, analyze issues, and make critical decisions that arise in everyday life

Science
- Think scientifically and apply the scientific method to complex systems and phenomena
- Use empirical evidence to draw conclusions
- Recognize conclusions are subject to interpretation and can be challenged
- Understand the core scientific concepts, principles, laws, and vocabulary, and how scientific knowledge is extended, refined, and revised over time

Social Sciences
- Identify and describe historical, social, cultural, political, geographical, and economic concepts
- Interpret sources, and evaluate evidence and competing ideas
- Build conceptual frameworks based on understanding themes and the overall flow of events
- Understand civic responsibility, including how governments work in the United States and in other countries
- Interpret new information from a global and multicultural perspective

The Arts and Humanities
- Understand and appreciate how the arts and humanities (expressions of culture and identity through language, movement, sound, and visual representation) contribute to and shape culture and understanding of culture
- Understand how the arts are used as an instrument of social and political thought
- Identify leading innovators in the arts and humanities and the contributions they have made to their respective genres

- Communicate and interact effectively with communicators of different languages
- Understand how communicating in another language can improve learning in other disciplines and expand professional, personal, and social opportunities

II. Learning and Life Skills

Critical Thinking and Problem-Solving
- Apply logical reasoning and analytical skills
- Evaluate the credibility and merit of information, ideas, and arguments
- Discern bias, pose questions, marshal evidence, and present solutions

Find and Use Information/Information Technology
- Assess the credibility and relevance of information
- Conduct research using acceptable research methods
- Apply different research paradigms, including the collection and analysis of both quantitative and qualitative data and research
- Select, integrate, and apply appropriate technology to expand information and knowledge

Creativity and Innovation
- Demonstrate intellectual curiosity
- Generate new ideas and novel approaches
- Develop new connections where none previously existed

Global and Cultural Awareness
- Appreciate the arts, culture, and humanities
- Interact effectively with and respect the diversity of different individuals, groups, and cultures
- Recognize the interdependent nature of our world

Civic Responsibility
- Practice civic responsibility and citizenship
- Balance personal freedom with the interests of a community

Work Ethic
- Set priorities and manage time
- Take initiative, and follow through
- Learn from instruction and criticism
- Take responsibility for actions and work
- Act with maturity, civility, and politeness

Personal Responsibility
- Act assertively
- Be a self-advocate
- Possess financial literacy and awareness of consumer economics
- Behave honestly and ethically

Communication
- Read, write, listen and speak effectively
- Construct clear, coherent, and persuasive arguments

Collaboration
- Be a team player
- Acknowledge authority and take direction
- Cooperate for a common purpose

Exhibit VI.A(3)i-3
Summary of Disbursement of Governor's State Fiscal Stabilization Fund

Summary of Disbursement Recipients:

1. Administrative Staffing
2. Accelerating Students through Concurrent Enrollment (ASCENT)
3. Alternative Teacher Compensation (ACT) Act Grants
4. Colorado Achievement Plan for Kids (CAP4K)
5. Colorado Growth Model
6. Educator Identifier System
7. National Board Certification Stipends
8. National Board Certified Teachers (NBCT) assessment stipend
9. Office of Dropout and Student Reengagement
10. Principal Leadership Academy
11. State Assigned Student Identification Numbers (SASID)

STATE OF COLORADO

OFFICE OF THE GOVERNOR
136 State Capitol Building
Denver, Colorado 80203
(303) 866 - 2471
(303) 866 - 2003 fax

Bill Ritter, Jr.
Governor

September 11, 2009

Dwight D. Jones
Commissioner of Education
Colorado Department of Education
201 East Colfax Avenue
Denver, CO 80203

Dear Commissioner Jones:

The purpose of this letter is to notify the Colorado Department of Education (hereafter the "Department") of its receipt of $450,000 in funding from the State Fiscal Stabilization Fund – Government Services fund of the American Recovery and Reinvestment Act of 2009. This funding is for the purpose of hiring and retaining additional administrative staffing, including temporary contract staff positions, requested by the Department for purposes of implementing the various education programs found in the Recovery Act.

Governor Ritter believes that this award is necessary to ensure that key reform education initiatives are continued and is consistent with the education reform goals being advanced by ARRA. This investment demonstrates a commitment to the promise that all of Colorado's students be given an equal opportunity to succeed.

The award period for this funding is July 1, 2009 – June 30, 2011. These funds are available to the Department immediately. The DUNS number for this award is 188589402, CFDA number is 84.397A, and Grant Award S397A090006. For reporting purposes, the project name for these funds should be "State Fiscal Stabilization Fund – Government Services."

In receiving this funding the Department agrees to administer and use SFSF program funds in accordance with all applicable statutes, regulations, and applications. The Department agrees to use fiscal control and fund accounting procedures that will ensure proper disbursement of, and accounting for, federal funds paid to that agency under the SFSF program. The Department's administration and expenditure of SFSF program funds shall be in accordance with all applicable requirements of the Education Department General Administrative Regulations (EDGAR), the cost principles contained in 2 CFR 225 (OMB Circular A-87), OMB Circular A-102, and OMB Circular A-133.

As primary grantees for State Fiscal Stabilization Funds, it is our goal to manage the flow of funds that ensures that subgrantees like the Department are able to draw down funds as needed to pay program costs but that also minimizes the time that elapses between the transfer of the funds and their disbursement. Importantly, all SFSF monies will be remitted to subgrantees on a reimbursement basis for actual eligible expenditures. Reimbursement requests for funds that exceed actual eligible expenditures will be disallowed.

All reimbursement requests from the Department must be accompanied with a completed SFSF financial report (enclosed) that shows the Department's approved SFSF allocation, billing period expenses, total project expenses to date, and remaining allocation amount. All SFSF financial reports must be signed by the Commissioner or the Commissioner's Chief of Staff and the Department's chief financial officer.

In addition, the Department will make reports to the Governor's office and to the Colorado Economic Recovery and Accountability Board ("CERAB") as may reasonably be necessary to enable the Governor's office and CERAB to perform their duties and meet federal reporting requirements. The Department will also maintain such records, including the records required under 20 U.S.C. § 1232f, and provide access to those records as the Governor's office and CERAB deem necessary to perform their duties. Moreover, the Department will follow the Implementing Guidance for the Reports on Use of Funds Pursuant to the American Recovery and Reinvestment Act of 2009 (http://www.whitehouse.gov/omb/assets/memoranda_fy2009/m09-10.pdf).

The Department shall only use SFSF program funds for activities allowable under the SFSF. *See* U.S. Department of Education's Guidance on the State Fiscal Stabilization Fund Program (http://www.ed.gov/programs/statestabilization/guidance.pdf).

As required by the Recovery Act, the Department will obligate all SFSF monies from this grant no later than September 30, 2011 and will promptly refer to an appropriate inspector general any credible evidence that a principal, employee, agent, contractor, sub-grantee, subcontractor, or other person has submitted a false claim under the False Claim Act (31 U.S.C. § 3729-3733) or has committed a criminal or civil violation of laws pertaining to fraud, conflict of interest, bribery, gratuity, or similar misconduct involving SFSF funds.

The Department will act as the fiscal agent under this award in coordinating the reimbursement of expenditures from the Governor's Office to the Department. If you have any questions concerning the procedures described in this letter, please call or write Norm Brisson, Chief Administrative Officer for the Office of Governor Bill Ritter, Jr.

If you agree to the terms and conditions of this grant set forth in this letter, please countersign below and return this letter to my attention.

Sincerely,

Jim Carpenter
Chief of Staff
Office of Governor Bill Ritter, Jr.

Acknowledged and agreed to by:

Dwight D. Jones
Commissioner of Education
Colorado Department of Education

ASCENT

Dear Commissioner Jones:

The purpose of this letter is to notify the Colorado Department of Education (hereafter the "Department") of its receipt of $52,926 in funding from the State Fiscal Stabilization Fund – Government Services fund of the American Recovery and Reinvestment Act of 2009. This funding is for the purpose of funding ASCENT/concurrent enrollment, pursuant to House Bill 09-1319. This funding shall be disbursed in two fiscal years, as follows: $30,030 in FY 2009-10; and $22,896 in FY 2010-11

ACT Act Grants

Dear Commissioner Jones:

The purpose of this letter is to notify the Colorado Department of Education (hereafter the "Department") of its receipt of $1,000,000 in funding from the State Fiscal Stabilization Fund – Government Services fund of the American Recovery and Reinvestment Act of 2009. This funding is for the purpose of reinstating the competitive alternative compensation grant program described in House Bill 08-1388.

CAP4K

Dear Commissioner Jones:

The purpose of this letter is to notify the Colorado Department of Education (hereafter the "Department") of its receipt of $200,000 in funding from the State Fiscal Stabilization Fund – Government Services fund of the American Recovery and Reinvestment Act of 2009. This funding is for the purpose of hiring additional temporary or contract staff to support the ongoing implementation of CAP4K, as requested by the Department.

Colorado Growth Model

Dear Commissioner Jones:

The purpose of this letter is to notify the Colorado Department of Education (hereafter the "Department") of its receipt of $2,500,000 in funding from the State Fiscal Stabilization Fund – Government Services fund of the American Recovery and Reinvestment Act of 2009. This funding is for the purpose of enhancing the Colorado growth model and School*View*, which will provide education stakeholders with improved access to student growth and school performance data.

Educator Identifier System

Dear Commissioner Jones:

The purpose of this letter is to notify the Colorado Department of Education (hereafter the "Department") of its receipt of $500,000 in funding from the State Fiscal Stabilization Fund – Government Services fund of the American Recovery and Reinvestment Act of 2009. This funding is for the purpose of developing the educator identifier system described in House Bill 09-1065 and as requested by the Department.

National Board Certification Stipends

Dear Commissioner Jones:

The purpose of this letter is to notify the Colorado Department of Education (hereafter the "Department") of its receipt of $1,336,541 in funding from the State Fiscal Stabilization Fund – Government Services fund of the American Recovery and Reinvestment Act of 2009. This funding is for the purpose of reinstating the National Board Certification stipend program described in House Bill 08-1384. These funds are to be disbursed in two sums—one prior to December 2009 for teachers that were eligible for the stipend program in May 2009, and another for eligible teachers in May 2010. As set forth in the Department's request, these stipend payments will be made based upon the method found in House Bill 08-1384.

NBCT

Dear Commissioner Jones:

The purpose of this letter is to notify the Colorado Department of Education (hereafter the "Department") of its receipt of $200,000 in funding from the State Fiscal Stabilization Fund – Government Services fund of the American Recovery and Reinvestment Act of 2009. This funding is for the purpose of reinstating the statewide National Board Certification assessment stipend program for fiscal year 2009-10, as requested by the Department.

Office of Dropout and Student Reengagement

Dear Commissioner Jones:

The purpose of this letter is to notify the Colorado Department of Education (hereafter the "Department") of its receipt of $307,944 in funding from the State Fiscal Stabilization Fund – Government Services fund of the American Recovery and Reinvestment Act of 2009. This funding is for the purpose of funding the Office of Dropout and Student Reengagement, as requested by the Department and for the purpose of implementing the provisions of House Bill 09-1243. This funding shall be disbursed in two fiscal years, as follows: $157,722 in FY 2009-10; and $150,172 in FY 2010-11.

Principal Leadership Academy

Dear Commissioner Jones:

The purpose of this letter is to notify the Colorado Department of Education (hereafter the "Department") of its receipt of $25,000 in funding from the State Fiscal Stabilization Fund -- Government Services fund of the American Recovery and Reinvestment Act of 2009. This funding is for the purpose of funding the Principal Leadership Academy created by House Bill 08-1386. This funding is contingent upon the Department securing $25,000 in matching funds from private sources.

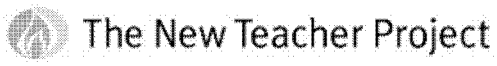
SASID

Dear Commissioner Jones:

The purpose of this letter is to notify the Colorado Department of Education (hereafter the "Department") of its receipt of $50,000 in funding from the State Fiscal Stabilization Fund – Government Services fund of the American Recovery and Reinvestment Act of 2009. This funding is for the purpose of supporting the implementation of state assigned student identification numbers (SASIDs) for publicly-funded preschool students pursuant to House Bill 08-1364.

Exhibit VI.A(3)i-4
The New Teacher Project Memorandum of Understanding

Description: The New Teacher Project proposal to support the development and implementation of a Statewide strategy to improve educator effectiveness



M E M O R A N D U M

TO: Nina Lopez, Special Assistant to the Commissioner, and Colorado Department of Education

FROM: Dan Weisberg, The New Teacher Project

DATE: July 31, 2009

CC: Tim Daly, Susan Sexton and Joan Schunck, The New Teacher Project

RE: Project Proposal

Thank you for your continued interest in The New Teacher Project (TNTP) and our work. In response to our recent conversation with you, we crafted this proposal to further outline our approach to assisting the State of Colorado in developing a high-level teacher effectiveness vision and strategy; diagnosing the impact of current State law and policy on teacher effectiveness; and identifying legislative and policy reforms to support the State's application for federal funding and its broader teacher effectiveness goals. TNTP has a proven track record of using a non-ideological, non-partisan approach to policy that is rooted in data and geared to the needs of State and district practitioners. In addition, through our work in Denver Public Schools, Pueblo City Schools, and the Thompson School District, Colorado has gained deep knowledge of the context for education reform in Colorado. The State believes that our approach and experience on the ground in Colorado will yield a balanced and detailed understanding of the critical issues and assist State, district, and union stakeholders in agreeing on a bold agenda.

SCOPE OF WORK

The goal of this initiative will be to assist the CDE in articulating and implementing a State strategy to increase teacher effectiveness by assessing the current policy landscape; identifying needed legislative and policy reforms; advising and supporting the CDE in soliciting and incorporating stakeholder feedback; and developing key messages and arguments for obtaining legislative, public, and key stakeholder support. In that federal Race to the Top (R2T) grant money is one possible source of funding for State reforms in support of teacher effectiveness, TNTP's analysis and recommendations will align with R2T guidelines, but the blueprint provided by this work will not be contingent on R2T funding.

Project activities (August 2009 – May 2010)

TNTP will undertake a series of activities to accomplish the project goal. First, the State will analyze current statutory and policy conditions and advise the CDE on developing initial conditions for reform. To that end, it will:

- Catalogue existing State law and policy bearing upon teacher effectiveness
- Identify areas in which current policy impedes accurate, credible measurement of teacher effectiveness and use of effectiveness as a basis for key human capital decisions
- Identify opportunities for advancing teacher effectiveness goals through existing CDE programs, such as the alternative compensation grants program, National Board Certification stipends for teachers, the School Leadership Academy, and the Quality Teachers Commission
- Work with CDE staff to craft a set of overarching short and long term objectives for revising and filling gaps in State policy
- Develop a strategy for achieving reform by embedding those objectives in the unique legal, political and demographic context of the State of Colorado and setting benchmarks for reform outcomes
- Craft a plan to effectively and efficiently incorporate input from State education stakeholders. Possible activities could include assistance in setting the agenda for and facilitating a series of advisory panel meetings and/or developing a plan and contributing content for a web-based input process.

Next, the State is will make concrete recommendations for legislative and policy reforms through the following process:

- Brief the CDE committee on teacher effectiveness and develop specific reform proposals for consideration. Possible topics for briefings may include licensure, teacher evaluation, teacher compensation, teacher professional development, staffing and layoff policies, and teacher dismissal. Briefing materials will include data from TNTP's research in districts in Colorado and other States (where applicable), synopses of third party research on key topics, and analysis based on TNTP's expertise in teacher human capital.
- Provide input on the elements of the State's R2T proposal that deal with teacher effectiveness and outline specific legislation promoting R2T objectives pertaining to teacher effectiveness; and coordinate with the work of public input committee on teacher effectiveness which you are co-chairing so that its R2T recommendations and the CDE's teacher effectiveness strategy are consistent and are mutually supportive.
- Assist in drafting legislation and policy Statements to enact teacher effectiveness reforms. Possible areas for reform may include incorporating teacher effectiveness into licensure requirements; linking State professional development dollars with increases in teacher effectiveness; and streamlining teacher dismissal procedures.
- Structure reforms to build upon previous and upcoming collaboration between the CDE and local school districts

Finally, the State will advise and assist the CDE in building legislative, public, and key stakeholder support for proposed reforms and in sustaining State and local capacity for reform over the long term. To that end the State will:

- Support CDE's efforts to advocate for legislative action, e.g. by providing data and messages for legislative testimony and stakeholder briefings
- Advise the CDE on developing measurable long-term goals for teacher effectiveness and on implementing data systems to track progress toward those goals
- Advise the CDE on its approach to access future federal grants and other moneys available for teacher effectiveness (e.g. the Teacher Incentive Fund) and provide assistance in structuring practices to ensure these funds are strategically invested with a focus on teacher effectiveness.
- Advise the CDE on promoting and replicating teacher effectiveness best practices in local school districts, capitalizing on current or future district initiatives (e.g., the potential for the Bill and Melinda Gates Foundation's "Deep Dive" in Denver Public Schools)

In addition, TNTP may provide targeted support for reforms at the local level through future partnerships with individual school districts. If that work occurs, it will be outlined in a separate scope of work and may entail additional financial resources.

STATE COMMITMENTS

- Secure project funding. The total cost for the project is $140,000, of which TNTP will raise half the total from external funders.
- Provide access to State legislative and CDE staff who can give technical background on State education law and policy.
- Provide timely access to key decision-makers, including the Commissioner of Education and representatives from the Governor's office, to ensure that our analysis and strategy is well-crafted to ensure that reforms are implemented with maximum impact.

NEXT STEPS

Please review the above scope of work and timeline and provide us with any questions that you may have or changes that you wish to see. Please do not hesitate to contact Dan Weisberg at dweisberg@tntp.org or 718-233-2822 with any questions or concerns. The State looks forward to working with you on this important project.

Exhibit VI.A(3)ii-1

National Assessment of Educational Progress (NAEP) Results

There are three achievement levels to the NAEP: Basic, Proficient (Prof.) and Advanced (Adv.). Results are given here for grades (Gr.) 4 and 8 for the nation (Nat.) and Colorado (CO).

NAEP Achievement Results – Overall

Gr. 4	Reading	All students			
Year		**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**
2003	National	36.6	31.9	23.8	7.7
	CO	30.6	32.6	27.8	8.9
2005	Nat.	32.8	34.1	25.2	7.9
	CO	30.0	33.8	27.1	9.0
2007	Nat.	35.8	32.7	24.0	7.5
	CO	30.5	32.9	28.2	8.3

Gr. 8	Reading	All students			
Year		**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**
2003	Nat.	26.2	41.6	29.1	3.2
	CO	22.3	41.7	31.8	4.2
2005	Nat.	27.4	41.8	27.8	3.0
	CO	24.6	43.5	28.4	3.5
2007	Nat.	26.0	42.8	28.5	2.8
	CO	21.3	44.1	32.2	2.4

Math	Gr. 4	All students			
Year		**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**
2003	Nat.	22.8	44.7	28.6	3.9
	CO	23.0	43.1	29.7	4.2
2005	Nat.	19.7	44.0	31.3	5.0
	CO	19.5	41.7	32.6	6.2
2007	Nat.	17.8	42.8	33.8	5.6
	CO	18.2	40.6	35.0	6.2
2009	Nat.	18.2	42.7	33.2	5.9
	CO	16.2	38.6	37.1	8.1

Math	Gr. 8	All students			
Year		**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**
2003	Nat.	31.9	39.3	23.4	5.4
	CO	26.2	39.4	26.9	7.5
2005	Nat.	30.9	39.4	23.7	6.0
	CO	29.5	38.5	25.7	6.3
2007	Nat.	28.7	39.1	25.2	7.0
	CO	24.9	37.7	27.9	9.5
2009	Nat.	27.4	38.8	26.0	7.9
	CO	24.5	35.8	29.7	10.0

NAEP Achievement and Performance Gap Results - Free and Reduced Lunch Program

Reading	Gr. 4	FRL Eligible				FRL Not eligible				% Meeting AYP		
Year		% Below Basic	% At Basic	% At Prof.	% At Adv.	% Below Basic	% At Basic	% At Prof.	% At Adv.	FRL Eligible	FRL Not Eligible	Performance Gap
2003	**Nat.**	55.3	29.3	13.1	2.2	24.1	34.0	30.8	11.0	44.7	75.9	31.2
	CO	48.8	31.8	16.6	2.8	22.2	33.1	33.0	11.8	51.2	77.8	26.6
2005	**Nat.**	53.9	30.5	13.4	2.2	23.1	34.6	31.4	10.8	46.1	76.9	30.8
	CO	48.4	31.9	16.8	2.9	20.8	33.5	34.5	11.3	51.6	79.2	27.6
2007	**Nat.**	50.3	33.1	14.3	2.3	20.7	34.9	32.7	11.7	49.7	79.3	29.7
	CO	48.6	34.5	14.8	2.1	18.5	33.4	34.8	13.3	51.4	81.5	30.1

Reading	Gr. 8	FRL Eligible				FRL Not eligible				% Meeting AYP		
Year		% Below Basic	% At Basic	% At Prof.	% At Adv.	% Below Basic	% At Basic	% At Prof.	% At Adv.	FRL Eligible	FRL Not Eligible	Performance Gap
2003	**Nat.**	43.1	41.2	14.9	0.9	17.5	42.4	36.0	4.0	56.9	82.5	25.5
	CO	40.4	43.1	15.2	1.3	15.8	41.0	37.8	5.3	59.6	84.2	24.5
2005	**Nat.**	43.0	41.6	14.6	0.7	19.0	42.4	34.7	4.0	57.0	81.0	24.1
	CO	43.3	41.7	13.9	1.2	16.3	44.4	34.9	4.5	56.7	83.7	27.0
2007	**Nat.**	41.6	43.2	14.6	0.6	17.1	43.1	36.1	3.7	58.4	82.9	24.5
	CO	36.4	45.9	17.2	0.5	14.2	43.3	39.2	3.2	63.6	85.8	22.3

Math	Gr. 4	Eligible				Not eligible				% AYP Prof.		
Year		% Below Basic	% At Basic	% At Prof.	% At Adv.	% Below Basic	% At Basic	% At Prof.	% At Adv.	FRL Eligible	FRL Not Eligible	Performance Gap

2003	**Nat.**	37.9	46.9	14.4	0.8	12.0	43.3	38.6	6.1	62.1	88.0	25.9
	CO	42.3	43.4	13.7	0.6	13.8	43.0	37.3	5.8	57.7	86.2	28.5
2005	**Nat.**	32.7	48.2	17.9	1.3	9.8	40.8	41.6	7.9	67.3	90.2	22.9
	CO	34.5	45.8	18.4	1.2	10.5	39.3	41.0	9.2	65.5	89.5	24.1
2007	**Nat.**	30.0	48.5	20.0	1.5	8.9	38.3	44.1	8.7	70.0	91.1	21.1
	CO	32.7	46.7	18.9	1.7	8.4	36.5	45.9	9.3	67.3	91.6	24.4
2009	**Nat.**	29.6	48.7	20.2	1.5	8.6	37.5	44.1	9.8	70.4	91.4	20.9
	CO	30.4	45.9	22.0	1.7	7.5	34.3	46.2	11.9	69.6	92.5	22.9

Math	**Gr. 8**	**Eligible**				**Not eligible**				**% AYP Prof.**		
Year		**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**	**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**	**FRL Eligible**	**FRL Not Eligible**	**Performance Gap**
2003	**Nat.**	52.0	35.9	10.9	1.2	21.3	41.4	29.8	7.4	48.0	78.7	30.6
	CO	49.6	37.4	11.4	1.5	17.3	40.2	32.7	9.8	50.4	82.7	32.4
2005	**Nat.**	49.1	37.6	12.0	1.4	20.5	40.7	30.3	8.5	50.9	79.5	28.5
	CO	51.2	35.5	12.3	1.0	19.3	39.9	32.0	8.8	48.8	80.7	31.9
2007	**Nat.**	45.4	39.2	13.7	1.7	18.6	39.2	32.2	10.0	54.6	81.4	26.8
	CO	42.4	41.1	14.8	1.7	16.0	36.0	34.5	13.5	57.6	84.0	26.4
2009	**Nat.**	43.4	39.9	14.7	2.0	16.9	38.3	33.1	11.6	56.6	83.1	26.5
	CO	43.3	38.2	16.1	2.5	14.5	34.8	37.1	13.6	56.7	85.5	28.8

NAEP Achievement Results - Ethnicity

Gr. 4	**Reading**	**White**				**Black**				**Hispanic**				**Asian/Pacific Island**			
Year		**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**	**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**	**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**	**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**
2003	Nat.	24.9	34.1	30.4	10.6	59.8	27.5	11.0	1.7	56.2	28.6	12.8	2.4	29.6	32.1	26.6	11.7
	CO	21.8	33.1	33.3	11.7	46.4	35.5	16.8	1.3	51.6	30.2	15.2	2.9	31.5	35.6	24.3	8.6

2005	Nat.	24.3	34.8	30.6	10.3	58.2	28.9	11.3	1.7	54.2	29.9	13.4	2.5	26.7	31.8	28.8	12.7
	CO	20.9	33.1	34.7	11.3	48.3	33.9	16.5	1.3	51.0	31.8	14.7	2.4	19.8	38.6	32.8	8.8
2007	Nat.	21.9	35.4	31.9	10.7	53.5	32.1	12.5	1.9	50.5	32.1	14.6	2.8	22.6	31.8	30.8	14.7
	CO	18.9	34.5	34.2	12.4	43.9	38.0	15.5	2.6	52.3	32.4	13.2	2.2	23.8	29.0	31.2	16.0

Gr. 8	**Reading**	**White**				**Black**				**Hispanic**				**Asian/Pacific Island**			
Year		**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**	**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**	**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**	**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**
2003	Nat.	16.8	42.2	36.7	4.3	46.1	41.1	12.3	0.5	44.1	40.6	14.5	0.8	20.9	38.9	34.9	5.4
	CO	15.4	41.1	38.2	5.3	40.4	43.2	15.4	1.0	42.8	43.3	12.6	1.3	15.7	36.9	41.9	5.5
2005	Nat.	18.0	42.6	35.3	4.1	47.8	40.1	11.6	0.5	43.8	41.2	14.2	0.8	20.1	39.6	34.7	5.6
	CO	15.8	44.4	35.2	4.7	34.8	47.2	16.7	1.3	44.2	41.0	13.9	0.8	24.4	33.9	36.1	5.6
2007	Nat.	16.3	43.4	36.5	3.8	45.1	42.4	12.1	0.4	41.9	42.6	14.7	0.7	19.9	39.0	36.0	5.1
	CO	13.2	43.4	40.1	3.3	35.4	47.0	17.0	0.5	37.7	45.6	16.2	0.5	20.7	43.7	32.3	3.2

Gr. 4	**Math**	**White**				**Black**				**Hispanic**				**Asian/Pacific Islander**			
Year		**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**	**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**	**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**	**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**
2003	Nat.	12.5	44.6	37.4	5.5	45.9	44.1	9.5	0.4	37.6	46.8	14.7	0.8	12.8	38.9	38.5	9.7
	CO	12.5	44.0	38.0	5.5	45.8	42.0	11.6	0.6	45.8	41.5	11.9	0.8	19.0	36.5	35.5	9.0
2005	Nat.	10.5	42.3	40.4	6.8	39.9	47.2	12.2	0.6	32.0	48.5	18.2	1.3	10.2	35.2	41.0	13.6

	CO	10.5	40.3	40.7	8.5	38.7	43.1	17.3	0.9	37.4	44.2	16.9	1.5	19.2	39.0	31.4	10.4
2007	Nat.	8.9	40.3	43.3	7.6	36.3	48.3	14.6	0.8	30.4	47.6	20.6	1.5	9.1	32.5	43.1	15.3
	CO	9.0	37.3	45.0	8.6	35.2	44.9	18.0	2.0	34.0	46.6	17.5	2.0	12.4	35.0	43.2	9.4
2009	Nat.	9.5	39.9	42.5	8.2	36.3	47.8	15.1	0.9	29.3	49.1	20.2	1.4	8.5	31.2	43.2	17.1
	CO	7.3	35.7	45.9	11.1	33.4	43.2	21.6	1.8	31.4	44.3	21.6	2.7	15.1	34.2	39.1	11.5

Gr. 8	**Math**	**White**				**Black**				**Hispanic**				**Asian/Pacific Island**			
Year		**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**	**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**	**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**	**% Below Basic**	**% At Basic**	**% At Prof.**	**% At Adv.**
2003	Nat.	20.2	42.3	30.3	7.2	60.9	31.8	6.8	0.5	52.4	35.9	10.4	1.3	21.5	35.4	30.5	12.5
	CO	16.4	40.7	33.1	9.8	59.8	31.3	8.2	0.7	51.8	36.5	10.5	1.2	19.6	42.1	28.7	9.6
2005	Nat.	19.7	41.7	30.6	8.0	57.9	33.4	7.9	0.8	48.5	38.1	12.1	1.4	18.6	34.1	31.4	15.9
	CO	17.5	39.7	34.4	8.4	56.4	33.1	10.1	0.4	52.0	37.8	8.8	1.3	‡	‡	‡	‡
2007	Nat.	17.8	40.3	32.4	9.4	52.6	36.3	10.1	0.9	45.3	39.3	13.6	1.8	17.4	33.0	32.3	17.3
	CO	15.0	37.1	35.2	12.7	40.1	38.5	17.4	4.1	46.9	39.6	11.6	1.9	18.0	34.1	30.8	17.2
2009	Nat.	16.8	39.6	32.9	10.7	50.4	37.2	11.1	1.2	43.3	39.6	15.3	1.8	14.9	31.3	33.9	19.9
	CO	13.1	35.4	37.5	14.0	47.2	37.1	14.5	1.1	45.3	37.2	15.4	2.1	14.1	30.7	37.0	18.2

NAEP Performance Gap Results – Ethnicity

Gr. 4	**Reading**	**% Basic, Prof. and Adv.**				**Performance Gap**		
Year		**White**	**Black**	**Hispanic**	**Asian/ Pacific Island**	**Black**	**Hispanic**	**Asian/ Pacific Island**
2003	Nat.	75.1	40.2	43.8	70.4	34.9	31.3	4.7
	CO	78.2	53.6	48.4	68.5	24.6	29.8	9.7
2005	Nat.	75.7	41.8	45.8	73.3	33.9	29.9	2.4
	CO	79.1	51.7	49.0	80.2	27.4	30.1	-1.1

2007	Nat.	78.1	46.5	49.5	77.4	31.6	28.5	0.7
	CO	81.1	56.1	47.7	76.2	25.0	33.4	5.0

Gr. 8	**Reading**	**% Basic, Prof. and Adv.**				**Performance Gap**		
Year		**White**	**Black**	**Hispanic**	**Asian/ Pacific Island**	**Black**	**Hispanic**	**Asian/ Pacific Island**
2003	Nat.	83.2	53.9	55.9	79.1	29.2	27.3	4.0
	CO	84.6	59.6	57.2	84.3	25.0	27.4	0.2
2005	Nat.	82.0	52.2	56.2	79.9	29.8	25.8	2.1
	CO	84.2	65.2	55.8	75.6	19.0	28.4	8.6
2007	Nat.	83.7	54.9	58.1	80.1	28.8	25.6	3.5
	CO	86.8	64.6	62.3	79.3	22.2	24.5	7.5

Gr. 4	Math	% Basic, Prof. and Adv.				Performance Gap		
Year		White	Black	Hispanic	Asian/ Pacific Island	Black	Hispanic	Asian/ Pacific Island
2003	Nat.	87.5	54.1	62.4	87.2	33.4	25.1	0.3
	CO	87.5	54.2	54.2	81.0	33.3	33.3	6.6
2005	Nat.	89.5	60.1	68.0	89.8	29.4	21.5	-0.3
	CO	89.5	61.3	62.6	80.8	28.2	26.9	8.7
2007	Nat.	91.1	63.7	69.6	90.9	27.4	21.5	0.2
	CO	91.0	64.8	66.0	87.6	26.2	25.0	3.4
2009	Nat.	90.5	63.7	70.7	91.5	26.8	19.8	-1.0
	CO	92.7	66.6	68.6	84.9	26.1	24.1	7.8

Gr. 8	Math	% Basic, Prof. and Adv.				Performance Gap		
Year		White	Black	Hispanic	Asian/ Pacific Island	Black	Hispanic	Asian/ Pacific Island
2003	Nat.	79.8	39.1	47.6	78.5	40.7	32.3	1.3
	CO	83.6	40.2	48.2	80.4	43.4	35.4	3.2
2005	Nat.	80.3	42.1	51.5	81.4	38.2	28.8	-1.1
	CO	82.5	43.6	48.0	0.0	38.8	34.5	82.5
2007	Nat.	82.2	47.4	54.7	82.6	34.8	27.5	-0.4
	CO	85.0	59.9	53.1	82.0	25.1	31.9	3.0
2009	Nat.	83.2	49.6	56.7	85.1	33.6	26.5	-1.9
	CO	86.9	52.8	54.7	85.9	34.1	32.2	1.0

NAEP Achievement and Performance Gap Results – Students with Disabilities

Gr. 4	Reading	Students with Disabilities (SD)				Not Students with Disabilities (Not SD)				% Basic, Prof. and Adv.		Performance Gap
Year		% Below Basic	% At Basic	% At Prof.	% At Adv	% Below Basic	% At Basic	% At Prof.	% At Adv.	SD	NotSD	
2003	Nat.	70.5	20.0	8.1	1.4	33.3	33.1	25.3	8.3	29.5	66.7	37.2
	CO	73.1	18.5	7.2	1.2	26.3	34.1	29.9	9.7	26.9	73.7	46.8
2005	Nat.	66.2	22.6	9.4	1.8	32.8	33.7	25.4	8.1	33.8	67.2	33.4
	CO	71.4	19.6	8.4	0.5	26.0	34.4	30.4	9.2	28.6	74.0	45.5
2007	Nat.	63.9	22.9	10.6	2.6	29.7	35.2	26.6	8.4	36.1	70.3	34.1
	CO	62.3	25.1	9.5	3.1	27.0	34.6	28.8	9.6	37.7	73.0	35.3

Gr. 8	Reading	Students with Disabilities (SD)				Not Students with Disabilities (Not SD)				% Basic, Prof. and Adv.		Performance Gap
Year		% Below Basic	% At Basic	% At Prof.	% At Adv.	% Below Basic	% At Basic	% At Prof.	% At Adv.	SD	Not-SD	
2003	Nat.	67.6	26.7	5.6	0.1	21.8	43.2	31.5	3.5	32.4	78.2	45.8
	CO	70.9	23.6	5.4	0.1	17.7	43.4	34.3	4.6	29.1	82.3	53.2
2005	Nat.	66.0	27.6	6.2	0.2	23.7	43.2	29.9	3.2	34.0	76.3	42.3
	CO	64.7	30.2	4.9	0.3	21.4	44.6	30.3	3.7	35.3	78.6	43.3
2007	Nat.	64.9	27.7	7.1	0.3	22.3	44.2	30.5	3.0	35.1	77.7	42.6
	CO	55.6	36.3	8.1	0.0	18.4	44.8	34.2	2.6	44.4	81.6	37.2

Gr. 4	Math	Students with Disabilities (SD)				Not Students with Disabilities (Not SD)				% Basic, Prof and Adv.		Performance Gap
Year		% Below Basic	% At Basic	% At Prof.	% At Adv.	% Below Basic	% At Basic	% At Prof	% At Adv	SD	Not-SD	
2005	Nat.	43.3	40.7	14.5	1.5	16.8	44.4	33.4	5.4	56.7	83.2	26.6
	CO	46.1	38.7	12.4	2.9	16.4	42.1	34.9	6.6	53.9	83.6	29.7
2007	Nat.	40.2	40.5	17.3	2.0	15.2	43.0	35.8	6.0	59.8	84.8	25.1
	CO	47.7	38.8	11.9	1.6	14.6	40.8	37.8	6.8	52.3	85.4	33.1
2009	Nat.	40.6	40.3	16.8	2.3	15.4	43.0	35.2	6.4	59.4	84.6	25.2
	CO	42.7	42.3	12.6	2.4	13.3	38.1	39.9	8.7	57.3	86.7	29.4

Gr. 8	Math	Students with Disabilities (SD)				Not Students with Disabilities (Not SD)				% Basic, Prof. and Adv.		Performance Gap
Year		% Below Basic	% At Basic	% At Prof	% At Adv.	% Below Basic	% At Basic	% At Prof	% At Adv.	SD	Not-SD	
2005	Nat.	68.1	24.7	6.4	0.9	26.8	41.0	25.6	6.6	31.9	73.2	41.3
	CO	70.2	24.8	4.6	0.5	25.6	39.8	27.8	6.9	29.8	74.4	44.5
2007	Nat.	66.1	25.8	7.0	1.1	25.1	40.4	26.9	7.6	33.9	74.9	41.0
	CO	60.1	28.9	8.2	2.7	21.5	38.5	29.8	10.2	39.9	78.5	38.6
2009	Nat.	63.7	27.2	7.7	1.5	23.4	40.0	27.9	8.6	36.3	76.6	40.2
	CO	60.9	28.3	9.3	1.5	20.9	36.5	31.7	10.9	39.1	79.1	40.0

NAEP Achievement and Performance Gap Results – English Language Learners

Gr. 4	Reading	English Language Learners (ELL)				Not English Language Learners (Non-ELL)				% Basic, Prof. and Adv.		Performance Gap
Year		% Below Basic	% At Basic	% At Prof.	% At Adv.	% Below Basic	% At Basic	% At Prof	% At Adv	ELL	Non-ELL	
2003	Nat.	72.3	20.4	6.4	0.9	33.6	32.9	25.2	8.2	27.7	66.4	38.7
	CO	66.2	25.1	7.6	1.1	27.6	33.3	29.5	9.6	33.8	72.4	38.6
2005	Nat.	72.6	20.7	6.0	0.7	32.6	33.8	25.6	8.1	27.4	67.4	40.1
	CO	71.0	22.4	6.1	0.5	26.1	34.1	30.6	9.2	29.0	73.9	44.9
2007	Nat.	69.8	22.7	6.6	0.8	29.4	35.1	26.9	8.6	30.2	70.6	40.4
	CO	71.9	21.6	5.7	0.8	23.5	35.7	30.5	10.3	28.1	76.5	48.4

Gr. 8	Reading	English Language Learners (ELL)				Not English Language Learners (Non-ELL)				% Basic, Prof. and Adv.		Performance Gap
Year		% Below Basic	% At Basic	% At Prof.	% Below Basic	% At Basic	% At Prof.	% Below Basic	% At Basic	% At Prof	% Below Basic	
2003	Nat.	70.8	24.4	4.7	0.1	24.0	42.4	30.3	3.3	29.2	76.0	46.8
	CO	67.8	27.9	4.3	0.0	20.6	42.2	32.8	4.4	32.2	79.4	47.1
2005	Nat.	70.9	24.8	4.2	0.2	25.2	42.7	29.0	3.1	29.1	74.8	45.7
	CO	68.6	26.5	4.9	0.0	22.1	44.5	29.7	3.7	31.4	77.9	46.5
2007	Nat.	70.3	25.0	4.5	0.2	23.6	43.8	29.8	2.9	29.7	76.4	46.7
	CO	71.6	24.9	3.5	0.0	18.4	45.2	33.9	2.5	28.4	81.6	53.2

Gr. 4	Math	English Language Learners (ELL)				Not English Language Learners (Non-ELL)				% Basic, Prof. and Adv.		Performance Gap
Year		% Below Basic	% At Basic	% At Prof.	% Below Basic	% At Basic	% At Prof.	% Below Basic	% At Basic	% At Prof.	% Below Basic	
2005	Nat.	45.9	42.7	10.6	0.8	17.2	44.2	33.3	5.4	54.1	82.8	28.8
	CO	57.7	36.2	5.9	0.3	14.9	42.4	35.8	7.0	42.3	85.1	42.9
2007	Nat.	43.7	43.4	12.0	0.9	15.1	42.7	36.1	6.1	56.3	84.9	28.6
	CO	50.3	40.7	8.6	0.4	12.7	40.6	39.5	7.2	49.7	87.3	37.6
2009	Nat.	42.8	45.2	11.4	0.6	15.6	42.5	35.4	6.5	57.2	84.4	27.2
	CO	47.4	43.6	8.3	0.7	12.5	37.9	40.6	9.0	52.6	87.5	34.9

Gr. 8	Reading	English Language Learners (ELL)				Not English Language Learners (Non-ELL)				% Basic, Prof. and Adv.		Performance Gap
Year		% Below Basic	% At Basic	% At Prof.	% Below Basic	% At Basic	% At Prof.	% Below Basic	% At Basic	% At Prof.	% Below Basic	
2003	Nat.	70.8	24.4	4.7	0.1	24.0	42.4	30.3	3.3	29.2	76.0	46.8
	CO	67.8	27.9	4.3	0.0	20.6	42.2	32.8	4.4	32.2	79.4	47.1
2005	Nat.	70.9	24.8	4.2	0.2	25.2	42.7	29.0	3.1	29.1	74.8	45.7
	CO	68.6	26.5	4.9	0.0	22.1	44.5	29.7	3.7	31.4	77.9	46.5
2007	Nat.	70.3	25.0	4.5	0.2	23.6	43.8	29.8	2.9	29.7	76.4	46.7
	CO	71.6	24.9	3.5	0.0	18.4	45.2	33.9	2.5	28.4	81.6	53.2

Exhibit VI.A(3)ii-2
CSAP Results

CSAP Achievement Results – Overall

The CSAP has four levels: Unsatisfactory, Partially Proficient (Partially Prof.), Proficient (Prof.), & Advanced (Adv.)

Year	Subject	Below Prof. (Below or Partial Prof.)	State Proficiency (Prof. or Adv.)	AYP (Partially Prof., Prof., or Adv.)	Total Students	% State Prof.	% AYP Prof.
2003-2004	Reading	152,737	297,943	393,195	450,680	66.1%	87.2%
2004-2005	Reading	152,235	299,320	394,174	451,555	66.3%	87.3%
2005-2006	Reading	147,422	308,277	401,352	455,699	67.7%	88.1%
2006-2007	Reading	150,588	308,763	403,932	459,351	67.2%	87.9%
2007-2008	Reading	149,050	313,384	409,288	462,434	67.8%	88.5%
2008-2009	Reading	149,099	320,664	418,043	469,763	68.3%	89.0%
					SY2003-SY2008 Change:	**2.2%**	**1.8%**

Year	Subject	Below Prof. (Below or Partial Prof.)	State Proficiency (Prof. or Adv.)	AYP (Partially Prof., Prof., or Adv.)	Total Students	% State Prof.	% AYP
2003-2004	Math	197,478	145,041	251,579	342,519	42.35%	73.45%
2004-2005	Math	224,015	229,805	362,986	453,820	50.64%	79.98%
2005-2006	Math	218,065	240,052	369,522	458,117	52.40%	80.66%
2006-2007	Math	216,451	244,823	374,522	461,274	53.08%	81.19%
2007-2008	Math	217,241	246,983	377,810	464,224	53.20%	81.39%
2008-2009	Math	214,623	256,740	385,871	471,363	54.47%	81.86%
					SY2003-SY2008 Change:	**12.1%**	**8.4%**

CSAP Achievement and Performance Gap Results - Free and Reduced Lunch Program

Not FRLP							
Year	**Subject**	**Below Prof. (Below or Partial Prof.)**	**State Proficiency (Prof. or Adv.)**	**AYP (Partially Prof., Prof., or Adv.)**	**Total Students**	**% State Prof.**	**% AYP**
2003-2004	Reading	75,886	237,084	289,280	312,970	75.75%	92.43%
2004-2005	Reading	70,184	235,150	284,123	305,334	77.01%	93.05%
2005-2006	Reading	65,043	236,924	282,524	301,967	78.46%	93.56%
2006-2007	Reading	65,920	236,560	282,750	302,480	78.21%	93.48%
2007-2008	Reading	64,763	236,684	282,382	301,447	78.52%	93.68%
2008-2009	Reading	60,101	236,288	279,605	296,389	79.72%	94.34%
				SY2003-SY2008 Change		**4.0%**	**1.9%**

FRLP							
Year	**Subject**	**Below Prof. (Below or Partial Prof.)**	**State Proficiency (Prof. or Adv.)**	**AYP (Partially Prof., Prof., or Adv.)**	**Total Students**	**% State Prof.**	**% AYP**
2003-2004	Reading	76,526	60,484	103,377	137,010	44.15%	75.45%
2004-2005	Reading	81,885	64,015	109,821	145,900	43.88%	75.27%
2005-2006	Reading	82,230	71,185	118,571	153,415	46.40%	77.29%
2006-2007	Reading	84,509	71,982	120,874	156,491	46.00%	77.24%
2007-2008	Reading	84,185	76,567	126,710	160,752	47.63%	78.82%
2008-2009	Reading	88,894	84,216	138,205	173,110	48.65%	79.84%
				SY2003-SY2008 Change		**4.5%**	**4.4%**

Year	Subject	Poverty Gap - State Prof.	Poverty Gap - AYP
2003-2004	Reading	31.60%	16.98%
2004-2005	Reading	33.13%	17.78%
2005-2006	Reading	32.06%	16.27%
2006-2007	Reading	32.21%	16.24%
2007-2008	Reading	30.89%	14.86%
2008-2009	Reading	31.07%	14.50%
SY2003-SY2008 Change		**-0.5%**	**-2.5%**

		Not FRLP					
Year	Subject	Below Prof. (Below or Partial Proficiency)	State Proficiency (Prof. or Adv.)	AYP (Partially Prof., Prof., or Adv.)	Total Students	% State Prof.	% AYP
2003-2004	Math	120,179	121,772	194,814	241,951	50.33%	80.52%
2004-2005	Math	123,385	182,148	263,091	305,533	59.62%	86.11%
2005-2006	Math	115,400	186,875	263,226	302,275	61.82%	87.08%
2006-2007	Math	113,606	189,039	264,014	302,645	62.46%	87.24%
2007-2008	Math	112,395	189,338	264,341	301,733	62.75%	87.61%
2008-2009	Math	105,046	191,514	261,379	296,560	64.58%	88.14%
				SY2003-SY2008 Change		**14.3%**	**7.6%**

FRLP							
Year	Subject	Below Prof. (Below or Partial Prof.)	State Proficiency (Prof. or Adv.)	AYP (Partially Prof., Prof., or Adv.)	Total Students	% State Prof.	% AYP
2003-2004	Math	76,850	23,128	56,445	99,978	23.13%	56.46%
2004-2005	Math	100,418	47,543	99,704	147,961	32.13%	67.39%
2005-2006	Math	102,468	53,065	106,095	155,533	34.12%	68.21%
2006-2007	Math	102,636	55,608	110,229	158,244	35.14%	69.66%
2007-2008	Math	104,719	57,560	113,322	162,279	35.47%	69.83%
2008-2009	Math	109,430	65,125	124,314	174,555	37.31%	71.22%
				SY2003-SY2008 Change		**14.2%**	**14.8%**

Year	Subject	Poverty Gap - State Prof.	Poverty Gap - AYP
2003-2004	Math	27.20%	24.06%
2004-2005	Math	27.49%	18.72%
2005-2006	Math	27.70%	18.87%
2006-2007	Math	27.32%	17.58%
2007-2008	Math	27.28%	17.78%
2008-2009	Math	27.27%	16.92%
SY2003-SY2008 Change		**0.1%**	**-7.1%**

CSAP Achievement and Performance Gap Results – Students with Disabilities

Students with Disabilities -Reading						
Year	**Subject**	**State Proficiency (Prof. or Adv.)**	**AYP Proficiency (Partially Prof., Prof., or Adv.)**	**Total Students**	**% State Prof.**	**% AYP Prof.**
2002-2003	Reading	10,054	23,702	46,603	21.6%	50.9%
2003-2004	Reading	10,449	24,581	45,538	22.9%	54.0%
2004-2005	Reading	10,550	24,369	44,780	23.6%	54.4%
2005-2006	Reading	10,287	23,668	43,552	23.6%	54.3%
2006-2007	Reading	10,407	23,584	43,432	24.0%	54.3%
2007-2008	Reading	10,441	24,053	43,724	23.9%	55.0%
2008-2009	Reading	10,420	24,439	43,674	23.9%	56.0%
			SY2003-SY2008 Change		2.3%	5.1%

Non-Students with Disabilities - Reading						
Year	**Subject**	**State Prof. (Prof. or Adv.)**	**AYP (Partially Prof., Prof., or Adv.)**	**Total Students**	**% State Prof.**	**% AYP**
2002-2003	Reading	287,830	366,289	403,658	71.3%	90.7%
2003-2004	Reading	287,467	368,552	404,957	71.0%	91.0%
2004-2005	Reading	288,751	369,752	406,616	71.0%	90.9%
2005-2006	Reading	297,975	377,640	411,988	72.3%	91.7%
2006-2007	Reading	298,327	380,291	415,769	71.8%	91.5%
2007-2008	Reading	302,921	385,185	418,577	72.4%	92.0%
2008-2009	Reading	309,866	392,932	425,106	72.9%	92.4%
			SY2003-SY2008 Change		1.6%	1.7%

Performance Gap - IEL Reading			
Year	Subject	State Proficiency Gap	AYP Gap
2002-2003	Reading	49.7%	39.9%
2003-2004	Reading	48.0%	37.0%
2004-2005	Reading	47.5%	36.5%
2005-2006	Reading	48.7%	37.3%
2006-2007	Reading	47.8%	37.2%
2007-2008	Reading	48.5%	37.0%
2008-2009	Reading	49.0%	36.5%
SY2003-SY2008 Change		-0.7%	-3.4%

Non-Students with Disabilities - Math						
Year	Subject	State Prof. (Prof. or Adv.)	AYP (Partially Prof., Prof., or Adv.)	Total Students	% State Prof.	% AYP Prof.
2002-2003	Math	136,351	237,398	305,902	44.6%	77.6%
2003-2004	Math	141,304	239,841	308,335	45.8%	77.8%
2004-2005	Math	221,430	341,536	408,733	54.2%	83.6%
2005-2006	Math	231,747	349,027	414,228	55.9%	84.3%
2006-2007	Math	236,314	353,606	417,576	56.6%	84.7%
2007-2008	Math	238,395	356,829	420,215	56.7%	84.9%
2008-2009	Math	247,933	364,469	426,615	58.1%	85.4%
			SY2003-SY2008 Change		13.5%	7.8%

Students with Disabilities - Math						
Year	Subject	State Prof (Prof. or Adv.)	AYP (Partially Prof., Prof., or Adv.)	Total Students	% State Prof.	% AYP Prof.
2002-2003	Math	3,381	11,478	35,302	9.6%	32.5%
2003-2004	Math	3,726	11,713	34,016	11.0%	34.4%
2004-2005	Math	8,364	21,419	44,925	18.6%	47.7%
2005-2006	Math	8,290	20,460	43,714	19.0%	46.8%
2006-2007	Math	8,501	20,889	43,579	19.5%	47.9%
2007-2008	Math	8,583	20,955	43,874	19.6%	47.8%
2008-2009	Math	8,546	20,873	43,777	19.5%	47.7%
				SY2003-SY2008 Change	9.9%	15.2%

Performance Gap - IEL Math			
Year	Subject	State Proficiency Gap	AYP Gap
2002-2003	Math	35.0%	45.1%
2003-2004	Math	34.9%	43.4%
2004-2005	Math	35.6%	35.9%
2005-2006	Math	37.0%	37.5%
2006-2007	Math	37.1%	36.7%
2007-2008	Math	37.2%	37.2%
2008-2009	Math	38.6%	37.8%
SY2003-SY2008 Change		3.6%	-7.3%

CSAP Achievement and Performance Gap Results – English Language Learners

Non-English Language Learners - Reading						
Year	**Subject**	**State Prof. (Prof. or Adv.)**	**AYP (Partially Prof., Prof., or Adv.)**	**Total Students**	**% State Prof.**	**% AYP.**
2002-2003	Reading	283,417	359,552	399,901	70.9%	89.9%
2003-2004	Reading	279,250	356,138	392,477	71.2%	90.7%
2004-2005	Reading	280,251	356,178	393,147	71.3%	90.6%
2005-2006	Reading	290,703	365,762	402,140	72.3%	91.0%
2006-2007	Reading	284,693	355,976	389,701	73.1%	91.3%
2007-2008	Reading	286,146	357,066	390,478	73.3%	91.4%
2008-2009	Reading	290,945	361,958	393,514	73.9%	92.0%
			SY2003-SY2008 Change		3.1%	2.1%

English Language Learners(ELL) -Reading						
Year	**Subject**	**State Proficiency (Prof. or Adv.)**	**AYP (Partially Prof., Prof., or Adv.)**	**Total Students**	**% State Prof.**	**% AYP Prof.**
2002-2003	Reading	14,366	30,332	50,430	28.5%	60.1%
2003-2004	Reading	18,659	37,000	58,116	32.1%	63.7%
2004-2005	Reading	19,018	37,922	58,323	32.6%	65.0%
2005-2006	Reading	17,541	35,535	53,486	32.8%	66.4%
2006-2007	Reading	24,043	47,921	69,605	34.5%	68.8%
2007-2008	Reading	27,191	52,148	71,861	37.8%	72.6%
2008-2009	Reading	29,320	55,400	75,321	38.9%	73.6%
			SY2003-SY2008 Change		10.4%	13.4%

Performance Gap - ELL Reading			
Year	Subject	State Prof. Gap	AYP Gap
2002-2003	Reading	42.4%	29.8%
2003-2004	Reading	39.0%	27.1%
2004-2005	Reading	38.7%	25.6%
2005-2006	Reading	39.5%	24.5%
2006-2007	Reading	38.5%	22.5%
2007-2008	Reading	35.4%	18.9%
2008-2009	Reading	35.0%	18.4%
SY2003-SY2008 Change		-7.4%	-11.3%

Non-English Language Learners (ELL)- Math						
Year	Subject	State Proficiency (Prof. or Adv.)	AYP (Partially Prof., Prof., or Adv.)	Total Students	% State Prof.	% AYP.
2002-2003	Math	133,725	232,055	305,406	43.8%	76.0%
2003-2004	Math	136,554	230,782	300,240	45.5%	76.9%
2004-2005	Math	213,042	325,797	393,168	54.2%	82.9%
2005-2006	Math	223,765	334,215	402,443	55.6%	83.0%
2006-2007	Math	222,716	327,427	389,760	57.1%	84.0%
2007-2008	Math	223,405	329,110	390,619	57.2%	84.3%
2008-2009	Math	230,304	332,836	393,606	58.5%	84.6%
			SY2003-SY2008 Change		14.7%	8.6%

English Language Learners (ELL) - Math						
Year	Subject	State Prof. (Prof. or Adv.)	AYP (Partially Prof., Prof., or Adv.)	Total Students	% State Prof.	% AYP.
2002-2003	Math	5,963	16,748	35,911	16.6%	46.6%
2003-2004	Math	8,479	20,777	42,207	20.1%	49.2%
2004-2005	Math	16,708	37,111	60,557	27.6%	61.3%
2005-2006	Math	16,270	35,265	55,603	29.3%	63.4%
2006-2007	Math	22,084	47,064	71,468	30.9%	65.9%
2007-2008	Math	23,555	48,665	73,534	32.0%	66.2%
2008-2009	Math	26,167	52,504	76,851	34.0%	68.3%
			SY2003-SY2008 Change		17.4%	21.7%

Performance Gap - ELL Math			
Year	Subject	State Proficiency Gap	AYP Gap
2002-2003	Math	27.2%	29.3%
2003-2004	Math	25.4%	27.6%
2004-2005	Math	26.6%	21.6%
2005-2006	Math	26.3%	19.6%
2006-2007	Math	26.2%	18.2%
2007-2008	Math	25.2%	18.1%
2008-2009	Math	24.5%	16.2%
SY2003-SY2008 Change		-2.7%	-13.1%

Exhibit VI.A(3)ii-3
Colorado Graduation Rates

Note: Pre-2003 graduation rates calculated by dividing the number of graduates by the end-of-year count of eighth graders four years earlier and adjusted for the numbers of students who have transferred in/out during grades 9-12; Rates after 03-04 drop because the CDE began to track students individually rather than in aggregate; The graduating Class of 2007 will be the first group of students tracked individually via the new methodology; Rates should therefore stabilize from 2007 forward after this 3 year adjusent period.

Subgroup	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
State Total (all students)	80%	80%	81%	81%	82%	84%	83%	80%	74%	75%	74%
American Indian	56%	58%	63%	55%	58%	66%	67%	63%	57%	59%	58%
Asian	84%	83%	85%	83%	86%	87%	87%	86%	83%	84%	83%
Black	69%	71%	69%	69%	74%	77%	77%	74%	63%	65%	64%
Hispanic	63%	64%	65%	64%	66%	70%	69%	64%	57%	57%	56%
White	85%	84%	85%	85%	86%	88%	87%	86%	81%	82%	82%
Male	77%	77%	78%	77%	79%	80%	79%	78%	70%	72%	71%
Female	83%	83%	84%	84%	85%	87%	86%	83%	78%	79%	77%
Students with Disabilities	N/A	N/A	N/A	N/A	N/A	N/A	87%	77%	69%	64%	63%
Limited English Prof.	N/A	N/A	N/A	N/A	N/A	N/A	89%	80%	66%	55%	52%
Economically Disadvantaged	N/A	N/A	N/A	N/A	N/A	N/A	88%	82%	70%	63%	59%
Migrant	N/A	N/A	N/A	N/A	N/A	N/A	92%	83%	71%	61%	58%
Title 1	N/A	N/A	N/A	N/A	N/A	N/A	90%	84%	61%	52%	45%
Homeless	N/A	N/A	N/A	N/A	N/A	N/A	73%	66%	57%	51%	52%
Gifted & Talented	N/A	N/A	N/A	N/A	N/A	N/A	98%	98%	94%	93%	92%

Exhibit VI.B(1)-1
Colorado's Memorandum of Agreement Concerning Participation in CCSSO/NGA Standards Consortium

COLORADO DEPARTMENT OF EDUCATION

201 East Colfax Avenue • Denver, Colorado 80203-1799
303.866.6600 • www.cde.state.co.us

Dwight D. Jones
Commissioner of Education

Robert K. Hammond
Deputy Commissioner

Kenneth R. Turner
Deputy Commissioner

May 20, 2009

Ray Scheppach, Executive Director
National Governors Association
Hall of the States
444 North Capitol Street, Suite 267
Washington, DC 20001-1512

Gene Wilhoit, Executive Director
Council of Chief State School Officers
One Massachusetts Avenue, NW, Suite 700
Washington, DC 20001-1431

Dear Messrs. Scheppach and Wilhoit:

Enclosed please find a Common Core Standards Memorandum of Agreement (MOA) executed on behalf of the State of Colorado. Colorado has recently engaged in a comprehensive review and alignment of its model content standards to ensure that they adequately prepare students to be competitive in a national and international context. We are hopeful that this effort to facilitate the articulation and adoption by a majority of states of common core standards will embody the goals Colorado has sought to achieve through its own standards review.

Colorado's recent standards review and alignment process has engaged a significant amount of public input as well as thoughtful review by national experts and policy makers. Central to this work is the notion that internationally competitive standards tend to be "fewer, clearer and higher" than those typically seen in the U.S. today. Colorado is eager to build upon the work done to date in our state through the common core standards effort you are proposing. However, we would like to ensure that the expectations around this effort and our participation in it are clear. To that end, Colorado's participation is premised upon the following assumptions:

- We set our sights not just on being the best in the U.S. but the best worldwide.
- To prepare *all* students for post-secondary and workforce readiness and success in a global economy, we must expect more of ourselves and of our students.
- The educational system should be aligned from preschool through college.
- The effect of our efforts should be to prepare young people for the next century, not the last one.
- We are committed to internationally competitive standards that are "fewer, clearer and higher" than those typically seen in the U.S. today.

- Our participation does not constitute an implicit agreement to ultimately adopt the work of this process.

In addition, we are eager to gain a clearer understanding of certain aspects of the process In particular,

- Whether participating states will develop a common core or inform those proposed by Achieve, ACT and College Board.
- Clarity as to how final decisions concerning common core standards and end-of-high-school expectations will be made.
- Whether there is an opportunity for Colorado to nominate individuals to the national validation committee referenced in the MOA.

We applaud your efforts to ensure that all of the nation's students are well prepared and ready to compete with not only their American peers, but with students from around the world. Colorado looks forward to actively contributing towards that goal.

Sincerely,

Bill Ritter, Jr.
Governor

Dwight D. Jones
Commissioner of Education

The Council of Chief State School Officers and
The National Governors Association Center for Best Practices

Common Core Standards
Memorandum of Agreement

Purpose. This document commits states to a state-led process that will draw on evidence and lead to development and adoption of a common core of state standards (common core) in English language arts and mathematics for grades K-12. These standards will be aligned with college and work expectations, include rigorous content and skills, and be internationally benchmarked. The intent is that these standards will be aligned to state assessment and classroom practice. The second phase of this initiative will be the development of common assessments aligned to the core standards developed through this process.

Background. Our state education leaders are committed to ensuring all students graduate from high school ready for college, work, and success in the global economy and society. State standards provide a key foundation to drive this reform. Today, however, state standards differ significantly in terms of the incremental content and skills expected of students.

Over the last several years, many individual states have made great strides in developing high-quality standards and assessments. These efforts provide a strong foundation for further action. For example, a majority of states (35) have joined the American Diploma Project (ADP) and have worked individually to align their state standards with college and work expectations. Of the 15 states that have completed this work, studies show significant similarities in core standards across the states. States also have made progress through initiatives to upgrade standards and assessments, for example, the New England Common Assessment Program.

Benefits to States. The time is right for a state-led, nation-wide effort to establish a common core of standards that raises the bar for all students. This initiative presents a significant opportunity to accelerate and drive education reform toward the goal of ensuring that all children graduate from high school ready for college, work, and competing in the global economy and society. With the adoption of this common core, participating states will be able to:

- Articulate to parents, teachers, and the general public expectations for students;
- Align textbooks, digital media, and curricula to the internationally benchmarked standards;
- Ensure professional development to educators is based on identified need and best practices;
- Develop and implement an assessment system to measure student performance against the common core; and
- Evaluate policy changes needed to help students and educators meet the common core standards and "end-of-high-school" expectations.

An important tenet of this work will be to increase the rigor and relevance of state standards across all participating states; therefore, no state will see a decrease in the level of student expectations that exist in their current state standards.

Process and Structure

Common Core State-Based Leadership. The Council of Chief State School Officers (CCSSO) and the National Governors Association Center for Best Practices (NGA Center) shall assume responsibility for coordinating the process that will lead to state adoption of a common core set of standards. These organizations represent governors and state commissioners of education who are charged with defining K-12 expectations at the state level. As such, these organizations will

facilitate a state-led process to develop a set of common core standards in English language arts and math that are:

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

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

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

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

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

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

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

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

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

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

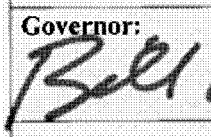
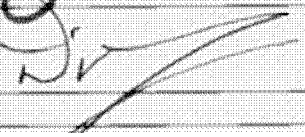
Signatures
Governor: 
Chief State School Officer: 

Exhibit VI.B(1)-2
Number and list of States participating in CCSSO/NGA Standards Consortium

According to the Common Core State Standards Initiative website (**www.corestandards.org**) and the National Governor's Association, The following 48 States and 3 territories 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.

Exhibit VI.B(1)-3
Summary of the Colorado Achievement Plan for Kids (CAP4K)

CAP4K, COLORADO ACHIEVEMENT PLAN FOR KIDS
Senate Bill 08-212

Bill Summary, prepared by Jett Conner, Ph.D., Lead Consultant on CAP4K, DHE

Official Title: Preschool to Postsecondary Education Alignment Act

Goal: Move Colorado to the next generation of standards-based education to prepare students for the knowledge and skills required for the 21st century.

Charge: Directs the State Board of Education and the Colorado Commission on Higher Education – and their respective departments, the CDE(CDE) and the Department of Higher Education (DHE) – to collaborate in creating a new seamless system of public education standards, expectations and assessments – from preschool through postsecondary education – designed and aligned to prepare high school students to enter postsecondary education, or technical or trade schools, or the workforce without the need for further remediation. Specifically requires the State board and CCHE to "negotiate a consensus and adopt a description of postsecondary and workforce readiness" on or before December 15, 2009. This is developed as a single description.

Effect: Eliminates the current Colorado Student Assessment Program (CSAP) and replaces it with new State content standards applicable to a broad array of subjects and skills; the bill specifies that the standards for grades nine through twelve are aligned with postsecondary and workforce planning, preparation and readiness assessments adopted by the State board and CCHE. Standards and testing are designed to meet federal law.

Details & Deadlines: Below are key provisions and deadlines for SB 08-212 arranged by section numbers. You may use this link to access the entire bill:
http://www.leg.State.co.us/CLICS/CLICS2008A/csl.nsf/fsbillcont3/E59947996C92A16F872573D3005F88ED?Open&file=212_enr.pdf

22-7-1004 On or before 12/15/08 the State board must adopt a description of school readiness for kindergarten or first grade; by 12/15/10, the State board adopts assessments, aligned with the description of school readiness, for purposes of measuring school readiness, for determining instruction and improvement needs, and for establishing population-level results for baseline data reporting purposes.

22-7-1005 On or before 12/15/09, the State board adopts standards related to the knowledge and skills students should have as they progress from preschool through elementary and secondary education, aligned where possible with career and technical education standards adopted by the State board for community colleges and occupational education. The State board of education also collaborates with the CCHE to ensure that the standards are aligned with the description of postsecondary and workforce readiness outlined in section **22-7-1008**, below. In addition to students' subject-matter knowledge in reading; writing; mathematics; science; history; geography; visual and performing arts; physical education; world languages; English competency; economics and civics (**22-7-**

1005), the standards also are designed to ensure students develop and demonstrate such skills as creativity and innovation; critical thinking; communication and collaboration; social and cultural awareness; initiative and self-direction; character and leadership; productivity and accountability; and information technology application skills.

22-7-1006 On or before 12/15/2010, the State board adopts assessments designed to measure the preschool through elementary and secondary education standards and ensure, among other things, longitudinal measurement of students' academic growth, a high level of accountability across the State for students, schools, and school districts and compliance with federal law testing requirements. NOTE: Assessments adopted may include portfolios, projects and performances in addition to standardized measures. Assessments retain a system of ratings for public schools and may include writing assessments developed with local education providers, and timely evaluations of same.

22-7-1007 Beginning with the 2008-09 academic year, requires the CDE to implement a pilot program in several districts to evaluate different kinds of high school testing plans.

22-7-1008 Postsecondary and workforce readiness: On or before 12/15/09 the State board and CCHE establish a description of postsecondary and workforce readiness which, at a minimum must include, among other requirements, describing knowledge and skills designed to demonstrate students' postsecondary and workforce proficiencies in English language competency; successful completion without need for remediation of core academic courses (**23-1-125(3)**; and the skills referred to above in **22-7-1005**, all of which must be aligned with the description of postsecondary and workforce readiness. On or before 12/15/2010, the State board and CCHE shall adopt postsecondary and workforce planning, preparation and readiness assessments to be administered by local education providers (public schools, school districts, BOCES, charter schools, etc.). Additional provisions in the bill provide for the State board and CCHE to make revisions, on or before 7/1/2015, to the description of postsecondary and workforce readiness, and, on or before 7/1/2016 and every six years thereafter, to the planning, preparation and readiness assessments adopted by the State board and CCHE.

The State board and CCHE are required to collaborate to set standards for special kinds of diplomas (**22-7-1009)**. Though the bill does not mandate Statewide graduation requirements, schools are required to align their content standards with the newly adopted State standards and revise their curricula accordingly, by 12/15/2011 (**22-7-1015)**, and begin administering assessments by 12/15/2012 (**22-7-1016)**; a high school student's final transcript shall describe the student's level of postsecondary/workforce readiness, including any endorsements of special achievement (**22-7-1017**). Students who graduate with a high school diploma that includes a postsecondary and workforce readiness endorsement are guaranteed to meet minimum academic qualifications for admission (subject to additional institutional qualifications) to all open, modified-open, or moderately selective public institutions of higher education in Colorado.

The bill requires a review of public IHE admission standards (**23-1-113**) and teacher preparation programs (**23-1-121**) to ensure alignment with the new State standards. The bill mandates public and interest group involvement throughout the process. Definitions in the bill may be found in section **22-7-1003**.

Exhibit VI.B(1)-4
Colorado State Board of Education Procedures for Adopting Standards

The Colorado State Board of Education was created pursuant to section 1 of article IX of the State constitution, and is charged with "exercising general supervision over the public schools of the State and the educational programs maintained and operated by all State governmental agencies for persons who have not completed the twelfth-grade level of instruction" in the State of Colorado. *See* 22-2-106(1)(a), Colorado Revised Statutes, ("C.R.S."). It is comprised of seven elected officials representing the seven congressional districts of the State. It is required to meet at least quarterly by statute, 22-2-105(4), C.R.S. to hold a minimum of four meetings yearly. In practice, given the workload of the Department of Education, it routinely meets each month of the year for two days. Pursuant to 22-2-106(1)(a.5)(V), C.R.S., the State Board is required to "[u]tilize standards-based education . . . as the framework for the development of the guidelines for high school graduation and consider how high school graduation requirements can be articulated in a standards-based education system. The State Board is required to ensure that the standards "are sufficiently rigorous, particularly in the core academic subject areas of mathematics, science, reading and writing." The State Board is further required to "[r]ecognize and acknowledge the importance of obtaining the core competency skill and standards to succeed in the twenty-first century, including but not limited to proficiency in math, science, and written and verbal communication skills, *see* 22-2-106(1)(a.5)(VI), C.R.S.; and "[t]ake into account the importance of pre-high school and postsecondary career planning that provides middle school and junior high students and parents with awareness of the school district's high school graduation requirements, the multiple pathways a student can follow, and other pertinent information that will help prepare a student for a successful high school experience. *See* 22-2-106(1)(a.5)(VII), C.R.S.

The State Board's governing documents, which are legally binding on the board, include the Board's Legislative Priorities. The 2010 Legislative Priorities contain the following relevant language:

Standards and Assessments

Continue Statewide transition to and implementation of internationally benchmarked standards and aligned assessments that provide a clear path to postsecondary and workforce readiness.

a. Support changes in legislation related to CAP4K that promote the idea that competency matters more than seat time.

b. Support legislation that aligns the standards-based system so that students are postsecondary and workforce ready (including, but not limited to, development of formative assessment tools, model curricula, high-quality professional development, etc.).

Support legislation to change the date for State Board adoption of graduation guidelines to follow State Board adoption of academic standards and assessments.

The State Board's governing documents include the Board's Operating Procedures. Article IV(B) provides: Having sworn to support the constitution of the United States and of the State of Colorado, the State Board of Education recognizes both the constitutional and legislative educational mandates. Therefore, the Board shall fulfill these directives and shall provide services and leadership for implementation of such enactments.

Article V(A)(5) sets forth the requirements of voting, which must follow Robert's Rules of Order (10th Ed.). Colorado has one of the most rigorous open meetings acts in the country, *see* 24-6-401 C.R.S. *et seq.*, and all State Board meetings adhere to the notice and timing requirements of the Colorado Open Meetings Act.

The State Board would therefore vote on the standards in a regularly scheduled open meeting, with full notice and disclosure of the standards they have posted as a vote. All matters are posted one week in advance on an electronic agenda, accessible on the internet, and are audio streamed. No formal action may be taken by the State Board in executive session, pursuant to 24-6-402(3)(a), C.R.S.

Colorado will review the final version of the Common Core Standards and compare the material in depth and breadth to the new Colorado Academic Standards. The determination of similarities and differences will be conducted by content specialists, assessment staff, K-12 content committee members and higher education and early school readiness members of the recently-concluded standards adoption process.

The final review and determination will be delivered to the Commissioner of Education for his review. The Commissioner will forward to the State Board of Education any changes recommended in order to better align to the Common Core Standards.

The State Board of Education will afford an opportunity for the public to provide oral or written testimony prior to the adoption of the standards, and will consider any testimony prior to a vote of the seven-member board.

Adoption of the Math and English Language Arts Common Core Standards would be discussed in one State Board meeting and then voted on in the next monthly meeting. All documents would be posted on the State Board's electronic agenda, accessible on the internet. The interim time would provide constituents in Colorado in the education, public and business sectors to be made aware of any substantive recommended changes. The same extensive public networks would be used to reach out and invite feedback, recommendations and advice.

Exhibit VI.B(2)-1
Colorado's MOU with the Summative Multi-State Assessment Resources for Teachers and Educational Researchers (SMARTER)

COLORADO DEPARTMENT OF EDUCATION

201 East Colfax Avenue • Denver, Colorado 80203-1799
303.866.6600 • www.cde.state.co.us

Dwight D. Jones
Commissioner of Education

Robert K. Hammond
Deputy Commissioner

TO: Tony Alpert, Director of Assessment, and Oregon Department of Education

FROM: Dwight D. Jones, Commissioner of Education

DATE: January 11, 2010

RE: Summative Multi-State Assessment Resources for Teachers and Educational

Researchers (SMARTER) Memorandum of Understanding

This non-binding Memorandum of Understanding (MOU) is entered into by and between the States of Delaware, Hawaii, Idaho, Nebraska, Oregon, Tennessee, Utah, Washington, Wisconsin and Wyoming to initiate a consortium of States (Consortium) to serve as a framework of collaboration as required to submit a proposal for a Multi-State Consortium Common Assessment Race to the Top grant. The working title for the proposal is the "Summative Multi-State Assessment Resources for Teachers and Educational Researchers" (SMARTER). In the event the proposal is approved and fully funded by the U.S. Department of Education, the final proposal will serve as the official agreement.

The signatory States shall be referred to as "Lead States" and hereby authorize Oregon to be the signatory for the Lead States in entering into MOUs with additional States that desire to participate under the same terms (Participating States). The terms of the MOU among the Lead States and between the Lead States and subsequent Participating States are set forth below.

1. States in the Consortium will assign a key contact to assist in the drafting of the proposal, and to the extent practicable will engage their teachers, school and district administrators and institutions of higher education in the development and review of the proposal to ensure the design of the assessment system meets the needs of a variety of stakeholders.

2. States may withdraw from the Consortium prior to the establishment of the draft budget for the proposal. The anticipated date for the draft budget is 30 days before the proposal is due to the U.S. Department of Education.

3. States in the Consortium agree in principle to the following elements to be included in a proposal to the U.S. Department of Education:

   a. The purpose of the proposal is to develop a high quality summative assessment system that is aligned to the Common Core Standards, mutually adopted by Consortium States.

b. The assessment system will use online adaptive tests, innovative item design and open-ended items to assess the full breadth of cognitive demand described by the Common Core Standards.

c. Proposal writing will be governed by staff from the Lead States that have agreed to this MOU. Governance protocols for proposal development will be established by 2/15/2010.

d. If funded, the assessment system will be governed by staff from States that are members of the Consortium, and will be guided with the support of selected technical experts. Governance protocols for the assessment system will be a deliverable of the grant.

e. The assessment system will include teachers, school and district administrators, and State departments of education and institutions of higher education in the design, administration, scoring and reporting of the assessments.

f. States in the Consortium will report student, school, and district and State results based upon a single common set of rigorous achievement standards. Additionally, States in the consortium may choose to report student achievement benchmarked to a variety of achievement standards including NAEP, international assessments, and benchmarks predictive of student success in college and careers.

g. States in the Consortium will use the summative assessment system to measure school and district effectiveness to meet federal accountability requirements

h. The assessments will be designed based on principles of Universal Design and will be consistent with professional standards as described by the APA/AERA/NCME *Standards for Educational and Psychological Testing*.

i. The Consortium will coordinate with the MOSAIC consortium as appropriate and with other interested multi-State formative and benchmark assessment initiatives so that schools and districts will have access to a variety of high quality instructionally supportive assessment options that together yield a coherent balanced assessment system.

j. The assessment system will use open source software applications accessible to any vendor procured by States in the Consortium.

k. States in the Consortium will create and adhere to common administration guidelines including accommodations and allowable tools and assistive devices based on high quality research regarding student learning and assessment.

l. Grant funds allocated to LEAs will in part be used to ensure participation opportunities for teachers. The estimated allocation and purpose of funds will be

described in the budget section of the proposal.

m. States in the Consortium will participate in common procurement practices and deliverables to the extent the procurements are directly related to Consortium- wide activities described in the proposal. Lead States will construct a procurement process taking into account minimum procurement standards used in all participating States.

n. States in the Consortium will share a common reporting format consistent with a goal of aligning reporting systems.

o. States in the Consortium will share common security protocols regarding test items.

p. States in the Consortium will work with their institutions of higher education and teacher preparation institutions to ensure teachers are prepared to use and contribute to the summative assessment system.

This non-binding Memorandum of Understanding shall be effective beginning with the date of the last signature hereon:

Lead State SEA Superintendent/Chief/Commissioner

(or equivalent authorized signatory)

Signature Date

Dwight D. Jones
Print Name

Colorado Commissioner of Education
Title

Exhibit VI.B(2)-2

Number and List of States Participating in SMARTER

There are 12 States that have joined the SMARTER consortium: Colorado, Delaware, Hawaii, Idaho, Michigan, Nebraska, Oregon, Tennessee, Utah, Washington, Wisconsin and Wyoming.

Exhibit VI.B(3)-1

Description of the Center for Transforming Learning and Teaching (CTLT)

CENTER FOR TRANSFORMING LEARNING AND TEACHING (CTLT)

The Center for Transforming Learning and Teaching (CTLT) was established within the School of Education and Human Development (SEHD) at the University of Colorado Denver (UCD) in 2003 and serves as the professional development arm of the Laboratory for Educational Assessment Research and InnovatioN (LEARN), also within the SEHD. CTLT works to catalyze and co-create the transformation of learning environments through the use of assessment so that all are engaged in learning and empowered to positively contribute in a global society. CTLT pursues this mission by creating and providing learning experiences to educators that promote immediate use of strategies and tools, as well as long term development of educational practice; coaching and embedding the use of assessment as a support for learning within classroom settings; planning, developing and facilitating professional learning communities; developing, supporting and bringing forward models of practice; convening practitioners to bring out the best thinking, and engaging educators at the intersection of theory and practice.

CTLT has been the organizational home for several large educational change and professional learning initiatives, including:

- The Colorado Consortium for Data Driven Decisions (2003 – 2008), a $4.5 million, five-year project with over 50 participating districts, focused on supporting educator use of information-based educational practices, standards-based education, and formative assessment.
- Preparing Tomorrow's Teachers for Data-Driven Decisions (2003-2006), a $1.45 million-dollar four-year project which included four teacher-preparation institutions and focused on bringing data-driven practices into teacher preparation courses.
- Intel Teach to the Future (2003-2005) $500,000 which provided professional learning to over 5000 Colorado educators on integrating technology into instructional practice over the course of the $500,000 project.

CTLT also serves as the professional development partner with the CDE(CDE) in the roll out of the Colorado Growth Model, providing professional learning for educators and educational leaders on interpreting and using data on student growth. CTLT has also assisted CDE in the first implementation of a Unified Improvement Planning Template and Process.

As an initiative within the School of Education and Human Development (SEHD), CTLT is supported by the infrastructure of UCD. The SEHD at UCD offers personnel preparation in 11 certification/licensure areas and has 49 full-time faculty housed in 13 program areas, including teacher initial licensure, master's degrees, and two doctoral programs; an EdD, and a PhD. The SEHD enrolls about 300 undergraduate students and 2268 graduate students, including 70 doctoral students. The SEHD has a record of exemplary management of externally funded projects and provides pre-award and post-award services. CTLT is also supported by the administrative systems at UCD, including the policies, procedures, and controls for personnel, fiscal matters, and human subjects for all projects. The SEHD currently houses 40 active projects, with multi-year total grants and contracts of $35 million dollars.

Exhibit VI.B(3)-2
Description of Work Occurring in Learning Communities

Sustainable Learning Communities that Drive Dramatic Improvement in Student Outcomes
An illustration of How Content Collaboratives and Regional Learning Communities Work to Support the Transition to Enhanced Standards and High-Quality Assessments
Colorado Race to the Top Proposal
January 12, 2010

Colorado recently adopted new standards across 13 subject areas. Curriculum, instruction, assessment, and professional development leaders across the State are now in the process of reviewing the standards and determine how to implement them. These local leaders have learned from the prior implementation of standards that it takes significant and sustained professional learning to achieve desired outcomes, and in this fiscal environment it does not make sense for LEAs to work in isolation. Educational leaders have already begun meeting together to discuss opportunities for collaboration and cross-district development of resources related to implementation of the standards, such as:

- Mapping common instructional materials to the new standards,
- Co-developing exemplars of student performance (what proficiency looks like) across different grade-levels and content areas for the learning targets identified by the new standards,
- Co-developing /sharing aligned classroom assessment resources (items, prompts, etc.), and
- Jointly planning how to roll out professional learning (for educators and administrators) related to the new standards.

The Learning Communities within Colorado's RttT plan will support, build upon, and expand current cross-district efforts. The new Learning Communities (Content Collaboratives and Regional Learning Communities) are focused on developing the intellectual capital needed to implement Colorado's new standards and assessments. The Learning Communities will work across districts to:

1. Identify, adapt, develop, or purchase standards-based and aligned instructional materials and formative assessments
2. Develop local learning communities within which educators build their understanding, skills, and practice related to standards-based, data-driven instruction
3. Develop professional development materials to support the work of local learning communities of educators as they use the aligned instructional materials and assessments (formative and interim) in their practice and as part of a data-driven continuous improvement instructional cycle
4. Provide differentiated professional development support via both a train the trainer model and direct support to LEAs as needed

change agents will be employed to strengthen the collaborative network and support educational leaders in managing the transition. These change agents will be identified high capacity individuals from each region or shared from other regions. They will receive additional support and will work to help integrate activities across regions and broker resources.

There will be eight Content Collaboratives responsible for the identification and development of content related to: 1) language arts; 2) mathematics; 3) science; 4) social studies; 5) world languages; 6) performance subjects (performance arts, visual arts, and physical education); 7) School Readiness; and 8) Postsecondary and Workforce Readiness.

There will also be eight Regional Learning Communities that will develop and deliver differentiated professional development and support to smaller LEAs focused on the implementation of the content specific materials and data-driven instruction.

The instructional materials and formative assessment resources developed by the Content Collaboratives will be made available across the State through SchoolView, the State's knowledge management platform. The Learning Communities will accomplish their work in four venues:

- Summer meetings where collaborative members work together to identify needs, products, and tasks related to those needs and responsible members for doing those tasks
- Regular in person or virtual collaboration meetings where members inform each other of progress on task, provide collegial feedback and hold each other accountable for their work (internal accountability)
- Individual or small groups within or between districts that work together to accomplish tasks outlined in the approved Learning Community work plan

- Provision of professional development to LEA trainers or to LEA staff as appropriate

The diversity in LEA and Statewide capacity to address the new standards creates a very complex environment within which each of these cross-district Learning Communities must operate. During the first summer meetings (summer of 2010), each community will identify needs and make a work plan for each of the next four years of work to accomplish the outcomes described above (external accountability). Each participating LEA will in turn develop professional development plans for using the resources developed in the Learning Communities to help the transition to enhanced standards and use of data to improve instruction. How they accomplish the work will look different across each of the Learning Communities based on the learning needs of individuals and LEAs within each community and the status of materials being used within each group

The Content Collaboratives will be facilitated and supported by The CDE content specialists and the Center for Transforming Learning and Teaching (CTLT) staff. Their work will include developing tools for mapping existing curriculum materials to the new standards; identifying and sharing effective practices in curriculum, instruction, and assessment in the content area; contributing to peer review processes that ensure the quality of shared materials; co-developing content-specific professional development in standards-based, data-driven instruction; and delivering or brokering the delivery of professional development.

The Regional Learning Communities will be facilitated and supported by regional change agents (described above) and CTLT staff. The Regional Learning Communities will work with districts to develop the skills and knowledge of educators necessary to implement the new standards and to transition to wide use of data to inform instruction.

The key organizational support across all of these Learning Communities will be provided by CDE and CTLT, who will develop and facilitate all of the meetings and work with each Learning Community to develop materials. At the same time, the Learning Communities will work with CDE to develop an outside peer review process for each of the Content Collaboratives. These peer review teams will develop criteria for reviewing the instructional materials and formative assessments that are identified or developed for use by the Content Collaboratives. These groups will develop quality criteria by the end of the first year of work and begin review of materials in the second year. Information from the reviews will be used to rate materials placed on SchoolView, and CDE will use the information to determine if the Collaboratives have accomplished their work plans.

The end result of this work is development of an education system that supports the use of aligned standards-based instructional materials and the use of data to improve instruction. The fundamental outcomes of this work are:

- All educators understand the content standards, how to translate them into daily lessons and units, and the evidence that shows that students are proficient.
- All educators have access to or the supports and ability necessary to develop aligned instructional materials for their courses, units and lessons.
- All educators have access to appropriate standards-aligned assessment data (formative and interim).
- All educators engage in formative assessment practices – making use of data from formative and interim assessments to improve instructional strategies and to support student development of meta-cognitive strategies.

To reach these goals, all educators will participate in high quality learning experiences that meet their actual needs, and are adjusted over time based on data about teacher practice.

Exhibit VI.B(3)-3

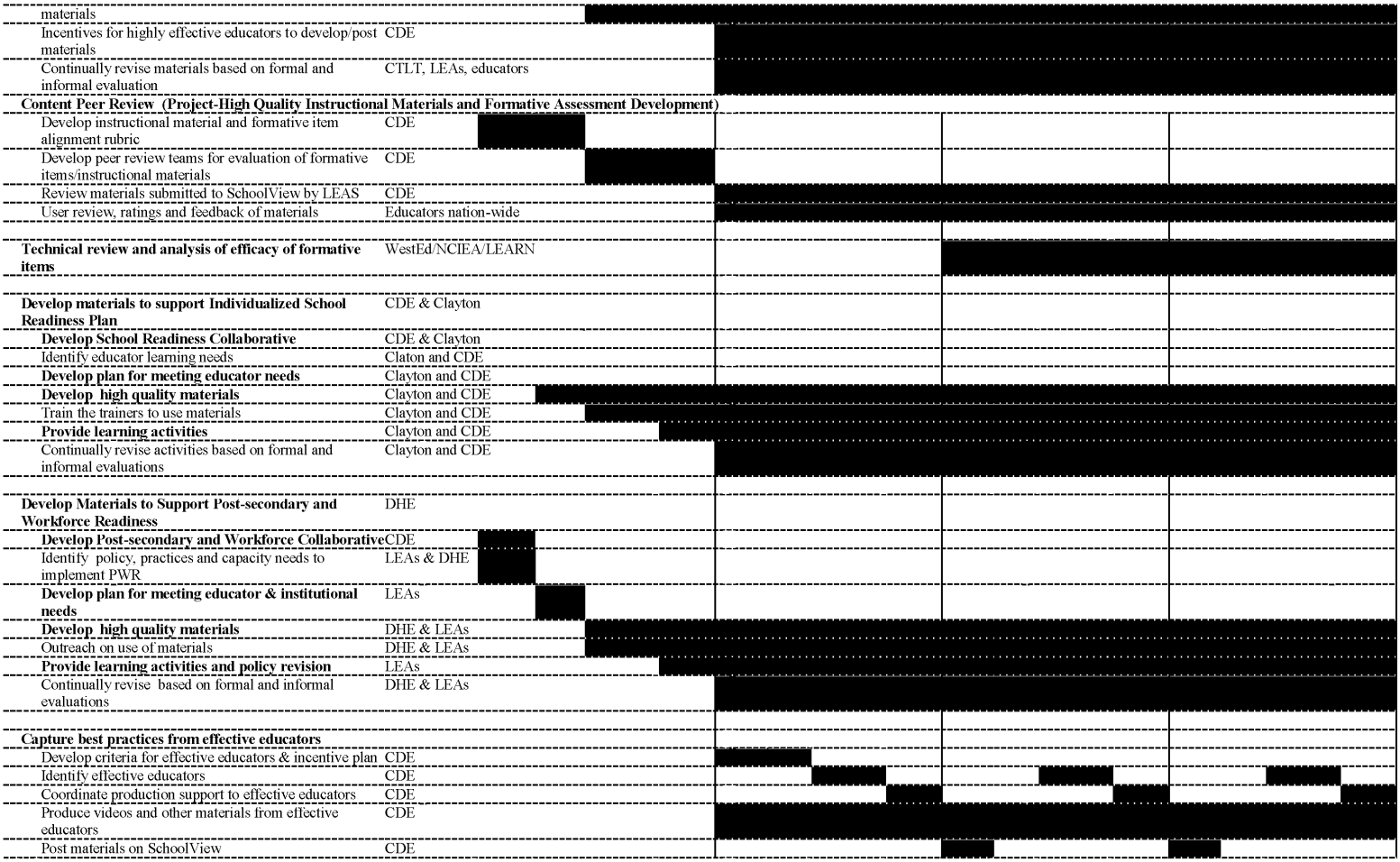
Members of State Assessment Stakeholders Committee

Assessment Stakeholders Committee		
Name	**Region**	**Profession**
Tim Albers	Western	Director of Admissions , Associate Vice President for Enrollment Services, Western State
Geri Anderson	Denver Metro	Assistant Vice President & Provost, Colorado Community College System
Jane Barnes	Denver Metro	School Board of Education , Jefferson County Public Schools
Carole Basile	Denver Metro	Associate Professor, University of Colorado at Denver, School of Education and Human Development
Seth Berg	Southwest	District Assessment Coordinator, High School Teacher MS Enrichment and Curriculum Coordinator, Telluride School District R-1
Charlotte Brantley	Denver Metro	President/CEO, Clayton Early Learning
Eric Briggs	Denver Metro	Amgen
Dewey F. Brigham, Jr.	Denver Metro	President, Colorado Association of Black Professional Engineers & Scientists
Harry Butler	Western	School Board of Education , Mesa County Valley School District 51
Mary Chesley	Denver Metro	Superintendent, Cherry Creek School District
Tammy Clementi-Watson	Pikes Peak	Chief Academic Officer , Instructional Support & Educational Accountability , Pueblo City Schools
Lindy Crawford	Pikes Peak	Associate Dean College of Education , University of Colorado at Colorado Springs
Willie Daniels	Denver Metro	President/CEO , Shades of Blue
Judi Diaz Bonacquisti	Denver Metro	Associate Vice President, Enrollment Services, Denver Metro State College
Carol Eaton	Denver Metro	Assessment Director, Executive Director Instructional Data Services, Jefferson County District R-1
Lisa Escarcega	Denver Metro	District Assessment Coordinator, Aurora Chief Accountability & Research Officer, Aurora Public Schools
Bill Esterbrook	Southwest	Board of Cooperative Educational Services (BOCES), Former Superintendent at Pagosa Springs Schools
Booker Graves	Denver Metro	Executive Director, Colorado Workforce Development
Oliver Grenham	Denver Metro	Executive Director of Learning Services, Adams County School District
Dan Lere	Southeast	Superintendent, Pueblo School District 70
Maggie Lopez	Pikes Peak	Assistant Superintendent Of Learning Services , Academy School District
Lidoro Maestas	Denver Metro	Armed Services Vocational Aptitude Battery (ASVAB)

Assessment Stakeholders Committee		
Name	**Region**	**Profession**
Pat Meade	Denver Metro	Director of Institutional Research, Front Range Community College
Mike Miles	Pikes Peak	Superintendent Harrison School District
Christina Narayan	Pikes Peak	Elementary Teacher Branson School Online Online Teacher of the Year
Keith Owen	Southwest	Superintendent Durango School District 9-R
Jesus Salazar	Denver Metro	Senior Manager Credera
Lorrie Shepard	Denver Metro	Professor of Education Chair of the Research and Evaluation Methodology, CU at Boulder
Dianna Sirko	Mountain Central	Superintendent Aspen School District
Tim Taylor	Denver Metro	President Colorado Succeeds
Paul Thayer	Northeast	Associate Vice President for Student Affairs Special Assistant to the Provost for Retention Colorado State University
Ana Tilton	Denver Metro	Chief Academic Officer Denver Public Schools
Mary Valerio	San Luis Valley	Professor Adams State, Migrant Education Program Director
Ed Vandertook	Northwest	Superintendent Holyoke School District RE-1J
Cindy Wenzel	Pikes Peak	District Assessment Coordinator Director of Curriculum and Student Achievement Fountain-Fort Carson School District 8

Exhibit VI.B(3)-5
Implementation Timeline for Selection Criterion (B)(3)- Standards and Assessments

	Responsible Party	SY 2010-2011 Sept-Nov	SY 2010-2011 Dec-Feb	SY 2010-2011 March-May	SY 2010-2011 June-Aug	SY 2011-2012 Sept-Nov	SY 2011-2012 Dec-Feb	SY 2011-2012 March-May	SY 2011-2012 June-Aug	SY 2012-2013 Sept-Nov	SY 2012-2013 Dec-Feb	SY 2012-2013 March-May	SY 2012-2013 June-Aug	SY 2013-2014 Sept-Nov	SY 2013-2014 Dec-Feb	SY 2013-2014 March-May	SY 2013-2014 June-Aug
1 Capacity: all Colorado educators will provide standards-based, data-driven instruction																	
Develop and Provide Continued PD support for Standards Based Instruction	CTLT																
Develop Content Collaboratives	CDE	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Identify educator learning needs	LEAs	■	■														
Develop plan for meeting educator needs	LEAs	■	■	■													
Develop PD materials	CTLT & LEAs			■	■	■	■	■	■	■	■	■	■	■	■	■	■
Continually revise PD based on formal and informal evaluations	CTLT & LEAs					■	■	■	■	■	■	■	■	■	■	■	■
Build regional capacity	CTLT																
Develop Regional Learning Communities	CDE	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Identify educator learning needs	LEAs	■	■														
Develop plan for meeting educator needs	LEAs	■	■	■													
Develop high quality materials	CTLT & LEAs		■	■	■	■	■										
Continually revise PD based on formal and informal evaluations	CTLT & LEAs			■	■	■	■	■	■	■	■	■	■	■	■	■	■
Implement Change agent strategy	CTLT																
Identify change agents within the Collaborative/Learning Communities	CTLT & CDE		■			■				■				■			
Provide change agents with training / additional support	CTLT		■	■		■	■			■	■			■	■		
Change agents provide trainings to LEAs/Schools	CDE			■	■	■	■	■	■	■	■	■	■	■	■	■	■
2 Infrastructure: Provide high-quality supporting instructional materials and resources assessments needed to implement standards-based learning																	
Acquire, develop and implement standards-based instructional materials																	
Develop understanding of district needs	CTLT & LEAs	■	■														
Develop plan for meeting needs for materials, and assessments	CTLT & LEAs	■	■														
Content Collaboratives develop aligned instructional materials	CTLT & LEAs			■	■	■	■	■	■	■	■	■	■	■	■	■	■
Incentives for highly effective educators to develop/post materials	CDE					■	■	■	■	■	■	■	■	■	■	■	■
Continually revise materials based on formal and informal evaluation	CTLT, LEAs, educators					■	■	■	■	■	■	■	■	■	■	■	■
Acquire, develop and implement standards-based formative assessments																	
Develop understanding of district needs	CTLT & LEAs	■	■														
Develop plan for meeting needs for materials, and assessments	CTLT & LEAs	■	■														
Content Collaboratives develop aligned instructional	CTLT & LEAs			■	■	■	■	■	■	■	■	■	■	■	■	■	■


materials
Incentives for highly effective educators to develop/post materials
CDE
Continually revise materials based on formal and informal evaluation
CTLT, LEAs, educators
Content Peer Review (Project-High Quality Instructional Materials and Formative Assessment Development)
Develop instructional material and formative item alignment rubric
CDE
Develop peer review teams for evaluation of formative items/instructional materials
CDE
Review materials submitted to SchoolView by LEAS
CDE
User review, ratings and feedback of materials
Educators nation-wide
Technical review and analysis of efficacy of formative items
WestEd/NCIEA/LEARN
Develop materials to support Individualized School Readiness Plan
CDE & Clayton
Develop School Readiness Collaborative
CDE & Clayton
Identify educator learning needs
Claton and CDE
Develop plan for meeting educator needs
Clayton and CDE
Develop high quality materials
Clayton and CDE
Train the trainers to use materials
Clayton and CDE
Provide learning activities
Clayton and CDE
Continually revise activities based on formal and informal evaluations
Clayton and CDE
Develop Materials to Support Post-secondary and Workforce Readiness
DHE
Develop Post-secondary and Workforce Collaborative
CDE
Identify policy, practices and capacity needs to implement PWR
LEAs & DHE
Develop plan for meeting educator & institutional needs
LEAs
Develop high quality materials
DHE & LEAs
Outreach on use of materials
DHE & LEAs
Provide learning activities and policy revision
LEAs
Continually revise based on formal and informal evaluations
DHE & LEAs
Capture best practices from effective educators
Develop criteria for effective educators & incentive plan
CDE
Identify effective educators
CDE
Coordinate production support to effective educators
CDE
Produce videos and other materials from effective educators
CDE
Post materials on SchoolView
CDE

Integrate Community STEM resources into SchoolView		
Determine criteria and procedures for inceptive for STEM content	CDE	
Outreach to STEM Community	CDE	
Begin funding STEM in Action projects	CDE	
3 Implementation: Colorado will transition to high quality standards and high quality assessments		
Indentify and if necessary acquire aligned standards-based interim assessments (tested subjects)		
Convene expert review panel	CDE	
Review available assessments	CDE	
Determine if need to build assessments or subsidize district purchase	CDE & LEA	
Purchase interim assessments as needed	LEAs	
Indentify and if necessary acquire aligned standards-based interim assessments (non-tested subjects)		
Issue RFI for interim assessments	CDE	
Convene expert review panel	CDE	
Review available assessments	CDE	
Determine if need to build assessments or subsidize district purchase	CDE & LEA	
Purchase interim assessments as needed	LEAs	
Implementation Peer Review		
Revise current tool to match revised expectations	CDE	
Train Peer-Review Teams	CDE	
Conduct peer reviews	CDE	
Respond to peer review feedback	LEAs	
Key Deadlines and Dates		
3 **Develop Content Collaboratives and Regional Learning Communities**	CDE	
4 **Develop rubric for review of instructional materials**	CDE	
5 **Develop rubrics for review of interim assessments (tested subjects)**	CDE	
6 **Develop rubrics for review of interim assessments (non-tested subjects)**	CDE	
6 **Develop method for identify effective educators**	CDE	
7 **Develop rubric for peer review of implementation**	CDE	

Exhibit VI.B(3)-6
CDE Standards Implementation Project Charter

1 Executive Summary

As identified in Forward Thinking Progress Report 2009, Goal 1 and 3, Next Steps:

- Goal 1: "Finalize, implement and continuously improve the Colorado Department of Education's (CDE's) statewide system of support. Continue and expand, where possible, efforts to receive stakeholder input. Develop and implement a unified plan application and necessary software."

- Goal 3: "Develop a range of tools and frameworks to provide support to all Colorado school districts on revised content standards."

This outlines Phases I & II of the dissemination and implementation plan for the revised Colorado Academic Standards. This plan spans from December 2009 through May 2010.

2 Project Definition

2.1 Vision

The vision is to inform key stakeholders of the scope of the revised Colorado Academic Standards including 21st Century Skills and Postsecondary and Workforce Readiness (PWR).

Managing a new generation of economic and cultural opportunities requires a new way of working, thinking and connecting. Fewer, clearer, meaningful expectations encourage deeper and more connected learning.

Every young citizen needs now to be nimble in their thinking and use information better.

In a bold move, Colorado declares what every student needs to know at the end of high school and spells out the expectations from preschool to college and career ready.

As put forth in Forward Thinking, the CDE seeks to engage districts as partners in the transformation process of realizing the vision of teaching and learning articulated in the revised Colorado Academic Standards.

2.2 Project Drivers

- SB-08-212 The Preschool through Postsecondary Alignment Act
  Colorado Achievement Plan for Kids (CAP4K)
- Forward Thinking
  Goal 1: "Provide guidance and support to meet school and district needs."
  Goal 3: "Develop tools to eliminate gaps and increase achievement for all."
- Statewide System of Accountability and Support (SSAS)
  Universal level of support

2.3 Objectives

- Develop internal CDE communication plan
- Develop external CDE communication dissemination plan
- Develop standards implementation support tools

- Create and maintain partnerships with districts, professional organizations, and other Local Education Agencies (LEAs)

2.4 Scope

The scope of this project is defined below in terms of what is in scope, as well as, what is out of scope for this project.

2.4.1 In Scope

Item Title	Item Description
Public Relations & Communications	Messaging and targeted presentations on the vision of the revised Colorado Academic Standards.
Collaborative Tool Generation	Working with interested stakeholders to co-create just in time support tools and documents.
Facilitated Planning for Districts	Partnerships and tools to support districts' alignment plans.
Differentiated Support	Will follow differentiated needs of SSAS triangle of support and unique content needs.

2.4.2 Out of Scope

Item Title	Item Description
Teacher Professional Development (PD)	PD around the revised Colorado Academic Standards.
Direct Support Materials for Teachers	Future project charter for Phase III for dissemination and implementation plan will address direct support materials.
Model Curricula	Developing model curricula will take a focused effort at a future date informed by the work of this project.
Vetting of Instructional Materials	Vetting of instructional materials will take a focused effort at a future date informed by the work of this project.

2.5 Deliverables

Below is a list of the key deliverables identified at the time of this document for this project.

Deliverable	Description
Project charter	This document will formally authorize the project as well as identifies all the team members.
FAQs for Districts	These documents will be fluid and responsive to questions,

	concerns, and anxieties of the field and will determine a formal process in which to ensure CDE voice/message is consistent throughout the process.
Standards Documents Organized in Different Formats	Different formats in response to multiple needs in the field.
Timeline of Implementation Support for Districts	Provides a guide for determining when CDE materials will be available to support district implementation efforts.
Curriculum Alignment Tools	Provides tools to assist the districts in aligning their curriculum with the revised Colorado Academic Standards.
Instructional Material Alignment Tools	Provides protocols and suggested methods for aligning instructional material to district curriculum.
Tools for Districts for the Alignment Process	• Readiness flowchart • Professional Development implications • District assessment implications
Personal Financial Literacy Summit	A summit for district leaders designed to build readiness for implementation of this new area of content.
Project Schedule	The project schedule will list in detail the timelines each phase and task will start and end.
Project Plan	This document will include a communication plan, implementation plan, a change management plan and any updates made to the project schedule and/or team members.

3 Sponsors and Stakeholders

Below is a list of the key project stakeholders who have a key interest in the project.

Stakeholder	Representative(s)	Stakeholder Interest
Executive Sponsorship	Dwight Jones - *Commissioner* Jeanette Cornier - *Assistant Commissioner* Jo O'Brien - *Assistant Commissioner* Rich Wenning - *Associate Commissioner*	Executive sponsorship's interest in this project is to ensure that CDE provides leadership and support for the implementation of standards-based data-driven instruction that results in increased academic achievement, closing achievement gaps and graduating students postsecondary and workforce ready. Also, to provide senior level approval, with continued championing of the project amongst staff and the standards implementation planning team.
Project Sponsors	Melissa Colsman - *Assistant Director of Academic Initiatives and Support* *Math Content Specialist* Brenda Barr - *Social Studies Content Specialist* Barry Cartwright - *Science Content Specialist* Karol Gates - *Arts Content Specialist* Gena Feury - *Literacy Content Specialist* Angela Norlander - *Principal Consultant for Standards and Assessments*	
Project Manager	Erika Carrillo - *Project Coordinator* *Office of Teaching and Learning*	

Stakeholders	
Internal	Office of Teaching and Learning
	Office of Standards and Assessment
	Exceptional Students
	Language, Culture and Equity
	State Libraries
	Federal Programs
	Performance and Policy
External	School District Leadership
	BOCES
	CASE
	CASB
	CEA
	CDHE
	Professional Organizations
	Parent Group

4 Roles and Responsibilities

A role is a defined function to be performed by a project team member. A responsibility is a duty or obligation to satisfactorily complete a task (assigned by a supervisor, or created by one's own promise or circumstances) that one must fulfill.

Role	Resource Name	Responsibility
Executive Sponsorship	Commissioner Jones Jeanette Cornier	• Providing senior level approval • Exploration and development of funding sources
Project Sponsorship	Melissa Colsman Brenda Barr Barry Cartwright Gena Feury Karol Gates	• Developing the implementation of the project charter • Facilitating the production of deliverables • Internal and external communication • Delivering professional development • Facilitating internal collaboration
Project Board	Standards Implementation Leadership Team	• Advisory to the standards implementation process
Project Manager	Erika Carrillo	• Monitoring the progress of deliverables
Web Architect	Jacob Heiney	• Updating the Office of Teaching and Learning website
Internal Technical Partner	IMS	• Developing the portal
External Technical Assistance	• School House • McREL or WestEd	• Public relations campaign technical assistance • Providing technical assistance to content specialists for standards implementation process

5 Communications

Below is a high-level list of communications that will take place. A detailed Communications Plan will be developed in the Project Plan.

Communication	Group	Delivery Method	Frequency	Responsible Party
Status Meetings	Project Board (SILT)	Face-to-face meetings	TBD	Project Board and Project Sponsors
CDE Staff Meetings	Internal Stakeholders	Face-to-face meetings Web	On-going	Project Sponsors and CDE Executive Team
Project Status Reports	Project Board Stakeholders	TBD	TBD	Project Sponsors Project Manager
On-line Office Hours	Stakeholders	Web	Weekly	Project Sponsors

SCOOP	Subscribers	Web	As needed	Project Sponsors
Targeted Presentations	Partner Groups	Face-to-face meetings and Web	Requested Scheduled	Project Sponsors and Internal CDE Partners
CDE Website	Stakeholders	Web	As content is developed.	Jacob Heiney, Content Specialists, & Office of Standards and Assessments

6 Implementation Plan

6.1 Approach

Brief paragraph description of the items listed below in the tables.

Phase I
Phase I is focused on Awareness and Dissemination of the revised standards. This involves developing both internal and external communication plans, a public relations campaign, and an initial timeline of CDE implementation supports.

Phase II
Phase II is focused on alignment support for district and school leaders. This involves the development and deployment of tools and support for alignment of curriculum, instructional programs and materials, professional development, and district assessments for use by district leadership. Also in Phase II, the project charter for Phase III, implementation of standards, will be developed.

Phase III
Phase III (not included in this project charter) is focused on implementation support for districts, schools, and teachers. The scope of this work involves development of an instructional management system, development of best practice guides, dissemination of exemplary curricula, professional development using trainer of trainer models and online modules, creation of implementation configuration maps, development of instructional program evaluation processes, and ongoing support.

Below is a brief description of how the project will be implemented.

Phase I	Overall Approach
Initiation	Develop project charter Stakeholder needs analysis Coordination within CDE
Planning	Feedback from SILT and internal stakeholders Develop system and process of standards implementation Data gathering plan
Executing	Development and deployment of deliverables Communication plan

Closing	Reflection and analysis for Phase II to begin project charter for Phase III
Phase II	**Overall Approach**
Planning	Design of alignment and initial implementation tools for district and school leaders with technical assistance provider
Executing	Development of alignment and initial implementation tools Providing technical assistance to districts using various methods
Closing	Reflection and analysis to begin project charter for Phase III

6.2 Project Milestones

Below is a high-level list of milestones along with targeted end dates for this project. This project schedule will be further updated as the project progresses.

Phase	Task	Responsible Party	Target End Date
Phase I: Awareness and Dissemination			
Initiating	Develop project charter	Project Sponsors	12/14/2009
Initiating	Stakeholder needs analysis	Project Sponsors	12/23/2009
Initiating	Coordination within CDE	Project Sponsors	1/15/2010
Planning	Feedback from SILT and internal stakeholders	Project Sponsors & Project Board	1/31/2010
Planning	Develop system and process of standards implementation	Project Sponsors	12/18/2009
Planning	Data gathering plan	Project Sponsors	1/15/2010
Executing	Development and deployment of deliverables	Project Sponsors & Partners	2/28/2010
Executing	Communication plan	Executive Team, SSAS, Project Board, Project Sponsors, OSA, OTL, Partners, School House, Communications Department	1/4/2010
Closeout	Reflection and possible adjustment of Phase II plan	Project Sponsors & Project Board	2/28/2010
Phase II: Alignment			
Planning	Design of alignment and initial implementation tools for district and school leaders	Project Sponsors, External Technical Assistance Provider, & Partners	2/1/2010
Executing	Development of alignment and initial implementation tools	Project Sponsors, External Technical Assistance Provider, & Partners	3/1/2010

Executing	Providing technical assistance to districts using various methods	Project Sponsors, Partners - Internal & External	5/31/2010
Closeout	Reflection and analysis to begin project charter for Phase III	Project Sponsors & Project Board	5/31/2010
Phase III: Implementation			
An additional Project Charter will be written for Phase III.			1/15/2010

6.3 Financial Plan

Below are the summarized funding and expenditures identified for this project.

E-90	SB 08-212 CAP4K	
State Fiscal Stabilization Fund	Government Services Grant	$67,000
Financial Literacy Grant	Grant	$35,000
E-38	Content Specialists Time (80%)	
SWCC Contract	Regional Service Provider	Federally Sponsored
McREL Contract	Regional Service Provider	Federally Sponsored

Technical Assistance for the Project Sponsors	WestEd and/or McREL Regional Service Research: 24 hours Direct technical assistance: 40 hours @ $150/hour	$10,000	
Administrative Assistance for Project Sponsors	8 hrs/week for 25 weeks @ $15/hour	$3,000	
Official Functions	5 meetings for each content area (LA, math, science, social studies, and arts) $500 / meeting	$7,500	
Travel for Partners	25 meetings, 10 people per meeting , ~100 miles travel per person	$25,000	

Travel for Project Sponsors	4 CDE staff once a week 25 weeks, ~250 miles per trip	$25,000	
Publication Assistance	Production and publication of materials for technical assistance	$20,000	
Technology Assistance	Creation of web based support tools	$15,000	

6.4 Project Constraints

This project is constrained by budgetary considerations, prioritization of goals within CDE, time, and assistance. Specifically, the capacity to complete these project objectives in the given timeframe depends on: (a) availability of quality technical assistance for Project Sponsors, (b) availability of administrative assistance, (c) availability of funding to support partner involvement in development of tools and (d) Project Sponsor involvement with other CDE projects.

6.5 Completion Criteria

The final step in defining the approach towards implementation of the project is to define the criteria for completion of the project.

Process	Description
Phase I	
User Acceptance	
Phase Review	
Phase II	
User Acceptance	
Phase Review	
Phase III	
User Acceptance	
Phase Review	

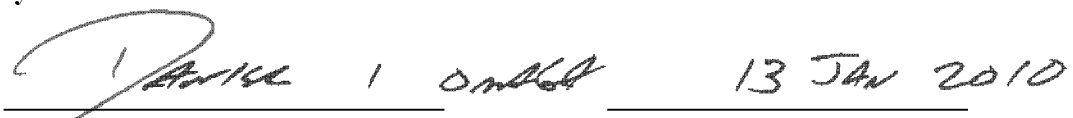
7 Document Approval

I have read the Charter Document and approve its content.

Role	Name	Signature	Date
Executive Sponsor	Dwight Jones - *Commissioner*		1/5/10
Executive Sponsor	Jeanette Cornier - *Assistant Commissioner*		12/31/09
Executive Sponsor	Jo O'Brien - *Assistant Commissioner*		1/6/10
Executive Sponsor	Rich Wenning - ~~*Assistant* Commissioner~~ Associate		1/8/10

Exhibit VI.C(1)-1
Detailed Responses to America COMPETES Act Requirements

I hereby certify that I am the chief information officer for the Colorado Department of Education, and that the following chart represents the current and planned capacities of Colorado's State longitudinal data system.



Dan Domagala **Date**

America COMPETES Act Requirement	Description of Current Status in Colorado
1. Unique student identifier that prevents individual identification of students	**In place; being improved.** Unique State- assigned student identifiers (SASIDs) implemented for all public P-12 school students in 2002. Extending unique identifier for higher education per SB 06-024 and to preschoolers using anticipated SLDS funding.
2. Student-level enrollment, demographic, and program participation information	**In place; being improved.** Enrollment information is collected from local education agencies through specific, single-point-in-time file-based manual collections that drive financial allocations. Funding from the SLDS application award will be used to significantly enhance and streamline data collection. Efforts are also currently underway to implement an Individual Education Plan (IEP) system. Legislators authorized the State's executive branch departments to share unit-level records (HB 08-1364). Conversations between agencies (CDE, CDHE, Labor and Employment, and Human Services) are underway to implement a process to align multiple IDs into a State system ID in order to share data.
3. Student-level information about the points at which students exit, transfer in, transfer out, drop out, or complete P–16 education programs	**In place; being improved.** The State currently collects student-level graduation data by diploma type and student-level dropout data (including the ability to identify exiting students as graduates, dropouts, transfers, or GED recipients). State legislation (SB 08-212; CAP4K) requires extending data collection through postsecondary and workforce development systems.
4. Capacity to communicate with higher education data systems	**Planned.** CDE and CDHE presently share data using a manual format. Recently enacted legislation supports the development and implementation of P-20 data sharing and reforms necessary to automate data sharing. CDE and CDHE staff are actively engaged in discussions regarding data system needs, function, and focus; representatives from both organizations participate on several joint data committees.
5. State data audit system assessing data quality, validity, and reliability	**In place; being improved.** CDE's Automated Data Exchange (ADE) has an audit mechanism to review the accuracy of data submitted by schools and districts. All current data collection processes employ rigorous validation procedures and data edits. Business rules are documented and data models are in place. Development of State standards (e.g., course codes) and definitions for data are included in this effort.

America COMPETES Act Requirement	Description of Current Status in Colorado
6. Yearly test records of individual students with respect to assessments under section 1111(b) of the ESEA (20 U.S.C. 6311(b))	**In place; being improved.** The data system collects yearly test records of individual students and matches individual students' test records from year to year to measure academic growth. The data system will evolve to track the attributes and support implementation of new standards and assessments developed legislation (SB 08-212; CAP4K).
7. Information on students not tested by grade and subject	**Completed.** The State collects and maintains individual records on each untested student in a tested grade with specific explanations for why each student was not tested. This function will continue as new assessments are developed and implemented.
8. Education identifier system with the ability to match teachers to students	**In progress.** HB 09-1065 created the political mandate for an Educator Identifier System and directed the establishment of the Quality Teachers Commission to oversee its design and implementation. With requirements in place, programming resources are engaged and an initial deployment is planned during the current (2009-2010) academic year. Phase II requirements to link students and teachers have been identified as have additional specifications for teacher certification and preparation tracking. It is hoped that a SY 2009-2010 SLDS grant award will accelerate this current effort.
9. Student-level transcript information, including information on courses completed and grades earned	**In place; being improved.** CDE has implemented and continues to develop the Colorado Transcript Center web application. Development, testing and production were completed in late November 2008. Current work focuses on building membership and helping district and postsecondary institutions become active members through various marketing and outreach strategies.
10. Student-level college readiness test scores	**Completed.** As part of its State assessment/accountability system, Colorado requires all 11th grade students in Colorado public schools to take the ACT test and collects and maintains this data on an individual student basis. The ACT is the standardized, curriculum-based, achievement, college entrance examination selected by CDE.
11. Information regarding student transition from secondary school to postsecondary education	**Planned.** SB 08-212 (CAP4K) is a landmark reform initiative that creates a truly aligned Colorado preschool to postsecondary educational system. To date, CDE and CDHE have jointly held meetings with stakeholders and have approved a postsecondary and workforce readiness definition for Colorado students. Plans are currently being initiated between CDE and CDHE to expand the Colorado Growth Model to display student transition metrics.
12. Other information determined necessary to address alignment and adequate preparation for success in postsecondary education.	**In place; being improved.** SB 08-212 (CAP4K) facilitated extensive Statewide conversations regarding the skills and competencies students need to succeed after high school to be prepared to enter college and the workforce and to compete in the global economy. One significant outcome was the revision of Colorado's P-12 Academic Standards to address postsecondary and workforce readiness. Next steps include the alignment and design of new assessments for these standards.

Exhibit VI.C(2)-1
Screen Shot of Current SchoolView Portal

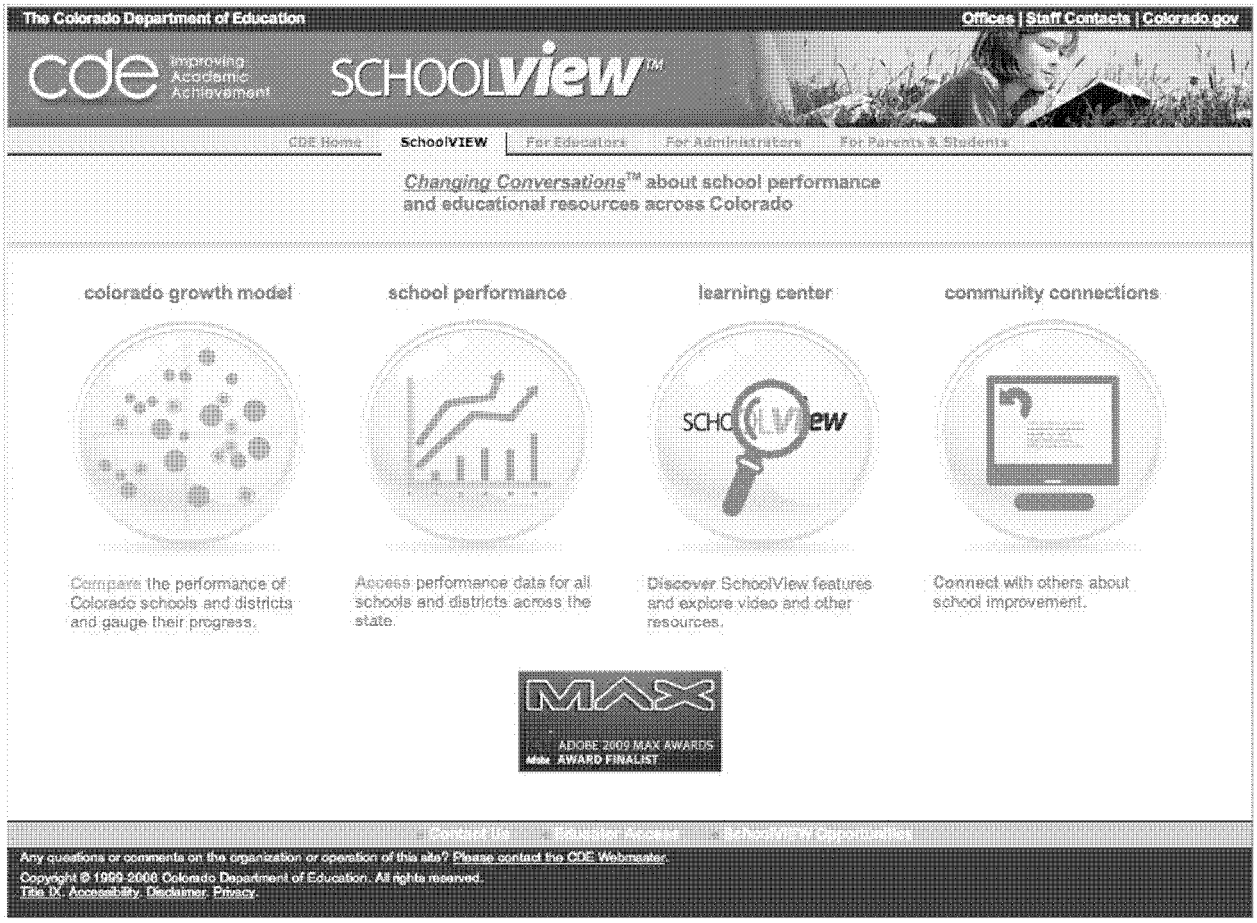


Exhibit VI.C(2)-2
SchoolView & Colorado Growth Model Vision and Overview

In early 2008 Colorado was at a crossroads. With the adoption of the **Colorado Growth Model** (example and screen views below) the CDE felt it had the right metrics to transform educational data use Statewide. What the State lacked was a means to turn that data into the information and knowledge necessary to enable that transformation. The State recognized first and foremost that the *data do not speak for themselves* and can be used to tell a thousand stories. Development and implementation of a cutting-edge longitudinal data system, technology infrastructure, and a nationally recognized growth model established a strong foundation for innovation and improved student performance through performance management at all levels, from the classroom to the Statehouse. But without the means to communicate the relevant stories in the data, their transformative potential was seriously diminished

Inspired by the Web 2.0 revolution of user-centered design and social networking, the CDE wanted to apply these philosophies, designs and associated technologies to data visualization/communication---helping to turn data into information for the wide variety of education stakeholders. **SchoolView** is the umbrella project under which Colorado is pursuing its wide-ranging agenda for its longitudinal data and instructional improvement systems (see Exhibit VI.C(2)-3). To do so, the State embarked on a path that turns the traditional model of enterprise data use on its head. Instead of establishing as a primary goal the assembling of all available data (and expecting the data to speak for themselves), the State focused on getting the right data to the right people at the right time in the most engaging and accessible manner possible. Enabling stakeholders to have useful experiences requires going far beyond traditional data spreadsheets and hl charts and creating dynamic data visualizations that make the data come alive and inspire the user to explore.

In Fall 2009, the initial efforts of the CDE toward the next generation of data visualization were recognized by Adobe as part of their annual Max Conference as being one of the most innovative uses of their technology during the past year. Given the modest expenditure of resources to date, the desire expressed by other States to build upon Colorado's efforts has been an overwhelming success and a huge vote of confidence that our direction is the right one. To that end, Colorado Governor Bill Ritter Jr. invested $2.5 million of ARRA funds in its further expansion.

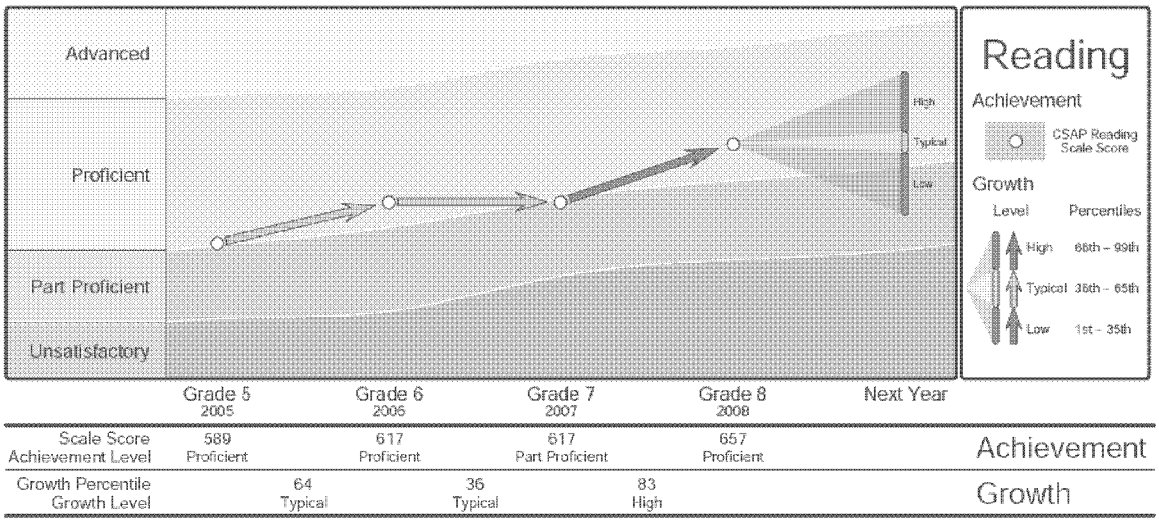
Implementing this vision began with three critical points of recognition:

1. Information requirements for decision support vary by stakeholder group. That is, user-centered design requires that reporting tools need to cater to the needs of different users.

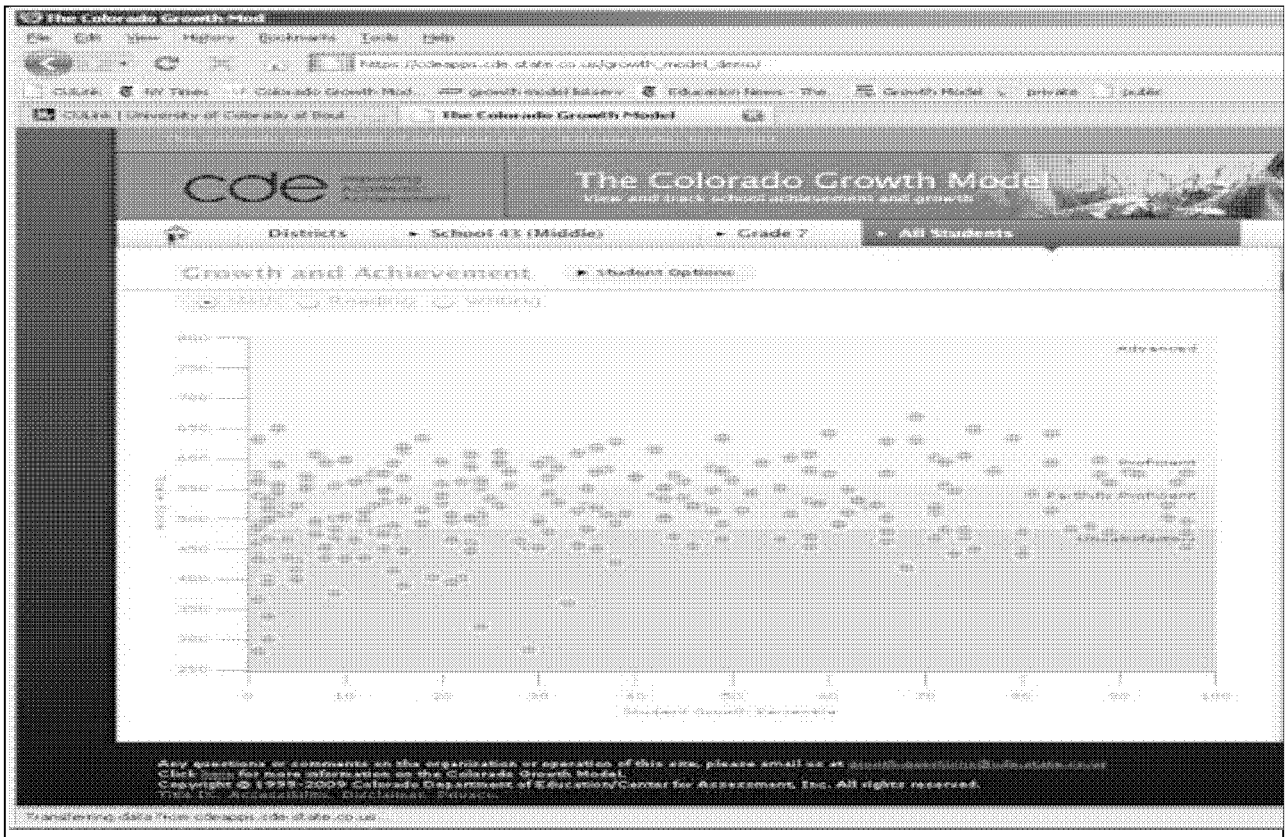
2. Decision-makers are often not fully cognizant of the specific data best suited for each decision. In designing an effective information system, it is crucial to begin with the users and precisely identify the needs of the various decision-makers whether they be parents/guardians, teachers, principals, administrators, or policymakers.

3. Cultivating the productive conversations and actions needed to transform education in Colorado requires active participation and engagement across the various stakeholder groups around a common set of data so that everyone is "speaking the same language". The Colorado Growth Model was designed to provide the common data foundation and SchoolView was conceived to provide the reporting platform necessary to turn data into information for stakeholders Statewide.

The following pages show example visualizations from SchoolView and are based upon the Colorado Growth Model. These nationally recognized data visualizations were designed to make education data come alive and cultivate conversations about student growth and its relationship with education quality for stakeholders across the education spectrum. SchoolView has changed conversations about education throughout the State of Colorado. To see SchoolView for yourself, please visit **http://www.SchoolView.org**. To see the Colorado Growth Model portion of SchoolView please visit **https://cdeapps.cde.State.co.us/growth_model_public/**

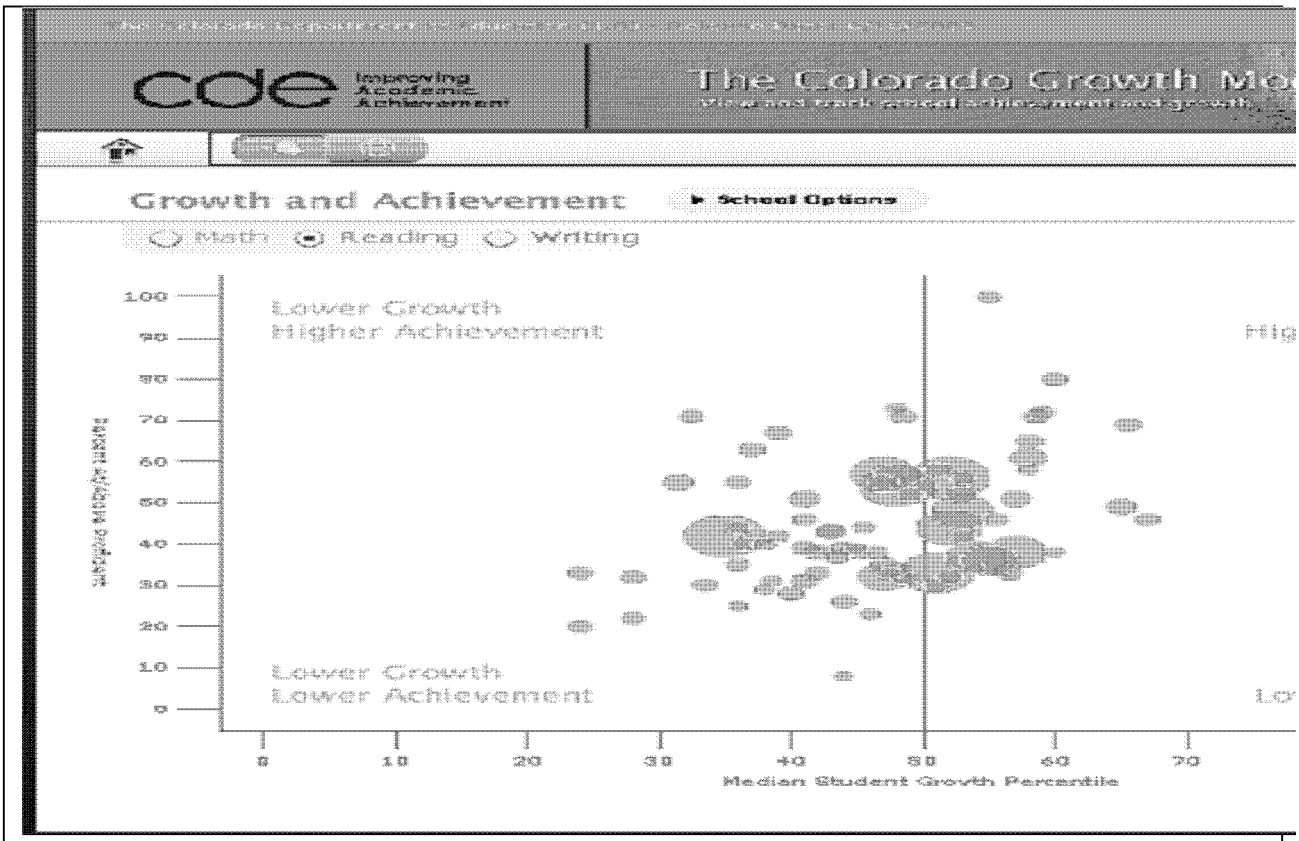


User Level (Micro-to-Macro)	**Stakeholders** (Individual-to-System Focused)	**Information/Data Scope**
Individual Student	Teachers, Students, Parents	Achievement and growth data (large scale and small scale), portfolios, attendance,
Student Growth and Achievement Report for Reading depicting an achievement timeline with student growth percentile data. These reports form the basis for conversations about individual student performance between teachers, students and parents		
User Level (Micro-to-Macro)	**Stakeholders** (Individual-to-System Focused)	**Information/Data Scope**
Classroom/Teacher	Teachers, Principals, Parents	Aggregated and individual achievement and growth data (large and small scale)



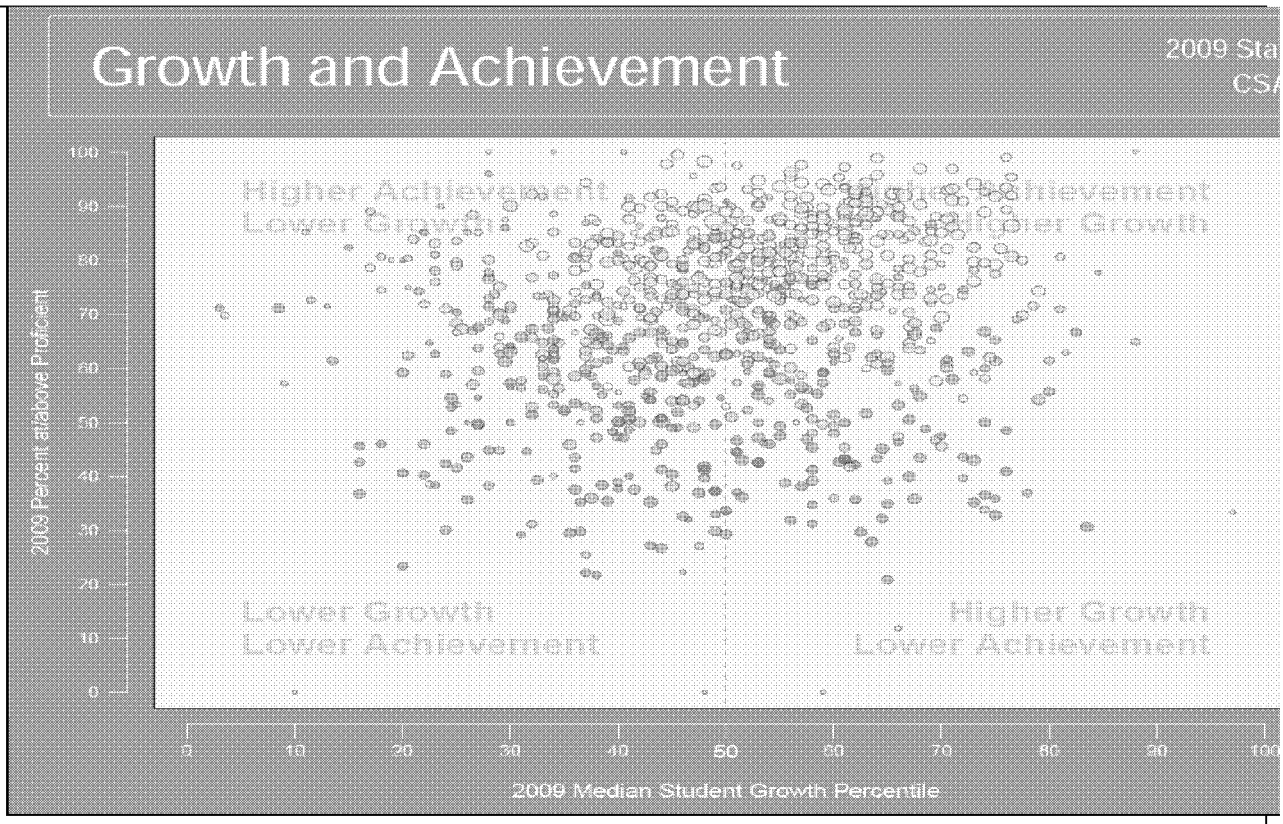
Colorado Growth Model Grade 7 school results depicting student growth (horizontal axis) and achievement (vertical axis) with the 4 achievement levels present in the background. Note the bulk of students to the left of the chart demonstrating low growth. Mousing over a bubble indicates the student names and permits drill down to the achievement timeline level depicted in the previous slide

User Level (Micro-to-Macro)	**Stakeholders** (Individual-to-System Focused)	**Information/Data Scope**
District/School/Principal	Teachers, Principals, Parents, School and District Administrators, Local Community	Aggregated and individual large scale achievement and growth data



Colorado Growth Model Growth and Achievement results for schools in a district (each bubble represents a school) where the four quadrants depict the four performance combinations for schools. Mousing over each bubble shows the school name and provides access to drill down data.

User Level (Micro-to-Macro)	**Stakeholders** (Individual-to-System Focused)	**Information/Data Scope**
State	School and District Administrators, Policymakers, Community	Aggregated and individual large scale achievement and growth data

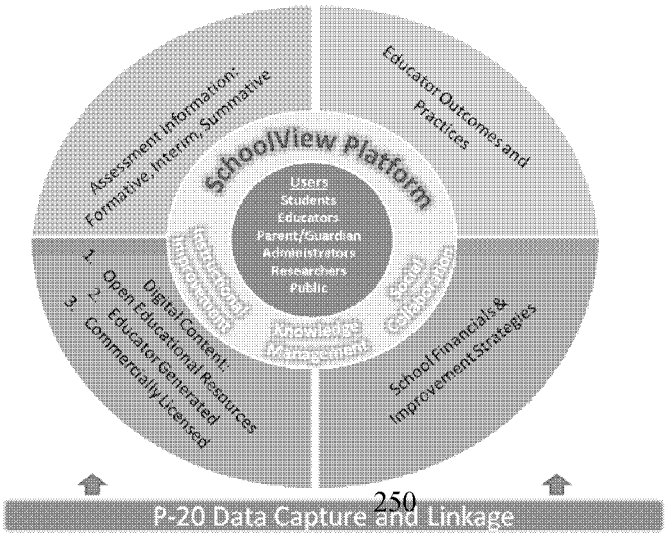


Growth and achievement results for all Colorado elementary schools with schools denoted by poverty level. The higher poverty schools in the lower right quadrant represent the schools where students demonstrate higher rates of student growth. Similar figures highlight charter schools and other characteristics of schools including per/pupil spending.

DETAILED DESCRIPTION OF SCHOOLVIEW EXPANSION

The first step toward the information software revolution is widespread recognition of the need for design. It must be universally understood that information software is not a machine, but a *medium for visual communication*, and both publishers and public must hold it to the same standards that they hold print. Figure 1 below shows the future of the SchoolView Platform.

Figure 1. SchoolView Provide & Perform



A base purpose and consequence of SchoolView, indicated prominently on the SchoolView website, is to change conversations about education. This change began by creating the Colorado Growth Model and moving conversations away from year-to-year discussions of status toward discussions of growth and whether the growth is adequate for a student to reach/maintain desired levels of achievement, particularly proficiency and post-secondary/workforce readiness. By presenting the achievement history of a student, indicating their rates of growth, and showing whether they are on track to reach desired goals, conversations about education are rapidly changing from discussions of output to discussions about a multi-year process.

With the basis for these discussions of process and progress solidly in place, anchored by innovative and engaging data visualizations designed to cultivate these conversations for stakeholders, the next step is to dramatically improve the process of education across the State of Colorado. The breadth of scope of SchoolView is commensurate with the variety of education stakeholders and the dramatic scale of improvement in student outcomes being pursued. As a result, the work scope for the project spans both this application and Colorado's Statewide longitudinal data system (SLDS) grant application. The SLDS grant application included initiatives related to improving data capture, linking data across State and local agencies, and providing the right data to the right audience at the right time in the right way for use in continuous improvement. See Exhibit VI.C(2)-3 below for the overall SLDS vision. The Race to the Top application focuses on leveraging Web 2.0 design principals and technologies to build a culture of **exemplary learning communities** and the provision of tools for collaboration and knowledge management in P-20 education to improve student academic achievement, close achievement gaps, and prepare all Colorado students for the post-secondary and workforce challenges of the 21st century.

Major Elements of SchoolView

SchoolView is the umbrella platform under which Colorado is pursuing its ambitious vision for dramatic improvement in educator instruction as measured by student outcomes. **SchoolView** is envisioned as an open source environment that hosts and integrates State-of-the-art data visualization, knowledge management and social networking tools to create a collaborative learning platform linked to longitudinal data systems and wider social learning and digital content networks.

The Race to the Top application focuses on building a culture of **exemplary learning communities** and the provision of tools for collaboration and knowledge management in P-20 education to improve student academic achievement, close achievement gaps, and prepare all Colorado students for the post-secondary and workforce challenges of the 21st century. The State envisions the formation of dynamic communities of learning comprising educators, parents, administrators, and researchers within and across schools, districts, the State and eventually the nation. Helping these communities to flourish requires expanding upon the innovative data visualization efforts already in place in Colorado to effectively and seamlessly integrate the variety of information assets currently available such as content and performance standards, instructional materials.

Colorado seeks to implement a Statewide learning management system to contain, manage and evaluate course content, teacher professional development materials, lesson plans and student learning aids that supports teachers, parents, and students. The primarily instruction improvement system (IIS) elements planned to be added to SchoolView with Race to the Top funding are **portals, business intelligence, collaboration, and knowledge management** that reside on a technology platform and are supported by intensive professional development and change management efforts.

Portals

SchoolView will provide students, parents, teachers, principals, and administrators with meaningful support and actionable information to systemically manage continuous instructional improvement, including instructional planning; gathering information (e.g., through formative, interim, and summative assessments, student work as

graphical, audio or video and student work in any other form); analyzing information with the support of real-time analysis and reporting; using this information to inform decisions on appropriate next instructional steps; and evaluating the effectiveness of the actions taken. SchoolView will promote collaborative problem-solving and action planning; and it will integrate instructional data with student-level data such as attendance, discipline, grades, credit accumulation, and student survey results to provide early warning indicators of a student's risk of educational failure. For the last two years Colorado has actively engaged in user-centered development using the latest Web 2.0 technologies and is keen to extend these efforts to provide specific users with the most relevant and actionable data in as engaging a manner as possible. The State envisions a development effort leading toward a variety of portals and reporting tools meeting the unique needs of each audience.

Business Intelligence

Business Intelligence (BI) is commonplace in most large enterprises, including education, and broadly refers to skills, processes, technologies, applications and practices used to support decision making. The promise of BI is almost universally accepted but rarely realized. In envisioning SchoolView, the State recognized that the crucial need is not the availability of the data but telling relevant stories with the data once it is made fully available in integrated data systems. Schools, districts, and States are drowning in data and lack the capacity to distill relevant and actionable information from the data they possess.

To rectify this, visualization/reporting platforms will be created for distinct user groups that address different information needs and uses. Educators, for example, will be able to examine interim/benchmark assessment results using engaging interfaces to support instructional planning, and to access (and contribute to) effective practices identified for specific categories of students or instructional situations. Going beyond just data availability to enable the efficient and efficacious application of data is the promise of the information revolution in education. Policymakers will be able to examine summary level information at the State level and be able to easily investigate the achievement and growth demonstrated by students at schools relative to a number of additional indicators including charter schools, school poverty and other school demographic characteristics.

Collaboration

The SchoolView IIS will create connections for leveraging intellectual, social, and organizational capital through a deliberate knowledge management strategy of Web 2.0 API's, wikis, blogs, and other social networking tools to increase educator effectiveness via performance management. The purpose for deploying collaboration tools in the SchoolView IIS is to harness and facilitate the exchange of effective classroom techniques and materials across schools, districts within a State, and ultimately the nation. The assumption is individual educators have identified effective solutions to nearly every conceivable specific learning challenge and IIS will allow sharing of these solutions.

Knowledge Management

There are two primary goals for knowledge management. One is to provide stakeholders the information needed to effectively guide development, policy, programs and practice. The other is to provide ubiquitous access down to the classroom of outstanding, high-quality digital content shared with highly engaging social information visualizations. SchoolView will facilitate the identification of high quality educational content that is relevant and specifically addresses problems identified in underlying longitudinal data in an engaging fashion that minimizes the burden on the education profession to get the data of relevance to them quickly and in an easy to understand fashion.

In large school systems, for example, most instructional challenges have been addressed successfully somewhere. These effective practices and materials need to be identified and propagated. For that propagation to happen, information about these specific, effective solutions needs to be captured and delivered to the necessary education professionals in a timely fashion. *One possibility is to automatically push knowledge content specific teachers for*

specific students when patterns are recognized in a student's data indicating an intervention is required. Which content to push is based on a combination of user ratings and most crucially, the effectiveness of the teacher submitting the content based on his or her student performance data. Another alternative is to form cohesive groups of educators in extended online communities and rely on social networking and professional interaction to drive the delivery of content to specific educators with specific instructional needs.

CDE will support a STEM network for third party providers and the public to provide content for classroom use, or to post learning opportunities such as field trips or other educational outings. A standardized data interface will be included in SchoolView for Colorado STEM network participants and others to connect with classroom efforts to provide teacher and student access to STEM-like resources.

With funding from RttT, CDE intends to integrate functionality from TFA suite of online portals (See Exhibit VI.C(3)-9) into the SchoolView platform. Program TFA portals include functionality that collects and summarizes longitudinal data for all students under the instruction of educators tracked. This will enable Colorado institutions of higher education, as well as those in other States utilizing the **Colorado Growth Model** and SchoolView applications to track the performance of teachers recently placed into the workplace in order to tune their education curriculum. As part of the teaming agreement with TFA, Colorado will enhance the presentation of summarized data following the precedents established by SchoolView. Such enhancements will be available to other States participating in the TFA program. In addition, CDE plans to leverage the professional development models and digital content in TFA's Teaching as Leadership Online Network (TALON) to initiate the population its own content library with high quality professional development programs that should significantly improve instruction.

In addition, CDE is planning on integrating online learning applications to significantly enable LEAs to supplement current instructional practices with online instruction. The State believes that significantly expanding the availability and depth of online course offerings will increase student achievement, improve teacher effectiveness, as well as post-secondary workforce readiness and college readiness.

Multi-State collaboration

Fundamentally changing the way in which education performance is perceived and discussed involves a great deal more than just the analysis of data. Included in any full scale implementation of a growth model are the creation of reporting mechanisms, training and professional development materials, and accountability systems built around the metrics. Production of these media requires immense due diligence to ensure they are useful and fulfill the needs of various stakeholder groups. Colorado is at the beginning of its efforts to fully utilize this data in every classroom and school throughout the State.

Though the State is confident Colorado is a national leader in its use of its large scale assessment results vis-à-vis the Colorado Growth Model, the State is humble enough to understand that it doesn't know everything and can learn a tremendous amount from other States. By creating an open-source growth model in the Colorado Growth Model, Colorado envisioned other States as co-developers of all of the materials required for the successful use of the data. From its initial stages of development, the Colorado Growth Model was intended to be a growth model that could be utilized regardless of any future scaling (vertical or non-vertical scale) or technical alterations associated with the State assessment. As such, the Colorado Growth model is suitable for use with any annual State assessment system. This broad applicability has led numerous States to both investigate and implement the model.

Just as other States have learned from Colorado by embracing our growth model, Colorado hopes to tap into the wisdom and creative insights of others State departments of education in the development of all of the associated materials on which the utility of the growth model results rest. To this end, the CDE has entered into an MOU with Arizona and Indiana to share and co-develop the data visualization technologies associated with the Colorado Growth Model and to move toward a deployment of this visualization technology into a cloud hosted site to leverage

an agnostic and standards based platform that will help in the rapid sharing of insights and developments that each State brings to the table.

Building a visualization platform around a common set of indicators Colorado envisions:

1. Innovations in data visualization as States build on the work of Colorado and further customize for their own ends.

2. Innovations in explanatory, training and profession development materials and schools, States, vendors, and other education organizations build profession capacity around these metrics.

3. Innovations in accountability systems and the creation of effective and useful indicator systems used to qualify the performance of a State's education system.

In short, the State envisions a "Race to the Top" to emerge amongst participants around the effective use of a consistent set of data. The platform envisioned moves efforts away from data production toward data use which is the means by which the State believes a dramatic increase in educational effectiveness will occur.

Exhibit VI.C(2)-3
SLDS Application Project Narrative

Application of the Colorado Department of Education for Project SchoolView

CFDA 84.384

Submitted to the U.S. Department of Education
Institute for Educational Sciences
December 4, 2009

I. NEED FOR THE PROJECT

A. INTRODUCTION: CONTEXT AND VISION

> *"With a collaborative spirit, with a **collaborative platform** where people can **upload data**, **explore data**, **compare solutions**, **discuss the results**, **build consensus**, the State can engage passionate people, local communities, media and this will raise - incredibly - the amount of people who can understand what is going on. And this would have fantastic outcomes: the **engagement of people**, especially new generations; it would **increase knowledge**, **unlock statistics**, **improve transparency** and accountability of public policies, **change culture**, **increase numeracy**, and in the end, **improve democracy and welfare**."*
>
> Enrico Giovannini, Chief Statistician, Organization for Economic Co-Operation and Development

Educators and policymakers in Colorado agree that data sharing holds one of the keys to unlocking the State's great potential to dramatically improve student outcomes. Collectively, they challenge the State to imagine an education system in which educators use analytic tools and collaborative platforms available at their desktops to tailor instruction that meets the needs of individual students. They imagine decision-makers using data to identify the most critical areas for strategic investment, and to diagnose specific issues associated with student success, such as educator preparation, instruction and curricula. They imagine policymakers using data across human services, education and labor and employment agencies to understand students' readiness for key transitions from preschool through high school and into college and careers and to provide appropriate interventions. They imagine parents/guardians and community members using data to define student, school, district and State success with transparent and broadly accepted performance measures. And they imagine a holistic approach to education from pre-K through the labor force that continually diagnoses and then responds to barriers to student success and improves the development of the State's human capital and economic development. This is the future Colorado's educators and policymakers demand, and it can be created with an investment of SLDS grant funds.

The Colorado Context. Colorado currently serves more than 820,000 increasingly diverse public school students in grades P-12, and nearly 220,000 in public higher education. Consistent with its tradition of local control, Colorado's 178 school districts vary dramatically in size, demographics, capacity, reform history and technological sophistication.

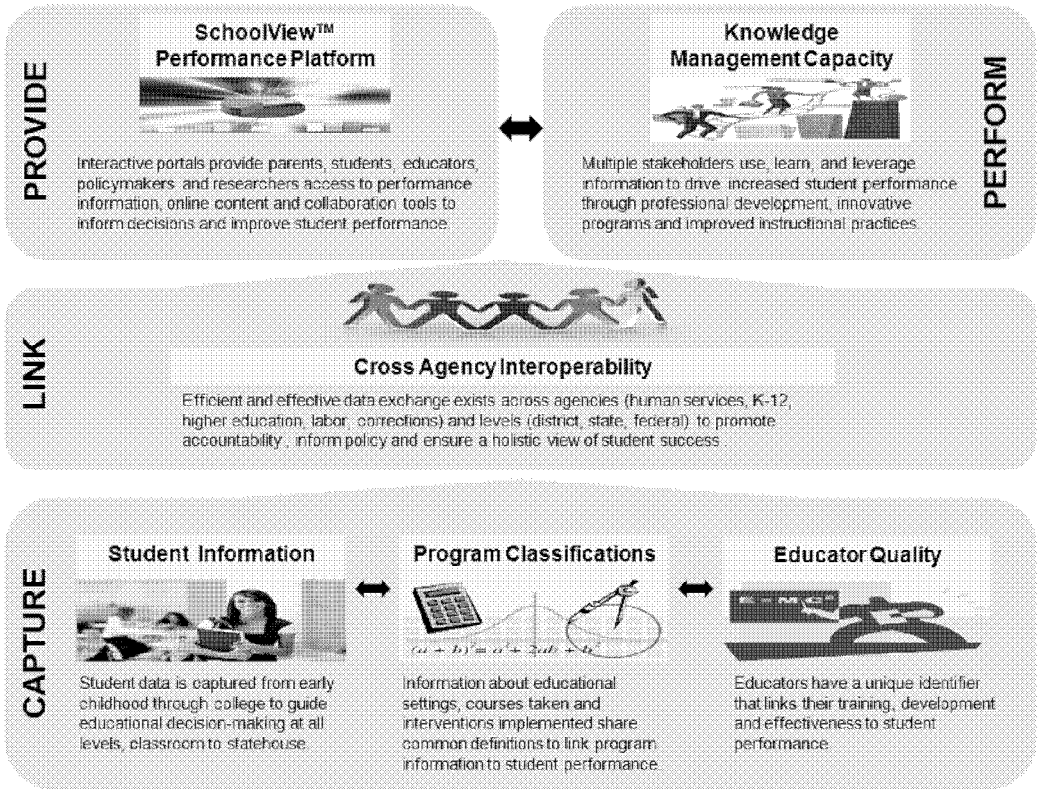
District enrollment, for example, ranges from a low of 54 students to a high of 86,000 students; more than half of all students are served in the 10 largest districts. In the State's early childhood education system, infants, toddlers and preschoolers are served in a range of publicly funded school- and community-based settings primarily by three State agencies. The Colorado Department of Higher Education (CDHE) coordinates policy and State resources for the State's 27 public institutions as well as several hundred private and proprietary schools, seeking to ensure that higher education is accessible and affordable to all Coloradoans. Nearly 86 percent of students enrolled in the State's twelve four-year and fifteen two-year institutions are Colorado residents.

Student achievement trends in Colorado have remained relatively flat over time and are characterized by persistent achievement and participation gaps based on race/ethnicity and socioeconomic status. The "Colorado Paradox" describes the challenging scenario in which Colorado has one of the most educated citizenries in the nation, but also one of the lowest college completion rates among native born citizens. Because of the State's quickly changing demographics, a large influx of educated adults has created wide disparities in educational attainment. In fact, according to the National Center for Higher Education Management Systems, Colorado has the widest gap in educational attainment between white and non-white adults of any State in the nation. Colorado educators, policymakers, and business leaders unanimously agree that these disparities are unconscionable and must be addressed.

In response, the State has enacted a ground-breaking reform agenda focused on P-20 education alignment, with a commitment to prepare students to be ready at exit for the next stage of their education and ultimately for postsecondary and workforce participation. Students demonstrating postsecondary and workforce readiness (PWR) on the State's soon to be adopted PWR assessment will be entitled to enroll in Colorado's higher education system. Implementation of these reforms requires (and State law now authorizes) an expanded State longitudinal data system that comprehensively meets the required elements and capabilities set out in the RFA; expansions that will not just support but *drive* improved student performance through knowledge management at all levels, from the classroom to the Statehouse.

Here, Colorado confronts a gap of a different sort: the gap between the architecture and capabilities of Colorado's current data system and the ones required to support robust knowledge management in an aligned P-20 education system. Before stakeholders can apply information in educational decision making (identifying opportunities for continuous improvement, effective interventions, return on investment), the SLDS needs to capture, link and provide P-20 data in forms that are actionable, credible and timely. As shown in the figure below, Project SchoolView is designed to develop the infrastructure to do just that, positioning Colorado to implement P-20 reforms that focus on preparing the youngest learners for success in school, improving K-12 outcomes through innovation and quality teaching, and graduating more students from college who are prepared for 21st Century jobs. Colorado's Race to the Top application will build upon this foundational work with its focus on providing outstanding digital content to support performance and knowledge management, education capacity, school input and blended learning models.

Figure 1: Project SchoolView Framework



B. NEED: THE GAP BETWEEN CURRENT CAPACITY AND REQUIRED SLDS CAPABILITIES

Appendix C describes the current status of the seven required capabilities and twelve essential elements of Colorado's data system by item. Need is the distance between the current capacity and functionality of this system and the future system that both meets the required elements/capabilities in the RFA and is robust enough to support the State's ambitious P-20 reform agenda; an agenda that demands cross-agency collaboration, facilitates continuous improvement, and is fueled by the application and generation of knowledge by multiple stakeholders to advance student performance. Table 1 below defines Colorado's great need in terms of this distance.

Colorado is at a crossroads. Implementation of a cutting-edge longitudinal data system, technology infrastructure, and highly engaging and value-added data visualization tools will drive innovation and improved student performance through performance management at all levels, from the classroom to the Statehouse. Authorizing legislation and a progressive policy framework is in place (refer to Appendix A for an overview). Preliminary study and planning related to system needs and design have been completed. The SLDS grant will provide the financial resources to dramatically accelerate the pace of progress and propel the State's forward momentum. The converse is also true: without the investment of outside resources, Colorado will be unable to adequately capture, manage and act upon available information to make dramatic improvements in student outcomes.

Table 1. Colorado's SLDS Needs

	Moving From	Moving To
CAPTURE	• Program-focused data • Manual data submissions • Single-point-in-time data exchanges • Collection silos • Multiple collection points for same data • Data push from local education agencies (LEAs) • K-12 longitudinal data • Non-standardized file formats • Inconsistent data element definitions across data submissions • Educator data limited to licensure information and not linked to student data • Cumbersome and time-consuming process for federal data submission • Lack of common course codes	• Student/Educator-focused data • Web-automated services • Transactional system; data updated continuously • Enterprise view of data • Single collection of data for multiple uses • Data pull from State • P-20 longitudinal data • Standardized file formats • Consistent data element definitions, anchored in national standards • Educator identifier and educator-student link support range of data related to educator-student cycle • Automation of federal data submission • Common course codes link program information to student performance
LINK	• File-based system • Lack of standards/trust is a barrier to interagency data exchange • Lack of consensus among stakeholders regarding meaning and use of data • Data related to P-20 education siloed in various State agencies • Relevant data fractionated due to different collection points; State agencies acting in isolation • Colorado's K-12 data system does not link to other State systems	• System interoperability • Governed by standards; high level of trust in data among stakeholders • Transparency regarding data definitions, usage and flow • Cross-agency data sharing through application of common standards • Holistic view of human capital development • Cross-State linkages enable multistate collaboration
PROVIDE	• Assessment data limited to results of annual State assessment (CSAP) • Aggregate (State-level) data focus • State assessment results have six-month time lag • Researchers and CDE staff have limited access to student-level data • Limited ability to benchmark State or LEA performance to other States/LEAs • SchoolView provides information portal for various groups of users	• System includes formative/interim assessment data as well • Student-level data focus • Timely reporting of results to inform instruction • Researchers and CDE staff have access to student-level data (with appropriate privacy protections) to support school/district improvement • Cross-State performance benchmarking enhances accountability • Project SchoolView is a collaboration platform as well as one-stop shop for data
PERFORM	• Mostly static annually-updated data available on CDE website • Difficult for users to interpret and act upon • Compliance-oriented focus • Looking back – post mortem • Uneven capacity across and within LEAs regarding the use of data in decision-making • Accreditation of educator preparation programs based on inputs and processes • State data system does what it was built to do	• Data updated regularly offering more timely information based on current enrollment • Interactive, analytic tools bring data alive for action by users • Performance management focus • Looking forward – using data proactively and for diagnostic and predictive purposes • Users have the knowledge and commitment to analyze data, apply information to education decisions and to create and advance knowledge through collaboration • Accreditation of educator preparation program based on outcomes, including student learning results • State data system is nimble, dynamic and able to respond to emerging needs and opportunities

How SLDS Needs Were Identified. The Colorado General Assembly commissioned a major study of the State's education data infrastructure in 2006; the final report was released in December 2007. Conducted by an independent entity, the North Highland Company, this comprehensive review of Colorado's educational data systems included information on the requirements and methods with which existing data are collected, the hardware and software being used at the local and State levels, and the capability of school districts to share data with each other and to improve access to appropriate State-level data. The study also examined skill gaps and the appropriateness of staffing levels at CDE. The study highlighted the substantial resources demanded of LEAs to satisfy reporting requirements using the existing data system and the need to involve local leaders in conversations about the future evolution of the State data system.

The road map produced in this report has facilitated and focused discussion among branches of State government, State agencies, and education stakeholders about data system needs and possible next steps in the system's evolution. Building on this study, the Information Technology Capacity Analysis was completed earlier this year by the regional education research and service agency, WestEd. This study focused on the capacity of CDE staff to meet the current and anticipated future demands related to enterprise data collection and management. In response, CDE made major organizational changes to its Information Management Services unit (described in Section IV) which position the department to effectively implement Project SchoolView.

In preparation for the current SLDS award cycle, CDE retained industry-recognized experts in data architecture and costing strategies to assist in identifying ambitious but realistic objectives for enhancing the existing data system, framing specific strategies for their attainment, and developing cost-effective budgets. Finally, CDE sought input from a diverse group of stakeholders throughout the grant development process, including a day-long summit on October 14, 2009. Summit participants reviewed a draft of the application and weighed in on its key themes and proposed outcomes. In addition to producing input that enhanced the application, the summit strengthened the political will required to realize the Project SchoolView vision.

C. MOVING FROM: COLORADO'S CURRENT DATA SYSTEM

This section provides a narrative of the current programs and efforts within Colorado to improve student performance management. Refer to Appendix A for a pictorial representation.

Collection. CDE has developed and deployed a multi-layered data collection and reporting system. This system is "collection driven," developed to fulfill legislative and regulatory requirements to report specific data sets to given stakeholders. Its major components include:

- **The Automated Data Exchange (ADE)**, through which school districts submit data electronically via a secure Web interface or Web-based forms.
- **The State Education database** and other legacy systems that stores collected school and student level data.
- **The Education Data Warehouse**, extracted from the State Education database, through which accountability reports and other information are generated. Data is loaded into the Warehouse and data marts using Extract, Translate and Load (ETL) processes. Initially developed to support school accountability reporting, the warehouse is now a comprehensive repository of State education data.
- **Records Integration Tracking System**, a system that generates unique student IDs. Any student included in a data collection must have a State-assigned student ID.

Colorado LEAs comply with over 125 collections annually at various times throughout the year, often using different file formats. To prepare for submission, LEAs validate and extract required data into collection specific file formats that often change yearly based on new rules or criteria from the State, and manage vendors to ensure the extracts work from their different student information systems. To submit the data to the State, LEAs log into the

ADE system and load the file. If there is a problem with the data or file, LEAs must fix the issue and then prepare and reload the entire file again (and sometimes repeatedly) until the file is accepted.

The data collection processes currently employed by LEAs range broadly in sophistication. At one end are highly automated districts that can extract collection data from their own systems of record such as Student Information Systems, translate that data into the format required by the CDE and upload the data to the CDE. At the other end are districts that extract from small Access or Excel systems or that use downloaded Excel.

Student Identifier. In November 2002, CDE implemented a unique student identifier (the State Assigned Student ID, or SASID) for all public P-12 school students. This system provides schools the ability to validate and/or generate student IDs when a student enrolls in a district. The SASID is attached and encrypted, and personal information is removed for student level data reported to CDE. Legislation enacted in 2006 required the higher education system to adopt the use of the student identifier for the purpose of sharing student data across the State's data systems. Legislation enacted in 2008 expanded the use of IDs by requiring the assignment of unique identifiers to students enrolled in publicly funded early childhood education programs.

Federal Reporting. CDE, through its operational data store and Education Data Warehouse, provides the US Department of Education with the information to meet current State and federal reporting requirements, including EDFacts, accountability reporting, and dropout reporting. The current process for gathering and correlating the appropriate data is time consuming and often difficult. At this time, only 50% of the data required for federal reporting exists in the warehouse. The remainder is located in manual reports and must be associated and validated prior to submission.

Interoperability. CDE and CDHE currently do not have access to shared data between their respective systems. Instead, the agencies agree to provide data to the other through a memorandum of understanding and share data through the exchange of CDs. Similarly, the current system architecture does not allow CDE and other State agencies that maintain data related to the P-20 education system (Departments of Labor and Employment, Public Health and Environment, Human Services, Corrections, Revenue) to share data between their respective systems. In the absence of data sharing, educators serving a student who moves through public schools, the juvenile justice system and community college cannot access the student's complete educational records. In the absence of data sharing, the data system cannot provide information to inform complex policy questions that cut across education, workforce, and economic development contents. Significantly, Colorado's legislative framework now demands the collaboration required to produce these types of information and to promote accountability, inform policy and ensure a holistic view of student success.

Higher Education. CDHE's student unit record data system was first implemented in the mid-1980s as a part of the accountability movement in public higher education. The system was mandated by State legislation and tracks students from application at any public institution to graduation on a semester by semester basis. Reports are continuously designed, refined, and updated in collaboration with representatives from the higher education institutions. The data collections are stored by CDHE in a data warehouse and static reports on important higher education indicators are produced and made accessible on the CDHE website. CDHE also makes available simple online querying capability for basic aggregate higher education statistics.

CDHE is responsible for collecting institutional data from Colorado institutions of higher education including information on admissions, enrollment, credit hours, remediation, educator preparation programs, degrees and credentials earned and other indicators. Through an agreement with CDE beginning in 2008, CDHE receives the State assigned K-12 student IDs (SASIDs) which allows CDHE staff to match records for students from a Colorado public high school. These records are used in processing applications to the Colorado Opportunity Fund, a postsecondary stipend for Colorado students, and in Career and Technical Education reporting.

Early Childhood Education. Increasing the quality and availability of early childhood education is a key focus in the State's P-20 education agenda, toward the end of ensuring that children are ready to learn when they enter kindergarten. Data on children who receive publicly-funded early childhood education services are decentralized, currently collected and maintained by three different State agencies. The Colorado Department of Human Services (DHS) maintains the largest data set. An individual child may have records in more than one of the systems, none of which are capable of being correlated to the other so as to identify all services provided to the child. A unique identifier is required to collect information about the early childhood services young children receive, to link to information about other programs in which they and their families are enrolled, and to identify early childhood programs that are associated with strong school readiness outcomes. DHS comes to this collaboration in the early stages of an initiative to integrate multiple data sets across its data systems. Using business intelligence and performance management software, DHS will have access to real-time information that will support better business decisions and greater efficiency, while easing compliance reporting.

Data Analysis and Reporting. CDE uses two COGNOS software applications, ReportNet and PowerPlay, to analyze and report on data contained in the Education Data Warehouse. Both tools are accessible via a Web interface and analyze and aggregate large amounts of data into summarized, comprehensible forms, including reports, charts, tables and graphs.

CDHE uses web applications and an SQL server database to collect data from the State institutions of higher education and then house, analyze, and report on higher education issues. Interactive aggregated data on enrollment, approved degrees, and degrees awarded are available to the public on the agency website. CDHE is currently employing new visualization tools which show institutional progress longitudinally on a number of key indicators. Additionally, data reports and analyses created by in-house research staff for the Colorado Commission on Higher Education and for the Colorado General Assembly are posted to the CDHE website.

Governance. The Education Data Advisory Committee was established in 2002 (and codified in 2005) to review data demands placed on K-12 public education and charged to recommend the most efficient ways of collecting data and to determine if recommendations for "new" data collections are redundant and propose alternatives. In 2009, the Colorado legislature established the Government Data Advisory Board (GDAB) and a fifteen-member Education Data Subcommittee to implement the State's interdepartmental data sharing protocol, which is focused on improving data sharing among State agencies and between the State and school districts, postsecondary institutions, non-profit organizations, and professional researchers.

Privacy Protection and Data Accessibility. The CDE data collection system and the data warehouse secure data in Oracle® databases. All authorized users are required to sign confidentiality agreements. School districts are able to perform Statewide student searches using State assigned IDs, but otherwise have access only to their own students' data. Outside persons, groups and research centers must submit a request for data to CDE's Institutional Review Board and receive approval prior to accessing data. This limited access constrains the ability of districts and schools to obtain information needed to guide individual student instruction, as well as the ability of researchers and CDE staff to support district/school improvement efforts by providing timely information to policymakers related to analyzing and advancing student achievement.

SLDS Grant. In 2007, CDE received a three-year ($4.2M) SLDS grant focused on three work strands: (1) Expansion of the CDE Data Warehouse, which has allowed CDE to extend its centralized repository of historical data; (2) Electronic exchange of student transcripts between LEAs and with higher education institutions; and (3) Expansion of local data analysis tools and access to student-level interactive data displays. That work is on track in meeting project outcomes and positions the State to undertake the work described in this proposal. Going forward, both SLDS efforts will be coordinated to avoid duplication and attain identified outcomes.

Colorado Growth Model. The Colorado General Assembly enacted legislation in 2004 (refined in 2007) that required CDE to report individual growth rates for each student in the State and to combine those growth rates to measure school performance. The resulting Colorado Growth Model compares a student's performance on the Colorado Student Assessment Program over the years to other Colorado students in the same grade who had similar scores in past years, creating an academic growth metric. In compliance with legislation enacted earlier this year, the Growth Model will be expanded to indicate how much improvement is needed for each student to reach postsecondary readiness,—that is, the ability to matriculate to the postsecondary system of education without need for remediation—and provide meaningful diagnostic information to students, parents/guardians and educators on the progress of each student over time. Colorado Governor Bill Ritter Jr. invested $2.5 million of the Government Services Fund, created as a result of the American Recovery and Reinvestment Act (ARRA), to advance the development of this promising model. This reflects the single largest investment using these funds. As described in Section IV, Colorado is working with the Council of Chief State School Officers to build a multi-State collaborative to share in and advance the Colorado Growth Model and its visualization tools.

SchoolView was launched in August 2009 as a web portal that provides student, school, school district, and State performance reports and supporting data using the Colorado Growth Model. Building on this brand, Project SchoolView expands this work to higher levels of impact and effectiveness by providing a platform through which stakeholders can access and collaboratively analyze and apply relational and longitudinal P-20 data on student, school, district, and educator performance.

Educator ID System. The Governor's discretionary ARRA funds and private grants totaling $1.1 million have been garnered to support the development and implementation of a system that will associate educators to student data across time and across databases. This initial investment will help initiate an Educator ID assignment system, but additional investment is required to fully implement and activate a student-linked performance management system for Colorado educators.

IEP Management System. This initiative (estimated at $1.5M) is being funded from CDE's Exceptional Student Learning Unit's annual budget. The Individual Education Plan (IEP) management system will assist in the documentation and reporting of special education student information through the use of an integrated database management system. The system will manage student and staff information, streamline the process of referring students for comprehensive educational evaluation, document decisions made during Child Study Team meetings, develop and maintain individual education plans, provide documentation for students receiving special education and/or related services, and allow for a well-defined, efficient method of exchange of data between the application and State and federal entities.

D. MOVING TO: ADDRESSING REQUIREMENTS OF THE STATE FISCAL STABILIZATION FUND

The State Fiscal Stabilization Fund requires States to advance essential education reforms to benefit students from early learning through postsecondary education, including college- and career- ready standards and high-quality, valid and reliable assessments for all students; development and use of pre-K through postsecondary and career data systems; increased educator effectiveness and an equitable distribution of qualified educators; and turning around the lowest-performing schools. Colorado is implementing a true P-20 education alignment strategy across the State's education systems, anchored by a common definition of postsecondary and workforce readiness. To support this alignment, the General Assembly and the Governor's Office have made inter-departmental data sharing a State priority. Colorado's approach to educational alignment also seeks to produce meaningful information on educator and principal effectiveness by mandating the development of the State's first educator identifier system, which will be used to link educators, students, and educator preparation programs for the purposes of individual and program evaluation.

Project SchoolView will enable these reforms by ensuring that timely and reliable P-20 data reach local and State education policymakers and researchers in forms that support continuous improvement, especially in instruction, and informed decision making from the classroom to the Statehouse. Specially, Project SchoolView builds Colorado's capacity to address State Fiscal Stabilization Fund requirements in ways that include the following:

- **Expand Colorado Growth Model.** Colorado will expand its breakthrough analytical and data visualization tools that make education data transparent through public reporting and that support accountability and strategic investment. The model will broaden its current K-12 focus to include relational student-education-program information that traces students' movement from preschool through K-12 and into postsecondary education and the 21st century workforce, including employment, wage and earnings data. This information will guide educational decision making at all levels, including instructional improvement. Colorado will share this model with other States in a non-proprietary manner.
- **Improved LEA-to-State Reporting.** A more efficient, less burdensome reporting framework will enable LEAs to refocus leadership, staff and resources from compliance to knowledge management and the provision of direct student services.
- **Predicting Risk**. The ability to conduct longitudinal studies using a breadth of individual student information will support the identification of specific factors that are predictors of a student's risk of falling behind or dropping out. Early warning systems will engage timely and appropriate interventions to ensure individual students are on track to be college and career ready.
- **Match Student Records**. The ability to match student records between P-12 and higher education systems will provide information regarding high school graduates who need remediation in college, the relationship between high school courses and college enrollment and persistence, the alignment between graduation standards and college and workplace expectations, and the percentage of each district's high school graduates who enroll in college within a specified time window after graduation. The ability to access workforce data from other State agencies will provide information to enable policymakers to align and coordinate workforce preparation efforts.
- **Educator Data.** Educator data will enable policymakers and educators to analyze gaps and mobility and retention issues, explore the distribution of effective educators throughout the State and within individual schools and districts, and describe the number and percent of educators and principals rated at various performance levels in each LEA's evaluation system.
- **Student/Educator Link**. Linking educator and student data will enable policymakers to explore which forms of educator preparation and certification correlate most closely with students' academic growth in the classroom; to evaluate the effectiveness of educator preparation programs, pre- and in-service professional development, and of educators themselves; and to identify promising models and practices in educator preparation.
- **Improved Support for Low-Performing Schools.** CDE staff charged with supporting persistently low-performing schools will have access to rich, relational data regarding school, educator and student performance that will inform the type of interventions and investments required to drive improved student outcomes in these schools.

E. COLORADO DISTINGUISHERS

In addition to great need, Colorado brings a unique collection of attributes and strengths to Project SchoolView.

- **Ambitious Reform Vision.** Colorado is a national leader in its work correlating high school exit rates with college and workforce readiness via a program jointly developed by CDE and CDHE. This definition roots the readiness trajectory in early childhood education by adopting a school readiness assessment and sets the bar high with internationally benchmarked standards. The State vision for reform is ambitious; its leadership is capable and is aligned with required federal data standards and elements (See Appendix A for more detail).
- **Colorado Growth Model.** The State has one of the most advanced systems for tracking, reporting and visualizing the changes in K-12 student academic performance over time. Colorado is leading a multi-State collaboration to build upon the functionality and non-proprietary qualities of this model (refer to Section III.C.).
- **Early Childhood Assessment.** Groundbreaking work in Early Childhood Education assessment includes the adoption of readiness indicators, ongoing use of formative assessments, automated online platforms, and the use of technology in classrooms to support data-driven instruction, all of which will be integrated into Project SchoolView.
- **Collaboration with Other States.** Colorado demonstrates the willingness to share knowledge, technology and strategy with other States, including record level-data and reporting tools, and to leverage and build on

the expertise of other States. Project SchoolView positions Colorado to provide national leadership and models regarding the linking of data across institutions, agencies and States to track student progress and inform policy and practice.

- **Diversity of LEAs.** Local school districts vary broadly in size, setting and technological capacity. In addition, Colorado is home to a robust charter school community, with steady increases in the number of schools and enrollment in diverse settings across the State. Colorado's data system solutions must therefore address the needs of rural, suburban and urban users at a variety of stages of capacity.
- **Variety of Educator Preparation Programs**. Colorado is home to a broad group of higher education and alternative providers of educator preparation programs that vary markedly with regard to size, setting and delivery mechanisms.
- **LEA Collaboration.** Denver-metro area school districts bring leadership, expertise, technological sophistication and a history of collaboration to this work. The Chief Information Officers of the 18 largest metro districts have been meeting regularly for ten years to problem solve, share resources and attain economies of scale in connection with the development of their local data systems. In addition, local education leaders established and operate the Colorado Student Information System Users Group.
- **CDHE Expertise with Longitudinal Data.** CDHE can provide guidance on issues regarding relevant indicators and research with longitudinal data based on its experience in developing a high quality longitudinal data system over the last three decades.
- **State OIT (Office of Information Technology) Leadership.** OIT provides the leadership to develop a shared Statewide vision for the State's human capital development system, interagency collaboration, and a strategic plan for developing new data governance and management systems. Colorado demonstrates the ability to implement complex Statewide technology solutions through OIT consolidation efforts. The Colorado Integrated Criminal Justice Information System, for example, has received national attention for information sharing across the boundaries of organizations and jurisdictions among the State criminal justice agencies to enhance public safety, improve decision making, increase productivity and improve access to information.
- **Stakeholder Communication and Outreach.** State leaders have established communication and outreach mechanisms to effectively engage LEAs, higher education institutions, State agencies and other stakeholders in discussions about the creation of a P-20 education data infrastructure and issues related to data governance and integrity.

The SLDS grant opportunity arrives at an ideal time to fulfill immediate and great needs while capitalizing on these strengths. In short, Colorado is "shovel ready," poised to translate the investment of SLDS funds into a next generation information and knowledge management system.

II. Project Outcomes Related to System Requirements and Implementation

A. High Level Views

Figures 2 and 3 show high-level business and technical overviews of Project SchoolView. The ambition of the State's vision for its longitudinal data system is commensurate with the dramatic scale of improvement in student outcomes being pursued. As a result, the work scope for the project spans both this application and Colorado's Race to the Top application. This application includes initiatives related to improving data capture, linking data across State and local agencies, and providing the right data to the right audience at the right time for use in continuous improvement. The Race to the Top application focuses on building a culture of and tools for knowledge management in P-20 education to improve student academic achievement and close achievement gaps.

Figure 2: Project SchoolView Strategic Articulation

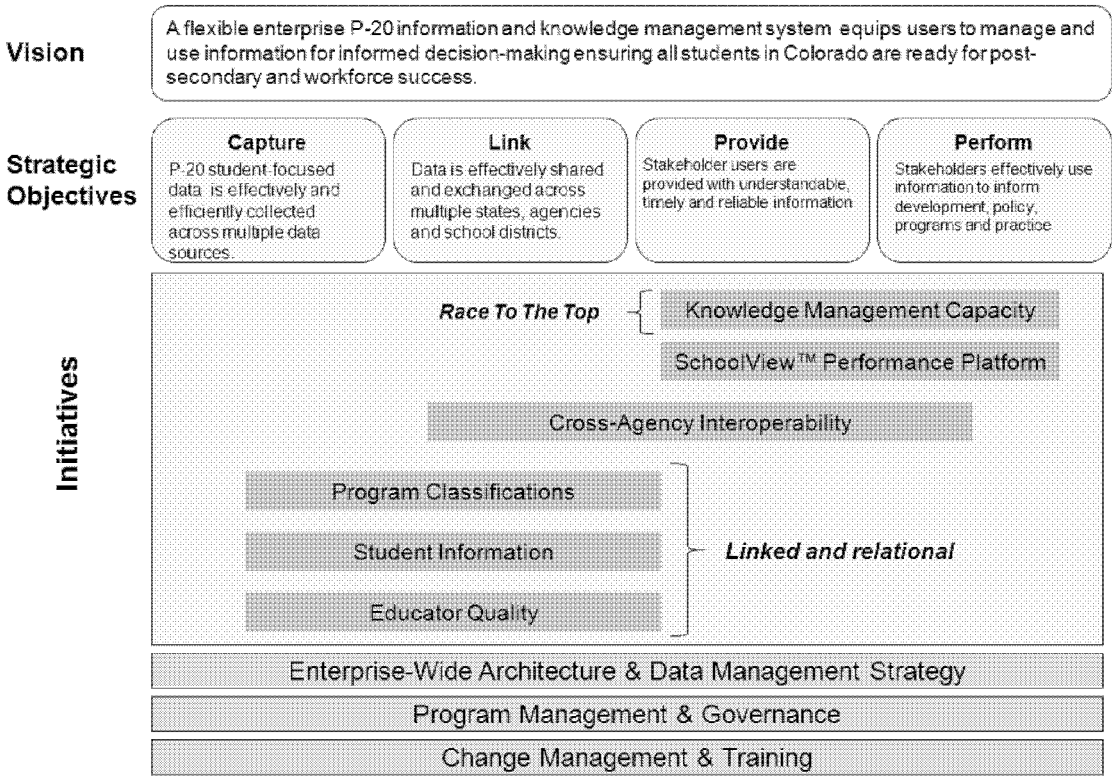
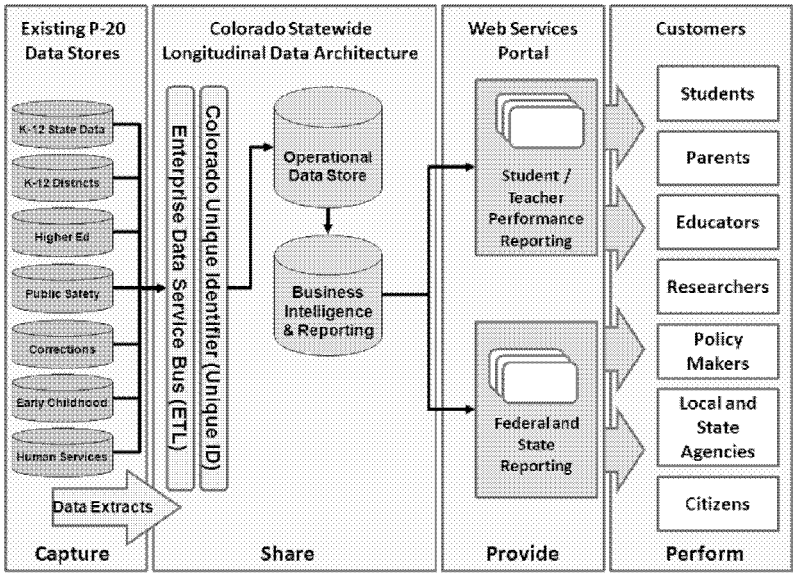


Figure 3 below illustrates a high level architectural view of the proposed State longitudinal data system.

Figure 3: Project SchoolView Enterprise Architecture



B. Goals And Measurable Outcomes

1. SchoolView CAPTURE: Data Gathering and Collections

Goal: P-20 student-focused data is effectively and efficiently collected across multiple sources.

This solution will facilitate the efficient capture of timely and reliable data that can then be linked for purposes of making P-20 educational decisions. Relating student performance data to educator, financial and program level data will enhance accountability, transparency and performance management capacity at all levels of the system. Policymakers will be able to determine the relative effectiveness and return on investment of various interventions and improvement strategies.

Measurable Outcomes:

1.1 System-level: Establish and publish Statewide data standards and definitions for all collections and data elements (i.e., student enrollment, courses, teacher preparation, assessments) to be used by LEAs and State agencies.
1.2 System-level: Streamline data demands on LEAs and capture more real-time information through a State data pull rather than an LEA data push.
1.3 System-level: Expand data collections to address all federal EdFacts reporting requirements.
1.4 System-level: Integrate financial information with student, educator and program level data.
1.5 Student-level: Capture student demographic information reported by LEAs once rather than with each program for which LEAs report data, shifting the data focus to students rather than programs.
1.6 Student-level: Investigate early childhood data needs and map current preschool data collections and reporting points.
1.7 Program-level: Establish common course and program codes.
1.8 Educator-level: Accelerate the development and implementation of the unique educator ID.
1.9 Educator-level: Capture information regarding educator preparation and professional development.

2. SchoolView LINK: Cross Agency Interoperability

Goal: Data are effectively shared and exchanged across multiple State agencies and LEAs. This solution involves the creation of a new unique, Statewide identifier to be hosted at OIT to which agency-specific identifiers will map through master data management and data hub technologies. This unique ID serves as the requisite foundation for cross-agency longitudinal analysis including the significant transitions from early childhood to K-12, K-12 to postsecondary education, and postsecondary education into the workforce. This system will allow policymakers to tie student performance to educator preparation programs, linked to student academic growth and support educator evaluations.

Measurable Outcomes:

2.1 Build a unique State ID to cross reference unique identifiers established by various State agencies and systems.
2.2 Establish linkages between CDE and other State agencies (Higher Education, Human Services, Labor and Employment, Public Safety, Corrections) that collect data relevant to P-20 student performance.
2.3 Link educator characteristics, evaluations, preparation, and development to individual student performance.

3. SchoolView PROVIDE: Performance Platform

Goal: Stakeholder users are provided with understandable, timely and reliable information. This solution will combine linked longitudinal data and engaging business intelligence reporting tools to enable stakeholders to analyze the correlations between services and programs conducted by different agencies for groups of students, or

for a single student over time. Platforms will be created for distinct user groups that address different information needs and uses. Educators, for example, will be able to use interim/benchmark assessment results to support instructional planning, and to access (and contribute to) effective practices identified for specific categories of students or instructional situations.

Measurable Outcomes:

3.1 Provide an enhanced set of standardized aggregate reports and interactive displays through which the public and school personnel can track the performance of students, schools and districts over time.
3.2 Provide information portals for:
- Students, with access to personal real-time and historical achievement information, enabling self-awareness of their own performance and motivating effort.
- Educators, with access to class and student information, and instructional management tool that foster exchange of best practices and collaboration with other educators.
- Administrators, with access to educator, class, school and district performance measures.
- Parents/guardians, with access to historical and current information on their students.
- Researchers, with access to student-level data and analytics needed to conduct research on the effectiveness and return on investment of interventions, methods, programs, and policies with appropriate confidentiality safeguards.
- CDE staff, with access to student-level information and analytic tools needed to implement the State's system of accountability and support to low-performing schools and districts.

3.3 Provide for open source application development to drive innovation in data visualization and encourage sharing of both information and technology among all interested education stakeholders.
3.4 Train internal and external stakeholders/users to use the SLDS.
3.5 Provide ongoing and cost-effective technical assistance (user support) to internal and external stakeholders in modifying their systems to meet new reporting and interoperability requirements.

4. SchoolView PERFORM: Knowledge Management

Goal: Stakeholders effectively use information to guide development, policy, programs and practice.

The Project SchoolView infrastructure developed with SLDS and other funds will provide timely, actionable and credible P-20 longitudinal information to stakeholders. Colorado's Race to the Top application will seek funding to build on this foundation by investing in the development of knowledge management tools and capacity. Through this emphasis multiple stakeholders will use and leverage information to drive increased student, educator and school performance leading to postsecondary workforce readiness through professional development, innovative programs, strategic investments, and improved instructional practices.

5. FOUNDATIONAL: Enterprise Data Management Strategy

Goal: Stakeholders are provided with data of the highest quality, reliability and integrity in a timely manner to promote trust in the system and use of the system.

The process of linking data systems across State agencies demands attention to data governance issues. Project SchoolView will adhere to the standards, policies, and processes defined by OIT related to data quality, validity, and reliability and described in Section III.D.

Measurable Outcomes:

5.1 Data governance policies, processes and standards are established to manage the flow of data from capture to use.
5.2 Master data management (MDM) technology is implemented to ensure the quality, reliability and integrity of the data.

5.3 Data stewards provide data quality audits as part of the ongoing monitoring of data quality on a daily basis via a user interface in the MDM application.
5.4 Robust, sophisticated access and authentication technology and processes ensure the privacy and security of data.

6. FOUNDATIONAL: Leading and Managing Change

Goal: Ensure there is appropriate focus on preparing for, managing and reinforcing change at both the enterprise and individual level.

Project SchoolView will generate transformational process and cultural change over the three-year grant term and also over the next decade as stakeholders apply data and manage knowledge to advance student performance in innovative ways. Further, the SLDS system impacts a large and diverse group of stakeholders. A robust change management process, coordinated and aligned with Colorado's Race to the Top initiative, is essential to success and sustainability.

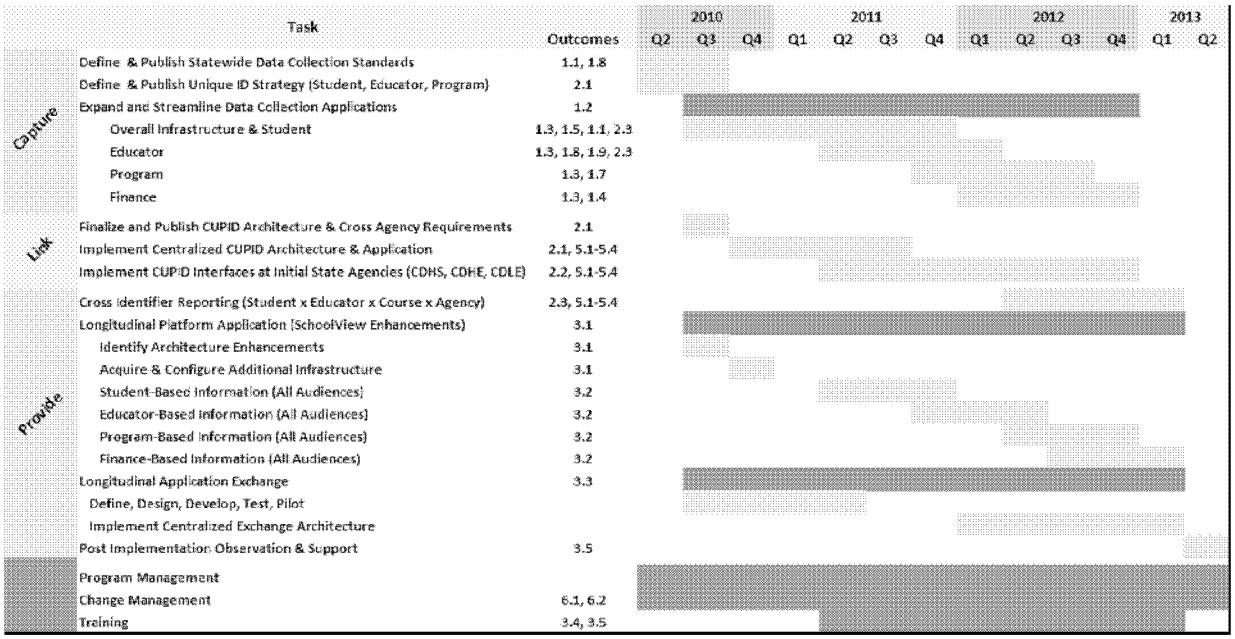
Measurable Outcomes:

6.1 Dedicated change management leader is in place to ensure change processes are instituted throughout the entire implementation process.
6.2 Program reporting measures readiness and effectiveness of change mechanisms.

III. HIGH-QUALITY, LOGICAL, AND FEASIBLE ACTIVITIES AND TIMELINE

A. Planned Activities and Timeline

Project SchoolView proposes three sets of technology solutions to address Colorado's data system needs: *SchoolView – Capture, Link* and *Provide*. As Stated above, the *SchoolView – Perform* solution will be incorporated into the State's Race to the Top application. The table below provides a roadmap to Project SchoolView. A high level project plan, organized by the *Capture, Link* and *Provide* solutions, follows.



As shown in the project plan below, tasks within the *Capture* and *Provide* solutions will be implemented in a coordinated manner, first for student data, and then for educator, program, and finance data. Completion of the *Capture* and *Provide* tasks for student data will implement the overall infrastructure and most of the application logic required to capture data for educators, programs, and finance. *Link*, the unique ID application that will be housed at OIT, will be implemented for CDE before the roll out of the *Capture* solution for student data. Data from the Colorado Department of Human Services, the Colorado Department of Higher Education and the Colorado Department of Labor and Employment then will be captured as these agencies cleanse and match their data for the unique ID. *Provide* includes a line item for the development of powerful new reporting enabled by crossing student, educator, course, and agency information. The primary delivery mechanism for *Provide* will be performance platforms tailored for each audience: students, parents/guardians, educators, State and local agencies and researchers. Training and technical assistance, change management, and enterprise data management are foundational to the data system as a whole, and are integrated into each solution.

Table 3: High Level Project Plan (Capture and Link)

ID	Task Name	Duration	Start	Finish
1	**Project Planning and Management**	**720 days**	**Thu 7/1/10**	**Wed 4/3/13**
2	Project Planning / Issue & Risk Management / Status Reporting	36 mons	Thu 7/1/10	Wed 4/3/13
3	Staff Training and Travel	36 mons	Thu 7/1/10	Wed 4/3/13
4	Procure Contractor Workspace	36 mons	Thu 7/1/10	Wed 4/3/13
5	**Capture**	**720 days**	**Thu 7/1/10**	**Wed 4/3/13**
6	Define and Publish Statewide Data Collection Standards	3 mons	Thu 7/1/10	Wed 9/22/10
7	**Expand and Streamline Data Collection Applications**	**580 days**	**Thu 9/23/10**	**Wed 12/12/12**
8	**Define and Implement Expanded Architectural Framework**	**580 days**	**Thu 9/23/10**	**Wed 12/12/12**
9	**Implement Standardized Operational Data Store and Capture Student Data**	**280 days**	**Thu 9/23/10**	**Wed 10/19/11**
10	Define, Acquire and Configure Infrastructure	3 mons	Thu 9/23/10	Wed 12/15/10
11	Requirements & Design incl. Controls	4 mons	Thu 9/23/10	Wed 1/12/11
12	Agents, Alerts, IDM/Security, Correspondence and Interface Development	7 mons	Thu 12/16/10	Wed 6/29/11
13	Data Conversion	11 mons	Thu 12/16/10	Wed 10/19/11
14	Develop	3 mons	Thu 1/13/11	Wed 4/6/11
15	Test	3 mons	Thu 4/7/11	Wed 6/29/11
16	Pilot	2 mons	Thu 6/30/11	Wed 8/24/11
17	Full Rollout	2 mons	Thu 8/25/11	Wed 10/19/11
18	**Implement and Capture Educator Data**	**160 days**	**Thu 7/28/11**	**Wed 3/7/12**
19	Requirements & Design incl. Controls	2 mons	Thu 7/28/11	Wed 9/21/11
20	Data Conversion	3 mons	Thu 7/28/11	Wed 10/19/11
21	Develop	2 mons	Thu 9/22/11	Wed 11/16/11
22	Test	1 mon	Thu 11/17/11	Wed 12/14/11
23	Pilot	1 mon	Thu 12/15/11	Wed 1/11/12
24	Full Rollout	2 mons	Thu 1/12/12	Wed 3/7/12
25	**Implement and Capture Program Data**	**160 days**	**Thu 12/15/11**	**Wed 7/25/12**
26	Requirements & Design incl. Controls	2 mons	Thu 12/15/11	Wed 2/8/12
27	Data Conversion	3 mons	Thu 2/9/12	Wed 5/2/12
28	Develop	2 mons	Thu 2/9/12	Wed 4/4/12
29	Test	1 mon	Thu 4/5/12	Wed 5/2/12
30	Pilot	1 mon	Thu 5/3/12	Wed 5/30/12
31	Full Rollout	2 mons	Thu 5/31/12	Wed 7/25/12
32	**Implement and Capture Finance Data**	**160 days**	**Thu 5/3/12**	**Wed 12/12/12**
33	Requirements & Design incl. Controls	2 mons	Thu 5/3/12	Wed 6/27/12
34	Data Conversion	3 mons	Thu 6/28/12	Wed 9/19/12
35	Develop	2 mons	Thu 6/28/12	Wed 8/22/12
36	Test	1 mon	Thu 8/23/12	Wed 9/19/12
37	Pilot	1 mon	Thu 9/20/12	Wed 10/17/12
38	Full Rollout	2 mons	Thu 10/18/12	Wed 12/12/12
39	Change Management	36 mons	Thu 7/1/10	Wed 4/3/13
40	Training	24 mons	Thu 6/2/11	Wed 4/3/13
41	**Link**	**720 days**	**Thu 7/1/10**	**Wed 4/3/13**
42	Finalize and Publish CUPID Architecture and Cross Agency Requirements	3 mons	Thu 7/1/10	Wed 9/22/10
43	**Implement CUPID Architecture and Application**	**260 days**	**Thu 9/23/10**	**Wed 9/21/11**
44	Acquire and Configure Infrastructure	3 mons	Thu 9/23/10	Wed 12/15/10
45	Requirements & Design incl. Controls	3 mons	Thu 9/23/10	Wed 12/15/10
46	Data Cleansing of SASIDs	4 mons	Thu 12/16/10	Wed 4/6/11
47	Develop	4 mons	Thu 12/16/10	Wed 4/6/11
48	Test	3 mons	Thu 4/7/11	Wed 6/29/11
49	Data Verification	2 mons	Thu 6/30/11	Wed 8/24/11
50	Full Rollout	1 mon	Thu 8/25/11	Wed 9/21/11
51	**Implement CUPID Interfaces at Initial State Agencies**	**360 days**	**Thu 6/30/11**	**Wed 11/14/12**
52	CDE Master Data Management (Assign CUPID ID)	12 mons	Thu 6/30/11	Wed 5/30/12
53	CDHE Master Data Management (Match, Verify, Assign Unique ID)	6 mons	Thu 3/8/12	Wed 8/22/12
54	CDHS Master Data Management (Match, Verify, Assign Unique ID)	6 mons	Thu 5/31/12	Wed 11/14/12
55	Change Management	36 mons	Thu 7/1/10	Wed 4/3/13
56	Training	24 mons	Thu 6/2/11	Wed 4/3/13

High Level Project Plan Continued (Provide):

ID	Task Name	Duration	Start	Finish
1	**Project Planning and Management**	**720 days**	**Thu 7/1/10**	**Wed 4/3/13**
5	**Capture**	**720 days**	**Thu 7/1/10**	**Wed 4/3/13**
41	**Link**	**720 days**	**Thu 7/1/10**	**Wed 4/3/13**
57	**Provide**	**720 days**	**Thu 7/1/10**	**Wed 4/3/13**
58	**School View Portal Expansion**	**700 days**	**Thu 7/1/10**	**Wed 3/6/13**
59	Identify Additional Architectural Enhancements	2 mons	Thu 7/1/10	Wed 8/25/10
60	Acquire and Configure Additional Infrastructure	2 mons	Thu 8/26/10	Wed 10/20/10
61	**Enhanced School View Implementation**	**520 days**	**Thu 3/10/11**	**Wed 3/6/13**
62	**Student-Based Information (All Audiences: ... Principals, Administrators, Researche**	**200 days**	**Thu 3/10/11**	**Wed 12/14/11**
63	Requirements and Design	3 mons	Thu 3/10/11	Wed 6/1/11
64	Develop	2 mons	Thu 6/2/11	Wed 7/27/11
65	Test	2 mons	Thu 7/28/11	Wed 9/21/11
66	Pilot	2 mons	Thu 9/22/11	Wed 11/16/11
67	Full Rollout	1 mon	Thu 11/17/11	Wed 12/14/11
68	**Educator-Based Information (All Audiences...)**	**180 days**	**Thu 9/22/11**	**Wed 5/30/12**
69	Requirements and Design	3 mons	Thu 9/22/11	Wed 12/14/11
70	Develop	2 mons	Thu 12/15/11	Wed 2/8/12
71	Test	2 mons	Thu 2/9/12	Wed 4/4/12
72	Pilot	1 mon	Thu 4/5/12	Wed 5/2/12
73	Full Rollout	1 mon	Thu 5/3/12	Wed 5/30/12
74	**Program-Based Information (All Audiences)**	**120 days**	**Thu 2/9/12**	**Wed 7/25/12**
75	Requirements and Design	2 mons	Thu 2/9/12	Wed 4/4/12
76	Develop	1 mon	Thu 4/5/12	Wed 5/2/12
77	Test	1 mon	Thu 5/3/12	Wed 5/30/12
78	Pilot	1 mon	Thu 5/31/12	Wed 6/27/12
79	Full Rollout	1 mon	Thu 6/28/12	Wed 7/25/12
80	**Finance-Based Information (All Audiences)**	**160 days**	**Thu 7/26/12**	**Wed 3/6/13**
81	Requirements and Design	1 mon	Thu 7/26/12	Wed 8/22/12
82	Develop	2 mons	Thu 8/23/12	Wed 10/17/12
83	Test	2 mons	Thu 10/18/12	Wed 12/12/12
84	Pilot	2 mons	Thu 12/13/12	Wed 2/6/13
85	Full Rollout	1 mon	Thu 2/7/13	Wed 3/6/13
86	**Longitudinal Application Exchange (Apps for Democracy)**	**700 days**	**Thu 7/1/10**	**Wed 3/6/13**
87	Define Architecture	1 mon	Thu 7/1/10	Wed 7/28/10
88	Acquire and Configure Infrastructure	2 mons	Thu 7/29/10	Wed 9/22/10
89	Requirements and Design incl. Controls	2 mons	Thu 9/23/10	Wed 11/17/10
90	Develop	2 mons	Thu 11/18/10	Wed 1/12/11
91	Test	2 mons	Thu 1/13/11	Wed 3/9/11
92	Pilot	2 mons	Thu 3/10/11	Wed 5/4/11
93	**Implement Centralized Exchange Architecture**	**360 days**	**Thu 10/20/11**	**Wed 3/6/13**
94	Student	3 mons	Thu 10/20/11	Wed 1/11/12
95	Educator	3 mons	Thu 3/8/12	Wed 5/30/12
96	Program	3 mons	Thu 7/26/12	Wed 10/17/12
97	Finance	3 mons	Thu 12/13/12	Wed 3/6/13
98	Change Management	36 mons	Thu 7/1/10	Wed 4/3/13
99	Training	24 mons	Thu 6/2/11	Wed 4/3/13

B. COORDINATION WITH EXISTING SLDS GRANT

As described more fully in the next section, the Project Management Office within CDE's Information Management Systems unit will coordinate activities supported by this grant with the State's existing SLDS grant (2007-2010) and with other data system initiatives to assure a common vision, avoid duplication of effort, and leverage expertise and resources to their full potential. Staff, project management strategies, and leadership overlap both SLDS efforts. Applicant acknowledges that funds under this Recovery Act grant must be separately tracked from funds under other grants, including its 2007 SLDS grant. This program qualifies for OIT's Enterprise Governance Committee oversight (explained in Section IV), providing additional governance across the State enterprise and facilitating cross agency enterprise cooperation.

C. MULTI-STATE COLLABORATION

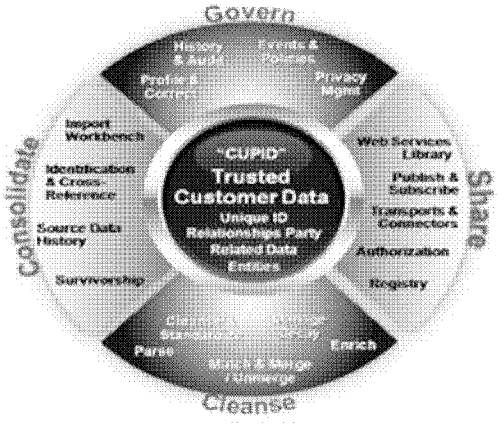
Colorado supports CCSSO's LEARN initiative, which will promote unprecedented cross-State knowledge about educational performance and access to educational content. As an initial step in this collaborative effort, CDE has led multi-State adoption of a common student longitudinal growth measure and data visualization platform as used by the Colorado Growth Model. In addition to Colorado, several other States such as Massachusetts, Indiana and Arizona now use the growth percentile methodology developed for the Colorado Growth Model. Indiana and Arizona recently signed an agreement to adopt the data visualization tools employed by the Colorado Growth Model and will begin co-development of the Growth Model displays. Several other States are expected to join the co-development effort soon.

This collaboration makes it possible, for example, to evaluate the relative productivity of educational systems, (i.e., groupings of schools undergoing turnaround) in Colorado, Massachusetts, Indiana and Arizona as measured by student growth rates toward State standards. With the advent of common core standards and common assessments, such collaboration holds tremendous promise for building a breakthrough national awareness and improved discourse about education reform. Refer to Appendix A for the agreement that defines the outcomes of this collaboration. No SLDS grant funds are requested to directly implement this work.

D. MEETING TECHNICAL REQUIREMENTS

Data Quality. One of the most crucial components of a successful SLDS is a governance program that addresses data quality and integrity. Using data for analysis and application in instructional practice, decision-making and policy-making inherently requires trust of the data that are being studied, measured and analyzed. Characteristics of data quality include data specifications, duplication, accuracy, consistency and synchronization, timeliness and availability, ease of use and maintainability, data coverage and relevance. The master data management application shown in Figure 4 will provide the services to carry out the State's already established data quality management program (refer to Section II.B.5).

Figure 4. Master Data Management Application



Additionally, an enterprise metadata registry will be implemented as part of the data management program. The purpose of an enterprise metadata registry is to establish a central point for data identification, standardization, and sharing. This ensures consistent use of the data assets and data resources across the State, facilitates easy mapping of data between computer systems, and lowers the costs of migrating to new systems, including service-oriented architecture. OIT will coordinate the agency data stewards and the input to the data dictionary to insure that at a minimum the following is accomplished:

- Each data element has a clear and unambiguous data element definition that is supported by the State agencies involved with the data.
- The origin of the data, i.e., the system of record, is identified for each element as well as the designated system for history, such as a data mart or data warehouse.
- The data stewards are identified for each data element.
- Each data element does not conflict with other data elements in the metadata registry.
- Each element defined as a code has clearly enumerated value definitions.
- The data element defined is still being used.
- The data element is being used consistently in various computer systems.
- Version control of the data elements is in use.
- Adequate documentation on appropriate usage and notes for the data elements.

- The usage of the data element in each data sharing effort is documented.

Data quality will improve because all departments will use the same definitions and standards.

The State's framework for data quality includes defining the requirements, inspection policies, measures, and monitors that reflect changes in data quality and performance. In addition to these steps, a data governance framework for data quality will be established. The governance tasks include:

- Engaging business partners from all stakeholder agencies to work with the data stewards and data quality teams.
- Identifying data ownership roles and responsibilities, including data governance board members and data stewards.
- Assigning accountability and responsibility for critical data elements and data quality management.
- Identifying key data quality areas to address and directives around these key areas.
- Synchronizing data elements across the lines of business and providing clear, unambiguous definitions, use of value domains and data quality rules.
- Developing metrics and continuously reporting on the measured level of data quality.

This framework will ensure that data quality becomes operationalized as part of agencies' business processes, and day-to-day operations of the SLDS. Most importantly, it will build the trust necessary for stakeholders to utilize the data and information in knowledge management.

Privacy. A fundamental tenet of both data sharing and privacy protection is ensuring that the data reported about an individual as part of a data or information sharing request is actually data about the individual being requested. The unique ID is designed to map agency identities to a master identifier that incorporates data cleansing and data quality functionality to guarantee an individual's identity against all other potential matches in the State. The unique ID is strictly architected to use the minimal set of attributes necessary to make de-duplication and uniqueness determinations on identities. Sensitive agency data (everything from HIPAA-sensitive to educational and individual benefits data) is retained at the agency level in agency repositories. Additionally, the State will be able to provide de-identified record-level P-20 data to research organizations for evaluations of policies and programs within the State.

The unique ID and the SLDS will be protected behind strong firewalls, and the State will implement a strong access and authentication and authorization model to provide security and protect privacy by ensuring that access to data in the SLDS is on a need-to-know basis. The provisioning system will leverage the unique ID directly, and use a roles-based method to control access to State systems. The provisioning systems will offer multiple authentication schemes depending on the level of protection required by the system and data. The model is flexible and can accommodate low (username/password) to high (certificate-based) assurance levels. A provisioning tool will assign the corresponding authentication and authorization capabilities to users according to their role and the value of the information that is being protected. This process will address compliance with FERPA, HIPAA and other federal and State regulatory requirements.

E. Alignment of Technology Solutions To Required Capabilities and Elements

As shown in the following table, the Project SchoolView solutions map directly to the required SLDS capabilities/elements contained in the RFA. They also meet the mandate of Colorado State law regarding cross department data interoperability.

Table 3. Mapping of Project SchoolView Solutions to RFA Requirements

Required Capability	Solution Mapping
P20 linkages	MDM and data hub functionality allow the mapping of agency specific IDs to a central data link across agencies that provides service to the P20 population.
Interoperability	The unique ID and/or its mappings can be extended to any number of State and federal agencies.
Educator-Student Link	Both educators and students have a unique ID and relationship can be made in a data model to conduct correlation analysis, including to program and financial data.
Educator certification, preparation details	Information about educator preparation and other HR data can be tracked by associating data with a unique ID at the agency and institution level.
Information for educator and parent decisions	Real time dashboards and other decision tools will be created to report on P-20 longitudinal data.
Data quality audits	MDM technology provides accurate and complete data associated with a unique ID. Auditing of agency specific data through the business intelligence layer is made easier by having a strong baseline identity of students and educators.
Required Elements	**Solution Mapping**
Unique Statewide student identifier	A unique Statewide identifier is used for all persons in Colorado.
Student-level enrollment, demographic and program participation information within the State and with other States	The common identifier and mappings across different agencies enables reporting on enrollment, demographic and program participation.
Student-level information about exit, transfer in, transfer out, dropout and completion of P-16 education programs	The business intelligence system will use the identity mapping between CDHS, CDE and CDHE to enable reporting on these types of events.
Capacity to communicate with higher education data systems	The same MDM and unique ID solution is shared by CDE and CDHE enabling sharing and mapping of data.
State data audit system assessing data quality, validity and reliability	Sophisticated data quality tools at the MDM and business intelligence layers of the solution ensure validity and reliability of data.
Yearly test records for individual students	All agencies providing educational services to students will continue to record test records within their systems. An aggregate record is created by linking IDs through the unique ID and business intelligence.
Information on students not tested by grade and subject	CDE can provide this report by aggregating school data through the unique ID.
Educator identifier system with ability to match educators to students	The unique ID coupled with business intelligence solutions will permit this matching and respective correlation analysis.
Student level transcript information, including information on courses, completed and grades earned.	A complete student transcript can be created by aggregating course and grade data from any educational institution and linking it through the unique ID. Common course codes and data standard support this linkage.
Student-level college readiness test scores	CDE and CDHE can provide this report by aggregating school data through the unique ID.
Data regarding the extent to which students transition successfully from secondary school to postsecondary education, including enrollment in remedial coursework	CDE and CDHE can provide this report by aggregating school data through the unique ID and reporting it through a business intelligence solution, including the Colorado Growth Model.
Data necessary to address alignment and adequate preparation for success in postsecondary education	All agencies with data relevant to P-20 education (including preschool and higher education) can aggregate data and report on correlations related to students' educational success by using the unique ID and its mapping capabilities.

IV. Effective Management and Governance Plan

A. Operational Context

The Colorado General Assembly established the Government Data Advisory Board (GDAB) to assist Colorado's Chief Information Officer and Chief Data Officer in determining the State's data strategy, policies, standards and architecture. GDAB members also serve as a liaison from their communities of interest to the OIT regarding stakeholder needs and concerns; and, to their communities as key communicators regarding the State's progress, concerns and challenges. The Education Data Subcommittee, a legislated subcommittee of the GDAB is charged with providing recommendations for the creation of a Statewide comprehensive P-20 education data system.

OIT provides a mechanism to manage the connections among State agency systems, providing enterprise architecture, data governance and management that facilitate cross-agency collaboration. OIT is charged with overseeing technology initiatives at the State level to maximize efficiencies of service delivery in a cost effective manner through the application of enterprise technology solutions. Pursuant to State law, OIT implements the Enterprise Governance Committee (EGC) structure to provide senior governance for large-scale, multi-agency initiatives such as Project SchoolView. This model has been effective in providing management expertise across the State by identifying risks, ensuring collaboration across agencies, and helping resolve critical issues. It has been a key component in the success of several multi-million dollar initiatives, including the Statewide Election and Registration System, the Colorado Benefits Management System transition, and the Colorado Integrated Tax Architecture.

Internal to CDE, the department recently accomplished major enhancements and expansions to its Information Management Services unit. The department employed its first Chief Information Officer, who is charged to oversee the department's information management and data collection direction and staff, and to develop technology and data acquisition strategies that support the education reform agenda described above. Major tasks of the CIO relate to aligning disparate systems, reducing redundancies and instilling an enterprise-wide data management system.

The CIO hired an Enterprise Architect with strategic, tactical and operational responsibilities related to managing the Department's information technology technical roadmap and landscape, specifically as it pertains to enterprise-scale applications/solutions. The CIO also hired a Project Manager to provide project management, resource planning, prioritization methodology and strategic planning to all IT efforts. All IMS projects are managed pursuant to a defined project management methodology and are cross-coordinated to eliminate duplication or redundancy, to avoid stove-pipe system development, and to ensure a cohesive State effort.

Figure 5 shows the project implementation structure for Project SchoolView.

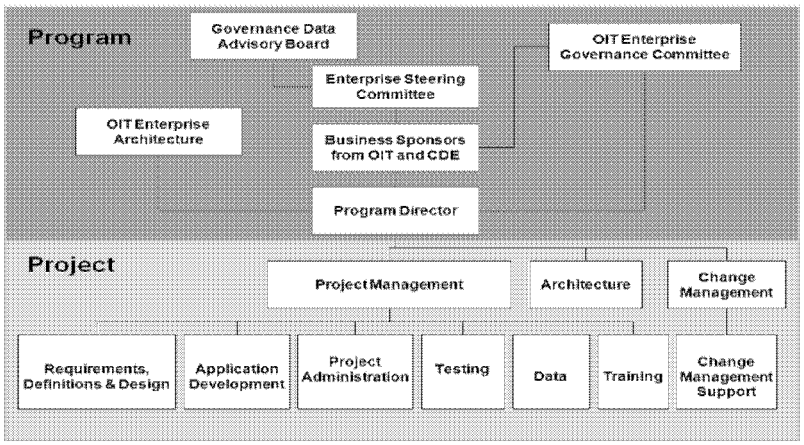
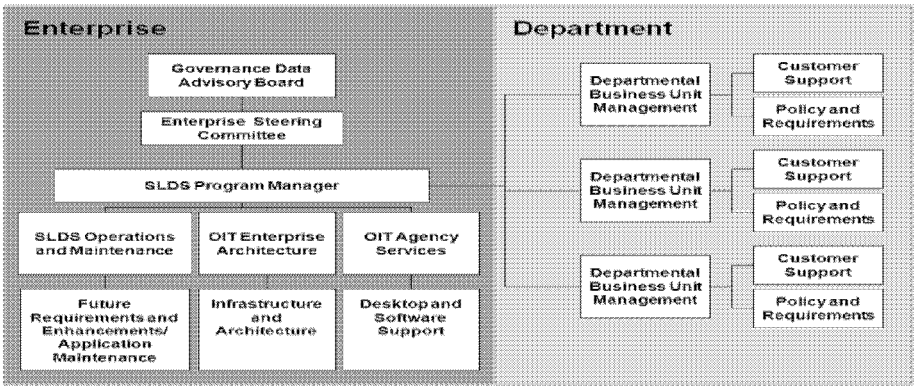


Figure 6 shows the broader context of operations and support within which Project SchoolView will be implemented. In addition to facilitating effective project management, change management and knowledge transfer, this structure supports sustainability of the work described in this grant application long after the grant term ends.



B. PROJECT GOVERNANCE

The Steering Committee will provide strategic business guidance for risk mitigation; interact with the Executive Sponsors and the Program Manager to understand key deadlines, resource needs and deliverables; and ensure the project will serve the needs of stakeholders effectively and efficiently. Data governance issues will carry increased visibility and significance as the current SLDS is expanded to link to data systems of other State agencies. Issues related to data governance are discussed in Section III. The Steering Committee will be co-chaired by the Executive Sponsors, Robert Hammond, Deputy Commissioner, CDE and Leah Lewis, Enterprise Architect, OIT.

The cross-agency Steering Committee will include:

- Rich Wenning, Associate Commissioner, Office of Performance and Policy, CDE
- Dan Domagala, Chief Information Officer, CDE
- Matt Gianneschi, Director of Education Initiatives, Office of Governor Bill Ritter, Jr.
- Liz Aybar, Deputy Director of Education Initiatives, Office of Governor Bill Ritter, Jr.
- Micheline Casey, Chief Data Officer, OIT
- Jason Presley, Director of Information and Research, CDHE
- Ron Ozga, Chief Information Officer, Colorado Department of Human Services
- Jim Lynn, Agency Services Director, OIT
- TBD, Early Childhood Commission
- Jan Rose Petro, Education Data Accountability Committee (EDAC)
- TBD, Government Data Advisory Board's Education Data Subcommittee
- TBD, Colorado Council of Deans of Education
- Jami Goetz, Quality Teachers Commission
- TBD, LEA representative

EDAC and the Education Data Subcommittee are stakeholder groups that will be consulted during the project.

Change Management. The State of Colorado is embracing transformative social and organizational change. It will be imperative that both the project and the entire program leadership team be thoughtfully coached on change leadership throughout the implementation by the change management team. Areas of focus include but are not limited to: effective communication, resistance management, capable sponsorship, internal and external marketing. In addition, these leaders will be key participants in coaching and guiding the diverse stakeholder population through this transformative change. Therefore the SchoolView Program team will place an importance on the change management role ensuring it feeds both into the project team and the steering committee and out to the stakeholder population.

C. PROJECT MANAGEMENT

Project SchoolView will reside in the Colorado Department of Education's IMS Unit, under the direction of Dan Domagala, the Department's Chief Information Officer. As described above, OIT will certify all projects and will facilitate the cross agency collaboration and linkages required to build and maintain a P-20 data system.

Management Controls. To ensure effective project management, the IMS Unit employs a project management framework that incorporates industry best practices. Each SLDS project will follow formal initiation, planning, monitoring and closing phases tracked using project management software.

- Initiation. This phase consists of capturing the scope of the project, identifying deliverables, obtaining executive sponsorship and securing vendors necessary for the planning and execution of the project and results in a project plan and schedule. Much of this work has already been accomplished through the grant development process.
- Planning. During this phase the business and functional requirements will be generated along with any updates to the overall project plan and schedule. The change management strategy will also be developed during this phase.
- Executing/Monitoring. During this phase multiple deliverables will be built and tested against the requirements. Once all testing is completed and Final Acceptance approved, the system is deployed to a production environment. Required training will occur in this phase as well.
- Close out. Once the system is in production, IMS will perform a scope verification with the vendor to ensure all required elements have been met. Lessons learned will be identified and captured for future application. Close out of contracts and final payments also will be performed in this phase.

D. TRAINING AND TECHNICAL ASSISTANCE FOR USERS

Project SchoolView will reach its full transformative potential in a culture of data use when users have the knowledge and dispositions to apply data to decision-making, from instructional decisions at the classroom level, to programmatic decisions at the school-level, to strategic investment decisions at the State level. Building a culture of knowledge management in P-20 education, leveraged by cutting edge technology, is a primary focus of Colorado's Race to the Top Application.

For the SLDS grant, the user support emphasis will be on training and technical assistance that prepares users to navigate and interact with Project SchoolView at points and functions appropriate to their specific roles. CDE successfully implemented a large-scale training and technical assistance effort in conjunction with the launch of the Colorado Growth Model that can be replicated and expanded for this project. Delivery will be organized around a training the trainer model and will seek to engage and build the expertise of district and university information technology staff. Web-based seminars and video tutorials will provide additional learning opportunities available on demand. The first step in designing the content and delivery of training activities will be outreach to user groups to identify their concerns, needs, and preferences. Just as the attributes and functionality of Project SchoolView will be designed with the needs of stakeholder users in mind, so will training, user support and feedback reporting.

V. PERSONNEL AND FINANCIAL RESOURCES

A. PROJECT PERSONNEL

Table 3 describes the internal and external project team by role, responsibility, name/title and maximum amount of time that will be dedicated to Project SchoolView. The project team has the qualifications and time commitments needed to implement Project SchoolView in accordance with the timelines set out in the project plan. The mix between State employees and contractors/consultants has not been fully determined. It is anticipated the project team will consist of approximately 19 full time equivalent resources in addition to the project management, change management and program team resources.

Table 3. Project Personnel

Role	Responsibility	Name/Title	FTE
Steering Committee	Provides tactical business guidance for risk mitigation. Interact with Sponsors and Program Director to understand key deadlines, resource needs, and deliverables. Ensures project will serve the communities and the customers effectively and efficiently	Various	10%
Project Sponsors	Provide strategy and vision; interact with stakeholders to understanding risk and options; determine funding and resource allocation; receive and escalate critical issues from project management	Robert Hammond, Deputy Commissioner, CDE Leah Lewis, OIT	5% 5%
Program Director	Management of the project at a strategic level. Provides a single point of accountability to deliver the project in accordance with the project commitment.	Dan Domagala, CIO, CDE	20%
Change Management/Leadership	Management and coaching of change leaders and change agents to ensure the organization is prepared for, able to manage and sustain the change.	To be hired	100%
Project Manager, CDE	Develops detailed project plan and leads implementation of CAPTURE and PROVIDE initiatives	To be hired	100%
Project Manager, OIT	Develops detailed project plan and leads implementation of the LINK initiative	To be hired	100%
Enterprise Architect	Lead the development of single holistic enterprise architecture model from all architecture perspectives (Business Services, Business Processes, Information, Applications and Technology). Ensure the Enterprise Architecture is closely aligned to the Strategy, Operating Model and IT strategy, and satisfies all enterprise architecture requirements	Leah Lewis, Enterprise Architect, OIT Dee Abueldahab, Enterprise Architect, CDE	30% 40%
Program Administrator	Provides support to the program director and project managers such as project plan tracking and maintenance, detailed budget tracking and procurement support.	Lisa Bradley, Project Manager	50%
Training	Design training plan, and training tools and facilitate training end users	To be hired	100%
Requirements Definition & Design	Lead functional design of business solutions	To be hired	100%
Applications Development/ Systems Maintenance	Design and build technical solutions to the requirements Interact with designers for guidance and QA for testing	To be hired	25%
Quality Assurance/Testing	Develop business scenarios with designers SMEs and developers to identify issues Develop test scripts based on business scenarios defined by designers and test solutions in a test environment and report results	To be hired	100%
Data Services/User Support	Resolve user issues when contacted Proactively follow-up with the users for quality assurance. System and application administration	Chris Edmundson, CDE	10%
Data Base Administrator	Oracle database administrator	Jeff Stevenson	10%
Data Warehouse	Coordination of warehouse expansion and EdFacts reporting Database modeling and architecture	Keith Glenn, Data Warehouse Supervisor Manilal Bhoraniya	35% 20%
Data Reporting/ Business Intelligence	Administer and develop SchoolView reports	Dean Bixler	25%

Appendix B contains resumes of key personnel that demonstrate expertise and backgrounds commensurate with the responsibilities they will undertake to implement Project SchoolView.

B. SUSTAINABILITY AND FINANCIAL RESOURCES

The State has committed $1.1M for the Educator ID program and will identify additional funding through legislative processes and private funding sources to ensure longer term sustainability. As evidenced by the letters of support from State leaders and stakeholders (refer to Appendix D), solid bipartisan agreement exists among Colorado educators and policymakers that data sharing and knowledge management are critical to achieving dramatically improved student outcomes. This consensus priority will be reflected as the General Assembly establishes and as the Governor and State agencies administer the State education budget in coming years.

With an annual budget of $3.5 million dollars, the Information Management Services unit provides technology support for every working unit and individual person at the Colorado Department of Education. The 35 person IMS team is comprised of five collaborative teams that work together to design and develop customized solutions to meet department needs, including customization and installation services for purchased software. Two particular aspects of the unit are noteworthy in relation to this grant application. First, the 2007 SLDS funds helped to rapidly expand an existing data warehouse and build-out an extensive extract-transform-load (ETL) process that fully automates the movement of data between databases and into specified file formats for Federal reporting (EDEN/EDFacts) or State reporting (SchoolView). In the past two years, Colorado has funded a full-time data dictionary analyst, an ETL programmer, and a Chief Information Officer to sustain and improve upon these investments. Second, recent State legislation enabled the shifting of $280,000 in annual report-card printing costs towards 2.7 annual full time employees to sustain and expand the SchoolView.org information portal. In all, the trained and dedicated IMS team, in full collaboration with the OIT, is poised to put federal funds to work and staffed to sustain solutions.

Moreover, interagency data sharing is a long-term initiative in the State that goes far beyond the education sector. Through legislation mentioned previously in this document (and summarized in Appendix A), Colorado has built the foundation for sustainability of this initiative across State government services. Under OIT's leadership, the primary architectural pieces in the *SchoolView - Link* strategy – the Statewide unique identifier, enterprise service bus, and access and authentication management – will continue to be developed and implemented across other business sectors of State government. SLDS dollars will not pay for these implementations. However, as other agencies are able to pay for and migrate to the services in the *Link* strategy, the maintenance costs for CDE's portion of the Statewide implementation will be reduced. OIT will develop an appropriate cost-allocation model to charge all State agencies utilizing the services. Costs for each agency will be reduced over time as more agencies take advantage of the services and the costs are allocated among more partners.

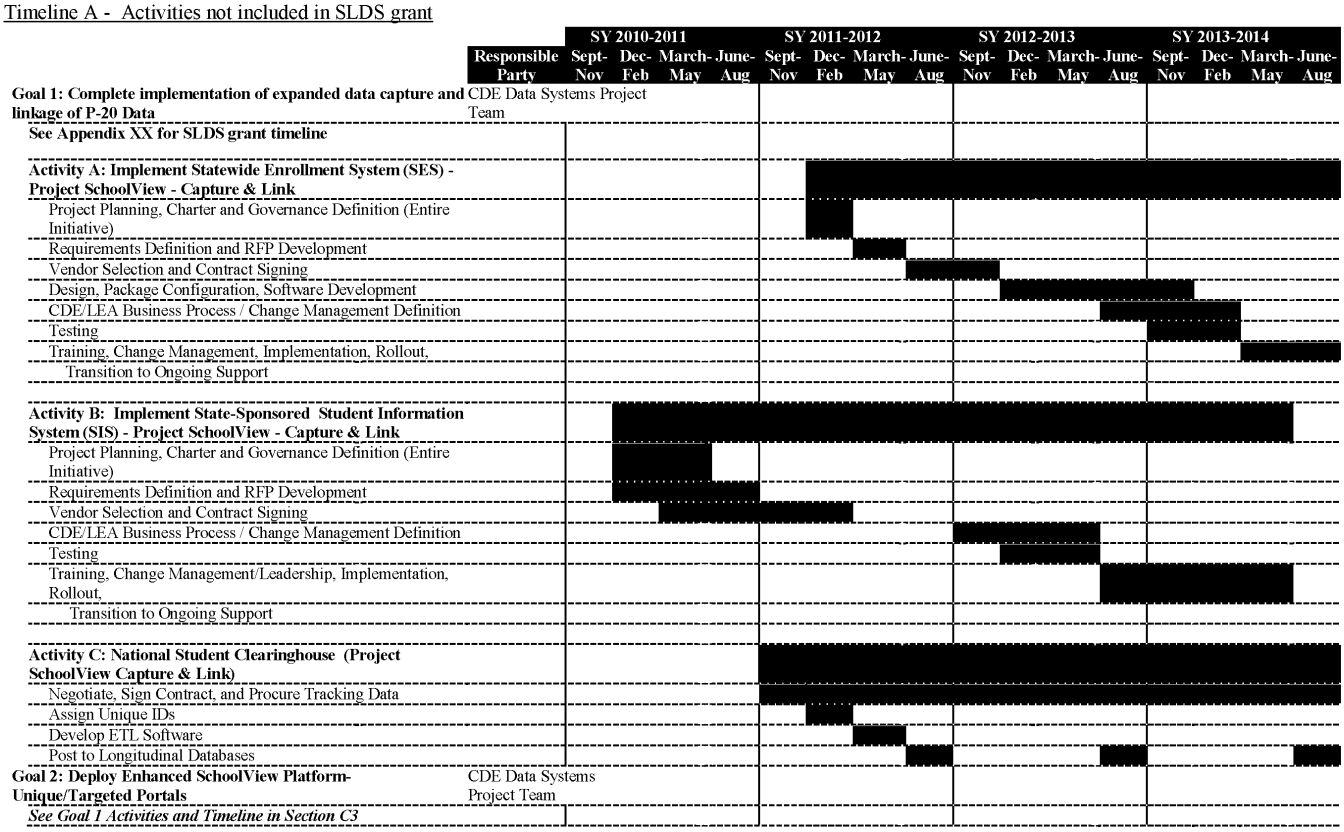
As detailed in the Budget Narrative, the State of Colorado is requesting $17,886,993 to complete the work proposed. Each line item in the budget is closely aligned with the goals and measurable outcomes of Project SchoolView, as outlined in Section II of this application. CDE and OIT are dedicated to delivering a positive return on this financial investment and the management controls in place will ensure critical strategic initiatives are delivered within this budget.

Exhibit VI.C(2)-4

Implementation Timeline for Selection Criterion (C)(2) – Data Systems

Below is the detailed implementation timeline supporting the activities proposed in C(2) of the application. Timeline A captures the timeline of activities that are not included in Colorado's SLDS grant application. Timeline B captures the activities proposed in the SLDS application.

Timeline A - Activities not included in SLDS grant



Timeline B – Activities included in the SLDS grant.

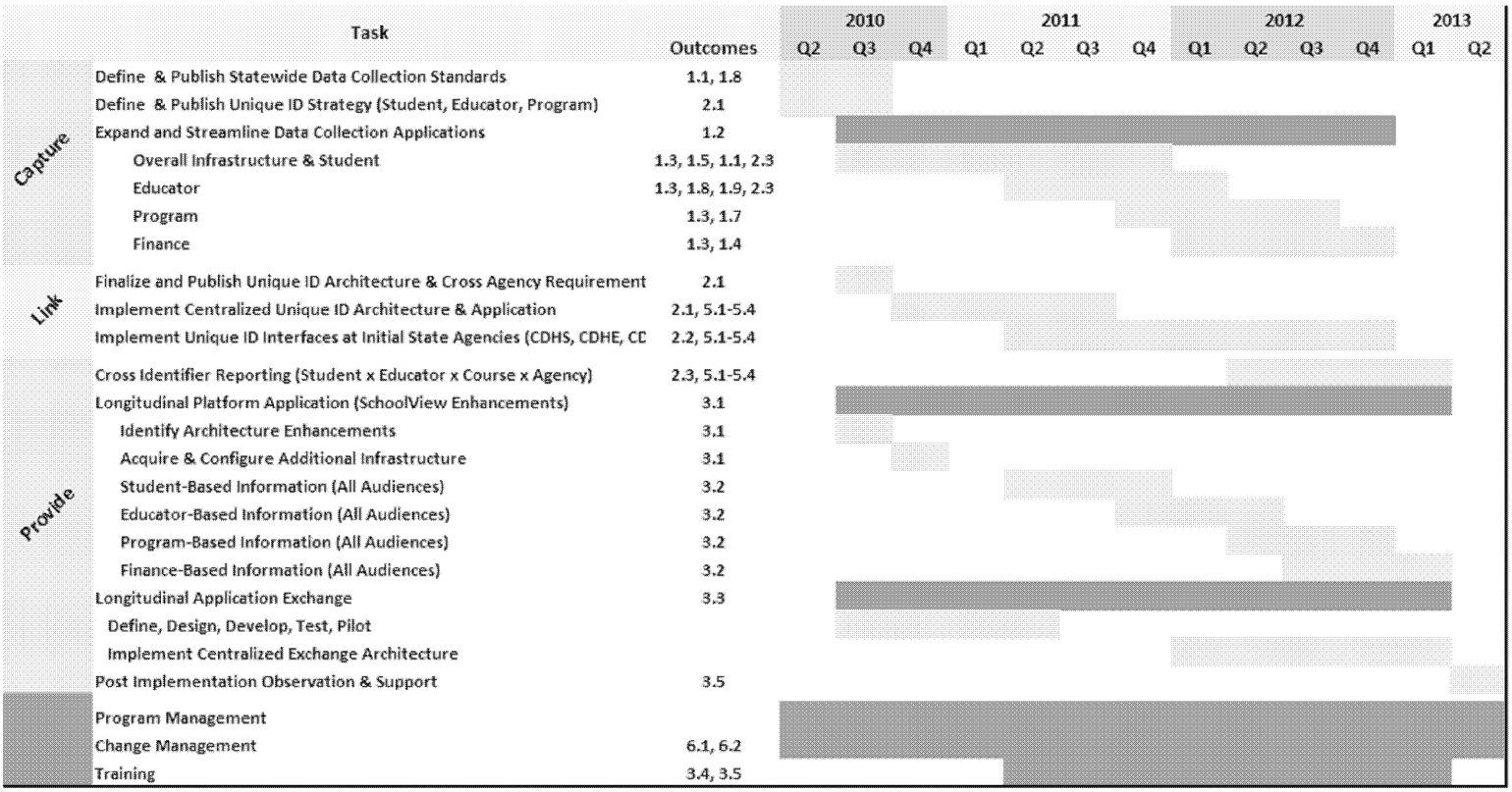
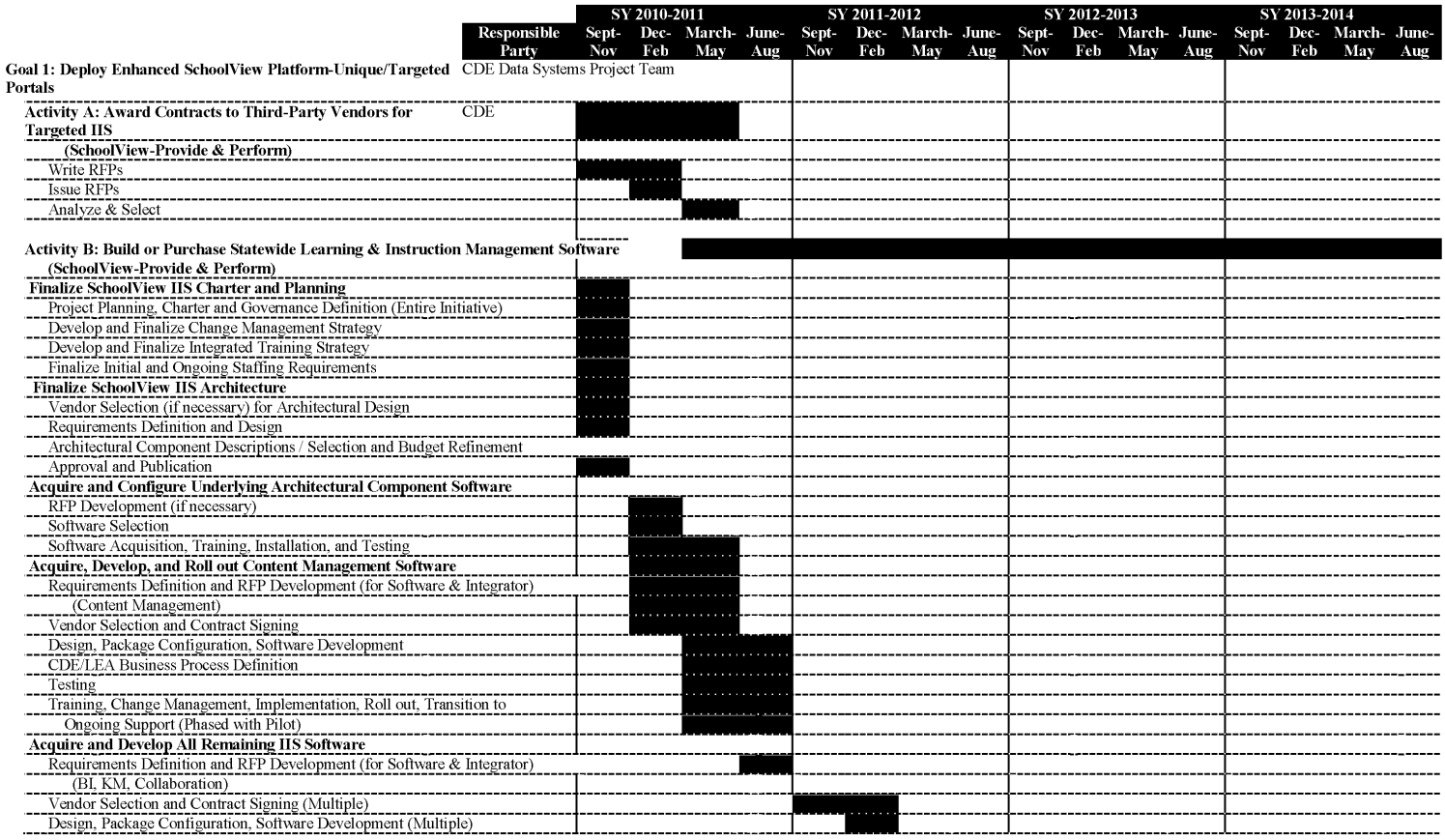
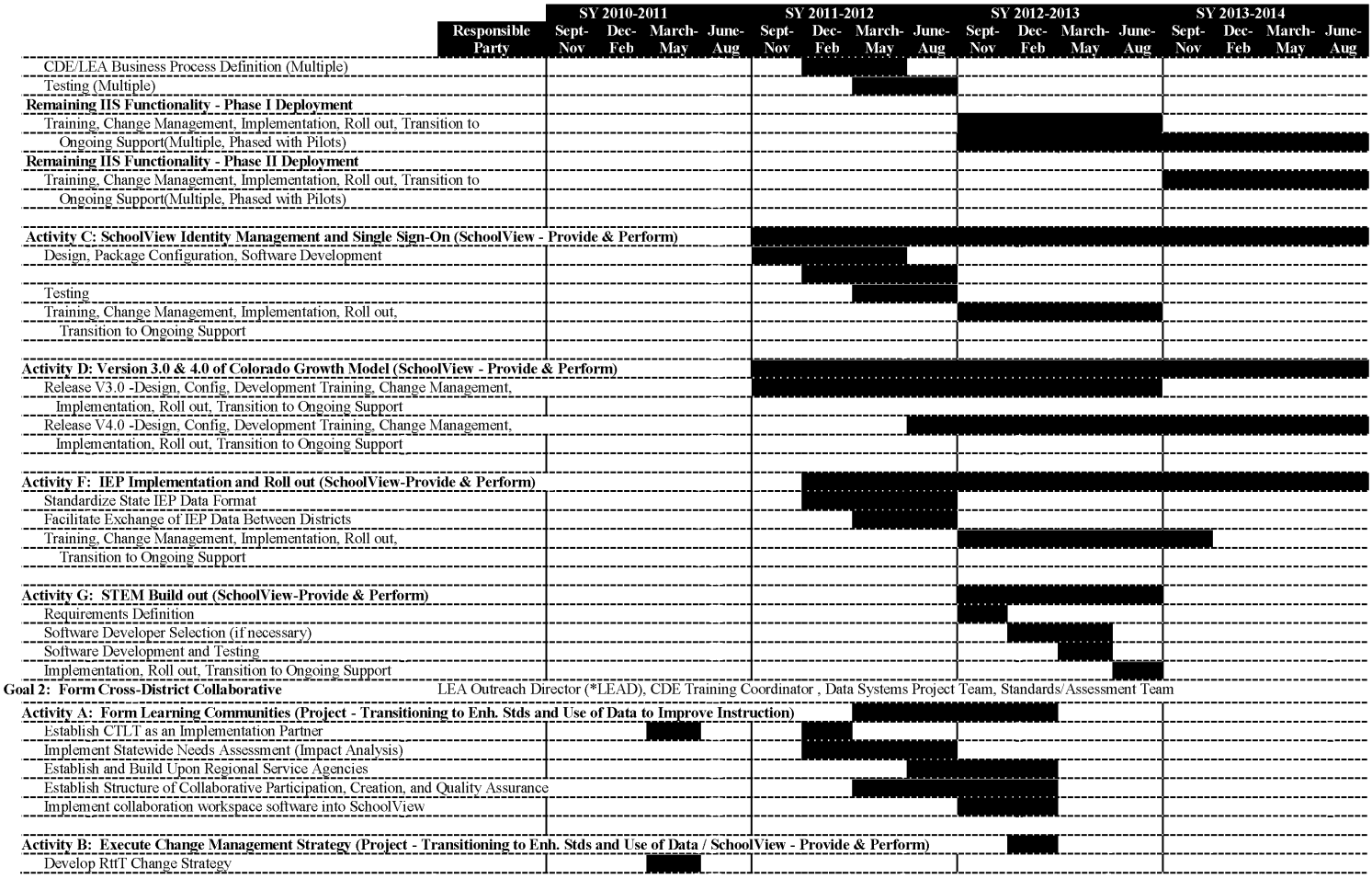


Exhibit VI.C(3)-2

Implementation Timeline for Selection Criterion (C)(3)- Using Data to Improve Instruction




SY 2010-2011
SY 2011-2012
SY 2012-2013
SY 2013-2014
Responsible Party
Sept-Nov
Dec-Feb
March-May
June-Aug
CDE/LEA Business Process Definition (Multiple)
Testing (Multiple)
Remaining IIS Functionality - Phase I Deployment
Training, Change Management, Implementation, Roll out, Transition to
Ongoing Support(Multiple, Phased with Pilots)
Remaining IIS Functionality - Phase II Deployment
Training, Change Management, Implementation, Roll out, Transition to
Ongoing Support(Multiple, Phased with Pilots)
Activity C: SchoolView Identity Management and Single Sign-On (SchoolView - Provide & Perform)
Design, Package Configuration, Software Development
Testing
Training, Change Management, Implementation, Roll out,
Transition to Ongoing Support
Activity D: Version 3.0 & 4.0 of Colorado Growth Model (SchoolView - Provide & Perform)
Release V3.0 -Design, Config, Development Training, Change Management,
Implementation, Roll out, Transition to Ongoing Support
Release V4.0 -Design, Config, Development Training, Change Management,
Implementation, Roll out, Transition to Ongoing Support
Activity F: IEP Implementation and Roll out (SchoolView-Provide & Perform)
Standardize State IEP Data Format
Facilitate Exchange of IEP Data Between Districts
Training, Change Management, Implementation, Roll out,
Transition to Ongoing Support
Activity G: STEM Build out (SchoolView-Provide & Perform)
Requirements Definition
Software Developer Selection (if necessary)
Software Development and Testing
Implementation, Roll out, Transition to Ongoing Support
Goal 2: Form Cross-District Collaborative
LEA Outreach Director (*LEAD), CDE Training Coordinator , Data Systems Project Team, Standards/Assessment Team
Activity A: Form Learning Communities (Project - Transitioning to Enh. Stds and Use of Data to Improve Instruction)
Establish CTLT as an Implementation Partner
Implement Statewide Needs Assessment (Impact Analysis)
Establish and Build Upon Regional Service Agencies
Establish Structure of Collaborative Participation, Creation, and Quality Assurance
Implement collaboration workspace software into SchoolView
Activity B: Execute Change Management Strategy (Project - Transitioning to Enh. Stds and Use of Data / SchoolView - Provide & Perform)
Develop RttT Change Strategy

	Responsible Party	SY 2010-2011 Sept-Nov	Dec-Feb	March-May	June-Aug	SY 2011-2012 Sept-Nov	Dec-Feb	March-May	June-Aug	SY 2012-2013 Sept-Nov	Dec-Feb	March-May	June-Aug	SY 2013-2014 Sept-Nov	Dec-Feb	March-May	June-Aug
Establish CTLT as an Implementation Partner																	
Develop Awareness Program																	
Develop change agent Program																	
Identify and Support LEA change agents																	
Develop, Execute and Evaluate Change Readiness Assessments																	
Activity C: Execute Integrated Training Strategy (Project - SchoolView - Provide & Perform)																	
Instructional Design																	
Establish Train the Trainer Program																	
Select District/School-level Training Leaders																	
Train the Trainer																	
Train Users																	
Goal 3: Researcher Data Mart	CDE Data Systems Project Team																
Activity A: Acquire and Incorporate Data Marts (SchoolView-Provide & Perform)																	
Requirements Definition and RFP Development (database, query tools…)																	
Vendor Selection and Contract Signing																	
Design, Package Configuration, Software Development																	
CDE/LEA Business Process Definition																	
Testing																	
Implementation, Roll out, Transition to Ongoing Support																	

Exhibit VI.C(3)-3
Supported Theories of Action

CDE recognizes that LEAs across the State subscribe to multiple belief systems to describe how investments in instructional improvement systems translate into student achievement. With Race to the Top funding, CDE wishes to support four commonly accepted "theories of action" so that LEAs may employ those most effective in their districts and classrooms. The four theories of action the State intends to fully support in SchoolView are:

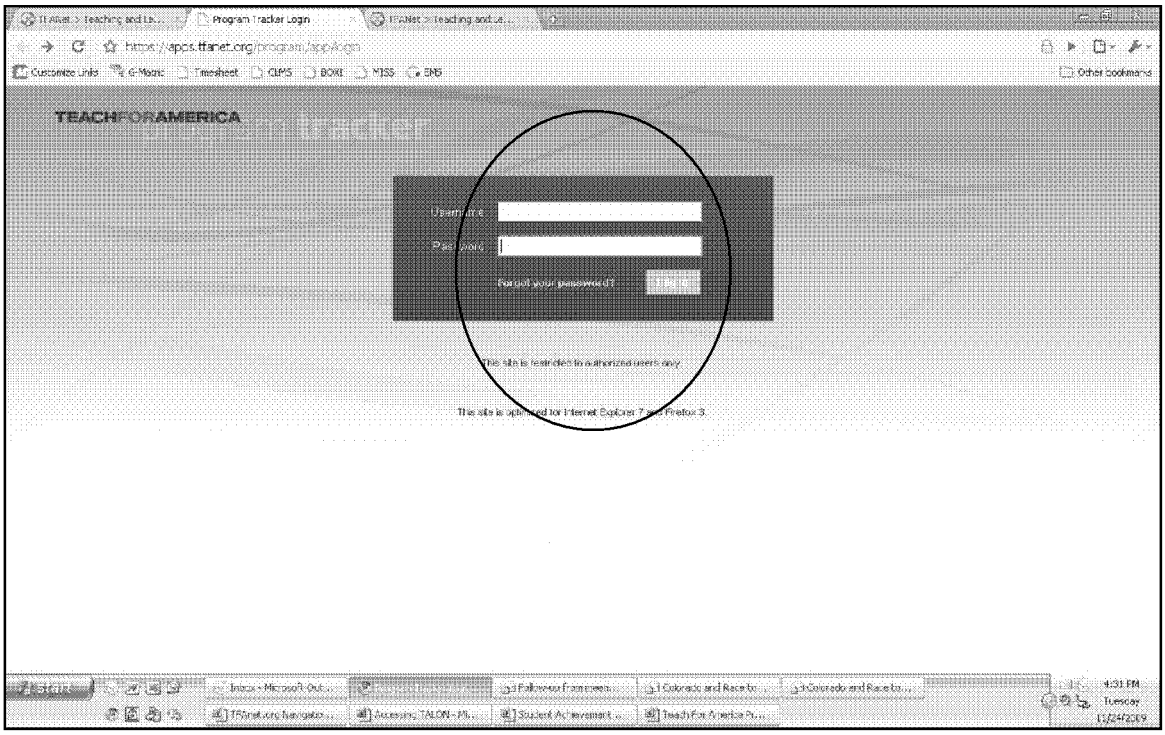
Student Achievement Driver	Description
Student performance drives teacher insight and action	If teachers have access to current, relevant and actionable assessment data for their students, and if they have the time and skills (or tools) to analyze it, they will adjust subsequent instruction to better meet student needs; if instruction is more closely tailored to the skills and abilities that individual students display, they will learn more. (Differentiated instruction).
Student and teacher performance drives administrator insight and action	If administrators have access to fresh, regular performance data—like a CEO with a monthly profit-and-loss Statement, then they will be able to direct resources to where they are most needed: providing intervention where it is needed; moving the strongest teachers to work with the weakest students; identifying who would benefit from more investment in professional development; noting what is working and what is not, and so directing staff to do more of the one and less of the other.
Student performance drives parent insight and action.	If parents have full visibility of their child's performance, and if they have the skill and will to do so, they will act to reinforce strengths and help address weaknesses: improving motivation by providing incentives and concretizing consequences; increasing study time; providing or arranging for extra support such as tutoring; and collaborating with teachers to understand academic issues.
Students' performance drives their own insight and action.	If students have access to their own performance data, they will be able to set goals for themselves, track their progress, compare themselves to peers, and decide for themselves when to redouble their efforts and when to adjust their goals.

Exhibit VI.C(3)-4
Teach For America's Online Portals

As part of Colorado's partnership with Teach For America (TFA) outlined in Assurance Area D, TFA will be providing their suite of online tools to Colorado on an open source basis for modification and integration in the SchoolView platform. Below the State has attached descriptions and screenshots of the TFA tools.

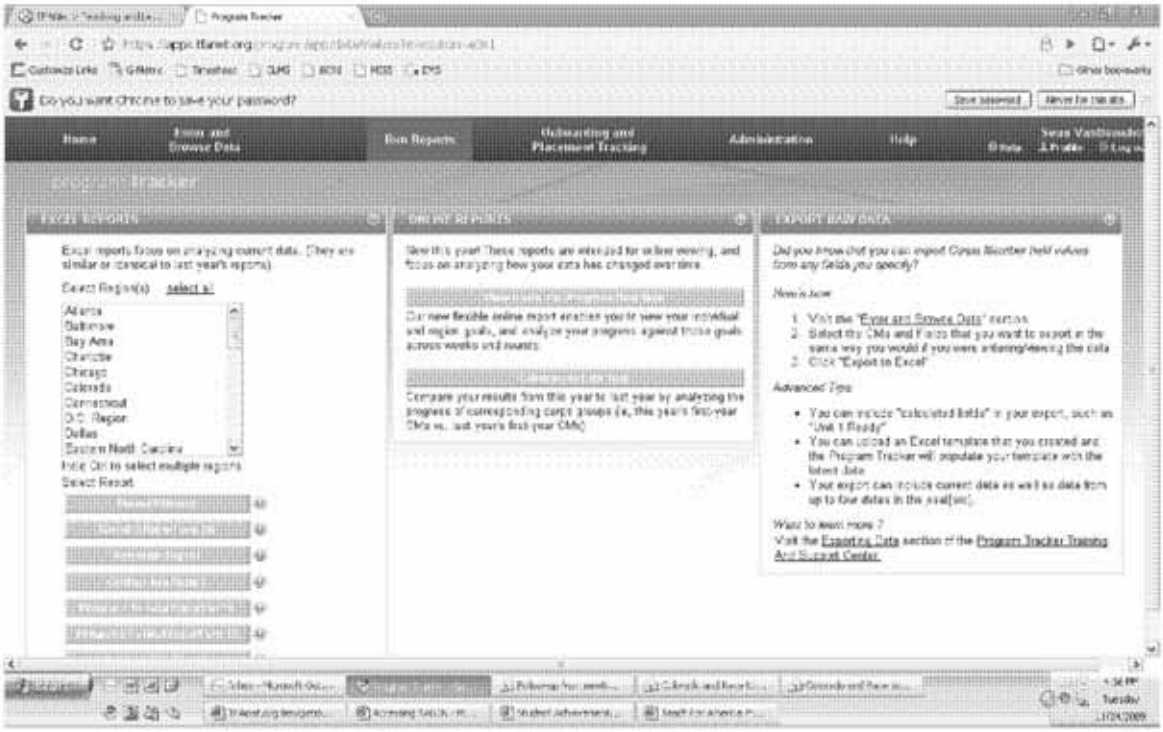
Teach For America Program Tracker
This tool is used by Teach For America staff to track teacher progress to goal on student effectiveness, teacher retention, and Teach For America Staff progress to goal.

Login here:

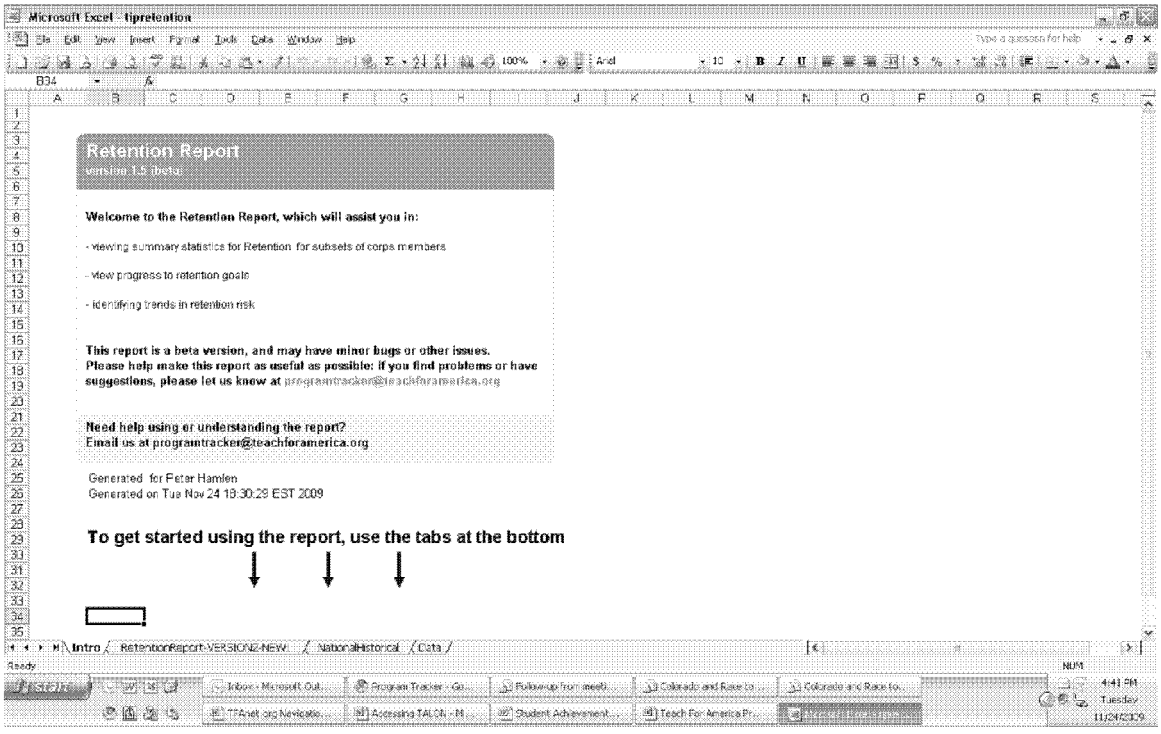


Choose Run Reports:

Select the Colorado Region and the report you would like to run, such as Progress to Goal Report w/TS



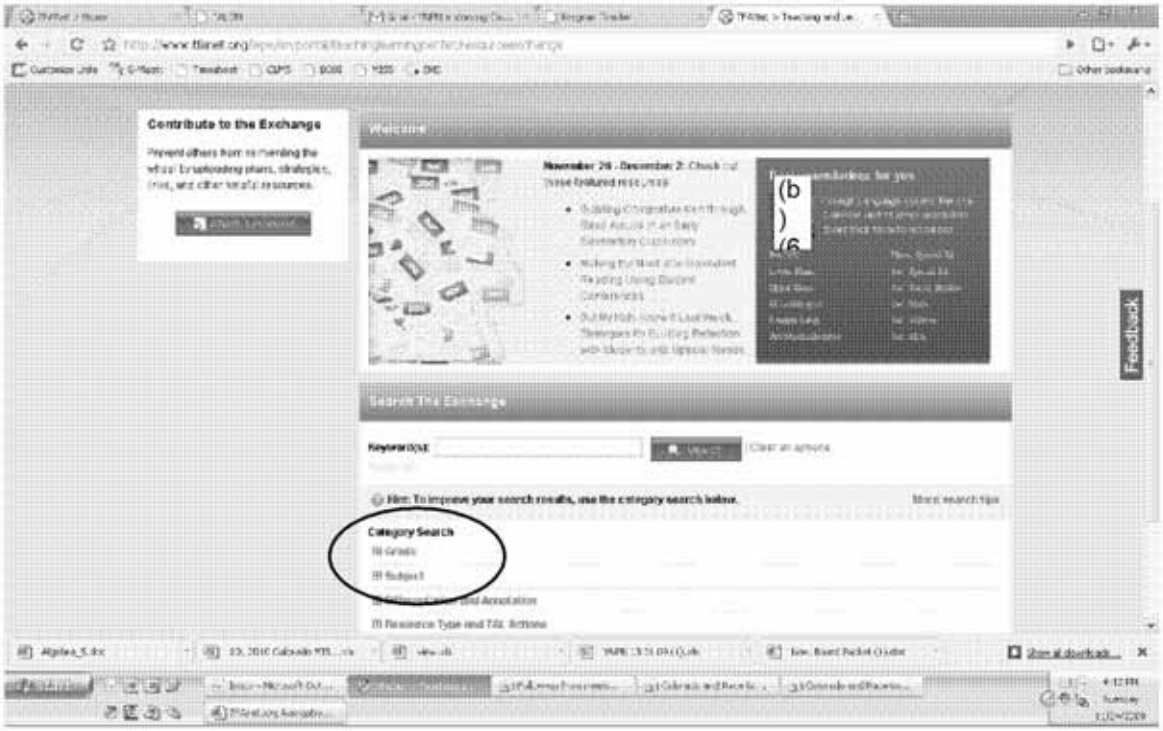
A report will generate in excel and open:



TFAnet.org - http://www.tfanet.org/

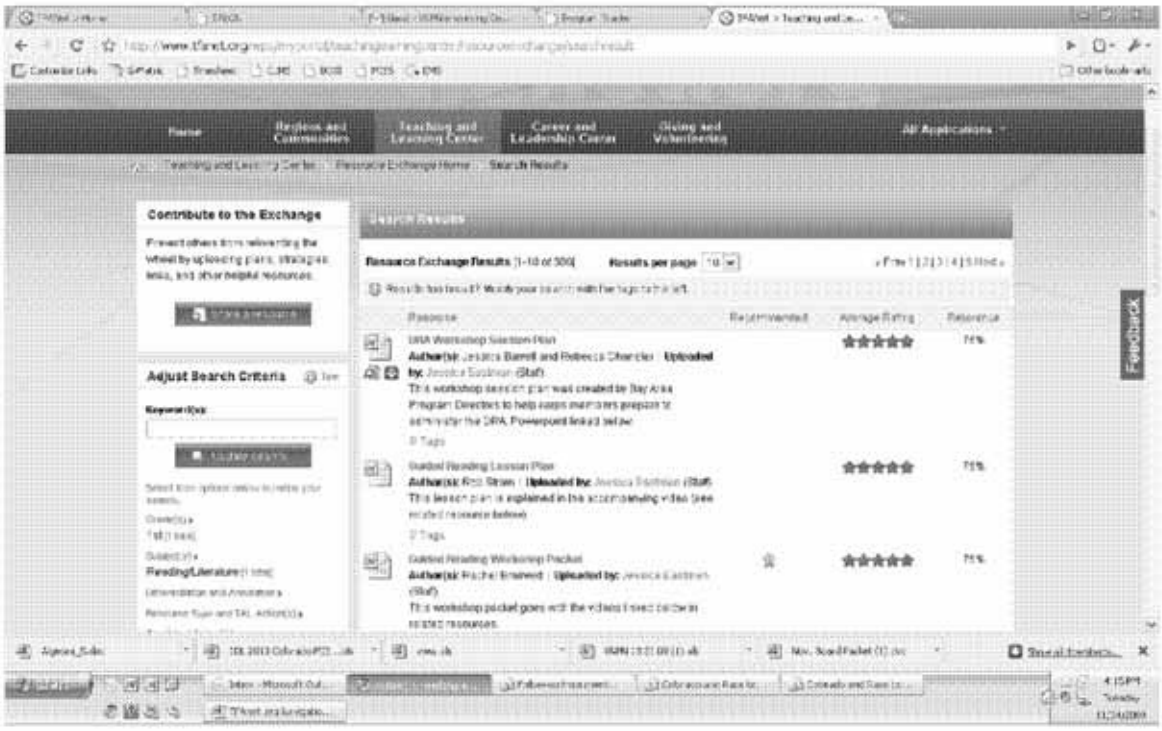
TFAnet.org is a platform that where teachers can access lesson plans that address specific content areas based on grade and subject.

Search by Grade, Subject and other criteria:



1st Grade, Reading/Literature as an example. Then choose SEARCH:

Access instructional assistance in "How should I present content?" and visual examples in "What does this look like?"



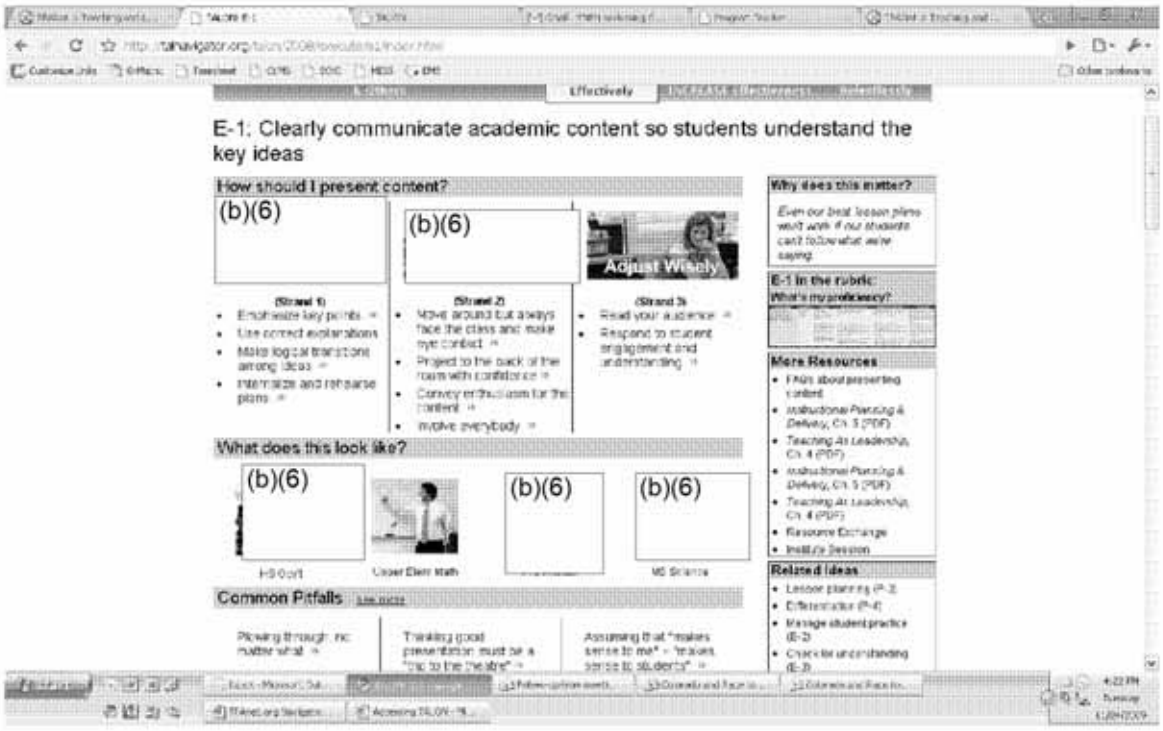


Exhibit VI.D(1)-1
Implementation Timeline for Selection Criterion (D)(1)- Providing Effective Support to Teachers and Principals

Rationale for Activity	*Responsible Party*	SY 2010-2011 Sept-Nov	Dec-Feb	March-May	June-Aug	SY 2011-2012 Sept-Nov	Dec-Feb	March-May	June-Aug	SY 2012-2013 Sept-Nov	Dec-Feb	March-May	June-Aug	SY 2013-2014 Sept-Nov	Dec-Feb	March-May	June-Aug	SY 2014-15 Sept-Nov	Dec-Feb	March-May	June-Aug
LEAs provide data-driven, effective support to teachers and principals																					
Annual teacher and principal evaluations include individual professional development plans	*LEA*	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
Colorado's Advanced Placement Initiative provides job-embedded coaching and training to math, science, and English teachers	*CDE*	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
COSMIA provides residencies for STEM teachers	*CDE*	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
Turnaround Leaders Academy provides intensive training and development to future turnaround leaders	*CDE*					■	■	■	■	■	■	■	■								
Educator Impact Reports provide teachers and principals with data on the growth of their students	*CDE*					■	■	■	■	■	■	■	■	■	■	■	■				
The CCEE and School Leadership Academy identify evidence-based best practices for teachers and principals	*CDE and CCEE*	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
LEAs continuously monitor, evaluate, and improve the effectiveness of their teacher and principal supports																					
With technical assistance from the CDE as needed, LEAs analyze evaluation and student growth data to assess the effectiveness of particular supports and redirect funds accordingly	*LEA*	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
The CCEE develops the Colorado Educator Growth Model to assess how well LEAs and schools improve their educators' effectiveness	*CCEE*						■	■													
LEAs use the Colorado Educator Growth Model to inform improvements and adjustments in educator supports	*LEA*							■	■	■	■	■	■	■	■	■	■				
The TELL survey provides LEAs with data on how well supported teachers and principals feel	*CDE and LEA*			■								■									
Dissemination of Demonstrated Best Practices																					
The CDE awards substantial incentives to the most effective teachers in the State for serving as	Teachers who produce the most significant student gains and thus have transformative impacts on children's lives are rewarded for opening their classrooms and their lesson plans to their peers.												■	■	■	■	■				

models and content developers for their peers							
Using analysis from the CCEE, the CDE identifies the most highly effective teachers in the State and invites them to apply to be part of a cadre of elite teachers.	*CDE*						
Using a competitive selection process, the CDE selects 40 applicants to join the Colorado Teacher Leaders initiative annually and awards them each $10,000 with matching $10,000 grants for their schools.	*CDE*						
As coordinated by the CDE Office of Educator Effectiveness Initiatives, the selected teachers develop in-depth instructional materials for posting onto SchoolView and open their classrooms as model laboratories for their peers in their district and Statewide to visit.	*CDE*						
Educators upload instructional materials and professional development resources onto SchoolView for their peers, with financial incentives for the most highly rated materials	SchoolView provides an open market for educators to share best practices in which their peers determine the most valuable resources.						
A portal is launched in SchoolView that allows educators to upload instructional materials and professional development resources for their peers, including the ability for users to rate the quality of the resources that they review and download.	*CDE*						
The educators whose materials are highest rated receive incentives of $1,000 each.	*CDE*						
Key Deadlines and Dates							
1 Distribution of the biannual TELL survey							
2 Implementation of the Colorado Educator Growth Model							
3 CDE selects 40 elite teachers to serve as models and content developers for their peers							
4 Educators upload instructional materials onto SchoolView and are eligible for $1,000 awards for the most highly rated material							

Exhibit VI.D(1)ii-1
Designated Agencies for Alternative Teacher and Principal Preparation Programs

CDE Designated Agencies, Alternative Teacher and Principal Preparation Programsm, 2010

Designated Agencies

Alternative teacher and principal preparation programs are approved by the Colorado Board of Education. These programs are offered by authorized Designated Agencies. A Designated Agency means a school district or districts, an accredited independent nonpublic school, or a Board of Cooperative Services, an accepted institution of higher education, or a nonprofit organization, or any combination thereof, which is responsible for the organization, management, and operation of an approved alternative teacher program. For Alternative Principal Preparation Programs school districts design and implement individualized alternative principal programs. The school district may work with a governmental, nonprofit, or for-profit entity in designing and implementing the individualized alternative principal program. In 2009, Senate Bill 09-160 streamlined and aligned programs previously referred to as 1-year and Teacher in Residence Programs (TIR). Alternative Teacher Preparation Programs are referred to as 1-Year and 2-year programs. .

Designated Agencies: 1-Year Alternative Teacher Preparation Programs

Programs offer preparation for licensure in Elementary, Secondary and K-12 endorsement areas (check with Designated Agency for specific programs and endorsements. In addition, the following Designated Agencies are approved to offer preparation for:
Special Education Generalist (SPED):

- Colorado Christian University
- Teacher Institute at La Academia
- Western State College—Teach Now

Linguistically Diverse Educator:

- Western State College—Teach Now

Agency
Archdiocese of Denver
Boulder Journey School
Centennial Board of Cooperative Educational Services
Cherry Creek School District
Colorado Academy
Colorado Christian University
Denver Academy
Eagle Rock School of Professional Development Ctr.
East Central Board of Cooperative Educational Services
Englewood Schools
Friends' School
Mapleton Public Schools:
Boettcher Teachers Program
Metropolitan State College of Denver
Mountain Board of Cooperative Educational Services
Naropa University
Northeast Colorado Board of Cooperative Educational Services
Northwest Board of Cooperative Educational Services
Peak To Peak Charter School
San Luis Valley BOCES
South Central BOCES
Southeastern CO BOCES
Stanley British Primary School
Teacher Institute at La Academia
Teach For America

UCCS
Weld County RE-3 (J) School District
West Central Licensing Program
Western State College—Teach Now

Designated Agencies Approved To Offer The Special Education: Generalist Program:
Colorado Christian University, Teacher Institute at La Academia, Western State College—Teach Now
Designated Agencies Approved To Offer The Linguistically Diverse Education Program:
Western State College—Teach Now
Designated Agencies whose programs can lead to Master's degree
The Archdiocese of Denver, Boulder Journey School, Centennial BOCES, Colorado Christian University, Friends' School, Mapleton Public Schools: Boettcher Teacher's Program, Naropa University, Northeast BOCES, Northwest BOCES, South Central BOCES, Stanley British Primary School, Teacher Institute at La Academia and the University of Colorado at Colorado Springs

Designated Agencies: 2-Year Alternative Teacher Preparation Programs

Programs offer preparation for licensure in Elementary, Secondary and K-12 endorsement areas (check with Designated Agency for specific programs and endorsements).
In addition, the following Designated Agencies are approved to offer preparation for:
Special Education Generalist (SPED):

- Metropolitan State College of Denver
- Pikes Peak BOCES

Linguistically Diverse Educator:

- Colorado State University-Pueblo

Agency
Adams 12 Five Star Schools
Adams County School #50
Adams-Arapahoe 28J (Aurora Public Schools)
Brighton 27-J
Clear Creek School District RE-1
Denver District 1
Douglas County School
District RE-1
Littleton Public Schools
Pikes Peak Board of Cooperative Educational Services
Pueblo School District No. 60
Pueblo School District No. 70
Sheridan School District 2
Metropolitan State College of Denver

Designated Agencies:

Agency
Archdiocese of Denver
Office of Catholic Schools
Centennial BOCES
East Central BOCES
MHM Educational Services, LLC
Mountain BOCES
Northeast BOCES
Northwest BOCES
Southeast BOCES
Western State College

Exhibit VI.D(1)ii-2
Alternative Certification Program Completers, 2007-2008

DESIGNATED AGENCIES	WHICH PROGRAM OFFERED	TYPE AGENCY SET UP	TIR CANDIDATES SECOND YEAR	ALT CANDIDATES
Adams 12 Five Star Schools	TIR	School District	5	0
Adams School District 50	TIR	School District	0	0
Adams-Arapahoe (Aurora 28J)	TIR	School District	11	0
Archdiocese of Denver	ALT	Private Organization	0	21
Boulder Journey School	ALT	Private School	0	7
Brighton 27-J	TIR	School District	9	0
Centennial BOCES	ALT	BOCES	0	46
Cherry Creek School District	ALT	School District	0	1
Clear Creek District RE-1	TIR	School District	0	0
Colorado Academy	ALT	Private School	0	2
Colorado Christian University	ALT	Inst. of Higher Ed.	0	37
Denver Academy	ALT	Private School	0	0
Denver Arts and Technology Academy	ALT	Charter School	0	6
Denver Public Schools	TIR	School District	32	0
Douglas County	ALT/TIR	School District	4	4
Eaglerock School of Prof Development	ALT	Private School	0	2
East Central BOCES	ALT	BOCES	0	19
Englewood Schools	ALT	School District	0	3
Friends' School	ALT	Private School	0	27
Jefferson County R-1	TIR	School District	3	0
Littleton Public Schools	TIR	School District	4	0
Mapleton/Boettcher Teacher's Program	ALT	Co-operative	0	20
Metro State College	ALT	Inst. Of Higher Ed.	0	10
Mountain BOCES	ALT	BOCES	0	18
Naropa University	ALT	Inst. Of Higher Ed.	0	2
Northeast BOCES	ALT	BOCES	0	8
Northwest BOCES	ALT	BOCES	0	10
Peak To Peak Charter School	ALT	Charter School	0	0
Pikes Peak BOCES	TIR	BOCES	47	0
Pueblo District 60	TIR	School District	4	0
Pueblo District 70	TIR	School District	7	0
San Luis Valley BOCES	ALT	BOCES	0	9
Sheridan School District	TIR	School District	1	0
South Central BOCES	ALT	BOCES	0	9
Southeastern BOCES	ALT	BOCES	0	6

DESIGNATED AGENCIES	WHICH PROGRAM OFFERED	TYPE AGENCY SET UP	TIR CANDIDATES SECOND YEAR	ALT CANDIDATES
Stanley British Primary School	ALT	Private School	0	31
Teacher Institute at La Academia	ALT	Private Organization	0	62
Teach For America	ALT	Non-Profit	0	16
Univ. of Colo., at Colo. Springs	ALT	Inst. Of Higher Ed.	0	9
Weld County RE-3	ALT	School District	0	0
West Central Licensing Program	ALT	BOCES	0	4
Western State College	ALT	Inst. Of Higher Ed.	0	47
TOTAL BY PROGRAM			**161**	**436**
GRAND TOTAL				**597**

PRINCIPAL DESIGNATED AGENCIES	TYPE AGENCY SET UP	PRINCIPAL CANDIDATES
Alternative Principal-La Academia	Private Organization	
Alternative Principal-Archdiocese	Private Organization	
Alternative Principal-School Leaders	Co-operative	4
Alternative Principal-Western State	Inst. Of Higher Ed.	1
Alternative Principal-Mtn. BOCES	BOCES	2
Alternative Principal-Cent. BOCES	BOCES	
Alternative Principal-E Central BOCES	BOCES	1
Alternative Principal-NE BOCES	BOCES	1
Alternative Principal-NW BOCES	BOCES	
Alternative Principal-SE BOCES	BOCES	
PRINCIPAL CANDIDATE TOTAL		**9**

Glossary of acronyms

ALT	One Year Alternative Teacher Licensing Program
BOCES	Board of Cooperative Educational Services, a group of school districts in a regionally connected area that share services.
Designated Agency	A singular entity or group of entities that form a partnership offering an Alternative Teacher or Principal Preparation Program. Entities may include a private school, a charter school, a non-profit organization, a school district, a BOCES, institutions of higher education, governmental agency or for profit corporation, or a combination of the above.
IHE	Institution of Higher Education
TIR	Two Year Teacher in Residence Program, now combined under Alternative Program

Numbers and Letters following the names of specific school districts indicate past reorganizations or geographic boundaries.

Exhibit VI.D(2)-1
Summary of Colorado Law Related to Teacher Quality and Effectiveness

This summary provides a brief overview of provisions in the Colorado Revised Statutes and some portions of the federal Elementary and Secondary Education Act (commonly referred to as No Child Left Behind or NCLB) that directly apply to issues of "quality," evaluation, certification, retention, promotion and dismissal. It is not intended to be an exhaustive review nor does it include information about local practices.

Teacher Quality:

NCLB Definition of Highly Qualified Teacher:

- Highly Qualified Teachers: To be deemed highly qualified, teachers must have: 1) a bachelor's degree, 2) full State certification or licensure, and 3) prove that they know each subject they teach.
- State Requirements: *NCLB* requires States to 1) measure the extent to which all students have highly qualified teachers, particularly minority and disadvantaged students, 2) adopt goals and plans to ensure all teachers are highly qualified and, 3) publicly report plans and progress in meeting teacher quality goals.
- Demonstration of Competency: Teachers (in middle and high school) must prove that they know the subject they teach with: 1) a major in the subject they teach, 2) credits equivalent to a major in the subject, 3) passage of a State-developed test, 4) HOUSSE (for current teachers only, see below), 5) an advanced certification from the State, or 6) a graduate degree.
- High, Objective, Uniform State Standard of Evaluation (HOUSSE): *NCLB* allows States to develop an additional way for current teachers to demonstrate subject-matter competency and meet highly qualified teacher requirements. Proof may consist of a combination of teaching experience, professional development, and knowledge in the subject garnered over time in the profession.

Licensure:

- Alternative teacher license (*22-60.5-201(a)*)
    - Candidates must hold a Bachelors Degree from a fully accredited Institution of Higher Education (IHE) and agree to participate fully in a one- or two-year alternative teacher program provided by a designated agency
        - A designated agency may be a nonprofit organization, a public, charter, or private school, a BOCES, and/or an IHE
    - Pre-SB 160 requirements for all Alternative Teacher Programs (*22-60.5-205)*
        - Candidates are full-time teachers during program
        - Supervision by support team including a mentor teacher, a principal, and a representative of IHE (if applicable)
        - Performance evaluations
        - Minimum of 225 clock hours of planned instruction and activities, including training in dropout prevention (unless modified by support team based on candidate experience and knowledge)
        - After successful completion of the program, the alternative teacher receives an initial teacher license
        - On-site program evaluation every 5 years by CDE
    - SB 09-160 made the following additions to *C.R.S. 22-60.5 Part 2*
        - Expands definition of any agency eligible to organize, manage, or operate an approved alternative teacher program to include non-profits.
        - Renames "Teacher in Residence Program" to "2-year Alternative Teacher Program." Also renames current alternative teacher program to "one-year Alternative Teacher Program."
        - Requires all alternative teacher programs to meet the Colorado Performance-Based Standards for Teachers.

        - Mandates a 5-year on-site evaluation by the Department of Education of all alternative teacher programs.
        - Mandates State Board of Education to establish minimum credit hour and common content standards for approved preparation programs and provides that candidates may show content knowledge through a major, course taking, or passing a content test.
    - For a detailed list of one-year alternative teacher programs go to: http://www.cde.State.co.us/cdeprof/download/pdf/ALTdesignatedagencies.pdf
    - For a detailed list of two-year alternative teacher programs go to: http://www.cde.State.co.us/cdeprof/download/pdf/TIRdesignatedagencies.pdf

- Initial teacher license – *22-60.5-201(b)* – (Note: Sections (5) and (6) added to *22-60.5*-203 by SB 09-160, signed 05/05/2009)
    - Completed an approved teacher prep program OR a one- or two-year alternative teacher program.
        - Teacher prep programs and alternative teacher programs are reviewed by the Department of Education and the Department of Higher Education on a 5-year basis.
    - Common credit hour requirements for all approved teacher preparation programs – *22-60.5-203(5)*
    - Minimum competency in licensure endorsement area. Minimum coursework standards include:
        - Elementary + Special Education Generalist Teachers: Pass Elementary Content Test
        - Secondary: Degree in endorsement area, passage of content test or 24 hours of coursework in endorsement area – *22-60.5-203(6)*
    - The Department of Education may, at its discretion, issue an initial teachers license to any applicant from another State if:
        - The applicant holds a teachers license from that State that is comparable to a teacher's license in this State and the standards for issuance of that license or certificate meets or exceeds Colorado's standards.
        - The applicant has had at least 3 years of continuous, successful, and evaluated experiences as a teacher in an established elementary or secondary school and can provide documentation of that experience on the forms provided by the Department.

- Professional Teacher License – *22-60.5-201(c)*
    - Valid initial teacher license
    - Completion of induction program as described in – *22-60.5-204*

- Initial Principal Licenses – *22-60.5-301*
    - Holds a Bachelors Degree from an accepted IHE
    - Completed approved principal prep program or an individualized alternative principal program (pursuant to *22-60.5-11(14)*)
    - 3+ years working with students as a licensed or certified professional in a public or nonpublic school in CO or elsewhere
    - Demonstrated competency in:
        - Leadership, ability to respond to needs of students and parents from culturally diverse backgrounds, instruction (curriculum, design, assessment), problem-solving and decision-making, management (planning, organization, administration), personnel administration (staff development, evaluation), child growth and development, and knowledge and application of standards-based education pursuant to CO Law. – *22-60.5-303*

- Professional Principal License – *22-60.5-301*
    - Master's Degree

- Initial principal license
- Completed induction program as described in – *22-60.5-305.5*

- A principal who holds an initial or professional principal license does not need an initial or professional teacher's license to be allowed to teach on occasion. – *22-60.5-305*

- Initial Administrator License – *22-60.5-306*
  - Bachelors Degree from approved IHE
  - Completed approved administrators preparation program
  - Demonstrated professional competencies in:
    - Basic management, leadership, decision-making and problem-solving, ability to respond to needs of students and parents from culturally diverse backgrounds, personnel administration, resource utilization, child growth and development, and knowledge and application of standards-based education pursuant to CO Law. – *22-60.5-308*

- Professional Administrator License – *22-60.5-306*
  - Master's Degree
  - Initial administrators license
  - Completed induction program as described in – *22-60.5-309*
- An administrator who holds an initial or professional administrator's license does not need an initial or professional teacher's license to be allowed to teach on occasion. – *22-60.5-309.5*

- Revocation of License – *22-60.5-107(2.5)*
  - A license, certificate, endorsement or authorization MAY be denied, annulled, suspended, or revoked if the holder is has one of the following offenses:
    - Misdemeanor sexual assault as described in *C.R.S. 18-3-402*
    - Misdemeanor unlawful sexual conduct as described in *C.R.S. 18-3-404*
    - Misdemeanor sexual assault on a client by a psychotherapist as described in *C.R.S. 18-3-405.5*
    - Misdemeanor child abuse as described in *C.R.S. 18-6-401*
    - Misdemeanor, the underlying factual basis of which has been found by a court to involve domestic violence as defined by *C.R.S. 18-6-300.3(1)* and the conviction is a second or subsequent conviction for the same offense
    - Contributing to the delinquency of a minor as described in *C.R.S. 18-6-701*
    - A misdemeanor committed under the law of the United States, another State, a municipality of another State, or any territory subject to US law, the elements of which are substantially similar to sexual exploitation of children as described in *C.R.S 18-6-403(3)(b.5)*
    - A crime under the law of the United States, another State, a municipality of another State, or any territory subject to US law, the elements of which are substantially similar to the offenses detailed above
    - A guilty plea or a plea or nolo contendere to a misdemeanor violation in this State or any other State, any municipality of this or any other State, or the United States, involving the illegal sale of controlled substances as described in *C.R.S. 12-22-303(7)*
  - A license, certificate, endorsement or authorization SHALL be denied, annulled, suspended, or revoked if the holder is has one of the following offenses:
    - Convicted of felony child abuse as described in *C.R.S. 18-1.3-406*
    - Convicted of crime of violence as described in *C.R.S. 18-1.3-406*
    - Received a disposition of, an adjudication for, or convicted of a felony offense involving unlawful sexual behavior as described in *C.R.S. 16-22-102(9)*

        - A felony in which the underlying factual basis has been found by the court to include an act of domestic violence as described in *C.R.S. 18-6-800.3*
        - A felony offense in another State, the United States, or territory, the elements of which are substantially similar to one of the above offenses
        - Indecent Exposure as described in *C.R.S. 18-7-302*
        - When the applicant fails to submit fingerprints on a timely basis after receipt of a written request from the Department pursuant to *C.R.S. 22-60.5-103(6)(a)*
    - A license, certificate, endorsement or authorization will be denied, annulled, suspended, or revoked through the process described in *C.R.S. 24-4-102 through C.R.S. 24-4-107*

National Board Certification:

- For 2009-10, 2010-11, and 2011-12 school years, teachers with a National Board for Professional Teaching Standards Certification receive an annual stipend of $1,600 in addition to normal salary but still subject to retirement and Medicare contributions – *C.R.S. 22-2-504*
    - No mandated State allocation – Subject to available appropriations as amended by SB 09-214

Professional Development/further education

- Teachers requesting renewal of professional license must have completed six semester hours (90 clock hours) of professional development related to competence in current or potential content area and teaching literacy or numeracy during the five-year licensing period – *C.R.S. 22-60.5-110* and *C.C.R. 301-37 2260.5-R-12.02(1)*

- Teacher Professional Development Grant Program. – *C.R.S. 22-7-7*
    - Two-year grants to school districts with the purpose of providing money for schools for use in providing a teacher development schedule with only research-based activities that have been proven effective in improving teachers' skills, especially in teaching reading, writing, math, and science.
    - Program hasn't been funded/used since 2003 although it is still part of Statute 22

- Principal Development Scholarship – *C.R.S. 22-9.5-1*
    - Provides stipends to applicant principals seeking professional development programs
    - No 2009 general fund appropriations

Teacher Effectiveness:

Evaluation

- Licensed Personnel Evaluations
    - District-level evaluations (created and controlled by Districts)
    - Evaluation Requirements – *C.R.S. 22-9-106(1)*
        - Title or position of the evaluator
        - All licensed personnel, all part-time teachers, all administrators, and all principals shall be evaluated
        - Frequency requirements for evaluations – *22-9-106(1)(c)*
            - Probationary Teachers: Annually have two documented observations and one evaluation resulting in a written evaluation report
            - Non-probationary Teachers: At least one observation annually, and one evaluation that results in a written evaluation report every three academic years
            - Principals 1-3 years: one evaluation that results in a written evaluation report annually
            - Principals 4+ years: at least one evaluation that results in a written evaluation report every three academic years

- Purposes of the evaluation – *C.R.S. 22-9-106(1)(d)*
  - Provide a basis for the improvement of instruction
  - Enhancing the implementation of programs and curriculum
  - Providing the measurement of satisfactory performance for individual licensed personnel and serving as documentation for an unsatisfactory performance dismissal proceeding
  - Serving as a measurement of the professional growth and development of an individual
  - Measuring the level of performance of all licensed personnel within the district or BOCE
- Requirements for evaluation – 22-9-106(1)(e), *22-9-106(3), 22-9-106(3.2), and 22-9-106(3.3)*
  - One of the standards for measuring teacher performance shall be directly related to classroom instruction and shall include multiple measures of student performance.
  - Be in writing, written improvement plan with specific improvements and recommended additional education and training during license renewal process, specific strengths and weaknesses in performance, when direct observation was made, data sources, discussed and signed by evaluator and person being evaluated, and reviewed and signed by a supervisor of the evaluator
  - May include any peer, parent, or student input from standardized surveys
  - Principal evaluation will include input (defined by the districts) from teachers in their school as well as input from students and parents of school
  - Each principal and administrator who evaluates licensed personnel must keep records and documentation of each evaluation conduced. They will also be evaluated on how well they carry out their evaluation duties.

Equitable Distribution:

Salary/Compensation

- Salary Schedule/Policy for all teachers in a district – *C.R.S 22-63-401*
  - There are three options for districts: A salary schedule by job description and job definition, a teacher salary policy based on performance demonstrated by the teacher, or a combination of the salary schedule and salary policy for teachers. This must be done prior to or in conjunction with the adoption of the budget for the following calendar year.
  - The Board may not change the schedule or policy within the contract year so as to reduce the salary of any teacher. Pay may be modified for succeeding years, but no classroom teacher's salary may be reduced unless the new schedule or policy provides for a general reduction in salaries of all teachers.
  - School districts MAY develop a salary policy that ties teacher compensation directly to the achievement growth of a teacher's students. Districts may also grant teachers bonuses based on their performance. School boards may not lower an individual teacher's salary, however, for not meeting performance goals.
  - *C.R.S. 22-63-401(2)* States that teachers who have more education and/or experience will be paid more than teachers with less experience and education

- Alternative teacher compensation plan grant program – *C.R.S. 22-69*
  - Provides funding to school districts to support the design and implementation of an alternative teacher compensation plan tailored to that particular district.
  - Three requirements
    - Plan must be designed and developed collaboratively with teachers (through school district-adopted procedures for setting compensation), administrators, parents, and the school district board of education.
    - Final plan must be open to all teachers who meet the established performance criteria without regard to grade level, subject area, or assignment

        - The school district seeks a stable, sufficient, and sustainable source of new revenue to fund the alternative compensation plan on an ongoing basis.
    - Amended in 2009 to change $1,000,000 State funding from mandatory to optional

- Loan forgiveness Program – *C.R.S. 23-3.9-1*
    - Provides a teacher who (1) initially applied to the program and (2) teaches in a high-poverty elementary school in a rural school district (a school district that does not include within its geographic boundaries a municipality exceeding 5000 persons and that is characterized by sparse, widespread populations) will receive $4,000 for the first two years and up to $1,000 for each year thereafter in education loan forgiveness.
    - Program continues until 2013. No general fund appropriations in 2009

- Colorado Teacher of the Year – *C.R.S. 22-61.5* (Note: Section 61.5 added to Title 22 by HB 09-1240, signed 05/05/2009)
    - Rules for the Teacher of the Year program are to be set by SBE
        - Possible rewards, gifts, or opportunities may include: Sabbatical from teaching (State gives funding to district to pay for substitute teacher), a cash gift, travel and lodging expenses, a computer, supplies and equipment for teacher's classroom or school, and the opportunity to receive additional training or education
    - No General Assembly funding, funded entirely by CDE raising grants, gifts, and donations

- Transfers
    - Allows for teacher exchange program in an effort to achieve the goal of equal educational opportunity within CO. Teachers who participate in this program will be paid their same salary and are still subject to the provisions and benefits of retirement, insurance, and workers' compensation as if performing services within their district of origin – *C.R.S. 22-63-205*
    - Allows, at the recommendation of the district's Chief Administrative Officer , for transfer of teachers to different schools, positions, or grade levels within the district so long as they are qualified and salary does not decrease – *C.R.S. 22-63-206*
    - Teachers holding administrative positions may be transferred to another position so long as they are qualified and will be paid accordingly, without salary deduction. If there is an adopted salary schedule, the school board may consider the years of accumulated service while in the previous position to determine the teacher's place on the schedule – *C.R.S. 22-63-206(2)*
- For 2009-10, 2010-11, and 2011-12 school years, teachers with a National Board for Professional Teaching Standards Certification who is employed as of May 1 in a given school year in a school that received a "low" or "unsatisfactory" rating in the previous year's school accountability report will receive an annual stipend of $3,200, in addition to the $1,600 stipend for National Board for Professional Teaching Standards Certification (above in Teacher Quality Section), in each year that they remain employed at the school AND the school scores a higher rating in a subsequent school accountability report – *C.R.S. 22-2-504*
    - No mandated State allocation – Subject to available appropriations as amended by SB 09-214

Recruiting

- Teach Colorado Scholarship Program – *C.R.S. 23-3.3-9* ('09 Appropriation: $500,000)
    - Grants given to IHE's from the CDHE for the purpose of providing scholarships to high-ability students seeking a baccalaureate degree who have demonstrated commitment to the teaching profession, and attracting high-ability students in high-need content areas to the teaching profession.
    - Scholarships not to exceed one year of in-State tuition for thirty semester hours of credit

- School Leadership Academy Program – *C.R.S. 23-3.9-1* ('09 Appropriation: $75,000)
    - Provides a comprehensive leadership and professional development system that identifies, recruits, trains, and inducts qualified persons for leadership positions in public schools.
    - Creates a Principal Academy to provide training for practicing principals as well as entry-level training for those seeking an initial principal license.
    - CDE not allowed to initiate the program until at least $50,000 in gifts, grants, or donations for the program is committed in addition to the General Assembly appropriations

Data:

- On or before Aug 30,2011, two studies should be done regarding teacher stipends – *C.R.S.22-2-504* (as amended by SB 09-214, signed 03/18/2009)
    - The CO Department of Education needs to contract an outside source to study:
        1. The effect of National Board Certification on student achievement
        2. The effectiveness of stipends on encouraging teachers to obtain national board certification and encouraging teachers to teach in low-performing schools, the effect of national board certification on teacher retention, and effect of having national board certified teaches on culture of school.

- Educator Identifier Pilot System –*22-68.5* – (Note: Part 68.5 of Title 22 added by HB 09-1065, signed 05/21/2009)
    - Used to study the teacher gap and identifying possible solutions, study educator training and professional development programs, track educator mobility and retention issues, improve teacher and student learning through use of data to recognize, reward, and develop careers of individual educators, match educators to students through pairing with State's longitudinal data system, gather baseline data about distribution of HQT's take action to address inequalities in distribution of number and percent of educators in highest- and lowest-poverty areas, enhance instruction through technological resources including growth model data for their students, and gather information relating to teacher and principal performance rating through LEPs evaluations.

Other Policies:

Retirement

- *C.R.S. 22-64* details the Public Schools Teachers Retirement Fund. It provides for the possibility and rules for school districts creating their own Retirement and Benefits system. As of today, with the merger of Denver Public Schools, there are no districts that have an independent system. All education employees are part of the Public Employees Retirement Association (PERA) – SB 09-282 created merger, signed 05/20/2009

Dismissal

- Tenure: "Probationary" vs. "Non-Probationary" Teachers – *C.R.S. 22-63-203*
    - Tenure is not explicitly mentioned in Statute; instead the law makes a distinction between "probationary" and "non-probationary" teachers. A "probationary" teacher is a teacher in their first three years of teaching in any one district. A "probationary" teacher's contract is subject to annual renewal and may be not be renewed for "any reason he [a district's Chief Administrative Officer] deems sufficient" that then must be confirmed by the District's Board of Education. After four years of continuous service in the same district, a teacher becomes a "non-probationary" and afforded the judicial review process outlined below.

- Denial of Judicial Review – *C.R.S. 22-63-302(11):*
    - A teacher can be dismissed by the district board of education without the process of judicial review once the teacher is convicted, pleads nolo contendere, or receives a deferred sentence for any of the following:
        - A violation of any law of this State or any counterpart municipal law of the State involving unlawful behavior pursuant to:

- Unlawful sexual behavior – *C.R.S 18-3 Part 4*
- Enticement of a child - *C.R.S. 18-3-305*
- Wrongs to children – *C.R.S. 18-6 Part 4*
- Incest – *C.R.S. 18-6-301*
- Aggravated Incest – *C.R.S. 18-6-302*
- Contributing to the delinquency of a minor – *C.R.S. 18-6-701*
- Child Prostitution – *C.R.S. 18-7 Part 4*

▪ Any violation of any law of this State, any municipality of this State, or of the United States involving the illegal sale of controlled substances as defined in *C.R.S. 12-22-303(7)*

- Due Process Procedures for dismissal– *C.R.S. 22-63-302*:
  - The Chief Administrative Officer (CAO) recommends dismissal of a teacher based on one of the grounds in section *C.R.S. 22-63-301* to the District School Board.
  - Within 3 days after the Board meeting where dismissal is recommended, CAO must send a written notice of intent to dismiss as well as all reasons for recommendation, all pertinent documents relating to the circumstances surrounding charges, a copy of *C.R.S. 22-62-302*, and all exhibits intended to be submitted to support the case (including a list of witnesses with addresses and phone numbers)
  - If the teacher objects to the grounds for dismissal, they must notify CAO in writing within 5 working days of receipt of notice of dismissal. If no notice is filed within 5 working days, it is deemed as a waiver of a right to a hearing and the dismissal shall be final.
    - EXCEPTION: The Board may grant hearing if they find the teacher's reasons for failing to file a request for a hearing on time was due to "good cause." (Note: "Good cause" is used throughout the Statute and is not anywhere defined.)
  - Teacher who requests hearing will receive regular compensation from the time of the recommended dismissal by the CAO until the Board accepts or rejects the dismissal recommendation. This time is not to exceed 100 days, which begins once the CAO recommends dismissal to the District Board of Education.
    - EXCEPTION: Teacher will not receive regular compensation upon being charged criminally with an offense for which a license, certificate, endorsement, or authorization is required to be denied, annulled, suspended, or revoked due to conviction.
  - If a hearing is requested by the teacher, the teacher and CAO will collectively select an impartial hearing officer to oversee the hearing no more than five days following receipt of the teacher's written notice of objection.
    - If no agreement on a hearing officer can be made between the CAO and teacher, they should request an administrative law judge from the department of personnel to act as the hearing officer.
  - Hearing date should be set by the Hearing Officer within three days of selection. Hearing date must be within the following 30 days.
  - Within 10 days of selecting a Hearing Officer, the teacher must give the CAO a copy of all exhibits to be used at the hearing and a list of all witnesses including address and telephone numbers.
  - Within seven days of submittal of teacher's exhibits and witness list, both parties may supplement their exhibits and witness lists. Neither party is allowed to take dispositions of the other parties witnesses or submit interrogatories to the other party.
  - Both the teacher and the CAO are allowed one prehearing conference with the Hearing Officer in which their counsel is required to attend. One of the purposes of the prehearing conference is to limit, to the extent possible, the amount of evidence to be presented at the hearing.
  - Hearing must be public and must be audio-taped (the cost of transcribing the tape shall be split equally among the parties). Hearings must last no longer than six days unless extended by Hearing Officer on a showing of good cause.

- The Hearing Officer shall review the evidence and testimony from the hearing and shall make written findings of fact thereof.
- Within 20 days of the conclusion of the hearing, the Hearing Officer shall make one of two recommendations: The teacher should be dismissed or the teacher should be retained. The findings shall be forwarded to the teacher and the District Board of Education.
- Within 20 days of receipt of the Hearing Officer's recommendation, the Board shall review the recommendation and issue one of three possible decisions: 1) Teacher is dismissed, 2) Teacher is retained, or 3) Teacher is placed on one-year probation. If dismissal is chosen against the Hearing Officer's recommendation, the Board shall give its reasons, which must be supported by the Hearing Officer's findings of fact, in written form. The secretary of the board shall ensure a copy of the order is given immediately to the teacher and place a copy into the teacher's local file.
- Teacher may appeal the Board's decision to the court of appeals within 20 days of the decision to dismiss. In addition to affirming or overturning the Board's decision, the Court of Appeals may require the non-prevailing party to pay the prevailing party for attorney fees and costs incurred on appeal only if they determine the appeal or defense on appeal lacked substantial justification.
- The Teacher may appeal the decision to the Colorado Supreme Court. If the petition is denied, the dismissal is final. The Court may remand the case back to hearing to clear up any procedural error (in which case the dismissal procedure starts again)
- For an example of the judicial process timeline, please refer to: http://commongood.org/colorado-dismissal.hl

Exhibit VI.D(2)-2
Colorado State Board of Education Resolution in Support of Teacher Effectiveness

COLORADO STATE BOARD OF EDUCATION

201 East Colfax Avenue • Denver, Colorado 80203-1704
303.866.6817 • Fax: 303.866.6761 • www.cde.state.co.us

Bob Schaffer
Chairman
4th Congressional District

Randy DeHoff
Vice-Chairman
6th Congressional District

Elaine Gantz Berman
1st Congressional District

Jane Goff
7th Congressional District

Peggy Littleton
5th Congressional District

Marcia Neal
3rd Congressional District

Angelika Schroeder
2nd Congressional District

Resolution In Support of Educator Effectiveness

WHEREAS: Effective teachers and principals in every school are critical to improving student results and eliminating achievement gaps among groups of students statewide; and,

WHEREAS: The State Board of Education has a moral obligation to facilitate access to effective teachers and principals by all students statewide; and,

WHEREAS: Local school districts are in the best position to determine how to implement such access in a manner that is consistent with the local community context and,

WHEREAS: The State Board of Education has a significant interest in ensuring that educator evaluation systems throughout the state are of high-quality and serve to improve student outcomes, and so should provide guidance to districts on the characteristics of high-quality evaluation systems and is authorized to do so under the Licensed Personnel Performance Evaluation Act; and,

WHEREAS: Local school districts understand the needs of their educators and students, and should have the flexibility to decide the specific details of their evaluation systems within the requirements of the Licensed Personnel Performance Evaluation Act; now therefore

BE IT RESOLVED: The State Board of Education hereby encourages districts to adopt the following principles in designing and implementing high-quality local evaluation systems:

cde Improving Academic Achievement

1. The purpose of the education system is to improve student outcomes. Evaluation systems for people working in the education system must be designed with that purpose at the center.

2. Evaluation systems are critical tools for improving educator effectiveness. Evaluations that are fair, transparent, rigorous, and relevant should serve as a key basis for decision making around promotion, pay, professional development, assignments, advancement to non-probationary status, and dismissal.

3. To have the potential to be considered fair, transparent, rigorous, and relevant, an evaluation system should have the following features:

    a. The standards for evaluating performance are clear and relevant to the individual's roles and responsibilities and advance the system's goal of improving student outcomes; and
    b. Multiple valid and reliable measures are used to assess performance against the standards, and multiple objective measures of student growth serve as the predominant factor in assessing performance for those educators with direct responsibility for students; and
    c. Evaluations provide useful information about the performance of the individual to both the individual and the system through the use of multiple overall rating categories and personalized feedback on performance with respect to each standard used; and
    d. Evaluators are well-trained with respect to the standards, appropriate assessment methods, and resources available for improvement; and
    e. The standards used to evaluate performance are widely known, embedded in the culture, and consistently used

to provide frequent informal feedback designed to improve student outcomes; and

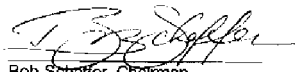
f. Sufficient and meaningful resources are available to assist educators seeking to improve their performance; and

g. The evaluation system is consistently monitored for its fairness, transparency, rigor, and relevance, and its design and implementation are adapted as needed.

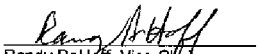
4. Evaluation systems that have the qualities described above should result in the following outcomes:

   a. Educators who are consistently high performers are recognized and rewarded, and have multiple opportunities to develop their leadership and share their knowledge and skills for the benefit of students in the school, district, and/or state; and
   b. Educators who are solid performers are recognized and rewarded, provided with multiple opportunities to share their knowledge and skills in their areas of strength, and provided with ongoing high-quality professional development targeted to areas in need of improvement as identified by evaluations; and
   c. Educators who are consistently poor performers despite opportunities to improve are removed from their positions in a process that is both quick and fair.

DATED THIS 10th DAY OF DECEMBER, 2009.

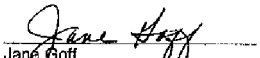


Bob Schaffer, Chairman
4th Congressional District

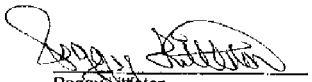


Randy DeHoff, Vice-Chairman
6th Congressional District

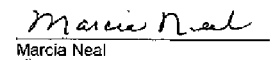
Elaine Gantz Berman
1st Congressional District



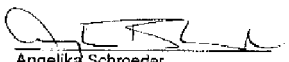
Jane Goff
7th Congressional District



Peggy Littleton
5th Congressional District



Marcia Neal
4th Congressional District



Angelika Schroeder
2nd Congressional District

Exhibit VI.D(2)-3
Education Identifier System Project Charter

Educator Identifier System

Project Charter©[i]

Prepared By:	Lisa Bradley
Version:	1.0
Date:	9/14/2009

Executive Summary

"Every child deserves a good, highly qualified teacher in every classroom and an inspired principal in every school" [1]. This Statement comes from Governor Bill Ritter's 2006 The Colorado Promise speech and is the key goal for this initiative. Ensuring that every classroom has an effective teacher is one of the best strategies that Colorado can employ to improve student achievement while closing the achievement gap.

Research shows that quality education increases correspondingly with the quality and experience of teachers and principals. There is a clear and present need to enhance Colorado's educational data systems to provide policymakers with the data required to address questions about quality teaching and learning.

Although Colorado has taken a major step toward improving data through the enacent of HB-07-1048, which concerns longitudinal analysis of student assessments, a comprehensive longitudinal system must also include the development of an educator identifier system, including a well-designed system for integrating the identifier into existing and emerging databases.

With the passage of HB-09-1065, the Colorado General Assembly affirmed the State's commitment to the Colorado Promise by directing the CDE(CDE), in collaboration with the Quality Teachers Commission, to develop an educator identifier system to collect and synthesize information needed to evaluate the effectiveness of teachers during the 2009-2010 academic year.

Implementing a Statewide educator identifier system will allow CDE to effectively evaluate teacher quality by linking student data to teachers and therefore allowing CDE, districts, and schools to study educator training programs and educator professional development programs, as well as improving teaching and student learning through the use of data to recognize, reward, and develop the careers of individual educators.

Funding for this project will support the development and implementation of a system that has the capacity to match educators to student data across time and across databases (i.e., are "interoperable"), promote the linking of data collected or held by various institutions and agencies while ensuring that the system complies with all State and federal privacy laws.

Project Definition

Vision

By the end of this project CDE will be closer to fulfilling the Colorado promise by improving student outcomes as a result of improving teacher effectiveness.

The Educator Identifier system will link student data to teachers for the purposes of improving teacher quality and effectiveness for the student as well as support continuous improvement of teaching and student learning.

Project Drivers

This project is large in scale, complexity and stakeholder involvement. Therefore, the following is a list of drivers for this project.

- SB-07-140, Quality Teachers Act
  - Colorado Senate Bill 07-140 established the Quality Teachers Commission, a committee appointed, in part, to assess the development and implementation of a unique education identifier system integrated with existing and emerging educational databases and to report to the House and Senate Education committees.
- HB-09-1065, Educator Identifier System
  - House Bill 09-1065 directs CDE to develop its educator identifier system in collaboration with the commission.
- Race to the Top
- Statewide Longitudinal Data Systems Grant Program

- American Recovery and Reinvestment Act

Objectives

By the end of this project CDE will have an educator identifier system in place that will:

- generate and assign unique identifiers to educators employed in a school district or local education agencies
- link educator identifiers to licensure-related data and other human resource information currently collected by CDE
- provide a tool that will:
    - allow users to evaluate and measure teacher effectiveness by examining and improving educator preparation programs, induction and professional development
    - enable users to recognize and reward individual teachers
    - allow the State, districts and schools to study educator mobility, recruitment and retention issues
    - identify highly effective teachers as well as address inequities in their distribution between high and low poverty schools as well as schools with high and low minority populations
    - enhance the ability to develop strategies for improving teaching and learning by linking student achievement data to the student's teacher(s)

Scope

The scope of this project is defined below in terms of what is in scope as well as what is out of scope for this project.

In Scope

Item Title	Item Description
Generation of identifiers	Building a solution that will generate the unique identifiers while allowing CDE staff to perform case management to troubleshoot and resolve issues relating to possible duplicate identifiers being assigned to an individual educator. System must be role based to allow for appropriate access to data for multiple entities (CDE, districts, researchers, etc.). System must also integrate with CDE Identity Management System.
Integration of identifiers	Integration of identifiers into existing CDE data systems, data collections, data warehouse, and the licensure system. The solution must be developed in manner that will allow districts to integrate this solution into their district relevant systems, and that supports the capability to integrate with other data systems outside of CDE, such as Department of Higher Education, must be included.
Linking identifiers to students	Linking educator identifiers with unique student identifiers into such systems as the Growth Model and other systems created as a result of this system, providing districts with reports based on their data, access to data that allow districts or other identified entities to perform analysis, and providing technical support and assistance to ensure that data is interpreted and applied appropriately.

Out of Scope

Item Title	Item Description
Data requests	CDE will not be doing this as part of the project but rather developing a tool that will enable users access data.
Data analysis	CDE will not be doing this as part of the project but rather developing a tool that will enable users to do this.

Deliverables

Below is a list of the key deliverables identified at the time of this document for this project.

Deliverable	Description
Project charter	This document will formally authorize the project as well as identifies all the team members.
Feasibility Study	This document will identify the current environment of the Record Integration Tracking System and whether scaling that system up to accommodate educator identifiers or creating a separate system is the most appropriate recommendation.
Requirements Document	This document will capture all business and functional requirements through the development of use cases that will be used for developing an Educator Identifier System.
Traceability Matrix	This document will define all requirements identified in the requirements document in a spreadsheet format so one can identify what requirements must be tested.
Test Plans	This document will identify all the requirements/use cases that must be tested to ensure all requirements are captured and that the software is free of defects.
Training Materials / Technical Documentation	Training materials will consist of online help documents, FAQ's, user's guide, and any other documents to assist in the training of educators, researchers and any other entities requiring access to this system.
Project Schedule	The project schedule will list in detail the timelines each phase and task will start and end.
Project Plan	This document will include a communication plan, implementation plan, a change management plan and any updates made to the project schedule and/or team members.
Educator Identifier System	This is the actual system that will assign the unique identifiers.

Sponsors and Stakeholders

Below is a list of the key project stakeholders who have a key interest in the project.

Stakeholder	Representative(s)	Stakeholder Interest
Executive Sponsorship	Robert Hammond *Deputy Commissioner* Rich Wenning *Associate Commissioner* Dan Domagala *Chief Information Officer*	Executive sponsorship's interest in this project is to ensure that CDE continues to be positioned to capitalize on funding opportunities that will assist in developing the educator identifier system. Also, to provide senior level approval, enterprise strategy integration along with continued championing of the project amongst staff and the Executive Leadership Team.
Project Sponsors	Lisa Medler - *Title II Supervisor* Jami Goetz - *Executive Director of Professional Services and Licensing* Jan Rose Petro - *Director of Data Services*	A Project Sponsor, or Steering Team in the case of cross-functional projects, is usually responsible for steering the project by requesting regular meetings with the Project Manager. The Project Sponsor will be asked by the Project Board (see section 4) to make many decisions. In general Project Sponsors will delegate decisions to the Project Board *provided they are within the scope of the project.* If decisions are required that are outside of the scope of the project then these *must* be referred to the Project Sponsor, who then makes the decision on behalf of the organization. A project's success will depend critically on the availability of the right resources at the right time. In cross-functional projects it may require the Project Sponsor to provide assistance in negotiating resources around the company.
Business Stakeholders		
Quality Teachers Commission (QTC)	Scott Groginsky	Per HB-1065, CDE is implementing this project in collaboration with the QTC.
Colorado Education Association (CEA)	Linda Barker	The Colorado Education Association is an organization made up of teachers and education support professionals dedicated to advancing the cause of public education.
Colorado Association of School Boards (CASB)	Jane Urschel	All of Colorado's 178 school districts are CASB members, representing about 1160 school board members and superintendents Statewide. A 22-member board of directors comprised of local school board members across the State governs the association.
Colorado Association of School Executives (CASE)	Bruce Caughey	The Colorado Association of School Executives is the professional association for administrators in Colorado K-12 education. CASE promotes education leadership by providing professional growth, advocacy, and networking opportunities.

		Superintendents, principals, and other school and district leaders are eligible for membership.
CDE IMS Unit	Chris Edmundson – Network Keith Glenn – Data Warehouse Jan Rose Petro – Data Services Unit	Provides the support in the implementation and communication of the efforts to be performed. Ensures that the project aligns with existing State initiatives.
Special Education and Facilities	Lauren Rossini	The Special Education Unit at CDE has a significant interest in this project given this unit has specialized teachers and the assignment of an identifier would impact several of their data systems.
Department of Higher Education	Jason Presley	CDE is working with Higher Education to share student data and teacher effectiveness.
Department of Human Services	TBD	DHS provides services to pre-k children. So they have an interest in this project since CDE is working toward a data sharing model with DHS.
District Chief Information Officers	Various	Represents the technology interests of school districts.
Early Childhood Educators	Sharon Triolo-Moloney	Early Childhood Educators include teacher of pre-school kids and therefore have a vested interest in this project.
Education Data Advisory Committee (EDAC)	Jan Rose Petro	The Education Data Advisory Committee (EDAC) is a Statewide representative group of school district volunteers which reviews all The CDE(CDE) PK-12 data collections including grant applications, surveys, plans, reports, assessments, evaluations and automated data exchange systems. EDAC determines whether the benefits derived from a data collection outweigh the administrative burden of producing the data; determines and recommends the most efficient ways of collecting data; determines if recommendations for new data collections are redundant and proposes alternatives; and reviews department-proposed data collection procedures and recommends improvements. Each EDAC-approved CDE data collection is given a stamp which informs districts and BOCES whether the form is mandatory or voluntary.
Education Data eXchange Council (EDX)	Dan Domagala	The Education Data eXchange (EDX) Council is made up of Chief Information Officers, district technology leaders, system architects and data experts. The goal of EDX is to create a Statewide discussion forum and communication avenue for education data exchange and dissemination, share solutions, discuss best practices, and help guide the vision of a next-generation data exchange system.
Governor's Data Advisory	Micheline Casey	The Governor's Data Advisory Board replaces the

Board & Education Sub-Committee		data protocol development council. This board is responsible for recommending rules for requesting data, responding to data requests, and imposing fees for data requests. Directs the advisory board to report its recommendations annually to the chief information officer, and directs the chief information officer to report annually to the general assembly.
Governor's Office of Information Technology	Micheline Casey	Represents the State Information Technology interests, standards, methodologies, etc. and provides technical guidance and support as needed.
Great Teachers and Leaders	Rich Wenning	Great Teachers and Leaders is a sub-committee of the Race to the Top group.
Race to the Top (R_2T)	Rich Wenning	Race to the Top is designed to create incentives for innovative, dynamic and quality education policies that ensure that every child has access to a good education and can compete in the global economy. Since 2007, Colorado has put into place policies designed to boost and measure teacher success, improve student learning and track progress, create new internationally bench-marked standards and assessments and help turnaround underperforming schools.
P-20 Education Council		The P-20 Education Council exists to provide the governor recommendations on legislation, policies, and programs that will make progress toward the implementation of goals found in the Colorado Promise.
School Board Member	Jamie Brown – North Park School District TBD – Jefferson County School District	This project will require district input and the project team wants to ensure the State has input from small districts as well as larger district board members. These stakeholders will serve as the voice for their district types (rural vs. large).
Colorado Consortium of Deans of Education	Jami Goetz	

Roles and Responsibilities

Role	Resource Name	Responsibility
Executive Sponsorship	Robert Hammond Rich Wenning Dan Domagala	• Providing senior level approval • Exploration and development of funding sources • Championing the project amongst staff • Review and approval of deliverables
Project Sponsorship	Lisa Medler Jami Goetz Jan Rose Petro	• Owners of the system and the data • Review and approval of deliverables and change requests
Project Board	Robert Hammond	• Review and approval of deliverables

	Dan Domagala Lisa Bradley Lisa Medler Jami Goetz Jan Rose Petro Nina Lopez Kady Dodds Jerry Taylor Keith Glenn Julie Siwanowicz	• Subject Matter Experts on the business needs and statutory requirements of an educational data system. • Serves as point of contact to stakeholder groups. • Ensures the project is in alignment with the other efforts such as Race to the Top and the Statewide Longitudinal Data Systems.
Project Manager	Lisa Bradley	• Overall project management, including development of business requirements, workflow document, timeline, and other activities. • Coordination of project activities with Sponsors and Stakeholders • Project communication and status reporting • Scope management • Budget management • Risk management and mitigation
Business Analyst	TBD	The purpose of the Business Analyst is to serve as a liaison between stakeholders and web/data warehouse architects to bring structure and formalization of requirements, test cases and other documentation as well as possible district trainings on the system via webinars.
Case Manager	TBD	The purpose of the Senior Consultant is to provide case management services and data analysis within the guidelines established by the Data Services Unit at CDE.
Technical Writer	TBD	The Technical Writer will develop and update technical documentation including online help, user guides, design specifications and other documents.
Tester	TBD	The purpose of the tester is to validate and verify that the system meets the business and technical requirements that guided the design and development and that the system works as expected and can be implemented with the same characteristics.
Web Architect	TBD	The Web Architect will be responsible for developing the application framework and web site content. Also ensuring the integrity of data entered into the system.
Data Warehouse Architect	TBD	The Data Warehouse Architect will be responsible for assessing requirements, defining the strategy, creating the technical architecture, and defining the implementation plan for this project.
Data Warehouse Manager	Keith Glenn	The Data Warehouse Manager performs operations associated with the management of data in the warehouse to ensure data is complete, accurate and in alignment with current IMS policies
Enterprise Architect	Julie Siwanowicz	The purpose of the Enterprise Architect is to ensure that services, processes, applications, information, data, and technology as a result of this project are aligned with the enterprise goals and objectives.

Communications

The team will communicate with each other as well as stakeholders in a variety of ways. Predetermined status meetings will be held to ensure the project is progressing according to schedule. Colorado will use a SharePoint sites to post documents, manage document modifications, and to provide feedback to the team members.

Below is a high-level list of communications that will take place. A detailed Communications Plan will be developed in the Project Plan.

Communication	Group	Delivery Method	Frequency	Responsible Party
Status Meetings	Project Board	Face-to-face meetings	TBD	Lisa Bradley
Project Status Reports	Project Board Business Stakeholders	E-mail	TBD	Lisa Bradley
SCOOP Announcements	TBD	Web	As needed	TBD

Implementation Plan

Approach

The Educator Identifier project will contain three phases and all are contingent on available funding. At the beginning of each phase there will be an analysis and requirements gathering process to ensure the scope and requirements are defined and accurately being captured.

Phase I

During this phase the team will identify all educator types and define where and how the identifier will be obtained. Building an automated data system to generate and assign unique and confidential educator identifiers and educating districts and schools on the use of the system. Case management must be a part of the solution. Identified resources must be able to troubleshoot and resolve issues relating to possible duplicate identifiers being assigned to an individual educator.

If it is determined that the existing RITS system be used as a mechanism for generating the identifiers CDE will look at enhancing that system to automatically download them into districts systems. This would also include student identifiers and could be a big win for districts.

Phase II

This phase involves integrating the educator identifiers into current CDE systems including the CDE licensure system, ADE collections and the data warehouse. Integration into relevant district systems will be considered in this phase as well.

Phase III

This phase will be the largest and highest risk of the entire project. Linking educator identifiers with student identifiers will require heavy analysis given a student can have multiple teachers.

Below is a brief description of how the project will be implemented.

Phase	Overall Approach
Initiation	During the initiation phase CDE will complete the Project Charter that will identify all business stakeholders, team members, roles, responsibilities, deliverables, milestones, and the overall project approach.
Planning	A kick-off meeting for each phase will be conducted to gather requirements, identify testing/acceptance criteria and implementation approach specific to each phase. Project schedule will also be further defined and updated.
Executing	In the execution phase, CDE will work with team members to build, test, and implement all identified deliverables. Each deliverable will be reviewed and accepted before moving on to the next deliverable.
Closing	After all deliverables have been accepted, CDE will process final payments to contractors and close-out any open contracts. A lessons-learned meeting should be performed at the end of the project.

Project Milestones

Below is a high-level list of milestones along with targeted end dates for this project. This project schedule will be further updated as the project progresses.

Phase	Task	Responsible Party	Target End Date
Phase I			
Initiating	Approve Project Charter	Project Board	10/19/09
Planning	Identify and procure contractor services (if needed)	Project Manager	10/26/09
Planning	Analysis Complete	Project Board	1/21/10
Planning	Design Complete	Web/Data Architect	3/19/10
Executing	Code Complete	Web/Data Architect	5/21/10
Executing	User Acceptance Testing Complete	Business Analyst/Tester/Users	6/7/10
Executing	Implementation	Web/Data Architect	6/30/10
Executing	District Trainings	Consultant / Business Analyst	6/30/10
Closeout	Phase I Complete	Project Board	6/30/10
Phase II			
Planning	Analysis Complete	Project Board	5/6/10

Planning	Design Complete	Web/Data Architect	5/28/10
Executing	Code Complete	Web/Data Architect	8/9/10
Executing	User Acceptance Testing Complete	Business Analyst/Tester/Users	8/26/10
Executing	Implementation	Web/Data Architect	8/26/10
Executing	District Trainings	Consultant / Business Analyst	8/26/10
Closeout	Phase II Complete	Project Board	8/26/10
Phase III			
Planning	Analysis Complete	Project Board	10/15/10
Planning	Design Complete	Web/Data Architect	11/8/10
Executing	Code Complete	Web/Data Architect	1/10/11
Executing	User Acceptance Testing Complete	Business Analyst/Tester/Users	1/24/11
Executing	Implementation	Web/Data Architect	1/27/11
Executing	District Trainings	Consultant / Business Analyst	1/27/11
Closeout	Phase III Complete	Project Board	2/3/11

Financial Plan

HB-09-165 allows CDE to accept gifts, grants, and donations to implement the educator identification system.

Below are the summarized funding and expenditures identified for this project.

Funding Category	Funding Item	Funding Value
State Fiscal Stabilization Fund	Government Services Grant	$800,000
Rose Foundation	Grants/donations	$300,000
Daniels Fund	Grants/donations	$100,000
2009 Statewide Longitudinal Data Systems Grant	Grant/donations	TBD

Expenditure Category	Expenditure Item	FY 2009-10 Expenditure Value	FY 2010-11 Expenditure Value
Contract Services	1,000 hours of contract services at a rate $120 per hour. 600 hours are for data analysis to determine if the program system is able to achieve its purpose. 400 hours are to work with CDE staff to determine data to be collected and methods of analysis.	$120,000	$60,000

Operating Expenses and Capital Outlay	Routine operating costs, telephone service, and one-time costs for furniture and computer equipment.	$18,534	$2,850
Personnel Services	Senior consultant responsible for program coordination, communication with districts, and general implementation.	$143,688	$143,688
System Upgrades	Any software and hardware upgrades necessary.	$686,000	$0
Indirect Costs	Indirect costs reflect the costs associated with complying with required State procurement procedures, as well as time and out-of-pocket costs expended to ensure appropriate grant tracking and reporting procedures are followed.	$87,400	$0

Project Constraints

House Bill 09-1065 allows for the hiring of 3.0 FTEs for this project. The IMS unit does not have the resources to implement a project of this size. Hence CDE will need to contract with outside contractor(s) to provide the implementation, expertise in the technology, and to provide training and knowledge transfer to existing IMS personnel who will be required to maintain the application(s).

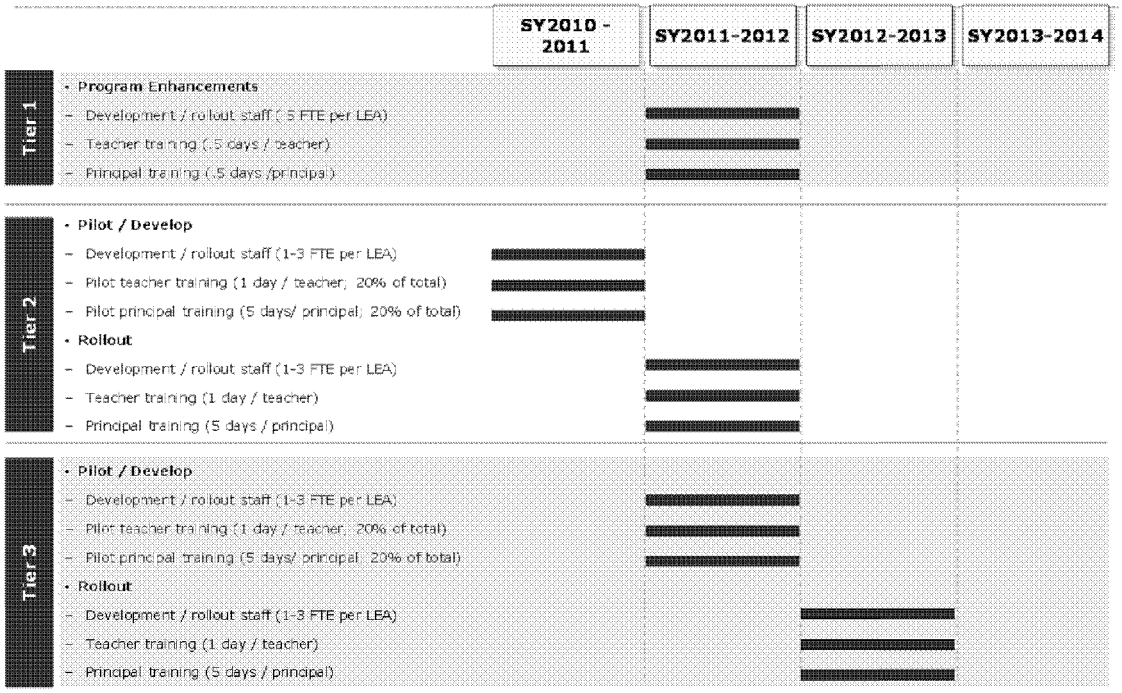
Completion Criteria

The final step in defining the approach towards implementation of the project is to define the criteria for completion of the project.

Process	Description
Phase I	
User Acceptance	At the end of all testing, this phase will be deemed complete when the Project Board signs the User Acceptance document.
Phase Review	At the end of the phase, all outstanding tasks, issues, and risks will be addressed and closed out.
Phase II	
User Acceptance	At the end of all testing, this phase will be deemed complete when the Project Board signs the User Acceptance document.
Phase Review	At the end of the phase, all outstanding tasks, issues, and risks will be addressed and closed out.
Phase III	
User Acceptance	At the end of all testing, this phase will be deemed complete when the Project Board signs the User Acceptance document.
Phase Review	At the end of the phase, all outstanding tasks, issues, and risks will be addressed and closed out.

Exhibit VI.D(2)ii-1a
LEA Evaluation System Implementation - Methodology

Participating LEAs Will Adopt Qualified Evaluation Systems Through a Phased Approach With Funding Based on LEA Size and Current Adoption Plans



Note: Denver Public Schools (Large) and Eagle Country S.D. (Medium) are in Tier 1; Harrison 2 (Medium) is in Tier 2 and all remaining LEAs are in Tier 3; Training costs per day are $220 for teachers and $400 for principals; development/rollout staff includes 3 FTEs for large LEAs, 2 FTEs for medium LEAs, and 1 FTE for small LEAs; additional evaluator capacity-building support will be provided through technical assistance consultants not included in per LEA cost above

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An Evaluation Model Was Used to Determine the State vs. LEA Allocation of Implementation Funds

- Participating LEAs are categorized by size (# of teachers), current status of qualified evaluation system, and/or resources required for implementation of qualified evaluation system, as defined in this notice
- Total required funds for each LEA were calculated using data on size/tier of LEA, number of teachers, and number of principals
- The State will back-fill any funding shortages in cases where allocation according to the Title 1 funding formula will not cover the total required funds for that participating LEA

Cost per Type of LEA for Implementation of Qualified Evaluation Systems

	Number of Participating LEAs	FTE Cost / District	Per Teacher / District	Per Principal / District
Tier 1, Large	1	$40,000	$110	$800
Tier 1, Medium	1	$40,000	$110	$800
Tier 1, Small	0	$0	$0	$0
Tier 2, Large	0	$0	$0	$0
Tier 2, Medium	1	$320,000	$229	$2,016
Tier 2, Small	0	$0	$0	$0
Tier 3, Large	13	$480,000	$229	$2,080
Tier 3, Medium	23	$320,000	$229	$2,080
Tier 3, Small	95	$160,000	$229	$2,080

Note: Denver Public Schools (Large) and Eagle Country S.D. (Medium) are in Tier 1; Harrison 2 (Medium) is in Tier 2 and all remaining LEAs are in Tier 3; Training costs per day are $220 for teachers and $400 for principals; development/rollout staff includes 3 FTEs for large LEAs, 2 FTEs for medium LEAs, and 1 FTE for small LEAs; additional evaluator capacity-building support will be provided through technical assistance consultants not included in per LEA cost above; Size of LEA is determined by number of teachers, such that Small LEAs have < 200 teachers, Medium LEAs have 200-999 teachers, and Large LEAs have >= 1000 teachers
Source: Colorado Department of Education analysis

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Exhibit VI.D(2)ii-1b
LEA Evaluation System Implementation – Participating LEA Tiers

Participating LEA Summary Table

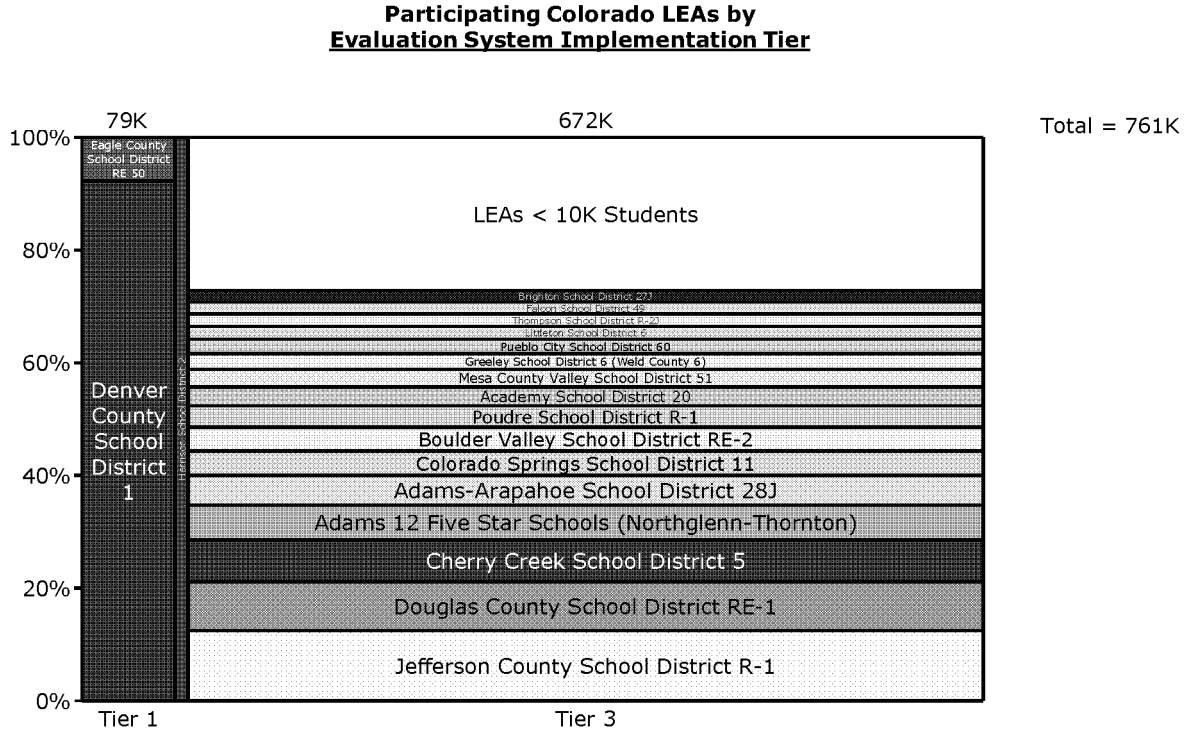
Tier	Number of LEAs	Number of Schools	K-12 Enrollment	Number of Teachers	Number of Principals
1	2	160	78,749	4,832	279
2	1	25	10,776	803	53
3	131	1,379	664,182	41,772	2,273

Participating LEAs by Tier

Tier 1		
Denver County School District 1		
Eagle County School District RE 50		
Tier 2		
Harrison School District 2		
Tier 3		
Academy School District 20	Canon City School District RE-1	Elizabeth School District C-1
Adams 12 Five Star Schools (Northglenn-Thornton)	Centennial School District R-1	Ellicott School District 22
Adams County School District 14	Center School District 26 JT	Englewood School District 1
Adams County School District 50 (Wesinster)	Cheraw School District 31	Falcon School District 49
Adams-Arapahoe School District 28J	Cherry Creek School District 5	Fort Morgan School District RE-3
Agate School District 300	Cheyenne Mountain School District 12	Fountain School District 8
Akron School District R-1	Clear Creek School District RE-1	Fowler School District R-4J
Archuleta County School District 50 JT	Colorado Charter School Institute	Fremont RE-2 School District
Aspen School District 1	Colorado Springs School District 11	Frenchman School District RE-3
Bayfield School District 10 JT-R	Cotopaxi School District RE-3	Garfield School District RE-2
Eads School District RE-1	Cripple Creek-Victor School District RE-1	Genoa-Hugo School District C113
Big Sandy School District 100J	Crowley County School District RE-1J	Granada School District RE-1
Boulder Valley School District RE-2	Custer County School District C-1	Greeley School District 6 (Weld County 6)
Branson Reorganized School District 82	De Beque School District 49 JT	Hanover School District 28
Brighton School District 27J	Del Norte School District C-7	Haxtun School District RE-2J

Brush School District RE-2J	Delta County School District 50J	Holly School District RE-3
Buena Vista School District R-31	Dolores School District RE-4A	Holyoke School District RE-1J
Buffalo School District RE-4	Douglas County School District RE-1	Huerfano School District RE-1
Burlington School District RE-6J	Durango School District 9-R	Idalia School District RJ-3
Calhan School District RJ-1	East Grand School District 2	Jefferson County School District R-1
Campo School District RE-6	EADs School District	Johnstown-Milliken Weld School District RE-5J
Colorado School for the Deaf and Blind	Eaton School District RE-2	Sierra Grande School District R-30
Julesburg School District RE-1	North Park School District R-1	Silverton School District 1
Keenesburg School District RE-3J	Norwood School District R-2J	South Routt School District RE-3
Lake County School District R-1	Otis School District R-3	Springfield School District RE-4
Lamar School District RE-2	Ouray School District R-1	Strasburg School District 31J
Las Animas School District RE-1	Park (Estes Park) School District R-3	Summit School District RE-1
Lewis-Palmer School District 38	Park County School District RE-2	Swink School District 33
Limon School District RE-4J	Peyton School District 23 JT	Telluride School District R-1
Littleton School District 6	Plainview School District RE-2	Thompson School District R-2J
Lone Star School District 101	Plateau School District RE-5	Trinidad School District 1
Mancos School District RE-6	Plateau Valley School District 50	Valley School District RE-1
Manitou Springs School District 14	Platte Valley School District RE-3	Walsh School District RE-1
Mapleton School District 1	Poudre School District R-1	Weld County School District RE-1
Mc Clave School District RE-2	Pueblo City School District 60	Weld County School District RE-8
Meeker School District RE1	Pueblo County Rural School District 70	Weldon Valley School District RE-20J
Mesa County Valley School District 51	Rangely School District RE-4	West End School District RE-2
Moffat County School District RE: No 1	Ridgway School District R-2	West Grand School District 1-JT
Moffat School District 2	Roaring Fork School District RE-1	Widefield School District 3
Monte Vista School District C-8	Rocky Ford School District R-2	Wiggins School District RE-50J
Montezuma-Cortez School District RE-1	Salida School District R-32	Windsor School District RE-4
Montrose County School District RE-1J	Sanford School District 6J	Wray School District RJ-2
Mountain Valley School District RE-1	Sangre de Cristo School District RE-22J	Yuma School District 1
North Conejos School District RE-1J	Sargent School District RE-33J	

131 Participating Colorado LEAs Representing 88% of Participating K-12 Student Enrollment Are in Tier 3



Source: CDE

2

Exhibit VI.D(2)ii-2

Colorado Center for Educator Excellence (CCEE) Purpose and Description

Purpose: The mission of the Colorado Center for Educator Excellence (CCEE) is to conduct applied research and analysis to inform State and local initiatives to increase educator effectiveness. The CCEE will be housed within an existing nonprofit organization or institution of higher education to ensure that it remains independent regardless of political changes or agendas, and to ensure that it is nimble enough to engage third party resources as needed while maintaining ownership over the knowledge and expertise obtained through its work. The CCEE will have a small permanent staff who will conduct applied research and analysis and who will manage external vendors as needed to complete discrete research and analysis projects.

The Colorado Center of Educator Excellence (CCEE) will engage external vendors to conduct and synthesize research on measuring student growth; designing and implementing evaluation systems to measure educator effectiveness; and using evaluation data to inform educator compensation, retention, promotion, licensure, and decisions regarding non-probationary status and dismissal. The CCEE will also engage external vendors to develop and conduct analyses of educator effectiveness data for the purposes of identifying areas of best practice, informing accountability systems, and driving State and local decision making. The research and quantitative analysis directed by the CCEE will be used to support the work of multiple Race to the Top initiatives, including the Governor's Council for Educator Effectiveness; the CDE Office of Educator Effectiveness Initiatives; the program to provide grants to effective educator preparation programs; and LEA efforts to implement new educator evaluation and effectiveness management systems.

The CCEE will be created by the CDE within an existing non-profit organization or institution of higher education. The permanent staff of the CCEE will be a small group of educator effectiveness generalists, including an Executive Director, a Director of District Supply and Support, and a Director of Data Analysis and a small team of support staff. The Executive Director and Directors will liaise with each of the specific initiatives whose work the CCEE supports to gather the research and development needs of those initiatives and align them on a common timeline of effectiveness research and data analysis deliverables. Based on this timeline, CCEE staff will issue Requests for Proposals (RFPs) for specific deliverables, with the expectation that a diversity of entities including colleges and universities, for-profit and non-profits organizations working on different aspects of educator effectiveness, small private consulting firms, and even LEAs will respond to these RFPs, allowing the CCEE to selectively tap the best available resource for each individual project.

The deliverables from each project will become the property of the CCEE who will provide open access to these materials to all Colorado education stakeholders via its own website and SchoolView. As appropriate, CDE and LEA staff will translate these deliverables into tools for implementation of initiatives and for use in training and professional development, and these tools will likewise be available via the CCEE website and SchoolView.

Specific areas of research and analysis for the CCEE include the following.

- Advising the Governor's Council on developing definitions of principal and teacher effectiveness, a rubric to identify multiple measures of educator effectiveness, guidelines for the high-quality implementation of evaluation systems, and policy changes to support LEAs' use of evaluation data to inform decision-making
- Knowledge capture of lessons learned and best practices from LEA implementation of high-quality evaluation systems and the use of evaluations to inform decision making
- Development of effectiveness metrics, including the Educator Effectiveness Index, the educator preparation program Return on Investment metric, and the Colorado Educator Growth Model
- Identification of the most effective educators and educator preparation programs in the State

Exhibit VI.D(2)ii-3
Executive Order Creating the Governor's Council for Educator Excellence

B 2010-001
E X E C U T I V E O R D E R
Creating the Governor's Council for Educator Effectiveness

Pursuant to the authority vested in the Office of the Governor of the State of Colorado, I, Bill Ritter, Jr., Governor of the State of Colorado, hereby issue this Executive Order creating the Governor's Council for Educator Effectiveness.

I. Background, Need, and Purpose

Dramatic improvement in overall student performance is needed in Colorado. The academic achievement of Colorado's K-12 students remains squarely in the middle as compared to other States. Perhaps more urgent is the collision course that our demographic trends and startling achievement gap has set us on. Gaps in achievement between our poor children and their more affluent peers are among the highest in the nation, and the number of Colorado children in poverty is increasing at an alarming rate.

Without dramatic and immediate change directed at eliminating these gaps in achievement and improving achievement overall, Colorado's economic health and quality of life will decline. Colorado, given its strong history of local innovation, its positive momentum in the area of education reform, and its tradition of collaboration, is well positioned to implement this needed change.

Improvements in student achievement ultimately rely upon the expertise and abilities of our educators, the individuals who have devoted their professional careers to ensure that our students are well prepared for adulthood. Every aspect of our public educational system must be focused on ensuring that these valuable professionals who serve our students daily have the knowledge, skills, and support necessary to meet this challenge. It is our collective responsibility to help kids learn despite the deficits and obstacles that may exist in their environment.

High expectations for the personal responsibility and performance of all students are essential, as are the complementary expectations for adult performance. The adults – parents, teachers, principals, and other support staff – are the most important resources of our education system, and their individual and collective effectiveness is the most important factor in improving student results. Colorado needs to attract, develop, and retain the highest quality staff possible by creating school environments that maintain high standards of both professionalism and performance. Judgments about the effectiveness of our educators need to be made in ways that are objective, transparent, timely, fair, and informed by multiple perspectives and sound information.

The shared mission and ongoing professional collaboration within a school are the key factors in the success of the school. Those adults closest to the children are best positioned to know their students and to work together to define ways to help them succeed. The best outcomes will come through the ongoing collaboration of the adults in and around the school system including parents, teachers, administrators, and community leaders along with the students themselves. State resources are essential to support these people in their critical work.

To achieve the dramatic improvements the State seeks, there must be a significant change in behavior and practices in our schools. Although all schools must continue to improve, special attention should be directed to the lowest performing schools. All students deserve to be taught by effective adults. All of our educators deserve to have the support necessary to meet the unique needs of their students. It is our collective responsibility to work with our educators Statewide to ensure that all have the capacity and the resources to achieve excellence for their students. For this reason, I am creating the Governor's Council for Educator Effectiveness (the "Council").

II. Mission

A. The purpose of the Council is to provide a forum for considering options and providing recommendations to ensure that every educator is:

1. Evaluated using multiple fair, transparent, timely, rigorous, and valid methods, at least 50% of which is determined by the academic growth of their students;

2. Afforded a meaningful opportunity to improve their effectiveness; and

3. Provided the means to share effective practices with other educators Statewide.

B. The Council shall have the following charges:

1. The Council shall meet on or before March 1, 2010 to organize its work.

2. No later than December 31, 2010, the Council shall recommend Statewide definitions of principal effectiveness and teacher effectiveness, each of which is centered on an educator's demonstrated ability to achieve and sustain adequate student growth that includes a set of professional skills and competencies related to improved student outcomes.

3. The Council's recommendations shall consist, at a minimum, of recommendations that are applicable to school principals and recommendations that are applicable to classroom teachers.

4. No later than December 31, 2010, the Council shall develop and recommend guidelines for adequate implementation of a high-quality educator evaluation system. Adequate implementation will require, at a minimum, demonstrating that:

a. Ongoing training on the use of the system is sufficient to ensure that all evaluators and educators have a full understanding of the evaluation system and its implementation by, for example, conducting joint trainings for evaluators and educators;

b. Evaluation results are normed to assure consistency and fairness;

c. Evaluation rubrics and tools are deemed fair, transparent, rigorous, and valid by the local Transformation Council using a process that assures they meet or exceed rubrics created by the Colorado Center for Educator Excellence;

d. Evaluations are conducted consistently and thoroughly;

e. Evaluations are conducted using sufficient time and frequency, at least annually, to gather sufficient data upon which to base the ratings contained in an evaluation;

f. Adequate training and collaborative time is provided to ensure that educators fully understand and have resources to respond to student growth data; and

g. Student data is monitored at least annually to ensure the correlation between student growth and outcomes with educator effectiveness ratings.

5. In making its recommendations, the Council shall include the impact and effect of district and school-level conditions, as measured by the nine performance standards set forth in the Comprehensive Appraisal for District Improvement ("CADI") rubric and bi-annual Teaching, Empowering, Leading and Learning Initiative ("TELL") survey of school working conditions, as well as any additional methods of assessing such conditions identified by the Council as valid, transparent, and reliable.

6. On or before December 31, 2010, the Council shall adopt a rubric for identifying multiple additional measures of teacher effectiveness (in addition to student growth) that are rigorous, transparent, and fair.

7. On or before September 30, 2011, the Council shall make recommendations to the Governor, General Assembly, and State Board of Education for policy changes, as appropriate, that will (i) support districts' use of evaluation data for decisions in areas such as compensation, promotion, retention, and removal, as well as the criteria for earning and retaining non-probationary status and (ii) ensure that the standards and criteria applicable to teacher and principal licensure and the accreditation of preparation programs are directly aligned with and support the preparation and licensure of effective educators.

C. The Council's recommendations may include changes to existing statutes or rules, as well as recommendations for local implementation.

D. All recommendations from the Council shall reflect the consensus of its members.

E. The Council shall meet as needed to complete the tasks set forth in this Executive Order.

III. Membership

A. The Council shall consist of the following fifteen members, appointed as follows:

1. The Commissioner of Education, or his or her designee;

2. The Executive Director of the Department of Higher Education, or his or her designee;

3. Four teachers, selected with the advice of the Colorado Education Association;

4. Two public school administrators and one local school district superintendent, each selected with the advice of the Colorado Association of School Executives;

5. Two members of local school boards, selected with the advice of the Colorado Association of School Boards;

6. One charter school administrator or teacher, selected with the advice of the Colorado League of Charter Schools;

7. One parent of a public school student, selected with the advice of Colorado Parent Teachers Association;

8. A current student or recent graduate of a Colorado public school, selected with the advice of a Statewide student coalition; and

9. One at-large member with expertise in education policy.

B. The Governor shall appoint a chair and vice-chair from among the members of the Council.

C. Other than the designees of the Commissioner of Education and the Executive Director of the Department of Higher Education, the members of the Council shall be appointed by and serve at the pleasure of the Governor.

D. The Council may establish working groups, task forces, or other structures from within its membership or outside its membership as needed to address specific issues or to assist it in its work.

IV. Funding and Staffing

A. The Colorado Center for Educator Excellence ("CCEE"), an independent research and data analysis entity to be created using funds from a successful Race to the Top proposal, shall provide the Council with necessary support, information, data, analytical information, and administrative support. Prior to the creation of the CCEE, the Office of the Governor and the Department of Education shall provide the Council with support, information, data, analytical information, and administrative support necessary to do its work.

B.

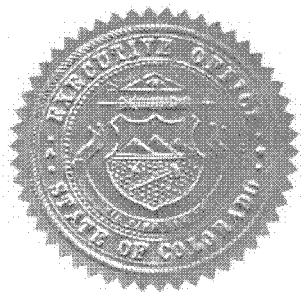
C. The Council shall have the power to accept money and in-kind contributions from private entities and persons only to the extent such donations are necessary to cover its expenses. Any money contributed to the Council shall be directed to the Office of the Governor and deposited with the Treasurer of the State of Colorado in an account within the Office of the Governor's budget. Members of the Council shall serve without compensation, but may, at the discretion of the chair and approval of the Office of the Governor, be reimbursed for any actual expenses incurred.

V. Directive

The Governor's Council for Educator Effectiveness is hereby created.

VI. Duration

This Executive Order shall remain in effect until modified or rescinded by the Governor.



GIVEN under my hand and the Executive Seal of the State of Colorado this thirteenth of January, 2010.

Bill Ritter, Jr.
Governor

Exhibit VI.D(2)ii-4
CDE Office of Educator Effectiveness Initiatives

CDE Office of Educator Effectiveness Initiatives

The CDE Office of Educator Effectiveness Initiatives will provide technical assistance and support to participating LEAs that is foundational to the execution of Colorado's RttT plan for Great Teachers and Leaders. First, CDE will deploy an educator effectiveness technical assistance consulting team to enable LEAs to (1) implement high-quality evaluation systems, (2) use evaluations to inform educator compensation, retention, and promotion decisions, (3) align professional development resources with individual educator needs identified through the evaluation process and with LEA performance goals, (4) access funds through the Alternative Compensation Grant program, (5) improve recruitment and retention practices, and (6) partner with the preparation programs that provide the LEA's most effective teachers and leaders. This team will be composed of a combination of temporary staff and consultants who will create sustainable capacity within local communities to incorporate these efforts into their ongoing practices. Their work will be managed by the Executive Director of Educator Effectiveness Initiatives, a new position to be created within the CDE, who will ensure that those efforts are directly coordinated with other federal programs administered through the CDE, including Title I, II and IDEA administration. The Assistant Director of Effectiveness Initiatives will manage specific activities, including the biannual Colorado Teaching, Empowering, Leading, and Learning (TELL) survey and partnerships with institutes of higher education. The Executive and Assistant Directors of Educator Effectiveness Initiatives are positions that will be sustained beyond the grant period through a combination of federal, state and/or private funds.

Exhibit VI.D(2)iv-1

Criteria for Participating LEAs' Effectiveness-Based Compensation, Promotion, and Retention Systems

LEA Use of Evaluation Data to Inform Compensation Systems

By March 2013, each participating LEA will submit to the Colorado Race to the Top Office, or its designee, detailed plans for using evaluation data to inform educator compensation to be implemented no later than SY 2013-2014, to the extent allowed by applicable collective bargaining agreements. Technical assistance in developing and implementing these plans will be available from the CDE(CDE). Plans must meet the following criteria:

- Under the State's proposed Race to the Top plan, "effectiveness" as it relates to teachers and principals shall be defined by the Educator Effectiveness Council ("the Council") established under executive order by the Governor.
- Educator effectiveness shall be assessed through a rigorous, transparent, and fair evaluation system which uses student growth measures to determine at least 50 percent of the evaluation rating. High quality evaluations pursuant to the State's Race to the Top plan shall be a significant factor in determining educator compensation.
- Differentiation in bonuses/performance-based pay increases tied to effectiveness will be greatest for those educators who are "highly effective".
- Considerable incentives are available for effective and highly effective educators and for high quality external teacher and principal applicants to serve in high-need subject areas and high-poverty, high-minority, and turnaround schools.
- The LEA provides financial models demonstrating how the compensation system will be sustained beyond the Race to the Top grant period. Technical assistance from the CDE will be available to LEAs to construct these models.

LEA Use of Evaluation Data to Inform Educator Promotions

Beginning in SY 2010-2011, to the extent allowed by applicable collective bargaining agreements, participating LEAs will implement the use of current educator evaluation systems in promotion decisions to meet the following criteria:

- Evaluation data is a significant factor when selecting teachers to fill positions of additional responsibility, such as instructional coaches, instructional facilitators, and department/grade-level chairs.
- Evaluation data is a significant factor when selecting current employees to fill assistant principal and principal positions.

By March 2013, each participating LEA will submit to the Colorado Race to the Top office or its designee detailed plans for using evaluation data to inform educator promotions to be implemented by SY 2013-2014, to the extent allowed by applicable collective bargaining agreements. Technical assistance in developing these plans will be available from the CDE. Plans must meet the following criteria:

- Plans describe lessons learned from the LEA's use of evaluation data for educator promotions in prior school years.
- In LEAs of at least 5,000 students, there are meaningful career ladders for teachers and principals which, at a minimum, 1) allow teachers to take on roles in instructional leadership while remaining in the classroom at least part-time; and 2) teachers and principals have opportunities to serve as models and mentors to their peers.
- Assess teacher and principal effectiveness through a rigorous, transparent, and fair evaluation system which uses student growth measures to determine at least 50 percent of the evaluation rating. High quality evaluations pursuant to the State's Race to the Top plan shall be a significant factor in awarding educator promotions.
- The evaluations of teachers filling positions on the career ladder with supervisory or support duties for other teachers incorporate to a meaningful degree data on the growth of students of the supported teachers.

LEA Use of Evaluation Data to Inform Educator Retention

By March 2013, each participating LEA will submit to the Race to the Top Office, or its designee, detailed plans for the use of evaluation data to inform educator retention to be implemented by SY 2013-2014, to the extent allowed by applicable collective bargaining agreements. Plans must meet the following criteria.

- Effectiveness, as assessed through a rigorous, transparent, and fair evaluation system which uses student growth measures to determine at least 50 percent of the evaluation rating, is a significant factor (after controlling for subject area and grade level needs) in reductions in force at the school and district level.
- Educators have a meaningful opportunity to provide assessments of working conditions and the LEA responds to those assessments to improve educator retention.

Exhibit VI.D(2)iv-2
School Leadership Academy (SLA)

School Leadership Academy

The Colorado School Leadership Academy (SLA) Program, established within the CDE, will provide research-based training and support of principals and teacher leaders, with a focus on training leaders to turn around persistently lowest-achieving schools.

The SLA Director will coordinate and align SLA efforts with the work of the CDE Office of Educator Effectiveness, the Colorado Center for Educator Excellence, the CDE Turnaround Office, and the Colorado Turnaround Center. The SLA will oversee the Turnaround Leaders Academy and the Leadership Residency Program explained below.

Turnaround Leaders Academy

The Colorado Turnaround Leaders Academy program is an intensive, rigorous and fast-tracked program that will recruit, select, and train high potential leaders using a customized leadership development and business administration (MBA) model similar to those that have been designed by University of Virginia, Rice University and University of Denver. Funding for the first 20 turnaround leaders will pay not only the tuition and fees of high-potential turnaround leaders, but also stipends that enable candidates to spend a year preparing full-time to lead intensive turnaround interventions in persistently lowest-achieving schools after graduation. Candidates completing the program will have a three-year obligation to serve as a turnaround principal in the State and to participate in turnaround learning communities established by the Colorado Turnaround Center.

Leadership Residency Program

The Colorado Leadership Residency Program will use data from the Colorado Growth Model to identify 5 high poverty/ high-growth schools, including schools with particular success in closing or narrowing gaps in achievement among student subgroups from across the State to serve as host schools for school leadership teams. Priority for participation in the program will be given to instructional teams from turnaround schools and to schools with the largest achievement gaps. Starting in SY 2011-2012 school year, the SLA will build the capacity of leadership teams in participating schools by placing them in residencies at host schools for up to three days per month for one year. Ten instructional leadership teams, including the principal and three teacher leaders, will participate annually. Each visit will be focused on a specific area of school leadership, such as developing a culture of excellence, using data analysis to drive instruction, as well as teacher performance evaluation or scheduling to increase instructional time. In addition, regional cohorts of instructional leadership teams from the schools participating in the residency will convene for one day each month to share learning on the leadership focus area(s) from that month. After each day of observation in their host school or reflection with their cohort, instructional leadership teams from the participating schools will test the best practices they have seen and use these experiences to fuel a robust and accelerated cycle of continuous improvement in their own schools.

Exhibit VI.D(3)i-1
The CDE HQT State Plan

Moving from HQ to TQ
The CDE HQT State Plan
Amendments (November 2008)

As of November 2008, Colorado's State plan is on track and few changes need to be made to the overall structure. This document provides updates and additional detail to the original plan. Only the activities that had significant alterations in timelines, procedures or level of detail have been included. Due to the complexity of implementing the State HQT and equity plan, CDE has had to slow down and examine the issues in more depth. Before any initiatives could be fully launched at the local level, CDE recognized the need for further analysis at the State level The State has tried to build a more cohesive approach to improving teacher quality, and this has meant interweaving established and new State-level initiatives - which takes considerable coordination.

Research on Teacher Quality and Statewide Initiatives

State Reports on the Teacher Gap. In 2007-08, CDE partnered with the Alliance for Quality Teaching's research committee to develop a Statewide report. The report provided information and data on Colorado's teacher gap and included recommendations to stakeholders to address these issues. As a follow-up to this report, CDE sponsored an attrition study that focused on teacher gaps in areas of concern, including Title I schools, rural districts, and special education teachers. A more in-depth analysis of the data was performed on these special populations and interviews were conducted. The interviews were especially important in telling the rural "stories" since data analysis and reporting in those districts is restricted by the small numbers of teachers. This study will be released at the beginning of 2009. A communication plan has been created to share the results with districts and engage in further discussions on these issues.

Quality Teacher Commission and the Educator Identifier. In 2007-08, the State Legislature called for a Quality Teachers Commission to examine the existing teacher gap in the State and to make recommendations on creating a education identifier. CDE is staffing this Commission. To date, the commission has made recommendations to pilot the educator identifier (for teachers and principals) in select districts. This pilot should be launched in the next year (upon available funding). The State will partner with researchers and a few selected districts to demonstrate how the identifier will link various data sets together to provide a more complete picture on the State of teaching in Colorado – including Human Resource data, student data (including longitudinal growth data), teacher preparation data, professional development data and other data sets. Once the pilot is underway, the commission will continue to examine the teacher gap and begin to explore a potential principal gap.

Teacher and Principal Working Conditions Survey. A component that has been historically missing from Colorado's teacher analysis has been a mechanism to examine teacher and principal perceptions of their working conditions (e.g., access to resources, strength of leadership) and the relationship between educator satisfaction and student performance. CDE has recently posted a documented quote to hire a research vendor to survey teachers on their present conditions, including such factors as access to resources and time, leadership, and other supports. CDE then plans to match this data .with student results to gain a better sense of how supports for teachers also impacts student success. The first annual survey will be launched in spring 2009.

P-20 Council and Alternative Compensation. Another noteworthy development in Colorado is the formation of a P-20 Education Council. Council membership encompasses a broad array of stakeholders, including representatives from the governor's office, CDE, the Department of Higher Education, early childhood, districts, higher education, businesses, parent groups, researchers and others. There are several subcommittees, including one dedicated to educator issues. In their first year of meeting (2007-08), this committee focused their discussions and resulting recommendations on alternative compensation. Based on this work, the State

legislature created an alternative teacher compensation package. CDE is in the process of developing an RFP to distribute these dollars. The State is also examining ways to provide districts with technical assistance (e.g., panels with districts that have begun work on altering their systems, offering experts in the field) as they re-examine their compensation systems. With these initiatives underway, the State is better positioned to continue working with districts on identifying models of success, lessons learned and other initiatives to stimulate best practices. These initiatives support and are woven throughout the State's HQT and equity plan.

Section 1: Data Analysis
CDE continues to run data in a way consistent with the original plan. Analysis of Colorado's HQT data is available on CDE's website. CDE will continue to perform this function in the future. Building on the research initiatives discussed above, CDE will also continue to dig deeper to determine what variables are associated with an effective teacher. This will include new and continued studies of other factors that lead to instability in the State's teaching workforce. Previously referenced activities such as the attrition study, educator identifier and its pilot, and the TELL survey will inform this process.

Section 2: LEA HQT Status
CDE continues to identify LEAs' HQT status through the annual HR collection. CDE also identifies district that meet the 2141a and 2141c criteria. Support for LEAs is discussed in section 4.

Section 3: Technical Assistance
Colorado continues to offer an extensive system of professional development and technical assistance. Additional opportunities were discussed above and are embedded in the other sections.

Section 4: Failure to Reach 100% Goal
CDE has taken a multi-pronged approach to working with districts that have not met the 100% Highly Qualified teacher goal. This has included extensive Statewide training, required teacher plans, funding restrictions, and implementation of NCLB's section 2141.
Training. CDE has done extensive work to provide clearer guidelines on the HQ requirements. This has included resources on the HQ website (e.g., HQ Handbook), periodic communications (e.g., emails, newsletter articles) and numerous trainings throughout the State (e.g., face-to-face trainings, webinars). Beginning in 2007, several offices (federal programs, special education, licensing, data and research) within CDE teamed up to provide integrated trainings. This has helped to draw the necessary links for LEAs between the very complicated system of HQ, licensing, special education, and the associated data collection requirements. These trainings have helped to greatly reduce anxiety among LEAs because they now understand the rules and are able to appropriately hire and reassign staff to ensure they remain in compliance. CDE will continue with this training format to reinforce LEAs knowledge on these topics.

Individual Teacher HQ Plans. Beginning in fall 2006, CDE required that an individual plan for any non-HQ teachers are submitted to CDE through an online planning system. This system built on the annual HR collection results by pulling core content teachers that were not HQ. LEAs were then required to enter a reasonable plan (e.g., timeline to prepare for and pass a content test, timeline that lists a few courses to obtain 24 semester hours in the assigned content area) to get the teacher to HQ status. CDE staff reviewed each case and provided feedback. Release of NCLB funds were leveraged to ensure full participation in the process:

- All plans had to be received and approved by CDE before funds would be released.
- Any teacher funded through NCLB (e.g., Title I teacher, class size reduction through Title IIA) had to be HQ – without exception. CDE consulted final HQ determinations and then altered the consolidated application to check the HQ status of staff funded through NCLB funds.

CDE will continue with this same model of follow-up on any non-HQ staff. Strides are being made to improve the system by making the data available sooner and making changes to increase the accuracy of the collection. Historically, the

data has not been available until August – after the school year is over. However, CDE is now in the process of developing a new online HQ system that is built into the ADE system – rather than a separate stand-alone system. This means that the two data systems can work in tandem and communicate. With these changes, the final HR and HQ data will be available in the spring. CDE is also anticipating that the data will be more accurate as it streamlines the reporting for LEAs. CDE will continuously monitor and
adjust the data systems to increase turnaround time and improve reporting accuracy.

2141a Identification and Activities. With clarification on the requirements from the USDE in spring 2007, CDE designed a system to meet the requirements of 2141a and began implementation immediately. In addition to providing individual teacher plans, identified districts were expected to complete a district wide plan that identified the barriers to meeting the 100% HQ goal. These plans were submitted as a part of their consolidated application (beginning in spring 2007). Districts encountered a number of barriers that ranged from unclear hiring and/or reassignment policies to limited access to a pool of qualified applicants, particularly among small isolated districts. LEAs are focusing funds to support non-HQ teachers become HQ; create HR positions to better ensure requirements are met and data accurately documented and reported; and implementing new recruiting and retention strategies. CDE plans to continue with the same protocol annually.

2141c Identification and Activities. CDE began identifying and notifying LEAs under this provision in winter 2006. However, with clarification from the USDE in spring 2007, CDE added in the financial agreement requirement in spring 2008. It has been an evolving process. Because of the late notice, CDE contacted districts right away to discuss priorities for the use of Title IIA funds:

- Working toward individual core content teachers becoming HQ
- Conducting needs assessments around professional development and hiring
- Implementing Professional Development
- Piloting innovations around recruitment and retention of teachers and principals

In spring 2008, CDE conducted phone interviews with individual districts, but the main portion of the agreement process happened during the consolidated application process beginning in June 2008. The focus was on targeting funds toward getting teachers HQ and/or supporting the district to make AYP. When an activity did not appear clearly focused on that goal, the LEA was asked to respond with a justification or reallocate funds. While CDE and the identified districts came to an agreement on the use of funds, there were some components that needed improvement. Using the application process was too late in some cases to make significant changes (e.g., salary for class size reduction). In those cases, the district had to reduce dollars spent on the non-priority activity or provide a written agreement to curtail activities in the future.

To address the timing issue for the next round of identified district in fall 2008, CDE has combined the Title I Program Improvement and Title IIA 2141c process. Identified districts are expected to create a cohesive Title I and Title IIA plan. Furthermore, districts are expected to complete action plans (including projected Title IIA budgets) to address Highly Qualified and AYP issues. The plans are due in January 2009 – well before the 2009-10 consolidated application process. This new process will allow CDE to work with districts in a more timely manner to ensure that Title IIA activities are squarely focused on the identified priorities. Activities such as class size reduction will require strong evidence of success and impact on the identified issues before being approved. Any 2008-09 budget revisions will also undergo close scrutiny to ensure alignment with the priorities. One district identified under 2141c was not identified for Program Improvement; therefore, the action plans for this district were tailored to address the 2141c planning process only. CDE will provide further training and technical assistance to all identified districts (e.g., webinars, additional grant opportunities) over the next few months as they begin to formulate their plans.

The 2141c districts were given higher priority on a teacher recruitment and retention grant offered in winter 2008. This particular grant was aimed at encouraging districts to assess staffing needs and consider innovative approaches to addressing those needs. This included examining the equitable distribution of experienced, qualified and effective teachers and increasing Colorado's Statewide percentage of highly qualified teachers and Title I paraprofessionals to 100%. Funds could be used for the following types of activities:

- Conducting a needs assessment on staffing (including the equitable distribution of

effective teachers)
• Planning and/or implementing a research-based teacher and/or principal mentoring and induction program
• Planning and/or implementing strategies to recruit, hire, and retain highly qualified teachers and principals
• Providing supports to help get teachers -- especially special education teachers and other hard-to-staff positions -- or Title I paraprofessionals become highly qualified.

Progress reports indicated that the tight focus of this grant enabled districts to provide extra attention on their staffing needs assessment, conduct HQ reviews, study their HQ data, examine the equitable distribution of teachers, and address other relevant requirements. Given the success of this grant, CDE is planning on offering this opportunity again in late 2008 (if State level funds are available).

Section 5: HOUSSE Process

Since the original plan was approved, CDE has created and implemented three HOUSSE provisions: (1) an Elementary HOUSSE for Veteran Teachers, (2) a Secondary HOUSSE for Multi- Subject Special Education Teachers; and (3) a Secondary HOUSSE for Multi-Subject Rural Teachers.

Elementary HOUSSE for Veteran Teachers. The elementary HOUSSE is still available for veteran teachers who have not gone through the process yet. The eligibility requirements include:

- Valid teaching license on or before July 1, 2006 (in or out of State), and
- One or more years of teaching experience (in or out of State).

The elementary HOUSSE provision was created in spring 2006 and made available to eligible elementary teachers to complete the 2006-07 HQ data collection. To date, the vast majority of general and special education teachers that needed the elementary HOUSSE have used it. However, veteran teachers coming from other States and elementary teachers returning to the professions still need to have this provision available. Colorado relies heavily upon out of State recruiting but does not accept HQ certification from other States. Therefore, out-of-State elementary teachers have few options to demonstrate subject matter competency in elementary content – except through content tests and the HOUSSE provision. For that reason, it was decided to create a HOUSSE that would be helpful to elementary teachers but also still phase itself out over time. This was done by fixing the eligibility requirements to one point in time (eligible teachers need to be licensed on or before July 1, 2006). It should be noted that the State maintains control over approving the HOUSSE provisions.

Multi-Subject HOUSSE for Secondary Teachers in Rural Settings. The following are the eligibility criteria for teachers in rural schools to use the HOUSSE. Candidates must meet all criteria to be eligible for the HOUSSE provision:

- District is eligible for the most recent Small Rural School Achievement Program (SRSA).
- Candidate has been assigned to teach two or more core content classes in a secondary grade (i.e., 6th through 12th grade).
- Candidate has a valid Colorado license and at least one year of teaching experience (in or out of State). If hired in a charter school where licenses have been waived, candidate has at least a Bachelor's degree.
- Candidate is already Highly Qualified in at least one core content subject without the use of this HOUSSE provision.

Multi-Subject HOUSSE for Secondary Special Education Teachers. The following are the eligibility criteria for special education teachers to use the HOUSSE. Candidates must meet all criteria to be eligible for the HOUSSE provision.

- Candidate is the sole provider of instruction (see definition below) for two or more core content classes in a secondary grade (i.e., 6th through 12th grade).
- Candidate has a Colorado license with the proper special education endorsements.

▪ (If a new teacher licensed on or after July 1, 2007) Candidate is already Highly Qualified in at least language arts, math or science without the use of this HOUSSE provision.

The "sole provider" of content at the secondary level is defined as: (1) the person who introduces core content and provides full lessons on key concepts to students or (2) the person who makes instructional decisions for students (e.g., assessments, curricular design).

Section 6: Equity Plan

CDE has continued to run the data each year as it was first shared in the original HQT State plan. In 2007-08, individual reports were run for districts that had a higher incidence of inequitable distribution of its teachers in any of the elements:

- Teachers with less experience in schools with a higher percentage of minority students
- More non-highly qualified teachers in schools with a higher percentage of minority students
- Teachers with less experience in schools with higher poverty
- More non-highly qualified teachers in schools with a higher percentage of minority students

These identified districts were given priority on the Recruitment and Retention grant described in section 4. Given the success of the grants, CDE is planning on offering the opportunity again in late 2008 (if funds are available).

Training on the equity plans was provided at the NCLB directors meetings. All districts were expected to look at their own data and provide an outline of a plan – except for small districts that only had one school per level (i.e., one elementary). These were submitted in the 2008-09 consolidated application. Unfortunately, the plans have proved to be somewhat superficial.

In talking to districts and in reading their plans, it is apparent that Colorado has only scratched the surface of this reform-oriented provision. CDE was also somewhat dissatisfied with the analysis that it ran. Given the high number of HQ teachers in the State (98% in 2006-07), the analysis was not very sensitive to differences in districts. It was difficult to know how much of the difference between the schools was significant and worth further action.

For 2008-09, CDE has run the data for the Statewide snapshot of teachers' distribution throughout the State. However, CDE is proposing a new strategy to continue work on the equitable distribution of teachers. CDE will:

- Create a partnership with the University of Colorado-Denver (one of the same partners that worked with CDE on the teacher attrition study) to discuss more sophisticated analysis
- Create a field team to discuss possible analysis and feasible strategies
- Provide more in-depth workshops with districts to create meaningful analysis and plans. (Some of the materials from NCCTQ provide for nice structure to facilitate deeper discussion.)
- Continue to monitor data and follow up on an annual basis with districts' progress on their plans

Exhibit VI.D(3)i-2
Definitions of High-Minority and Low-Minority Schools and High-Poverty and Low-Poverty Schools as Defined by the State for the purposes of the State's Highly Qualified Teacher Plan

High- and Low-Poverty Schools
(as defined in The CDE Highly Qualified Teacher (HQT) Plan)

- Elementary:
  - Low poverty: less than or equal to 15.92% Free or Reduced Lunch, bottom quartile
  - High poverty: greater than or equal to 63.64% Free or Reduced Lunch, top quartile

- Secondary:
  - Low poverty: less than or equal to 16.57% Free or Reduced Lunch, bottom quartile
  - High poverty: greater than or equal to 53.13% Free or Reduced Lunch, top quartile

Note: Elementary is defined as schools with E levels and EM levels; secondary is defined as schools with M levels, MH levels and EMH levels, where E=Elementary, M=Middle, H=High

High- and Low-Minority Schools
(as defined in The CDE Highly Qualified Teacher (HQT) Plan)

- Low minority: less than or equal to 15.79%, bottom quartile
- High minority: greater than or equal to 57.61%, top quartile

Note: Above thresholds apply to both elementary and secondary schools alike

Exhibit VI.D(3)i-3
Teach For America Statement of Commitment to the Colorado Race to the Top Proposal

One day, all children in this nation will have the opportunity to attain an excellent education.

TEACHFORAMERICA

Statement of Commitment to the Colorado Race to the Top Proposal

States seeking to win Race to the Top funds are being challenged to be bold in their applications. The federal Department of Education has requested that proposals include new and pioneering ideas for education. Recent reforms in education at the State and district levels and strong commitments from State and local organizations have created a climate that places Colorado as a front-runner in applicants for this incredible opportunity. One innovative and education reform focused organization the State has chosen to partner with in this race is Teach For America.

Teach For America is a national organization that recruits outstanding recent graduates from America's most prestigious colleges and universities and trains them to teach for two years in low-income urban and rural school districts across the country. Our mission is to build the movement to eliminate educational inequity by enlisting our nation's most promising future leaders in this effort.

Teach For America places an unswerving focus on student learning outcomes, and studies consistently show that our teachers are as effective, or more effective, than teachers from other routes. For over 10 years, the State has carefully tracked and analyzed data on our teachers to continually refine and improve our recruitment and training. This systematic research has enabled us to consistently bring high- quality recruits into the education profession and create a culture that is relentlessly focused on student achievement and how to achieve it in every classroom.

Teach For America—Colorado is honored and excited to be a partner with the State of Colorado in their Race to the Top application and commits to the following:

- To provide up to 1,000 corps members from 2010 to 2014.
- To place corps members in high-poverty schools and high-need communities mutually agreed to by
- CDE, TFA and the receiving districts.
- To make available key technology and data resources from our years of research and experience to
- CDE for its use and adaptation.

These actions, combined with those from other Race to the Top partners, have the potential to transform the current State of public education, raise the bar for teacher performance and student outcomes, and to close the achievement gap for low-income students.

AN AMERICORPS PROGRAM

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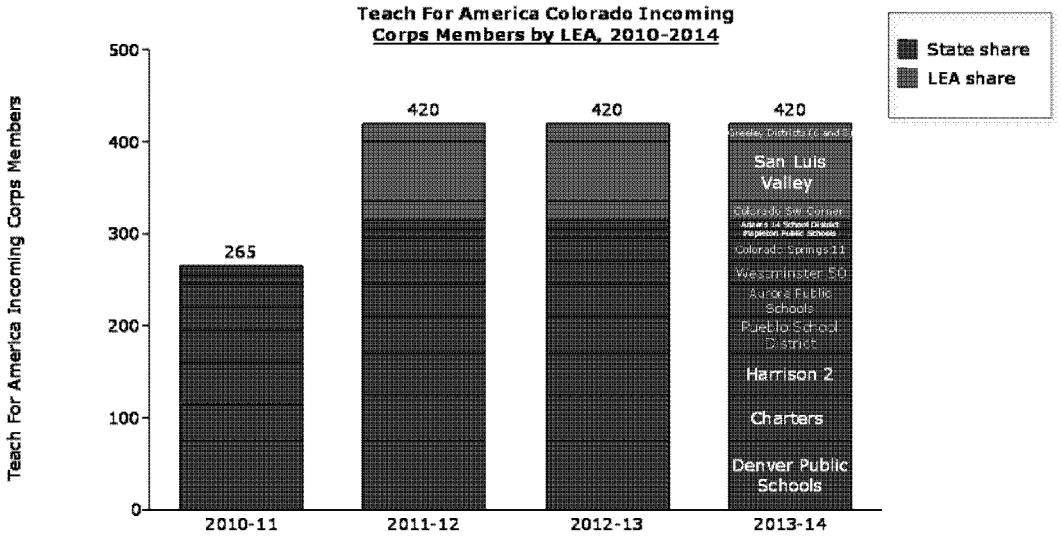
Exhibit VI.D(3)i-4
Teach For America (TFA) Colorado Budget and Implementation Plan

Teach For America Will Increase Incoming CMs to Colorado by 170% Between 2012 and 2014



Incoming Corps	265	420	420	420
2nd Year Corps	140	239	378	378
Total Corps	405	659	798	798
Alumni	553	747	1,011	1,275

Note: All numbers are projections; the program total for Alumni is duplicative in a way as many of the alumni that are supported in FY11 will be the same as the alumni supported in FY12. However, the yearly costs of the alumni program are based on the number supported each year
Source: Teach For America

2

Teach For America Colorado Budget Projections for Project Years 1 Through 4 by Category

Budget Categories	FY11 Oct 2010- Sept 2011	FY12 Oct 2011- Sept 2012	FY13 Oct 2012- Sept 2013	FY14 Oct 2013- Sept 2014	Total
1. Personnel	$3.2MM	$5.0MM	$6.8MM	$8.2MM	$23.2MM
2. Fringe Benefits	$.6MM	$.9MM	$1.2MM	$1.5MM	$4.1MM
3. Travel	$1.2MM	$1.9MM	$2.3MM	$2.5MM	$7.8MM
4. Equipment	$0MM	$0MM	$0MM	$0MM	$0MM
5. Supplies	$.3MM	$.4MM	$.6MM	$.7MM	$1.9MM
6. Contractual	$.2MM	$.2MM	$.3MM	$.4MM	$1.1MM
7. Training Stipends	$.05MM	$.08MM	$.12MM	$.15MM	$.40MM
8. Other	$1.1MM	$1.7MM	$2.3MM	$2.7MM	$7.8MM
9. Total Direct Costs (lines 1-8)	$6.5MM	$10.2MM	$13.6MM	$16.1MM	$46.4MM
10. Indirect Costs*	$1.3MM	$2.1MM	$3.0MM	$3.6MM	$10.1MM
11.Funding for Involved LEAs	n/a	n/a	n/a	n/a	n/a
12. Supplemental Funding for Participating LEAs	n/a	n/a	n/a	n/a	n/a
13. **Total Costs (lines 9-12)**	**$7.8MM**	**$12.4MM**	**$16.6MM**	**$1.6MM**	**$56.4MM**
14. Operating Reserve	**$.7MM**	**$1.1MM**	**$1.4MM**	**$1.7MM**	**$4.9MM**
15. Total TFA Proposal	**$8.5MM**	**$13.4MM**	**$18.1MM**	**$21.4MM**	**$61.3MM**
16. RTTT Funded Portion	$3.4MM	$5.4MM	$7.2MM	$8.5MM	$24.5MM

Note: All numbers are projections
Source: Teach For America

3

Teach For America Colorado Budget Assumptions

Budget Categories	Total
1. Personnel	• Personnel includes full-time and part-time staff for Colorado's share of recruitment/selection, pre-service training, corps member professional development, alumni program & support and local program administration
2. Fringe Benefits	• Fringe Benefits are 19% of full-time staff and 8.025% of part-time staff for recruitment/selection, pre-service training, corps member professional development, alumni program & support and local program administration
3. Travel	• Travel costs include Colorado's share of : • Travel during the recruitment and selection process • Travel to the institutes for regional and national staff • Travel of the program directors to schools to support the corps members and expenses incurred by TFA's national program team • Travel of the alumni staff Note: TFA's travel expenses adhere to the organization's travel policy which has established guidelines for travel (airfare, train, motor vehicle), food and lodging. This policy applies to all travel expenses listed above.
4. Equipment	• Equipment expenses include equipment rental and maintenance (copiers, printers, etc.)
5. Supplies	• Expenses included under Supplies include office supplies, program materials and advertising and PR expenses
6. Contractual	• Contractual expenses represent professional fees incurred by the organization including audit and consulting expenses
7. Training Stipends	• Expenses included under training stipends are for Staff Professional Development.
8. Other	• Other expenses include Communication, Rent, Research, corps member support including Financial Aid, Insurance, and other expenses including Depreciation.
9. Total Direct Costs (lines 1-8)	•
10. Indirect Costs*	•
11.Funding for Involved LEAs	•
12. Supplemental Funding for Participating LEAs	•
13. **Total Costs (lines 9-12)**	• Total TFA Budget
14. Operating Reserve	• Operating reserve of 25% of total TFA proposal for potential additional private matching funds
15. Total TFA Proposal	• Fully-matched TFA Budget
16. RTTT Funded Portion	• RTTT funding is 40% of fully funded TFA budget

Source: Teach For America

4

Exhibit VI.D(3)i-5a
TELL Survey Report

Final Report on the Colorado Teaching, Empowering, Leading and Learning Survey

By

Eric Hirsch, Andrew Sioberg and Amy Germuth

December 30, 2009

Teaching, Empowering, Leading and Learning Colorado Survey Coalition

The Teaching, Empowering, Leading and Learning Colorado Survey (TELL Colorado) is being conducted by a coalition of education, government, foundation and business organizations and individuals, all of whom believe that it is critically important to listen to educators' views when shaping school improvement strategies.

- Governor Bill Ritter
- Commissioner of Education Dwight D. Jones
- Colorado Association of School Boards (CASB)
- Colorado Association of School Executives (CASE)
- Colorado Education Association (CEA)
- Colorado League of Charter Schools (CLCS)
- The CDE

Executive Summary

In April and May of 2009, over 23,000 Colorado educators—teachers and administrators—responded to the Teaching, Empowering, Leading, and Learning Survey (TELL Colorado) that assessed whether positive teaching and learning conditions are present in schools across the State. The TELL Colorado Coalition, representing education, government, foundation and business organizations, sponsored the survey, conducted by the New Teacher Center.

TELL Colorado represents the first time that a broad coalition of stakeholders asked school-based educators about the conditions of their work in the State. They came together for one common reason: educators' teaching and leading conditions are their students' learning conditions. Positive teaching, learning and leading conditions—ranging from adequate supplies, sufficient time in the classroom to an atmosphere of trust and respect within a building—affect student learning. Staff turnover is reduced, morale is improved and educators' effectiveness is enhanced when conditions are favorable.

Colorado educators provided their views about particular teaching and learning conditions involving student learning, teacher empowerment, leadership, support for professional practice and workload. An estimated 36 percent of public school educators in Colorado took the survey. More than 600 schools had a response rate of at least half of the school faculty to receive a data report.

Some studies attempt to quantify teaching conditions—for example, by identifying how many computers there are per student, how many students are in each class and how many minutes each day teachers are given to collaborate. This survey takes a different approach. It was designed as a perceptual survey that attempts to get at educators' views on these conditions in their schools.

These perceptions matter because they influence teachers' future employment plans and school-wide performance, which in this report is measured by results from student achievement results in math, reading, and science. Consider the following findings:

TELL Colorado Highlights the Positive

Educators reported that there are many positive conditions present in Colorado schools. Nearly nine out of ten educators (88 percent) believe the faculty is committed to helping every student learn, and three out of four (73 percent) educators agreed their school is a good place to work and learn. Additional key findings highlighted in the report include:

- **Leadership Matters**
  Almost six in ten (57 percent) of educators report that school leadership creates supportive environment where there is an atmosphere of trust and mutual respect. Over a quarter of teachers (28 percent) indicated that school leadership was the most important condition affecting their willingness to remain teaching at their school. Teachers who want to remain teaching in their school were twice as likely to agree they work in trusting and supportive environments.

- **Future Professional Plans**
  The employment intentions of Colorado educators are cause for optimism. While the economy may have had some impact on these responses, it is encouraging that 82 percent intend to stay at their current school in the short term, and 56 percent in the long term. Beyond that, 5 percent of teachers in the short term and 16 percent in the long term indicate an intention to pursue another position in school or district leadership. Teachers indicated that both their effectiveness with students and school administration support are the primary factors that influenced their decision to remain in their school. When asked to select one factor, more than one third of teachers selected student learning (36 percent), followed by leadership (28 percent) and time to collaborate (12 percent) as factors in their professional planning.

- **A Safe, Collegial, Collaborative Environment and Time Promotes Learning**
  Almost half of educators (48 percent) identify the need for more time to plan and work with colleagues as an important condition in promoting student learning; significantly more than any other area surveyed. More than eight in ten (85 percent) educators report working in a safe school.

- **A Dedication to Student Excellence and High Quality Instruction**
  Colorado educators are strongly committed to providing their students the highest quality education. Almost nine in ten (88 percent) indicated their faculty was committed to helping every student learn. 62 percent agreed teachers used State and local assessments to improve student learning.

A Challenge in Varying Degrees

More than a quarter of teachers (27 percent) report receiving less than three hours a week of non-instructional time. About half of teachers (50 percent) indicate they receive less than three hours per week of time for individual planning and that collaborative time is even rarer. Almost nine out of ten (88 percent) receive three or fewer hours per week for structured collaborative planning. Additionally, only four in ten (45 percent) agreed that they have sufficient time to collaborate with colleagues.

- **Professional Development and Changing Needs**
  Approximately six in ten educators reported the presence of State or national standards in the professional development at their schools Close to 50 percent indicated a need for additional professional development in the following areas: using technology in the classroom (53 percent), differentiating instruction (48 percent), and closing the achievement gap (44 percent). About one third of respondents indicated a need for additional support in working with students with disabilities (36 percent) and data gathering (36 percent). More than half (56 percent) believe educators have either no role or only a small role in determining the content of professional development programs.

- **Early Support a Challenge that Reaps Long-term Benefits**
  While research clearly demonstrates that new teacher support is critical to improving performance and in retaining teachers in the profession, Colorado schools and systems have been challenged to provide the important early support to the 3,289 new educator respondents, those teachers working in the first three years of their education career. This number represents a sizable 14 percent of the educators surveyed.

- One fifth of new teachers report they were not assigned a mentor in the past three years. Of those that were assigned a mentor, four out of ten (41%) believed the mentor did nothing or hardly anything at all to influence their practice in the subject they teach, or on how to use data to identify student needs. Almost one-third of new teachers with a mentor reported meaningful support in issues of equity (34 percent) or differentiated instruction (34 percent).

- Not surprisingly, those wanting to stay in their current school received significantly more support than those wanting to move to another school.

- **Empowerment and Decision Making Roles**
  Two thirds of educators (65 percent) reported that teachers are recognized as educational experts. More than half of educators indicated that teachers are integrally involved in decision making about educational issues (56 percent) and the faculty has an effective process for making group decisions to solve problems (52 percent). Four in ten reported they had little or no say in selecting new teachers to the school (43 percent), school improvement planning (44 percent), or establishing student discipline procedures (43 percent). Two thirds indicated they had little or no say on how the budget would be spent (66 percent)

- **Student Learning, Assessments, Instruction and Performance**
  Virtually all educators use formative assessments to make appropriate instructional adjustments and to develop appropriate daily learning objectives. Two-thirds agree that assessment results are available in time to impact decision making and improve student learning. Almost two thirds (62 percent) believe the assessments are used in efforts to improve student learning.

Not All Educators View Teaching Conditions Similarly

Educators' years of experience, school-level taught and role within the school all influence whether they report positive teaching, learning and leading conditions. In some cases, the differences are large.

- **Teachers and Principals Perceive Conditions Differently**
  This is particularly the case in the areas of teacher school leadership and empowerment. While almost all principals indicated the school leadership makes a sustained effort to address teacher concerns about leadership (91 percent) and empowering teachers (95 percent), less than half of teachers felt leadership (45 percent) and teacher empowerment (50 percent) were being addressed by their leadership. Principals were much more in agreement that teachers felt comfortable raining issues and concerns (93 percent principals, 50 percent teachers), and that there was an atmosphere of trust and mutual respect in the school (91 percent principals, 56 percent teachers)

- **Teachers' Perceptions Vary by Years of Experience**
  Across most of the survey areas, the newest and most veteran teachers are most likely to perceive teaching conditions positively. Veteran teachers were the most positive in every area except time. Across most of the survey areas, the newest and most veteran teachers are the most likely to perceive teaching conditions positively. In all factors but Community Engagement and Decision Making, new teachers were most likely to agree that positive teaching conditions were in place. Teachers with twenty or more years of experience were most positive in the factors of Community Engagement and Decision Making.

Recommendations

From these findings and other analyses, the following recommendations for Colorado policymakers, stakeholders and educators are offered to enhance continued efforts to improve teaching, learning and leading conditions.

Recommendation 1: **Engage Teachers in Decision Making**

Recommendation 2: **Support Schools in Understanding and Improving Teaching Conditions**

TELL Colorado data provides schools, districts and the State with a new resource to identify areas that can become a part of school improvement planning. This data is not about any individual, and it will take the entire faculty within the school to ensure critical teaching conditions are in place (Appendix A). The data should be part of a comprehensive school improvement planning process and aligned with other strategies to ensure schools are staffed with high quality, effective teachers. These resources can serve as a springboard to a more concerted, systematic Statewide effort to help schools. Some ideas to consider:

- ***Create standards or guidelines for teaching conditions so all schools understand the key elements of building a positive school climate***. For example, North Carolina has a set of teacher working conditions standards and Ohio has School Climate Guidelines for schools. The State should create an advisory board or other body to oversee drafting these standards and coordinating how to assess whether they are present and how they can be improved.

- ***Ensure that teaching conditions data be used as part of the school improvement planning process***. Data from the survey (or if there was insufficient response, other measures of teaching conditions could be considered) should be encouraged. Models and assistance for School Improvement Teams should be established.

- ***Provide incentives for schools that create data-driven plans to improve teaching conditions***. A "venture capital" fund (with State and/or private funds) could be created with resources available for schools to improve teaching conditions, thereby encouraging schools to look at and utilize their data. As discussed, high poverty schools should be prioritized given the gaps in conditions documented in the report.

Recommendation 3: **Use TELL Colorado and Other Mechanisms to Collect Educators' Views on Teaching and Learning Conditions to Inform Local and State Human Capital Decisions**

- Regularly assess and monitor progress on critical conditions identified as having a significant impact on expected teacher retention and student learning.

- Use data collected at the school, district and State policy levels to inform future school improvement plans, as well as Statewide policy debates.

- Establish an oversight committee of policymakers and practitioners to coordinate the survey, and the design and implementation of strategies to improve teaching conditions.

The TELL Colorado data are a compilation of the voices of those who know schools best—the dedicated educators working in them each and every day. With well over half of the States' educators responding to questions about what they want and need to be successful and remain teaching, it is time to listen.

These findings and data across schools and districts should be used to begin conversations about why educators' perceptions exist, and not to make high-stakes decisions for administrators or staff. These conversations should begin at the school-level and go all the way to the State House. Positive teaching conditions, where educators are supported and empowered, are essential to creating schools where teachers and administrators want to work and where students thrive.

Recommendation 4: **Help School Leadership Establish Positive Teaching and Learning Conditions in Every School**

- Create clear expectations and/or standards for what schools leaders need to know and be able to do in recruiting and retaining teachers as well as establishing and maintaining positive teaching and learning conditions.
- Require preparation programs for school leaders to include coursework and field experiences that will develop the skills needed to create positive teaching and learning conditions, to build supportive school climates, and to establish professional communities.
-

Provide professional development for principals and other school leaders that support efforts to create positive teaching and learning conditions.

Exhibit VI.D(3)i-5b
TELL Survey Results

Very Strong Relationships Exist Between Many of the Survey Factors and Student Achievement in Math

- The Community Engagement Factor shows the strongest and a dramatic relationship with math percent proficiency
- The Student Learning Factor also shows a very strong relationship with proficiency

Pearson Correlation Coefficients Between all Survey Factors & Percentage of Students Achieving Math Proficiency

CSAP Assessment	Time	Resources	Comm. Engage	Leadership	Decision Making	PD	Student Learning
Elementary School Math	.134*	.359**	**.679****	.143**	.340**	.147**	**.623****
Middle School Math	.279**	.496**	**.768****	.296**	.356**	.190	**.657****
High School Math	.095	.311**	**.508****	.030	.059	-.043	**.380****

The higher a schools' math achievement, the more positive educators are about conditions in these areas

*Correlation is significant at the .05 level (2-tailed)
**Correlation is significant at the .01 level (2-tailed)
Source: TELL Survey Full Report Colorado, 2009

Relationships between Survey Factors and Reading & Science Proficiency Are Similar to Math Achievement Results

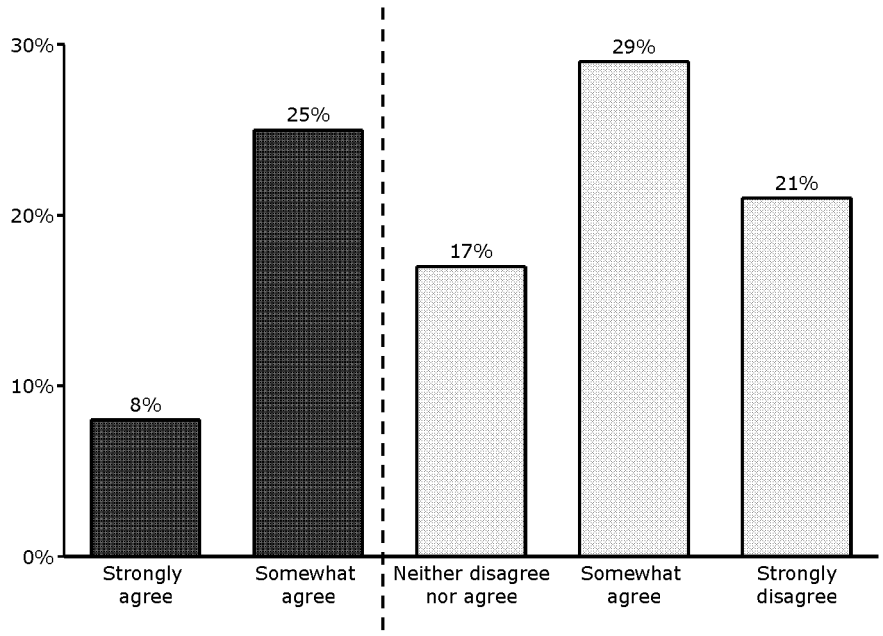
Pearson Correlation Coefficients Between all Survey Factors & Percentage of Students Achieving Reading and Science Proficiency

CSAP Assessment	Time	Resources	Comm. Engage	Leadership	Decision Making	PD	Student Learning
Elementary School Reading	.134*	.359**	**.679****	.143**	.340**	.147**	**.623****
Middle School Reading	.279**	.496**	**.768****	.296**	.356**	.190	**.657****
High School Reading	.095	.311**	**.508****	.030	.059	-.043	**.380****
Elementary School Science	.134*	.359**	**.679****	.143**	.340**	.147**	**.623****
Middle School Science	.279**	.496**	**.768****	.296**	.356**	.190	**.657****
High School Science	.095	.311**	**.508****	.030	.059	-.043	**.380****

*Correlation is significant at the .05 level (2-tailed)
**Correlation is significant at the .01 level (2-tailed)
Source: TELL Survey Full Report Colorado,2009

Only 33% of Colorado Educators Agree That Professional Development Is Differentiated to Meet the Needs of Individual Teachers

Q: Professional Development is Differentiated to Meet the Individual Needs of Teachers



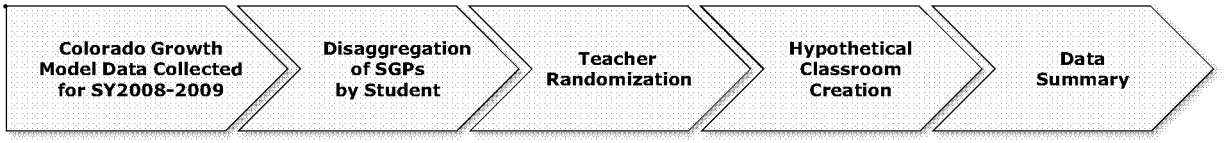
Source: TELL Survey Full Report Colorado, 2009

Exhibit VI.D(3)i-6
Hypothetical Classroom Model

Performance Growth Measures

Hypothetical Classroom Model Methodology

- The Colorado Growth Model is a statistical tool that calculates student progress on state assessments in the specific subjects of Writing, Math and Reading. Given that Colorado does not yet tie educator effectiveness, as defined in this notice, to student growth, the State has created a hypothetical classroom model to inform the baseline performance measures outlined in D(3)i of this application



- Student Growth Percentiles (SGP) were provided at the school level for Math, Writing and Reading, per CSAP administered in SY2008-2009 in grades 4 and 8
- Students in each school were grouped into 4 categories of SGP: SGP <=35; SGP between 36-49; SGP >=50; and SGP >=65
- Illustrative example: School X has 100 total math students tracked in the CGM, of which 50 students had an SGP <=35, 50 students had an SGP >=50

- Assigned student identifiers to students tracked in each SGP category
- Illustrative example: School X, the 50 students in SGP <=35 were assigned student identifier 1-50; the 50 students with SGP >=50 were assigned student identifier 51-100, respectively

- At a school level, each unique student was assigned a random teacher identifier based on the number of teachers (FTEs) in a given school

- Student data was rolled up at the teacher level to create hypothetical classrooms of students
- When a teacher had 50% or more of students with SGPs of:

>=65, the teacher was classified as highly effective*

>=50, the teacher was classified as effective*

<=35, the teacher was classified as ineffective*

- Teacher counts in the subjects of Math, Writing and Reading were averaged to create baseline teacher counts by school
- The number of highly effective, effective and ineffective teachers were summarized at the school level used to inform current baseline levels of teacher effectiveness by school type and overall

*Effectiveness thresholds were defined by CDE for the purposes of this analysis only; in the future, such thresholds will be defined through the implementation of qualified evaluation systems

Note: The Colorado Growth Model tracks student progress from year to year towards state standards. Each student's progress is compared to the progress of other students in the state with a similar score history on CSAP in that subject area. A student growing as well or better than 60 percent of his or her academic peers would have a Student Growth Percentile (SGP) of 60. As defined by Colorado State Board of Education rule, a SGP below 35 reflects low growth and a SGP above 65 reflects high growth

Source: Colorado Department of Education 1

Exhibit VI.D(4)i-1
Colorado Senate Bill 10-036

Note: SB 10-036 was passed in both houses of the State on January 15, 2010 and will be signed by the Governor and enacted into law on January 19, 2010

Senate Bill 10-036: Program Results for Educator Preparation (PREP)

Sponsors: Sen. Johnston and Rep. Merrifield

Citation: C.R.S. 22-68.5-102.5

The purpose of this bill is to gather and publish data on the effectiveness of teacher and principal preparation programs based on the performance of their recent graduates. Colorado is fast tracking this bill in part to help support Colorado's Race to the Top Application that is due January 19th.

The bill uses the educator identifier system to track teacher and principal performance for 3 years after they graduate from an alternative or traditional licensure program. It authorizes the CDE to prepare an annual report on educator prep program effectiveness based on the data collected. The report will include but is not limited to the correlation between different educator preparation programs in the State and student growth, educator placement, mobility and retention.

The State Board will determine:

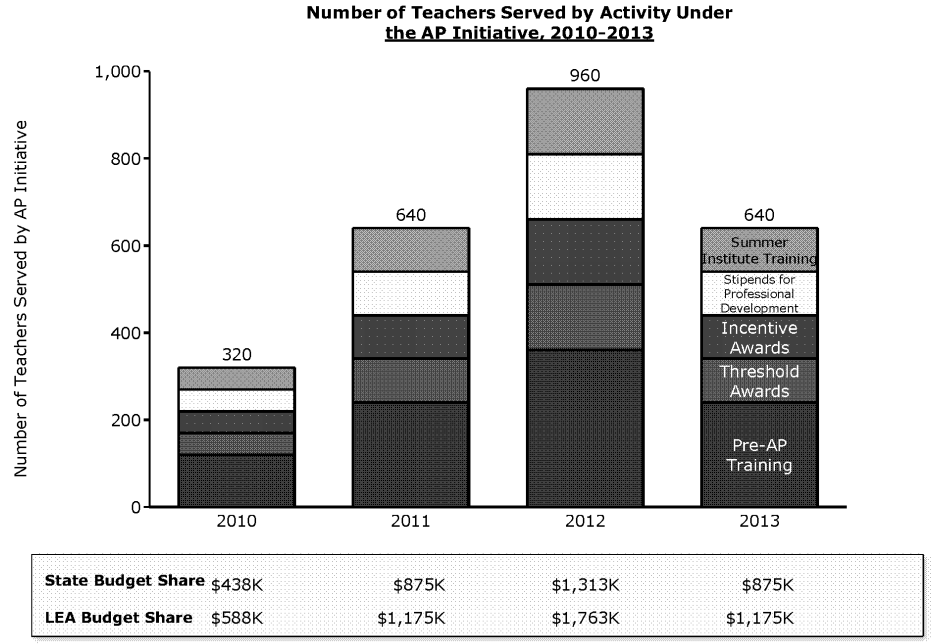
- Which teacher preparation programs are included and will focus on both traditional and alternative licensure programs
- A description of the items the department will use to measure effectiveness (this will include but is not limited to student growth, placement and retention of educators, and student demographics)
- The methods for measuring and analyzing data

Timeline: CDE shall prepare the report on or before July 2011 and on or before July 1 each subsequent year.
The report will be made available to the public through the department's website within 30 days of completion.
The bill has an estimated fiscal note of $20,000 per year with a clause that it will only be funded by gifts, grants and donations and will create no liability on the general fund. Race to the Top Funding is the priority funding stream, but the State has already secured a coalition of Colorado foundations interested in supporting the project if the State does not secure Race to the Top funding.

Supporting Organizations: Colorado Department of Education, Colorado Succeeds, Colorado Children's Campaign, Colorado Department of Higher Education, Colorado Association of School Boards, Democrats for Education Reform – Colorado, Metropolitan State College of Denver, The Public Education & Business Coalition , Gregory Anderson, Dean, Morgridge College of Education, University of Denver
Metro Organizations for People.

Exhibit VI.D(5)i-1
Colorado's Advanced Placement Initiative

Colorado's Advanced Placement Initiative



Source: Colorado Department of Education

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Exhibit VI.D(5)i-2
National Math & Science Initiative (COLORADO'S ADVANCED PLACEMENT INITIATIVE)

Colorado Legacy Schools: A Proven Investment in Students and Teachers
Program Narrative

What is the Colorado Legacy Schools Advanced Placement Training and Incentive Program?

The Colorado Legacy Schools (CLS) Advanced Placement Training and Incentive Program (APTIP) is a new partnership to Colorado, formed by the Colorado Legacy Foundation in conjunction with The National Math and Science Initiative (COLORADO'S ADVANCED PLACEMENT INITIATIVE). The goals of this program are to increase significantly the number and diversity of students taking and passing math, science and English Advanced Placement exams in high school and prepare them for careers in Science, Technology, Engineering, and Mathematics (STEM). States participating in APTIP around the U.S. include TX, AL, AR, CT, KY, MA and VA.

CLS will provide the APTIP to school districts across the State of Colorado. Program elements include teacher training, curricular support, financial incentives and program management for administrators, leaders, teachers and students of participating middle and high schools.

To this end, it is noted that students passing AP exams are three times more likely to earn a college degree and African-American and Hispanic students passing AP exams are four times more likely to earn a college degree (College Board). By increasing AP enrollment and pass rates, it is the end goal of the CLS program to increase the number of minority and low-income students enrolling and succeeding in rigorous coursework in math, science and English; decrease the dropout rate and achievement gaps related to student achievement and graduation rates; and increase the number of high school and college graduates in the State of Colorado.

Who is the Colorado Legacy Foundation?

The Colorado Legacy Foundation was founded on the premise that all kids deserve to receive a quality education. The current educational system, while constantly evolving, does not adequately provide for every child. Therefore, a need was presented for the development of an organization that could seek out, test and recommend innovative ideas that may change formal education policy for the State of Colorado. It is our goal to improve the quality of the K-12 educational system and continually increase student achievement.

Established in 2007 as part of the Forward Thinking Education Plan, the Colorado Legacy Foundation is a 501(c)(3) nonprofit, governed by an independent board of trustees that develops initiatives to support the work of the Colorado Department of Education. This direct connection makes us uniquely suited to act quickly and assist CDE in the leveraging of scarce education resources.

What is the connection?

One of the primary initiatives of the Colorado Legacy Foundation is increasing teacher effectiveness throughout the State of Colorado. As APTIP focuses heavily on training and coaching AP and pre-AP teachers with formal and informal methods, APTIP is very closely aligned with this fundamental goal of the organization.

Legacy schools will accomplish a number of goals and objectives listed below, including leading teachers to coach other AP and Pre-AP teachers, training to upgrade the content knowledge for AP teachers currently in the classroom, offering financial incentives for teachers and students based on results, allowing AP classes to have open

enrollment to provide opportunities for students from diverse backgrounds, allowing more time on task for students through prep sessions and after-school tutoring, and establishing high standards with accountability for results.

Goal # 1: Increase effectiveness of math and science teachers throughout the State of Colorado.

- *Objective # 1: Increase the number of students who enroll in AP courses and pass AP exams.*

Goal # 2: Produce students with the preparation and desire to pursue science, technology, engineering and math at the graduate level and beyond.

- *Objective # 2: Increase the number of math and science teachers throughout the State of Colorado.*

Goal # 3: Increase the size of the educated workforce within the State of Colorado.

- *Objective # 3: Increase the rate of high school graduations within the State of Colorado.*

Goal # 4: Increase ability of workforce within the State of Colorado to be internationally competitive.

Exhibit VI.E(1)-1
Summary of Education Accountability Act of 2009

Summary of SB 09-163
(Accountability Alignment)
May 7, 2009

The Accountability Alignment Bill builds upon and incorporates:

- HB-07-1048, which established student academic growth as the cornerstone of Colorado's educational accountability system
- SB-08-212, which establishes readiness for Postsecondary and Workforce success as Colorado's overarching goal for all students
- SB-00-186, by updating its core concepts in recognition of lessons learned and new technology, while retaining its high expectations and accountability for student results
- Revised district accreditation process established by CDE in 2008 in cooperation with school districts throughout the State
- Approval by the U.S. Department of Education of the Colorado Growth Model for AYP purposes

The major purposes of the bill include:

1. Aligning conflicting accountability systems into a single system that passes federal muster
2. Modernizing and aligning reporting of State, district and school performance information
3. Creating a fairer, clearer and more effective cycle of support and intervention
4. Enhancing State, district and school oversight of improvement efforts

In accomplishing these purposes, the bill eliminates the "CSAP penalty" and weighted index. The bill also updates Colorado's language about education to emphasize capacity building rather than judgments.

1. Align conflicting accountability systems through common performance indicators, enabling a single accountability system for State and federal purposes

- Establishes an expanded set of State Performance Indicators for the State, districts and schools
  - Student academic growth (measured by the Colorado Growth Model)
  - Student achievement levels (measured by the percent of students scoring advanced, proficient, partially proficient and unsatisfactory
  - Extent of achievement gaps based on income and ethnicity
  - Postsecondary readiness (measured by graduation rates and ACT/PWR)

- Performance indicators selected to be consistent with the revised district accreditation process and federal expectations

- Requires the Colorado State Board of Education to adopt Statewide targets on each and report results

2. Modernize and align reporting through 21st century technology and improved public disclosure and access

- Builds on the highly interactive Colorado Growth Model displays to provide State Performance Reports, District Performance Reports and School Performance Reports
    - Provide results on the State education performance indicators and data required by State and federal law

- Creates SchoolView, a web-based portal for the public and educators to access all publically reported data about State, district and school performance and characteristics
    - Allows print summaries and export for secondary analysis
    - Reduces school and district reporting burden

3. Enhance oversight of improvement strategies for low-performing districts and schools supported by a State Review panel appointed by commissioner

- Creates authority for the Commissioner to appoint a State Review Panel to evaluate district and school improvement strategies and make recommendations on needed interventions

4. Create a fairer, clearer and more effective cycle of support and intervention

- Provide high quality CDE service and support: (1) ready access to data and research to support interpretation, decision-making and learning; (2) consultative services on best practices for improvement and implementation; (3) evaluation and feedback on district and school plans. Provide support with increasing CDE involvement based on need and resource availability, including turnaround support for chronically low-performing districts and schools

- Assign district accreditation categories and school improvement categories based on results related to State targets for State Performance Indicators and overall State performance. In assigning accreditation categories, also consider duration of district or school performance challenges and progress made under current improvement efforts

- Align district accreditation categories with levels of support and improvement required while retaining six levels of performance categories
    - Level 1: Accredited with Distinction
    - Level 2: Accredited
    - Level 3: Accredited with Improvement Plan
    - Level 4: Accredited with Priority improvement Plan
    - Level 5: Accredited with Turnaround Plan
    - Level 6: Unaccredited – State Board determines whether situation warrants district reorganization, external management, conversion to innovative school or school zone status, conversion to a charter school or school closure

- Expect districts to assign accreditation categories to schools in a manner that is aligned with and meets or exceeds the rigor of the State system for districts

Exhibit VI.E(2)i-1
Colorado's Low Performing Schools, 2007-2009

EMH Level	District Name	School Name	Alternate Education Campus?	Rank among Lowest Performing Schools			Title I 1003G Tier 1 Eligible	Enrollment		1003G Funded?
				Lowest 5% of All Eligible Schools (95 Total)	Lowest 5% without AECs (94 Total)	Lowest 5% by EMH, without AECs (92 Total)		K	Grades 1-4	
M	PUEBLO COUNTY 70	FUTURES ACADEMY	Yes	1				0	0	
E	CHARTER SCHOOL INSTITUTE	COLORADO DISTANCE & ELECTRONIC LEARNING ACADEMY		2	1	1		15	65	
M	DENVER COUNTY 1	EMERSON STREET SCHOOL	Yes	3				0	0	
H	JEFFERSON COUNTY R-1	JOHNSON INTERVENTION	Yes	4				0	0	
M	DENVER COUNTY 1	ACE COMMUNITY CHALLENGE CHARTER SCHOOL	Yes	5				0	0	
E	KARVAL RE-23	KARVAL ONLINE EDUCATION		6	2	2		3	14	
E	HUERFANO RE-1	PEAKVIEW SCHOOL		7	3	3		61	166	
E	PUEBLO CITY 60	SPANN ELEMENTARY SCHOOL		8	4	4		42	171	
H	MONTROSE COUNTY RE-1J	VISTA CHARTER SCHOOL	Yes	9			2	0	0	
H	ADAMS 12 FIVE STAR SCHOOLS	NEW AMERICA SCHOOL	Yes	10				0	0	
H	BOULDER VALLEY RE 2	BOULDER PREP CHARTER HIGH SCHOOL	Yes	11			2	0	0	
E	MAPLETON 1	MEADOW COMMUNITY SCHOOL		12	5	5		54	194	
H	BOULDER VALLEY RE 2	JUSTICE HIGH CHARTER SCHOOL	Yes	13				0	0	
M	ADAMS 12 FIVE STAR SCHOOLS	CROSSROAD ALTERNATIVE SCHOOL	Yes	14				0	0	
E	DOUGLAS COUNTY RE 1	HOPE ON-LINE		15	6	6		308	898	

E	ADAMS-ARAPAHOE 28J	AXL ACADEMY		16	7	7		40	143	
M	DENVER COUNTY 1	PREP ASSESSMENT CENTER	Yes	17				0	0	
M	JEFFERSON COUNTY R-1	SOBESKY ACADEMY	Yes	18				1	8	
M	JEFFERSON COUNTY R-1	JOHNSON INTERVENTION	Yes	19				0	0	
E	DENVER COUNTY 1	PHILIPS ELEMENTARY SCHOOL		20	8	8	1	44	110	Y
M	BRIGHTON 27J	BRIGHTON HERITAGE ACADEMY	Yes	21				0	0	
H	DENVER COUNTY 1	EMERSON STREET SCHOOL	Yes	22			1	0	0	
E	CHARTER SCHOOL INSTITUTE	CESAR CHAVEZ ACADEMY - NORTH		23	9	9		22	94	
E	DENVER COUNTY 1	GREENLEE K-8 SCHOOL		24	10	10	1	84	281	Y
H	COLORADO SPRINGS 11	LIFE SKILLS CENTER OF COLORADO SPRINGS	Yes	25			2	0	0	
E	COLORADO SPRINGS 11	SPACE TECHNOLOGY AND ARTS ACADEMY (STAR ACADEMY)		26	11	11		60	144	
E	MAPLETON 1	HIGHLAND MONTESSORI SCHOOL		27	12	12		48	122	
M	PUEBLO CITY 60	YOUTH & FAMILY ACADEMY CHARTER	Yes	28				0	0	
E	VILAS RE-5	V.I.L.A.S. ONLINE SCHOOL		29	13	13		4	20	
H	DELTA COUNTY 50(J)	DELTA COUNTY OPPORTUNITY SCHOOL		30	14	1	2	0	0	
E	DENVER COUNTY 1	GILPIN K-8 SCHOOL		31	15	14	1	23	129	Y
H	POUDRE R-1	CENTENNIAL HIGH SCHOOL	Yes	32				0	0	
E	ADAMS COUNTY 14	HANSON ELEMENTARY SCHOOL		33	16	15	1	75	229	Y
H	HUERFANO RE-1	HUERFANO COUNTY OPPORTUNITY AND ENRICHMENT SCHOOL	Yes	34			2	0	0	
M	HARRISON 2	NEW HORIZONS DAY SCHOOL	Yes	35				0	0	
E	SHERIDAN 2	FORT LOGAN ELEMENTARY SCHOOL		36	17	16	1	0	194	Y
M	MAPLETON 1	MEADOW COMMUNITY SCHOOL		37	18	1		54	194	
E	GREELEY 6	JACKSON ELEMENTARY SCHOOL		38	19	17		36	142	
M	PUEBLO CITY 60	FREED MIDDLE SCHOOL		39	20	2	1	0	0	Y
E	DENVER COUNTY 1	BARRETT ELEMENTARY SCHOOL		40	21	18		52	157	
H	PUEBLO COUNTY 70	FUTURES ACADEMY	Yes	41			2	0	0	
M	VILAS RE-5	V.I.L.A.S. ONLINE SCHOOL		42	22	3		4	20	
E	ROCKY FORD R-2	LIBERTY ELEMENTARY SCHOOL		43	23	19		0	135	

M	JEFFERSON COUNTY R-1	JEFFERSON COUNTY OPEN SECONDARY		44	24	4		0	0	
E	DENVER COUNTY 1	NORTHEAST ACADEMY CHARTER SCHOOL		45	25	20		51	229	
M	CHARTER SCHOOL INSTITUTE	COLORADO DISTANCE & ELECTRONIC LEARNING ACADEMY		46	26	5		15	65	
E	MESA COUNTY VALLEY 51	CLIFTON ELEMENTARY SCHOOL		47	27	21	1	66	299	Y
E	KARVAL RE-23	KARVAL ELEMENTARY SCHOOL		48	28	22		1	8	
H	EAST OTERO R-1	TIGER LEARNING CENTER		49	29	2	2	0	0	
H	MESA COUNTY VALLEY 51	R-5 HIGH SCHOOL		50	30	3	2	0	0	
H	DENVER COUNTY 1	ACADEMY OF URBAN LEARNING	Yes	51				0	0	
E	PUEBLO CITY 60	IRVING ELEMENTARY SCHOOL		52	31	23		54	200	
E	ADAMS-ARAPAHOE 28J	VANGUARD CLASSICAL SCHOOL		53	32	24		58	234	
H	DENVER COUNTY 1	PREP ASSESSMENT CENTER	Yes	54				0	0	
M	Colorado School for the Deaf and Blind	COLORADO SCHOOL FOR THE DEAF AND BLIND	Yes	55				0	0	
H	PUEBLO CITY 60	KEATING CONTINUING EDUCATION	Yes	56			2	0	0	
H	JEFFERSON COUNTY R-1	SOBESKY ACADEMY	Yes	57				1	8	
E	ST VRAIN VALLEY RE 1J	SPANGLER ELEMENTARY SCHOOL		58	33	25	1	65	264	Y
E	PUEBLO CITY 60	CESAR CHAVEZ ACADEMY		59	34	26		119	528	
M	DOUGLAS COUNTY RE 1	HOPE ON-LINE		60	35	6		308	898	
E	WESINSTER 50	FRANCIS M. DAY ELEMENTARY SCHOOL		61	36	27	1	68	223	Y
E	PUEBLO CITY 60	BESSEMER ELEMENTARY SCHOOL		62	37	28		45	228	
E	CENTER 26 JT	HASKIN ELEMENTARY SCHOOL		63	38	29	1	49	183	Y
M	POUDRE R-1	POLARIS EXPEDITIONARY LEARNING SCHOOL		64	39	7		0	0	
E	WESINSTER 50	MESA ELEMENTARY SCHOOL		65	40	30	1	74	308	Y
M	PUEBLO CITY 60	LEMUEL PITTS MIDDLE SCHOOL		66	41	8	1	0	0	Y
M	DENVER COUNTY 1	ESCUELA TLATELOLCO SCHOOL		67	42	9		0	0	
M	PUEBLO CITY 60	JAMES H RISLEY MIDDLE SCHOOL		68	43	10	1	0	0	Y
E	MESA COUNTY VALLEY 51	INDEPENDENCE ACADEMY		69	44	31		40	54	
E	ADAMS COUNTY 14	ALSUP ELEMENTARY SCHOOL		70	45	32		91	363	
M	FOUNTAIN 8	LORRAINE SECONDARY SCHOOL		71	46	11		0	0	

E	DENVER COUNTY 1	CHARLES M. SCHENCK (CMS) COMMUNITY SCHOOL		72	47	33		112	377	
H	JEFFERSON COUNTY R-1	BRADY EXPLORATION SCHOOL	Yes	73			2	0	0	
E	DENVER COUNTY 1	OAKLAND ELEMENTARY SCHOOL		74	48	34		90	298	
E	DENVER COUNTY 1	FAIRMONT K-8 SCHOOL		75	49	35		53	182	
H	WIDEFIELD 3	DISCOVERY HIGH SCHOOL		76	50	4	2	0	0	
H	ARCHULETA COUNTY 50 JT	ARCHULETA COUNTY HIGH SCHOOL		77	51	5	2	0	0	
E	MAPLETON 1	EXPLORE ELEMENTARY		78	52	36		47	191	
E	GREELEY 6	MADISON ELEMENTARY SCHOOL		79	53	37		47	195	
E	MESA COUNTY VALLEY 51	DUAL IMMERSION ACADEMY SCHOOL		80	54	38		43	170	
E	ADAMS COUNTY 14	COMMUNITY LEADERSHIP ACADEMY		81	55	39		50	216	
E	LAKE COUNTY R-1	LAKE COUNTY MIDDLE SCHOOL		82	56	40		0	0	
E	MAPLETON 1	GLOBAL LEADERSHIP ACADEMY		83	57	41		24	116	
M	KARVAL RE-23	KARVAL ONLINE EDUCATION		84	58	12		3	14	
E	PUEBLO CITY 60	MINNEQUA ELEMENTARY SCHOOL		85	59	42		57	186	
E	WESINSTER 50	FAIRVIEW ELEMENTARY SCHOOL		86	60	43		61	237	
E	DENVER COUNTY 1	HOWELL K-8 SCHOOL		87	61	44		63	244	
E	WESINSTER 50	JOSEPHINE HODGKINS ELEMENTARY SCHOOL		88	62	45		101	368	
H	POUDRE R-1	POUDRE TRANSITION CENTER	Yes	89			2	0	0	
H	JEFFERSON COUNTY R-1	NEW AMERICA SCHOOL	Yes	90				0	0	
E	DENVER COUNTY 1	TREVISTA ECE-8 AT HORACE MANN		91	63	46		81	251	
E	DELTA COUNTY 50(J)	DELTA VISION SCHOOL		92	64	47		9	60	
H	DENVER COUNTY 1	CONTEMPORARY LEARNING ACADEMY HIGH SCHOOL	Yes	93				0	0	
E	AGUILAR REORGANIZED 6	AGUILAR ELEMENTARY SCHOOL		94	65	48		12	35	
M	MAPLETON 1	GLOBAL LEADERSHIP ACADEMY		95	66	13		24	116	

Exhibit VI.E(2)i-2
Prioritizing the Persistently Lowest-Achieving Schools

In prioritizing schools for dramatic turnaround interventions, the CDE will categorize all eligible schools into two distinct groups: *Priority Intervention* and *Turnaround Supports* (described in section (E)(2)(i) of the full application). The State has identified the 95 lowest-achieving schools in Colorado in Exhibit VI.E(2)i-3. 87 of these 95 lowest-achieving schools are located within LEAs who are participating in the RttT grant through signed MOUs. This appendix provides more detail about how each of the eligible schools are grouped according to the level of intervention and support they will receive through initiatives outlined in Selection Criterion (E)(2).

Priority Intervention: this group includes approximately 40 of Colorado's persistently lowest–achieving schools in the following three categories: (1) twelve are currently on track to implement one of the four intervention models (turnaround, transformation, restart or closure) in SY 2010-2011 using direct funding through Title I Section 1003(g), (2) two subsets (8 schools) of persistently lowest-achieving schools will begin participating in the Mass Insight Partnership Zone Initiative in SY 2011-2012 and SY 2012-2013, (3) and 20 additional lowest-achieving schools who will voluntarily engage in turnaround interventions supported/incentivized by both direct LEA-funding and competitive State funding for critical turnaround services. As a critical element of Colorado's commitment to build a knowledge base about what works in dramatically improving student outcomes, these schools will provide early results and lessons learned to inform local educational agencies (LEAs), future turnaround schools and the CDE Turnaround Office about best practices in transformative change.

- *Turnaround Supports*: this group includes approximately 47 additional schools that, together with those slated for priority intervention, make up the lowest five percent of all Colorado schools that are located in participating LEAs. Even though these schools will not be part of the "Priority Intervention" group, Colorado will still insist that LEAs with these schools implement turnaround intervention during the 4-year RttT grant period. LEAs and schools meeting these high expectations for intervention action will receive multiple types of turnaround supports from the CDE and its partners, each of which is described in more detail in section (E)(2)(ii).

The table below shows the number of schools in each category slated for support and intervention during the 4-year RttT grant period from 2010 – 2014.

<table>
<tr><th colspan="2" rowspan="2">Tier</th><th colspan="4">Number of Schools to Receive Support & Intervention</th><th rowspan="2">Total</th></tr>
<tr><th>2010-2011</th><th>2011-2012</th><th>2012-2013</th><th>2013- 2014</th></tr>
<tr><td rowspan="4">Priority Intervention</td><td>1003(g)</td><td colspan="3">12</td><td></td><td rowspan="4">40</td></tr>
<tr><td>Mass Insight Cohort 1</td><td></td><td colspan="3">4</td></tr>
<tr><td>Mass Insight Cohort 2</td><td colspan="2"></td><td colspan="2">4</td></tr>
<tr><td>Voluntary Intervention Incentivized Through Critical Turnaround Support</td><td colspan="4">20</td></tr>
<tr><td colspan="2">Turnaround Supports</td><td colspan="4">47</td><td>47</td></tr>
<tr><td colspan="6">Total</td><td>87</td></tr>
</table>

Description of Turnaround Support Services by Group

			Priority Intervention			Turnaround Supports	Total Schools eligible over 4-year RttT grant period
	Initiative	**Responsible Entity**	**1003(g)**	**Mass Insight Partnership Zone Schools**	**Voluntary Intervention through RttT incentives and support grants**	**Other Lowest-Achieving Schools**	
	Number of Schools		**12**	**8**	**20**	**47**	**87**
Funding for dramatic intervention	Direct turnaround intervention funded through RttT	CDE Turnaround Office and Colorado Turnaround Center (CTC)	N	Y	N	N	8
	Critical turnaround services support (e.g. dropout prevention, parent and community engagement, time and learning, and parent education)						
	State incentive grants (competitive)	CTC	N	N	Y	Y	24
	LEA critical support (non-discretionary)	LEA	Y	Y	Y	Y	87
	Funding for new/innovation school startup						
	State share of RttT funds	CTC	Y	Y	Y	Y	5 new/replicated schools
	LEA share of RttT funds	LEA	Y	Y	Y	Y	4 new/replicated schools
	Innovation Acceleration Grant Program						
	Critical turnaround services support	Leadership Investment Board (State)	Y	Y	Y	Y	87
	Acceleration of new school supply	Leadership Investment Board (State)	Y	Y	Y	Y	87
Support / monitoring	School support team (SST) evaluations	CDE	N	N	N	Y	47
	Site visits						
	CTC staff (2x per year per school)	CTC	N	N	N	Y	47
	CDE staff (2x total per school over 4-year grant period)	CDE	Y	Y	Y	Y	87
Professional development /turnaround leader pipeline	Turnaround Leaders Academy	CDE School Leadership Academy	N	Y	Y	N	28
	Leadership Residency Program	CDE School Leadership Academy	Y	Y	Y	Y	87
	Financial incentives to turnaround leaders for excellence in turnaround	CTC and CDE	Y	Y	Y	N	40 schools; 106 leaders over 4 years
	Incentives for knowledge management content-sharing	LEA	Y	Y	Y	Y	87 schools; ~700 teachers over 4 years

Exhibit VI.E(2)ii-1
Implementation Timeline for Selection Criterion (E)(2)- Turning Around Lowest-Achieving Schools

	Responsible Party	SY 2010-2011 Sept-Nov	Dec-Feb	March-May	June-Aug	SY 2011-2012 Sept-Nov	Dec-Feb	March-May	June-Aug	SY 2012-2013 Sept-Nov	Dec-Feb	March-May	June-Aug	SY 2013-2014 Sept-Nov	Dec-Feb	March-May	June-Aug
Goal 1: Stimulate supply and build capacity for dramatic improvement in the State's persistently lowest-achieving schools																	
Activity A: Establish Colorado Turnaround Center	Colorado Turnaround Center (CTC)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Establish independent entity (Summer 2010)																	
Identify board and leadership (Summer 2010)																	
Build human capital infrastructure to manage projects		■	■	■	■												
Contract with vendors (outlined in Budget Narrative)		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Activity B: Implement Leadership Residency Program (within School Leadership Academy)	CDE (School Leadership Academy)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Using analysis from the CTC, the School Leadership Academy (SLA) identifies the highest performing high-poverty schools in the State and invites them to be host schools for leadership teams from turnaround schools	CTC and CDE			■	■	■											
Identify instructional leadership teams from within turnaround schools	CDE and LEA			■	■	■											
The SLA pairs ten leadership teams annually with host schools in the same geographic region with similar student populations.	CDE					■	■	■	■	■	■	■	■	■	■	■	■
Turnaround leadership teams visit their host schools twice a month for daylong observations and these teams convene once a month with a cohort of leadership teams from other turnaround schools to discuss lessons and share best practices	LEA					■	■	■	■	■	■	■	■	■	■	■	■
Activity C: Turnaround Leaders Academy: Provide scholarships to enable leaders to participate in an MBA program designed to prepare school turnaround leaders		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
The SLA recruits outstanding individuals from education and other sectors to participate in evidence-based training and development to become future leaders of turnaround schools	CDE	■	■	■	■	■	■	■	■								
Disseminate selection methods to LEAs	CDE	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
The SLA selects, provides scholarships/stipends to six to eight applicants annually to complete customized leadership development/business administration programs that are similar to national exemplars	CDE and LEA					■	■	■	■	■	■	■	■				
After program completion and receipt of a Colorado	CDE and									■	■	■	■	■	■	■	■

administrators license, Turnaround Leaders Academy participants are placed into turnaround schools	LEA	
Activity D: Offer substantial financial incentives to individuals who assume leadership of failing schools and achieve high targets for rapid improvement of student results		
Identify leaders in identified schools who have achieved outstanding results with students	CDE	
Provide incentives to eligible leaders	CDE	
Activity E: Partner with innovation school suppliers and fund start-up of high-quality new/replicated schools		
Collect data on areas & extent of need	CTC	
Identify new school suppliers/operators who will raise private funds to match State grants for school start-up	CTC	
Recruit providers; grant funds; assist in implementation and communications	LEA CTC	
Activity F: Contract with provider to build/establish COSMIA, the Colorado Math and Science Innovation Academy that will serve 400 to 600 high school students		
Collect data on high need areas where COSMIA can be built/established	CTC	
Contract with COSMIA vendor	CTC	
Activity G: Pilot intensive turnaround models in cooperation with Mass Insight and partnership zones		
Identify district partners and schools, lay the groundwork for partnership zones	CTC and Mass Insight	
Implement intensive interventions in the first cohort of 3-5 low-performing schools	CTC and Mass Insight	
Implement interventions in a second cohort of 3-5 low-performing schools	CTC and Mass Insight	
Activity H: Generate and share transformative knowledge about school turnaround	CTC	
Set parameters of Knowledge Management System	CTC	
Collect data and lessons learned	CTC	
Award discretionary funds to eligible districts	CTC and CDE	
Activity I: Build parent, student, community and public support for dramatic change	CTC	
Goal 2: Provide incentives and supports for dramatic turnarounds in the State's persistently lowest-achieving schools		
Activity A: Expand Turnaround Office of CDE	CDE	
Build human capital infrastructure to manage initiatives		

Contract with vendors (see Budget Narrative for details)					
Activity B: Negotiate MOUs with districts where target schools are located	CDE				
Negotiate initial MOUs					
Negotiate additional MOUs and monitor districts' follow-through					
Activity C: Competitively award funding for critical turnaround support to LEAs who voluntarily engage in dramatic turnaround intervention (ex. dropout prevention, parent and community engagement, time and learning, and parent education)	CTC				
Identify partners and establish structure for communicating with districts about available supports	CTC				
Broker agreements among parties for school supports	CTC				
Award discretionary funds to eligible districts	CTC and CDE				
Activity D: Apply for additional federal school improvement grants and raise private funding (competitively distributed) and make available to LEAs that commit to dramatic change in low-achieving schools	CTC (private fundraising) and CDE (public grants)				
Activity D: Assist schools in choosing a turnaround strategy and necessary partners	CTC and CDE				
Develop tools to select improvement models	CTC				
Develop recommendations regarding contracts between districts and external providers	CTC				
Issue RFI for State-approved external providers	CDE				
Assist schools in implementing tools and negotiating contracts	CDE				
Issue additional RFIs, as necessary	CDE				
Activity E: Set expectations for and monitor districts' swift action in turnaround schools	CDE				
Develop and issue performance goals, leading indicators and timelines for improvement	CTC and CDE				
Design oversight process to monitor progress in turnaround schools	CDE				
Monitor improvement efforts and intervene where necessary	CDE				
Activity F: Provide Innovation Acceleration grants to replicate highly successful programs and practices	Leadership Investment Board				
Collect research on progress of innovation and turnaround best practices in the State					
Grant funds to LEAs for additional critical turnaround support					
Fund new school/replication start-up to supplement dramatic interventions by LEAs					

Exhibit VI.E(2)ii-2
Colorado Turnaround Center: Supports and Incentives for Essential Elements of Successful Turnarounds

The Colorado Turnaround Center (CTC) is an integral part of Colorado's overall approach to supporting dramatic interventions in the State's lowest-achieving schools. As part of its effort to stimulate supply and build capacity for dramatic improvement, the CTC will provide incentives and support for the essential elements of successful turnarounds, through a portfolio of research-based services designed to support schools that have committed to implementing one of the four intervention models (turnaround, transformation, restart or closure). These services will include:

- Identification of proven providers of curriculum, instruction, and assessment practices;
- Assistance with core academic instruction;
- Technical assistance in scheduling time for teacher collaboration, instruction, and enrichment, through partners such as the National Center for Time and Learning and other partners;
- Parent education programs designed to engage parents and children proactively in school change;
- Intensive planning that redesigns the school day from the ground-up in collaboration with school leaders, teachers, students, union leaders, parents as well as community organizations to serve as enrichment opportunities for the community as a whole;
- Research-based efforts to prevent student dropouts and support student engagement; and
- High-quality pre-school programming for at-risk student populations.

Additional types of services will be identified by the CTC in cooperation with the CDETurnaround Office based on individual school and student needs.

The CTC will work with the Colorado Department of Education's Turnaround Office to broker relationships and agreements between the providers of these services, schools and districts; and award funds specifically allocated by the State for this purpose to eligible providers and schools.

Exhibit VI.E(2)ii-3
The Colorado Science, Math and Innovation Academy (COSMIA)

As part of Colorado's strategy to support the opening of individual new schools in high-need locations throughout the State, the CDE will design a new Statewide school to focus on science, math and innovation education for talented and traditionally underserved high school students throughout the State. The Colorado Science, Math and Innovation Academy (COSMIA) will be a residential high school in Colorado that will:

1. Focus on science, math and innovation education for talented and traditionally underserved high school students,
2. Incorporate teacher training and professional growth opportunities to impact science, math and innovation education Statewide; and
3. Identify the potential impact on Colorado's economy and STEM industries.

COSMIA will not only serve the 400 – 600 students who attend its residential high school but, as a teaching and learning laboratory, will also serve thousands of students and educators across Colorado through innovative instructional programs, best practices, online and distance learning, camps, professional development and materials. COSMIA will be a hub for the replication and coordination of new STEM schools across the State, transforming a fragmented support model, with initiatives uneven in quality, access and mission, to a differentiated support model, serving talented and traditionally underserved students while also closing achievement gaps and providing equity of access and opportunity for rural, low-income and minority students.

Estimated Budget

Request for Year 1 start-up funds: $1,500,000

- Planning year, costs for salary, supplies and materials
    - Staff/hiring: Principal, executive assistant, academic faculty (four), residential and student support staff, counselor
        - Note: ultimate faculty needs are three-fold, to include faculty
            - Designing curriculum for and teaching residential student program;
            - Expanding and developing educational programs for pedagogy Statewide; and
            - Working with rural and small districts.
    - Infrastructure to include lab equipment, distance learning multi-media program, computers, video, calculators, textbooks, etc.
    - Additional activities in start-up include professional development and other training

Request for Year 2 costs funds: $800,000

- Begin first year accepting students at the 10th grade
- Hire additional faculty and staff to support year two roll out
- Expand online and distance learning program and support roll out

Request for Year 3 costs funds: $550,000

- Accept second year of 10th graders, first year for students at the 11th grade
- Expand online and distance learning programs

Exhibit VI.E(2)ii-4
Goals for Student Achievement Growth and Required Leading Indicators of Success in Turnaround Schools

As part of its overarching strategy for supporting dramatic improvement in the State's lowest-achieving schools, the Colorado Department of Education's Turnaround Office will develop detailed performance goals and specific timelines for improvement to which all turnaround schools and districts will be held. As described in Section E(2)(ii) of the Narrative, these goals, timelines and indicators will be encompassed in MOUs between the CDE and individual districts and will include the following:

- *Common ambitious but achievable goals for student growth and achievement that every turnaround school will be expected to meet within 3-5 years after beginning its turnaround effort.* The CDE will define a school turnaround a "success" when it the school meets expectations on three key performance indicators: student growth, student achievement levels, and post-secondary readiness measures. Turnaround schools will be required to meet Statewide targets for the percentage of students in each ethnic and socioeconomic subgroup that make sufficient growth to become or remain proficient over a three year period. In addition, schools will be required to meet achievement levels for each subgroup in the core academic subjects that equal or exceed State targets for all students. High schools will also be required to achieve Statewide targets for postsecondary and workforce readiness as measured by graduation rates, college-going rates, credit accumulation, and ACT scores. The Statewide targets that will be the basis for goal-setting for turnaround schools appear in Exhibit VI.A(1)iii-1.

- *School-specific timelines and benchmarks for reaching these goals. Every school will have a clear set of ambitious goals and timelines for improving* performance, based on its current achievement, turnaround strategy, and particular needs. First, each district's SOW with the State will establish rigorous timelines and benchmarks for improvement based on each school's achievement levels when it began its turnaround effort. No timeline will exceed five years to meet the ultimate performance goals outlined in the previous bullet. Some schools, because they are starting at higher achievement levels than others, will be required to meet t*he State's performance goals in three years.* These terms will be negotiated for individual schools in each district's SOW.

Second, research shows that successful turnarounds typically involve a focus on a few key goals in the first few weeks and months of the effort. This focus will be reflected in each school's individualized benchmarks. For example, if an elementary school decides to invest heavily in year one in third and fourth grade reading, its first-year benchmarks will reflect that by setting more ambitious targets for growth in reading achievement in third and fourth grade than for other grades and subjects. All schools will be required to show sufficient academic growth in all grades and subjects by year five, but initial benchmark goals will help foster the intense focus common to successful turnarounds by setting school- and year-specific targets.

Third, research shows that "early wins," or strong and measurable gains in the first year, are common to successful turnarounds. Therefore, benchmarks for all schools will require large and measurable gains in the school's first year of turnaround, and sustained progress thereafter. Timelines will not be constructed as "balloon payments" to allow the school to remain low-performing for three to four years and then expect to make large leaps in year five.

- *A set of leading indicators to inform the district and State whether each school is on-track to meet its benchmarks and ultimate goals for student achievement.* In conjunction with the CTC, the CDE Turnaround Office will invest in the creation and refinement of a research-based set of leading indicators to measure success or failure in turnaround schools. In year one, the CDE will start with three initial sets of indicators, which it will develop over the course of spring 2010 and begin collecting from the first cohort of turnaround schools in early 2011. Mid-year collection and analysis of as many indicators as possible will enable the CDE, local districts and school leaders to initiate mid-course corrections or more dramatic shifts in strategy for the next school year. Consistent with Colorado's overall approach of building and collecting knowledge about what works in improving student outcomes, these indicators and results from the first cohort of turnaround schools will thereafter inform research and analysis to develop more accurate and refined sets of leading indicators for future cohorts of turnaround schools.

Leading indicators to be collected in year one will include:

(1) The leading indicators that must be used by States and districts to hold schools receiving Title I Section 1003(g) funds accountable, which include: the number of minutes within the school year; student participation rate on State

assessments in reading/language arts and in mathematics, by student subgroup; dropout rate; student attendance rate; number and percentage of students completing advanced coursework (e.g., AP/IB), early-college high schools, or dual enrollment classes; discipline incidents; truants; distribution of teachers by performance level on an LEA's teacher evaluation system; and teacher attendance rate.

(2) Other quantitative indicators that supplement those required under 1003(g), such as: results on interim assessments of student performance; the percentage of students taught by teachers who, in prior years, achieved above average or exceptional growth with their students; other measures of time allocated to learning, to be developed in conjunction with the National Center on Time and Learning; and others likely to be highly correlated with successful improvement efforts.

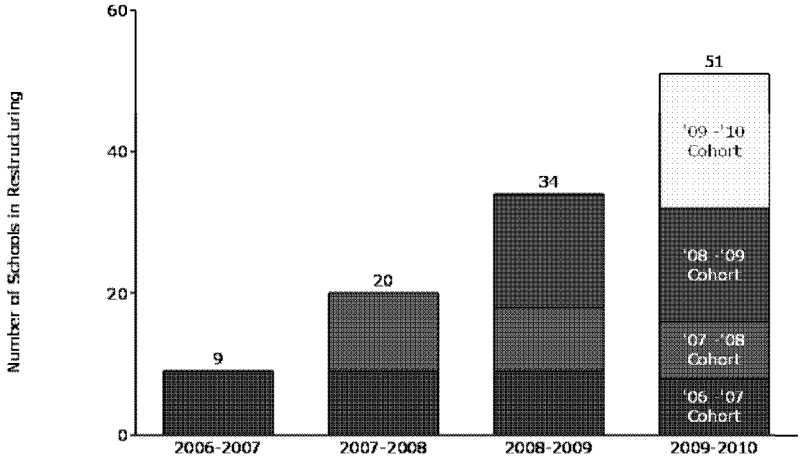
(3) Qualitative indicators that arise from cross-sector research about successful turnarounds. For example, the extent to which the school leader and staff have prioritized a few key goals that will lead to visible early wins; whether the school leader is engaging staff in regular and transparent sharing of data about student performance; and evidence of positive community involvement in the turnaround effort or the leader's successful efforts to influence those who oppose dramatic change.

- *Required district action if turnarounds are not on-track for success*. In their MOUs with the State, districts will be required to intervene quickly if leading indicators and initial achievement results suggest that turnaround efforts are not on-track. If districts do not step in to correct a turnaround effort, the CDE will mobilize its full authority under the Educational Accountability Act of 2009 and its control of federal and State dollars to ensure students' opportunity for success.

Exhibit VI.E(2)ii-5a
Historic Performance on School Turnaround: NCLB School Improvement, 2006-2009

Colorado Has Been Building Upon Its Efforts to Restructure Low-Performing Schools Over the Past Four Years Through NCLB School Improvement

Number of Schools by Restructuring Implementation Year, 2006-2009



Incremental Schools	9	11	14	17

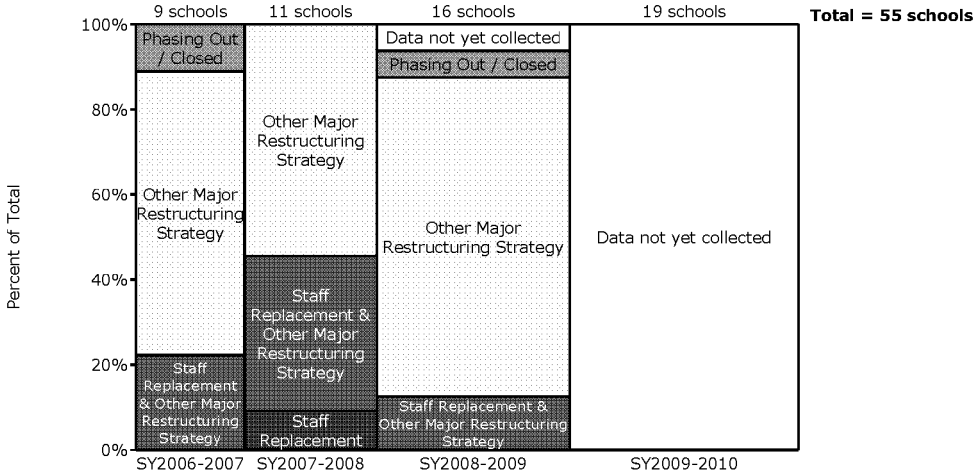
Source: Colorado Department of Education

2

A Variety of Restructuring Strategies Have Been Employed Among Schools Who Failed to Meet AYP in Two Consecutive Years

- Most schools have undergone a major restructuring strategy, some of which included a staff replacement

Number of Schools by Restructuring Implementation Year and Restructuring Strategy, 2006-2009



Source: Colorado Department of Education

3

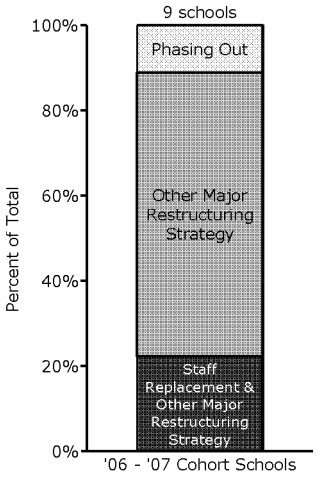
Nine Schools Entered Restructuring in the 2006-2007 School Year After Two Consecutive Years of Missing AYP

- These nine schools also missed AYP in their first year of restructuring

School	AYP 2004	AYP 2005	AYP 2006	AYP 2007 *First Year of Restructuring*	AYP 2008	AYP 2009
Amesse Elementary School	No	No	No	No	No	No
Charles M. Schenck (CMS) Community School	No	No	No	No	No	No
Cowell Elementary School	No	No	No	No	No	Yes
Ford Elementary School	Yes	No	No	No	Yes	No
Kepner Middle School	No	No	No	No	No	No
Lake Middle School	No	No	No	No	No	No
Rishel Middle School	No	No	No	No	No	No
Skinner Middle School	No	No	No	No	No	No
Swansea Elementary School	No	No	No	No	No	No

Yes = Made AYP
No = Did Not Make AYP

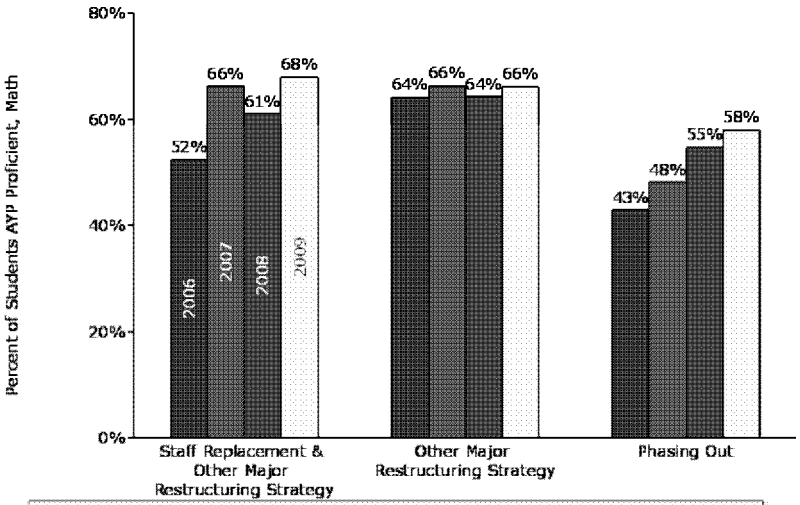
'06-'07 Cohort
Restructuring Strategies



Note: All nine schools are located in the Denver County School District
Source: Colorado Department of Education

AYP Math Improvement Was Most Significant in the One School Whose Restructuring Strategy Was to Be Phased Out

Students Meeting AYP in Math, '06-'07 RI1
Schools by Restructuring Strategy, 2006-2009

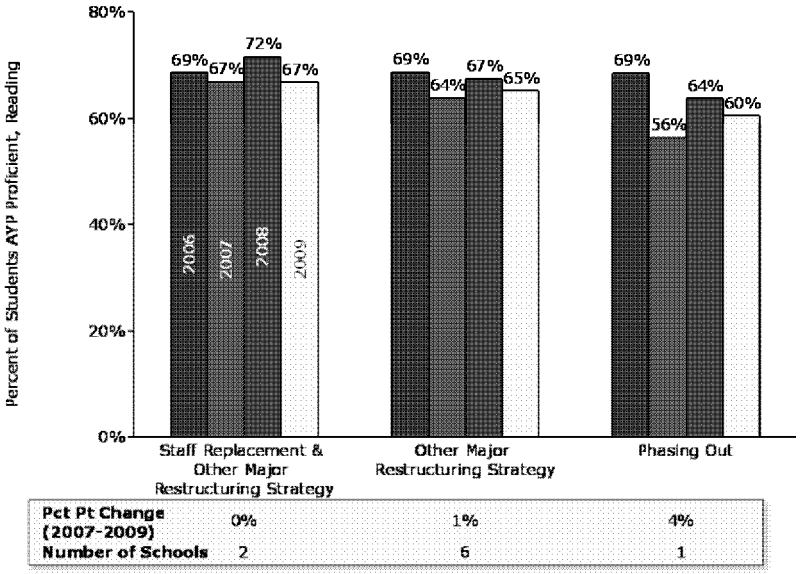


	Staff Replacement & Other Major Restructuring Strategy	Other Major Restructuring Strategy	Phasing Out
Pct Pt Change (2007-2009)	2%	0%	10%
Number of Schools	2	6	1

Note: Based on nine schools that entered restructuring in the 2006-2007 school year ("2007" corresponds to first year of restructuring); AYP proficiency includes partially proficient or better
Source: Colorado Department of Education

SY 2006-2007 Restructuring Schools Made Less Improvement in Reading Although the Single Phasing Out School Again Achieved the Greatest Gains

Students Meeting AYP in Reading, SY 2006-2007 RI1 Schools by Restructuring Strategy, 2006-2009

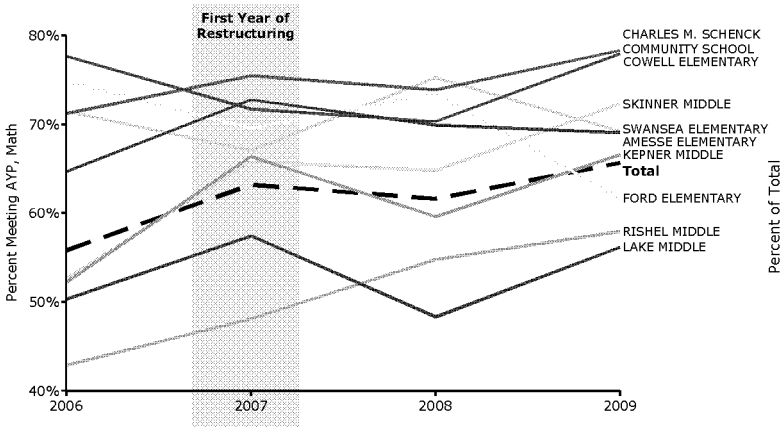


Note: Based on nine schools that entered restructuring in SY 2006-2007 ("2007" corresponds to first year of restructuring); AYP proficiency includes partially proficient or better
Source: Colorado Department of Education

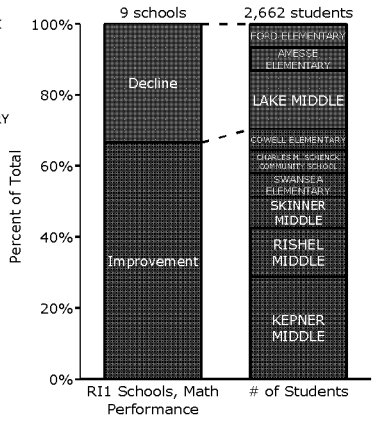
Although These Schools Are Still Struggling to Meet AYP, They Have Shown Improvement in Student Performance

- Two-thirds of schools that began restructuring in SY 2006-2007 improved AYP proficiency in math from 2007 to 2009

Students Meeting AYP in Math, SY 2006-2007 RI1 Schools, 2006-2009



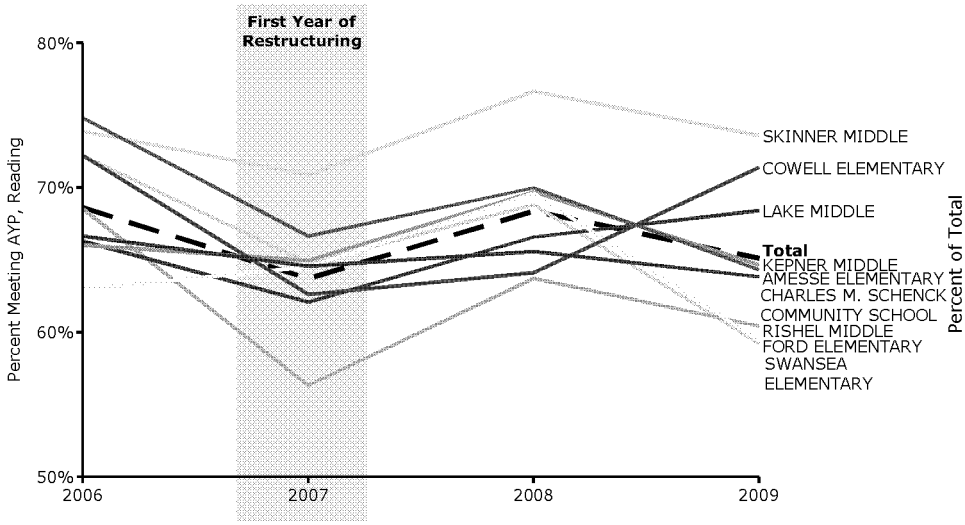
School Level AYP Performance Progress in Math, 2007-2009



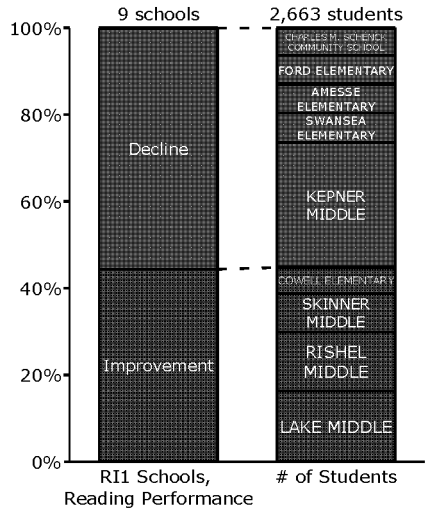
Note: All nine schools are located in the Denver County School District; Improvement/decline in AYP proficiency calculated by comparing 2009 percent AYP proficient and 2007 percent AYP proficient
Source: Colorado Department of Education

Just Under Half of Schools Which Began Restructuring in 2006-2007 Improved AYP Proficiency in Reading from 2007 to 2009

Students Meeting AYP in Reading, '06-'07 RI1 Schools, 2006-2009



School Level AYP Performance Progress in Reading, 2007-2009



Note: All nine schools are located in the Denver County School District; Improvement/decline in AYP proficiency calculated by comparing 2009 percent AYP proficient and 2007 percent AYP proficient
Source: Colorado Department of Education

8

Exhibit VI.E(2)ii-5b
Historic Performance on School Turnaround: State Board of Education Intervention in Cole Middle School

Prior law required that schools receiving an unsatisfactory rating for three consecutive years on their School Accountability Reports be mandatorily converted to a charter school. Implementation of two provisions from the Charter Schools Act (that have consequently been repealed), provided significant insight on intervention strategies for the State and spurred subsequent legislative changes. Section 22-7-609(5), C.R.S., (from the prior Educational Accountability Act) was the provision that directed the State Board of Education to review operations of those public schools that had received an academic performance rating of "unsatisfactory" after a second year of operation under a school improvement plan and to determine whether the school should be converted to a charter school. Section 22-7-609.3, C.R.S. (also from the prior Educational Accountability Act) directed the State Board to consider those schools that had received an academic performance rating of unsatisfactory for 2 school years in any three-year prior commencing after the school year in which a district/CSI had adopted a school restructuring plan to determine whether the school should be converted to a charter school.

In 2004, Denver's Cole Middle School, after receiving an unsatisfactory rating for three consecutive years became the first and only school in Colorado to be ordered by the State Board to convert to a charter school. Because of a lack of capacity, expertise, and resources to conduct the conversion process well and because there were several flaws in the authorizing legislation (which did not account for students caught in the transition from district school to charter, provided little guidance on the process for selecting new management, and created a harsh deadline by which a new school would need to open), candidates for receiving the charter had just a month to respond to the State's request for proposals and laborious charter contract negotiations impeded preparations for opening the school.

Cole reopened in fall 2005 as a "KIPP transition school," but by December, the school's governing board had dissolved, it was operating under its third principal and it had lost three of six teachers. Critics have pointed out that the conversion process had a variety of shortcomings, including: (1) failure to garner enough community buy-in, (2) an awkward implementation strategy to accommodate former Cole seventh- and eighth-graders instead of relying on its successful strategy of adding grades slowly and (3) a lack of sufficient time for KIPP to find and train a new principal through its nationally recognized leadership training program. KIPP elected to pull out from the school the following year and, although test scores in the spring of 2006 showed improvement from 2004, students were still below Statewide averages in many areas.

Exhibit VI.E(2)ii-5c
Historic Performance on School Turnaround: Phasing Out/School Closure

Rishel Middle School in Denver has struggled academically over the last several years. The school received a rating of Accredited on Probation, the district's lowest rating, as part of the robust School Performance Framework introduced this year by the district, which is heavily weighted to emphasize student achievement and measure academic growth over time. Rishel has also seen a steep drop in student enrollment over the years and currently occupies only 43% of the space available in the building. The board of education of Denver Public Schools approved the 2-year phasing out and eventual closure of Rishel Middle School by SY2010-2011.The elimination is part of the district's shared-campus plan and was not imposed by the State due to any State or federal accountability measures. The Rishel campus will be transitioned to a shared campus which will house the KIPP Denver Collegiate High School (9-12); Math & Science Leadership Academy (K-5); and current Rishel Middle School program (7-8).

On November 19, 2007, the board of education of Denver Public Schools approved the rolling-grade level closure of the existing academic program at Kunsmiller Middle School, starting at the end of the SY2007-2008 through the end of the SY2009-2010. As a condition of the approval, the board of education included milestones for academic program development, student recruitment, staff selection and professional development, and community engagement that needed to be met in order for a new school to replace Kunsmiller Middle School. The Kunsmiller Creative Arts Academy and West Denver Prep II (6-8), a charter school approved in June 2008, will share space.

Exhibit VI.E(2)ii-5d
Historic Performance on School Turnaround: Voluntary Restructuring by Denver Public Schools (DPS)

Denver Public Schools has implemented a variety of voluntary initiatives over the last few years geared toward implementing a comprehensive plan for school restructuring, which include the creation of innovation schools and charter schools, phasing out/closure of schools, and establishment of shared campuses.

Denver's Bruce Randolph Middle School is an example of how the district and a school that successfully navigated the voluntary restructuring option. In the case of Bruce Randolph, the district and new school leadership negotiated an agreement on waivers from the district's collective bargaining agreement, creating increased flexibility over the length of the school year, use of time during the school day, hiring of staff, leadership structure and staff pay. One objective of a better aligned system of accountability, support, and intervention is to craft a clearer turnaround path that will provide well-directed opportunities for more low-performing schools to engage in a process like the one taken by Bruce Randolph, particularly in the context of the flexibility provided to Innovation Schools and school zones under Senate Bill 08-130.

Additionally, in 2008 the DPS Board of Education approved opening five new schools (four charter schools and one innovation school), the phase-out of the current Rishel Middle School program, and the sharing of four existing facilities with new schools starting next school year. The new school openings are part of the district's effort to introduce high performing school options through the request for proposal process run by the district's New Schools Office.

- **Innovation Schools**
  Innovation Schools are a new category of schools that operate as district schools but actively implement new educational and operational practices.
    - Math & Science Leadership Academy, a teacher-led innovation school proposal, was approved and has started a kindergarten through fifth grade program on the Rishel shared campus.
    - Cole Arts and Science Academy was approved under the Innovation Schools Act by the SBE on 8/13/09
    - Manual High School was approved by the State Board of Education on 2/19/09
    - Montclair School of Academics by the State Board of Education on 2/19/09
- **Charter schools**
    - KIPP Denver Collegiate High School charter school was approved and will start a ninth through twelfth grade program starting next school year on the Rishel shared campus.
    - César Chávez Academy Denver charter school, a replica of the school model in Colorado Springs and Pueblo, was approved and has started a kindergarten through eighth grade program. This new school will not share space in existing district facilities.
    - Justice High School Denver charter school, a replica of the Boulder-based school serving high-risk youth, was approved and has started a seventh through twelfth grade program. This new school will not share space in existing district facilities.
    - Edison Learning School 3 charter school, a replica of the Edison Learning model as seen in Wyatt-Edison and Omar D. Blair schools, was approved and has started a sixth through eighth grade program. This school will be located on the West High School shared campus.

The Denver school board has also approved a shared campus policy which specifies the principles that will guide the creation and operation of shared campuses in the district and has accepted the recommendations by the district regarding which buildings will become shared campuses next school year.

- The Rishel campus will house KIPP Denver Collegiate High School (9-12) and Math & Science Leadership Academy (K-5). The current middle school program at Rishel (6-8) was phased out, allowing all current sixth and seventh grade students to stay at the school through the conclusion of their eighth grade year (2010-2011).

- The West building will become a shared campus housing West High School (9-12) and Edison Learning School 3 (6-8).

- The Smiley building will house the current Smiley Middle School International Baccalaureate Middle Years Program (6-8) and Envision Leadership Prep (6-12), a charter school serving targeted first-generation college-going students that was approved by the district in June 2008.

- On the Kunsmiller shared campus, the district's new Kunsmiller Creative Arts Academy (K-12) and West Denver Prep II (6-8), a charter school approved in June 2008, will share space.

Exhibit IV.E(2)ii-6
Summary of Supporting Evidence for Activities Proposed in (E)(2)(ii)

Initiative 1: Stimulate supply and build capacity for dramatic improvement in the state's persistently lowest-achieving schools			
Activity	Supporting statement	Resources	Explanation
Enable leaders to participate in an MBA program designed to prepare school turnaround leaders; Establish Leadership Residency for turnaround schools	To carry out the actions that recur in successful turnarounds, leaders need a unique set of competencies, such as achievement orientation, impact and influence, problem solving, analytical thinking, and persistence.	Spencer, L.M & Spencer, S.M. (1993) *Competence at Work*. New York, NY: John Wiley & Sons	Competencies of highly-effective turnaround leaders may include achievement orientation, impact and influence, problem solving, analytical thinking, and persistence. See Chapter 17, entrepreneur competencies.
		Public Impact (2008). *School Turnaround Leaders: Competencies for Success*. Chapel Hill, NC: Author	The competencies included here stem primarily from in-depth studies of highly successful leaders in analogous leadership roles (e.g., entrepreneurs, managers in complex organizations). These studies quantify the competency differences between typical and highly successful people in these roles. The specific competencies used here were selected to match the turnaround actions found in cross-sector literature.
	State and local leaders can use Behavioral Event Interviewing (BEI) to select turnaround leaders with the required competencies.	Krajewski, H. T., Goffin, R. D., McCarthy, J. M., Rothstein, M. G., & Johnston, N. (2006). Comparing the validity of structured interviews for managerial-level employees: Should we look to the past or focus on the future? *Journal of Occupational and Organizational Psychology*, 79, 411-432	"Past behavior interviews" (of which BEIs are one form) are shown to significantly predict job performance ratings.
		Huffcutt, Weekley, etc. (2001); Pulakos, E. D. and Schmitt, N. (1995). Experience-based and situational interview questions: Studies of validity. *Personnel Psychology*, 48, 289–308	Experience-based interviews yield high levels of validity in predicting future job performance.
		Spencer, L. M., McClelland, D. C., & Spencer, S. M. (1992). *Competency Assessment Methods: History and state of the art*. Hay/McBer Research Press, p. 38.	Detailed discussion of the reliability and validity of approaches to measuring competencies and selecting based on these measures.

Initiative 1: Stimulate supply and build capacity for dramatic improvement in the state's persistently lowest-achieving schools			
Activity	Supporting statement	Resources	Explanation
Build supply of providers to open high-quality new schools	Newly-created schools have shown promising results with previously underserved students.	Tough, P. (2009). *Whatever it Takes.*	Exploration of the Harlem Children's Zone, including the role that new schools play in helping poor students compete with their middle-class peers.
		Merseth, K. (2009). *Inside Urban Charter Schools.*	Explores the intricate workings of five consistently high-performing charter schools in urban areas in Massachusetts—four in Boston and one in Lawrence. These schools, while unique in important ways, also share several common practices and approaches to educating children that may hold important keys to providing a first-rate public education for all students.
	"Restarting" with a new provider to operate a previously low-performing school has shown promising results.	St. Hope, (2008). *Evidence of Value-Added Achievement*	St HOPE's elementary school is the highest performing elementary school in the area, posting significant gains in ELA and math proficiency rates. St. HOPE's high school, Sac High, has seen significant improvement in high school exit exam results and college-going rates.
		Mass Insight. (2009) *Duggan Middle School Case Study*	Duggan is showing early indicators of positive progress, particularly in English Language Arts. Though the sixth grade is lagging behind the overall improvement trend, seventh and eighth grade students outperformed their district peers for the first time. The math data showed a slight uptick in performance across the board, though it still lags both district and state performance averages.
Pilot intensive turnaround models in cooperation with Mass Insight and partnership zones	Case studies of turnaround models show great success following many fundamental elements of the Mass Insight turnaround model.	Harvard School of Excellence, Chicago	The Academy for Urban School Leadership began turning around low-performing Chicago Public Schools after their highly-trained teachers became frustrated working within the traditional school structures. By linking the AUSL teacher residency program with the operation of schools, AUSL is able to simultaneously train new teachers, while also transforming the structure of chronically low-performing schools. AUSL closely resembles a Lead Partner, as the organization has the authority to make decisions, and is accountable for specific performance benchmarks, both of which are defined by a contract with the Chicago Public Schools.
		McDaniel Elementary School, Philadelphia, PA	In the spring of 2006, McDaniel Elementary was one of twelve low-performing schools selected by the District of Philadelphia for inclusion in a specially created sub-district ("CEO District"). This designation provided a few altered conditions, but did include additional support from the sub-district superintendent, and an investment in turnaround management training from the University of Virginia's School Turnaround Specialist Program.

Initiative 1: Stimulate supply and build capacity for dramatic improvement in the state's persistently lowest-achieving schools			
Activity	Supporting statement	Resources	Explanation
		Miami-Dade County Public Schools, School Improvement Zone	Miami's School Improvement Zone was launched in 2004 as a district-based carve-out zone. The Zone was created as a temporary intervention, and was dissolved after three years. The Miami case provides a unique set of lessons learned for other states and districts who are developing their own turnaround strategies. The Zone's creation of a separate office (yet one that didn't have full autonomy), the limited use of external partners, the emphasis on extended learning time, and a focus on literacy are highlighted in this case study.
		Pickett Middle School, Philadelphia	Mastery Charter Schools converts existing low-performing Philadelphia schools into charter schools. Pickett Middle School serves the same demographic of students as the "Old Pickett," but the school was renovated, re-staffed, and is now run by the CMO. Mastery provides centralized leadership and a "tight" governance structure for its charter schools and focuses on students achieving basic proficiency levels within the first few years of enrollment. Financial and non-financial incentives are offered to teachers based on student performance
		Sci Academy, Recovery School District, New Orleans, LA	Sci Academy is a charter school in New Orleans, LA that was created as part of the Recovery School District. The school's curriculum focuses on science and math, and the leadership is supported by the non-profit strategic partner, New Schools for New Orleans.
Provide significant financial incentives to reward leaders for success in turnaround schools	States and districts can increase the pool of turnaround teacher applicants by offering special performance incentives for leaders who demonstrate great results with students in a turnaround schools.	Banker, R. D., Lee, S. Y. Potter, G. & Srinivasan, D. (2000). "An Empirical Analysis of Continuing Improvements Following the Implementation of a Performance-Based Compensation Plan." *Journal of Accounting and Economics* Vol 30 (3)	Study of nearly 4000 employees at one firm found that introduction of a pay-for-performance bonus plan helped the firm attract and retain more productive sales employees.
		Bouwens, J. & van Lent, L. (2003). *Effort and Selection Effects of Incentive Contracts.* Tilburg University Center for Economic Research	A survey of compensation practices among 151 CEOs found that incentive-based compensation methods attract better employees, who, in turn, provide more effort.
		M. Beer and M.D. Cannon (2004). "Promise and Peril in Implementing Pay-For-Performance," *Human Resource Management* 43(1)	Finding pay-for-performance programs generally have a positive effect upon employee performance.

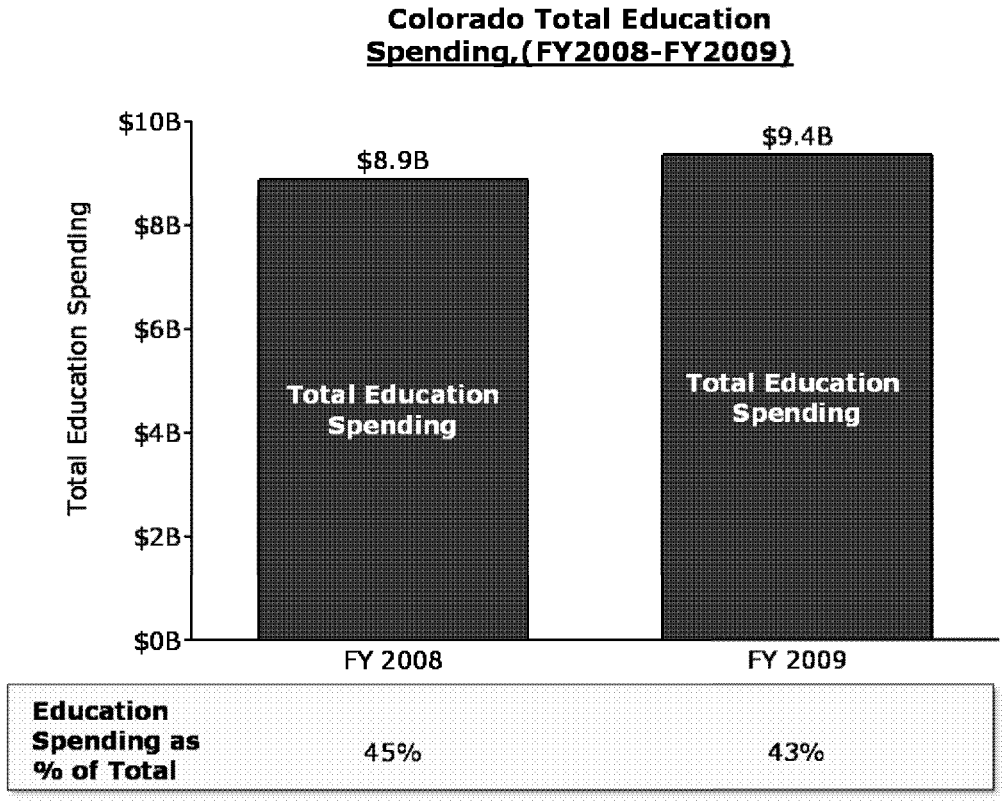
Initiative 1: Stimulate supply and build capacity for dramatic improvement in the state's persistently lowest-achieving schools			
Activity	Supporting statement	Resources	Explanation
Through the Colorado Turnaround Center, To provide incentives and support for the essential elements of turnaround, including engaging students and parents in turnarounds and student learning; providing dropout prevention services, and providing assistance in incorporating extended learning time during the school day and year	Research demonstrates that effective family engagement supports higher student achievement and graduation rates.	A New Generation of Evidence: The Family is Critical to Student Achievement, edited by Anne T. Henderson and Nancy Berla, Center for Law and Education, Washington, D.C., 1994 (third printing, 1996).	When their parents are involved, students gain: higher grades and test scores, better attendance and more homework done, fewer placements in special education, more positive attitudes and behavior, higher graduation rates, and greater enrollment in post-secondary education. Benefits of parent involvement for parents: more confidence in the school, higher teacher expectations of their children, higher teacher opinions of them as parents, more self-confidence, and more likely to continue their own education. Benefits of parent involvement for schools: improves teacher morale, higher ratings of teachers by parents, more support from families, higher student achievement, and better reputations in the community.
	Services will incorporate best practices and national research to help districts identify early warning signals to guide potential interventions aimed at preventing dropouts.	Martha Able MacIver, Robert Balfanz, and Vaughan Byrns, "Advancing the 'Colorado Graduates' Agenda: Understanding the Dropout Problem and Mobilizing to Meet the Graduation Challenge," The Center for Social Organization of Schools, Johns Hopkins University. October 2009.	Building upon research conducted in other cities, the Center for Social Organization of Schools at Johns Hopkins University has partnered with five of Colorado's largest school districts to help them understand both who is at risk of dropping out of school (by looking at sixth and ninth grade data) and profiles of recent dropouts in their schools and communities. Identifying students with poor attendance, failing grades, and poor behavior can help educators and communities prevent future dropouts and intervene with students much earlier to keep them on the path to graduation.
	Adding more learning time is an especially effective reform strategy for increasing student achievement in math, ELA and science and closing the achievement gap.	Listening to Experts: What Massachusetts teachers are saying about time and learning and the Expanded Learning Time Initiative. (Boston, MA: Massachusetts 2020, May 2009), Massachusetts Teachers Association, American Federation of Teachers Massachusetts and National Center on Time & Learning.	With expanded learning time, teachers meet regularly each week to analyze student data and assess student progress in order to strengthen and target instruction in the areas where each individual student needs help. As a result teachers in ELT schools believe they have adequate time to complete the curriculum and meet the needs of all students. When used effectively, more time for teachers can have a significant impact on teaching quality, and as a result, student outcomes.
	The community in which an organization is located plays a pivotal role in supporting or undermining major change efforts.	Gnyawali, D. R., & Fogel, D. S. (1994). Environments for entrepreneurship development: Key dimensions and research implications. *Entrepreneurship: Theory and Practice.* 18(4), 43-54	Local communities can play an important role in developing an entrepreneurial environment. A favorable attitude of the society toward entrepreneurship and a widespread public support for entrepreneurial activities are both needed to motivate people to start a new business.

Initiative 1: Stimulate supply and build capacity for dramatic improvement in the state's persistently lowest-achieving schools			
Activity	Supporting statement	Resources	Explanation
Build parent, student, community and public support for dramatic change		Calkins, A., Guenther, W., Belfiore, G., & Lash, D. (2007). *The turnaround challenge: Why America's best opportunity to dramatically improve student achievement lies in our worst-performing schools.* Mass Insight.	Turnaround of failing local schools has no natural constituency. Coalitions of support must instead be built at two levels – statewide and community-wide. To ensure sustained and sufficient statewide commitment to turnaround reforms and investments, someone must create an advocacy coalition of political, education, corporate, foundation, university, and nonprofit leaders.
		Duke, D. L., Tucker, P. D., Belcher, M., Crews, D., Harrison-Coleman, J., Higgins, J., et al. (2005, September). *Lift-off: Launching the school turnaround process in 10 Virginia schools.* Charlottesville, VA: Darden/Curry Partnership for Leaders in Education.	Examples of the role of the community in several school turnarounds.
		Herman, R., Dawson, P., Dee, T., Greene, J., Maynard, R., Redding, S., and Darwin, M. (2008). *Turning Around Chronically Low-Performing Schools: A Practice Guide.* Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.	Signaling change may be difficult when the prevailing community perception of the school is negative.48 School leaders may need to initiate a public campaign in the community to develop immediate support. A faulty plan, a resistant staff or community, or a feeble or inept commitment to change can derail the turnaround.
		Brenneman, G. (1998, September-October). Right away and all at once: How we saved Continental. *Harvard Business Review*, 76(5), 162-179.	Re: the challenge of dealing with tough opposition from organized employees.
		Hamel, G. (2000 , July-August). Waking up IBM: How a gang of unlikely rebels transformed Big Blue. *Harvard Business Review*, 78(4), 137-146.	Re: the challenge of overcoming internal organizational resistance to change.
		Kim, W. C., & Marborgne, R. (2003, April). Tipping point leadership. *Harvard Business Review*, 81(4), 60-69.	Re: community and employee distrust and skepticism of initial turnaround strategies.

Initiative 2: Provide incentives and supports for dramatic turnarounds in the state's persistently lowest-achieving schools			
Activity	Supporting statement	Resources	Explanation
Negotiates scopes of work with districts where target schools are located that require districts to provide greater autonomy for turnaround schools	Successful starting fresh and turnaround efforts frequently occur in an environment in which leaders are given increased autonomy over critical decisions, especially in the areas of staffing, scheduling, and budget.	Berends, M. Bodilly, S.J. & Kirby, S.N. (2002) *Facing the Challenges of Whole-School Reform: New American Schools After A Decade*. Santa Monica, CA: RAND	RAND authors note that change in these schools called for significant school autonomy over budget, staffing, curriculum, instruction and assessments.
		Gnyawali, D. R., & Fogel, D. S. (1994). Environments for entrepreneurship development: Key dimensions and research implications. *Entrepreneurship: Theory and Practice*. 18(4), 43-54	Empirical studies of entrepreneurial environments of various countries show that countries that keep rules and regulations at a minimum, offer tax and other incentives, and provide training and counseling services to start-up entrepreneurs increase the likelihood of new venture start-ups.
		Herman, R., Dawson, P., Dee, T., Greene, J., Maynard, R., Redding, S., and Darwin, M. (2008). *Turning Around Chronically Low-Performing Schools: A Practice Guide*. Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.	Some turnaround schools changed instructional schedules; school leaders took care to choose the right staff for the school and to deploy staff members carefully to meet the student needs. School leaders needed to make certain that the selected staff fit the vision of the school and its context.
		Calkins, A., Guenther, W., Belfiore, G., & Lash, D. (2007). *The turnaround challenge: Why America's best opportunity to dramatically improve student achievement lies in our worst-performing schools.* Mass Insight.	Schools seeking to raise student achievement dramatically put the right people in the right positions to do their most effective work, and then enable that performance with operating conditions and incentives that support it. Turnaround school leaders must have the ability to shape the staff in their schools, without regard to seniority or other contract bargaining restrictions.
Set expectations for and monitor districts' swift action in turnaround schools.	In turnaround efforts that are successful, fast, focused changes occur in the first few months and substantial improvements occur within the first year.	Buchanan, L. (2003, December). The turning of Atlanta. *Harvard Business Review*, 76(5), 162-179.	Turnaround in 60 days.
		Kotter, J. P. (1995, March-April). Leading change: Why transformation efforts fail. *Harvard Business Review*, 73(2), 19-27.	Importance of a sense of urgency for rapid results.
		Paton, R., & Mordaunt, J. (2004, August). What's different about public and non-profit "turnaround"? *Public Money & Management*, 24(4), 209-216.	Including time spans for case studies of turnarounds.

Exhibit VI.F(1)i-1a
Colorado Total Education Spending

Education Spending Has Increased Overall But Has Declined as a Percent of Total State Expenditures

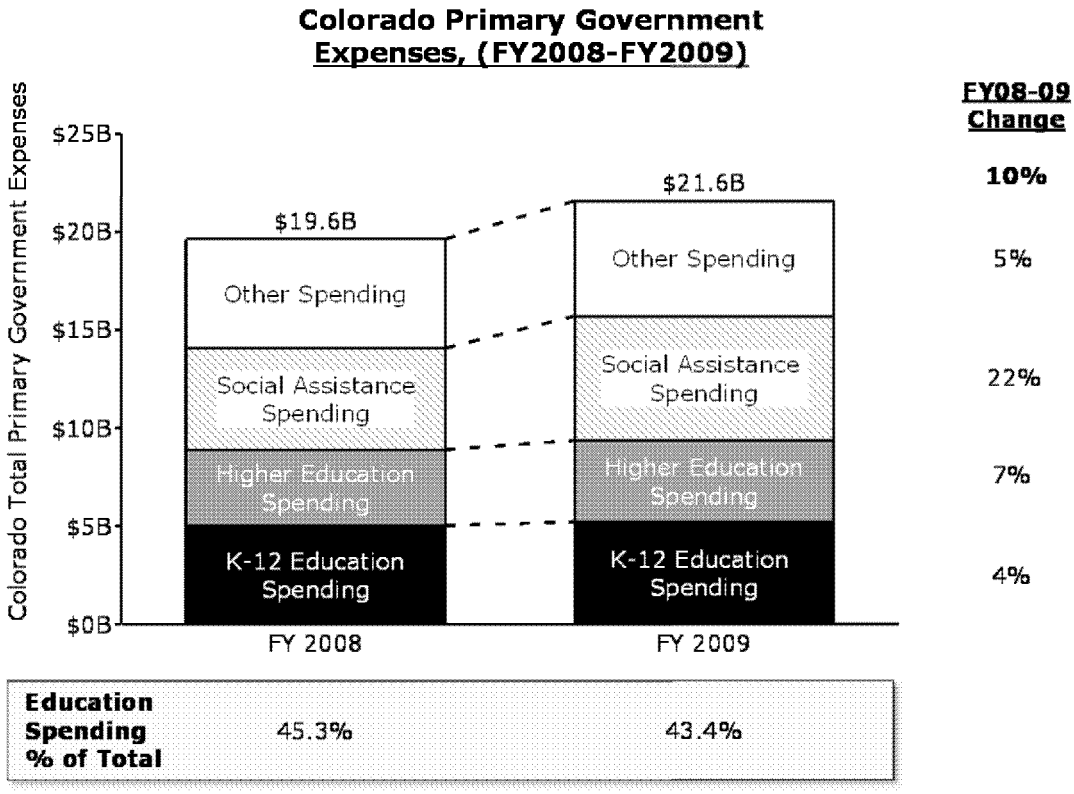


Note: Social Assistance and Unemployment spending increased by 22% from FY08-09, representing an increase from 26% to 29% of overall primary gov't expenditures; Property & Specific Ownership Taxes constitute 37% in FY08 and 35% in FY09 of K-12 education spending; FY09 expenditures are for year ending June 30, 2009
Source: Colorado Annual Financial Report; State Education Fund Report

3

Exhibit VI.F(1)i-1b
Colorado Education Spending as a Percent of Total Expenditures

While Education Spending Increased by 5%, Growth in Social Assistance Spending Dominated Growth in Total State Expenditures

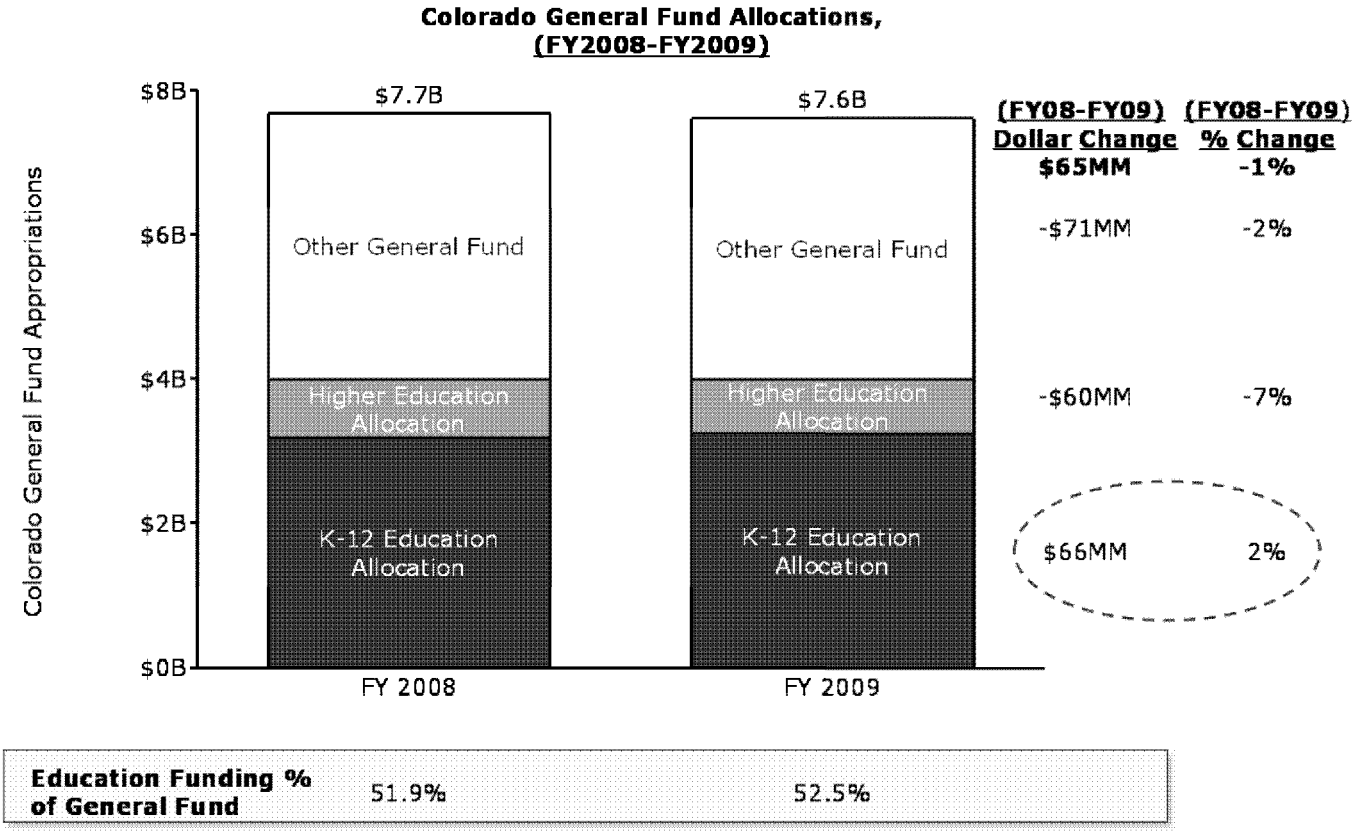


Note: The 22% increase in Social Assistance spending includes Unemployment and represents an increase from 26% to 29% of overall primary gov't expenditures; Property & Specific Ownership Taxes constitute 37% in FY08 and 35% in FY09 of K-12 education spending; FY09 expenditures are for year ending June 30, 2009
Source: Colorado Annual Financial Report; State Education Fund Report

4

Exhibit VI.F(1)i-1c
Colorado State Education Fund Allocations

Despite a Decline in the General Fund from FY08 to FY09, Overall Allocations to K-12 and Higher Education Increased

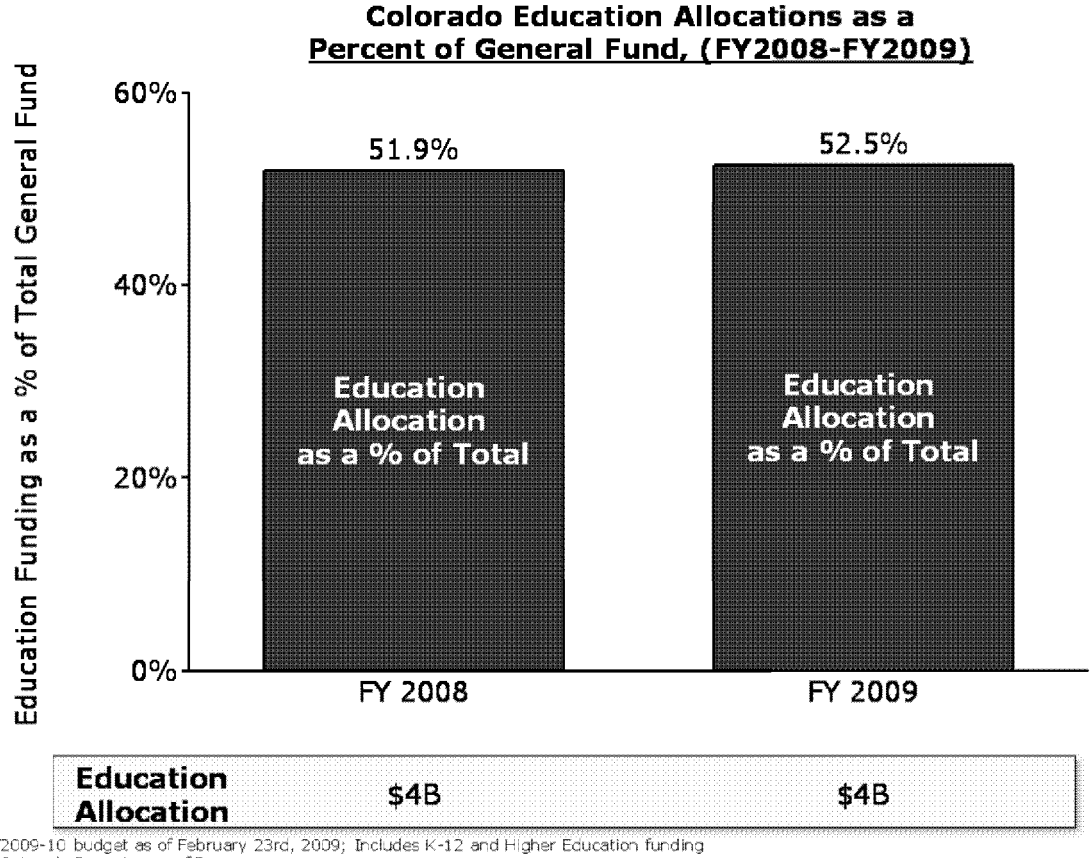


Note: FY2009-10 budget as of February 23rd, 2009
Source: Colorado Department of Revenue

5

Exhibit VI.F(1)i-1d
Colorado Education Allocations as a Percent of General Fund Allocations

Education Allocations Increased by ~60 Basis Points as a Percent of Total General Fund Allocations from FY08 to FY09



Note: FY2009-10 budget as of February 23rd, 2009; Includes K-12 and Higher Education funding
Source: Colorado Department of Revenue

UNDERSTANDING COLORADO SCHOOL FINANCE AND CATEGORICAL PROGRAM FUNDING

July 2009

Colorado Department of Education
Public School Finance Unit
201 East Colfax Avenue
Room 206
Denver, CO 80203
www.cde.State.co.us

Colorado public schools receive funding from a variety of sources. However, most revenues to Colorado's 178 school districts are provided through the Public School Finance Act of 1994 (as amended). In budget year 2009-10, this legislation provides for over $5.6 billion of funding to Colorado school districts via State taxes ($3.5 billion), Federal Stimulus funds ($152 million), local specific ownership (vehicle registration) taxes ($148 million), and local property taxes ($1.8 billion). Moneys provided via the Public School Finance Act of 1994 are available to each school district to fund the costs of providing public education.

PUBLIC SCHOOL FINANCE ACT OF 1994 (as amended) **(C.R.S. Article 54 of Title 22)**

The Public School Finance Act of Colorado is a formula used to determine State and local funding amounts for the State's 178 school districts and the Charter School Institute. Total Program is a term used to describe the total amount of money each school district receives under the School Finance Act.

DETERMINING TOTAL PROGRAM (C.R.S. 22-54-104)

A) ***Counting Pupils***

Funding is based on an annual October pupil count. Each school district counts pupils in membership as of the school day nearest October 1 (the official count day). Districts are given an opportunity to provide documentation that a student re-established membership by October 31st for a student who may be absent on the official count day, but was in attendance prior to October 1st.

Generally, pupils in grades 1 through 12 are counted either as full-time or part-time depending upon the number of scheduled hours of coursework. Kindergarten, preschool special education, and a limited number of at-risk preschool (see Colorado Preschool Program discussion below) pupils are counted as part-time.

For most school districts, funding is based on the number of pupils counted in the current school year. However, for a district with an enrollment fluctuating from year to year, funding is based on an average of up to four prior years' October pupil counts and the current year's October pupil count. As such, the impact of annual enrollment variances on funding is softened.

Beginning in FY 2008-09, the funded pupil count is defined as the district's "On-line Pupil Count" plus the district's Colorado Preschool Program Pupil Count plus the district's Supplemental Kindergarten Enrollment (.08 of the Kindergarten headcount) plus the higher of current year enrollment or the average of 2, 3, 4, or 5 years enrollment. Pupil enrollment shall include any pupil enrolled during FY 2001-02 in an on-line program.

HB04-1362 established the State Charter School Institute. The Institute will have seventeen charter schools in FY 2009-10. The institute charter school enrollment is added to the funded pupil count and on-line pupil enrollments of the "accounting district". The accounting district is defined as the school district within whose geographic boundaries an institute charter school is physically located.

School district funded enrollments in budget year 2009-10 are projected to range from 49.4 full-time equivalent (FTE) pupils to 81,233.0 full-time equivalent (FTE) pupils.

- Colorado Preschool Program (C.R.S. 22-28-101)

  The Colorado Preschool Program's main objective is to provide high quality early education support to children whose existing risk factors increase their chances of early school failure. Districts provide these services in partnership with families and other community resources serving families. In budget year 2008-09, funding is provided for the participation of up to 20,160 children who are eligible to be included in districts' funded pupil counts.

B) ***Total Program*** Funding to school districts is based on a per-pupil formula that calculates Total Program. For each pupil funded (see definition of "funded pupil count" above) in the October 1 pupil count, the formula provides a base per-pupil amount of money plus additional money to recognize district-by-district variances in: (a) cost of living, (b) personnel costs, and (c) size. The Total Program amount also includes additional funding for at-risk pupils. As these components vary among school districts, so do the expenses of the districts and, as such, the amount of Total Program funding provided.

To calculate Total Program, use the following formula:						
Funded Pupil Count (October 1	Times	Total Per- Pupil Funding	Plus	At-risk Funding	Plus	On-line Funding

- Total Per-pupil Funding

Base Funding -- the base amount of funding for each pupil is $5,507.68 in budget year 2009-10. **To this amount is added funding based on the specific factors as outlined below to arrive at a Total Per-pupil Funding amount for each district.**

Cost of Living Factor -- the cost of living factor reflects the differences in the costs of housing, goods, and services among each of the 178 school districts in the State. Cost differences are reviewed every two years to allow for timely recognition of economic changes. This factor is index-based, with a range from 1.010 to 1.647 in budget year 2009-10.

The cost of living calculation changed in FY 2004-05, replacing inflation with the increase in household income level. A district's cost of living factor is increased based on its cost of living increase above the household income increase, rather than its increase above inflation.

Personnel Costs Factor -- the personnel costs factor varies by school district based on enrollment. For all districts, employee salaries and benefits represent the largest single expense. As such, the formula directs funding based on these costs, using historical information and incorporating the above cost of living factor. This factor is projected to range from 79.92% to 90.50% in budget year 2009-10.

Size Factor -- like the above personnel costs factor, the size factor is determined using an enrollment-based calculation and is unique to each school district. This factor is included to recognize purchasing power differences among districts and to reflect the expression of funding on a per-pupil basis.

"Smaller" districts (fewer than 4,023 pupils) receive greater size factors and, thus, increased funding. Districts with greater than 4,023 pupils receive more moderate size factor adjustments.

A district with fewer than 500 pupils in which a charter school operates, receives an additional, compensating adjustment via an increased size factor designed to help mitigate the impacts of such an arrangement in a small district.

Size factors are projected to range from 1.0297 to 2.3981 in budget year 2009-10. Each size factor was reduced by .0045 in FY 2003-04.

At-Risk Funding -- Eligibility for participation in the federal free lunch program is used as a proxy of each school district's at-risk pupil population. Increased funding is provided to recognize that expenses among districts vary, as pupil populations vary, especially at-risk populations. For each at-risk pupil, a district receives funding equal to at least 12%, but no more than 30%, of its Total Per-pupil Funding (see prior discussion). As a district's percentage of at-risk population increases above the Statewide average (roughly 32.61%), an increased amount of at-risk funding is provided.

A district receives funding for the greater of: (1) each *actual* pupil eligible for the federal free lunch program; or (2) a *calculated* number of pupils based on the number of grades 1-8 pupils eligible for the federal free lunch program as a percent of the district's entire population. Beginning in FY 2005-06 the definition of at-risk students was expanded to

include students whose CSAP scores are not included in calculating a school's performance grade because the student's dominant language is not English and who are also not eligible for free lunch.

On-Line Funding -- Pupils enrolled in a certified Multi-district on-line program are funded at the on-line per pupil amount of $6,641. Pupils enrolled in a Single district on-line program are funded at the districts current per pupil funding amount as calculated below. A Single district program is defined as a district on-line program which enrolls no more than 10 students from another district.

C) ***Minimum Total Program***

For budget year 2009-10, each school district is guaranteed Total Program funding consisting of the sum of $6,856.72 per traditional pupil plus $6,641 per online pupil. In FY 2007-08 minimum per pupil funding for traditional pupils was increased to represent 94.3% of the State average per pupil funding less on-line funding. In FY 2008-09, minimum per pupil funding for traditional pupils equals 95% of the State average per pupil funding less on-line funding. In budget year 2009-10, fourteen districts are projected to receive funding based on the Minimum Total Program provision.

D) ***Maximum Total Program***

Each school district's annual Total Program per pupil funding cannot exceed 125% of its prior budget year Total Program per pupil funding. For budget year 2009-10, no district is projected to reach this maximum limit.

E) ***Limitation on Increases in Total Program***

Each school district's annual revenue and spending growth is limited by its percentage of growth in pupil enrollment plus the rate (percentage) of inflation, in accordance with the Taxpayer's Bill of Rights (TABOR) State constitutional amendment. This limit initially may restrict a district's ability to accept the full amount of funding as determined by the Total Program formula calculation.

In such a case, to subsequently receive the full formula amount of funding, a district must certify to the CDE that receiving the full amount of Total Program funding would not violate its TABOR limit. A district may need to seek voter authorization for an increase to its TABOR limit before being able to make such a certification.

In budget year 2009-10, 4 districts will be required to comply with the certification process or risk not receiving over $6.9 million of funding. The remaining 174 districts have received prior voter authorization and, thus, will receive the full formula amount of total program funding.

F) ***Illustration of Total Program Calculation***

In budget year 2009-10, Total Program funding for all 178 school districts is projected to range from $6,856.72 per pupil to $15,430.02 per pupil, with an average across all districts of $7,225.71 per pupil.

	Low	High	On-Line
Funded Pupil Count	2,281.7	49.4	37,005.3
Base Funding (BF)	$5,507.68	$5,507.68	$5,507.68
Cost of Living (CL)	1.132	1.068	1.221
Personnel Costs (PL)	86.30%	79.92%	90.50%
Size (SZ)	1.0539	2.3981	1.0297
	---	---	---
Total Per-Pupil Funding SZ*[(BF*CL*PL)+(BF*(1-PL))]	$6,466	$13,926	$6,806
At-Risk Pupil Count	592.0	26.0	11,952
"Base" At-Risk Funding 12% * Total Per-pupil Funding	$776	$1,671	$817
"Population" At-Risk Funding district % > State %	N/A	N/A	N/A
	---	---	---
Total At-Risk Funding (included in Total Per-Pupil Funding)	$459,329	$43,448	$9,760,775
On-Line Pupil Count.....	N/A	N/A	4,644.5
Per-Pupil Funding	N/A	N/A	6,641.00
Total On-Line Funding	N/A	N/A	$30,844,125
Total Program Formula.....	$15,468,401	$731,381	$292,445,877
Per-Pupil	$6,779	$14,805	$7,022
Total Program Funding Guarantee	$15,644,978	$338,722	$284,579,105
Minimum Total Program Guarantee	$6,856.72	$6,856.72	$6,856.72
Total Program per Pupil.....	$6,856.72	$14,805	$7,022

G) *Earmarked Revenue* (C.R.S. 22-54-105)

Each school district individually has the discretion, within the limits of existing law, to determine how its Total Program moneys are spent, with one exception required by the State in budget year 2009-10.

1. *Programs for At-Risk Pupils* -- Each school district must allocate at least 75% of its at-risk funding to school or district-wide instructional programs for at-risk pupils or to staff development associated with teaching at-risk pupils in each district.

Prior to FY 2009-10 districts were also required to allocate funds to Instructional Supplies and Materials and Capital and/or Insurance Reserves. However, beginning in FY 2009-10 districts are no longer required to allocate these funds

and district contributions are strictly voluntary. Further, there are no minimum spending requirements for these funds.

There are no restrictions on transferring funds between accounts established and maintained by the district with the exception of any funds remaining in the Capital/Insurance Reserve at the end of FY 2008-09 must be used for the purposes intended at the time they were allocated.

DETERMINING LOCAL SHARE (C.R.S. 22-54-106)

Two local sources of revenues are incorporated into the Public School Finance Act of 1994 (as amended): property taxes and specific ownership (vehicle registration) taxes. Funding for a school district's Total Program is provided first by local sources of revenues (the Local Share); if these local sources are insufficient to fully fund Total Program, State moneys fund any shortfall.

A) ***Property Taxes***

Each school district is required to impose a property tax levy to finance its Local Share of Total Program. The ability to raise money from property taxes varies widely among districts. Differences in tax bases (assessed property values) result in differences in revenues collected, using a given mill levy. Nonetheless, no district's property tax revenues are transferred to any other district; instead, moneys raised remain in the district which imposes the tax.

The county assessor determines the valuation of all property located within a district's boundaries (e.g. residential, commercial, agricultural, oil, and gas). The State is responsible for determining the valuation of public utilities within district boundaries. Regardless of property type, *assessed* valuation is based on a percentage of the property's *actual* value. For example, in budget year 2009-10, residential property is expected to have an assessed valuation equal to 7.96% of its actual value.

One mill of tax is the same as one-tenth of one percent (.001). Therefore, on residential property with an actual value of $100,000 and, thus, an assessed valuation of $7,960, each mill of tax raises $7.96.

Beginning in FY 2007-08, legislation was passed to stabilize school district mill levies. The legislation caps mill levies at 27 mills and freezes mill levies for districts with mill levies of 27 mills or less. This legislation applies to the Total Program mill levy only. It does not affect override, bond, special building and technology, full-day kindergarten excess cost, or transportation mill levies. Additionally, this mill levy cap/freeze does not apply to districts that have not held a successful TABOR election.

The four school districts which have not held a successful TABOR election must levy the least/smallest mill resulting from the following three options: (1) the mill that it levied in the prior year; (2) the mill necessary to entirely pay for its Total Program and categorical programs, less any specific ownership tax revenues and minimum State Share funding received (see subsequent discussion); or (3) the maximum mill allowed by the TABOR constitutional amendment.

Statewide across all school districts, property taxes are projected to provide $2,373 per pupil, or about 32.6% of Total Program funding.

B) ***Specific Ownership Taxes***

Vehicle registration taxes are collected by counties and are shared with school districts. Each district's Local Share includes an amount of specific ownership tax revenue equal to the prior budget year's actual amount received.

Statewide across all school districts, specific ownership taxes are projected to provide $191 per pupil, or about 2.6% of Total Program funding.

DETERMINING STATE SHARE

Funding from the State (State Share) is provided to each school district whose Local Share is insufficient to fully fund its Total Program. Payments of State Share moneys are made monthly to districts and are funded primarily from State income (personal and corporate) and sales and use tax revenues collected. In FY 2009-10, $152 million or approximately 4 percent of the "State Share" will be funded with Federal Stimulus funds.

In budget year 2009-10, State Share financing to districts is projected to range from $96.58 per pupil to $12,413 per pupil. (Each district is guaranteed at least $96.58 per pupil.)

Statewide across all school districts, State Share is projected to provide $4,726 per pupil, or about 64.8% of Total Program funding.

OTHER FUNDING

Override Revenues (C.R.S. 22-54-108)

A school district may desire to spend more property tax revenues than authorized/required to fund its Total Program. In this event, a district must seek approval from its voters to raise and expend "override" property tax revenues via an additional mill levy. Override revenues also are permitted for a district whose budget year 1994-95 actual Total Program exceeded its budget year 1994-95 formula calculation (a "hold harmless" district).

Beginning in FY 2009-10, a district's override revenues cannot exceed 25% of its Total Program or $200,000, whichever is greater, plus an amount equal to the maximum dollar amount of property tax revenue that the district could have generated for FY 2001-02 in a Cost of Living Adjustment election. All override revenues come from increased property taxes; no additional State funding occurs. A district's voter approval to raise and expend "override" revenues does not affect the amount of State Share funding which the district is eligible to receive.

Capital/Building Needs –

Four distinct avenues through which a school district may meet its capital/building needs are discussed below.

1. ***Bonded Indebtedness*** (C.R.S. 22-42-102) -- A district may hold an election to authorize it to issue bonds to meet its capital needs. Principal and interest payments on bonds are paid from increased property tax revenues generated by a separate, additional mill that the district must be authorized to levy. A district may not have outstanding bond debt in excess of 20% (25% for rapidly growing districts) of its assessed property valuation or 6% of its actual property value, whichever is greater.

   School districts considering submitting a ballot question for bonded indebtedness to the electors of the district shall invite each charter school to participate in discussions regarding the possible submission of a ballot question. (See Charter School Section Below)

2. ***Special Building and Technology Fund*** (C.R.S. 22-45-103(1)(d)) -- A district may hold an election to authorize it to levy up to ten mills for not longer than three years. Moneys generated by this levy are available to fund the purchase of land, the construction, purchase, and maintenance of facilities, and the purchase and installation of building security, instructional, and informational technologies.
3. ***Building Excellent Schools Today (B.E.S.T.)*** (Article 43.7 of Title 22) -- Provides a new funding structure for school capital construction projects, allowing school districts to enter into certificates of participation for lease-purchase agreements through the State Treasury for construction projects. Maintains a grant program for school capital construction projects that do not meet the requirements of the lease-purchase program.

Brings all capital construction funding under one umbrella for administration and distribution of funds and is intended to replace the remaining obligations of the "Giardino Settlement"

4. ***Loan Program for Capital Improvements in "Growth Districts"*** (C.R.S. 22-2-125) -- A district which is identified as a "growth district" as defined above, is eligible to apply for a loan from the State Treasurer. This debt must be voter approved and if a property tax mill levy is the method of repayment, such levy must also be approved at the same time. At the time of the loan application, the district must specify the method of repayment and the terms of repayment may not exceed 10 years. The district must also have voter approval for a repayment period of longer than one year.

   If a property tax mill levy will be used to repay the loan, the mill must be no more than 5 mills or a number of mills determined by dividing the latest Statewide average per pupil assessed valuation (PPAV) by the latest PPAV of the growth district, whichever is less. If the district's PPAV is greater than the Statewide average PPAV, the growth district may impose an additional property tax levy of no more than 1 mill.

Contingency Reserve (C.R.S. 22-54-117)

The Colorado State Board of Education is authorized to approve emergency supplemental payments to assist school districts. Such payments are made at the discretion of the Board and following applicable statutory guidelines, subject to available funds.

Charter School Funding (C.R.S. 22-30.5-112)

Charter schools are funded based on the October 1 pupil count as reported to their school district. Charter schools receive 100% of the per pupil revenue for each pupil enrolled in the charter school. The district may charge the charter school for central administrative overhead costs for services actually provided to the charter school.

For charter schools in districts with more than 500 pupils, these central administrative overhead costs may not exceed 5% of district per pupil revenue (see illustration above) for each pupil enrolled in the charter school including on-line pupils.

For charter schools in districts with 500 or fewer pupils, these central administrative overhead costs may not exceed 15% of district per pupil revenue for each pupil enrolled in the charter school including on-line pupils.

A charter school who is an eligible small attendance center will receive 100% of the funding provided to the district for a small attendance center. (C.R.S. 22-54-122(4))

Charter schools that serve students who may be eligible to receive services provided through federal aid programs shall comply with federal reporting requirements to receive the federal aid.

Charter School At-Risk Funding

The alternate at-risk funding calculation applies only to charter schools that are newly created in FY 2004-05 or after; are in a district that has retained exclusive chartering authority; and the district has an at-risk percentage greater than 40%. The intent of the alternate at-risk funding calculation is to provide at-risk money based on the at-risk population served by the charter school.

The alternate at-risk funding formula is: (The accounting district's at-risk funding divided by the accounting district's funded pupil count) x (the district charter school's percentage of pupils eligible for free lunch divided by the accounting district's percentage of pupils eligible for free lunch) NOTE: THIS CALCULATION WORKSHEET IS POSTED ON THE SCHOOL FINANCE WEB PAGE.

Charter School Capital Facilities Funding

Pursuant to 22-30.5-404, C.R.S., school districts considering submitting any question of contracting bonded indebtedness to the electors of the district shall invite each charter school to participate in discussions regarding the possible submission of a question, no later than June 1 of the applicable year. Each district is encouraged to voluntarily include funding for the capital needs of the charter schools in the district's question. A charter school that has capital construction needs may seek funding by requesting the district Board of Education to:

1) Include the charter school's capital construction needs in the district's ballot question for approval of bonded indebtedness; or 2) submit a special mill levy ballot question to the voters of the district, upon request of the charter school.

The special mill levy for Charter Schools shall not exceed 1 mill in any year or exceed 10 years in duration for a single ballot question, but multiple ballot questions may be submitted. Costs of the election shall be borne by each charter school to receive revenue from the mill levy in proportion to the pro-rata share, unless other cost-sharing arrangements are agreed upon, or if the district decides to bear some or all of the costs.

Charter School Capital Construction Funding

In FY 2009-10 State Education Fund moneys to be distributed to charter schools for capital construction is $5 million. The funds will be distributed based on a per pupil share for all pupils enrolled in a "qualified charter school" that is not operating in a school district facility and half of the per pupil share for "qualified charter schools" operating in a school district facility and that has capital construction costs. No funding is provided to qualified charter schools operating in a school district facility that does not have capital construction costs. Funding will be distributed monthly rather than annually beginning in FY2009-10.

Colorado School Finance - Categorical Program Funding

Introduction

In addition to the Total Program funding provided by the Public School Finance Act of 1994 (as amended), Colorado school districts may receive State funding to pay for specific programs designed to serve particular groups of students or particular student needs. Such programs often are referred to as "categorical" programs.

While there are many different programs which are funded, this brochure addresses the six primary categorical program areas which regularly receive State funding: English language proficiency education, gifted and talented education, small attendance centers, special education, transportation, and vocational education.

In budget year 2009-10, the State of Colorado will make available approximately $222 million in support of these main categorical programs.

Small Attendance Centers
(Article 54 of Title 22, CRS)

In budget year 2009-10, it is estimated that roughly 800 pupils in Colorado will attend local schools each with less than a total of 200 pupils enrolled and each located 20 or more miles from any similar school (e.g., elementary) within the same school district.

Districts operating these "small attendance centers" face unique costs attributable to these remote locations. Accordingly, separate State funding is available to school districts facing these challenges. In budget year 2009-10, a total of $959,379 is projected to be available to 11 school districts operating a total of 13 remote schools.

Allocation of these funds is determined via a formula which incorporates the respective district's total pupil population and the relative burden added by the presence of small attendance center pupils. The total estimated

impact of these schools is roughly $2.7 million. The available State funding will cover about 35% of this amount, while districts provide the remaining 65% from other available funds.

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English Language Proficiency Act (ELPA)
(Article 24 of Title 22, CRS)

Currently, it is estimated that 100,000 Colorado public school students (12% of total Statewide enrollment) have dominant languages other than English and are functioning below grade level. These students enroll in public school districts speaking 208 different native languages. Spanish speaking students constitute 80% of ELPA-eligible students.

The English Language Proficiency Act (ELPA) recognizes that each of these students educational potential is severely restricted because a language other than English is his/her primary means of communication. Further, it recognizes that transitional programs will improve not only these students' English language skills but also their educational and career opportunities. As such, the Act provides funding to support school district programs for students who are limited-English proficient.

A school district may receive funding based on three classifications of eligible students: A, B, and C. Category A students speak languages other than English and do not comprehend or speak English. Category B students comprehend or speak some English, but their predominant comprehension or speech is in a language other than English. Category C students have dominant languages which are difficult to determine as they comprehend and speak English and at least one other language.

In budget year 2009-10, State funding for this program is projected to total approximately $12.1 million. Over 75% of this total is provided to districts to help fund programs for Category A and Category B students. The remainder is distributed to districts in support of programs for Category C students. For each eligible student in each district, the Act provides funding for a maximum of two years.

In budget year 2009-10, it is estimated that the State ELPA funding amount will be provided on behalf of approximately one-half of the 100,000 identified students and will support roughly 20% to 25% of the total educational expenditures incurred by districts to address the English language proficiency needs of their students.

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Gifted and Talented Education
(Article 20 of Title 22, CRS) & (Article 26 of Title 22, CRS)

Colorado administrative units serve over 56,000 gifted and talented students in Colorado public schools, representing about 6% of the student population. The State Exceptional Children's Educational Act (ECEA) defines gifted students as those *"whose abilities, talents, and potential for accomplishments are so outstanding that they require special provisions to meet their educational needs... Gifted students are capable of high performance in any or a combination of these areas: general intellectual ability, specific academic aptitude, creative and productive thinking, leadership and human relations skills, and visual and performing arts."*

The ECEA statute allows administrative units the opportunity to develop and implement Gifted Education Program Plans unique to the needs of the gifted population within the administrative unit. To that end, administrative units use a variety of methods to deliver a continuum of services for gifted student education. Programming includes differentiated instruction, affective guidance and counseling and a variety of multi-tiered curriculum and instructional options to meet the diverse areas of giftedness. Accountability for the achievement of gifted students is embedded in district and classroom assessment practices and reporting policies. Program accountability is a process of self-evaluation, State monitoring and accreditation requirements. Gifted student achievement data is disaggregated for instructional and informational purposes. All parents and students should have equal access to information and programming regarding Gifted Education in the local area.

In budget year 2009-10, State categorical funding for gifted and talented programs will be $9 million. All administrative units are required to identify and provide services for gifted students. The extent of gifted education programming is dependent upon local resources and State supplemental funds.

State funding may be used for salaries of licensed, endorsed teachers who work with gifted and talented students; staff development and training needed by personnel to address the educational needs of these students; and activities, materials, and equipment associated with the education of gifted and talented students.

Each administrative unit files a 4-year Program Plan for gifted education that outlines essential components: 1) definition of "gifted and talented" students; 2) procedures for recognition and identification; 3) programming options and instructional strategies; 4) evaluation and accountability; 5) personnel involved in gifted programs; and (6) a gifted education program budget. Budget proposals are submitted annually to CDE by administrative units for distribution purposes and targeted goals.

Each administrative unit's budgetary commitment to gifted and talented student education must equal or exceed the amount of State funding it receives. It is estimated that in budget year 2009-10, administrative units will combine State funding with an additional $34 million from local and other resources to provide educational programs for their gifted students.

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Special Education
(Article 20 of Title 22, CRS)

The State Exceptional Children's Act (ECEA) outlines administrative unit (school districts and boards of cooperative educational services) responsibilities for providing special education programs for children with disabilities. The Act recognizes the need to provide educational opportunities to **all** children, and the benefits of providing a continuum of services in the least restrictive environment.

In budget year 2009-10, Colorado administrative units will serve approximately 82,000 students with disabilities, or about 10.5% of the total pupil enrollment. Administrative units will provide services to children between the ages of three and twenty-one who, by reason of one or more of the following conditions, are unable to receive reasonable benefit from general education: long-term physical impairment or illness, significant limited intellectual capacity, significant identifiable emotional disorder, specific learning disability, or speech or language impairment.

State ECEA funding of special education programs for children with disabilities is $127.5 million for budget year 2009-10.

- Five hundred thousand dollars is available to administrative units specifically for costs incurred for children with disabilities that live in eligible facilities within their boundaries, and for whom (a) parental rights have been relinquished by the parents, (b) parental rights have been terminated by the court; (c) parents are incarcerated; (d) parents cannot be located; or (e) parents reside out of State, but the Department of Human Services has placed the children within the boundaries of the administrative unit, or (f) the children are legally emancipated.
- Four million dollars will be available for grants to administrative units for reimbursement of high costs incurred in providing special education services in the preceding school year. High costs are defined as the costs incurred by an administrative unit above a threshold amount.
- Administrative units will receive $2.2 million for screening and evaluation of children from birth through two years of age.
- The remaining amount will be distributed as follows:
  - Administrative units will receive $1,250 for each child reported by the administrative unit on December 1 of the previous year.
  - Administrative units will receive up to an additional $6,000 for each child reported on its previous December 1 count with the following disabilities: vision disability, hearing disability, deaf-blind, significant identifiable emotional disability, autism, traumatic brain injury, multiple disabilities, and significant limited intellectual capacity. This amount will be prorated based on the amount of the remaining appropriation.

State ECEA moneys can be used to pay for the salaries of special education instructional and support personnel, purchased services (including tuition payments to other administrative units and eligible facilities), supplies and equipment.

In budget year 2009-10, total special education costs will equal roughly $700 million, or about 7% of total educational expenditures. In most years, State funding covers approximately 16% of special education costs; federal funding covers an additional 21% of these costs; other sources of funds cover about 1%; and local sources of funding cover the remaining 62% of the costs. The impact of the additional stimulus funds under the American Recovery and Reinvestment Act (ARRA) on special education expenditures is unknown at this time. Colorado will receive an additional $148.7 million of ARRA funds for special education programs under Part B of the Individuals with Disabilities Education Act (IDEA), and $5.3 million for IDEA Preschool programs for children with disabilities.

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Transportation
(Article 51 of Title 22, CRS)

In budget year 2009-10, school districts will provide transportation for an estimated 334,405 students from home to school, from school to home, and from school to school. Daily, about 42% of the total Colorado public school student enrollment uses district-provided transportation.

School districts employ a fleet of over 6,300 buses and small vehicles traveling approximately 62.8 million miles each year. Districts also may opt to contract with private entities to provide student transportation services or may pay parents to transport their children to and from school. Only one Colorado school district elects not to provide some level of transportation services for its students.

The Public School Transportation Fund provides State moneys annually to school districts to help defray student transportation expenses incurred. Moneys are provided to cover operating expenses such as driver salaries, fuel, and repairs. However, State funding generally is not available to cover capital costs such as school bus purchases. Payment to districts from the Public School Transportation Fund is provided on a reimbursement basis for the twelve-month period ending each June 30.

Each district is eligible to receive a $0.3787 (37.87 cents) per-mile-traveled reimbursement. Further, each district may receive funding equal to 33.87% of its total costs remaining after the per-mile-traveled reimbursement (the "excess costs" reimbursement).

It is likely that school district total transportation expenses in budget year 2008-09 (for reimbursement in budget year 2009-10) will equal roughly $200 million. Of this amount, approximately $81.2 million will be eligible for State reimbursement using the per-mile-traveled and excess cost reimbursement formula above. In budget year 2009-10, State funding to reimburse school districts' prior-year transportation expenses equals $49.6 million. State funding will cover only about 55.2% of districts' total reimbursement claims.

To make up such a shortfall, a school district generally relies upon other, local sources of revenues already available to it. However, a district may opt to generate additional local revenues to support its transportation program via an additional mill levy to generate increased property tax revenues or via a separate transportation user fee. The additional mill levy requires school board support and voter approval. Beginning in FY 2005-06, a district may impose a transportation user fee without prior voter approval. A district is required to have a school board resolution to establish the user fee schedule. Prior to adopting a resolution, the district must hold a public meeting and provide notice of the meeting at least 30 days prior to the meeting date. Currently, only eleven districts have received voter approval to levy separate mills to generate increased property tax revenues to help fund total transportation costs; no district has imposed a separate user fee.

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Vocational Education
(Article 8 of Title 23, CRS)

Roughly 90% of Colorado school districts provide career and technical educational (CTE) opportunities to their students. Programs are designed to provide students with occupational skills and related knowledge to meet identified needs of business and industry. While these offerings are provided through local school districts, administration of State funding for these programs as well as program approvals and monitoring, research, and professional development are provided through the State Board for Community Colleges and Occupational Education.

In budget year 2009-10, State funding in support of school district-offered career and technical education programs is projected to total approximately $23 million. Funding is provided on a per-pupil basis to districts to cover the cost of instructional personnel, supplies, equipment, and instructional services provided by cooperating agencies or institutions.

For State Board-approved programs, this funding is available to a school district if its CTE program costs exceed 70% of the per-pupil funding otherwise available to it via the Public School Finance Act of 1994. Specifically, the State will cover up to 80% of the first $1,250 of these "excess" costs, and 50% of any excess costs over $1,250.

In budget year 2008-2009, district CTE program expenses were nearly $92 million, of which $22.1 million was eligible for State reimbursement. Available State funding covered about 97% of the $22.1 million, while districts provided the balance from other, local sources.

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"Buyout" of Categorical Program Funding
In limited instances, an individual school district may **not** receive State funding for the categorical programs listed above. Instead, it may be required to use **local** property tax revenues to fund these programs.

Specifically, a district may be capable of funding its entire Total Program using only specific ownership taxes, property taxes, and the minimum amount of State Share. In this case, such a district must fund the above categorical programs where possible by setting an additional levy to generate property tax revenue in an amount equal to the amount of categorical support funds. The district thus "buys out" State funding of these programs using the additional property tax revenues generated by the increased mill levy. The total of the two levies cannot exceed the lesser of the district's levy for the immediately preceding year; the districts allowable levy under the property tax revenue limitation imposed by TABOR, if the district has not obtained voter approval to retain and spend revenues in excess of such property tax revenue limitation; or twenty-seven mills.

In budget year 2009-10, current projections indicate that one district will be required to buy out a portion of their State categorical program funding.

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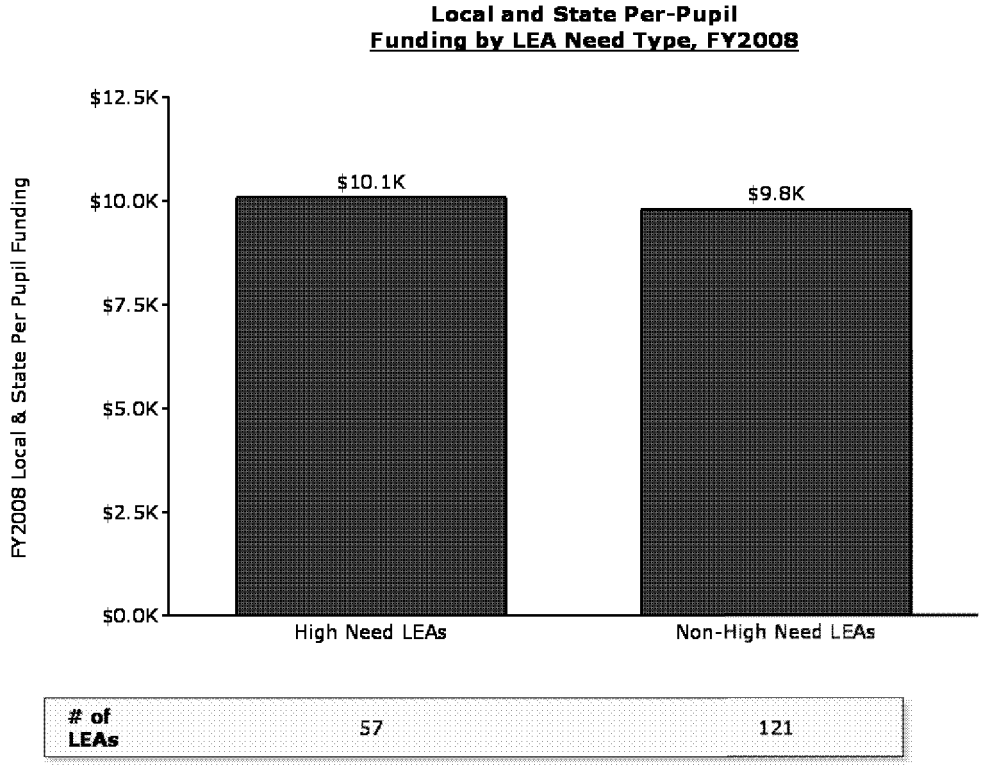
Exhibit VI.F(1)ii-1
Local and State Per-Pupil Funding by LEA Need Type

High-Need LEAs Received ~$300 More Local and State Funding on a Per Pupil Basis than Non-High-Need LEAs in 2008

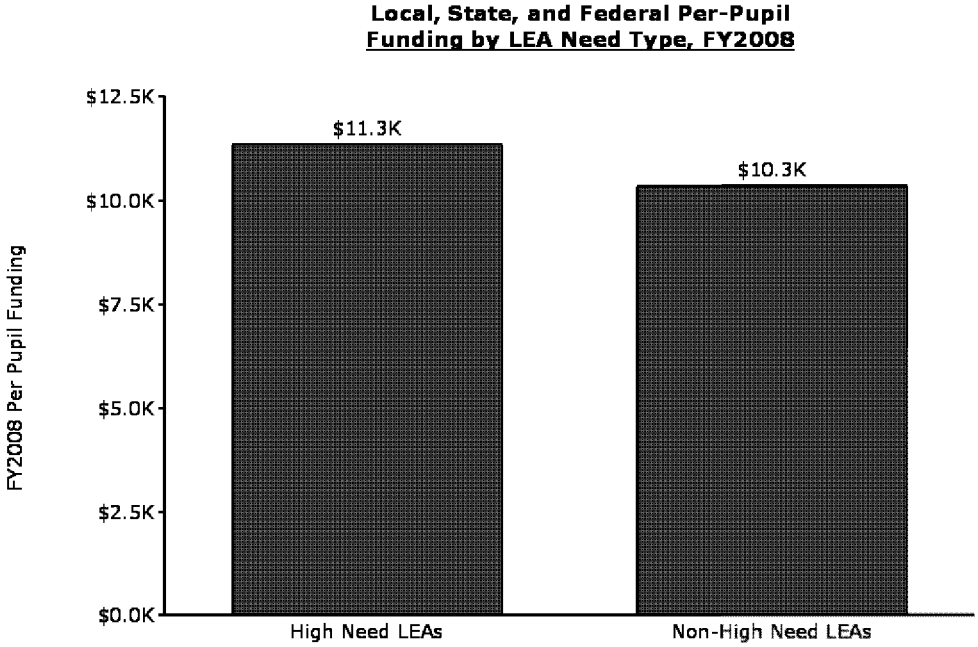


Note: Based on FY2009 Title 1 need calculations and FY2008 per pupil funding (local and state only); Does not include Charter School Institute or BOCES
Source: CDE; U.S. Census

1

Exhibit VI.F(1)ii-2
Local, State, and Federal Per-Pupil Funding by LEA Need Type

High-Need LEAs Received ~$1K More Total Funding on a Per Pupil Basis than Non-High-Need LEAs in 2008



Note: Based on FY2009 Title 1 need calculations and FY2008 per pupil funding (local, state and federal); Does not include Charter School Institute or BOCES
Source: CDE; U.S. Census

2

Exhibit VI.F(2)i-1
Colorado State Law C.R.S 22-30.5, Charter Schools Act

PART 1 - CHARTER SCHOOLS ACT

22-30.5-101. Short title.

This part 1 shall be known and may be cited as the "Charter Schools Act".
Source: L. 93: Entire article added, p. 1051, § 1, effective June 3. **L. 96:** Entire section amended, p. 667, § 3, effective May 2.

ANNOTATION
Charter Schools Act does not violate the equal protection clause of the United States Constitution. Because the act is facially neutral and does not implicate a fundamental right, the act must be reviewed under a rational relationship test. Colorado has a legitimate governmental interest in encouraging innovation in education and the act is rationally related to such an interest. Villanueva v. Carere, 873 F. Supp. 434 (D. Colo. 1994), aff'd, 85 F.3d 481 (10th Cir. 1996).
Charter schools established pursuant to this act are public entities and, thus, absent a Governmental Immunity Act immunity exception, entitled to immunity from liability in claims that lie in tort or could lie in tort. King v. U.S., 53 F. Supp.2d 1056 (D. Colo. 1999).

22-30.5-102. Legislative declaration.

(1) The general assembly hereby finds and declares that:
(a) It is the obligation of all Coloradans to provide all children with schools that reflect high expectations and create conditions in all schools where these expectations can be met;
(b) Education reform is in the best interests of the State in order to strengthen the performance of elementary and secondary public school pupils, that the best education decisions are made by those who know the students best and who are responsible for implementing the decisions, and, therefore, that educators and parents have a right and a responsibility to participate in the education institutions which serve them;
(c) Different pupils learn differently and public school programs should be designed to fit the needs of individual pupils and that there are educators, citizens, and parents in Colorado who are willing and able to offer innovative programs, educational techniques, and environments but who lack a channel through which they can direct their innovative efforts.
(2) The general assembly further finds and declares that this part 1 is enacted for the following purposes:
(a) To improve pupil learning by creating schools with high, rigorous standards for pupil performance;
(b) To increase learning opportunities for all pupils, with special emphasis on expanded learning experiences for pupils who are identified as academically low-achieving;
(c) To encourage diverse approaches to learning and education and the use of different, innovative, research-based, or proven teaching methods;
(d) To promote the development of longitudinal analysis of student progress, in addition to participation in the Colorado student assessment program, to measure pupil learning and achievement;
(e) To create new employment options and professional opportunities for teachers and principals, including the opportunity to be responsible for the achievement results of students at the school site;
(f) To provide parents and pupils with expanded choices in the types of education opportunities that are available within the public school system;
(g) To encourage parental and community involvement with public schools;
(g.5) To address the formation of research-based charter schools that use programs that are proven to be effective;
(h) To hold charter schools accountable for performance through the "Education Accountability Act of 2009", including but not limited to meeting State, school district, and school targets for the measures used to determine the levels of attainment of the performance indicators;
(i) To provide an avenue for citizens to participate in the educational process and environment;
(j) To provide citizens with multiple avenues by which they can obtain authorization for a charter school.
(3) In authorizing charter schools, it is the intent of the general assembly to create a legitimate avenue for parents, teachers, and community members to implement new and innovative methods of educating children that are proven to be effective and to take responsible risks and create new and innovative, research-based ways of educating all children within the public education system. The general assembly seeks to create an atmosphere in Colorado's public education system where research and development in developing different learning opportunities is actively pursued.

As such, the provisions of this part 1 should be interpreted liberally to support the findings and goals of this section and to advance a renewed commitment by the State of Colorado to the mission, goals, and diversity of public education.
Source: L. 93: Entire article added, p. 1051, § 1, effective June 3. **L. 94:** (2)(g.5) added, p. 1378, § 1, effective May 25. **L. 96:** IP(2) and (3) amended, p. 668, § 4, effective May 2; (2)(c) amended, p. 752, § 1, effective May 22. **L. 2004:** (2)(c), (2)(d), (2)(e), (2)(g.5), (2)(h), and (3) amended and (2)(i) and (2)(j) added, p. 1569, § 1, effective June 3. **L. 2009:** (2)(h) amended, (SB 09-163), ch. 293, p. 1534, § 25, effective May 21.
Cross references: For the "Education Accountability Act of 2009", see article 11 of this title.

ANNOTATION

The general assembly did not intend approval of a charter application to establish a final contract between the local board and the charter school proponents, but rather intended the approval to be an interim step toward creation of that contract. A local board can comply with a State board order to approve a charter application and still expect resolution of its initial grounds for denial in a satisfactory final agreement. Bd. of Educ., Dist. No. 1 v. Booth, 984 P.2d 639 (Colo. 1999).

The governing policy provisions of a charter contract are made up of the charter school application and all agreements and requests releasing the charter school from school district policies. Acad. of Charter Schs. v. Adams Cty. Sch. Dist. No. 12, 32 P.3d 456 (Colo. 2001).

The State board of education has complete statutory authority to settle any disputes arising from implementation of the governing policy provisions of the charter contract, and the governing policy provisions are not subject to judicial review. Acad. of Charter Schs. v. Adams Cty. Sch. Dist. No. 12, 32 P.3d 456 (Colo. 2001).

Contract requiring a pro-rata reduction of the district per pupil revenues funding to a school for a student transferring out may violate subsection (5) because it would include a reduction of capital construction funds and other funds covering direct and indirect costs incurred in the operation of the charter school and the education of its students, which are not enrollment sensitive. Ridgeview Classical Sch. v. Poudre Sch. Dist. R-1, __ P.3d __ (Colo. App. 2008).

In order for a contract for purchase of services from the school district to be valid, it must be at the discretion of the school, must be provided by the district at cost, and must be for a direct budgeted service of the school district, or a service, activity, or undertaking that the charter school is required or chooses to perform in order to carry out the educational program described in the charter contract. Ridgeview Classical Sch. v. Poudre Sch. Dist. R-1, __ P.3d __ (Colo. App. 2008).

Applied in Acad. of Charter Schs. v. Adams Cty. Sch. Dist. No. 12, 994 P.2d 442 (Colo. App. 1999), aff'd in part and rev'd in part on other grounds, 32 P.3d 456 (Colo. 2001).
22-30.5-106. Charter application - contents.
(1) The charter school application shall be a proposed agreement upon which the charter applicant and the chartering local board of education negotiate a charter contract, and, at a minimum, shall include:

(a) The mission Statement of the charter school, which must be consistent with the principles of the general assembly's declared purposes as set forth in section 22-30.5-102 (2) and (3);

(b) The goals, objectives, and pupil performance standards to be achieved by the charter school, including but not limited to the performance indicators specified in section 22-11-204 and applicable standards and goals specified in federal law;

(c) Evidence that an adequate number of parents, teachers, pupils, or any combination thereof support the formation of a charter school;

(d) Repealed.

(e) A description of the charter school's research-based educational program that has been proven to be effective,

pupil performance standards, measurable annual targets for the measures used to determine the levels of attainment of the performance indicators specified in section 22-11-204, and curriculum;

(e.5) A description of the manner in which the charter school will collect and use longitudinal assessment data in determining and improving the academic progress achieved by the students enrolled in the charter school;

(f) A description of the charter school's procedures for taking corrective action in the event that pupil performance at the charter school falls below the targets for the measures used to determine the levels of attainment of the performance indicators, as said targets were approved by the chartering local board of education in the charter contract;

(g) Evidence that the plan for the charter school is economically sound, a proposed budget for the term of the charter, a description of the manner in which an annual audit of the financial and administrative operations of the charter school, including any services provided by the State, a school district, or a third party, is to be conducted;

(h) A description of the governance and operation of the charter school, including the nature and extent of parental, professional educator, and community involvement in the governance and operation of the charter school;

(i) An explanation of the relationship that will exist between the proposed charter school and its employees;

(i.5) The employment policies of the proposed charter school;

(j) A proposal regarding the parties' respective legal liabilities and applicable insurance coverage;

(k) A description of how the charter school plans to meet the transportation needs of its pupils and, if the charter school plans to provide transportation for pupils, a plan for addressing the transportation needs of low-income and academically low-achieving pupils and whether the charter school seeks authority to impose a transportation fee on students enrolled in the charter school and the circumstances under and the procedures by which it would impose a transportation fee;

(l) A description of the charter school's enrollment policy, consistent with the requirements of section 22-30.5-104 (3), and the criteria for enrollment decisions;

(m) A dispute resolution process, as provided in section 22-30.5-107.5.

(2) No person, group, or organization may submit an application to convert a private school or a nonpublic home-based educational program into a charter school or to create a charter school which is a nonpublic home-based educational program as defined in section 22-33-104.5.

(3) A charter applicant is not required to provide personal identifying information concerning any parent, teacher, or prospective pupil prior to the time that the charter contract is approved by both parties and either the charter school actually employs the teacher or the pupil actually enrolls in the charter school, whichever is applicable. A charter school applicant shall provide, upon request of the chartering school district, aggregate information concerning the grade levels and schools in which prospective pupils are enrolled.

Source: L. 93: Entire article added, p. 1054, § 1, effective June 3. **L. 94:** (1)(l) added, p. 1379, § 3, effective May 25. **L. 96:** (1)(d) repealed and (1)(i.5) added, p. 753, §§ 3, 4, effective May 22. **L. 97:** (1)(e) amended, p. 586, § 15, effective April 30. **L. 99:** (1)(m) and (3) added, pp. 1255, 1256, §§ 2, 4, effective June 2. **L. 2004:** Entire section amended, p. 1575, § 5, effective June 3. **L. 2005:** (1)(k) amended, p. 1508, § 3, effective June 9. **L. 2009:** (1)(b), (1)(e), and (1)(f) amended, (SB 09-163), ch. 293, p. 1535, § 27, effective May 21.

Cross references: For the legislative declaration contained in the 1999 act enacting subsections (1)(m) and (3), see section 1 of chapter 302, Session Laws of Colorado 1999.

ANNOTATION

The governing policy provisions of a charter contract are made up of the charter school application and all agreements and requests releasing the charter school from school district policies. Acad. of Charter Schs. v. Adams Cty. Sch. Dist. No. 12, 32 P.3d 456 (Colo. 2001).

Applied in Acad. of Charter Schs. v. Adams Cty. Sch. Dist. No. 12, 994 P.2d 442 (Colo. App. 1999), aff'd in part and rev'd in part on other grounds, 32 P.3d 456 (Colo. 2001).

22-30.5-107. Charter application - process.

(1) A charter applicant cannot apply to, or enter into a charter contract with, a school district unless a majority of the proposed charter school's pupils, other than on-line pupils, will reside in the chartering school district or in school districts contiguous thereto. The local board of education shall receive and review all applications for charter schools. If the local board of education does not review a charter application, it shall be deemed to have denied the charter application. Applications must be filed with the local board of education by a date determined by the local board of education to be eligible for consideration for the following school year. The date determined by the local board of education for filing of applications shall not be any earlier than August 15, or any later than October 1. Prior to any change in the application deadline, the local board of education shall notify each charter school applicant in the district of the proposed change by certified letter. The local board of education shall not charge any application fees. If such board finds the charter school application is incomplete, the board shall request the necessary information from the charter applicant and give the charter applicant reasonable opportunity to provide additional information to the local board of education for review. The charter school application shall be reviewed by the district accountability committee prior to consideration by the local board of education.

(1.5) For purposes of reviewing a charter school application, a district accountability committee shall include at least:

(a) One person with a demonstrated knowledge of charter schools, regardless of whether that person resides within the school district; and

(b) One parent or legal guardian of a child enrolled in a charter school in the school district; except that, if there are no charter schools in the school district, the local board of education shall appoint a parent or legal guardian of a child enrolled in the school district.

(2) After giving reasonable public notice, the local board of education shall hold community meetings in the affected areas or the entire school district to obtain information to assist the local board of education in its decision to approve a charter school application. The local board of education shall rule by resolution on the application for a charter school in a public hearing, upon reasonable public notice, within seventy-five days after receiving the application filed pursuant to subsection (1) of this section. All negotiations between the charter school and the local board of education on the contract shall be concluded by, and all terms of the contract agreed upon, no later than ninety days after the local board of education rules by resolution on the application for a charter school.

(2.5) The charter applicant and the local board of education may jointly waive the deadlines set forth in this section.

(3) If a local board of education denies a charter school application, does not review a charter school application, or unilaterally imposes conditions that are unacceptable to the charter applicant, the charter applicant may appeal the decision to the State board pursuant to section 22-30.5-108.

(3.5) Nothing in this part 1 shall prohibit a school district from adopting one or more policies that encourage charter applicants to address specified school district needs.

(4) If a local board of education denies or does not review a charter school application, it shall State its reasons for the denial or refusal to review. Within fifteen days after denying or refusing to review a charter school application, the local board of education shall notify the department of the denial or refusal and the reasons therefore. If a local board of education approves a charter application, it shall send a copy of the approved charter application to the department within fifteen days after approving the charter application.

(5) A school district may unilaterally impose conditions on a charter applicant or on a charter school only through adoption of a resolution of the local board of education of the school district. If a local board adopts a resolution unilaterally imposing conditions on a charter applicant or on a charter school, the resolution shall, at a minimum, State the school district's reasons for imposing the conditions unilaterally, despite the objections of the charter applicant or the charter school. The charter applicant or charter school may appeal the decision of the local board of education to unilaterally impose the conditions by filing the notice of appeal with the State board within thirty days after adoption of the resolution, as provided in section 22-30.5-108 (2)(a).

Source: L. 93: Entire article added, p. 1055, § 1, effective June 3. **L. 96:** Entire section amended, p. 753, § 5, effective May 22. **L. 97:** (1) amended, p. 586, § 16, effective April 30. **L. 99:** (1.5) added and (2) amended, p. 1209, § 2, effective August 4. **L. 2002:** (1) amended, p. 1749, § 23, effective June 7; entire section amended, p. 187, § 1, effective July 1, 2003. **L. 2004:** Entire section amended, p. 1576, § 6, effective June 3.

Editor's note: Amendments to subsection (1) by Senate Bill 02-051 and House Bill 02-1349 were harmonized.

ANNOTATION

Applied in Acad. of Charter Schs. v. Adams Cty. Sch. Dist. No. 12, 32 P.3d 456 (Colo. 2001).

22-30.5-107.5. Dispute resolution - governing policy provisions - appeal.

(1) Except as otherwise provided in section 22-30.5-108, any disputes that may arise between a charter school and its chartering school district concerning governing policy provisions of the school's charter contract shall be resolved pursuant to this section.

(2) (a) A charter school or its chartering school district may initiate a resolution to any dispute concerning a governing policy provision of the school's charter contract by providing reasonable written notice to the other party of an intent to invoke this section. Such notice shall include, at a minimum, a brief description of the matter in dispute and the scope of the disagreement between the parties.

(b) Within thirty days after receipt of the written notice described in paragraph (a) of this subsection (2), the charter school and the school district shall agree to use any form of alternative dispute resolution to resolve the dispute, including but not limited to any of the forms described in the "Dispute Resolution Act", part 3 of article 22 of title 13, C.R.S.; except that any form chosen by the parties shall result in final written findings by a neutral third party within one hundred twenty days after receipt of such written notice.

(c) The neutral third party shall apportion all costs reasonably related to the mutually agreed upon dispute resolution process.

(3) (a) A charter school and its chartering school district may agree to be bound by the written findings of the neutral third party resulting from any alternative dispute resolution entered into pursuant to subsection (1) of this section. In such case, such findings shall be final and not subject to appeal.

(b) If the parties do not agree to be bound by such written findings of the neutral third party, the parties may appeal such findings to the State board. A party who wishes to appeal such findings shall provide the State board and the other party with a notice of appeal within thirty days after the release of such findings, and the notice of appeal shall contain a brief description of the grounds for appeal. The State board may consider said written findings or other relevant materials in reaching its decision and may, on its own motion, conduct, after sufficient notice, a de novo review of and hearing on the underlying matter.

(4) The State board shall:

(a) Issue its decision on the written findings of the neutral third party resulting from any alternative dispute resolution entered into pursuant to subsection (1) of this section within sixty days after receipt of the notice of appeal; or

(b) Make its own findings within sixty days after making its own motion for a de novo review and hearing described in paragraph (b) of subsection (3) of this section.

(5) If the State board, after motion by one of the parties and sufficient notice and hearing, finds that either of the parties to an alternative dispute resolution process held pursuant to this section has failed to participate in good faith in such process or has refused to comply with the decision reached after agreeing to be bound by the result of such process, the State board shall resolve the dispute in favor of the aggrieved party.

(6) Any decision by the State board pursuant to this section shall be final and not subject to appeal.

Source: L. 99: Entire section added, p. 1255, § 3, effective June 2. **L. 2002:** Entire section R&RE, p. 1001, § 1, effective June 1.

Cross references: For the legislative declaration contained in the 1999 act enacting this section, see section 1 of chapter 302, Session Laws of Colorado 1999.

ANNOTATION

Annotator's note. The following annotations include a case decided under this section as it existed prior to its 2002 repeal and reenactment.

By adding this section, the general assembly established the processes for settling governing policy contract disputes, as well as explicitly establishing the situations in which the State board of education had appellate review. Acad. of Charter Schs. v. Adams Cty. Sch. Dist. No. 12, 32 P.3d 456 (Colo. 2001).

The enactment of this section served as a retroactive change to the Charter Schools Act. Because the section authorizes an aggrieved party to seek appellate review from the State board of education, and because the State board's decision is not subject to review, plaintiff lacked standing to pursue its governing policy claims. Acad. of Charter Schs. v. Adams Cty. Sch. Dist. No. 12, 32 P.3d 456 (Colo. 2001).

22-30.5-108. Appeal - standard of review - procedures.

(1) Acting pursuant to its supervisory power as provided in section 1 of article IX of the State constitution, the State board, upon receipt of a notice of appeal or upon its own motion, may review decisions of any local board of

education concerning the denial of a charter school application, the nonrenewal or revocation of a charter school's charter, or the unilateral imposition of conditions on a charter applicant or a charter school, in accordance with the provisions of this section. Any disputes arising with regard to governing policy provisions of a charter school's charter contract shall be resolved as provided in section 22-30.5-107.5. A local board of education's refusal to review a charter application constitutes a denial of the charter application and is appealable as a denial pursuant to the provisions of this section.

(2) A charter applicant or any other person who wishes to appeal a decision of a local board of education concerning the denial of a charter application or the nonrenewal or revocation of a charter or the unilateral imposition of conditions on a charter applicant or a charter school, shall provide the State board and the local board of education with a notice of appeal or of facilitation within thirty days after the local board's decision. The person bringing the appeal shall limit the grounds of the appeal to the grounds for the denial of a charter application or the nonrenewal or revocation of a charter, or the unilateral imposition of conditions on a charter applicant or charter school, whichever is being appealed, specified by the local board of education. The notice shall include a brief Statement of the reasons the appealing person contends the local board of education's denial of a charter application or nonrenewal or revocation of a charter, or imposition of conditions on a charter applicant or charter school was in error.

(2.5) If a district court dismisses a case for lack of jurisdiction and the case involves a charter application, or the nonrenewal or revocation of a charter, or the unilateral imposition of conditions on a charter applicant or charter school, the thirty-day period for filing a notice of appeal or of facilitation described in subsection (2) of this section shall be tolled until the date of dismissal by the court.

(3) If the notice of appeal, or the motion to review by the State board, relates to a local board's decision to deny a charter application or to refuse to renew or to revoke a charter or to a local board's unilateral imposition of conditions that are unacceptable to the charter applicant or the charter school, the appeal and review process shall be as follows:

(a) Within sixty days after receipt of the notice of appeal or the making of a motion to review by the State board and after reasonable public notice, the State board shall review the decision of the local board of education and make its findings. If the State board finds that the local board's decision was contrary to the best interests of the pupils, school district, or community, the State board shall remand such decision to the local board of education with written instructions for reconsideration thereof. Said instructions shall include specific recommendations concerning the matters requiring reconsideration.

(b) Within thirty days following the remand of a decision to the local board of education and after reasonable public notice, the local board of education, at a public hearing, shall reconsider its decision and make a final decision. If the local board of education decides to approve the charter application or decides not to unilaterally impose the condition, the local board of education and the charter applicant shall complete the charter contract within ninety days following the remand of the State board's decision to the local board of education.

(c) Following the remand, if the local board of education's final decision is still to deny a charter application or to unilaterally impose the condition on a charter applicant or if the local board of education's final decision is still to refuse to renew or to revoke a charter or to unilaterally impose conditions unacceptable to the charter school, a second notice of appeal may be filed with the State board within thirty days following such final decision.

(d) Within thirty days following receipt of the second notice of appeal or the making of a motion for a second review by the State board and after reasonable public notice, the State board, at a public hearing, shall determine whether the final decision of the local board of education was contrary to the best interests of the pupils, school district, or community. If such a finding is made, the State board shall remand such final decision to the local board with instructions to approve the charter application, or to renew or reinstate the charter or to approve or disapprove the conditions imposed on the charter applicant or the charter school. The decision of the State board shall be final and not subject to appeal.

(3.5) In lieu of a first appeal to the State board pursuant to paragraph (a) of subsection (3) of this section, the parties may agree to facilitation. Within thirty days after denial of a charter application or nonrenewal or revocation of a charter or unilateral imposition of conditions on a charter applicant or a charter school by the local board of education, the parties may file a notice of facilitation with the State board. The parties may continue in facilitation as long as both parties agree to its continued use. If one party subsequently rejects facilitation, and such rejection is not reconsidered within seven days, the local board of education shall reconsider its denial of a charter application or nonrenewal or revocation of a charter and make a final decision as provided in paragraph (b) of subsection (3) of this section. The charter applicant may file a notice of appeal with the State board as provided in paragraph (c) of subsection (3) of this section within thirty days after a local board of education's final decision to deny a charter application, to refuse to renew or to revoke a charter, or to unilaterally impose conditions on a charter applicant or a charter school.

(4) (Deleted by amendment, L. 2004, p. 1578, § 7, effective June 3, 2004.)

(5) Nothing in this section shall be construed to alter the requirement that a charter school be a part of the school district that approves its charter application and charter contract and be accountable to the local board of education pursuant to section 22-30.5-104 (2).

Source: L. 93: Entire article added, p. 1056, § 1, effective June 3. **L. 94:** (3)(a) and IP(4)(a)(I) amended, p. 1341, § 1, effective May 25. **L. 96:** (2), IP(3), and (3)(c) amended and (3.5) added, p. 754, § 6, effective May 22. **L. 97:** (3)(a), IP(4)(a)(I), and (5) amended, p. 586, § 17, effective April 30. **L. 2002:** (1), (2), IP(3), (3)(c), and (3)(d) amended and (2.5) added, p. 1002, § 2, effective June 1. **L. 2004:** Entire section amended, p. 1578, § 7, effective June 3.

ANNOTATION

Where the State board of education concludes that a charter school's remedy lay in district court, such conclusion does not confer jurisdiction on the courts or extend standing to plaintiffs when none otherwise existed. Acad. of Charter Schs. v. Adams Cty. Sch. Dist. No. 12, 994 P.2d 442 (Colo. App. 1999), aff'd in part and rev'd in part on other grounds, 32 P.3d 456 (Colo. 2001).

The State board is authorized to substitute its judgment for that of a local board under the "best interests" language of subsection (3)(d). Bd. of Educ., Dist. No. 1 v. Booth, 984 P.2d 639 (Colo. 1999).

State board's authority is limited upon a second appeal. Where, on first appeal, the State board had approved a charter application in principle but directed the local board and the applicants to negotiate further on unresolved operational details, the State board had no authority to issue a similar, conditional approval on the second appeal pursuant to subsection (3)(d). Booth v. Bd. of Educ., 950 P.2d 601 (Colo. App. 1997), aff'd in part and rev'd in part on other grounds, 984 P.2d 639 (Colo. 1999).

The plain language of this section authorizes the State board only to require approval of the charter application was submitted and not subsequent status reports. Bd. of Educ., Dist. No. 1 v. Booth, 984 P.2d 639 (Colo. 1999).

If disputes arise from the implementation of the governing policy provisions of the charter contract, such disputes may eventually be appealed to the State board of education pursuant to this section, and any decision rendered by the State board is final and not subject to appeal. Acad. of Charter Schs. v. Adams Cty. Sch. Dist. No. 12, 32 P.3d 456 (Colo. 2001).

Only issue on second appeal is whether the local board's denial of an application is contrary to the best interests of the pupils, school district, or community. The State board's purported issuance of a partial or conditional order to approve a pending application, which fell short of an unconditional finding on this issue, was held unenforceable and the case was remanded for further proceedings. Booth v. Bd. of Educ., 950 P.2d 601 (Colo. App. 1997), aff'd in part and rev'd in part on other grounds, 984 P.2d 639 (Colo. 1999).

State board's final order on second appeal is not subject to judicial review under the State Administrative Procedure Act. Booth v. Bd. of Educ., 950 P.2d 601 (Colo. App. 1997), aff'd in part and rev'd in part on other grounds, 984 P.2d 639 (Colo. 1999).

Applied in Acad. of Charter Schs. v. Adams Cty. Sch. Dist. No. 12, 994 P.2d 442 (Colo. App. 1999), aff'd in part and rev'd in part on other grounds, 32 P.3d 456 (Colo. 2001).

22-30.5-109. Charter schools - reporting - publicizing - limits on enrollment - moratorium prohibited.

(1) Each local board of education that approves a charter application and enters into a charter contract with a charter school shall annually report to the department information that the department requests to evaluate the effectiveness of charter schools. The local boards of education shall provide the information on forms provided by the department. The State board shall adopt rules establishing the time lines and procedures for reporting the information required in this subsection (1).

(2) (Deleted by amendment, L. 2004, p. 1580, § 8, effective June 3, 2004.)

(3) It is the intent of the general assembly that greater consideration be given to charter school applications designed to increase the educational opportunities of at-risk pupils, as defined in section 22-30.5-103.

(4) If otherwise qualified, nothing in this part 1 shall be construed to prohibit any institution certified on or before April 1, 1993, as an educational clinic pursuant to former article 27 of this title as it existed prior to August 7, 2006, from applying to become a charter school pursuant to this part 1.

(5) Nothing in this part 1 shall be construed to prevent a school in a school district which is comprised of only one school from applying to become a charter school pursuant to this part 1.

(6) A school district shall not discriminate against a charter school in publicizing the educational options available to students residing within the district through advertising, direct mail, availability of mailing lists, or other informational activities, provided that the charter school pays for its share of such publicity at cost.

(7) A chartering authority may not restrict the number of pupils a charter school may enroll; except that a charter school and its chartering authority may negotiate and agree to limitations on the number of students the charter school may enroll as necessary to:

(a) Facilitate the academic success of students enrolled in the charter school;
(b) Facilitate the charter school's ability to achieve the other objectives specified in the charter contract; or
(c) Ensure that the charter school's student enrollment does not exceed the capacity of the charter school facility or site.
(8) The local board of education of a school district shall not impose a moratorium on the approval of charter applications for charter schools within the school district.
Source: L. 93: Entire article added, p. 1057, § 1, effective June 3. **L. 96:** (4) and (5) amended, p. 668, § 6, effective May 2; (2)(a) amended, p. 754, § 7, effective May 22. **L. 98:** (1) amended, p. 823, § 31, effective August 5. **L. 99:** (6) added, p. 1256, § 6, effective June 2. **L. 2002:** (7) added, p. 1750, § 24, effective June 7. **L. 2003:** (6) amended, p. 2139, § 42, effective May 22. **L. 2004:** Entire section amended, p. 1580, § 8, effective June 3. **L. 2006:** (4) and (6) amended, p. 605, § 19, effective August 7.
Cross references: For the legislative declaration contained in the 1999 act enacting subsection (6), see section 1 of chapter 302, Session Laws of Colorado 1999.

22-30.5-110. Charter schools - term - renewal of charter - grounds for nonrenewal or revocation - repeal.

(1) A new charter application shall be approved by a local board of education for a period of at least three years. A charter may be renewed for successive periods.
(1.5) No later than December 1 of the year prior to the year in which the charter expires, the governing body of a charter school shall submit a renewal application to the chartering local board of education. The chartering local board of education shall rule by resolution on the renewal application no later than February 1 of the year in which the charter expires, or by a mutually agreed upon date.
2) A charter school renewal application submitted to the chartering local board of education shall contain:
(a) A report on the progress of the charter school in achieving the goals, objectives, pupil performance standards, content standards, targets for the measures used to determine the levels of attainment of the performance indicators, and other terms of the charter contract and the results achieved by the charter school's students on the assessments administered through the Colorado student assessment program; and
(b) A financial Statement that discloses the costs of administration, instruction, and other spending categories for the charter school that is understandable to the general public and that will allow comparison of such costs to other schools or other comparable organizations, in a format required by the State board of education.
(c) Repealed.
(3) A charter may be revoked or not renewed by the chartering local board of education if it determines that the charter school did any of the following:
(a) Committed a material violation of any of the conditions, standards, or procedures set forth in the charter contract;
(b) Failed to meet or make reasonable progress toward achievement of the goals, objectives, content standards, pupil performance standards, targets for the measures used to determine the levels of attainment of the performance indicators, applicable federal requirements, or other terms identified in the charter contract;
(c) Failed to meet generally accepted standards of fiscal management; or
(d) Violated any provision of law from which the charter school was not specifically exempted.
(4) (Deleted by amendment, L. 2004, p. 1582, § 9, effective June 3, 2004.)
(4.5) If a local board of education revokes or does not renew a charter, the board shall State its reasons for the revocation or nonrenewal.
(5) A decision to revoke or not to renew a charter may be appealed or facilitation may be sought pursuant to the provisions of section 22-30.5-108.
Source: L. 93: Entire article added, p. 1058, § 1, effective June 3. **L. 96:** (4.5) added and (5) amended, p. 755, § 8, effective May 22. **L. 97:** (1) amended and (1.5) added, p. 400, § 3, effective August 6. **L. 2001:** (2) amended, p. 338, § 4, effective April 16. **L. 2004:** Entire section amended, p. 1582, § 9, effective June 3. **L. 2007:** (2)(c) repealed, p. 745, § 28, effective May 9. **L. 2009:** (2)(a) and (3)(b) amended, (SB 09-163), ch. 293, p. 1535, § 28, effective May 21.

22-30.5-111. Charter schools - employee options.

(1) During the first year that a teacher employed by a school district is employed by a charter school, such teacher shall be considered to be on a one-year leave of absence from the school district. Such leave of absence shall commence on the first day of services for the charter school. Upon the request of the teacher, the one-year leave of absence shall be renewed for up to two additional one-year periods upon the mutual agreement of the teacher and the school district. At the end of three years, the relationship between the teacher and the school district shall be determined by the school district and such district shall provide notice to the teacher of the relationship.

(2) The local board of education shall determine by policy or by negotiated agreement, if one exists, the employment status of school district employees employed by the charter school who seek to return to employment with public schools in the school district.
(3) Employees of a charter school shall be members of the public employees' retirement association or the Denver public schools retirement system, whichever is applicable. The charter school and the teacher shall contribute the appropriate respective amounts as required by the funds of such association or system.
Source: L. 93: Entire article added, p. 1059, § 1, effective June 3.

22-30.5-112. Charter schools - financing - definitions - guidelines.

(1) (a) For purposes of the "Public School Finance Act of 1994", article 54 of this title, pupils enrolled in a charter school shall be included in the pupil enrollment, the on-line pupil enrollment, or the preschool program enrollment, whichever is applicable, of the school district that granted its charter. The school district that granted its charter shall report to the department the number of pupils included in the school district's pupil enrollment, the school district's on-line pupil enrollment, and the school district's preschool program enrollment that are actually enrolled in each charter school.
(b) The school district shall also identify each charter school that is a qualified charter school as defined in section 22-54-124 (1) (f.6), identify each qualified charter school that will be operating in a school district facility and that does not have ongoing financial obligations incurred to repay the outstanding costs of new construction undertaken for the charter school's benefit, and provide an estimate of the number of pupils expected to be enrolled in each qualified charter school during the budget year following the budget year in which the district makes a report.
(2) (a) (I) As part of the charter school contract, the charter school and the school district shall agree on funding and any services to be provided by the school district to the charter school.
(II) For the 1999-2000 budget year, the charter school and the school district shall begin discussions on the contract using eighty percent of the district per pupil operating revenues.
(III) (A) For budget year 2000-01 and budget years thereafter, except as otherwise provided in paragraph (a.3) of this subsection (2), each charter school and the chartering school district shall negotiate funding under the contract. The charter school shall receive one hundred percent of the district per pupil revenues for each pupil enrolled in the charter school who is not an on-line pupil and one hundred percent of the district per pupil on-line funding for each on-line pupil enrolled in the charter school; except that the chartering school district may choose to retain the actual amount of the charter school's per pupil share of the central administrative overhead costs for services actually provided to the charter school, up to five percent of the district per pupil revenues for each pupil who is not an on-line pupil enrolled in the charter school and up to five percent of the district per pupil on-line funding for each on-line pupil enrolled in the charter school.
(B) For budget years 2001-02 through 2010-11, the minimum amount of funding specified in sub-subparagraph (A) of this subparagraph (III) shall reflect the one-percent increase in the Statewide base per pupil funding for State fiscal years 2001-02 through 2010-11 received by the school district as required by section 17 of article IX of the State constitution.
(a.3) If the authorizing school district enrolls five hundred or fewer students, the charter school shall receive funding in the amount of the greater of one hundred percent of the district per pupil on-line funding for each on-line pupil enrolled in the charter school plus one hundred percent of the district per pupil revenues for each pupil who is not an on-line pupil enrolled in the charter school, minus the actual amount of the charter school's per pupil share of the central administrative overhead costs incurred by the school district, based on audited figures, or eighty-five percent of the district per pupil revenues for each pupil enrolled in the charter school who is not an on-line pupil plus eighty-five percent of the district per pupil on-line funding for each on-line pupil enrolled in the charter school.
(a.4) (I) Within ninety days after the end of each fiscal year, each school district shall provide to each charter school within its district an itemized accounting of all its central administrative overhead costs. The actual central administrative overhead costs shall be the amount charged to the charter school. Any difference, within the limitations of subparagraph (III) of paragraph (a) of this subsection (2) and paragraph (a.3) of this subsection (2), between the amount initially charged to the charter school and the actual cost shall be reconciled and paid to the owed party.
(II) Within ninety days after the end of each fiscal year, each school district shall provide to each charter school within its district an itemized accounting of all the actual costs of district services the charter school chose at its discretion to purchase from the district calculated in accordance with paragraph (b) of this subsection (2). Any difference between the amount initially charged to the charter school and the actual cost shall be reconciled and paid to the owed party.
(III) If either party disputes an itemized accounting provided pursuant to subparagraphs (I) and (II) of this paragraph (a.4), any charges included in an accounting, or charges to either party, that party is entitled to request a third-party

review at the requesting party's expense. The review shall be conducted by the department, and the department's determination shall be final.
(a.5) As used in this subsection (2):
(I) "Central administrative overhead costs" means indirect costs incurred in providing:
(A) Services listed under the heading of support services - general administration in the school district chart of accounts as specified by rule of the State board; and
(B) Salaries and benefits for administrative job classifications listed under the headings of support services - business and support services - central in the school district chart of accounts as specified by rule of the State board.
(II) "District per pupil revenues" means the district's total program as defined in section 22-54-103 (6) for any budget year divided by the district's funded pupil count as defined in section 22-54-103 (7) for said budget year.
(II.5) "District per pupil on-line funding" means a school district's on-line funding, as specified in section 22-54-104 (4.5), divided by the district's on-line pupil enrollment for any budget year.
(III) "Per pupil operating revenues" shall have the same meaning as provided in section 22-54-103 (9).
(a.7) For the 2000-01 budget year through the 2008-09 budget year, each charter school shall annually allocate the minimum per pupil dollar amount specified in section 22-54-105 (2) (b), multiplied by the number of students enrolled in the charter school who are not students enrolled in an on-line program, as defined in section 22-30.7-102 (9), to a fund created by the charter school for capital reserve purposes, as set forth in section 22-45-103 (1) (c) and (1) (e), or solely for the management of risk-related activities, as identified in section 24-10-115, C.R.S., and article 13 of title 29, C.R.S., or among such allowable funds. Said moneys shall be used for the purposes set forth in section 22-45-103 (1) (c) and (1) (e) and may not be expended by the charter school for any other purpose. Any moneys remaining in such fund that have not been expended prior to the 2009-10 budget year shall be budgeted for the purposes set forth in section 22-45-103 (1) (c) and (1) (e) in the 2009-10 budget year or any budget year thereafter.
(a.8) (I) For the 2000-01 budget year and budget years thereafter, the school district shall provide federally required educational services to students enrolled in charter schools on the same basis as such services are provided to students enrolled in other public schools of the school district. Each charter school shall pay an amount equal to the per pupil cost incurred by the school district in providing federally required educational services, multiplied by the number of students enrolled in the charter school. At either party's request, however, the charter school and the school district may negotiate and include in the charter contract alternate arrangements for the provision of and payment for federally required educational services.
(II) Notwithstanding any provision of subparagraph (I) of this paragraph (a.8) to the contrary, the school district shall calculate the per pupil cost of providing federally required educational services after subtracting the amount received in federal and State moneys for providing said services.
(a.9) For budget year 2002-03 and budget years thereafter, and in accordance with section 22-30.5-406, the funding provided by a chartering school district to a charter school pursuant to this subsection (2) shall be reduced by the amount of any direct payments of principal and interest due on bonds issued on behalf of a charter school by a governmental entity other than a school district for the purpose of financing charter school capital construction that were made by the State treasurer or the chartering school district on behalf of the charter school.
(b) The charter school, at its discretion, may contract with the school district for the direct purchase of district services in addition to those included in central administrative overhead costs, including but not limited to food services, custodial services, maintenance, curriculum, media services, and libraries. The amount to be paid by a charter school in purchasing any district service pursuant to this paragraph (b) shall be determined by dividing the cost of providing the service for the entire school district, as specified in the school district's budget, by the number of students enrolled in the school district and multiplying said amount by the number of students enrolled in the charter school.
(b.5) (I) The charter school and the school district shall negotiate prior to the beginning of each fiscal year for the payment to the school district of any direct costs incurred by the school district. If the charter school and the school district do not reach agreement regarding the payment of direct costs, the school district shall be barred from withholding from the charter school any moneys as reimbursement for direct costs. The school district shall provide an itemized accounting to each charter school for the direct costs incurred by the school district with the itemized accounting provided pursuant to paragraph (a.4) of this subsection (2).
(II) For purposes of this paragraph (b.5), "direct costs" means the direct costs incurred by a school district solely for the purpose of reviewing charter applications, negotiating the charter contract, and providing direct oversight to charter schools. "Direct costs" shall not include the school district's legal or other costs attributable to litigation or the resolution of a dispute with a charter school.

(c) (I) For the 1999-2000 budget year, in no event shall the amount of funding negotiated pursuant to this subsection (2) be less than eighty percent of the district per pupil operating revenues multiplied by the number of pupils enrolled in the charter school.
(II) For budget year 2000-01 and budget years thereafter, the amount of funding received by a charter school pursuant to this subsection (2) shall not be less than one hundred percent of the chartering school district's district per pupil revenues, minus up to five percent as provided in subparagraph (III) of paragraph (a) of this subsection (2), multiplied by the number of pupils enrolled in the charter school or as otherwise provided in paragraph (a.3) of this subsection (2) for any charter school chartered by a school district that enrolls five hundred or fewer students.
(d) (Deleted by amendment, L. 2004, p. 1583, § 10, effective June 3, 2004.)
(e) Fees collected from students enrolled at a charter school shall be retained by such charter school.
(3) (a) (I) For the 1999-2000 budget year, notwithstanding subsection (2) of this section, the proportionate share of State and federal resources generated by students with disabilities or staff serving them shall be directed to charter schools enrolling such students by their school districts or administrative units. The proportionate share of moneys generated under other federal or State categorical aid programs shall be directed to charter schools serving students eligible for such aid.
(II) For budget year 2000-01 and budget years thereafter, if the charter school and the school district have negotiated to allow the charter school to provide federally required educational services pursuant to paragraph (a.8) of subsection (2) of this section, the proportionate share of State and federal resources generated by students receiving such federally required educational services or staff serving them shall be directed by the school district or administrative unit to the charter school enrolling such students.
(III) For budget year 2000-01 and budget years thereafter, the proportionate share of moneys generated under federal or State categorical aid programs, other than federally required educational services, shall be directed to charter schools serving students eligible for such aid; except that a school district that receives small attendance center aid pursuant to section 22-54-122 for a small attendance center that is a charter school shall forward the entire amount of such aid to the charter school for which it was received.
(a.5) Each charter school that serves students who may be eligible to receive services provided through federal aid programs shall comply with all federal reporting requirements to receive the federal aid.
(b) If a student with a disability attends a charter school, the school district of residence shall be responsible for paying any tuition charge for the excess costs incurred in educating the child in accordance with the provisions of section 22-20-109 (5).
(4) The governing body of a charter school is authorized to accept gifts, donations, or grants of any kind made to the charter school and to expend or use said gifts, donations, or grants in accordance with the conditions prescribed by the donor; however, no gift, donation, or grant shall be accepted by the governing body if subject to any condition contrary to law or contrary to the terms of the contract between the charter school and the local board of education.
(4.5) Except as provided in section 22-30.5-112.3 (2) (b), any moneys received by a charter school from any source and remaining in the charter school's accounts at the end of any budget year shall remain in the charter school's accounts for use by the charter school during subsequent budget years and shall not revert to the school district or to the State.
(5) Repealed. / (Deleted by amendment, L. 2004, p. 1583, § 10, effective June 3, 2004.)
(6) (Deleted by amendment, L. 2004, p. 1583, § 10, effective June 3, 2004.)
(7) A charter school shall comply with all of the State financial and budget rules, regulations, and financial reporting requirements with which the chartering school district is required to comply, including but not limited to annual completion of a governmental audit that complies with the requirements of the department.
(8) (a) Notwithstanding any provision of this section to the contrary, a chartering school district, under the circumstances specified in the contract between the school district and the charter school pursuant to section 22-30.5-105 (2) (c) (IV), may withhold a portion of a charter school's monthly payment due pursuant to this section.
(b) The chartering school district may withhold a portion of the payment due to the charter school only until such time as the charter school complies with the financial reporting requirements.
(9) (a) If a charter school determines that its chartering school district has not forwarded to the charter school the amount due to the charter school in accordance with the terms of the charter contract and the provisions of this section, the charter school may seek a determination from the State board regarding whether the chartering school district improperly withheld any portion of the amount due to the charter school. A charter school that chooses to request a determination pursuant to this subsection (9) of issues arising on or after July 1, 2004, shall submit the request within the next fiscal year following the fiscal year in which the chartering school district may have improperly withheld funding; except that, if the charter contract requires the charter school to complete any requirements prior to seeking a determination from the department pursuant to this subsection (9), the charter school

shall submit the request no later than the end of the next fiscal year following the fiscal year in which the charter school completes said requirements.

(b) Upon receipt from a charter school of a request for a determination of whether the chartering school district has improperly withheld any portion of the amount due to the charter school, the State board shall direct the department to review the terms of the charter contract and the financial information of the charter school and the chartering school district and make a recommendation to the State board regarding whether the chartering school district improperly withheld any portion of the amount due to the charter school. The department shall request from the chartering school district and the charter school all information necessary to make the recommendation, including but not limited to audited financial data. The chartering school district and the charter school shall provide the requested information as soon as possible following the request, but in no event later than thirty days after completion of the annual financial audit. The department shall forward its recommendation to the State board within sixty days after receiving all of the requested information from the chartering school district and the charter school.

(c) At the next State board meeting following receipt of the recommendation of the department pursuant to paragraph (b) of this subsection (9), the State board shall issue its decision regarding whether the chartering school district improperly withheld any portion of the amount due to the charter school. If the State board finds that the chartering school district improperly withheld any portion of the amount due to the charter school, the chartering school district shall pay to the charter school, within thirty days after issuance of the decision, the amount improperly withheld. In addition, the chartering school district shall pay the costs incurred by the department in reviewing the necessary information to make its recommendation. If the State board finds that the chartering school district did not improperly withhold any portion of the amount due to the charter school, the charter school shall pay the costs incurred by the department in reviewing the necessary information to make its recommendation.

(d) If the chartering school district fails within the thirty-day period to pay the full amount that was improperly withheld, the charter school may notify the department, and the department shall withhold from the chartering school district's State equalization payment the unpaid portion of the amount improperly withheld by the chartering school district from the charter school and pay the unpaid portion directly to the charter school.

(10) (a) If a charter school determines that a school district has not paid the tuition charge for the excess costs incurred in educating a child with a disability as required in section 22-20-109 (5), the charter school may seek a determination from the State board in accordance with the provisions of subsection (9) of this section.

(b) If the State board determines that the school district has improperly withheld moneys due to the charter school, the school district, within thirty days after the State board's determination, shall pay to the charter school the amount improperly withheld. In addition, the school district shall pay the costs incurred by the department in reviewing the necessary information to make its recommendation. If the school district fails, within the thirty-day period, to pay the full amount that was improperly withheld, the charter school shall notify the department, and the department shall withhold from the school district's State equalization payment the unpaid portion of the amount improperly withheld by the district and pay the unpaid portion directly to the charter school.

(c) If the State board finds that the school district did not improperly withhold any portion of the amount due to the charter school, the charter school shall pay the costs incurred by the department in reviewing the necessary information to make its recommendation.

Source: L. 93: Entire article added, p. 1059, § 1, effective June 3. **L. 94:** (2)(a) amended, p. 812, § 25, effective April 27; (1) and (3) amended, p. 1379, § 4, effective May 25. **L. 96:** (5) amended, p. 1240, § 97, effective August 7. **L. 97:** (1) amended, p. 587, § 18, effective April 30. **L. 99:** (2)(a), (2)(b), (2)(c), and (3)(a) amended and (2)(a.3), (2)(a.5), (2)(a.7), (2)(a.8), and (2)(b.5) added, p. 172, § 1, effective March 30; (3)(a) R&RE and (4.5) added, p. 1257, §§ 8, 7, effective June 2. **L. 2001:** (1) and (2)(a)(III) amended and (2)(a.4) added, pp. 349, 339, 358, §§ 11, 2, 25, effective April 16; (2)(a)(III) amended, p. 337, § 2, effective April 16. **L. 2002:** (1), (2)(a)(III) (A), (2)(a.3), (2)(a.7), and (3)(a)(III) amended and (2)(a.5)(II.5), (2)(a.9), and (3)(a.5) added, pp. 1750, 1751, 1766, §§ 25, 26, 34, effective June 7. **L. 2003:** (4.5) amended, p. 517, § 7, effective March 5; (1), (2)(a)(III)(A), (2)(a.3), (2)(a.5)(I), and (2)(a.5)(II.5) amended, p. 2127, § 19, effective May 22. **L. 2004:** (2)(a)(III)(A), (2)(a.4)(III), (2)(c)(II), (2)(d), (5), and (6) amended, (5) repealed, and (7), (8), (9), and (10) added, pp. 1583, 1591, §§ 10, 25, effective June 3; (2)(a)(III)(A), (2)(b.5), and (5) amended, p.1632, § 34, effective July 1. **L. 2006:** (2)(a.8) amended, p. 577, § 6, effective April 24; (1)(a) amended, p. 696, § 39, effective April 28; (1)(b) amended, p. 606, § 20, effective August 7. **L. 2007:** (2)(a.5)(II.5) and (2)(a.7) amended, p. 1090, §§ 17, 19, effective July 1. **L. 2008:** (2)(a)(III)(A) amended, p. 1899, § 74, effective August 5. **L. 2009:** (2)(a.7) amended, (SB 09-256), ch. 294, p. 1554, § 11, effective May 21; (1)(a) amended, (SB 09-292), ch. 369, p. 1962, § 57, effective August 5.

Editor's note: (1) Amendments to subsection (2)(a)(III) by Senate Bill 01-129 and House Bill 01-1232 were harmonized. Amendments to subsection (2)(a)(III)(A) by House Bill 04-1141 and House Bill 04-1362 were harmonized.

(2) Subsection (5) was amended in House Bill 04-1362, effective July 1, 2004. However, those amendments will not take effect due to the repeal of subsection (5) by House Bill 04-1141, effective June 3, 2004.
(3) Subsection (1)(a) was amended by a 2009 act that was passed without a safety clause. The act establishes an effective date of August 5, 2009, for this provision; however, the act, or portions thereof, may not take effect if the people exercise their right to petition under article V, section 1 (3) of the State constitution. For further explanation concerning the effective date, see page ix of this volume.
Cross references: For the legislative declaration contained in the 1996 act amending subsection (5), see section 1 of chapter 237, Session Laws of Colorado 1996. For the legislative declaration contained in the 1999 act amending subsection (3)(a) and enacting subsection (4.5), see section 1 of chapter 302, Session Laws of Colorado 1999.

ANNOTATION
The waiver of a transfer policy or funding a transferred student's education in another school in the district are not permitted or contemplated services within the meaning of subsection (2)(b) of this section or § 22-30.5-104 (7)(b). Ridgeview Classical Sch. v. Poudre Sch. Dist. R-1, __ P.3d __ (Colo. App. 2008).
Applied in Acad. of Charter Schs. v. Adams Cty. Sch. Dist. No. 12, 994 P.2d 442 (Colo. App. 1999), aff'd in part and rev'd in part on other grounds, 32 P.3d 456 (Colo. 2001).

22-30.5-112.1. Charter schools - definitions - exclusive jurisdiction districts - authorized on or after July 1, 2004 - financing.

(1) As used in this section, unless the context otherwise requires:
(a) "Adjusted district per pupil revenues" means the qualifying school district's per pupil funding plus the qualifying school district's at-risk per pupil funding.
(b) "At-risk funding" means the amount of funding determined in accordance with the formulas described in section 22-54-104 (4).
(c) "At-risk per pupil funding" means the amount of funding determined in accordance with the following formula: (The qualifying school district's at-risk funding divided by the qualifying school district's funded pupil count) x (the district charter school's percentage of at-risk pupils divided by the qualifying school district's percentage of at-risk pupils)
(d) "At-risk pupils" shall have the same meaning as provided in section 22-54-103 (1.5).
(e) "Central administrative overhead costs" shall have the same meaning as provided in section 22-30.5-112 (2) (a.5) (I).
(f) "District charter school" means a charter school for which the charter application is approved on or after July 1, 2004, by a qualifying school district.
(g) "District funded pupil count" shall have the same meaning as provided in section 22-54-103 (7).
(h) "District per pupil funding" means a qualifying school district's per pupil funding as determined in accordance with the formula described in section 22-54-104 (3).
(i) "District per pupil on-line funding" means a school district's on-line funding, as specified in section 22-54-104 (4.5), divided by the district's on-line pupil enrollment for any budget year.
(j) "District per pupil revenues" means the qualifying school district's total program, as defined in section 22-54-103 (6), for any budget year divided by the qualifying school district's funded pupil count for said budget year.
(k) "On-line pupil enrollment" means:
(I) Repealed.
(II) For the 2008-09 budget year, and for budget years thereafter, the number of pupils, on October 1 within the applicable budget year or the school day nearest said date, enrolled in, attending, and actively participating in a multi-district program, as defined in section 22-30.7-102 (6), created pursuant to article 30.7 of this title, by the district charter school.
(l) "Pupil enrollment" shall have the same meaning as provided in section 22-54-103 (10).
(m) "Qualifying school district" means a school district:
(I) That has retained exclusive authority to authorize charter schools pursuant to the provisions of section 22-30.5-504; and
(II) In which more than forty percent of the pupil enrollment consists of at-risk pupils.
(2) Notwithstanding the provisions of section 22-30.5-112 (2) (a) to (2) (a.5), (2) (b), (2) (b.5), and (2) (c), the amount of funding to be received by a district charter school, the accounting of central administrative overhead costs between a district charter school and a qualifying school district, and the direct purchase of district services by a district charter school from a qualifying school district shall be determined pursuant to the provisions of this section.
(3) (a) For budget year 2004-05 and budget years thereafter, each district charter school and the qualifying school district that approved the charter shall negotiate funding under the charter contract. The district charter school shall

receive one hundred percent of the adjusted district per pupil revenues for each pupil enrolled in the district charter school who is not an on-line pupil and one hundred percent of the district per pupil on-line funding for each on-line pupil enrolled in the district charter school; except that the qualifying school district may choose to retain the sum of the actual amount of the district charter school's per pupil share of the central administrative overhead costs for services actually provided to the district charter school, up to five percent of the adjusted district per pupil revenues for each pupil who is not an on-line pupil enrolled in the district charter school and up to five percent of the district per pupil on-line funding for each on-line pupil enrolled in the district charter school.

(b) Notwithstanding any provision of this subsection (3) to the contrary, if a qualifying school district enrolls five hundred or fewer students, the district charter school shall receive funding in the amount of the greater of one hundred percent of the district per pupil on-line funding for each on-line pupil enrolled in the district charter school plus one hundred percent of the district per pupil revenues for each pupil who is not an on-line pupil enrolled in the district charter school, minus the actual amount of the district charter school's per pupil share of the central administrative overhead costs incurred by the qualifying school district, based on audited figures, or eighty-five percent of the district per pupil revenues for each pupil enrolled in the district charter school who is not an on-line pupil plus eighty-five percent of the district per pupil on-line funding for each on-line pupil enrolled in the district charter school.

(4) Within ninety days after the end of each fiscal year, each qualifying school district shall provide to each district charter school authorized by the qualifying school district an itemized accounting of all its central administrative overhead costs. The actual central administrative overhead costs shall be the amount charged to the district charter school. Any difference, within the limitations specified in subsection (3) of this section, between the amount initially charged to the district charter school and the actual cost shall be reconciled and paid to the owed party.

(5) The district charter school, at its discretion, may contract with the qualifying school district for the direct purchase of district services in addition to those included in central administrative overhead costs, including but not limited to food services, custodial services, maintenance, curriculum, media services, and libraries. The amount to be paid by a district charter school in purchasing any district service pursuant to this subsection (5) shall be determined through an agreement between the district charter school and the qualifying school district using one of the following methods:

a) By dividing the cost of providing the service for the entire qualifying school district, as specified in the qualifying school district's budget, by the number of students enrolled in the qualifying school district and multiplying said amount by the number of students enrolled in the district charter school;

(b) By determining the actual costs incurred by the qualifying school district in providing support services; or

(c) By negotiating a services agreement between the district charter school and the qualifying school district pursuant to which multiple services are provided for a fixed cost.

(6) Notwithstanding any other provision of this section to the contrary and for the purposes of this section only, a school district in which more than forty percent of the pupil enrollment consists of at-risk pupils at the time a charter school's application is first approved shall be deemed to have the same percentage of at-risk pupil enrollment for the term of the charter contract. For purposes of renewal of the charter contract, the percentage of at-risk pupils in the school district at the time the renewal application is submitted shall be the percentage used for purposes of determining whether the school district is a qualifying school district and subject to the provisions of this section.

Source: L. 2006: Entire section added, p. 574, § 5, effective April 24. **L. 2007:** (1)(i) and (1)(k) amended, pp. 1090, 1086, §§ 18, 8, effective July 1. **L. 2009:** (1)(k)(I) repealed, (SB 09-292), ch. 369, p. 1962, § 58, effective August 5.

Editor's note: Subsection (1)(k)(I) was repealed by a 2009 act that was passed without a safety clause. The act establishes an effective date of August 5, 2009, for this provision; however, the act, or portions thereof, may not take effect if the people exercise their right to petition under article V, section 1 (3) of the State constitution. For further explanation concerning the effective date, see page ix of this volume.

22-30.5-112.3. Charter schools - additional aid from district.

(1) (a) and (a.5) Repealed.

(a.7) (I) For the 2003-04 budget year and each budget year thereafter, a qualified charter school, as defined in section 22-54-124 (1) (f.6), shall receive State education fund moneys from the school district that granted its charter in an amount equal to the percentage of the district's certified charter school pupil enrollment that is attributable to pupils expected to be enrolled in the qualified charter school multiplied by the total amount of State education fund moneys distributed to the district for the same budget year pursuant to section 22-54-124 (3).

(II) As used in this paragraph (a.7), "pupils" means pupils, other than pupils enrolled in an on-line program, as defined in section 22-30.7-102 (9), who are enrolled in a charter school.

(b) Funding received pursuant to paragraph (a), (a.5), or (a.7) of this subsection (1) shall be in addition to any funding provided pursuant to section 22-30.5-112.

(c) A district shall provide funding to each qualified charter school, as defined in section 22-54-124 (1) (f.6), by making a single lump-sum payment to the qualified charter school as soon as possible after the district receives a lump-sum payment of State education fund moneys pursuant to section 22-54-124 (4).
(2) (a) A charter school shall use moneys it receives pursuant to subsection (1) of this section solely for capital construction, as defined in section 22-54-124 (1) (a).
(b) Notwithstanding the provisions of section 22-30.5-112 (4.5), any moneys received by a charter school pursuant to subsection (1) of this section for the 2001-02 budget year that are not expended by January 31, 2003, shall be transferred back to the State education fund created in section 17 (4) of article IX of the State constitution.
Source: L. 2001: Entire section added, p. 348, § 10, effective April 16. **L. 2002:** (1)(a) and (1)(c) amended, p. 1751, § 27, effective June 7. L. 2003: (1)(a)(I), (1)(c), and (2) amended and (1)(a.5) added, p. 517, § 8, effective March 5; (1)(a)(I), (1)(b), and (1)(c) amended and (1)(a.7) added, pp. 2133, 2134, §§ 29, 30, effective May 22. L. 2006: (1)(a) and (1)(a.5) repealed and (1)(c) amended, p. 606, §§ 21, 22, effective August 7. **L. 2007:** (1)(a.7)(II) amended, p. 1090, § 20, effective July 1.

22-30.5-112.5. Charter schools - transportation plans.

If a charter school's charter or contract includes provision of transportation services by the school district, the charter school and the school district shall collaborate in developing a transportation plan to use school district equipment to transport students enrolled in the charter school to and from the charter school and their homes and to and from the charter school and any extracurricular activities. The transportation plan may include, but need not be limited to, development of bus routes and plans for sharing the use of school district equipment for the benefit of students enrolled in charter schools of the school district and students enrolled in other schools of the school district.
Source: L. 2001: Entire section added, p. 368, § 37, effective April 16.

22-30.5-113. State board - department of education - duties - charter schools - evaluation - report.

(1) Beginning in the 2004-05 budget year, and at least every three years thereafter, the department shall prepare a report and evaluation for the governor and the house and senate committees on education on the success or failure of charter schools and of institute charter schools authorized pursuant to part 5 of this article, their relationship to other school reform efforts, and suggested changes in State law necessary to strengthen or change the charter school program described in this article.
(2) The State board shall compile evaluations of charter schools received from local boards of education and evaluations of institute charter schools prepared by the State charter school institute created in section 22-30.5-503. The State board shall review information regarding the statutes, regulations, and policies from which charter schools were released pursuant to section 22-30.5-105 and from which institute charter schools were released pursuant to section 22-30.5-508 to determine if the releases assisted or impeded the charter schools or the institute charter schools in meeting their Stated goals and objectives.
(3) In preparing the report required by this section, the State board shall compare the performance of charter school pupils and institute charter school pupils with the performance of ethnically and economically comparable groups of pupils in other public schools who are enrolled in academically comparable courses.
Source: L. 93: Entire article added, p. 1061, § 1, effective June 3. **L. 98:** (2) repealed, p. 1076, § 6, effective June 1. **L. 2004:** Entire section R&RE, p. 1591, § 26, effective June 3; (1) and (3) amended, p. 1633, § 35, effective July 1.

22-30.5-114. Repeal of part. (Repealed)

Source: L. 93: Entire article added, p. 1061, § 1, effective June 3. **L. 96:** Entire section amended, p. 668, § 7, effective May 2. **L. 98:** Entire section repealed, p. 164, § 1, effective April 6.

22-30.5-115. Construction of article - severability.

If any provision of this article or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of this article that can be given effect without the invalid provision or application, and to this end the provisions of this article are declared to be severable.
Source: L. 96: Entire section added, p. 755, § 9, effective May 22.

Exhibit VI.F(2)i-2
Colorado Charter School Standard Application

Introduction

The "Colorado Charter School Standard Application, Check List, and Review Rubric" was developed to provide guidance in the writing and review of new charter school submissions. The target audience for this document is both the founding group (the applicant) as they develop a charter school application and the potential authorizer (the school district or CSI) as they review and evaluate the quality and completeness of the application.

This standard application is the result of collaboration between the CDE, the Colorado League of Charter Schools (The League), and the Charter School Institute (CSI). This document is intended to communicate the minimum standard for producing a comprehensive, high quality, and complete charter school application. ***Using the format presented in this document is not a guarantee for charter approval.*** Authorizers are encouraged to build upon this format as a template. Use of this document as a template for applications will have policy implications for authorizers and should be reviewed and adapted accordingly. Applicants must research the expectations of the potential authorizer to ensure compliance with requirements.
For example, individual school districts may choose to weight certain items in the application differently, may have additional requirements, or may have adopted an entirely different format.

This standard application is divided into nineteen application components. The components appear in this document in the same order that they appear in the Colorado Revised Statutes (CRS 22-30.5-106.1). It is important to remember that each of these components may require upfront training and education to meet the quality standard expected by the State and the potential authorizer. Each component is divided into three sections: a Component Description, a
Checklist for Completion, and an Evaluation Rubric. The Component Description is a narrative designed to give the applicant background information, reference to statute, and general explanation of the component. The Checklist for Completion may be used by both the applicant and the authorizer to monitor the completeness of the application. The Evaluation Rubric provides the authorizer with means of determining the quality of the application component, but may also be used by the applicant when targeting a high quality school program.

The format for the standard application is necessarily compartmentalized into the different application components. However, it is important to remember that
each of the components relate to one another. Curriculum is not complete without consideration of assessment. Facilities cannot be sufficiently addressed in isolation from budgetary decisions. The completed application should tell a story that relates the application components into one comprehensive package. The vision and mission should be evident throughout the application and all program elements and resource allocations should be in alignment with the

proposed budget and school program. It is important to also consider that online school applications, or other unique programs, may not conform precisely to all components of this standard application. In these cases communication with the potential authorizer is imperative.

The companion to this standard application is the Charter School Application Flow Chart which presents an outline of the charter school application process. The flow chart can be found at the following Web site: www.startacoloradocharter.org

Application Components

A. Executive Summary

Although an executive summary is not required by the Charter Schools Act, it serves as a concise explanation of the proposed charter school and identifies who is submitting the charter application.

This section should be two to three pages long and should include:

- The proposed school's name, grade levels to be served, proposed opening date (month and year), grade levels upon opening and growth plan (if the school does not plan to initially open with all grade levels).
- Size of the school at build-out including the number of classes per grade level and the number of students per class.
- Vision and mission Statements including a brief explanation of how they were created.
- A short explanation of the key programmatic features the school will implement in order to accomplish its vision and mission.
- How the proposed school will be more effective than the schools currently serving the targeted student population.
- Any other unique features, such as a non-traditional school year, longer school day, key partner organizations, multiple campuses, school culture, etc.
- Student body to be served, such as key demographic data, targeted geographical area, etc.
- Evidence of a community need for a school of this nature.

B. Vision and Mission Statements

1. Component Description

A charter school application must have a mission Statement for the proposed school. Many schools have both a vision and a mission Statement. The vision Statement is a Statement of how the charter school will look once it is operating (the big picture view). The mission Statement is how the school intends to make that vision a reality.

The vision and mission Statements should be succinct, easy to understand and easy to remember. Many schools post their vision/mission Statement throughout their building and use it in their printed materials (e.g. Parent/Student Handbook and Employee Handbook). Resist the temptation to please everyone with these Statements. Instead, define your school for potential students, parents and staff. Be as clear as possible and don't use education "jargon." Again, be clear so as to lend clarity to those who will ultimately implement the vision over the life of the charter school.

2. Checklist for Comprehensive Application

The vision and mission Statements describe the purpose for the charter school with a focus on outputs rather than inputs.
The vision and mission Statements are the driving force and rationale behind all other components of the application.

It's obvious that the school's goals, educational program, operations, etc., align with and support the fulfillment of the vision and mission Statements.

The vision and mission Statements express the ideal, long-term impact, scope and scale of the school. The vision articulates what the school hopes to be. The mission Statement explains how the school will reach that goal.

3. Evaluation Rubric

Excellent Vision and Mission Statements will have the following characteristics:

- Are clear, focused and compelling.
- Likely to produce high quality education outcomes.
- Express clear guiding purposes.
- Have priorities reflected throughout the application.

Vision/Mission Statement Strengths	Reference
Concerns and Additional Questions	**Reference**

C. Goals, Objectives and Pupil Performance Standards

1. Component Description

Accreditation is the process by which school districts and public schools receive certification from the State Board of Education. Accreditation rules are established to foster greater accountability from public schools and school districts for the betterment of public education. This section should be based on the State Accreditation Indicators, which can be found at the Colorado Department of Education 's Web site http://www.cde.State.co.us/index_accredit.h. The authorizer may use this section of the charter school application as a basis for the accreditation plan it creates with the approved charter school. The application should reflect an understanding of the accreditation requirements of the chartering authority with a clear plan from the charter school applicants outlining how data will be obtained, and how that data will be provided to the chartering authority for their accreditation contract requirements with CDE.

It is understood that there are not actual baseline test scores, attendance rates or other data before the school is established. A charter applicant can either use the district average as a baseline and/or State that a baseline will be established in the first year of operation.

In Colorado, there are multiple forms of accountability by which public schools, including public charter schools, are measured. The State Board of Education has approved

accreditation contracts with each of the school districts and the Charter School Institute (CSI). School districts and the CSI, in turn, accredit each of their public schools. The process for individual public schools to be accredited oftentimes mirrors the authorizer's accreditation plan. Reviewing the authorizer's accreditation plan is essential before writing this section.

In addition to Accreditation Indicators required by State law, a charter school may choose to have other measures for which they wish to be held accountable. Those indicators may include school climate or culture. Be sure to only include measures that the charter school is willing to be held accountable for over time, as these additional indicators would become a part of the school's accountability plan.

2. Checklist for Comprehensive Application

Provide goals that align with District/CSI Accreditation Indicators. Specified goals for making Adequate Yearly Progress (AYP).

Goals are written "SMART" (Specific, Measurable, Attainable, Reflective of the school's mission and Time-phased) which includes objectives and benchmarks (or State that a baseline will be established and how/when).

Goals in addition to Accreditation Indicators match the proposed school's mission and are based

on valid and reliable methods to measure progress in non- Accreditation Indicator areas of school performance.
Outline of how data will be obtained and how that data will be provided to the authorizer and CDE.

3. Evaluation Rubric

An excellent Goals, Objectives and Pupil Performance Standards Plan will have the following characteristics:

- Alignment with the school's vision/mission and the eleven Accreditation Indicators.
- Goals that are clear, specific, measurable, attainable, reflective of the school's mission and time-phased.
- Objectives that clearly support the goals.
- A clear plan for the school to meet AYP.
- Plan for measuring student longitudinal growth, in addition to the State model, including data for GT, ESL and Special Education.
- Clear, realistic strategies for improving student achievement and closing achievement gaps for all groups of students.
- Understanding of and strategy for complying with State achievement and reporting requirements including those related to accountability reporting and Accreditation.

Goals, Objectives & Pupil Performance Standards Strengths	**Reference**

D. Evidence of Support

1. Component Description

A charter school application should include the aggregate number of students interested in the charter school at the different grade levels. Individual student and/or family information should NOT be included. Do NOT include copies of the Letters of Intent completed by prospective parents. Reference the figures used in the Intent to Submit Form and update the numbers if necessary. If appropriate to further demonstrate support, disaggregate the number of prospective students by zip code, school of attendance, gender or type of current school (home, private, public). After the charter school is approved, the founders will go through an enrollment process and verify which students will be attending the charter school. See C.R.S. 22-30.5-106(3) for more information.

It may be helpful to include letters of support from community leaders, business people or elected officials. These letters should State why the individual believes a new charter school would best serve the community. The tone of this section should illustrate a positive foundation of community support as opposed to a groundswell based on criticism. Care should be given to avoid derogatory comments about the authorizer's current curricular and program offerings.

Explain how students and parents were informed of the proposed charter school and what community meetings were conducted. Outreach activities should be diverse and designed to reach all students in the community, thereby, ensuring equal access. If relevant to the community, meetings should be bilingual.

Explain the applicant team's ties to and knowledge of the community. If the applicant team has

established any partnerships or networking relationships, describe them and any resources or agreements that are planned. Specifically address what type of outreach activities have been made to at-risk populations, especially if the application is for the State CSI, whose mission is to serve at-risk student populations.

2. Checklist for Comprehensive Application

Information about the proposed charter school's student body including the intended students' educational needs and demographics (racial/cultural, socioeconomic, special needs, and ELL). The application, in its entirety, reflects an understanding of the intended student population.

A description of the type of outreach the founders conducted to make the student population and their families aware of the proposed charter school. This should include future plans if the charter school is approved.

A summary of the number of students expressing an interest in the proposed school. This information should be disaggregated in a manner showing additional information about the prospective students.

Information on community members and leaders who publicly support the proposed school and their role in the development of the school and application, if the proposed school is not being developed by parents.

If there are any partnerships or networking relationships, provide an explanation of the planned resources or agreements that have been discussed.

3. Evaluation Rubric

Evidence of Support means:

- A complete explanation of the student population the school intends to serve.
- An adequate number of parents, teachers, pupils or any combination thereof support the formation of this proposed charter school.
- Sufficient demand for the school exists and is aligned to the school's growth plan.
- Community notification of a proposed charter school was broad enough to provide equal opportunity for students to enroll.

Evidence of Support Strengths	**Reference**
Concerns and Additional Questions	**Reference**

E. Educational Program

1. Component Description

A charter school application should include a description of the school's educational program, pupil performance standards and curriculum, which must meet or exceed content standards and must be designed to enable each pupil to achieve such standards. Content standards are specific Statements of what a student should know or be able to do relative to a particular academic area or areas. Instruction

and assessment, in a standards based system, should be aligned with Colorado's content standards. Colorado model content standards and suggested grade level expectations are online at http://www.cde.State.co.us/cdeedserv/download/pdf/AccredGuidelines.pdf.

There should be a current research basis for selecting a particular curriculum. In addition to obtaining information from the publisher, research is available online at ERIC (http://www.eric.ed.gov) and the What Works Clearinghouse (http://www.whatworks.ed.gov/). The research should support using the curriculum with the student body the proposed school will likely attract, and benchmark assessments should be chosen to align with the chosen curriculum.

All core content areas plus supplemental or elective areas should be described. If certain characteristics of the school culture are critical to the overall educational program (i.e., small school size, character education and high expectations), the research basis should thoroughly support the unique educational program design.

2. Checklist for Comprehensive Application

Core content areas are described, including the curriculum, and supported by research matching the probable student population for the proposed school. Description of the educational program provides an explanation of how the curriculum is either already aligned to State model content standards, or will be aligned within the first three years of school operation including a timeline and process for monitoring the success of the program.
Description explains why the selected curriculum was chosen for the anticipated population of students.
Supplemental curricula for electives or "special" courses is thoroughly described and based on State model content standards when available.
Other vital aspects of the educational program design are thoroughly described and supported by research findings.

3. Evaluation Rubric

An excellent proposal will demonstrate the following qualities related to the Educational Program:

- The curriculum framework is clearly presented, aligned with the school's vision/mission and provides an appropriate level of detail for the objectives, content, and skills for each subject and for all grades the school will serve.
- The curriculum is supported by research, by applicant experience and/or by sound reasoning behind its selection.
- Evidence is provided that the educational program is a good match for the intended student population.
- A clear outline of how the school will monitor the implementation of the curriculum. The plan identifies a timeline, a lead contact and specific action steps.
- A clear outline of how the school will use information from the curriculum monitoring process to facilitate professional development and continuous improvement in the education program. The plan identifies a timeline, a lead contact and specific action steps.
- The school day and school calendar are structured in ways that align with the educational program. The calendar and daily schedule reflect the minimum number of hours required by State statute (1,056 hours for secondary students; 968 hours for elementary students; no fewer than 160 days per year for all students; see C.R.S. 22-33-104 for more information).
- A convincing plan for ongoing curriculum development (e.g., revision of standards and benchmarks, improvement of curriculum alignment and assessment development) and Performance Management is in place for use in data-driven decision making.

- A plan for the development, mentorship, retention and regular evaluation of staff that is manageable and is clearly linked to the school's mission and educational program, including a timeline, a lead contact and specific action steps.
- Evidence that school staff will be held to high professional standards.

Educational Program Strengths	**Reference**
Concerns and Additional Questions	**Reference**

F. Plan for Evaluating Pupil Performance

1. Component Description

A charter school application should include a clear plan for evaluating pupil performance across the curriculum. This plan should align with State performance standards as well as with the school's pupil performance goals, and should be presented along with a clear timeline for achieving these standards/goals. A clear explanation of the types of assessments and frequency of administration should be included reflecting thoughtfulness given to tracking student progress, while still preserving as much class learning time as possible. A plan for the use of data gathered through assessments should include procedures for taking corrective action (both individually and collectively) if pupil performance falls below expected standards.

A quality assessment plan will include summative (end-of-year) assessments as well as formative (more frequent, end of unit assessments) to track student skill and knowledge development. The plan will include how this data will be used to guide professional development of teachers as well as how this data will be used to guide refinement of the curriculum.

When developing the assessment plan consideration should be given to: the appropriateness of assessments to the curriculum; what will serve as baseline for student progress comparisons; the inclusion of State and federal assessments to demonstrate appropriate student growth (i.e., CELA, CSAP, AYP, CBLA); the ability of the assessment plan to provide for the early detection of students persistently lowest-achieving with curriculum content; and the ability of assessments to reflect the use of basic skills at grade-appropriate levels (i.e., reading, writing, problem-solving, etc.).

Be aware that all Colorado public schools including charter schools are subject to the Colorado Student Assessment Program (CSAP), which is aligned with the model State content standards. Contact the CDE's Assessment Office at 303-866-6664 or use the CDE Web site (www.cde.State.co.us/index_assess.h) for detailed information regarding this program. In addition, all Colorado public schools including charter schools are subject to the Colorado Basic Literacy Act (CBLA), which mandates that all students will be reading on the third grade level by the end of the third grade before they can move on to a fourth grade reading class. This law requires that the reading growth of all students be monitored carefully from kindergarten through third grade. Students not reading on that grade level must be placed on Individual Literacy Plans (ILP) through high school. CSAP is an integral

part of this process and all third graders are required to participate in the State reading program and test, which is a part of CSAP. Further information about CBLA is also available on the CDE Web site at http://www.cde.State.co.us/action/CBLA/.

Lastly, Colorado public schools are also held responsible for demonstrating Adequate Yearly Progress (AYP). Under the No Child Left Behind (NCLB) Act, all States, schools districts, schools and subgroups of 30 or more students within each school are required to make AYP. It represents the annual academic performance targets in reading and math that the State, school districts and schools must reach to be considered on track for 100% proficiency by school year 2013-14. To make AYP a school must (a) assess 95% of its students; (b) reach targets for either proficiency or reduce non-proficiency; and (c) reach targets for one other indicator - advanced level of performance for elementary and middle schools and graduation rate for high schools. Additional information on AYP can be found at http://www.cde.State.co.us/ayp/index.asp.

Finally, if the charter application includes high school, include graduation requirements and how those requirements meet standards put forth by the Colorado Commission on Higher Education for college preparation or how your requirements prepare students to enter the workforce (http://highered.colorado.gov/Academics/Admissions/coursecompletion.hl).

2. Checklist for Comprehensive Application

A plan is in place explaining the use of internal assessments to include baseline data gathering, short- and long-term goals, types of assessments, and how the school will use this information to revise professional development and instruction. The application describes what formal assessments will be used in addition to CSAP that align with the school's goals; that meet requirements of Colorado Basic Literacy Act (CBLA), accreditation, longitudinal growth measures, federal requirements, such as No Child Left Behind (NCLB), and Adequate Yearly Progress (AYP).

The application describes which assessments will be used for literacy testing, and the process used to bring students up to grade level in reading, as required by CBLA.

The application explains how the school will collect, analyze, triangulate and manage data on an ongoing basis. The school has created a Data Management Plan to include a Student Information System and Academic Data use summary and timeline of the plan. It identifies what other tools and resources will be used for data management purposes, such an internal database, data management service, etc. This section also explains how budget resources have been allocated to support these staffing and resource decisions.

The application explains how student assessment and progress will be appropriately communicated to parents, the authorizer and the broader community. Clear information of requirements for promotion to the next grade level or for graduation requirements aligned with CCHE and district requirements as they pertain to a high school are included.

In compliance with C.R.S. 22-30.5-106 (f), the application provides a description of the charter school's procedures for taking corrective action in the event that pupil performance at the charter school falls below the achievement goals approved by the authorizer in the charter contract. To include a timeline, responsible person and staffing changes as appropriate.

3. Evaluation Rubric

An excellent Pupil Performance Evaluation Plan will include the following characteristics:

- Alignment with the school's mission and clearly defined educational objectives.
- Evaluation that is sufficiently frequent and detailed to determine whether students are making adequate progress.
- Adequate information on how the school will use a data management system to collect and analyze student academic achievement data, use the data to modify instructional practices and report the data to the school community.

- Clear description of the expected range of assessment tools including, but not limited to, State-mandated assessments.
- Strategies to monitor all students at the school and to take appropriate corrective action including a timeline, a lead contact, and specific action steps (such as a Response to Intervention model).
- Clear procedures for taking corrective action in the event that pupil performance falls short of the goals.
- Plan for administering Statewide assessments consistent with C.R.S. 22-7-701-708.
- Plan for sharing CSAP results with each student's parent or legal guardian, the authorizer and the broader community.
- If a proposed high school, description of the graduation requirements that aligns with CCHE's admission requirements or to graduates' ability to enter the workforce.

Plan for Evaluating Pupil Performance Strengths	**Reference**
Concerns and Additional Questions	**Reference**

G. Budget and Finance

1. Component Description

The budget and financial plan for the charter school must include a plan for revenues and expenditures and a plan for compliance with State and federal accounting and reporting requirements. The plan should demonstrate diligent financial practices, clear alignment to the other components in the application, and strong oversight. Particular attention should be given to facility and salary costs, as these often represent a large portion of the school's budget.

The proposed budget should be based on reasonable estimates that reflect choices made throughout the rest of the charter application. For example, enrollment projections used elsewhere in the application need to be the same enrollment projections used in the development of the budget. Similarly, facility, insurance and employment plans discussed in other sections of the application should be reflected in the budget, along with the basis for given assumptions.

The budget should demonstrate an ability to understand the sources of funding available to the charter school and the types of expenditures required to operate the charter school. The primary source of revenue is Per Pupil Revenue (PPR). There are several other sources of revenue, some of which are temporary or restricted and some of which are dependent on market factors other than enrollment. However, PPR is the guaranteed stream of revenue which makes up most of the funding the school receives. When developing the budget all ongoing expenditures required to operate the school should be supported by PPR.

The amount of PPR varies by school district. A charter school receives 100% of the PPR for the district in which the charter school resides. The charter school authorizer, whether a school district or the CSI, may retain up to 5% of PPR to cover the charter school's portion of the authorizer's central administration costs. In cases where the maximum is withheld, the charter school effectively receives 95% of its school district's PPR. When projecting revenue numbers, the single most important factor to understand is enrollment.

Enrollment projections must be accurate, and it is best to project conservatively for budget purposes.

Other sources of revenue can be very helpful in funding specific programs or in helping with startup costs for new charter schools. These sources include federal grants, private grants, and more. CDE (www.cde.State.co.us) and the Colorado League of Charter Schools (CLCS) (www.coloradoleague.org) are good resources for finding information about current sources of funding.

When planning expenditures, it is important to understand how choices affect different areas of the budget. For example, the smaller the class size the less revenue there is to spend. Also, the more staff there is in the school the less money per staff member there is to spend. Finally, as another example, the more money spent on facility costs the less money there is for salaries and other discretionary items.

In nearly all cases, the combination of facility costs and staff salaries/benefits represents close to 75% of spending in charter schools. As such, close attention should be paid to these two areas. In addition to these two areas, other items that need to be planned for financially include special education, various professional services, classroom supplies and materials, general supplies and materials, liability insurance, and more. Existing Colorado charter schools that have a similar mission/philosophy are a good resource for assistance with planning expenditures.

In addition to budget projections, the charter school must comply with various requirements. In summary, the charter school needs to set up proper accounting procedures to safeguard its assets and to ensure accurate financial reporting. At the same time, it is important to be able to provide financial information in a clear, understandable format that allows board members and administration to make sound financial decisions. Note that online schools may have special considerations with respect to budgeting and financial reporting.

The CDE requirements for financial management and reporting are available in the Financial Policies and Procedures manual at www.cde.State.co.us/cdefinance/sfFPP.h. An additional resource with general information is the Colorado Charter School Financial Management Guide at www.cde.State.co.us/cdechart/guidebook/fin/pdf/FinGuide.pdf.

2. Checklist for Comprehensive Application

The plan includes a five-year budget, realistic assumptions and their basis, a cash flow projection for the first year of operation, minimum enrollment needed for

solvency, and adequate staffing that fits with the narrative in educational and other related application sections.

The budget reflects an understanding of specific statutory requirements including separation of the general fund and the capital reserve fund, direct student instructional expenses, Public Employees' Retirement Association (PERA) contributions, as well as a three percent TABOR reserve (Colo. Const. art. X, Sect.
20) each year.

The budget narrative reflects the financial policies and procedures plan, anticipated management plan that will ensure checks and balances in cash disbursement and alignment with the mission and goals.

The budget narrative includes a basic startup plan (facilities funding and FFE acquisition), the curriculum and professional development plan, and the school growth plan to include needed staff along with adequate financial allocations and anticipated timelines.

The budget is set up in such a way that it reflects an understanding of the CDE's Chart of Accounts and any financial reporting requirements of the district.

The budget does not include any "soft funds," such as grant money or donations; it includes only grants or donations that have already been received or for which commitments have been received.

Evidence is provided for anticipated fundraising and grants, if cited in the application.
The proposed budget balances each year and includes a five-year plan to reach at least a five percent reserve (in addition to the TABOR reserve) that the school can use for emergency purposes or as a long-term reserve.
The application describes the process the school will follow to contract with a Certified Public Accountant to conduct an annual, independent financial audit. It explains how the school will remain fiscally solvent, adhere to generally acceptable accounting practices, have no material breaches, will address any concerns, and will disseminate the results from the audit to the school district and required State agencies.
The application includes a list of planned services to be contracted to outside providers.

3. Evaluation Rubric

An excellent proposal will present a Financial Plan with the following characteristics:

- Adequate budget assumptions and financial planning based on realistic revenue and expenditure projections and/or quotes for the term of the proposed contract (at least five years). These budget assumptions should be based on a minimum number of students needed for financial viability in addition to 100% of anticipated enrollment.
- Spending priorities that align with the school's mission, curriculum, plans for management, professional development and growth.
- Three percent TABOR reserve, allocation of funds to capital reserve and insurance, PERA, and direct student instructional allocations as required by law.
- Budget format as prescribed by the proposed authorizer.
- Realistic cash flow projection for the first year of operation including a plan for funding cash flow shortfalls.
- A sound financial management system proposed with adequate checks and balances, controls and staffing.
- A plan for making required school and employee contributions to the Colorado PERA is included.

- There is an adequate and reasonable plan to manage startup costs without complete dependence on federal or private grant funds.
- There is a description of how the school will conduct an annual audit of the financial and administrative operations of the school.
- There is a description of services to be purchased from the authorizer or other outside vendor(s).

Budget & Finance Strengths	**Reference**
Concerns and Additional Questions	**Reference**

H. Governance

1. Component Description

Charter school governance is extremely important to the success of a charter school. Oftentimes, a proposed charter school's applicant team transitions to become the school's founding governing board. The charter school application should describe the process involved in developing the applicant team and the individual expertise represented on the steering committee; the process to appoint or elect the initial governing board; how and when bylaws will be adopted by the board; the governance structure for the school; the nature and/or extent of parental and/or community involvement in governance; and the amount of authority the governing board will convey to the school's administrator, along with a clear delineation of their respective roles and the means by which the administrator will be evaluated.

While some existing Colorado charter schools have staff members on the governing board, others do not. Administrators may be an ex-officio, non-voting board member. If staff members have voting privileges, there should be clear policies to explain when that board member should recuse him/herself. Any potential conflict of interest by any board member should be disclosed and addressed.

The number of directors on a charter school board should not be less than five and its generally considered a best practice to have no more than nine directors.

A good way to mitigate any potential issues with board members is to have the governing board adopt and use a Board Member Agreement. These agreements stipulate the qualifications, responsibilities and expected behaviors of individual board members and the governance structure. If the applicant team intends for the approved charter school's governing board to use a Board Member Agreement, it could be an attachment to the charter school application.

The charter school application should also describe the school's legal status. Many charter schools file articles of incorporation and bylaws with the Secretary of State in order to have their school recognized as a corporation. Schools authorized by the CSI are required to obtain a nonprofit corporation status. The articles and bylaws define the authority that rests in the charter school governing board and, in essence, "who holds the charter." These legal issues should be discussed with a charter school attorney before decisions are made. Additionally, the charter school can apply for its own tax-exempt status with the IRS. Charter schools can either use their own tax-exempt status or use their authorizer's if the school is authorized by a school district. The CSI requires all of its schools to have their own tax-exempt status. Check with the potential authorizer for more information.

The charter school governing board must operate in compliance with the Colorado Open Meetings Law (C.R.S. 24-6-401) and Public Records Act (C.R.S. 24-72-201) as well as the Family Educational Rights and Privacy Act (20 U.S.C. Sect. 1232). See http://www.cde.State.co.us/cdechart/guidebook/gov/pdf/OpenMeetings-RecordsMemo.pdf for more information on the Open Meetings and Open Records laws.

If the school will be contracting with an Educational Management Organization (EMO), a full description of the relationship should be provided.

Every charter school governing board should have a set of board policies. Much of what is included in the charter school application will become board policy. For instance, the school's vision/mission Statement, legal status, enrollment policy, discipline policy and nondiscrimination policy will all be in the board policy book. These board policies should be made available to school staff and families. Generally, schools put these policies on their Web site and have them available in the school office.

Many sample best practice documents for charter school governing boards are available online at

http://www.cde.State.co.us/cdechart/guidebook/gov/index.h.

Attach:

- Governing board bylaws.
- Articles of Incorporation (optional)
- Organizational chart explaining the relationship between the board, the lead administrator, subcommittees and/or advisory committees
- Resumes of applicant team members and/or founding board members
- Draft of initial board policies (optional)
- Draft of the Board Member Agreement (optional)
- Draft of Conflicts of Interest and Grievance Process board policies

2. Checklist for Comprehensive Application

The proposed bylaws explain powers and duties, size, terms, composition, qualifications, term limits, officer positions and duties, election procedure, vacancy replacement, minimum number on the board, quorum and decision making process, how board members are elected or appointed, and when this takes place. An explanation of the proposed transition from an applicant team to the founding governing board including the identification of individuals making the transition. This description of the transition process should explain when the governing board will be seated and assume responsibility for school governance. Further, how the

transition plan will provide for a smooth shift of responsibilities and how the founder's original vision and mission will be brought to fruition.

A plan is included for how a lead administrator will be hired and how the transition of leadership will happen

Resumes for applicant team and/or founding governing board members are attached.

A plan for ongoing board training and capacity building is included in a board calendar.

An explanation of the proposed board meeting frequency and focus, the role of any standing subcommittees (e.g. School Advisory Council) is included.

A detailed description of the responsibilities of the school's advisory council and its role in relation to the school's board of directors and administration is included. This section demonstrates that the applicant thoroughly understands statutory guidance on School Advisory Councils (or accountability committees) and commits to forming such a committee or has requested a waiver with a complete replacement plan. (See C.R.S. 22-7-106 and 22-7-107 for additional information.)

An explanation of compliance with Open Meetings and Open Records laws is included.

A description of how the founding governing board will create and adopt board policies (an initial draft may be attached to the application) is included

Draft policies for Conflicts of Interest and the Grievance Process are included.

A description of the relationship between the governing board and the school administrator which includes the amount of authority the governing board will convey to the school administrator.

3. Evaluation Rubric

An excellent application will demonstrate the following characteristics related to the Governance and Management Plan:

- Proposed board members will contribute a wide range of experience and expertise (such as education, management, financial planning, law, and community outreach) that will be needed to oversee a successful charter school.
- Clear description of transition from a developing team to a working board, selection and removal procedures, term limits, meeting schedules, powers and roles of board members, and how decisions will be made and recorded.
- Clear distinction between the roles and responsibilities of the board members and school administrators.
- Plan for meaningful involvement of parents and community members in the governance of the school.
- Organizational plan that clearly outlines roles and responsibilities for implementing the school's program successfully including an internal and external evaluation plan.
- Legal status of the proposed school is clearly explained. Pertinent documents are included as attachments (Articles of Incorporation and/or bylaws).
    - Comprehensive plan for providing annual board training in vital subjects to include

  Open Meetings and Open Records laws for new board members.
- Sufficient resources and support for transition from applicant team to founding governing board and administrator structure prior to the school's opening.
- Conflicts of Interest policy delineates potential conflicts and how they will be addressed appropriately.

- Grievance process is clear and follows an appropriate route for resolution of concerns raised by students or parents.

Governance Strengths	Reference
Concerns and Additional Questions	**Reference**

I. Employees

1. Component Description

A charter school must provide an explanation of the relationship that will exist between the charter school and its employees. This must include evidence that the terms and conditions of employment are addressed with affected employees and their recognized representative, if any. In addition, proposed employment policies should be included.

As charter schools are, by statute, public schools, employees of charter schools are public employees. Charter schools and their employees must participate in Colorado's Public Employees' Retirement Association (PERA) or in the Denver Public Schools retirement fund. This is in lieu of participation in Social Security, which makes up the majority of the Federal Insurance Contributions Act (FICA) payroll tax. However, the Medicare portion of FICA is still paid by the employees and matched by the employer.

With the growing presence of private educational management organizations in Colorado, questions are arising about the nature of employees in some charter schools. This is a result of some educational management companies treating employees as employees of the private company, as opposed to employees of the public school. These determinations need to be made with legal counsel, but the nature of employees should be clearly outlined in the charter application.

There are several resources that provide more information about employment issues. Tax information is available at www.irs.gov and through the Colorado Department of Labor and Employment at www.coworkforce.com. Additional information about PERA can be found at www.copera.org. Finally, a human resources manual developed through CDE can be found at www.cde.State.co.us/cdechart/download/HREmploymenanual.pdf.

2. Checklist for Comprehensive Application

An organizational chart is included as an attachment, which explains administrative, teaching and support staff.

A narrative description gives clear delineation of employee classification and who is responsible for employment decisions and oversight at each level of the organizational chart.

Job descriptions for administrator, teachers (to include qualifications to meet NCLB standards as well as what certification is required by the school), and key employees are included. (See Highly Qualified Teachers Workbook at http://www.cde.State.co.us/FedPrograms/nclb/tiia_genres.asp.)

Descriptions of key employee policies to include employment practices, benefits, leave policies, grievance policy, conflict of interest policy, harassment, drug-free workplace, classroom practices, evaluation practices, etc., are attached.

A clear plan of support for staff development and funding is included.

3. Evaluation Rubric

An excellent application will address the following regarding the Employment Plan:

- Explanation of the relationship that will exist between the charter school and its employees, with employee classification clearly defined.
- Employment policies of the school OR clear plan for timely development and intent of such policies.
- Clear standards are in place for determining staff qualifications to meet NCLB and any licensure requirements.
- A clear delineation of the role of the head administrator to include employee hiring, evaluation and firing.
- A clear plan is in place to develop a comprehensive evaluation plan in alignment with the school's mission, goals, curriculum assessment and professional development of staff with intent of that plan described.

Employees Strengths	**Reference**
Concerns and Additional Questions	**Reference**

J. Insurance Coverage

1. Component Description

Charter schools must have appropriate insurance coverage. This includes workers compensation, liability insurance, and insurance for the building and its contents. Charter schools are public entities and liability is limited by the Colorado Governmental Immunity Act, C.R.S. 24-10-101 *et seq.*

The risk management office in the local school district is a very good resource for finding information about particular insurance needs. In addition, the Colorado School District Self Insurance Pool is the insurance provider for many charter schools and can provide information. Once insurance needs are understood, costs need to be estimated and incorporated into the proposed budget that includes reasonable assumptions or quotes. The selected or intended insurance coverage should be commensurate with the overall school program and risk factors.

2. Checklist for Comprehensive Application

A list of the types of insurance for which the charter school will contract. Fiscal impact of appropriate insurance coverage is evident in the budget.

3. Evaluation Rubric

An excellent application will provide adequate assurance that the school will meet applicable insurance requirements with reasonable assumptions for the cost.

Insurance Coverage Strengths	Reference
Concerns and Additional Questions	**Reference**

K. Parent and Community Involvement

1. Component Description

One of the most distinctive characteristics of charter schools is that they are a choice school. Due to this characteristic, many charter schools have a small school atmosphere and a culture of "everyone belongs to the community." The application should demonstrate the expectations and plans for ongoing parent and community involvement and the support of volunteers through specific volunteer networks.

It is important for charter school developers to provide adequate notice to the community about the possibility of the new charter school. Some parts of the community may need additional outreach. For example, fliers may need to be published in a second language. Many charter developers have delivered fliers to individual homes in a community.

Be clear about what the new charter school will look like and the process for getting the school approved. Establish early the school's value for meaningful parental involvement. Explain to parents their role in the charter school through volunteering, monitoring their child's education and holding the school accountable. Designate an individual on the steering committee to follow up with parents who are interested in getting involved with the development of the charter school.

Network with established civic and organizations in the community your school will serve. Whenever possible, arrange to have Parent Information Meetings in that community. Be sure to reach out to a broad cross-section of the community.

2. Checklist for Comprehensive Application

A sound plan and timeline are in place to reach a diverse student population.
Parent involvement in the development of the school is clearly Stated along with volunteer requirements and opportunities after the school is open.
Partnerships or plans for community involvement are clearly defined in the application along with the purpose and expectation. Adequate evidence demonstrates assurance of these partnerships.

3. Evaluation Rubric

A sound Parent and Community Involvement plan will have the following characteristics:

- Informs parents and members of the community about the operations of the school including providing information about the school to students of all races, languages and abilities; a timeline for implementation, a lead contact, and specific action steps.
- An overview of how the parents and community were involved in the development of the school.

- Specific strategies to reach at-risk students and families who might not be aware of this school.
- Evidence such as Letters of Support, Letters of Intent, or MOUs, that the proposed school is welcomed by the larger community, has formed partnerships with community organizations, and is viewed as an attractive educational alternative that reflects the community's needs and interests.
- Detail is given of the types of volunteer requirements and opportunities that are available for the parents/guardians of the students and the larger community.

At-risk & Community Involvement Strengths	**Reference**
Concerns and Additional Questions	**Reference**

L. Enrollment Policy

1. Component Description

The Charter Schools Act allows the authorizer and the charter applicant the flexibility to use any enrollment policy, such as a wait list or lottery. The federal subgrant, administered by CDE, requires the use of a lottery. Many charter schools have elected to use a lottery in order to access these startup and implementation grant funds. More information on lottery requirements can be found in the grant's Request for Proposals at http://www.cde.State.co.us/cdechart/cchgrn00.htm. The Charter School Program grant is the only federal grant requiring the use of a lottery. A charter school is required to use an approved lottery only during the time it is spending or encumbering these grant funds. (For additional information on lottery requirements, go to http://www.cde.State.co.us/cdechart/cchgrn00.htm to review the Request for Proposals, page 6.)

The lottery policies and plan for enrollment should demonstrate how the school plans to enroll the intended student population. State law does require a public charter school to not discriminate on the basis of disability, race, creed, color, gender, national origin, religion, ancestry, or need for special education services. It is important to distinguish between admission decisions and academic placement decisions. The Charter Schools Act [C.R.S. 22-30.5-104 (3)] prohibits discrimination based on academic ability. Diagnostic or placement exams may be given to students after they have been officially enrolled.

Charter School Lottery Policies Should Address:

- The date of the annual lottery.
- The definition of "founding family" and "teacher" children not to exceed 20% of the lottery.
- How the community will receive adequate notice about the formation of a new charter school.
- Any requirement for parents to reaffirm their intent to enroll on an annual basis.

- What happens to names not drawn in the lottery.
- How siblings of enrolled students are handled in the process.
- How long parents have to make a decision on whether or not their child will attend the school.

2. Checklist for Comprehensive Application

A proposed policy or description detailing how the charter school intends to select students for enrollment including the proposed timeline, description of wait list or lottery process, any enrollment criteria, or pre- or post-enrollment testing.
An explanation of the process that will be used to transfer student records to or from the charter school or a plan to develop such procedures.
An explanation of how the community will receive information about the formation of a new charter school and any upcoming lottery or enrollment deadline.
An explanation of the notification of placement and how long parents have to make the decision to accept or not accept. Contents of enrollment packet should be explained, along with an ongoing data information and communication plan.

an explanation of the requirements of parents to reaffirm intent to enroll on an annual basis.
A clear definition is provided for "founding family" and "teacher" and any preferences given them in the lottery, not to exceed 20%.

3. Evaluation Rubric

An excellent Enrollment Policy will have the following characteristics:

- Clear description of the enrollment policy consistent with the requirements of section C.R.S. 22-30.5-104(3) (or C.R.S. 22-30.5-507(3) for CSI applications).
- Explanation of criteria for enrollment decisions.
- Clear procedures for withdrawals and transfers from the school that will support an orderly transition for exiting students or a clear plan for developing such procedures.

Enrollment Process Strengths	**Reference**
Concerns and Additional Questions	**Reference**

M. Transportation and Food Service

1. Component Description

A charter school may choose not to provide any transportation or food services or may choose to negotiate with a school district, BOCES or private provider to provide transportation services, or with a district or private provider

for food services for its students. Colorado law does not require a charter school to provide transportation or food services.

If a charter school chooses to provide transportation or food services, a plan for each area must be included in the application. The transportation plan should include provisions for transporting students to and from the charter school and their homes, and to and from the charter school and any extracurricular activities. For food services the plan should include a description about how this service will be offered either initially or at a later time. In addition, a description of how the charter school plans to meet the needs specifically of low-income and academically low-achieving pupils should be included for both.

The provision of transportation services has several implications. First of all, the cost must be included in the charter school's budget. Secondly, insurance and liability issues must be addressed when assessing the charter school's overall insurance needs. Insurance coverage should meet required thresholds for liability whether the school uses public or private vehicles.

Finally, many federal and State rules and regulations relate to the provision of transportation services. One specific rule to be aware of is that any small vehicles or school buses owned and operated by a charter school or under contract must meet the safety and operating standards as prescribed in State Board Rules 1 CCR 301-25, 301-26 and 301-29.

For more information, see www.cde.State.co.us/index_nutri_transpo.h.

Schools with a significant number of students who could qualify for the Free and Reduced Lunch (FRL) program are strongly encouraged to offer some sort of lunch program. The provision of food services may or may not have a negative effect on the school's budget, depending on whether it is a program under the district food services umbrella with an agreement for the same provisions given other schools in the district or is provided through a private contractor. The school must collect FRL qualifying information from students and that process should be included in the food services plan. (Schools not providing a lunch program will still collect this information, but using a different form.)

The plan should include whether the school intends to use a private or district food services provider, how the Free and Reduced Lunch (FRL) qualification forms will be distributed, collected and recorded, and how the facility will be brought into compliance or be built to meet any federal requirements for food warming or preparation, if needed to meet FRL regulations. The charter school can only be reimbursed for its FRL program through an authorized "school food authority." If the school will not be using an approved FRL program, or provide any lunch program, this section should include how students who would qualify for a Free or Reduced-price lunch and how students who forget their lunch will be accommodated.

For more information, go to http://www.cde.State.co.us/index_nutrition.h.

2. Checklist for Comprehensive Application

A description of the charter school's transportation plan including the transportation of low-income and academically low-achieving students.

A description of daily route and extracurricular transportation needs is included and there is an adequate plan for addressing these needs.

A plan is in place for adequate safety measures and insurance coverage for the transportation of students to and from school events using private or school vehicles.

If the school does plan to offer a FRL-qualifying hot lunch program, details should be included about how this service will be provided, reimbursed through an authorized "school food authority" and any other applicable State or federal regulations.

If the school does not plan to offer a lunch program, this section addresses how the school will address the needs of students who forget or cannot provide a lunch.

3. Evaluation Rubric

An excellent Transportation and Food Service plan will have the following characteristics:

- Statements regarding whether the school plans to provide transportation and/or food services for its pupils including low-income and low-achieving students are included.
- Clear description of how the school plans to meet the transportation needs of its pupils for daily route and/or extracurricular needs, if applicable.
- Clear description of how the school plans to meet the food service needs of its pupils, if applicable.
- Viable financial plan addressing transportation and food service needs.

Transportation Strengths	**Reference**
Concerns and Additional Questions	**Reference**

N. Facilities

1. Component Description

One of the greatest challenges to opening a new school is finding a suitable facility. The most important thing during the application process is to plan as much as possible and to clearly articulate those plans. It can be difficult to negotiate for facility space without having an approved charter. It is not necessary to have a signed formal agreement for a facility during the application process, but any viable options should be explained and should include reasonable space requirements, a reasonable plan for space utilization, a discussion of how the facility will be ready for use when the school opens and, most importantly, reasonable costs of that facility which must be reflected in the proposed budget.

Charter schools may rent, lease, own, or otherwise finance facility space. In some cases, a school district may have an unused facility; in other cases, a charter school may share space with another tenant. Many charter schools have been able to finance their own facilities with tax-exempt bond financing through the Colorado Educational and Cultural Facilities Authority (CECFA). These are typically schools that are established, but information can be found by calling CECFA at 303-297-2538.

With any facility, building permits and inspections are required. Life and safety requirements (including asbestos regulations) apply to rented or contributed facilities as well. The State is responsible for issuing certificates of occupancy for public schools, and information can be obtained by calling the Department of Labor at 303-572-2919. In addition, contact your community's planning and zoning department, as well as the facilities

director for your school district for further information concerning the permit, life and safety and inspection requirements of local entities.

Each year the State legislature designates a specific amount for Capital and Liability Insurance Reserve [C.R.S. 22-45-103(1)(c)]. This revenue should be accounted for separately, spent with authorization via the governing board's action, and used for allowable expenditures.

2. Checklist for Comprehensive Application

A facility needs assessment including how many classrooms are needed, how many specials rooms are needed (art, music, gym), minimum size of each classroom, library space needed, number of bathrooms needed, number of offices needed, amount of common space needed, outdoor space needed, overall size, cost per square foot, zoning and occupancy requirements, and how each facility aligns with the facility needs assessment is included in the narrative.

If additional funds or financing will be needed to bring a facility online, the application narrative and attached budget identify potential grants and/or lending sources. If real eState consultants are involved, a brief description of the relationship and budget impacts is included.

A target location (and prospective sites if not affected by confidentiality issues) is given based on school design and intended population with an explanation of prospective school sites and assistance to find them.

An explanation of fund allocation is included based on estimated renovation costs, square foot needs per pupil and cost per square foot, average square foot costs in the intended location, and the percentage of budget designated for facility needs.

3. Evaluation Rubric

An excellent Facility plan will have the following characteristics: If a facility has been

identified --

- Designation of the proposed facility and alternatives.
- Evidence that facility will be appropriate for the educational program of the school and adequate for the projected student enrollment.
- Adequate reflection of the costs associated with the proposed facility in the budget including rent, utilities, insurance and maintenance.
- Assurance that the proposed facility will be in compliance with applicable building codes, health and safety laws, and with the requirements of the American with Disabilities Act (ADA).
- A sound plan to identify needed renovations as well as the funds and a timeline for the completion of those renovations.

If a facility has not yet been identified –

- Description of anticipated facilities needs including evidence that the facility will be appropriate for the educational program of the school and adequate for the projected student enrollment.
- Inclusion of costs associated with the anticipated facilities needs in the budget including renovation, rent, utilities, insurance and maintenance.
- Evidence to indicate that facilities-related budget assumptions are realistic based on anticipated location, size, etc.

- Assurance that the proposed location will be in compliance with applicable building codes, health and safety laws, and with the requirements of the American with Disabilities Act (ADA).
- Plan for finding a location including a proposed schedule for doing so.

Facilities Strengths	**Reference**

Concerns and Additional Questions	**Reference**

O. Waivers

1. Component Description

The technical means by which charter schools operate is via waiver from certain State laws, State rules and/or school district policies. Information on applying for waivers from the State is on the CDE Charter Schools Web site at http://www.cde.State.co.us/index_charter.h under Technical Assistance. Charter schools applying for waiver of school district policies should contact their charter school liaison if those policies are not listed on the school district's Web site. An example of a waiver application can be found in the CDE Charter Schools Electronic Guidebook of Best Practices at http://www.cde.State.co.us/cdechart/guidebook/gov/index.h.

The Colorado State Board of Education has determined that thirteen statutes may be automatically waived, upon request, for charter schools. Charter schools may request waivers from statutes in addition to those automatically waived, but the process for approval is different.

There are two philosophies on charter schools obtaining waivers. Some believe that authority is given to the charter school via the charter contract, making some waivers unnecessary. In particular, the Board Powers (C.R.S. 22-32-109 and 22-32-110) statutes are considered "delegatory" rather than "substantive." In other words, the charter school governing board is delegated the authority that otherwise would belong to the school district board of education. Others believe that obtaining a waiver is an assurance against charter contracts that may be renegotiated and, therefore, less secure for the charter school. Charter schools should investigate the school district's or CSI's viewpoint on waivers to gain understanding of expectations. A charter school developer should obtain legal counsel when seeking waivers from either the State or the authorizer.

Attach:

- Waivers requested from the State
- Waivers requested from the school district or CSI

2. Checklist for Comprehensive Application

The request for waiver from State statute by citation, State Board of Education rules or regulations and authorizer policies by policy number are included as attachments. Request includes rationale for requesting the waiver, replacement policy or explanation of intent, expected financial and implementation impact, and how the waiver will be evaluated.

3. Evaluation Rubric

An excellent application will include the following regarding waiver requests:

- A list of the State laws or rules for which a waiver is requested including a replacement plan, rationale and how the waiver will be evaluated.
- A list of each authorizer policy for which a waiver is requested including a replacement

plan/rationale.

Moreover, these requested waivers will match the proposed autonomy, school mission and goals, operations, governance, and employment relationships of the proposed charter school.

Waivers Strengths	**Reference**
Concerns and Additional Questions	**Reference**

P. Student Discipline, Expulsion, or Suspension

1. Component Description

Although all charter schools must meet the minimum standards for student discipline, expulsion and suspension, they don't have to fit into the traditional "box." Charter schools can have their own policies as long as the statutory minimums are met. Many charter schools have sought and obtained waivers from related laws that provide for flexibility and a unique approach to student discipline.

Refer to C.R.S. 22-33.106 *et seq.*, the Suspension, Expulsion and Denial of Admission law, for more detailed information. Further detail is provided in a publication prepared by the Attorney General's office at http://www.ago.State.co.us/schoolvio/svpm2007.pdf.

Most charter school contracts stipulate which party (the authorizer or the charter school) has the authority to suspend or expel students. C.R.S. 22-33-105(7) States that either a charter school authorized by the CSI, or the CSI itself, may expel, suspend or deny admission of students. During contract negotiations this issue must be decided. Therefore, the charter application should detail how the charter school proposes to handle student discipline, expulsion and suspension. Many applications include policies that the potential charter school would use. Samples are online at http://www.cde.State.co.us/cdechart/guidebook/fam/index.htm.

The education of expelled students is the responsibility of the public school that expelled them. Include an explanation of how the charter school will provide for an alternative education, if applicable.

2. Checklist for Comprehensive Application

A proposed policy for student discipline, expulsion or suspension that meets State law and district policy (unless waived), is included.
An explanation of how the student recommended for expulsion will be afforded due process rights, including manifestation hearings and the implementation of behavior plans.
A description of the schools an expelled student will be prohibited from attending.
An explanation of how the charter school will provide the expelled student with an alternative education, if applicable.

3. Evaluation Rubric

An excellent application will include:

- Policies for addressing expulsion or dismissal, suspension and education of expelled or suspended students that provide adequately for the safety of students and staff; provide due process for students to include IDEA requirements; serve the best interests of the school's students; create a positive environment for learning; and are otherwise consistent with the intents and purposes of C.R.S. 22-33-106 and 22-33-203. OR
- A clear plan for developing such policies including a schedule for doing so.
- An explanation of how the proposed school will conduct appeals for students facing expulsion and meet the requirements for Manifestation Hearings for students with disabilities (both IDEA and 504).
- A description of how students will be expelled, for what offenses and which schools they will be expelled from if the expulsion hearing is conducted by the proposed charter school.

Student Discipline, Expulsion, or Suspension Strengths	**Reference**
Concerns and Additional Questions	**Reference**

Q. Serving Students with Special Needs

1. Component Description

As public schools, charter schools must open their enrollment to any student and must provide appropriate special education services as needed for students with disabilities. The charter school developer should consider the general philosophy of the school when developing the philosophy for delivery of special education services. For instance, a charter school may have an experiential delivery model making the needs of a student with Attention Deficit Hyperactivity Disorder (ADHD) more unique. Further, a charter school with a philosophy that no student "falls through the cracks" may have an aggressive remediation program for students who are not attaining their full academic potential and yet do not qualify for special education services.

While charter schools can obtain waivers from teacher licensure, Special Education licensure cannot be waived.

There are many CDE resources available for charter school applicants to consider when writing this section. Those resources are available at http://www.cde.State.co.us/cdechart/guidebook/sped/index.h. After reading the overview, read the resource on special education funding for direction on the impact to the charter school's operating budget. The sample compliance plan describes how all special education services could be delivered at a charter school. Charter applications should not contain as much detail as is in the sample compliance plan because the charter school application becomes the legal basis for the charter school contract. By writing that level of detail in the application, the charter school developer would be committing to how exactly particular services would be delivered rather than allowing for flexibility between the authorizer's special education director and the charter school. However, it would be good for the charter school developer to fully understand the scope and depth of services for which the charter school would be responsible.

There is a Statewide Charter Schools and Special Education Advisory Committee that meets on a regular basis. More information on that committee is at

http://www.cde.State.co.us/cdechart/sped/index.htm.

Potential authorizers are increasingly interested in ascertaining the capacity of the charter school to limit potential liability issues for the authorizer (Special Education administrative unit) and consider program adequacy.

2. Checklist for Comprehensive Application

The school addresses a Response to Intervention (RtI), or child study process to address a need for adaptations or special education assessments and staffing.

Clear indications are given that the school understands requirements to meet the needs of IEP's, ELL, IDEA, 504 and plans to comply with the needs to include certified personnel, documentation, assessments, adaptations and modifications. The school may also want to address GT, and enrichment needs.

Plan is in place to include needed staff, adequate funding, evaluation of programs' success, flexibility to add contracted services, and specific services the district is expected to provide.

3. Evaluation Rubric

An excellent application will have the following characteristics regarding the plan for Serving Students with Special Needs:

- Realistic plan to identify and meet the learning needs of at-risk students, students with disabilities, gifted/talented students, and English language learners.
- Timeline, lead contact, and intervention process with specific action steps for meeting learning needs of students with special needs (such as a Response to Intervention model).
- Plans for serving special populations align with the overall curriculum, instructional approaches and the school mission.
- Budget is adequate to meet the needs of these students (at least $400 per total student population).
- Plans are in place to provide adequate staff to meet the needs of these students including a licensed special education teacher.

Serving Students with Special Needs Strengths	**Reference**
Concerns and Additional Questions	**Reference**

R. Dispute Resolution Process

1. Component Description

This section is simply a paragraph or two that reflects the school's understanding of and compliance with C.R.S. 22-30.5-107.5, which explains how the school and its authorizer

agree to resolve disputes that may arise concerning governing policy provisions of the school's charter contract.

2. Checklist for Comprehensive Application

Except as otherwise provided in C.R.S. 22-30.5-108, a plan should be provided to settle any disputes between a charter school and its authorizer, concerning governing policy provisions of the charter contract, to include a reasonable written notice which gives a brief description of the matter in dispute and the scope of the disagreement between parties.

A process is given to address the issue within thirty days of receipt of notice. Both parties shall either reach an agreement by mutual consent or mutually agree to use any form of alternative dispute resolution as allowed by State law. Alternative dispute resolution shall result in a final issue of findings, by a neutral third party, within one hundred twenty days after receipt of written notice, with costs apportioned reasonably.

The plan explains that a charter school and authorizer may agree to be bound by the findings of the neutral third party, or may appeal such findings to the State board according to statutory requirements.

Any decision by the State board, pursuant to State law, shall be final and is not subject to an appeal.

3. Evaluation Rubric

- The dispute resolution plan shows a clear understanding for compliance with statutory requirements for both the charter school and the authorizer.
- The dispute resolution plan demonstrates reasonable method(s) for resolving disagreements, which arise between a charter school and its chartering district or authorizer, concerning governing policy provisions of the school's charter contract.

S. School Management Contracts (to be completed only if the proposed school intends to contract with an education service provider).

1. Component Description

If the proposed charter school intends to contract with an education service provider (ESP), such as a charter management organization, education management organization, or any other type of school management provider, address the following issues:

- An explanation of how and why the ESP was selected.
- Detailed explanation of the ESP's success in serving student populations similar to the targeted student population, including demonstrated academic achievement as well as successful management of non-academic school functions (e.g., back-office services, school operations, extracurricular programs).
- A term sheet setting forth the proposed duration of the management contract; roles and responsibilities; scope of services and resources to be provided by the ESP; performance evaluation measures and timelines; compensation structure including clear identification of all fees to be paid to the ESP; methods of contract oversight and enforcement; investment disclosure; and conditions for renewal and termination of the contract.
- A draft of the proposed management contract including all of the above terms;
- Explanation of the relationship between the school governing board and the ESP, specifying how the governing board will monitor and evaluate the performance of

  the service provider, the internal controls that will guide the relationship, and how the governing board will ensure fulfillment of performance expectations, or have a means for severing the contract.
- Explanation of which staff will report to or be paid by the ESP.
- Evidence that the corporate entity is authorized to do business in Colorado.

Attach:

- Term sheet (described above)
- Proposed management contract
- Evidence that the service provider is authorized to do business in Colorado

2. Checklist for Comprehensive Application

Evidence is included that the service provider has successfully managed other schools.

Evidence is included that the other schools managed by the proposed service provider have demonstrated academic achievement for similar targeted student populations.

A term sheet for the proposed management of the charter school is included with clear performance measures and contract severance provision(s).
A draft of the proposed management contract with a clear Conflict of Interest Statement is included.
An explanation of which staff will be hired and terminated by the ESP or report to or be paid by the ESP.
Evidence that the ESP is authorized to conduct business in Colorado.
Clear understanding of financial obligation to ESP and if it increases, decreases or stays the same for the duration of the relationship. This includes building ownership if the developers are making payments to the ESP.

3. Evaluation Rubric

An excellent School Management Contract section will have the following characteristics:

- A logical explanation of how and why the ESP was selected.
- Demonstrated evidence that the ESP has been successful in the academic and business operations aspects of other schools.
- Reasonable management contract terms and fees along with clear performance measures and contract severing provisions.
- Clear evidence that the ESP is authorized to conduct business in Colorado.
- Details sufficient to assure there are no potential conflicts of interest between the ESP and the governing board; there is a clear plan for monitoring and evaluating performance of the ESP and adequate internal controls are in place.
- A clear description of which staff members will be hired, evaluated and terminated by the ESP, and any relationship with the governing board on these decisions.

Transportation Strengths	**Reference**
Concerns and Additional Questions	**Reference**

OVERALL ASSESSMENT

Would you recommend approval of this application? Explain your recommendation in the Summary Comments section below.

___ No, incomplete application or does not meet minimum standards.

___ Yes, but only with additional information on:

___ Yes, with conditions such as:

___ Yes, unconditionally.

E-mail address: _____

8. Name of applicant team or founding entity:

A. Names, roles, and current employment of all persons on the applicant team:

B. Does the applicant team or any members of the team currently operate any other schools? □ Yes □ No

C. Explain the individual and collective qualifications of the applicant team members to establish a high-quality charter school, in particular the capacity to assume responsibility for public funds, administration and governance.

D. Include as attachments resumes for each individual on the applicant team.

E. Explain the circumstances and motivations that brought the applicant team together to propose this charter school.

F. Which applicant team members will become founding board members?

9. Identify any organizations, agencies, consultants or institutions of higher education that are partners in planning and establishing this charter school, along with a brief description of their current and planned role and any resources they have contributed or plan to contribute to the school's development.

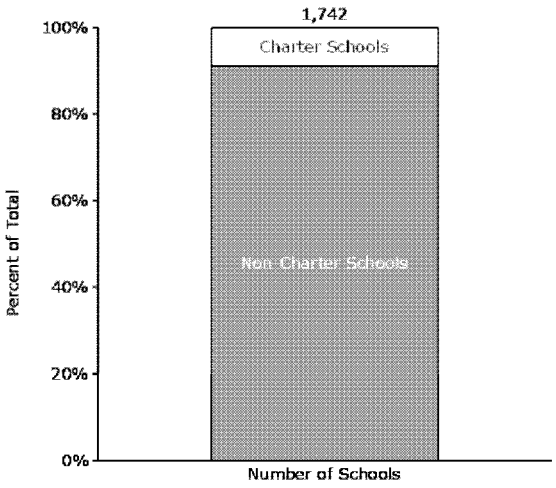
Exhibit VI.F(2)i-3

Number of Charter Schools Allowed Under State Law

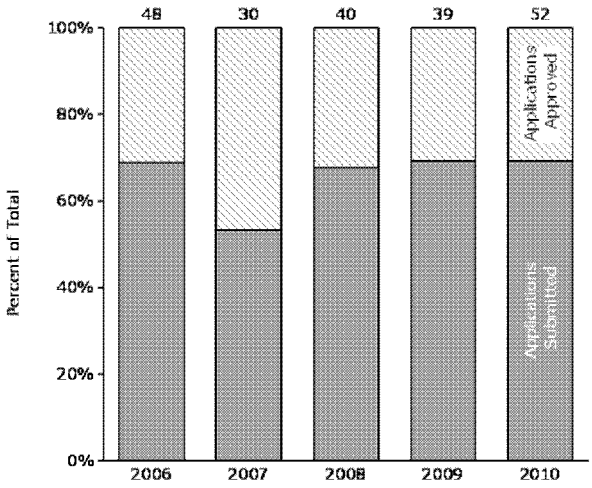
Colorado Law Does Not Currently Limit the Number of Charter School Applications Approved Within the State

- Pursuant to Colorado Statues C.R.S.22-30.5-109/22-30.5-504, neither the local board education of a school district nor the Charter School Institute should limit the approval of charter applications for charter schools within a given school district

Number of Currently Operating Charter Schools as a Percentage of Total Schools, 2009



Number of Charter School Application Submitted vs. Approved, 2006-10



Charter schools currently represent 9% of all schools in Colorado and 44% of charter school applications were approved in SY 2009-10

Note: SY 2009-10 Data
Source: CDE

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Exhibit VI.F(2)i-4
Number of Currently Operating Colorado Charter Schools by Authorizer Type

Authorizer Type	Number of Charter Schools
Charter School Institute	23
District	130
TOTAL	**153**

Exhibit VI.F(2)v-1
Options for Autonomous Schools in Colorado: A Handbook for School and District Leaders

August 2009

This report is the result of conversations among members of Colorado's education reform and business communities interested in encouraging the development of autonomous schools in Colorado. Participants include the Colorado Children's Campaign, the Donnell-Kay Foundation, and the Metro Organizations for People, and Colorado Succeeds. This report was funded by Communities for Public Education Reform.

- Colorado Children's Campaign. The Colorado Children's Campaign is the leading voice for children in Colorado. Established in 1985 as a Statewide nonpartisan organization, the Campaign focuses on research and advocacy that supports the expansion of access to quality health care, early childhood experiences, and K-12 education. For more information, visit www.coloradokids.org.

- Colorado Succeeds. Colorado Succeeds is a nonprofit, nonpartisan coalition of business leaders committed to improving education for workforce development and economic growth. As the business voice for education, it seeks to improve the caliber of the State education system and the competitiveness of its students. For more information, visit www.coloradosucceeds.org.

- Donnell-Kay Foundation. The Donnell-Kay Foundation is a private family foundation that seeks to improve public education and drive systemic school reform in Colorado through solid research, creative dialogue, and critical thinking. For more information, visit www.dkfoundation.org.

- Metro Organizations for People. Founded in 1979, MOP is comprised of 35 member congregations, schools, youth and neighborhood associations representing over 50,000 people in the six-county Denver metro area. The mission of MOP is to empower people to strengthen and transform their communities through community organizing. MOP trains volunteer community leaders to reweave the web of relationships in a community so they can effectively work together across race, class, and language barriers to rediscover a common good leading to a higher quality of life for our families, children, and neighbors. For more information, visit www.mopdenver.org.

- Communities for Public Education Reform: A Fund for Education Organizing. Communities for Public Education Reform (CPER) is a partnership of local and national foundations that support the growing field of education organizing through grants and technical assistance to community organizations working to ensure that parents and students have a strong voice in shaping the policies that affect their public schools. CPER promotes innovation and supports systemic reforms that address educational inequities. http://www.publicinterestprojects.org/projects/partner-and-collaborative-funds/cper

This report was researched and written by Kelly Hupfeld, research assistant professor at the School of Public Affairs, University of Colorado Denver. The Center for Education Policy Analysis at UCD conducts analysis of applied education policy issues that bring national perspectives and solutions to Colorado's education problems.
CEPA seeks to inform community leaders, policymakers, school and school system leaders, and the larger research community.

(b)(6)

Overview

Colorado has long been a leader in innovative education reforms, and lately the reforms have been coming at a fast and furious pace as educators, policymakers, the business community, and funders all look for new ways to help our children succeed.

In the category of "a good problem to have," the sheer number of recent reforms encouraging the development of autonomous schools has led to some confusion. What is an Innovation School? What is a Pilot School? How are these schools different from each other and how are they different from charter schools? If I want to open a new school or significantly reform an existing school, what are my options? How do I know which option is right for my school? If I am a district leader, what role can I play in encouraging the development of autonomous schools in my district?

Leaders in Colorado's education reform and business communities identified this confusion as a possible obstacle to the very result the reforms were intended to produce: increased numbers of schools that operate autonomously and are able to make key decisions at the building level that benefit their students.
The Colorado Children's Campaign, Metro Organizations for People, the Donnell-Kay Foundation, and Colorado Succeeds decided to commission a report that would clearly explain each of three major autonomous school options, so that school and district leaders who wanted to take advantage of these options would have a solid and comprehensive basis for making the right decisions. This report is the result of these conversations, and is intended to be a guide for school and district leaders.

Colorado –Encouraging

Innovation and Autonomy

Colorado has long been a leader in education reform, from the Charter Schools Act of 1993 to the development of the Denver ProComp system for paying teachers. Our State's high expectations for educating students, combined with district freedom to innovate in a local control environment, create a rich laboratory for reform.

One particularly popular reform, both in Colorado and nationwide, has been the devolution of decision-making authority to the school site. While school-based management is not a new concept, the current iteration of the reform focuses on pairing school accountability for student achievement with building-based authority to make decisions in areas that affect student achievement, such as curriculum, staffing, and the use of resources. Such autonomous schools thus are expected to have more flexibility to act in innovative ways that best serve the needs of their unique student populations.

What could a school gain through increased building-level autonomy? Every school leader should consider the unique needs and culture of his or her school in thinking about the benefits of autonomy, but here is a short list of some of the more frequently requested autonomies:

- Freedom to select staff members at the school so that all employees are actively in support of the school vision and culture
- Freedom to select curricula and instructional methods that meet the needs of the children in the school while still meeting State standards
- Freedom to remove staff members who are not well-matched with the school
- Freedom to make decisions about the use of resources at the building rather than simply administering resource decisions from the district
- Freedom to use time in ways that meet student needs and ensure that staff is highly skilled and collaborative
- Freedom to "comparison shop" for service providers

As of June 2009, Colorado school and district leaders interested in pursuing school autonomy have several different options. Some of these have been established by the legislature to apply to districts and schools across the State. The most well-established Statewide avenue to autonomy, charter schools, has existed for over 15 years. In 2008, the legislature passed the Innovation Schools Act, which provides a process for schools to request waivers from district policies and local collective bargaining agreements, as well as waivers from State laws and regulations.

A few metro-area urban districts are developing their own methods for encouraging innovations. For example, the Aurora Public Schools and their unions have agreed to a process for creating Pilot Schools, which are free from many district policies and provisions of the collective bargaining agreement. The Denver Public Schools has decided to cultivate a wide range of schools through its New Schools Office, ranging from autonomous schools like charter schools and Innovation Schools to Denver Performance Schools, which are solicited in response to a specific need of the district and which are likely to have varying levels of autonomy.

(b)(6)

Table: QUICK COMPARISON

School option	Method of operation	Waivers available
Charter School	Completely independent, charter school board contracts with the charter authorizer. Staff members are employed by the charter school. Funding follows student to the school, charter buys back selected services from district. Charters often use curriculum and schedule/ calendar that differ from the district.	Automatic waivers of many district and State regulations; not subject to district collective bargaining agreement
Innovation School	Terms negotiated with the district in which the school is located (e.g., funding, calendar, and curriculum). No separate board of directors. Staff members are employed by the school district.	Waivers may be requested from many district and State regulations and collective bargaining agreement provisions.
APS Pilot School	Memorandum of Understanding between district and union and Pilot School determines terms under which the school will operate. School leadership council has some degree of authority but not fiduciary responsibility. Staff members employed by district.	Memorandum of Understanding lists the district regulations and collective bargaining agreement provisions that may be waived.

These options can be confusing, and the best way to proceed is often not clear to school and district leaders. This handbook provides a summary of three major routes to school autonomy, together with a discussion of issues that school and district leaders may want to consider in making their choices. A side-by-side comparison of each route in operational terms is provided in the appendix at the back of this handbook.

The Path to Autonomy

To gain the benefits of true autonomy, a school will typically need to be freed from relevant district policies, State laws and regulations, and/or collective bargaining agreement provisions that apply to its employees. This path will be much easier for certain districts. For example, most of Colorado's 178 school districts do not have collective bargaining agreements, and so need not be concerned about contractual requirements. Districts have always been free to waive or modify their own policies with respect to schools in their districts, as long as they are not inconsistent with federal or State requirements.

The State has long provided a waiver process for State statutes and regulations (CRS 22-2-117). Districts with fewer than 3,000 students (all but 41 districts in the State) may petition the State Board of Education for a waiver of virtually any provision of the Education Code and its regulations, either as applied district-wide or to a specified school, as long as the district can show that the waivers are needed to enhance educational opportunity and quality and that the costs of complying with the requirements significantly limit educational opportunity. Districts with 3,000 or more students may also apply for these waivers, but these districts must also show that the waiver requests are supported by a majority of affected school accountability committees, a majority of licensed administrators, and a majority of teachers.

It must be noted that schools and districts cannot waive their way out of requirements imposed by federal law, unless the State has obtained a waiver through procedures in federal law.

State Avenuesto

School Autonomy in Colorado

Charter Schools

Charter schools are public schools that operate independently under a contract with their authorizer. Since the passage of the Charter Schools Act in 1993 (CRS 22-32.5-101 et seq.), their numbers have multiplied. As of the 2008-09 school year, 157 charter schools in Colorado served nearly 58,000 students Statewide.

The vast majority of these schools (134) are authorized by school districts. Persons interested in starting a district charter school apply to their local school district (the district in which a majority of their proposed students live, other than on-line students). If the district does not approve the application, the applicant may appeal to the State Board of Education, which may return the application to the district for reconsideration if it finds that the denial was not in the best interests of the students, school district, or community.

Charter schools may also be authorized by the State Charter School Institute (CRS 22-30.5-501 et seq.). An application may be submitted to the Charter School Institute only if the district in which the school is to be located has not received exclusive chartering authority; or, if the district has received exclusive chartering authority, the district passes a resolution that permits the applicant to apply to the Charter School Institute instead. To date, several districts have allowed charter applications to go forward to the CSI despite retaining exclusive authority. Districts that prove to the State Board of Education that they have a recent pattern of providing fair and equitable treatment to their charter schools are eligible for exclusive chartering authority. Currently, out of 178 school districts, just nine districts do not have exclusive chartering authority – these are Durango 9-R, Lewis Palmer 38, Mesa County Valley 51, Poudre R-1, Roaring Fork RE-1, Bayfield 10 JT-R, Cheyenne County RE-5, Julesburg RE-1, and Sierra Grande R-30. The Charter School Institute oversees 23 schools.

The State Board of Education may convert a consistently low-performing public school to a so-called independent charter school. (See CRS 22-30.5-301 et seq. and CRS 22-7-609(5)). In that case, the State Board of Education issues a request for proposals to operate the converted school. This has only occurred once, in the case of Cole Middle School in Denver.

There are many benefits to using the charter school route to develop an autonomous school. The charter school statute permits anyone – parents, teachers, community groups, and charter management organizations – to apply to open a charter school. Although most charter schools use a national school reform model, such as Core Knowledge, Montessori, or Expeditionary Learning, they are free to use any school model, including a model invented by its founders. The Charter Schools Act provides for automatic waivers (if requested by the school) from many of the State statutes considered most onerous by entrepreneurial school leaders, including the State law governing tenure and dismissal for teachers. Charter school teachers are not covered by district collective bargaining agreements, unless the school wants them to be. Finally, charters receive 100 percent of funds available under the State School Finance Act, and are free to manage their own budgets.

Both the federal government and large national and local foundations have been interested in supporting charter schools, so there is a wealth of start-up funding sources and technical assistance materials. Colorado also benefits from the Colorado League of Charter Schools, a nonprofit organization dedicated to assisting and advocating for charter schools that is a model in the country.

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One significant downside to opening a new charter school is the struggle to find appropriate and affordable facilities. Districts are not required to find facilities for their charter schools, and charters receive a relatively small amount of State funds for this purpose. Legislators sympathetic to charter schools have passed legislation requiring districts to include charter schools in district bond elections under certain circumstances; however, this has not yet equalized the playing field. A 2008 report by the Colorado League of Charter Schools, "Short-Changed Charters: How Funding Disparities Hurt Colorado's Charter Schools," provides greater details on the facilities issues faced by charter schools.

One of the strengths of the charter school process, namely the ability of parents and others who are not education experts to open and run charter schools, can also create difficulties. Many charter schools struggle to find people with expertise in running organizations and managing budgets to serve on their governing boards. In some cases this has led to serious financial difficulties for schools.

Finally, many charter schools perceive that their districts either are actively hostile to charter schools or tolerate their existence without providing any assistance. Depending on the needs of the school, this can be extremely difficult and isolating.

For more information about charter schools in Colorado, visit CDE's Schools of Choice office at www.cde.State.co.us/choice/index.h or the Colorado League of Charter Schools website at www.coloradoleague.org.

Innovation Schools

In 2008, the legislature created a new category of autonomous schools – Innovation Schools. Prompted by the efforts of a few schools in Denver to gain autonomy from district policies, the Innovation Schools Act creates a process by which a school may obtain waivers from district policies, State policies, and collective bargaining agreement provisions. Schools that share similar interests, such as a geographical area or feeder pattern, may band together to obtain these waivers through designation as an Innovation School Zone comprised of individual Innovation Schools. To date, two schools have been granted Innovation School status by their local school board, both in Denver Public Schools.

Because the Innovation Schools Act seeks to encourage innovations of all kinds, there is no one "package" of waivers associated with becoming an Innovation School. Instead, the statute contains a list of "suggested innovations," which range from innovations in the curriculum to innovations in teacher compensation and school governance and is intended to provide inspiration rather than boundaries as schools think about how to innovate.

The school community develops its own proposal, along with the identification of the waivers it requires to achieve its goals. Upon approval by majorities of the school's accountability committee, teachers, and administrators, the proposal is submitted to the local board of education. The local board is granted a great deal of discretion over these proposals, and is free to request amendments, to deny the plan, or to approve the plan. Unlike charter schools, there is no appeals process from the local board decision, although the school is free to resubmit its proposal.

If the Innovation Plan is approved by the local board, the requested waivers from district policies are granted simultaneously. The district then takes the proposal to the State Board of Education, where it applies for waivers of State laws and regulations on behalf of the Innovation School. The State Board of Education is required to approve the proposal (and grant the requested waivers) unless it is convinced that the plan will result in a decrease in academic achievement or is not fiscally feasible.

(b)(6)

Upon approval by the State Board of Education, the district (now designated as a District of Innovation) and the union representing the district's employees then negotiate a new contract provision that permits employees at the Innovation School to vote to waive provisions of the collective bargaining agreement. According to the statute, 60 percent of covered employees must approve the waivers for them to become effective.

The Innovation Schools Act presents tremendous opportunities for both schools and districts. To the extent that the district is the final decision-maker on Innovation Plans, it can proactively shape Innovation School applications to meet student needs. For example, a district can incentivize schools to develop themselves into Innovation Schools that allow the district to have multiple "laboratories" in different approaches to education. The district can create an application package for schools that makes the cumbersome application process more appealing, and can essentially issue RFPs for certain types of Innovation Schools. (The Denver Public Schools may, for example, issue an RFP for a Performance School that will be organized as an Innovation School to benefit from certain waivers).

Some of the features that make Innovation Schools appealing to districts, such as the ability of the district to be strategic in soliciting applications and to review the school's academic performance for progress towards its goals, may make this option less appealing for schools that want to be completely independent of their districts. As Stated above, there is no guarantee that a board of education will approve an Innovation Plan, nor is there an appeals process from a denial. Employees at the school remain covered by collective bargaining agreement provisions unless they themselves vote to waive these provisions. Also, the newness of the statute and its relatively vague wording means that the first Innovation Schools will be guinea pigs for the process. Schools that do not receive extensive help from their districts will need to be painstakingly accurate and comprehensive in their review of laws, policies, and provisions to be waived, and it may be worthwhile for early applicants to hire legal assistance for this purpose.

Currently, facilities are not an issue for Innovation Schools converting from traditional school status. The statute is silent on whether a school may open as an Innovation School, although this would seem to be permitted under the broad intentions of the law.

Because Colorado is a "local control" State, school districts have traditionally had a great deal of power to shape what happens in their schools. Several metro-area school districts, looking for new ways to serve diverse populations of students, have created routes to autonomy within their districts. While these options are not open to schools in other districts, they can be used as models or inspirations for other districts looking to encourage school autonomy and innovation.

Some districts are looking to foster autonomy through district-level decisions affecting all schools. For example, the Mapleton Public Schools intentionally converted its traditional schools to small schools that operate with a relative amount of autonomy according to each school's theme and design. The Poudre Valley School District is moving to a new system of funding its schools that will give school leaders greater control over their budgets.

Other districts have chosen to create processes by which individual schools can apply to receive greater autonomy. For example, in the Aurora Public Schools, the district and the union have created a process for schools with fewer than 500 students to convert into Pilot Schools, modeled after the highly-touted Pilot Schools in the Boston Public Schools. Aurora's partnership with its union allows Pilot Schools to receive immediate waivers from key district policies and collective bargaining agreement provisions. While teachers at Pilot Schools remain bargaining unit employees and are covered by salary and benefit provisions of the collective bargaining agreement, most conditions affecting their day-to-day employment are covered by an Election-to-Work Agreement created by the school's collaborative governing board. The principal has the ability to remove teachers who are not a good fit from the site, although they retain their district employee status. As the district puts it, teachers at Pilot Schools do not have the right to continue working at that particular school, although they have the right to remain employees of the district.

Pilot Schools also receive funds from the district in a lump sum, rather than through staffing formulas. This allows the school to make decisions about where to invest these resources. Schools may choose to receive services traditionally provided by the district, or they can opt to seek these services elsewhere and receive funds from the district representing the costs of the services.

Currently, the Memorandum of Understanding between the district and the union limits the number of Pilot Schools to four by 2011. Three schools have already been approved, meaning that there is only one slot left under the terms of the MOU. If the Pilot School project is successful, it is likely that the district and union will agree to expand the number of Pilot Schools. The Denver Public Schools are actively seeking to create a "portfolio" of schools that operate differently and are able to meet different needs of students and families. While the district is in the process of designing this approach, it is safe to say that charter schools and Innovation Schools will certainly be in the mix. The New Schools Office of DPS has developed a request for proposal process whereby DPS is able to solicit applications for schools that meet needs identified by the district. According to DPS' website, the schools created through this process will "embrace school-based decision- making, broad stakeholder engagement, and expanded autonomy, with clear accountability and high performance standards." Schools can respond to RFPs either as schools governed by the district (to be known as Performance Schools) or as charter schools. Seven new schools approved through this process will be opening in the fall of 2009.

In addition, the DPS New Schools Office also oversees proposals for School Improvement Grants and for Beacon Schools, both intended to promote reform in existing DPS traditional and alternative schools. While neither of these options expressly promotes autonomy, it would certainly be possible for a school site to use these routes to request a variety of autonomies should they be seen as necessary to the planned reforms. Theoretically, it is also possible for schools to simultaneously hold the status of a Beacon School and an Innovation School, for example.

Conclusion

School and district leaders seeking to encourage autonomy and innovation have a number of options from which to choose. The State hopes that this handbook provides some basic information about these different options.

The appendix contains a chart that illustrates the operational differences between three autonomous school options. These three were selected because they offer the most immediately obvious comparisons and are relatively well-defined

Appendix: School Types Comparison Chart

Please note: this chart is a summary for initial comparison purposes only. There are additional details about each type of school not contained in this chart. Please see the source documents (listed at the end) for a full description of procedures and requirements applicable to each type of school.

	Innovation School	District Charter School	APS Pilot Schools
THE APPLICATION PROCESS			
Are there any restrictions on who may apply to become this type of school?	Applicants must be "a public school of the school district" to which they apply. The law is silent on new schools that seek to start up as Innovation Schools, but if the district has approved the formation of the school, it would seem to be covered. Groups of schools with similar interests may apply to become an Innovation School Zone.	No, except that private schools and private home- based programs may not apply to convert into charter schools; charter school must be nonsectarian.	Three types of applicants: (1) Conversion of entire existing school (including charters); (2) Conversion of part of existing school; and (3) New start-up school with district-approved facilities. Resulting Pilot School must have fewer than 500 students.
Is there a cap on the number of schools allowed?	No	No, moratorium on number of schools prohibited by statute. Districts that set implicit moratoria are subject to losing exclusive chartering authority.	APS/AEA MOU limits to four Pilot Schools in district by 2011
What is the process for applying to operate this type of school?	School develops Innovation Plan and submits to local board of education (BOE)	Applicant submits application to local board of education (BOE) (or, if district does not have exclusive chartering authority, may submit to State Charter Institute)	Submission of letter of intent to APS/AEA Joint Steering Committee; creation of proposal with assistance of district facilitator; vote by licensed staff; if two-thirds approve, application is submitted to Joint Steering Committee

Does the application need to include certain components?	Yes – mission; need for Innovation School status; description of innovations to be implemented; list of programs, policies, or operational documents affected by innovations; expected improvements in academic performance; estimate of cost savings and efficiencies; Statements of support; description of State, local, and collective bargaining agreement waivers needed; additional information required by local BOE	Yes – mission; goals, objectives, and pupil performance standards; evidence of support; description of educational program; plan for evaluating pupil performance; budget and finance data; governance; school relationship with employees; insurance coverage; means for at-risk and community engagement; enrollment policies; transportation plans; food service plans; facilities; requested district waivers; discipline policies; academic achievement and accreditation; and special education services	Yes – overview of school; design team profile and planning process; school vision; key characteristics; governance structure; budget; curriculum and instruction; student assessment; leadership and staff selection; annual election-to-work agreement; professional learning and support; student support; family and community engagement; safe and secure campus
	Innovation School	District Charter School	APS Pilot Schools
THE APPLICATION PROCESS			
What Statements of support are required for the application?	Support for application must be shown by a majority of teachers employed at school; majority of administrators; and majority of school advisory council Statement of the level of support from other employees, parents, and surrounding community must also be submitted	Must show evidence that an "adequate number" of parents, teachers, students, or any combination of the above, support the formation of the school	Two-thirds of teachers must approve submission of application to Joint Steering Committee
What is the timeframe from time application is submitted to school approval to school opening?	Maximum of 60 days from submission of plan to BOE approval or disapproval	Applications must be submitted by date set by local BOE; BOE must hold public hearing within 75 days after receipt of application and rule by resolution; all negotiations must be completed within 90 days of BOE resolution	Approximately 6 months from application to board of education (BOE) approval
Who is involved in the review and who makes the final decisions about which schools to approve?	BOE reviews application and is final decision maker	Application is reviewed by District Accountability Committee; BOE makes final decision (in district with exclusive chartering authority)	Joint Steering Committee makes recommendation to Board of Education; BOE has final approval authority
Is an appeal available from a denial of the application?	No, although BOE must issue written Statement of reasons for denial and school may resubmit an amended plan	Yes, the school may appeal to the State BOE, which may reverse denial on grounds that it is contrary to the best interests of students, the district, or the community	No
	Innovation School	District Charter School	APS Pilot Schools
STRUCTURE AND GOVERNANCE			
Is the school a separate legal entity from the district?	No	Yes and no – charter schools may incorporate and operate as nonprofit corporations, but remain public schools of district by statute	No

Is the school required to have a fiduciary governing board?	No	Yes	No
If the school is required to have a fiduciary board, what is the configuration of this entity?	n/a	Determined by application	n/a
If the school is required to have a fiduciary board, what is the role of this governing body?	n/a	Governing board responsible for governance and operation of school; details set by application	n/a
If the school is not required to have a fiduciary governing board, is it required to have any type of site-based leadership or oversight entity?	School Advisory Council (SAC) (already required for all schools by CRS 22-7-105)	School Advisory Council (unless waived by State BOE)	Yes – a Governing Board that operates according to a shared decision-making model The Governing Board is intended to take the place of the statutory SAC
If yes, what is the configuration of this entity?	Seven members of SAC: Principal or designee; teacher elected by faculty at school; three parents or guardians elected by parents/guardians; one adult elected by PTSA; community business person appointed by principal. No more than three members may be employed by district or relatives of district employees.	Seven members of SAC: Principal or designee; teacher elected by faculty at school; three parents or guardians elected by parents/guardians; one adult elected by PTSA; community business person appointed by principal. No more than three members may be employed by district or relatives of district employees. The governing board of the charter school may also serve as the SAC, if appropriate membership is specified.	Minimum of 12 members: principal; 4 AEA member teachers; at least 1 classified employee representative; at least 4 parents; at least 2 non-parent community members. If membership grows beyond 12, one-third are to be AEA members
If yes, what is the role of this governing body?	The SAC makes recommendations to principal about prioritizing spending; discussing decisions affecting student achievement; reporting school performance data; and discussing safety issues.	The SAC makes recommendations to principal about prioritizing spending; discussing decisions affecting student achievement; reporting school performance data; and discussing safety issues.	Decisions regarding the operations of the school, including program, enrollment, class size, schedules, and professional learning, terms of election-to-work agreement
What assurances does the school have that if district leadership changes or school leader changes, the school can continue to operate in this format?	BOE may only revise or revoke Innovation School status based on academic performance results	School operates according to contract, district cannot terminate except for cause	Contingent on continued agreement of APS and AEA
	Innovation School	District Charter School	APS Pilot Schools
ACCOUNTABILITY			

Can the school be closed or have their status changed based on performance?	Yes, if not attaining or making sufficient progress towards goals set out in Plan	Yes – for material violation of contract, failure to make progress towards achievement goals, fiscal management deficiencies, or violation of any provision of law applicable to the school	Yes – APS expects Pilot Schools to make sustained progress in first two years and to outperform district averages after three years of operation. Schools must also meet other agreed-upon responsibilities. For schools not meeting this requirement, Joint Steering Committee may recommend to the BOE that the school transition out of Pilot School status in the fourth year
Is there a contract or MOU between the school and the district?	Not formally, but see below	Yes	Not formally, but see below
If yes, who negotiates the terms of the agreement and thus holds school accountable for results?	School's approved Innovation Plan serves as terms and conditions	Board of Education and applicant negotiate based on charter application	School's application documents serve as terms and conditions, and the Joint Steering Committee holds schools accountable
If yes, what is the term of the agreement and the process for renewal?	School is reviewed by BOE every three years; Plan may be revised (with staff and SAC approval) or revoked based on academic performance.	At least three years; may be renewed for successive terms	Every three years, Joint Steering Committee will make recommendation to BOE for continuing status as a Pilot School
Is there a district liaison with special authority to monitor and/or support these schools?	Depends on district	Depends on district	Yes – Joint Steering Committee consisting of AEA president, UniServ Director, superintendent, Division of Instruction representative, three teachers, three administrators, one parent, and one classified employee representative.
Are there additional reviews that the schools are required to undergo?	No, other than any required by the Innovation Plan.	No, other than any required by the contract	Yes – Pilot Schools have annual reporting requirements and oversight reviews by the Joint Steering Committee, and undergo extensive School Quality Review process every three years.
	Innovation School	District Charter School	APS Pilot Schools
STATE AND DISTRICT WAIVERS			
Is the school automatically granted waivers from district or State statutes, rules or regulations?	Once application is approved by BOE, district policies requested in Plan are waived	Yes – waivers granted from 13 State statutes automatically by State BOE; school only subject to district policies according to charter	Yes, within parameters contained in Pilot Schools Manual
If yes, which ones?	Those requested in Plan; districts are free to set up lists of "automatic" waivers	Generally, provisions relating to hiring, evaluation, and termination of staff. See CDE waiver application for complete list.	District policies identified in the Pilot Schools Manual or those granted as part of the approval process. Policies mandated by the State cannot be waived.

If yes, are there policies that the school CAN'T waive? If so, which ones?	District policies mandated by the State; districts may also advise applicants of policies that it will not waive	State BOE not allowed to waive provisions related to CSAP, school accountability reports, School Finance Act, or the Children's Internet Protection Act	District policies mandated by the State; State statutes and regulations
May the school request waivers from district and State policies?	Yes, in Innovation Plan	Yes, additional waivers may be requested in charter school application and submitted to State BOE	Yes, a school may request waivers from district policies not identified in the Pilot Schools Manual
If yes, are there policies that they CAN'T waive? If so, which ones?	State BOE is not permitted to waive statutes specified in CRS 22-2-117(1) (b) (School Finance Act, Exceptional Children's Education Act; provisions related to data required for school accountability reports; provisions related to background checks for employees; and the Children's Internet Protection Act); provisions related to retirement systems; and provisions not contained in the State education code.	See above	District policies mandated by the State; State statutes and regulations
What is the process for approving waiver requests and who makes the ultimate decisions?	Waivers from requested district policies granted upon approval of Plan by BOE; request for waivers from State policies must be made by BOE to State Board of Education, which grants requests upon designation of district as District of Innovation; request for waivers from collective bargaining agreements obtained upon designation of district as District of Innovation AND approval by 60% of members of bargaining unit employed at school	State BOE makes decision about additional State waivers that are requested by the district on behalf of the school	Automatic district waivers upon granting of status by BOE; after initial approval, additional waivers may be requested from the BOE
	Innovation School	District Charter School	APS Pilot Schools
EMPLOYMENT TERMS AND CONDITIONS			
Are staff members of the school employees of the district or the school?	District	May be employed by either. If employed by district, may take up to three one-year leaves of absence to work at charter schools, then district decides whether employee will remain a district employee.	District
Do staff members have individual contracts with the school?	No, unless part of Innovation Plan	Depends on charter	Yes – Annual election-to- work agreements cover site- based terms and conditions

Is the school required to use the district salary schedule for teachers?	This may be a waiver requested in the Innovation Plan	No	Yes, but may provide additional compensation within the school budge
Is the school required to use the district salary schedule for principals?	This may be a waiver requested in the Innovation Plan	No	Yes
Are teachers in the school required to hold CO teacher licenses?	Yes	No, except for special education teachers	Yes
Who makes decisions about hiring and evaluating teachers at this school?	Depends on Innovation Plan	School is responsible for personnel issues; process will depend on charter	School may select its own teachers from inside or outside APS. Principal has final authority, although teachers expected to be involved. Principal evaluates teachers.
What authority does the principal have to remove teachers?	Depends on Innovation Plan	School is responsible for personnel matters; process will depend on charter	May require transfer out of school if teacher is not a match; or may terminate consistent with evaluation process
Who hires and evaluates the principal of the school?	Depends on Innovation Plan	Governing Board	Governing Board selects principal; district hires. GB has input into annual evaluation conducted by district, annually recommends retention or termination
Do staff members of these schools participate in district benefit and retirement programs? Fully? Partially?	Depends on Innovation Plan	Employees are covered by public employee retirement system. Teachers and schools contribute appropriate respective amounts as required by programs.	Yes, fully
	Innovation School	District Charter School	APS Pilot Schools
COLLECTIVE BARGAINING			
Can the school opt out of the district's collective bargaining agreement?	Yes	Yes	No
If yes, is this automatic or does the school have to ask to opt out of the agreement?	Provisions of CBA may be waived once district attains District of Innovation status and negotiates contractual waiver provision with union; waiver of specified provisions occurs then waiver is approved by 60% of bargaining unit members through a secret ballot	Automatic	n/a

Can the school waive portions of the district's collective bargaining agreement?	Yes	n/a	Yes – the MOU specifies waivers
If yes, are there some portions of the agreement that the school CAN'T waive?	No, unless bargaining unit members fail to ratify waiver	n/a	Salary, benefits, seniority, transfer rights
If yes, what is the process by which schools ask for waivers from the agreement?	Provisions of CBA may be waived once district attains District of Innovation status and waiver of specified provisions is approved by 60% of bargaining unit members through a secret ballot	n/a	Automatic upon granting of status; BOE may consider additional subsequent waivers
Is there a separate/ different collective bargaining agreement for this type of school (as compared to the agreement for other schools in the district)?	No, although nothing would prevent the district and union from agreeing on automatic packages of waivers for Innovation Schools	No, unless one is negotiated between the school and its employees	Subject to terms and conditions in MOU negotiated between district and union

	Innovation School	District Charter School	APS Pilot Schools
CURRICULUM AND ASSESSMENT			
Is the school required to use the district- approved curriculum?	This may be a waiver requested in the Innovation Plan. The statute encourages innovation in curriculum.	No, the school can use any program that is effective and not prohibited by State law	No, the Governing Board can choose any curriculum as long as there is a core curriculum for all students
If the school chooses a different curriculum, does the district need to approve it first? If so, how does this process work?	District approves through approval of Innovation Plan	No	See above
Is the school required to participate in district professional development? If so, which trainings & development days are required?	This may be a waiver requested in the Innovation Plan. The statute encourages innovation in professional development.	No	No
Are there instructional approaches that school is required to use?	No	No	No

In addition to State- mandated assessments such as CSAP, is the school required to use any other types of assessments (e.g., district benchmarking or other types of diagnostic or interim assessments)?	This may be a waiver requested in the Innovation Plan. The statute encourages innovation in assessments.	No	School can opt out of additional district assessments if it can demonstrate commensurate assessments
	Innovation School	District Charter School	APS Pilot Schools
FINANCING AND BUDGET			
the following choices, which is the closest description of the funding model for this type of school: (1) More than 95% of the PPOR follows student to school & school pays for all expenditures & services; (2) Some PPOR follows student to school for selected expenses, remainder is withheld by district in exchange for services; (3) District provides majority of services and pays for most expenditures & school has relatively small discretionary budget for selected expenses/ needs. (4) Other	The funding model may be any of these or some other model, depending on the terms of the Innovation Plan.	100% of PPOR goes to school; district may retain up to 5% for actual costs of administration School may contract with district or third parties for services. In districts that retain exclusive chartering authority and where at least 40% of district enrollment consists of at-risk pupils, the district may only retain actual administrative costs up to 5%	Schools receive a lump sum that is equivalent to the district average for the grade level (elementary, middle, K-8, high, or alternative high)
If school employees are employees of the district, does the school budget reflect average or actual teacher salaries? What is the process used to determine how much money for staffing and/ or teachers the school receives?	The contents and structure of the school budget depend on the terms of the Innovation Plan. The statute encourages innovation in compensation.	n/a	The school receives a lump sum representing average salaries, but may make expenditures based on real salaries. Pilot Schools are held harmless for BOE- approved increases in salaries, including general salary increases and steps in the salary schedule.
Are there services that the schools are required to purchase or receive from the district?	The services to be provided by the district depend on the terms of the Innovation Plan.	No, except as required by the contract	APS publishes a list of discretionary district services that Pilot Schools can purchase; if the school opts to not purchase the service, the school receives that additional amount in its lump sum
How does the school access federal revenue (e.g., Title dollars)? Are there restrictions on how federal funds can be used? If so, please describe.	These terms may be contained in the Innovation Plan.	Under State law, the district must pass along a proportionate share of federal categorical aid Federal grant programs specifically for charter schools may also be available through the State department of education	The MOU provides that the school will receive its "fair share" of district grants if it adopts the district initiative
	Innovation School	District Charter School	APS Pilot Schools
FINANCING AND BUDGET			

How does the school access other State or district-level funds and which ones do they receive automatically (e.g.,. State grant programs, district mill levy)?	These terms may be contained in the Innovation Plan.	Charter schools may be part of district bond and mill levy elections under specified circumstances Access to other State or district-level funds depends on the situation	School must coordinate grant applications and grant activity with the district's grant management department, and must follow district policies relevant to grants, leases, and contract arrangements
Are additional funds available for "high-cost" students such as English language learners?	These terms may be contained in the Innovation Plan.	Depends on contract.	Yes, APS provides ELL and special education services to Pilot Schools outside the lump sum, at the same level provided to other schools
Are additional funds available for preschool programs or extended day programs at the school?	These terms may be contained in the Innovation Plan.	Depends on contract.	No
Is there start-up funding available for these types of schools?	Not at present, although statute encourages schools and districts to seek gifts, grants, and donations for the purpose of planning and implementation	Yes, start-up grants of $150,000 to $175,000 are available through the Colorado Charter School Grant program; some assistance also available from foundations	Start-up funds are provided to new schools like any new district school; district provides 24 hours of facilitator time to both new and conversion schools
Is the school required to purchase its own insurance?	No	Yes	No
	Innovation School	District Charter School	APS Pilot Schools
FACILITIES			
Is the school guaranteed use of a district facility	These terms may be contained in the Innovation Plan.	No	No. School must have secured "district-approved" facility prior to application.
If yes, does the school pay the district for use of the facility? If so, how does this financial arrangement work?		If a district-owned building is "available," the school does not have to pay rent, but typically will pay for maintenance, utilities, and custodial costs	
What happens if the district does not have a suitable facility for the school's use?	These terms may be contained in the Innovation Plan.	School may purchase or lease another facility	School may use another facility, as long as it is district-approved.
Does the school have access to district bond funds or other funds to offset facility-related expenses?	These terms may be contained in the Innovation Plan.	Yes, school may request inclusion on district bond issue; may apply for funds appropriated under State's Charter School Capital Construction program	Not known
	Innovation School	District Charter School	APS Pilot Schools
SCHEDULES			

Is the school required to follow the district annual calendar?	This may be a waiver requested in the Innovation Plan.	No	No, but must meet minimum instructional hours
Is the school required to follow the district's daily schedule for similar schools or can it set its own daily/weekly schedule?	This may be a waiver requested in the Innovation Plan.	No	No
	Innovation School	District Charter School	APS Pilot Schools
ADMISSIONS AND ENROLLMENT			
Is this a school of choice or are kids assigned to it (e.g., neighborhood school, catchment zone)?	These terms may be contained in the Innovation Plan.	School of choice	First open to students within boundary, then open to students of district in a way that reflects the diversity of the district
Does the school handle its own admissions process or is it handled by the district?	These terms may be contained in the Innovation Plan.	Depends on charter	Combined effort between school and district
Must the school accept applications from students with special needs?	Yes	Yes	Yes
What happens if the number of applicants exceeds available slots? Must the school run an admissions lottery? If so, can it give preferences in the lottery (e.g., siblings, children of staff, board, targeted populations to ensure diversity, etc.)?	These terms may be contained in the Innovation Plan.	Enrollment decisions must be made in a nondiscriminatory manner as specified in the charter application; however, to access federal grants, school should have a lottery process	A lottery is used; schools may not screen on the basis of academic achievement and must enroll students who are representative of the district as a whole
	Innovation School	District Charter School	APS Pilot Schools
CHOICES ABOUT SERVICES AND PROVIDERS			
Can the school affiliate with or contract with external education service providers or management organizations? If so, do they need district permission to enter into these contracts?	These terms may be contained in the Innovation Plan. The statute encourages innovation in the provision of services.	Yes	Yes. If school chooses not to use district services approved as discretionary, it notifies the district so that it will receive funds equivalent to the value of these services.
Do students in this school receive district transportation services? If so, is there an added cost for this service?	These terms may be contained in the Innovation Plan.	Charter may choose not to offer transportation services, or to offer it through the district of a private provider. School may charge fee.	Yes. Added cost to school only if school's schedule requires special accommodations.

Do students in this school receive district food services?	These terms may be contained in the Innovation Plan.	Students may receive district food service (and have access to federal nutrition programs); receive food services from the district or another caterer ala carte; or bring their own meals from home	Depends on Pilot School Application.
Who is responsible for ensuring that special education services are available?	Administrative Unit for Special Education (district or BOCES)	Administrative Unit for Special Education (district or BOCES)	Administrative Unit for Special Education (district)
Who provides special education services to students?	These terms may be contained in the Innovation Plan. The statute encourages innovation in the provision of services.	Depends on contract. May be school, district, or third- party provider. Under federal law, district must pass along proportionate share of special education funding, but may be in cash or in service.	District staff – all responsibility for special education services is retained by the district and district provides services at no additional cost to the schools
If the district provides the services, does the school pay a fee to the district for these services? If so, how much and what does it cover?	These terms may be contained in the Innovation Plan. The statute encourages innovation in the provision of services.	Depends on contract.	No
If the school provides its services does it receive special education revenue to offset these costs? If so, how much?	These terms may be contained in the Innovation Plan.	Depends on contract.	n/a
If a parent complaint or lawsuit is brought forward re: special education at the school, which entity is legally responsible (district or school)?	District as Administrative Unit for Special Education	District as Administrative Unit for Special Education	District as Administrative Unit for Special Education

Sources

For Innovation Schools

The Innovation School Act, CRS 22-32.5-101 through 111

Publications on CDE's Innovation Schools Act website: http://www.cde.State.co.us/cdegen/SB130.h

For Charter Schools

Publications on CDE's Charter Schools website: http://www.cde.State.co.us/cdechart/index.h

Colorado League of Charter Schools: http://www.coloradoleague.org/index.php

For APS Pilot Schools

Publications on APS' Pilot Schools website: http://www.aps.k12.co.us/schools/pilot/

Exhibit VI.F(2)v-2
Innovation Schools Act of 2008 Fact Sheet

Colorado Department of Education
201 East Colfax Ave. Denver,
CO 80203-1799
Phone: 303-866-6631

Fact Sheet

Innovation Schools Act of 2008

The Act allows a public school or group of public schools to submit to its school district board of education an innovation plan to allow a school or group of schools to implement innovations within the school or group of schools. The innovations may include but are not limited to innovations in:

- delivery of educational services,
- personnel administration and decision-making, and
- budgeting.

The Act requires the local board to review each submitted plan and approve the school as an innovation school or the group of schools as an innovation school zone or reject the plan.

The Act also allows a local board to initiate creation of a plan in collaboration with one or more schools of the school district. The law specifies the minimum contents of a plan, including the level of support needed from the personnel employed at the affected schools.

The Act encourages schools, groups of schools, and local boards to consider innovations in specified areas and to seek public and private funding to offset the costs of developing and implementing the plans.

Following creation or approval of one or more plans, the law allows a local board to submit the plan to the commissioner of education and the State board of education and seek designation as a district of innovation.

The Act directs the commissioner and State board to review and comment on the plan, and directs the State board to make the designation unless the plan would likely result in lower academic achievement or would be fiscally unfeasible. The law requires the State board to provide a written explanation if it does not make the designation.

The Act directs the State board to grant any statutory and regulatory waivers requested in the plan for the district of innovation, however, certain statutes may not be waived by the State board.

A district of innovation must demonstrate how the affected schools will comply with the intent of the waived statutes or rules. The law further allows for modification of the waivers based on modifications made to the plan over time.

The Act requires the collective bargaining agreement for each district of innovation to allow for waiver of identified terms of the agreement for personnel at an innovation school or a school within an innovation school zone. The law allows a district of innovation to hold elections in innovation schools and in each school within an

innovation school zone to approve the waivers, and requires waivers to be approved by a vote of at least 60 percent of the personnel at the affected school who are members of the collective bargaining unit.

The Act specifies that a district of innovation is not required to seek waivers of terms of the agreement. If an employee of a school that receives a waiver of a term of an agreement requests a transfer, directs the district to make every reasonable effort to transfer the employee.

The Act allows for modification of the waivers, with a vote, based on revisions to the plan for the innovation school or innovation school zone.

The Act requires the local board of a district of innovation to review the performance of each innovation school or school within an innovation school zone every 3 years following approval of the plan to determine whether the school is achieving or making adequate progress toward achieving the academic performance results specified in the plan.

The Act allows the local board to revise the plan in collaboration with the affected school and subject to the consent of specified personnel at the affected school and affected school accountability committee(s).

The Act allows a local board to revoke a plan and a school's innovation status or the designation of an innovation school zone if student academic performance at the affected school or schools does not improve at a sufficient rate.

Beginning March 2010, the law requires the commissioner and the State board annually to report to the governor and the education committees of the general assembly concerning implementation of the Act and to post the report on the department of education's web site.

The Act allows the local board of a district of innovation to delegate to an innovation school or a school in an innovation school zone certain duties and powers relating to personnel.

EFFECTIVE May 28, 2008

Added 22-32.5-101 (entire article); amended 22-32-109(1)(f)(I); 22-32-110(1)(h).

Exhibit VI.F(3)-1
Choice and Innovation: Stimulating Education Reform

CHOICE AND INNOVATION

Stimulating Education Reform

DWIGHT D. JONES

COLORADO COMMISSIONER OF EDUCATION

APRIL 6, 2009

The Urgency for Change

There are more than 47,800 teachers in 1,771 schools in 178 districts across Colorado who are dedicated to teaching our children. I have seen them in action; I have visited classrooms and spoken to principals and administrators. Literally thousands of people are focused on raising student achievement in Colorado. All of them are working hard. And students are learning. But are all of our students learning enough?

Consider these facts:

- Colorado ranks 46th in the nation with respect to the high school completion rate.
- Hispanic students graduate from high school at *half* the rate of white students.
- Colorado's gap between postsecondary degree attainment of white students and Hispanic students is the largest in the United States.
- For the first time in history, American young people are less likely than their parents to complete high school.

At a time when nations like India and China are producing more and more college-educated citizens, industries with the greatest potential for future job growth in the United States are requiring more postsecondary education. And Colorado is persistently lowest-achieving to get many students through high school.

As resources decline and the economy remains uncertain, our success will depend on our ability to provide students with the knowledge and skills they need to thrive in college, the incentives and motivation to work hard in the marketplace, and the opportunities and outcomes to contribute to society.

To ensure the State's prosperity (or regain it, in some cases), the State must change the way one teaches to match the many contexts of student learning. The State must be innovative and expand our notion of school choice to improve capabilities, incentives, opportunities and outcomes for students in Colorado. The innovation grant program included in the American Recovery and Reinvestment Act of 2009 provides an extraordinary opportunity for us in this regard. Our mission is clear: The State must reform education.

Choice as Education Reform

Education reform is easy to talk about, and harder to do. By definition, *reform* means doing something better. If Colorado reform educations, the State must not only do things better and/or the State must get better results. One way to begin the reform process is to rethink our view of choice.

For me, the notion of choice in public education has more to do with every child's right to an education that prepares each of them for success, and less to do with freedom to pick the style of school you like best. I believe that to deliver on the promise of success for all students, the State must cultivate new ideas and find ways to expand and sustain effective options. In a world of growing diversity, no single approach to schooling works for all students.

While schools must be well-adapted to current conditions, they also must be adaptable to changing conditions. Though resources shrink, expectations continue to rise. Changes in demography, law and technology should prompt us to rethink basic assumptions about how schooling is carried out – especially in light of the emerging economies that challenge America's leadership position in the world.

Choice and Innovation

To expand options for parents, students and educators in Colorado, the State needs a system that supports and provides incentives for innovation. Clayton Christensen, author of *The Innovator's Dilemma,*[i] argues for two types of innovation: one that improves on existing processes, and one that boldly changes an entire system. He suggests that this combination is necessary because it drives improvement and transforms operations.

Most existing school reform consists of process improvement. And when implemented well, process improvement can indeed yield positive results. However, substantial reform requires system redesign – anything less is like sailing to find new lands but hugging the shoreline. To find new lands you must cut across open water, which is risky and thus viewed as undesirable by the mainstream. But it also offers the greatest potential for attaining the goal. Thus, bold leadership is required to commit the resources necessary for successful implementation. In the words of Frederick Hess, "Solving new problems or more effectively addressing stubborn problems has been the province of new entrants. The challenge is not simply promoting best practices or loosening regulations but encouraging new ventures that can solve problems more effectively." [ii]

By encouraging these "new ventures," the State recognizes that innovation and choice are inextricably intertwined. Only with innovation are meaningful options created; greater incentive for innovation exists because of the opportunities to choose from these options. In Colorado, open enrollment has allowed parents to select schools best suited to their children's needs, while the charter school and innovative school acts, as well as the creation of alternative teacher certification pathways, have led to even more options for parents, students and educators.

Choice and innovation present themselves in a variety of ways:

For parents and students:

- Gender-specific schools.
- Home schools.
- Charter schools.
- Online schools and learning centers.
- Alternative schools.
- Virtual schools that provide customized curricular interventions.
- Residential schools.

For educational delivery:

- Postsecondary trade schools, colleges and universities.
- Education management companies.
- Charter management organizations.
- Proprietary schools that businesses develop as alternatives to traditional school settings.
- Industry-partner schools that provide students the opportunity to study within a given field.

Incentives for innovation:

- Developing creative funding solutions by increasing collaboration between the public and private sectors.
- Establishing incentive funding for schools and districts that show exceptional improvement in student performance.
- Developing new incentives to reward students for educational performance.
- Partnering with existing institutions to develop performance-based compensation systems

Choice and Innovation in Colorado

Recently I visited with the superintendent in Aurora Public Schools to learn about new career-pathways programs the district has implemented to engage students within science, math, engineering and technology fields. The Galaxy Initiative[iii] is designed to guide students to STEM-related professions through rigorous academic programs and associated field experiences beginning in elementary school and continuing through high school and into college. Aurora's LIGHT's program[iv] provides career-pathway experiences for students in the health sciences. This program has been developed in partnership with the University of Colorado Health Sciences Center and the Community College of Aurora. The career-pathways programs include specialized training, tutoring, mentoring, field experiences and college counseling. The district is also developing a P-20 integrated-instruction campus[v] that provides a seamless education from preschool to graduate school. The P-8 school is scheduled to open in 2010; the high school, in 2011. The physical site also allows for the construction of a college facility.

I was reminded of the power of online learning opportunities when I attended the Hope Online Learning Academy graduation ceremony in June 2008. The valedictorian, the first in her family to graduate from high school, spoke of her difficult road to graduation. With a full-time job and financial responsibilities not commonly required of a 17-year-old, she would not have been able to succeed without the opportunity to learn outside a traditional classroom setting and schedule.

In 2007-08, Denver Public Schools used a licensing waiver to implement the alternative teacher program Teach For America[vi] to recruit, train, place and mentor teachers to teach in hard-to-fill positions in schools with high poverty and low achievement growth. TFA develops a national corps of top college graduates who commit to teach for two years in under-resourced public schools. Working in collaboration with the Colorado Department of Education's licensing department, TFA has become an approved alternative teacher-preparation program. (The 2009 Colorado General Assembly is considering legislation that would allow non- profit groups like TFA to receive designation as Statewide teacher-preparation programs.)

At the Denver School of Science and Technology,[vii] each student has his or her own advisory group of 14 peers and an advisor. As DSST's first senior class gets ready to graduate in May 2009, 96.5 percent of seniors have been accepted into four-year colleges (the goal is 100 percent). A large sign shaped like a thermometer hangs in the entryway, displaying the school's progress toward that goal.

Highline Academy Charter School[viii] in Denver uses "benchmark grading" to provide each student and his or her teachers and parents a 12- to 15-page report card detailing specific areas on which that learner needs to focus. Beginning in kindergarten, all students are taught Spanish. A partnership with Denver University involves 50 graduate students who help teachers identify students requiring specific intervention plans and who assist with one-on-one student tutoring.

The Job Corps[ix] residential center in Collbran is making a tremendous difference in young lives. Job Corps is a true last-chance option for students who have been expelled, detained in juvenile corrections and the like. Students follow a regimented plan in this strict setting, and are paired with staff mentors who meet with them weekly. In the end, each student who graduates from the program receives both a high school diploma and a

professional certificate in a trade such as culinary arts, carpentry, masonry or painting.

Some Colorado districts are fostering relationships with their charter schools to promote healthy change. Lamar School District is one such example of a district charter school and district leadership working in close collaboration to meet the needs of students and their families. In fact, when I visited the district with the superintendent, Alta Vista Charter School was our first stop.

Blueprint for Change

Innovation and choice are necessary, but insufficient, to successfully redesign public education. Once innovative choice models are proven effective, the system is responsible to take these effective practices to scale. Finding solutions that work on a small scale and using them to produce improvement in performance on a large scale is the challenge. And this challenge can be daunting.

Effective change depends on the system's ability to learn. As Frederick Hess Stated, "The longer organizations exist and the more they thrive, the more difficult it can be to step away from established practices and adapt to changed circumstances."[X] Public education, a well-established system, is a difficult one to change.

In broad strokes, the goal is to generate new ideas and then generalize them. There are four steps in this process.

> Step One: Generate innovative ideas by engaging people with multiple perspectives. Thinking about complex systems in new ways results in new ideas.
>
> Step Two: Incubate promising practices and allow them to
>
> grow. Step Three: Take successful practices to scale.
>
> Step Four: Sustain success by tenacious implementation over time.

Step 1: Generate Innovative Ideas

When it comes to improving public education in Colorado, the State must have the courage to do just that. If the State participant, the State wants students to be truly prepared for their futures, traditional schools of the last century won't cut it. For innovation and an expanded view of choice to benefit public education, certain conditions must exist. Prescriptions for change follow from basic assumptions:

1. To address root causes, the State first must be explicit about the purpose. The purpose of public education goes beyond preserving access and opportunity. Equity of opportunity must be matched by equity
   of outcomes to ensure young people have what it takes to earn a living, live full lives and be contributing members of society in tomorrow's world. Success is – or should be – a birthright.

2. The State must confront the facts and correct the mismatch between assumptions and how the world works. The State is faced with a variety of mismatches. The skills schools teach are not well-aligned with workplace requirements – content proficiency, while necessary, is not sufficient. The way students are taught in school often does not match how today's students learn. If the State is in the business of success for all students, our education system must recognize that today's students learn differently than did yesterday's. Similarly, the system Colorado needs is one where students are the drivers of their education system, as opposed to the receivers of an inherited system. Districts need to recognize and leverage the increasing role of technology in learning and in social interaction.

3. The need to intentionally introduce innovative educational approaches. Adam Urbanski, a nationally recognized leader in education reform, had it right. "If we always do what we've always done, we'll always

get what we've always got." The system in Colorado is perfectly designed to produce the results for the current system. When it comes to improving schools, this much is certain: To expect better results, the State has to do things differently.

Examples of efforts to generate new ideas, take effective innovations to scale and support their sustainability follow:

- Leadership Center: Research shows leadership is second only to instruction in factors that impact student achievement. The Colorado State Legislature agreed when it established the School Leadership Academy Program (H.B. 08-1386) and directed me to appoint a School Leadership Academy Board [xi] to provide advice on the implementation of a State leadership development center for superintendents, school board members, principals and school leaders. Strategic leadership development models being considered in Colorado include innovative entrance pathways, job-embedded training, mentoring, fellowships and networking opportunities.

- The Colorado Math, Science and Creativity Academy: Seventeen States have a residential high school that fosters the development of math and science. I propose establishing the Colorado Math, Science and Creativity Academy to provide an environment to grow the math, science and creative talents of Colorado students, thus reinforcing our capacity for Statewide, national and global competitiveness. Such a school would also serve as a laboratory for teaching and learning.

  The vision for the academy is a place where high school, higher education and business partnerships thrive and produce innovative efforts to improve math, science and creative education. Exceptionally gifted students from across Colorado would have the opportunity to learn, create and conduct research alongside Colorado's most talented scientists, mathematicians and Nobel laureates. Teachers would be able to "intern" and gain professional development in a culture-rich environment.
  More, students would create relationships with local and State organizations and corporations, which would increase the likelihood of placing Colorado talent in the State's fastest growing industries.

- Online Learning: How well prepared are States to lead, guide and support the shift of education delivery to online? According to some reports, by 2019 nearly half of all high school courses will be delivered online.[xii]

  Colorado needs to make a larger commitment to grow fledgling online programs across the State. As more and more Colorado families choose online learning as either the primary means of education for their children or as a supplement to brick-and-mortar education, the State is responsible for ensuring a level of accountability in order to deliver a high-quality educational program.

  According to the 2008 *Keeping Pace With K-12 Online Learning* report by Evergreen Consulting Associates, a total of 44 States offer some type of online learning option for K-12 students. There are currently 25 State-led programs and eight State-led initiatives across the nation. Full-time online schools are the second most common online learning option, and 21 States have these types of

  programs, most often as charter schools. Of those 21 States, only six – including Colorado – have no State-led program directly under the department of education (though they do have numerous multi- district, full-time online schools).

  Research, Development and Information Management: I believe a State department should be an outstanding source for high-quality research and information about critical aspects of the performance of our educational system. The reality is, the State does not have all the answers. Our ability to reach a high standard for capacity in this area requires that the State partner with others. To that end, the State is sponsoring efforts to make educational data more easily accessible to researchers. Through public and private partnerships, the State is developing new information management tools for educators to manage the performance of their classrooms, schools and districts. These systems, such as the Colorado

Growth Model and the forthcoming education identifier system, will allow us to more accurately make meaningful connections about successes and failures so necessary adjustments can be made.

- International Benchmarking: A recent publication on international benchmarking States, "We are living in a world without borders. To meet the realities of the 21st century's global economy and maintain America's competitive edge into the future, we need students who are prepared to compete not only with their American peers, but with students from across the globe for the jobs of tomorrow." [xiii]

  Further, "Around the globe, governments are eagerly comparing their educational outcomes to the best in the world. Their goal is not just to 'see how they rank.' Rather, they want to identify and learn from top performers and rapid improvers. … While education may not be the only lever for ensuring prosperity in an age of globalization, it is a tremendously important one."[xiv]

  One example of how Colorado acknowledges the value of this global competition, if you will, is in an International Baccalaureate (IB) education. IB high school students in Colorado are guaranteed 24 college credits with an IB diploma. There are many IB programs being offered around the State: 19 primary programs, 27 middle year programs and 23 diploma programs.

4. The State must set sensible boundaries for our creativity and inventiveness. Innovation is much more than just a big idea. Innovation requires creativity tied to a purpose. When schools are successful in providing an education that yields increased achievement for all students and decreased achievement gaps, they should have greater autonomy. When schools persistently underperform, they should be shuttered. While Colorado as a society wants to promote success for the individual student, the State also wants to enhance the common good. To effectively manage such choice and innovation, local school boards may be well-served to consider their role as education portfolio managers. The State should support school district capacity to carry out this role, placing greater emphasis on performance management and oversight of student outcomes.

5. The State's need to identify effective models and take them to scale.
   When choice models result in improved student learning and higher levels of academic achievement, the State should encourage the expansion of these models into schools and districts across the State. Mechanisms to broaden the impact of effective ideas include the following:

   Expansion of local success stories: Local education leaders are conducting research and piloting practices within their districts and schools to determine what works, as well as what doesn't. Replicating local models Statewide would expand the scope of their work.

   Leveraging existing resources to expand effective practices: At present, Title I funding does not provide incentives for implementing proven practices. Repositioning Title I to ensure schools and districts with the greatest need provide the appropriate, educational choice for students is one example. Establishing a portability process for Title I, so that funding follows the student who qualifies for it, is another.

   Funding: Under the current system, funding for a given year is based on the annual Oct. 1 student count. To provide the proper incentives, dollars should follow both student need and student results. While adjustments should be made to ensure greater funding for schools and districts with high poverty and other challenges, such funding streams should continue to flow only in the presence of increased academic performance.

Richard Elmore says, "For every increment of performance I demand from you, I have an equal responsibility to provide you with the capacity to meet that expectation."[xv] In a local-control State like Colorado, the challenge is to provide State-level support that takes into account local needs while expanding the capacity for innovation and improvement. As the State uses these assumptions to provide direction and guide action, the State's objective emerges clearly: Capacity building is central to the mission of the Colorado Department of Education.

In Closing

The Colorado Department of Education's commitment to inviting, supporting and expanding effective innovations in education stems from a belief that what matters most is learning – for students and those who teach and care for them. An atmosphere that fosters innovation recognizes that both success and failure are part of learning, and that the generation of new ideas is systematically followed by the pursuit of promising practices and implementing what works.

To be a great State, one must be an educated one. I believe that creating an open sector in Colorado public education – one in which innovators are able to try new forms of school and schooling – will better serve our students and their learning. Such a system will not come without risks, but faced with the current economic challenges, the State must stand firm in our investment in choice and educational reform.

Innovative approaches are the answer to difficult times. They are the bridge between today's challenges and tomorrow's opportunities. Responsible leadership requires that State to take what is known and learn, and apply it in ways that raise achievement of all students, especially those who are currently underachieving.

It is *this* kind of educational reform that will produce citizens who are all knowledgeable and skilled, empowered with high expectations and truly prepared to create a successful future. ∟

Exhibit VII.2-1
Description of the Colorado STEM Network

The Colorado STEM Network

In 2006, National Governors Association chose Colorado and five other States to promote STEM activities in the State, creating the Colorado STEM Network. CSN was among the grantees and serves today in the vital role as an intermediary among all of stakeholders including workforce and economic development, business and industry, K-12, higher education, and informal education organizations. The Colorado Stem Network (CSN) was organized for the charitable and educational purposes to promote systemic, continuous and sustainable improvement of Science, Technology, Engineering and Mathematics (STEM) education in Colorado and to leverage those partnerships to enhance the 21st Century workforce. The organization is comprised of an Executive Director, Nicole L. McGee, and a 16-member Board of Directors. CSN's membership and activities are designed to advance sustainable improvement of STEM education for all students.

The Colorado STEM Network has two components: a State-level coordinating center and a network of regional STEM compacts. CSN oversees the activities of the STEM compacts, who are working to identify the assets and gaps in STEM education across the State and provide a feedback loop to State policymakers and educators. In this proposal, the CSN would serve as the oversight organization for STEM in Action and other STEM related activities. CSN would provide the structure for the State's SchoolView system and coordinate the efforts to populate the system with video and educator materials. CSN affiliate STEM Centers would be responsible for disseminating information, train educators to the use the site, and connect educators to organizations that provide live opportunities as well as real-time data and models.

Exhibit VII.2-2
Description of STEM in Action

STEM in Action

In 2007, the Denver Museum of Nature & Science (DMNS) launched an interactive Distance Learning program to give students a window into the world of scientists, to help students realize their own scientific abilities, to open their eyes to science careers, and to highlight the work of DMNS scientists and their colleagues. In this proposal, Race to the Top funds would be utilized to replicate and expand this program with DMNS and other informal science organizations. Funding would allow for content expansion to include all the elements of STEM (science, technology, engineering, and mathematics) and connect the broadcasting system to SchoolView.

Combining real science with digital technology offers the students a rare opportunity to become immersed in the world of scientific research, if only for awhile. This program is designed to promote critical thinking, build technology and communication skills, foster general scientific literacy, and allow students to see first-hand what it's like to be a scientist.

The genuine experience of interacting with a scientist, engineer, mathematician, or technology expert and his or her research cannot be replicated in books, videos or other media. The combination of authentic artifacts and specimens, compelling new research, and highly-skilled education staff help students understand why complex scientific information has direct relevance to their daily lives. STEM in Action works to dispel misconceptions of STEM by having students see professionals in realistic settings across content areas, and showing diversity among these professionals with regard to gender and ethnicity.

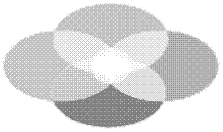
Teachers receive a pre-visit video profiling the scientist and their research. Classroom time is then used to develop informed questions to ask the scientists during the live broadcast. The students then interact directly with that scientist during the live session. Participants interact with the scientist from their school classrooms, or from one of the museum sites. The goal is to continue to have a high ratio of students participating (i.e. standing up and asking a question of the scientist) versus having students watching passively – thus creating a more impactful learning opportunity. This program focuses on providing participants multiple experiences through various media (DVD, classroom discussion and live broadcast) to scaffold learning around the same content area. Offered together these experiences develop relevant science process skills and habits of mind activities, all critical steps to becoming scientifically literate.

This proposal would also utilize DMNS' current approach to broadcasting, or "field casting" STEM in Action live from multiple and often remote locations to through IP-based communications over a satellite transport. To accomplish this, the State uses a narrow-band portable satellite system combined with an IP-based video-conferencing system – one unit located at the remote field site and one unit at the school site. The satellite service provides a fixed bandwidth of 512kbps while the video-conferencing system manages two-way video and audio communications. The State typically uses two video cameras, wireless microphones and other basic a/v equipment to provide multiple video angles, maximum mobility and near-HD production quality while in the field.

Exhibit VII.3-1
Early Childhood Colorado Framework

Early Childhood Colorado Framework

A COLLECTIVE VISION ON BEHALF OF COLORADO'S YOUNG CHILDREN AND THEIR FAMILIES.

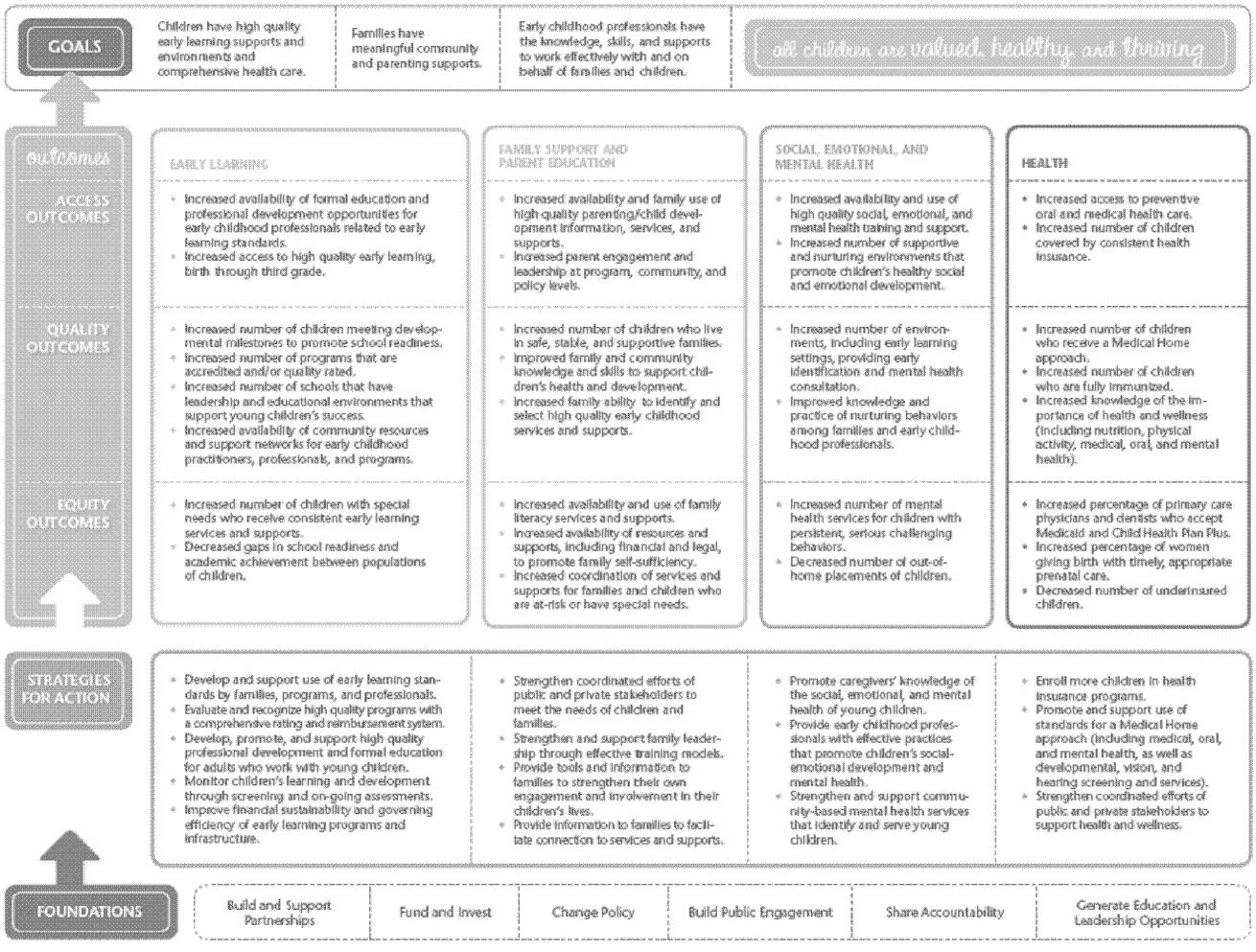


EARLY CHILDHOOD COLORADO PROVIDES A **FRAMEWORK** THAT:

- Recognizes the needs of the whole child and family.
- Communicates the vision for comprehensive early childhood work.
- Focuses on specific measurable outcomes.
- Guides, organizes, and focuses the actions and accountability of public and private stakeholders.

THIS WORK IS GUIDED BY THE FOLLOWING **PRINCIPLES**:

- Be child-focused and family-centered.
- Recognize and respond to variations in cultures, languages, and abilities.
- Use data to inform decisions.
- Build on strengths of communities and families.
- Focus on children from birth to age 8.
- Promote partnerships.
- Act at state, local, and statewide levels.



EARLY CHILDHOOD COLORADO FRAMEWORK / JULY 2008

Exhibit VII.3-2
Description of Project REAL

Clayton EARLY LEARNING

Project REAL: Results Through Early Advantages in Learning

A Summary of Results for Early Reading First Project 2006 - 2009

What is Project REAL: Results Through Early Advantages in Learning?

- A professional development project that supports preschool teachers in using scientifically based reading research to enhance children's language, cognitive and early reading skills.
- A cohort of 10 classroom teams across Denver and Adams Counties that participate in trainings, reflective discussions and intensive coaching related to key areas of emergent literacy (oral language, phonological awareness, alphabet knowledge and print awareness) and effective teaching strategies (CLASS).
- A group of 160 preschool children and families who participate in monthly "family fun nights" that engage parents and children around meaningful activities, build literacy skills for children and connect parents and teachers in powerful discussions about what is happening in the classroom.
- A team of instructional leaders from each participating agency that work together to fully support ongoing professional development efforts and to build sustainability of project goals.
- A REAL solution for narrowing the achievement gap and fully realizing school success for all children in Denver and Adams Counties.

How Do We Know Project REAL is Working?

We examine the following pieces of data:

- Children's Alphabet Knowledge
- Children's Receptive Language Skills
- Acquisition of English and Heritage Language

Participation in Project REAL and Children's Alphabet Knowledge

- There was a significant increase over time in the number of letters recognized on the PALS Pre-K assessment among 4 year olds who were enrolled for at least 6 months (mean increase 6 letters, sd=6.4, t=8.24, p<.0001).

Participation in Project REAL and Children's Receptive English Language Skills

- Kindergarten eligible children who were enrolled in the program for at least 6 months experienced an average gain of 5.6 standard score points on the Peabody Picture Vocabulary Test, Version 4 (PPVT), a statistically significant increase (p<.0001).
- This increase was concentrated among children who had pretest scores that were below average (standard score=100). These children increased 8.5 points on average.
- Nearly 60% of kindergarten-eligible children enrolled at least 6 months had age appropriate receptive English language skills at the post-test (a standard score of 85 or above).
- A subset of children were also assessed using the Preschool Language Scales, Version 4. 73% of all children enrolled for at least 6 months demonstrated age appropriate skills in both Auditory Comprehension and Expressive Communication.

What are we learning about children who speak more than one language?

- There are limitations to examining only one language at a time for bilingual children. In an attempt to provide the most accurate reflection of language acquisition, children who spoke Spanish were assessed in both Spanish and English.
- A strong majority (73%) of children who were enrolled for at least 6 months demonstrated age-appropriate language skills in at least one language at the posttest.
- Children who preferred Spanish made much greater gains on English vocabulary measures (nearly 3 times on average) than children who preferred English, with 34% of these Spanish-speaking children also achieving significant gains (4 standard points or greater) in Spanish vocabulary acquisition.

Exhibit VII.3-3
Description of Results Matter

Results Matter in Colorado

Results Matter is Colorado's early childhood assessment and accountability system, serving more than 44,000 children Statewide. Early childhood professionals in a multitude of diverse programs are actively engaged in: Assessing children's learning and developmental progress**;** Working with families to collect family outcomes information **and** Using child and family outcomes data to inform decision-making. Providers in the Results Matter system effectively use valid and reliable assessment tools such as the Creative Curriculum Developmental Continuum, the Work Sampling System, the High/Scope COR and the AEPS to assess learning and development in Language and Literacy, Social-Emotional Skills, Mathematics, Science, Creative Arts, Physical Development and Approaches to Learning. Through authentic assessment strategies such as ongoing observation, portfolio documentation and completion of developmental checklists, they identify and plan for the instructional needs of young children in their care.

Unique Features of Results Matter

Utility! From the beginning, Colorado has aimed for a system that provides useful information to support teachers and administrators in their day-to-day work as well as one that can meet accountability reporting needs. Through a commitment to ongoing professional development activities including technical assistance, the high quality of Colorado's assessment data indicates that Results Matter has been successful in using an ongoing, observation based assessment system that documents child progress in ways that inform teachers, interventionists and administrators AND that supplies automated reports for accountability purposes. Results Matter has succeeded in identifying one assessment process that is used as both a formative and a summative evaluation tool.

Inclusiveness! As State leaders and local stakeholders came together in 2004 to plan a Statewide system of assessment and outcomes measurement, one thing was clear—the strong desire for a single system for all children. Gone are the "silo days" where separate systems are developed for children based on funding sources. The Results Matter system is available and appropriate for all young children and families in Colorado, regardless of need or funding source. Participants include 100% of State funded preschool and IDEA funded programs, Head Start and numerous private child care programs. This means that the positive outcomes achieved through ongoing observation and timely teacher response to child need are impacting professional development and child progress in all kinds of early childhood settings. It means that assessment results can follow a child who moves to a new program. And, it also means that large amounts of data are being generated that provide an opportunity to study child and family outcomes in order to help inform planning at the child, program, community and State level.

Technology! All assessment information for Results Matter is recorded on secure online systems that allow the CDE immediate access to classroom, program, county and State level reports. Families can be given secure access to their child's records and can review and complete developmental checklists about their child. The newest phase of implementation includes training and support for teachers to use pocket digital video cameras to document child learning and development and to make those files part of the electronic portfolio in the online system. To make observation notes more readily accessible to families and team members, the option to use digital pens will be introduced in spring of 2010.

Visit us online: www.cde.State.co.us/resultsmatter/ or **email:** vendegna_n@cde.State.co.us

Exhibit VII.3-4
P-3 Professional Development Task Force Work Plan

P-3 Professional Development Task Force Work Plan

The P-3 Subcommittee of the P-20 Council created a Professional Development Task Force to develop a 3 year plan to advance the effectiveness of early childhood teachers. The **Professional Development (PD) Task Force** will consist of 25-30 members, representing a broad range of stakeholders involved with the professional preparation of teachers, development and support of early education teachers who work with children birth to 8 years of age. Each member of the Task Force will serve on at least one Work Group.

Task Force Roles and Responsibilities

- Develop a common understanding of the current system for EC teachers in Colorado
- Propose a guiding vision and goals for a comprehensive professional development system for Colorado's early education teachers
- Identify and recommend strategies for implementing the plan and achieving goals
- Coordinate and integrate recommendations of the Work Groups into a coherent comprehensive plan
- Present the plan to the P-3 Subcommittee for approval

Four **Work Groups** will be established to develop recommendations in specific areas related to the development of a comprehensive professional development system. Work Groups can have representation from individuals not on the Task Force. Each Work Group will select co-chairs and a secretary who must be members of the Task Force. The co-chairs will facilitate the meetings and serve on the Steering Committee of the Task Force. The secretary will be responsible for taking minutes at each meeting and making sure all members have been notified of meeting times and place.

Staff support
The Director of the Head Start State Collaboration Office will be the lead staff person for the Task Force and will coordinate the work of four interns: 3 from the Buell Early Childhood Leadership Program and 1 graduate student at the Marsico Institute.

The Four Work Groups
Teacher Preparation (i.e. professional standards, credentials, licensure, endorsements, articulation; system structure)

1. Recruitment and Retention (i.e. teacher characteristics/disposition, qualifications, career pathways, outreach, compensation; incentives)
2. Financing and Policy (i.e. access and equity)
3. Accountability (i.e. data, teacher evaluation, child outcomes, educator identifier)

Work Group Roles and Responsibilities

- Provide background on the current landscape in Colorado
- Develop expertise related to research on best practices and outstanding models in area of focus
- Explore "outside the box" ideas
- Develop specific recommendations for goals and action steps related to the group's areas of focus
- Recommend priorities and establish timelines within and among goals and action steps
- Determine resources needed to achieve goals
- Identify potential barriers and strategies for eliminating barriers
- Present recommendations to the Task Force

Exhibit VII.4-1
Copy of State Collaboration Agreement on Longitudinal Data Systems

State Collaboration: Longitudinal Data Systems, Data Visualization, Research and Development

Agreement for Execution - Effective Date: November 2, 2009

The terms on these two pages outline the initial agreement for a collaborative effort to co-locate state longitudinal growth data sets for the purpose of creating common data visualizations that build upon the Colorado Growth Model.

1. ***Agreement to Participate***. Each Chief State School Officer signs on to the collaborative research and development effort and agrees to the participation of the Chief's designee, chief information officer, and state assessment director or director of research and evaluation.

2. ***Common Longitudinal Growth Measure***. Each state agrees to calculate growth percentiles in the same manner using R (programming language) to allow common cross-state comparisons and data visualization development related to normative and criterion-referenced growth.

3. ***Common Display Platform***. Each state agrees to use the Colorado Growth Model Version 1.0 or 1.5 display layer as an initial common visualization platform.

4. ***State Branding***. Each state may rebrand the display layer (e.g., "The Indiana Growth Model") and will provide mutually agreed upon attribution to Colorado and the National Center for the Improvement of Educational Assessment.

5. ***Common Development Environment***. To the extent pra ticable, eac state agrees to load its longitudinal data set into a common, standardized data torage environme t with appropriate security. This storage environment may be a cloud-based, virtual environment. The purpose is to permi common cross-state enhancement of the data visualization tools by the application developers. The application developers for Versions 1.5 and 2.0 will be the Colorado Department of Education, the National Center for the Improvement of Educational Assessment, and Universal Mind.

6. ***Enhancements to the Display Layer.*** Each state agrees to collaborate in the development of a common Version 2.0 of the Growth Model Display Layer. Such modifications will include, but not be limited to, postsecondary metrics, multi-year visualization and animation, inclusion of teacher identifiers, multiple axis selection, enhanced mapping functionality. Each state may fund the development of different enhancements of the display layer. For example, a state may fund development of displays incorporating unique teacher identifiers and interim assessment data. Enhancement priorities will be established through consensus among the participating states.

7. ***Modifications Shared***. Each state agrees to collaborate in, and contribute know-how and financial resources to, the development of modifications and enhancements, which will be shared freely among each participating state, subject to the Creative Commons Attribution-Non Commercial-Share Alike 3.0 Public License (
).

State Collaboration: Longitudinal Data Systems, Data Visualization, Research and Development

8. ***Communications and Publicity***. Each state will collaborate on communications and publicity related to the collaborative effort, including an initial press release announcing the agreement.

9. ***Race to the Top and SLDS***. Pending each state's determination of the success and viability of the effort, each state agrees to include language in its Statewide Longitudinal Data Systems (SLDS) Grant and Race to the Top Proposal referencing the collaborative effort as part of the invitational priority related to enhancements of longitudinal data systems and include a budget item to support the collaborative.

10. ***Collaboration with CCSSO's LEARN Effort***. Pending each state's determination of the viability of the proposed CCSSO effort, each state agrees to associate this collaborative effort with the LEARN effort. In doing so, each state agrees to request that CCSSO make funding from the State Education Data Center available to maintain and enhance the initial collaboration, including funding for a common, standardized storage environment.

The undersigned parties agree to the terms outlined above.

Signature _____

Dwight D. Jones, Commissioner, Colorado Department of Education

Signature _____

Tony Bennett, Superintendent of Public Instruction, Indiana Department of Education

Signature _____

Tom Horne, Superintendent, Arizona Department of Education

Exhibit VII.5-1
Executive Order Creating Governor's P-20 Education Coordinating Council

EXECUTIVE ORDER B003 07

Creating the Governor's P-20 Education Coordinating Council

Pursuant to the authority vested in the Office of the Governor of the State of Colorado, I, Bill Ritter, Jr., Governor of the State of Colorado, hereby issue this Executive Order regarding the creation of the Governor's P-20 Education Coordinating Council, to be known as the P-20 Council.

1. Background, Need, and Purpose

Education is the foundation of Colorado's economy. For this reason, the development of a highly trained workforce is both a compelling State interest as well as a collective, inter- sector responsibility. Moreover, though considerably strained in recent years, Colorado's educational systems, if given the tools necessary to flourish, aligned appropriately, and financed adequately, have the potential to successfully satisfy all of the State's short- and long-term educational needs.

The preservation and expansion of Colorado's economy will require a substantially expanded workforce possessed of technical dexterity, creative industriousness, and scholarly talents comparable to those developed anywhere else in the world. Accordingly, State policies should not only emphasize the assessment of competencies needed for success in the 21st century economy, but also facilitate students' progress through the numerous pathways to college and careers while not presupposing occupational outcomes.

Unless reversed in the near-term, however, the ever-widening achievement gaps and postsecondary participation and completion rates among certain classes of students, especially those who are members of impoverished and historically underserved communities, will result in deepened economic disparities and lasting—though otherwise avoidable—strains on a variety of State-provided services.

As a State, Colorado cannot delay action. However, achieving the pledges found in the *Colorado Promise*, such as halving the high school dropout rate and doubling the production of postsecondary certificates and degrees by 2017, will require more than simply aligning education standards and assessments, it will require attentive, inclusive, ongoing conversations to understand and thoughtful, earnest actions to address the needs of and interconnections among the early childhood, K-12, and postsecondary educational systems; to correct current activities and potentially rethink State policies and expectations; to provide meaningful, detailed, and constructive measures of accountability; to embrace innovative approaches to education while strengthening traditional methods and ensuring high quality outcomes for all; to maximize the effectiveness of the State's investments in education; and align the products of the State's educational systems with the expressed needs of current and potential future businesses throughout the State. For these reasons, a Statewide P-20 Council is essential.

2. Mission and Scope

A. The purpose of the P-20 Council will be to provide a forum for considering options and providing recommendations for the achievement of the education oriented initiatives found in the *Colorado Promise*.
B. The P-20 Council shall facilitate Statewide conversations and convene sub- committees as needed to discuss and formulate the legislative and policy remedies needed to accomplish the *Colorado Promise*.
C. Topics to be addressed by the P-20 Council shall include, but not be limited to the following topics found in the *Colorado Promise*:
i. identifying options for expanding, monitoring, and effectively coordinating early childhood education;

ii. methods for engaging and retaining all students, thereby reducing the number of students who drop

out of high school;
iii. approaches for recovering high school dropouts and adults in need of retraining;
iv. improving transitions between high school and postsecondary education, including establishing common high-school level expectations for competencies within certain content areas such as English, mathematics, and science;
v. identifying various methods to demonstrate attainment of the abovementioned objectives;
vi. developing innovative options for postsecondary matriculation, retention, and completion;
vii. improving the recruitment and retention of and supporting innovative approaches to competitively compensate high quality teachers;
viii. aligning federal and State financial aid policies in order to widen college access and maximize the utility of State-level resources;
ix. examining appropriate levels and potential sources of funding, including the resources needed to ensure the long-term sustainability of the State's educational systems;
x. enhancing accountability practices and improving Statewide data systems;
and,
xi. connecting regional and Statewide workforce needs with current and future educational capacities.
D. The P-20 Council shall make recommendations to the Governor regarding potential legislation, policies, and programs that will make progress toward the implementation of goals found in the *Colorado Promise*. Recommendations requiring legislative responses should be finalized no later than the last working day of November preceding the commencement of each legislative session.

E. The P-20 Council shall meet regularly at the discretion and direction of the Governor. Subcommittees formed by the P-20 Council shall determine their own meeting schedules.

3. Membership
A. The P-20 Council shall be composed of members appointed by and serving at the pleasure of the Governor B. The P-20 Council may create subcommittees as needed to address specific issues.

4. Duration
This Executive Order shall remain in force until further modification or rescission by the Governor.

5. Staffing and Resources
The Office of Policy and Initiatives within the Governor's Office shall provide to the P-20 Council necessary support, information, data, analytical information, and administrative support.
The P-20 Council shall have the power to accept money and in-kind contributions from private entities and persons only to the extent such donations are necessary to cover its expenses. Any money contributed to the P-20 Council shall be directed to the Office of the Governor and deposited with the Treasurer of the State of Colorado in an account within the Office of the Governor's budget. Members of the P-20 Council shall serve without compensation, but may, at the discretion of the chair and approval of the Office of the Governor, be reimbursed for any actual expenses incurred.

6. Directive

The Governor's P-20 Education Coordinating Council is hereby created.

GIVEN under my hand and the Executive Seal of the State of Colorado, this 24th day of April, 2007.

Bill Ritter, Jr. Governor

Exhibit VII.5-2
P-20 Council Recommendations

SUMMARIES OF AND RELEVANT BACKGROUND FOR RECOMMENDATIONS CREATED BY THE GOVERNOR'S P-20 EDUCATION COORDINATING COUNCIL, APRIL – DECEMBER 2008

EDUCATOR LICENSURE RECOMMENDATIONS

1. **Revision of the State's performance based teaching standards**
   a. Subcommittee of Reference: Educator (and Preparation and Transitions)
   b. Summary of Recommendation: To modify the State's teacher performance based standards, as defined in SBE rule (per 22-60.5-203), to reflect the needs and issues facing teachers in this State, such as the socioeconomic and cultural diversity of pupils, the needs of English language learners and special needs students, the ability to differentiate instruction, and workforce and postsecondary readiness.

2. **Consolidation of alternative teacher preparation and program accountability**
   a. Subcommittee of Reference: Educator
   b. Summary of Recommendation: To consolidate alternative teacher preparation routes (defined by SBE per 22-60.5-205 for alternative licensure programs and 22-32-110.3 for "Teachers In Residence") into a single alternative route to reduce confusion for potential teachers about how to enter an alternative route, increase flexibility in creating alternative routes, and ensuring that such programs are reviewed periodically by the State for evidence that teacher candidates are competent in the Colorado Performance Based Standards for Teachers.

3. **Alignment of content requirements for all licensure programs (traditional, alternative, TIR)**
   a. Subcommittee of Reference: Educator and Systems Transformation
   b. Summary of Recommendation: To both ensure that new teacher content knowledge requirements among all types of licensure programs—traditional, teacher in residence, and alternative—are consistent in rigor and application and to ensure that the process for verifying licensure candidates' content knowledge is uniformly rigorous while maintaining maximum administrative flexibility to candidates.

4. **Permission to offer college majors in "Elementary Education" and "Early Childhood Education"**
   a. Subcommittee of Reference: Educator
   b. Summary of Recommendation: To allow institutions of higher education to offer and award majors in elementary education and early childhood education.

5. **Modification to State teacher preparation program licensure rules to expressly accommodate national teacher accreditation (National Council for the Accreditation of Teacher Education [NCATE] and Teacher Education Accreditation Council [TEAC])**
    a. Subcommittee of Reference: Educator
    b. Summary of Recommendation: To synchronize State and national teacher education accreditation/authorization visits.

6. **Support for the forthcoming Teacher and Principal Unique Identification pilot program legislation**
    a. Subcommittee of Reference: Educator & Systems Transformation
    b. Summary of Recommendation: To support the development of a unique education identifier pilot program.

7. **Creation of a State-level teacher institute**
    a. Subcommittee of Reference: Educator
    b. Summary of Recommendation: To create a short-term (three-year), State-level teacher quality institute. The institute would address teacher quality issues facing the State including teacher shortages, teacher content knowledge, quality of induction programs, coordination of teacher recruitment strategies, feedback between school districts and teacher preparation institutions, and strategies for supporting teacher quality.

8. **Additional funding for the professional services (educator licensure) division in the Colorado Department of Education**
    a. Subcommittee of Reference: Educator
    b. Summary of Recommendation: To provide additional resources to the educator licensing division in the department of education in order to expedite the processing of license applications, increase the use of automated licensure processes, and improve data collection and analytical capacities.

DATA COLLECTION, DATA USE, AND DATA SYSTEMS RECOMMENDATIONS

9. **Prioritize the Colorado Growth Model and Provide Greater Access to Data and Analytical Capacity to School Districts**
    a. Subcommittee of Reference: Data and Accountability
    b. Summary of Recommendation: To provide additional resources for improving the operability of the data systems supporting the Colorado Growth Model and increasing access to and training on the model for practitioners in the field. Such services would be targeted to school administrators, classroom teachers, students and parents. And, to provide additional resources, such as extra site licenses (system-level access), and data mining/analytical training and support to users of the CEDAR system. Before expanding the CEDAR system, the CDE should engage with local districts to leverage their expertise and experience in providing data analysis capabilities and to ensure that CEDAR,

or any subsequent State system, will be compatible with and support the locally-developed systems in place in many districts.

10. **Develop a new, next generation State education data system in the Colorado Department of Education**
    a. Subcommittee of Reference: Data and Accountability
    b. Summary of Recommendation: Using the North Highland Report as a guide, to replace the department's existing education data system with one that would accommodate the needs of an education system envisioned in CAP4K, ensuring that such a system could interface with data systems in other State departments, such as the SURDS system in the Department of Higher Education, enable the longitudinal tracking of all students from preschool through postsecondary education, and permit effortless exchanges of data between and among school districts.

11. **Creation of a data coordinating council in CDE**
    a. Subcommittee of Reference: Data and Accountability
    b. Summary of Recommendation: To create an internal council as recommended in the North Highland Report to assist the department with the full implementation of the North Highland Report and look for ways to improve the effectiveness of data collection.

12. **Authorize the Data Protocol Development Council created in HB 1364, or a successor committee, to continue work on the development of an integrated P-20 education data system and create a State "P-20" education data coordinating council to advise this work**
    a. Subcommittee of Reference: Data and Accountability
    b. Summary of Recommendation: To create a stakeholder-based data coordinating council to advise the ongoing work of the Data Protocol Development Council and provide recommendations to the Governor's Office of Information Technology on current and future data collection, system integration, and dissemination practices.

POSTSECONDARY PREPARATION AND PARTICIPATION RECOMMENDATIONS

13. **Concurrent enrollment ("Preferred Program")**
    a. Subcommittee of Reference: Preparation and Transitions
    b. Summary of Recommendation: To create a "preferred program" for concurrent enrollment, a State-coordinated program that would be universally accessible, standards-based, and financially and academically accountable. Such a program would authorize career and technical education (CTE) programs as well as basic skills courses for certain students. Further, this recommendation would create a State-level advisory committee to coordinate its implementation.

14. **Individual career and academic plans (ICAPs)**
    a. Subcommittee of Reference: Preparation and Transitions
    b. Summary of Recommendation: To have the State Board of Education adopt standards for Individual Career and Academic Plans, which districts would have to meet or exceed as soon as is practicable. Such standards would be incorporated into the State Board of Education's accreditation policies.

15. **Creating and cultivating postsecondary aspirations in public schools**
    a. Subcommittee of Reference: Preparation and Transitions
    b. Summary of Recommendation: To provide State-level staff support, professional development and technical assistance to administrators and teachers, recognition programs for schools, and adopt accreditation standards for "postsecondary access/success plans."

16. **Postsecondary attainment accountability and reporting**
    a. Subcommittee of Reference: Preparation and Transitions
    b. Summary of Recommendation: For the departments of education and higher education to share student enrollment data, create reports on student participation and achievement, and, for higher education in particular, track students' progress into public and private colleges and universities (e.g., subscribing to the National Student Clearinghouse, a national system that verifies enrollment and degree attainment). Moreover, for the Department of Higher Education to modify future performance contracts to include institutions' contributions to supporting postsecondary preparation in K-12 schools.

17. **Incentive funding for postsecondary readiness**
    a. Subcommittee of Reference: Systems Transformation
    b. Summary of Recommendation: To provide incentive funding (e.g. $500 per case) to K-12 schools that successfully graduate postsecondary and workforce ready students who are otherwise at risk for not completing high school.

EDUCATION REFORM, PERFORMANCE, AND ACCOUNTABILITY RECOMMENDATIONS

18. **Creation of a division of education reform accountability**
    a. Subcommittee of Reference: Systems Transformation
    b. Summary of Recommendation: To provide at least one FTE in an appropriate State department for the purpose of monitoring and reporting on the progress and effectiveness of education reform efforts.

19. **Modifications to the Innovations Schools Act**
    a. Subcommittee of Reference: Systems Transformation

b. Summary of Recommendation: To amend the Innovation Schools Act to broaden its scope and provide incentives for its use among schools and districts.

20. Encouraging the CDE and the Colorado Department of Higher Education to incorporate recommendations developed by the Graduation Guidelines Development Council (GGDC)

a. Subcommittee of Reference: Systems Transformation

b. Summary of Recommendation: To encourage the Colorado Department of Education and the Colorado Department of Higher Education to use the report created by the Graduation Guidelines Development Council (GGDC) to help guide the creation of new content standards, assessments, and definitions of postsecondary and workforce readiness.

21. K-12 Incentive Funding to Reduce High School Dropout Rates

a. Subcommittee of Reference: Systems Transformation

b. Summary of Recommendation: To provide matching grants school districts participating in the "Statewide Dropout Initiative" in order to implement targeted dropout prevention initiatives and create early warning dropout systems.

Endnotes

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i Clayton M. Christensen, The Innovator's Dilemma. Harvard Business School Press, 2003.
ii Frederick Hess. The Future of Educational Entrepreneurship. Harvard Education Press, 2008. iii Galaxy Initiative: http://www.aps.k12.co.us
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v Aurora's P-20/CAP4K Campus: http://apscms.net/departments/bond/bond-projects/aps-ed-campus/
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vii Denver School of Science and Technology: http://www.scienceandtech.org
viii Highline Academy Charter School: http://www.highlineacademy.org/
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xii Clayton M. Christensen, Disrupting Class: How disruptive innovation will change the way the world learns. McGraw-Hill, 2008.
xiii Nation Governors Association and Council of Chief State School Officers, "Benchmarking for Success: Ensuring U.S. Students Receive a World Class Education", NGA, CCSSO, and Achieve, December 19, 2008.
xiv Nation Governors Association and Council of Chief State School Officers, 2008
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College and Career Readiness Standards for Reading, Writing, and Speaking and Listening

Draft for Review and Comment

September 21, 2009

College and Career Readiness Standards for Reading, Writing, and Speaking and Listening

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Core Standards for Reading, Writing, and Speaking and Listening

The Core Standards identify essential college- and career-ready skills and knowledge in reading, writing, and speaking and listening across the disciplines. While the English language arts classroom has often been seen as the proper site for literacy instruction, this document acknowledges that the responsibility for teaching such skills must also extend to the other content areas. Teachers in the social and natural sciences, the humanities, and mathematics need to use their content area expertise to help students acquire the discipline-specific skills necessary to comprehend challenging texts and develop deep knowledge in those fields. At the same time, English language arts teachers not only must engage their students in a rich array of literature but also must help develop their students' ability to read complex works of nonfiction independently.

What is taught is just as important as how it is taught; the Core Standards should be accompanied by a comprehensive, content-rich curriculum. While this document defines the outcomes all students need to reach to be college and career ready, many important decisions about curriculum will necessarily be left to states, districts, schools, teachers, professional organizations, and parents. For example, while the standards require that students read texts of sufficient complexity, quality, and range, this document does not contain a required reading list. If states and districts choose to develop one, they should look at the Reading exemplars provided here to get a sense of the level of complexity students must be able to handle independently when they read. Educators can also model their efforts on reading lists from around the nation and the world as long as the texts ultimately included meet the range and content standards in this document.

Standards today must ready students for competition and collaboration in a global, media-saturated environment. Colleges and universities have become international meetinghouses where people from across the globe learn with and from one another. At the same time, business today is truly a worldwide enterprise. Media-related technology helps shape what goes on in both college and the workplace; indeed, it has in some important ways reshaped the very nature of communication. Students who meet the Core Standards will have the reading, writing, speaking, and listening skills to flourish in the diverse, rapidly changing environments of college and careers.

Although reading, writing, and speaking and listening are articulated separately in the standards that follow, these divisions are made for the sake of clarity and manageability. In reality, the processes of communication are tightly interrelated and often reciprocal. The act of reading can no more be separated from the written word than the act of listening can be from the spoken word. When reading, students demonstrate their comprehension most commonly through a spoken or written interpretation of the text. As students solve problems, share insights, and build the knowledge they need for college and career success, they draw simultaneously on their capacities to read, write, speak, and listen.

Student Practices in Reading, Writing, and Speaking and Listening

The following practices in reading, writing, and speaking and listening undergird and help unify the rest of the standards document. They are the "premises"—broad statements about the nature of college and career readiness in reading, writing, and speaking and listening—that underlie the individual standards statements and cut across the various sections of the document. Every idea introduced here is subsequently represented in one or more places within the larger document.

* * *

Students who are college and career ready exhibit the following capacities in their reading, writing, and speaking and listening:

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

   Students can, without significant scaffolding or support, comprehend and evaluate complex text across a range of types and disciplines, and they can construct effective arguments and clearly convey intricate or multifaceted information. Likewise, students are independently able to discern a speaker's key points as well as ask questions and articulate their own ideas.

2. *They build strong content knowledge.*

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

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

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

4. *They comprehend as well as critique.*

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

5. *They privilege evidence.*

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

6. *They care about precision.*

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

7. *They craft and look for structure.*

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

8. *They use technology strategically and capably.*

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

Introductory Evidence Statement for Reading, Writing, and Speaking and Listening Standards

To develop college- and career-ready standards for Reading, Writing, and Speaking and Listening that are rigorous, relevant, and internationally benchmarked, the work group consulted evidence from a wide array of sources. These included standards documents from high-performing states and nations; student performance data (including assessment scores and college grades); academic research; frameworks for assessments, such as NAEP; and results of surveys of postsecondary instructors and employers regarding what is most important for college and career readiness.

The evidence strongly suggests that similar reading, writing, speaking, and listening skills are necessary for success in both college and the workplace. A review of the standards of high-performing nations also suggests that many of these skills are already required in secondary schools internationally. The work group has endeavored to articulate these skills in the Core Standards, focusing educators, students, parents, and resources on what matters most.

Given that a set of standards cannot be simplistically "derived" from any body of evidence, the work group sometimes relied on reasoned judgment to interpret where the evidence was most compelling. For example, there is not a consensus among college faculty about the need for incoming students to be able to comprehend graphs, charts, and tables and to integrate information in these data displays with the information in the accompanying text. Although some evidence suggests that this skill is critical in the workplace and in some entry-level courses, college faculties from the various disciplines disagree on its value (with science and economics faculty rating it more highly than English and humanities professors do). The work group ultimately included a standard on the integration of text and data because the preponderance of the evidence suggests the skill's importance in meeting the demands of the twenty-first-century workplace and some college classrooms.

In most cases, the evidence is clearer. In writing, for example, there is unequivocal value placed on the logical progression of ideas. The expectation that high school graduates will be able to produce writing that is logical and coherent is found throughout the standards of top-performing countries and states. This ability is also valued highly by college faculty and employers. In response to such clear evidence, the work group included Writing student performance standard #5: "Create a logical progression of ideas or events, and convey the relationships among them."

A bibliography of some of the sources the work group drew upon most is included at the end of this document. The reader should also refer to the Core Standards Web site (http://www.corestandards.org), which contains a list of standards linked to relevant sources of evidence.

Finally, while the standards reflect the best evidence available to date, the decisions the work group made are necessarily provisional. The core should be reexamined periodically as additional research on college and career readiness emerges. Indeed, this document may serve as an agenda for such research.

How to Read the Document

This document is divided into three main sections: strands, applications, and supporting materials.

Strands
There are three *strands*: Reading, Writing, and Speaking and Listening. Although each strand is presented discretely for ease of understanding, the document should be considered a coherent whole.

The three strands are each in turn divided into two sections: *Standards for Range and Content* and *Standards for Student Performance*.

> **Standards for Range and Content**
> The Standards for Range and Content in each strand describe the contexts in which college- and career-ready students must be able to read, write, speak, and listen. Rather than merely supplement or illustrate the numbered list of Standards for Student Performance, the Standards for Range and Content are themselves required and carry equal force.
>
> **Standards for Student Performance**
> The Standards for Student Performance in each strand enumerate the essential skills and understandings that students who are college and career ready in reading, writing, speaking, and listening must have no later than the end of high school.

Applications
The clearest examples of the integrated nature of communication are the *Applications of the Core* for Research and Media. The Core Standards for Reading, Writing, and Speaking and Listening have been designed to include the essential skills and knowledge that students need to apply to college and career tasks, such as research and media. Rather than having an additional set of standards that would largely duplicate those already in Reading, Writing, and Speaking and Listening, the document includes the Research and Media applications that draw upon standards already in those strands. This both reaffirms the centrality of the core processes of reading, writing, speaking, and listening and shows how those processes can be combined and extended to describe key communicative acts in the classroom and workplace.

In the Research and Media applications, specific Reading, Writing, and Speaking and Listening standards are identified with a letter or letters corresponding to the relevant strand (R for Reading, W for Writing, and S&L for Speaking and Listening) and a number or letter corresponding to the statement within that strand. For example, R-14 refers to the fourteenth statement in the Standards for Student

Performance in Reading, and W-A refers to the first statement of the Standards for Range and Content in Writing.

Supporting Materials: Reading and Writing Exemplars
Reading and Writing exemplars, and their accompanying annotations, are used to lend further specificity to the standards.

> **Reading Exemplars**
> The Reading exemplars, representing a range of subject areas, time periods, cultures, and formats, illustrate the level of text complexity students ready for college and careers must be able to handle on their own. The exemplars are mostly excerpts or representations of larger works. To be truly college and career ready, students must be able to handle full texts—poems, short stories, novels, technical manuals, research reports, and the like. Annotations accompanying the exemplars explain how each text meets the criterion of high text complexity. The annotations also provide brief performance examples that further clarify the meaning and application of the standards.
>
> ~~Writing Exemplars~~ **- Coming in the next draft**
> ~~The Writing exemplars are authentic samples of student writing created across the nation under a variety of conditions and for a variety of purposes and audiences. Annotations accompanying the exemplars indicate how these samples meet the Standards for Student Performance in Writing.~~

Core Standards for Reading Informational and Literary Texts

Standards for the Range and Content of Student Reading

A. **Complexity:** A crucial factor in readiness for college and careers is students' ability to comprehend complex texts independently. In college and careers, students will need to read texts characterized by demanding vocabulary, subtle relationships among ideas or characters, a nuanced rhetorical style and tone, and elaborate structures or formats. These challenging texts require the reader's close attention and often demand rereading in order to be fully understood.

B. **Quality:** The literary and informational texts chosen for study should be rich in content and in a variety of disciplines. All students should have access to and grapple with works of exceptional craft and thought both for the insights those works offer and as models for students' own thinking and writing. These texts should include classic works that have broad resonance and are alluded to and quoted often, such as influential political documents, foundational literary works, and seminal historical and scientific texts. Texts should also be selected from among the best contemporary fiction and nonfiction and from a diverse range of authors and perspectives.

C. **Vocabulary:** To be college and career ready, students must encounter and master a rich vocabulary. Complex texts often use challenging words, phrases, and terms that students typically do not encounter in their daily lives. Specific disciplines and careers have vocabularies of their own. Attentive reading of sophisticated works in a wide range of fields, combined with close attention to vocabulary, is essential to building comprehension and knowledge.

D. **Range:** Students must be able to read a variety of literature, informational texts, and multimedia sources in order to gain the knowledge base they need for college and career readiness.

Literature: Literature enables students to access through imagination a wide range of experiences. By immersing themselves in literature, students enlarge their experiences and deepen their understanding of their own and other cultures. Careful reading of literature entails attentiveness to craft and details of design, which has broad value for students' work in college and career environments.

Informational Text: Because most college and workplace reading is nonfiction, students need to hone their ability to acquire knowledge from informational texts. Workplace and discipline-specific reading will often require students to demonstrate persistence as they encounter a large amount of unfamiliar and often technical vocabulary and concepts. Students must demonstrate facility with the features of texts particular to a variety of disciplines, such as history, science, and mathematics.

Multimedia Sources: Students must be able to integrate what they learn from reading text with what they learn from audio, video, and other digital media. Many of the same critical issues that students face when reading traditional printed texts will arise as they seek to comprehend multimedia, such as determining where the author has chosen to focus, evaluating evidence, and comparing different accounts of similar subjects.

E. **Quantity:** Students must have the capacity to handle independently the quantity of reading material, both in print and online, required in college and workforce training. Studies show that the amount of reading students face in high school is often far lower than that required for typical first-year college courses. Students need to be able to perform a close reading of a much higher volume of texts and to sort efficiently through large amounts of print and online information in search of specific facts or ideas.

Note: *The essential role of independence in college and career readiness:* The significant scaffolding that often accompanies reading in high school usually disappears in college and workforce training environments. Students must therefore have developed their ability to read texts of sufficient complexity, quality, and range on their own. To become independent, students must encounter unfamiliar texts presented without supporting materials.

Core Standards for Reading Informational and Literary Texts

Standards for Student Performance

1. Determine both what the text says explicitly and what can be inferred logically from the text.
2. Support or challenge assertions about the text by citing evidence in the text explicitly and accurately.
3. Discern the most important ideas, events, or information, and summarize them accurately and concisely.
4. Delineate the main ideas or themes in the text and the details that elaborate and support them.
5. Determine when, where, and why events unfold in the text, and explain how they relate to one another.
6. Analyze the traits, motivations, and thoughts of individuals in fiction and nonfiction based on how they are described, what they say and do, and how they interact.
7. Determine what is meant by words and phrases in context, including connotative meanings and figurative language.
8. Analyze how specific word choices shape the meaning and tone of the text.
9. Analyze how the text's organizational structure presents the argument, explanation, or narrative.
10. Analyze how specific details and larger portions of the text contribute to the meaning of the text.
11. Synthesize data, diagrams, maps, and other visual elements with words in the text to further comprehension.
12. Extract key information efficiently in print and online using text features and search techniques.
13. Ascertain the origin, credibility, and accuracy of print and online sources.
14. Evaluate the reasoning and rhetoric that support an argument or explanation, including assessing whether the evidence provided is relevant and sufficient.
15. Analyze how two or more texts with different styles, points of view, or arguments address similar topics or themes.
16. Draw upon relevant prior knowledge to enhance comprehension, and note when the text expands on or challenges that knowledge.
17. Apply knowledge and concepts gained through reading to build a more coherent understanding of a subject, inform reading of additional texts, and solve problems.
18. Demonstrate facility with the specific reading demands of texts drawn from different disciplines, including history, literature, science, and mathematics.

Note: *These Standards for Student Performance, as is the case for every strand, must be demonstrated across the range and content from the preceding page.* They are meant to apply to fiction and nonfiction. For example:
- "Determine when, where, and why events unfold" applies to plot and setting in literature as well as the sequence of a scientific procedure.
- "Analyze the traits, motivations, and thoughts of individuals" applies to studying characters in fiction and figures in historical texts.

Core Standards for Writing

Standards for the Range and Content of Student Writing

A. **Purpose:**

Make an Argument: While many high school students have experience presenting their opinions, they need to be able to make arguments supported by evidence in order to be ready for careers and college. Students must be able to frame the debate over a claim, present the reasoning and evidence for the argument, and acknowledge and address its limitations. In some cases, students will make arguments to gain entry to college or to obtain a job, laying out their qualifications or experience. In college, students might defend an interpretation of a work of literature or of history; in the workplace, employees might write to recommend a course of action.

Inform or Explain: In college and in workforce training, writing is a key means for students to show what they know and to share what they have seen. Writing to inform or explain often requires students to integrate complex information from multiple sources in a lucid fashion. Explanations can take the form of laying out facts about a new technology or documenting findings from historical research; well-crafted explanations often make fresh connections and express ideas creatively.

B. **Audience:** Students must adapt their writing so that it is appropriate to the audience by choosing words, information, structures, and formats that conform to the conventions of the discipline in which they are writing. The form and use of evidence in literary analysis, for example, are likely to be quite different from those in geology or business. Students must also be able to consider their audience's background knowledge and potential objections to an argument.

C. **Situation:**

On-demand Writing: Students must have the flexibility, concentration, and fluency to produce high-quality first-draft text under a tight deadline. College and career readiness requires that students be able to write effectively to a prompt on an exam or respond quickly yet thoughtfully to a supervisor's urgent request for information.

Writing over Time: Students must be able to revisit and make improvements to a piece of their writing over multiple drafts when circumstances encourage or require it. To improve writing through revision, students must be capable of distinguishing good changes from ones that would weaken the writing.

D. **Technology and Collaboration:** Technology offers students powerful tools for producing, editing, and distributing writing as well as for collaboration. Especially in the workplace, writers often use technology to produce documents and to provide feedback.

E. **Quantity:** The evidence is clear that, in order to become better writers, students must devote significant time to producing writing. Students must practice writing several analytical pieces each term if they are to achieve the deep analysis and interpretation of content expected for college and careers.

Note on narrative writing:

Narrative writing is an important mode of writing; it is also a component of making an argument and writing to inform or explain. Telling an interesting story effectively or providing an accurate account of a historical incident requires the skillful use of narrative techniques. Narrative writing requires that students present vivid, relevant details to situate events in a time and place and also craft a structure that lends a larger shape and significance to those details. As an easily grasped and widely used way to share information and ideas with others, narrative writing is a principal stepping-stone to writing forms directly relevant to college and career readiness.

Core Standards for Writing

Standards for Student Performance

1. Establish and refine a topic or thesis that addresses the specific task and audience.
2. Gather the information needed to build an argument, provide an explanation, or address a research question.
3. Sustain focus on a specific topic or argument.
4. Support and illustrate arguments and explanations with relevant details, examples, and evidence.
5. Create a logical progression of ideas or events, and convey the relationships among them.
6. Choose words and phrases to express ideas precisely and concisely.
7. Use varied sentence structures to engage the reader and achieve cohesion between sentences.
8. Develop and maintain a style and tone appropriate to the task, purpose, and audience.
9. Demonstrate command of the conventions of standard written English, including grammar, usage, and mechanics.
10. Represent and cite accurately the data, conclusions, and opinions of others, effectively incorporating them into one's own work while avoiding plagiarism.
11. Assess the quality of one's own writing, and, when necessary, strengthen it through revision.
12. Use technology as a tool to produce, edit, and distribute writing.

When **writing to inform or explain**, students must also do the following:

13. Synthesize information from multiple relevant sources, including graphics and quantitative information when appropriate, to provide an accurate picture of that information.
14. Convey complex information clearly and coherently to the audience through purposeful selection and organization of content.
15. Demonstrate understanding of content by reporting facts accurately and anticipating reader misconceptions.

When **writing arguments**, students must also do the following:

16. Establish a substantive claim, distinguishing it from alternate or opposing claims.
17. Link claims and evidence with clear reasons, and ensure that the evidence is relevant and sufficient to support the claims.
18. Acknowledge competing arguments or information, defending or qualifying the initial claim as appropriate.

Note: "The conventions of standard written English" encompass a range of commonly accepted language practices designed to make writing clear and widely understood. When formal writing contains errors in grammar, usage, and mechanics, its meaning is obscured, its message is too easily dismissed, and its author is often judged negatively. Proper sentence structure, correct verb formation, careful use of verb tense, clear subject-verb and pronoun-antecedent agreement, conventional usage, and appropriate punctuation are of particular importance to formal writing.

Core Standards for Speaking and Listening

Standards for the Range and Content of Student Speaking and Listening

A. **Group and One-to-One Situations:** Students are expected to be able to speak and listen effectively in both groups and one-to-one. Success in credit-bearing college coursework, whether in the humanities, mathematics, or the sciences, depends heavily on being able to take in and respond to the concepts and information conveyed in lectures and class discussions. Success in the workplace is similarly dependent on listening attentively to colleagues and customers and expressing ideas clearly and persuasively.

   These speaking and listening skills may need to be applied differently in different settings. The immediate communication between two people might be replaced by formal turn taking in large-group discussions. When working in classroom or workplace teams, students should be able to ask questions that initiate thoughtful discussions, gain the floor in respectful ways, and build on the contributions of others to complete tasks or reach consensus.

B. **Varied Disciplinary Content:** Students must adapt their speaking and listening to a range of disciplines to communicate effectively. Each academic discipline and industry has its own vocabulary and conventions; for instance, evidence is handled and discussed differently in literary analysis than in history or medicine or the sciences. College- and career-ready students must develop a foundation of disciplinary knowledge and conventions in order not only to comprehend the complexity of information and ideas but also to present and explain them.

C. **Multimedia Comprehension:** New technologies expand the role that speaking and listening skills will play in acquiring and sharing knowledge. Students will need to view and listen to diverse media to gain knowledge and also must integrate this information with what they learn through reading text online as well as in print. When speaking, students can draw on media to illustrate their points, make data and evidence vivid, and engage their audience. Multimedia accelerates the speed at which connections between reading, writing, speaking, and listening can be made, requiring students to be ready to use these skills nearly simultaneously.

Core Standards for Speaking and Listening

Standards for Student Performance

1. Select and use a format, organization, and style appropriate to the topic, purpose, and audience.
2. Present information, findings, and supporting evidence clearly and concisely.
3. Make strategic use of multimedia elements and visual displays of data to gain audience attention and enhance understanding.
4. Demonstrate command of formal Standard English when appropriate to task and audience.
5. Listen to complex information, and discern the main ideas, the significant details, and the relationships among them.
6. Follow the progression of the speaker's message, and evaluate the speaker's point of view, reasoning, and use of evidence and rhetoric.
7. Ask relevant questions to clarify points and challenge ideas.
8. Respond constructively to advance a discussion and build on the input of others.

Note: "Style appropriate to the topic, purpose, and audience" includes word choice specific to the demands of the discipline as well as delivery techniques such as gestures and eye contact that contribute to effective message delivery.

"Evaluate the speaker's point of view, reasoning, and use of evidence and rhetoric" includes distinguishing facts from opinions and determining whether the speaker is biased and evidence has been distorted.

Application of the Core: Research

The Core Standards for Reading, Writing, and Speaking and Listening have been designed to include the essential skills and knowledge that students need to apply to college and career tasks such as research. This section shows how standards in the core incorporate the skills of research.

To be college and career ready, students must engage in research and present their findings in writing and orally, in print and online. The ability to conduct research independently and effectively plays a fundamental role in gaining knowledge and insight in college and the workplace.

Research as described here is not limited to the formal, extended research paper nor simply to gathering information from books; rather, research encompasses a flexible yet systematic approach to resolving questions and investigating issues through the careful collection, analysis, synthesis, and presentation of information from a wide range of print and digital sources, such as historical archives and online interviews. With well-developed research skills, students have the tools to engage in sustained inquiry as well as the sort of short, focused research projects that typify many assignments in college and the workplace.

Research in the digital age offers new possibilities as well as new or heightened challenges. While the Internet provides ready access to unprecedented amounts of primary and secondary source material (such as oral histories, historical documents, maps, and scientific reports), students sorting through this wealth of data must be skilled at and vigilant in determining the origin and credibility of these sources.

The following Core Standards pertain to elements of the research process and particular research skills required for college and career readiness:

Formulate research questions:
- Establish and refine a topic or thesis that addresses the specific task and audience. (W-1)
- Establish a substantive claim, distinguishing it from alternate or opposing claims. (W-16)

Gather and evaluate relevant information from a range of sources:
- Gather the information needed to build an argument, provide an explanation or address a research question. (W-2)
- Extract key information efficiently in print and online using text features and search techniques. (R-12)
- Ascertain the origin, credibility, and accuracy of print and online sources. (R-13)
- Evaluate the reasoning and rhetoric that support an argument or explanation, including assessing whether the evidence provided is relevant and sufficient. (R-14)
- Follow the progression of the speaker's message and evaluate the speaker's point of view, reasoning, and use of evidence and rhetoric. (S&L-6)

Analyze research sources:
- Delineate the main ideas or themes in the text and the details that elaborate and support them. (R-4)
- Listen to complex information and discern the main ideas, the significant details, and the relationships among them. (S&L-5)
- Discern the most important ideas, events, or information and summarize them accurately and concisely. (R-3)
- Synthesize data, diagrams, maps, and other visual elements with words in the text to further comprehension. (R-11)
- Synthesize information from multiple relevant sources, including graphics and quantitative information when appropriate, to provide an accurate picture of that information. (W-13)
- Analyze how two or more texts with different styles, points of view, or arguments address similar topics or themes. (R-15)
- Acknowledge competing arguments or information, defending or qualifying the initial claim as appropriate. (W-18)

Report findings:
- Link claims and evidence with clear reasons and ensure that the evidence is relevant and sufficient to support the claims. (W-17)
- Convey complex information clearly and coherently to the audience through purposeful selection and organization of the content. (W-14)
- Demonstrate understanding of the content by reporting the facts accurately and anticipating reader misconceptions. (W-15)
- Present information, findings, and supporting evidence, clearly and concisely. (S&L-2)
- Support and illustrate arguments and explanations with relevant details, examples, and evidence. (W-4)
- Represent and cite accurately the data, conclusions, and opinions of others, effectively incorporating them into one's own work while avoiding plagiarism. (W-10)

Application of the Core: Media

The Core Standards for Reading, Writing, and Speaking and Listening have been designed to include the essential skills and knowledge that students need to apply to college and career tasks such as media analysis and creation. This section shows how standards in the core apply to media.

Rapidly evolving technologies are powerful tools—but only for those who have the skills to put them to work. As the capability of the technology grows, students' command of these skills must only increase.

At the core of media mastery are the same fundamental capacities as are required offline in traditional print forms: an ability to access, understand, and evaluate complex materials and messages and to produce clear, effective communications. Media mastery does, however, call upon students to apply these core skills in new ways and contexts. Media enable students to communicate quickly with a large, often unknown, and broadly diverse audience. Whereas in the past, students may have had days or weeks to digest new information and formulate a response, the online environment pushes students to exercise judgment and present their responses in a matter of minutes.

Speed is not the only new factor. In the electronic world, reading, writing, speaking, and listening are uniquely intertwined. Multimedia forms force students to engage with constantly changing combinations of elements, such as graphics, images, hyperlinks, and embedded video and audio. The technology itself is changing quickly, creating new urgency for adaptation and flexibility on the part of students.

The following Core Standards describe the particular reading, writing, speaking, and listening skills that students will need in order to use media effectively in college and careers:

Standards for Range and Content drawn from each strand

Multimedia Sources: Students must be able to integrate what they learn from reading text with what they learn from audio, video, and other digital media. Many of the same critical issues that students face when reading traditional printed texts will arise as they seek to comprehend multimedia, such as determining where the author has chosen to focus, evaluating evidence, and comparing different accounts of similar subjects. [R-D]

Technology and Collaboration: Technology offers students powerful tools for producing, editing, and distributing writing as well as for collaboration. Especially in the workplace, writers often use technology to produce documents and to provide feedback. [W-D]

Multimedia Comprehension: New technologies expand the role that speaking and listening skills will play in acquiring and sharing knowledge. Students will need to view and listen to diverse media to gain knowledge and integrate this information with what they learn through reading text online as well as in print. When speaking, students can draw on media to illustrate their points, make data and evidence vivid, and engage their audiences. Multimedia accelerates the speed at which connections between reading, writing, and speaking and listening can be made, requiring students to be ready to use these skills nearly simultaneously. [S&L-C]

Standards for Student Performance drawn from each strand

Gather information from a wide array of electronic sources and multimedia:
- Extract key information efficiently in print and online using text features and search techniques. (R-12)
- Synthesize data, diagrams, maps, and other visual elements with words in the text to further comprehension. (R-11)
- Listen to complex information and discern the main ideas, the significant details, and the relationships among them. (S&L-5)

Evaluate information from digital media:
- Ascertain the origin, credibility, and accuracy of print and online sources. (R-13)
- Evaluate the reasoning and rhetoric that support an argument or explanation, including assessing whether the evidence provided is relevant and sufficient. (R-14)
- Follow the progression of the speaker's message and evaluate the speaker's point of view, reasoning, and use of evidence and rhetoric. (S&L-6)

Create and distribute media communications:
- Use technology as a tool to produce, edit, and distribute writing. (W-12)
- Synthesize information from multiple relevant sources, including graphics and quantitative information when appropriate, to provide an accurate picture of that information. (W-13)
- Make strategic use of multimedia elements and visual displays of data to gain audience attention and enhance understanding. (S&L-3)

Illustrative Texts

Exemplars of Reading Text Complexity

As described in the Standards for the Range and Content of Student Reading, college- and career-ready students must be able to read texts of sufficient complexity on their own. Studies show that many students who are unable to read sufficiently challenging texts independently by the end of high school struggle with the reading demands of college; many twenty-first-century careers likewise demand that people be able to obtain, search through, and comprehend large amounts of often technical information.

To develop that ability, students should engage with high-quality texts that provide strong models of thinking and writing, that challenge them intellectually, and that introduce them to rich content, sophisticated vocabulary, and examples of exceptional craft. The reading students do should be broad and deep, allowing them to extend their knowledge of particular subjects as well as learn about the features of texts written for different disciplines, audiences, and purposes. While no sampling can do justice to the numerous ways in which different authors craft complex prose, as a collection the exemplar texts below illustrate the level of complexity that college- and career-ready students should be able to handle independently by the end of high school. Texts in translation have not been included in this draft but will be part of future drafts.

How Text Complexity was Determined

In addition to surveys of required reading in twelfth grade and the first year of college as well as consultations with experts, two leading measurement systems were used to help make the selections below. The first system—a methodology described by Jeanne Chall and her coauthors in *The Qualitative Assessment of Text Difficulty*—employs trained raters to measure the sophistication of vocabulary, density of ideas, and syntactic complexity in a text as well as the general and subject-specific knowledge and the level of reasoning required for understanding it. The second system, Coh-Metrix, incorporates into its computer-based analysis more than sixty specific indices of syntax, semantics, readability, and cohesion to assess text complexity. Central to its assessment are measures of text cohesiveness, which is the degree to which the text uses explicit markers to link ideas. By analyzing the degree to which those links are missing in a text—and therefore the degree to which a reader must make inferences to connect ideas—this measure gauges a key factor in the comprehension demand of a text.

The two methods described above have limitations. The complexity of poems (such as "O Captain! My Captain!") cannot be assessed by Coh-Metrix because poetry adheres to different rules of construction than does prose. Similarly, while individual stories in the sample *New York Times* front pages can be measured for complexity by Coh-Metrix, the method does not capture how the electronic environment enhances or detracts from readability. However, for those exemplar texts whose complexity could be measured by both systems, comparable results were yielded by Coh-Metrix and the Chall method.

Note: The samples of complex text are supplemented by brief performance examples that further clarify the meaning of the standards. These illustrate specifically the application of the performance standards to texts of sufficient complexity, quality, and range. Relevant standards are noted in brackets following each sample performance.

Notes on Illustrative Text #1

Pride and Prejudice by Jane Austen

Jane Austen's *Pride and Prejudice* is a sophisticated literary text featuring multiple plotlines, a style and word choice reflective of its time period and setting, and subtle relationships among characters; the excerpt here can only illustrate some of the complexities that readers of the full work will encounter. The novel's opening sentence—"It is a truth universally acknowledged, that a single man in possession of a good fortune, must be in want of a wife"—signals that today's readers will need to employ literary imagination and historical context to re-create for themselves a world largely in the past. The novel's style is elaborate, with many lengthy and, to the modern ear, formal-sounding sentences typical of the period during which the novel was written. While the dialogue is less formal than much of the surrounding text, words and phrases such as *let* (to mean "rent" or "lease") and *chaise and four* (referring to a type of carriage) mark the novel's setting. The excerpt suggests also the kind of close reading of the subtleties of character that readers must perform. The banter between Mr. and Mrs. Bennet reveals both affection and difference of opinion, and it offers clues to the mores of well-to-do English society in the early nineteenth century.

Sample performance aligned with the Core Standards

Students analyze the first impressions given of Mr. and Mrs. Bennet in the first chapter of *Pride and Prejudice* based on how the characters are described, what they say and do, and how they interact. Students compare these first impressions with their later understanding based on how the characters develop throughout the novel. [R-6]

Illustrative Text #1

from *Pride and Prejudice*

Chapter 1

It is a truth universally acknowledged, that a single man in possession of a good fortune, must be in want of a wife.

However little known the feelings or views of such a man may be on his first entering a neighbourhood, this truth is so well fixed in the minds of the surrounding families that he is considered as the rightful property of some one or other of their daughters.

"My dear Mr. Bennet," said his lady to him one day, "have you heard that Netherfield Park is let at last?"

Mr. Bennet replied that he had not.

"But it is," returned she; "for Mrs. Long has just been here, and she told me all about it."

Mr. Bennet made no answer.

"Do not you want to know who has taken it?" cried his wife impatiently.

"*You* want to tell me, and I have no objection to hearing it."

This was invitation enough.

"Why, my dear, you must know, Mrs. Long says that Netherfield is taken by a young man of large fortune from the north of England; that he came down on Monday in a chaise and four to see the place, and was so much delighted with it, that he agreed with Mr. Morris immediately; that he is to take possession before Michaelmas, and some of his servants are to be in the house by the end of next week."

"What is his name?"

"Bingley."

"Is he married or single?"

"Oh! single, my dear, to be sure! A single man of large fortune; four or five thousand a year. What a fine thing for our girls!"

"How so? how can it affect them?"

"My dear Mr. Bennet," replied his wife, "how can you be so tiresome! You must know that I am thinking of his marrying one of them."

"Is that his design in settling here?"

"Design! nonsense, how can you talk so! But it is very likely that he *may* fall in love with one of them, and therefore you must visit him as soon as he comes."

"I see no occasion for that. You and the girls may go, or you may send them by themselves, which perhaps will be still better, for as you are as handsome as any of them, Mr. Bingley might like you the best of the party."

"My dear, you flatter me. I certainly *have* had my share of beauty, but I do not pretend to be any thing extraordinary now. When a woman has five grown-up daughters she ought to give over thinking of her own beauty."

"In such cases a woman has not often much beauty to think of."

"But, my dear, you must indeed go and see Mr. Bingley when he comes into the neighbourhood."

"It is more than I engage for, I assure you."

"But consider your daughters. Only think what an establishment it would be for one of them. Sir William and Lady Lucas are determined to go, merely on that account, for in general, you know, they visit no new-comers. Indeed you must go, for it will be impossible for us to visit him if you do not."

"You are over-scrupulous surely. I dare say Mr. Bingley will be very glad to see you; and I will send a few lines by you to assure him of my hearty consent to his marrying whichever he chuses of the girls: though I must throw in a good word for my little Lizzy."

"I desire you will do no such thing. Lizzy is not a bit better than the others; and I am sure she is not half so handsome as Jane, nor half so good-humoured as Lydia. But you are always giving *her* the preference."

"They have none of them much to recommend them," replied he; "they are all silly and ignorant, like other girls; but Lizzy has something more of quickness than her sisters."

"Mr. Bennet, how can you abuse your own children in such a way! You take delight in vexing me. You have no compassion on my poor nerves."

"You mistake me, my dear. I have a high respect for your nerves. They are my old friends. I have heard you mention them with consideration these twenty years at least."

"Ah! you do not know what I suffer."

"But I hope you will get over it, and live to see many young men of four thousand a year come into the neighbourhood."

"It will be no use to us if twenty such should come, since you will not visit them."

"Depend upon it, my dear, that when there are twenty, I will visit them all."

Mr. Bennet was so odd a mixture of quick parts, sarcastic humour, reserve, and caprice, that the experience of three-and-twenty years had been insufficient to make his wife understand his character. *Her* mind was less difficult to develope. She was a woman of mean understanding, little information, and uncertain temper. When she was discontented she fancied herself nervous. The business of her life was to get her daughters married; its solace was visiting and news.

Notes on Illustrative Text #2

"O Captain! My Captain!" by Walt Whitman

Though poetry's complexity cannot be assessed by the measures of readability used for the prose exemplars, "O Captain! My Captain!" by Walt Whitman clearly has many of the features of complex texts listed in the Standards for the Range and Content of Student Reading. Modern readers must work to understand what would have been obvious to readers in 1865: "O Captain! My Captain!" is an extended-metaphor poem intended to convey Whitman's and the North's grief over the assassination of Abraham Lincoln so near the conclusion of hostilities in the Civil War. Every element in the poem stands for something else, with the captain representing Lincoln, the ship representing the Union (or the "ship of state"), the voyage representing the war, and so on. Historical context, along with skill in reading literature, is thus particularly important to interpreting this text.

Sample performance aligned with the Core Standards

Students apply knowledge gained from reading the *New York Times* articles on Lincoln's assassination to their understanding of the poem "O Captain! My Captain!" Specifically, students draw on the description of the crowd's response to the attack on Lincoln to inform their understanding of Whitman's poem. **[R-17]**

Illustrative Text #2

"O Captain! My Captain!" by Walt Whitman

O Captain! my Captain! our fearful trip is done,
The ship has weather'd every rack, the prize we sought is won,
The port is near, the bells I hear, the people all exulting,
While follow eyes the steady keel, the vessel grim and daring,
But O heart! heart! heart!
O the bleeding drops of red,
Where on the deck my Captain lies,
Fallen cold and dead.

O Captain! my Captain! rise up and hear the bells;
Rise up—for you the flag is flung—for you the bugle trills,
For you bouquets and ribbon'd wreaths—for you the shores a-crowding,
For you they call, the swaying mass, their eager faces turning,
Here, Captain! dear father!
This arm beneath your head;
It is some dream that on the deck
You've fallen cold and dead.

My Captain does not answer, his lips are pale and still
My father does not feel my arm, he has no pulse nor will,
The ship is anchor'd safe and sound, its voyage closed and done,
From fearful trip, the victor ship comes in with object won;
Exult, O shores, and ring O bells!
But I with mournful tread
Walk the deck my Captain lies,
Fallen cold and dead.

Notes on Illustrative Text #3

The front page of the *New York Times*, April 15, 1865

The challenge posed to a modern reader by the front page of the *New York Times* on April 15, 1865, is significant in terms of format, timeliness, and point of view. Unlike the graphically heavy front page of modern newspapers, this 1865 *New York Times* front page is mostly uninterrupted columns of text. The reader is obviously expected to proceed from top to bottom and left to right across the page, but little other guidance is provided. Because the assassination of Lincoln was still "breaking news" as this edition of the *Times* would have gone to press, some details of the event would have not yet been known; readers will have to sort out what they know about the assassination from what the people reading the paper on that Saturday morning would just have been learning. Three accounts of the events rather than one are provided here, and the sourcing and tone vary greatly. Certain details found in one place are contradicted in another: the "Detail of the Occurrence," for example, suggests that Lincoln may not have been mortally wounded, but the main headline in the top left-hand corner of the page states "No Hopes Entertained of His Recovery." While the first two accounts aim at a certain objectivity, the third begins with a flourish that may surprise readers more used to a restrained style of journalism: "A stroke from Heaven laying the whole of the city in instant ruin could not have startled us as did the word that broke from Ford's Theatre a half hour ago that the President had been shot."

Sample performance aligned with the Core Standards

Students analyze how the three different accounts on the front page portray Lincoln's assassination, including which details are similar or different. [R-15]

Illustrative Text #3: The front page of the *New York Times*, April 15, 1865

http://timesmachine.nytimes.com/browser/1865/04/15/P1

The New-York Times.

VOL. XIV.—NO. 4290. NEW-YORK, SATURDAY, APRIL 15, 1865. PRICE FOUR CENTS.

AWFUL EVENT.

President Lincoln Shot by an Assassin.

The Head Done at Ford's Theatre Last Night.

THE ACT OF A DESPERATE REBEL.

The President Both Alive and Last Assassin.

No Hope Entertained of His Recovery.

Attempted Assassination of Secretary Seward.

DETAILS OF THE DREADFUL TRAGEDY.

[OFFICIAL.]

War Department, Washington, April 15—1:30 A.M.

Maj.-Gen. Dix:

This evening, at about 9:30 P.M., at Ford's Theater, the President, while sitting in his private box with Mrs. Lincoln, Mrs. Harris, and Major Rathbum, was shot by an assassin, who suddenly entered the box and approached behind the President.

The assassin then leaped upon the stage, brandishing a large dagger or knife, and made his escape in the rear of the theater.

EUROPEAN NEWS.

THE LATEST BY THE STEAMER.

The Result in Our Cruiser by Portugal.

Further Advance in Breadstuffs.

ANOTHER ACCOUNT.

Special Dispatch to the New-York Times.

Washington, Friday, April 14, 11:15 P.M.

A stroke from Heaven laying the whole of the city in instant ruin could not have startled us as did the word that broke from Ford's Theater a half hour ago that the President had been shot. It flew everywhere in five minutes, and set five thousand people in swift and excited motion on the instant.

DETAIL OF THE OCCURRENCE.

Washington, Friday, April 14, 12:30 A.M.

The President was shot in a theater tonight, and is, perhaps, mortally wounded. Secretary Seward was also assassinated.

SECOND DISPATCH.

Washington, Friday, April 14. President Lincoln and wife, with other friends, this evening visited Ford's Theater for the purpose of witnessing the performance of the "American Cousin."

Notes on Illustrative Text #4

The Declaration of Independence

The Declaration of Independence represents the kind of rich primary source material students should be able to read on their own by the end of high school. Though some of the lines ("We hold these truths . . .") are familiar to most American readers, the case against Great Britain that the Declaration lays out, expressed in elevated, sometimes archaic language (*unalienable*, *hath*, *usurpations*), requires careful examination to follow in its particulars. The beginning of the document, excerpted here, poses a reading challenge partly because of its philosophical abstractness. The first three sentences, although formally divided, are one continuous list of propositions ("truths") about the nature of government and the rights of the people. Further complicating the reading is that there is little explicit cohesion between sentences—links supplied by words and phrases such as "for example," "moreover," or "in addition"—to help readers understand the relationship between the ideas being expressed.

Sample performance aligned with the Core Standards

Students compare the argument that the Declaration makes justifying revolution to Martin Luther King, Jr.'s defense of civil disobedience in *Letter from Birmingham Jail*. [R-15]

Illustrative Text #4

from The Declaration of Independence

When in the Course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which the Laws of Nature and of Nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. —That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed, —That whenever any Form of Government becomes destructive to these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness. Prudence, indeed, will dictate that Governments long established should not be changed for light and transient causes; and accordingly all experience hath shewn, that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same Object evinces a design to reduce them under absolute Despotism, it is their right, it is their duty, to throw off such Government, and to provide new guards for their future security. —Such has been the patient sufferance of these Colonies; and such is now the necessity which constrains them to alter their former Systems of Government. The history of the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct object the establishment of an absolute Tyranny over these States. To prove this, let Facts be submitted to a candid world.

Notes on Illustrative Text #5

Letter from Birmingham Jail by Martin Luther King, Jr.

Martin Luther King, Jr.'s, *Letter from Birmingham Jail* presents many challenges to the reader in terms of its format, purpose, tone, use of allusions, and language. Apart from letters to the editor (most of which are relatively short), public letters such as King's are uncommon today. The purpose of the text may also be confusing: King is ostensibly addressing his "Fellow Clergymen," but skilled readers will reasonably infer that King's message is intended for a broader audience. Though the tone of the text is measured, King's passion for his cause comes through. The author frequently points outside the *Letter* itself through allusions to other texts, including the Hebrew and Christian scriptures. Moreover, King uses sophisticated vocabulary (*cognizant*, *mutuality*, *provincial*, *gainsaying*) and figurative language (*garment of destiny*) throughout his text. However, the piece is both coherent in that its sequence is signaled ("While confined here . . . But more basically . . . Moreover, I am cognizant . . .") and cohesive in that its clauses and sentences are logically linked for the reader ("Just as the prophets . . . and just as the Apostle Paul . . . so am I compelled . . .").

Sample performance aligned with the Core Standards

Students evaluate the reasoning and rhetoric of the three very different arguments King makes to defend his being in Birmingham. Students assess the different kinds of evidence he uses to support each argument. [R-14]

Illustrative Text #5

from *Letter from Birmingham Jail**

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My Dear Fellow Clergymen:

While confined here in the Birmingham city jail, I came across your recent statement calling my present activities "unwise and untimely." Seldom do I pause to answer criticism of my work and ideas. If I sought to answer all the criticisms that cross my desk, my secretaries would have little time for anything other than such correspondence in the course of the day, and I would have no time for constructive work. But since I feel that you are men of genuine good will and that your criticisms are sincerely set forth, I want to try to answer your statements in what I hope will be patient and reasonable terms.

I think I should indicate why I am here In Birmingham, since you have been influenced by the view which argues against "outsiders coming in." I have the honor of serving as president of the Southern Christian Leadership Conference, an organization operating in every southern state, with headquarters in Atlanta, Georgia. We have some eighty-five affiliated organizations across the South, and one of them is the Alabama Christian Movement for Human Rights. Frequently we share staff, educational and financial resources with our affiliates. Several months ago the affiliate here in Birmingham asked us to be on call to engage in a nonviolent direct-action program if such were deemed necessary. We readily consented, and when the hour came we lived up to our promise. So I, along with several members of my staff, am here because I was invited here I am here because I have organizational ties here.

But more basically, I am in Birmingham because injustice is here. Just as the prophets of the eighth century B.C. left their villages and carried their "thus saith the Lord" far beyond the boundaries of their home towns, and just as the Apostle Paul left his village of Tarsus and carried the gospel of Jesus Christ to the far corners of the Greco-Roman world, so am I. compelled to carry the gospel of freedom beyond my own home town. Like Paul, I must constantly respond to the Macedonian call for aid.

Moreover, I am cognizant of the interrelatedness of all communities and states. I cannot sit idly by in Atlanta and not be concerned about what happens in Birmingham. Injustice anywhere is a threat to justice everywhere. We are caught in an inescapable network of mutuality, tied in a single garment of destiny. Whatever affects one directly, affects all indirectly. Never again can we afford to live with the narrow, provincial "outside agitator" idea. Anyone who lives inside the United States can never be considered an outsider anywhere within its bounds.

*As reprinted in *Why We Can't Wait* by King, Jr., M. L. (2000). New York City: Signet Classics.

Notes on Illustrative Text #6

Toni Morrison's Nobel lecture, 1993

Toni Morrison's Nobel lecture, though originally delivered orally, can be read on the page as a complex work of analysis and criticism. Its structure, syntax, imagery, language, and density of ideas contribute to the challenge of studying it in this manner. As this excerpt shows, Morrison begins with a folktale. While the "once upon a time" opening may lead readers into thinking that the lecture will primarily be in narrative form, Morrison uses the tale mainly as a springboard for an abstract, allegorical discussion of language, writing, and those who have no voice in society. Morrison often employs sophisticated sentences that require patience and concentration to follow. Readers may recognize places where Morrison varies sentence patterns to change pace and rhythm—particularly important to the oral delivery of the text. The images Morrison creates are powerful and poetic, the diction is elevated and academic, and the word choice is metaphorical and unconventional: "Official language smitheryed to sanction ignorance and preserve privilege is a suit of armor polished to shocking glitter, a husk from which the knight departed long ago." The richness and abstractness of the ideas in the lecture mean that rereadings may be necessary to comprehend and evaluate the ideas fully.

Sample performance aligned with the Core Standards

Students determine what Morrison means when she compares language to "a bird in the hand," including the different connotations of this phrase that she develops throughout the lecture. Students also explore what Morrison means by saying that both the bird and language can be "dead or alive." [R-7]

Illustrative Text #6

from Toni Morrison's Nobel lecture, 1993

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"Once upon a time there was an old woman. Blind but wise." Or was it an old man? A guru, perhaps. Or a griot soothing restless children. I have heard this story, or one exactly like it, in the lore of several cultures.

"Once upon a time there was an old woman. Blind. Wise."

In the version I know the woman is the daughter of slaves, black, American, and lives alone in a small house outside of town. Her reputation for wisdom is without peer and without question. Among her people she is both the law and its transgression. The honor she is paid and the awe in which she is held reach beyond her neighborhood to places far away; to the city where the intelligence of rural prophets is the source of much amusement.

One day the woman is visited by some young people who seem to be bent on disproving her clairvoyance and showing her up for the fraud they believe she is. Their plan is simple: they enter her house and ask the one question the answer to which rides solely on her difference from them, a difference they regard as a profound disability: her blindness. They stand before her, and one of them says, "Old woman, I hold in my hand a bird. Tell me whether it is living or dead."

She does not answer, and the question is repeated. "Is the bird I am holding living or dead?"

Still she doesn't answer. She is blind and cannot see her visitors, let alone what is in their hands. She does not know their color, gender or homeland. She only knows their motive.

The old woman's silence is so long, the young people have trouble holding their laughter.

Finally she speaks and her voice is soft but stern. "I don't know", she says. "I don't know whether the bird you are holding is dead or alive, but what I do know is that it is in your hands. It is in your hands."

Her answer can be taken to mean: if it is dead, you have either found it that way or you have killed it. If it is alive, you can still kill it. Whether it is to stay alive, it is your decision.

Whatever the case, it is your responsibility.

For parading their power and her helplessness, the young visitors are reprimanded, told they are responsible not only for the act of mockery but also for the small bundle of life sacrificed to achieve its aims. The blind woman shifts attention away from assertions of power to the instrument through which that power is exercised.

Speculation on what (other than its own frail body) that bird-in-the-hand might signify has always been attractive to me, but especially so now thinking, as I have been, about the work I do that has brought me to this company. So I choose to read the bird as language and the woman as a practiced writer. She is worried about how the language she dreams in, given to her at birth, is handled, put into service, even withheld from her for certain nefarious purposes. Being a writer she thinks of language partly as a system, partly as a living thing over which one has control, but mostly as agency—as an act with consequences. So the question the children put to her: "Is it living or dead?" is not unreal because she thinks of language as susceptible to death, erasure; certainly imperiled and salvageable only by an effort of the will. She believes that if the bird in the hands of her visitors is dead the custodians are responsible for the corpse. For her a dead language is not only one no longer spoken or written, it is unyielding language content to admire its own paralysis. Like statist language, censored and censoring. Ruthless in its policing duties, it has no desire or purpose other than maintaining the free range of its own narcotic narcissism, its own exclusivity and dominance. However moribund, it is not without effect for it actively thwarts the intellect, stalls conscience, suppresses human potential. Unreceptive to interrogation, it cannot form or tolerate new ideas, shape other thoughts, tell another story, fill baffling silences. Official language smitheryed to sanction ignorance and preserve privilege is a suit of armor polished to shocking glitter, a husk from which the knight departed long ago. Yet there it is: dumb, predatory, sentimental. Exciting reverence in schoolchildren, providing shelter for despots, summoning false memories of stability, harmony among the public.

Notes on Illustrative Text #7

Inquiry into Life, 12th edition, by Sylvia S. Mader

These excerpts, and the prominent college-level biology textbook from which they are drawn, represent some of the challenges presented by complex writing in natural science, including discipline-specific terms (*covalent bond*, *plasma membrane*, *neurotransmitter*), everyday language used in specialized ways (*shell*, *channel*), abbreviations (H^+, *AChE*), and chains of cause-effect relationships that together describe sometimes elaborate processes. Although the figures the author, Sylvia S. Mader, refers to in the text are not included with these excerpts, students reading the larger work will have to integrate words, illustrations, and diagrams to make full sense of the ideas and concepts she describes. For these reasons and others, comprehension may be difficult for readers who have not had experience independently reading similar kinds of text and who lack a knowledge base in the subject. The author does employ a number of cohesive features to help readers understand the terminology and to link ideas. She repeats content words to let readers follow the flow of ideas; she sets up contrastive situations to illustrate the ideas (within, for example, the first and the third paragraphs below); and she uses transitional links ("In some synapses . . . In other synapses . . .") to help readers construct meaning.

Sample performance aligned with the Core Standards

Students discern the most important information in the description of covalent bonding and provide an accurate summary of the concept. [R-3]

Illustrative Text #7

from *Inquiry into Life*, 12th edition

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A **covalent bond** results when two atoms share electrons in such a way that each atom has an octet of electrons in the outer shell. In a hydrogen atom, the outer shell is complete when it contains two electrons. If hydrogen is in the presence of a strong electron acceptor, it gives up its electron to become a hydrogen ion (H^+). But if this is not possible, hydrogen can share with another atom and thereby have a completed outer shell. For example, one hydrogen atom will share with another hydrogen atom. Their two orbitals overlap, and the electrons are shared between them. Because they share the electron pair, each atom has a completed outer shell.

* * * * * * * *

The passage of salt (NaCl) across a plasma membrane is of primary importance to most cells. The chloride ion (Cl^-) usually crosses the plasma membrane because it is attracted by positively charged sodium ions (Na^+). First sodium ions are pumped across a membrane, and then chloride ions simply diffuse through channels that allow their passage.

As noted in Figure 4.2*a*, the genetic disorder cystic fibrosis results from a faulty chloride channel. Ordinarily, after chloride ions have passed though the membrane, sodium ions (Na^+) and water follow. In cystic fibrosis, Cl^- transport is reduced, and so is the flow of Na^+ and water.

* * * * * * * *

Once a neurotransmitter has been released into a synaptic cleft and has initiated a response, it is removed from the cleft. In some synapses, the postsynaptic membrane contains enzymes that rapidly inactivate the neurotransmitter. For example, the enzyme **acetylcholinesterase (AChE)** breaks down acetylcholine. In other synapses, the presynaptic membrane rapidly reabsorbs the neurotransmitter, possibly for repackaging in synaptic vesicles or for molecular breakdown. The short existence of neurotransmitters at a synapse prevents continuous stimulation (or inhibition) of postsynaptic membranes.

Notes on Illustrative Text #8

Sample business memo (ACT WorkKeys Reading for Information Test)

Though not a typical kind of reading in high school classrooms, the business communication, such as the one sampled here, is a form that career-ready students will need to be able to comprehend independently. This text, taken from ACT's WorkKeys Reading for Information Test, is challenging in large part because, like many such communications, it contains important, detailed information intended for a specialized audience. Structurally, the text offers little guidance on how it should be read. Potentially vital details appear throughout and are mingled with other details irrelevant to some readers (e.g., those without children). Even the paragraphing is somewhat inconsistent, especially between the first and second paragraphs. While the sentences are not particularly long and the language is not overly technical, the density of information and its lack of prioritization make this a complex text.

Sample performance aligned with the Core Standards

Students infer from the memo the conditions under which children who are under nineteen are not covered by the health plan. [R-1]

Illustrative Text #8

Sample business memo

WorkKeys Reading for Information Test has been reproduced with permission of ACT, Inc.

DETERMINING ELIGIBILITY FOR MEDICAL COVERAGE

All full-time employees of the company who work an average of at least 30 hours per week are eligible under this plan. Coverage begins on the first day of the month following the 30 days of active full-time employment. If employees enroll within 31 days of the date they are eligible, medical evidence of good health is not required. Temporary and part-time employees are not eligible. Employees are no longer eligible under this plan one month after the date they begin active duty in the armed forces of any country and continuing for the duration of their service.

If employees enroll their dependents within 31 days of the date they become eligible, medical evidence of good health is not required. If they do not, they will be required to submit evidence of good health for each dependent, at their expense, which is satisfactory to the company.

The following dependents are eligible under this plan: employees' spouses, employees' unmarried children under age 19, employees' unmarried dependent children under age 23 who are attending trade school, college, or university on a full-time basis, or employees' unmarried disabled children age 19 and over. Coverage ceases when spouses or children cease to be dependent upon employees for support. In the case of employees' spouses this is if they are legally separated or divorced. In the case of disabled children, this is when they are no longer disabled. Coverage will cease when dependents have served in the armed forces of any country for more than one month, or when maximum benefits have been paid.

Notes on Illustrative Text #9

FedViews, July 9, 2009, by Mary C. Daly
(The Federal Reserve Bank of San Francisco's Web site)

This text illustrates some of the difficulties posed by integrating information gained from words and graphics. This sort of challenge is common in writing designed to inform or explain, including writing in the workplace. The bullet point format used here means that the kind of explicit transitions between ideas typically found in prose are missing; readers will have to infer relationships between the points made by the author, Mary C. Daly, and synthesize the information into a coherent whole. Readers will furthermore have to analyze both the words and the graphics, integrate the information, and check to see whether each source of information supports the other. Daly also uses a great deal of specialized language; the terms *feedback loop*, *credit availability*, and *barriers to credit* all appear in just the first bullet point here.

Sample performance aligned with the Core Standards

Students synthesize information drawn from the text as well as the graphs in order to gain an overarching view of the economy on July 9, 2009. [R-11]

Illustrative Text #9

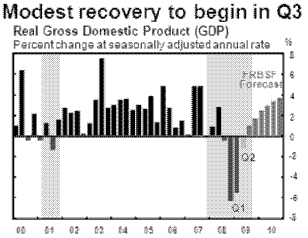
from FedViews, July 9, 2009

Reprinted from the Federal Reserve Bank of San Francisco's FedViews of July 9, 2009. The opinions expressed in this article do not necessarily reflect the views of the management of the Federal Reserve Bank of San Francisco, or of the Board of Governors of the Federal Reserve System.

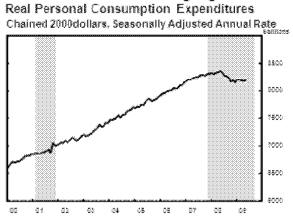
Mary C. Daly, vice president and director of the Center for the Study of Innovation and Productivity at the Federal Reserve Bank of San Francisco, states her views on the current economy and the outlook.

- Financial markets are improving, and the crisis mode that has characterized the past year is subsiding. The adverse feedback loop, in which losses by banks and other lenders lead to tighter credit availability, which then leads to lower spending by households and businesses, has begun to slow. As such, investors' appetite for risk is returning, and some of the barriers to credit that have been constraining businesses and households are diminishing.
- Income from the federal fiscal stimulus, as well as some improvement in confidence, has helped stabilize consumer spending. Since consumer spending accounts for two-thirds of all economic activity, this is a key factor affecting our forecast of growth in the third quarter.
- The gradual nature of the recovery will put additional pressure on state and local budgets. Following a difficult 2009, especially in the West, most states began the 2010 fiscal year on July 1 with even larger budget gaps to solve.
- Still, many remain worried that large fiscal deficits will eventually be inflationary. However, a look at the empirical link between fiscal deficits and inflation in the United States shows no correlation between the two. Indeed, during the 1980s, when the United States was running large deficits, inflation was coming down.

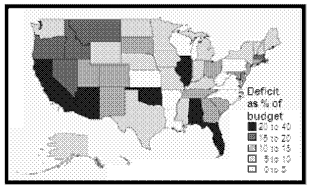
Modest recovery to begin in Q3



Consumers hanging on

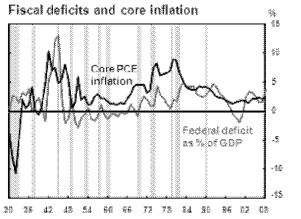


State budget gaps pervasive in 2009



27

No link between deficits and inflation



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Notes on Illustrative Text #10

The front page of the *New York Times*, Web version, August 18, 2009, 9:03 a.m. ET

The challenge offered by this online text and others like it is very different from that offered by a complex continuous text in, say, the sciences. The brief passages are not conceptually difficult, the language is not technical or esoteric, and the sentences are not particularly complex. But these characteristics belie the complexity of the reading task. An online text of this kind requires readers to apply their print-reading skills in tandem with their knowledge of how to use online periodicals. The editors and designers have assigned levels of importance to individual stories and images, as measured by their size and position in the layout. The page itself uses words, numbers, icons, and other visual elements (e.g., line, color, and shape) to guide readers further. Headings in various colors direct readers to particular sections (OPINION, MARKETS, HEALTH), while links direct readers to particular stories ("Taliban Talks Are Key Issue in Afghan Vote"). Time markers ("3 minutes ago") help readers assess how new the information in a given story is. The text requires readers to make choices about which links to follow based on their understanding of how online text is typically structured and on a minimum of additional information (e.g., an icon of a camera, a drop-down menu in an ad).

Sample performance aligned with the Core Standards

Students select an article and use search terms and other features of the online text to research a specific aspect of the subject in more depth. [R-12]

Illustrative Text #10

The front page of the *New York Times*, Web version, August 18, 2009, 9:03 a.m. ET

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College and Career Readiness Standards for Mathematics

Draft for Review and Comment

September 21, 2009

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Introduction

The *College and Career Readiness Standards for Mathematics* consist of three interconnected parts: a Standard for Mathematical Practice, ten Standards for Mathematical Content, and a set of Example Tasks.

The Standard for Mathematical Practice has six Core Practices that describe the way proficient students approach mathematics. Proficient students attend to precision, construct viable arguments, make sense of complex problems and persevere in solving them, look for hidden structure, note regularity in repeated reasoning, and use technology intelligently. This approach to mathematics is an essential part of being ready for college and career.

The Standards for Mathematical Content form the backbone of this document. Each of these ten standards consists of Core Concepts, Core Skills, and a description of the student's Coherent Understanding. Students who encounter the subject with a focus on coherence will be better able to learn more mathematics at a deeper level and be better able to access and apply the mathematics they know. The ten Standards for Mathematical Content pull together topics previously studied and look ahead toward topics in further coursework and training programs.

The Standards for Mathematical Content are designed to draw greater attention to powerful organizing principles in mathematics, such as functional relationships or the laws of arithmetic. They also allow important distinctions to be made more clearly, such as that between Expressions and Equations. And they surface the deep connections that often underlie mathematical coherence, such as the blending of algebra with geometry represented by Coordinates. These ten are not categories or buckets of topics to cover; they are standards. They describe the coherence students need and deserve as they go forward to their mathematical futures.

The third component of the *College and Career Readiness Standards for Mathematics* is a Web-based collection of Example Tasks that exemplifies the variety of performances required. High standards demand that students *use* their knowledge, skills and good practices to solve problems from a variety of contexts, both within mathematics and from the world outside. Example Tasks exemplify the range and variety of use that is expected. Teachers and designers of curriculum and assessment will find in the collection of examples a guide to what these standards mean. Over time, the collection of tasks will grow.

Together, these three components establish an evidence-based standard for college and career readiness. The *College and Career Readiness Standards for Mathematics* have been created with attention to the expectations of the highest achieving countries. They have focus and depth, emphasizing the understanding of and connections among topics that are most important for success regardless of a student's pathway after reaching these standards.

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A primary goal of developing these standards is to enable students to achieve *mathematical proficiency* (see sidebar). Students are expected to understand the knowledge described in the Core Concepts and in the Coherent Understandings at a depth that enables them to reason with that knowledge—to analyze, interpret and evaluate mathematical problems, make deductions, and justify results. The Core Skills are meant to be used strategically and adaptively to solve problems. Students' knowledge and skills come to life and take their value when melded with the ways they approach mathematics—as described by the Core Practices.

The specific verbs used to describe concepts and skills in these standards are not meant to limit or indicate levels of any taxonomy. Although using verbs to indicate levels of depth has been a common practice in this country's standards writing, high performing nations do not use verbs in this way. They describe depth and practices first in separate sections of their syllabi. We have adopted the high performing countries' practice of focusing on a clear statement of what mathematics should be learned when writing standards for knowledge and skills.

Instruction, curriculum and assessment designed to achieve these standards should range over all strands of proficiency in *Adding It Up*, all depths of knowledge in Norman L. Webb's Depth of Knowledge taxonomy, all levels of Bloom's Taxonomy, and all levels of cognitive demand. In the Core Skills and Core Practices we have sometimes used terms like "explore" to indicate a lighter treatment with a goal of awareness and experience rather than proficiency. We have used Example Tasks to show the depth of knowledge and deployment of skills expected.

From *Adding it up: Helping children learn mathematics* (National Research Council, 2001, p. 116):

Recognizing that no term captures completely all aspects of expertise, competence, knowledge, and facility in mathematics, we have chosen mathematical proficiency to capture what we believe is necessary for anyone to learn mathematics successfully. Mathematical proficiency, as we see it, has five components, or strands:

- conceptual understanding—comprehension of mathematical concepts, operations, and relations
- procedural fluency—skill in carrying out procedures flexibly, accurately, efficiently, and appropriately
- strategic competence—ability to formulate, represent, and solve mathematical problems
- adaptive reasoning—capacity for logical thought, reflection, explanation, and justification
- productive disposition—habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one's own efficacy.

These standards are measurable; that is, they are observable and verifiable through the broad spectrum of student performances that may be assessed during classroom observation, school-based examinations and large-scale testing. The *College and Career Readiness Standards for Mathematics* can guide the development of assessment frameworks that distribute the assessment responsibilities across multiple levels of the educational system: state, district, school and teacher.

Students reaching these levels will be prepared for non-remedial college mathematics courses and will be prepared for training programs for career-level jobs; however, the *College and Career Readiness Standards for Mathematics* should not be construed as grade twelve exit standards. Students interested in STEM fields, and those who wish to go beyond for other reasons, will need to reach these standards before their senior year in order to have time to include additional mathematics. A number of pathways for advanced learning are possible and may be integrated throughout the high school experience and beyond.

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The Common Core State Standards Initiative

The *College and Career Readiness Standards for Mathematics* will anchor the next phase of the Common Core State Standards Initiative: development of K–12 Mathematics Standards. Those K–12 Standards are in turn expected to guide the development of a next generation of assessments, developed collaboratively by multiple states. The K–12 Mathematics Standards will serve as a guide and tool for aligning instruction, curriculum, assessment, teacher supports, and systems of accountability. To ensure alignment, the Standard for Mathematical Practice, the Standards for Mathematical Content, and the Example Tasks should all be taken into account.

Overview of the Mathematical Practice Standard

Attend to precision.
Construct viable arguments.
Make sense of complex problems and persevere in solving them.
Look for structure.
Look for and express regularity in repeated reasoning.
Make strategic decisions about the use of technological tools.

Overview of the Mathematical Content Standards

Number. Procedural fluency in operations with real numbers and strategic competence in approximation are grounded in an understanding of place value. The rules of arithmetic govern operations on numbers and extend to operations in algebra.

Quantity. A quantity is an attribute of an object or phenomenon that can be specified using a number and a unit, such as 2.7 centimeters, 42 questions or 28 miles per gallon.

Expressions. Expressions use numbers, variables and operations to describe computations. The rules of arithmetic, the use of parentheses and the conventions about order of operations assure that the computation has a well-determined value.

Equations. An equation is a statement that two expressions are equal. Solutions to an equation are the values of the variables in it that make it true.

Functions. Functions model situations where one quantity determines another. Because nature and society are full of dependencies, functions are important tools in the construction of mathematical models.

Modeling. Modeling uses mathematics to help us make sense of the real world—to understand quantitative relationships, make predictions, and propose solutions.

Shape. From only a few axioms, the deductive method of Euclid generates a rich body of theorems about geometric objects, their attributes and relationships.

Coordinates. Applying a coordinate system to Euclidean space connects algebra and geometry, resulting in powerful methods of analysis and problem solving.

Probability. Probability assesses the likelihood of an event in a situation that involves randomness. It quantifies the degree of certainty that an event will happen as a number from 0 through 1.

Statistics. Decisions or predictions are often based on data—numbers in context. These decisions or predictions would be easy if the data always sent a clear message, but the message is often obscured by variability in the data.

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How Evidence Informed Decisions in Drafting the Standards

The Common Core State Standards Initiative builds on a generation of standards efforts led by states and national organizations. On behalf of the states, we have taken a step toward the next generation of standards that are aligned to college- and career-ready expectations and are internationally benchmarked. These standards are grounded in evidence from many sources that shows that the next generation of standards in mathematics must be focused on deeper, more thorough understanding of more fundamental mathematical ideas and higher mastery of these fewer, more useful skills.

The evidence that supports this new direction comes from a variety of sources. International comparisons show that high performing countries focus on fewer topics and that the U.S. curriculum is "a mile wide and an inch deep." Surveys of college faculty show the need to shift away from high school courses that merely survey advanced topics, toward courses that concentrate on developing an understanding and mastery of ideas and skills that are at the core of advanced mathematics. Reviews of data on student performance show the large majority of U.S. students are not mastering the mile wide list of topics that teachers cover.

The evidence tells us that in high performing countries like Singapore, the gap between what is taught and what is learned is relatively smaller than in Malaysia or the U.S. states. Malaysia's standards are higher than Singapore's, but their performance is much lower. One could interpret the narrower gap in Singapore as evidence that they actually use their standards to manage instruction; that is, Singapore's standards were set within the reach of hard work for their system and their population. Singapore's Ministry of Education flags its webpage with the motto, "Teach Less, Learn More." We accepted the challenge of writing standards that could work that way for U.S. teachers and students: By providing focus and coherence, we could enable more learning to take place at all levels.

However, a set of standards cannot be simplistically "derived" from any body of evidence. It is more accurate to say that we used evidence to inform our decisions. A few examples will illustrate how this was done.

For example, systems of linear equations are covered by all states, yet students perform surprisingly poorly on this topic when assessed by ACT. We determined that systems of linear equations have high coherence value, mathematically; that this topic is included by all high performing nations; and that it has moderately high value to college faculty. Result: We included it in our standards.

A different and more complex pattern of evidence appeared with families of functions. Again we found that students performed poorly on problems related to many advanced functions (trigonometric, logarithmic, quadratic, exponential, and so on). Again we found that a number of states cover them, even though college faculty rated them lower in value. High performing countries include this material, but with different degrees of demand. We decided that we had to carve a careful line through these topics so that limited teaching resources could focus where most important. We decided that students should

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develop deep understanding and mastery of linear and exponential functions. They should also have familiarity with other families of functions, and apply their algebraic, modeling and problem solving skills to them—but not develop in-depth technical mastery and understanding. Thus we defined two distinct levels of attention and identified which families of functions got which level of attention.

Why were exponential functions selected for intensive focus in the Functions standard instead of, say, quadratic functions? What tipped the balance was the high coherence value of exponential functions in supporting modeling and their wide utility in work and life. Quadratic functions were also judged to be well supported by expectations defined under Expressions and Equations.

These examples indicate the kind of reasoning, informed by evidence, that it takes to design standards aligned to the demands of college and career readiness in a global economy. We considered inclusion in international standards, requirements of college and the workplace, surveys of college faculty and the business community, and other sources of evidence. As we navigated these sometimes conflicting signals, we always remained aware of the finiteness of instructional resources and the need for deep mathematical coherence in the standards.

At the end of this document, there is a listing of a number of sources that played a role in the deliberations described above and more generally throughout the process to inform our decisions. A hyperlinked version of the bibliography can be found online at www.corestandards.org.

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College and Career Readiness Standards for Mathematics

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Mathematical Practice

Proficient students expect mathematics to make sense. They take an active stance in solving mathematical problems. When faced with a non-routine problem, they have the courage to plunge in and try something, and they have the procedural and conceptual tools to carry through. They are experimenters and inventors, and can adapt known strategies to new problems. They think strategically.

Students who engage in these practices discover ideas and gain insights that spur them to pursue mathematics beyond the classroom walls. They learn that effort counts in mathematical achievement.[a] These are practices that expert mathematical thinkers encourage in apprentices. Encouraging these practices in our students should be as much a goal of the mathematics curriculum as is teaching specific content topics and procedures.[b] Taken together with the Standards for Mathematical Content, they support productive entry into college courses or career pathways.

Core Practices · Students can and do:

1 Attend to precision.

Mathematically proficient students organize their own ideas in a way that can be communicated precisely to others, and they analyze and evaluate others' mathematical thinking and strategies noting the assumptions made. They clarify definitions. They state the meaning of the symbols they choose, are careful about specifying units of measure and labeling axes, and express their answers with an appropriate degree of precision. Rather than saying, "let *v* be speed and let *t* be time," they would say "let *v* be the speed in meters per second and let *t* be the elapsed time in seconds from a given starting time." They recognize that when someone says the population of the United States in June 2008 was 304,059,724, the last few digits indicate unwarranted precision.

2 Construct viable arguments.

Mathematically proficient students understand and use stated assumptions, definitions and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They break things down into cases and can recognize and use counterexamples. They use logic to justify their conclusions, communicate them to others and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose.

3 Make sense of complex problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They consider analogous problems, try special cases and work on simpler forms. They evaluate their progress and change course if necessary. They try putting algebraic expressions into different forms or try changing the viewing window on their calculator to get the information they need. They look for correspondences between equations, verbal descriptions, tables, and graphs. They draw diagrams of relationships, graph data, search for regularity and trends, and construct mathematical models. They check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?"

4 Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern. For example, in $x^2 + 5x + 6$ they can see the 5 as $2 + 3$ and the 6 as 2×3. They recognize the significance of an existing line in a geometric figure and can add an auxiliary line to make the solution of a problem clear. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects. For example, by seeing $5 - 3(x - y)^2$ as 5 minus a positive number times a square, they see that it cannot be more than 5 for any real numbers x and y.[b]

5 Look for and express regularity in repeated reasoning.

Mathematically proficient students pay attention to repeated calculations as they carry them out, and look both for general algorithms and for shortcuts. For example, by paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, they might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel in the expansions of $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x^2 + x + 1)$ leads to the general formula for the sum of a geometric series. As they work through the solution to a problem, proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.[b]

6 Make strategic decisions about the use of technological tools.

Mathematically proficient students consider the available tools when solving a mathematical problem, whether pencil and paper, ruler, protractor, graphing calculator, spreadsheet, computer algebra system, statistical package, or dynamic geometry software. They are familiar enough with all of these tools to make sound decisions about when each might be helpful. They use mathematical understanding and estimation strategically, attending to levels of precision, to ensure appropriate levels of approximation and to detect possible errors. They are able to use these tools to explore and deepen their understanding of concepts.

(a) For the importance of students' beliefs about effort, see the National Mathematics Advisory Panel's Report of the Task Group on Learning Processes, p. 4-10 (2008). (b) Cuoco, A., Goldenberg, E. P., and Mark, J., *Journal of Mathematical Behavior*, 15 (4), 375-402, 1996; *Focus in High School Mathematics*. Reston, VA: NCTM, in press; Harel, G., What is Mathematics? A Pedagogical Answer to a Philosophical Question. In R. B. Gold & R. Simons (Eds.), *Current Issues in the Philosophy of Mathematics From the Perspective of Mathematicians*, Mathematical Association of America, 2008.

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Number

Core Concepts · Students understand that:

A The real numbers include the rational numbers and are in one-to-one correspondence with the points on the number line.

B Quantities can be compared using division, yielding rates and ratios.

C A fraction can represent the result of dividing the numerator by the denominator; equivalent fractions have the same value.

D Place value and the rules of arithmetic form the foundation for efficient algorithms.

A Coherent Understanding of Number. Procedural fluency in operations with real numbers and strategic competence in approximation are grounded in an understanding of place value. The rules of arithmetic govern operations on numbers and extend to operations in algebra:

- Numbers can be added in any order with any grouping and multiplied in any order with any grouping.
- Adding 0 and multiplying by 1 both leave a number unchanged.
- All numbers have additive inverses, and all numbers except zero have multiplicative inverses.
- Multiplication distributes over addition.

Subtraction and division are defined in terms of addition and multiplication, so are also governed by these rules.

The place value system bundles units into 10s, then 10s into 100s, and so on, providing an efficient way to name large numbers. Subdividing in a similar way extends this to the decimal system, which provides an address system for locating all real numbers on the number line with arbitrarily high accuracy. Place value is the basis for efficient algorithms, reducing much computation to single-digit arithmetic. Mental computation strategies also make opportunistic use of the rules of arithmetic, as when the product $5 \times 177 \times 2$ is computed at a glance to obtain 1770, rather than methodically working from left to right.

An estimate may be more appropriate than an exact value, for example, when you want to know the number of calories in a meal. Often a result is reported using fewer digits than were calculated. A mature number sense includes having rules of thumb about how much accuracy is appropriate and understanding that accuracy to more than a few decimal places often takes substantial effort. Estimation and approximation are also useful in checking calculations.

Rational numbers represented as fractions can be located on the number line by seeing them as numbers expressed in different units; for example, 3/5 is 3 units, where each unit is 1/5. However, rational numbers do not fill out the number line. There are also irrational numbers, such as π or $\sqrt{2}$. Each point on the number line then corresponds to a real number that is either rational or irrational.

Connections to Expressions, Functions and Coordinates. The rules of arithmetic govern the manipulations of expressions and functions. Two perpendicular number lines define the coordinate plane.

Core Skills · Students can and do:

1 Compare numbers and make sense of their magnitude.

Include positive and negative numbers expressed as fractions, decimals, powers, and roots. Limit to square and cube roots. Include very large and very small numbers and the use of scientific notation.

2 Know when and how to use standard algorithms, and perform them flexibly, accurately and efficiently.*

3 Use mental strategies and technology to formulate, represent and solve problems.**

4 Solve multi-step problems involving fractions and percentages.

Include situations such as simple interest, tax, markups/markdowns, gratuities and commissions, fees, percent increase or decrease, percent error, expressing rent as a percentage of take-home pay, and so on.

5 Use estimation and approximation to solve problems.

Include evaluating answers for their reasonableness, detecting errors, and giving answers to an appropriate level of precision.

* This aligns with the concept of procedural fluency as in the National Research Council report *Adding it up: Helping children learn mathematics*. Specifically, "*Procedural fluency* refers to knowledge of procedures, knowledge of when and how to use them appropriately, and skill in performing them flexibly, accurately, and efficiently" (p. 121).

** This aligns with the concept of strategic competence as described in *Adding it up*. "Strategic competence refers to the ability to formulate mathematical problems, represent them, and solve them" (p. 124).

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Quantity

Core Concepts · Students understand that:

A The value of a quantity is not specified unless the units are named or understood from the context.

B Quantities can be added and subtracted only when they are of the same type (length, area, speed, etc.).

C Quantities can be multiplied or divided to create new types of quantities, called derived quantities.

A Coherent Understanding of Quantity. A quantity is an attribute of an object or phenomenon that can be specified using a number and a unit, such as 2.7 centimeters, 42 questions or 28 miles per gallon.

The length of a football field and the speed of light are both quantities. If we choose units of miles per second, then the speed of light has a value of approximately 186,000 miles per second. But the speed of light need not be expressed in miles per second; it may be approximated by 3×10^8 meters per second or in any other unit of speed. Bare numerical values such as 186,000 do not describe quantities unless they are paired with units.

Speed (distance divided by time), rectangular area (length multiplied by length), density (mass divided by volume), and population density (number of people divided by land area) are examples of derived quantities, obtained by multiplying or dividing quantities.

It can make sense to add two quantities, such as when a child 51 inches tall grows 3 inches to become 54 inches tall. To be added or subtracted, quantities must be of the same type (length, area, speed, etc.); to add or subtract their values, the quantities must be expressed in the same units. Converting quantities to have the same units is like converting fractions to have a common denominator before adding or subtracting. But, even when quantities have the same units it does not always make sense to add them. For example, if a wooded park with 300 trees per acre is next to a field with 30 trees per acre, they do not have 330 trees per acre.

Doing algebra with units in a calculation reveals the units of the answer, and can help reveal a mistake if, for example, the answer comes out to be a distance when it should be a speed.

Connections to Number, Expressions, Equations, Functions, Modeling and Statistics. Operations described under Number and Expressions govern the operations one performs on quantities, including the units involved. Quantity is an integral part of any application of mathematics, and has connections to solving problems using data, equations, functions and modeling.

Core Skills · Students can and do:

1 Know when and how to convert units in computations.

Include the addition and subtraction of quantities of the same type expressed in different units; averaging data given in mixed units; converting units for derived quantities such as density and speed.

2 Use and interpret quantities and units correctly in algebraic formulas.

Include specifying units when defining variables and attending to units when writing expressions and equations.

3 Use and interpret quantities and units correctly in graphs and data displays.

Include function graphs, data tables, scatterplots and other visual displays of dimensioned data.

4 Use units as a way to understand problems and to guide the solution of multi-step problems.

Include examples such as acceleration; currency conversions; people-hours; social science measures, such as deaths per 100,000; and general rates, such as points per game.

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Expressions

Core Concepts · Students understand that:

A Expressions are constructions built up from numbers, variables, and operations, which have a numerical value when each variable is replaced with a number.

B Complex expressions are made up of simpler expressions.

C The rules of arithmetic can be applied to transform an expression without changing its value.

D Rewriting expressions in equivalent forms serves a purpose in solving problems.

A Coherent Understanding of Expressions. Expressions use numbers, variables and operations to describe computations. The rules of arithmetic, the use of parentheses and the conventions about order of operations assure that the computation has a well-determined value.

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

Algebraic manipulations are based on the conventions of algebraic notation and the rules of arithmetic. Heuristic mnemonic devices are not a substitute for procedural fluency. For example, factoring, expanding, collecting like terms, the rules for interpreting minus signs next to parenthetical sums, and adding fractions with a common denominator are all instances of the distributive law; the definitions for negative and rational exponents are based on the extension of the exponent laws for positive integers. The laws of exponents connect multiplication of numbers to addition of exponents and thus express the deep relationship between addition and multiplication captured by the parallel nature of the rules of arithmetic for these operations.

Complex expressions are made up of simpler expressions using arithmetic operations and substitution. When simple expressions within more complex expressions are treated as single quantities, or chunks, the underlying structure of the larger expression may be more evident.

Connections to Equations and Functions. Setting expressions equal to each other leads to equations. Expressions can define functions of the variables that appear in them, with equivalent expressions defining the same function.

Core Skills · Students can and do:

1 See structure in expressions.

For example, recognize: that the expressions $x^4 - y^4$ and $(x+y)^2 - (x-y)^2$ are differences of squares; that there are different ways to rewrite the latter expression, e.g., by expanding and collecting like terms or by factoring as a difference of squares; that p is a common factor in $p + 0.025p$; that an expression in the form $(x-3)^2 + 14$ reveals its minimum value.

2 Manipulate simple expressions.

Show procedural fluency in the following cases: factoring out common terms; factoring expressions with quadratic structure; writing in standard form sums, differences, and products of polynomials. Include completing the square and rewriting in standard form sums, differences, products, and quotients of simple rational expressions; rewriting expressions with negative exponents and those involving square or cube roots of a single term involving exponents.

3 Define variables and write an expression to represent a quantity in a problem.

Include contextual problems.

4 Interpret an expression that represents a quantity in terms of the context.

Include interpreting parts of an expression, such as terms, factors and coefficients.

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Equations

Core Concepts · Students understand that:

A An equation is a statement that two expressions are equal.

B The solutions of an equation are the values of the variables that make the resulting numerical statement true.

C The steps in solving an equation are guided by understanding and justified by logical reasoning.

D Equations not solvable in one number system may have solutions in a larger number system.

A Coherent Understanding of Equations. An equation is a statement that two expressions are equal. Solutions to an equation are the values of the variables in it that make it true. If the equation is true for all values of the variables, then we call it an identity; identities are often discovered by manipulating one expression into another.

The solutions of an equation in one variable form a set of numbers; the solutions of an equation in two variables form a set of ordered pairs, which can be graphed in the plane. Equations can be combined into systems to be solved simultaneously.

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

Some equations have no solutions in a given number system, stimulating the formation of expanded number systems (integers, rational numbers, real numbers and complex numbers).

A formula is a type of equation. The same solution techniques used to solve equations can be used to rearrange formulas. For example, the formula for the area of a trapezoid, $A = \left(\frac{b_1+b_2}{2}\right)h$, can be solved for h using the same deductive process.

Inequalities can be solved in much the same way as equations. Many, but not all, of the properties of equality extend to the solution of inequalities.

Connections to Functions, Coordinates, and Modeling. Equations in two variables may define functions. Asking when two functions have the same value leads to an equation; graphing the two functions allows for the approximate solution of the equation. Equations of lines involve coordinates, and converting verbal descriptions to equations is an essential skill in modeling.

Core Skills · Students can and do:

1 Understand a problem and formulate an equation to solve it.

Extend to inequalities and systems.

2 Solve equations in one variable using manipulations guided by the rules of arithmetic and the properties of equality.

Solve linear equations with procedural fluency. For quadratic equations, include solution by inspection, by factoring, or by using the quadratic formula. Understand that the quadratic formula comes from completing the square. Include simple absolute value equations solvable by direct inspection and by understanding the interpretation of absolute value as distance.

3 Rearrange formulas to isolate a quantity of interest.

Exclude cases that require extraction of roots or inverse functions.

4 Solve systems of equations.

Focus on pairs of simultaneous linear equations in two variables. Include algebraic techniques, graphical techniques and solving by inspection.

5 Solve linear inequalities in one variable and graph the solution set on a number line.

Emphasize solving the associated equality and determining on which side of the solution of the associated equation the solutions to the inequality lie.

6 Graph the solution set of a linear inequality in two variables on the coordinate plane.

Emphasize graphing the associated equation, using a dashed or solid line as appropriate and shading to indicate the half-plane on which the solutions to the inequality lie.

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Functions

Core Concepts · Students understand that:

A A function is a rule, often defined by an expression, that assigns a unique output for every input.

B The graph of a function f is a set of ordered pairs $(x, f(x))$ in the coordinate plane.

C Functions model situations where one quantity determines another.

D Common functions occur in families where each member describes a similar type of dependence.

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

In school mathematics, functions usually have numerical inputs and outputs and are often defined by an algebraic expression. For example, the time in hours it takes for a plane to fly 1000 miles is a function of the plane's average ground speed in miles per hour, v; the rule $T(v) = 1000/v$ expresses this relationship algebraically and defines a function whose name is T.

The set of possible inputs to a function is called its domain. We often infer the domain to be all inputs for which the expression defining a function has a value, or for which the function makes sense in a given context. The graph of a function is a useful way of visualizing the relationship the function models, and manipulating the expression for a function can throw light on the function's properties.

Two important families of functions characterized by laws of growth are linear functions, which grow at a constant rate, and exponential functions, which grow at a constant percent rate. Linear functions with an initial value of zero describe proportional relationships.

Connections to Expressions, Equations, Modeling and Coordinates. Determining an output value for a particular input involves evaluating an expression; finding inputs that yield a given output involves solving an equation. The graph of a function f is the same as the solution set of the equation $y = f(x)$. Questions about when two functions have the same value lead to equations, whose solutions can be visualized from the intersection of the graphs. Since functions describe relationships between quantities, they are frequently used in modeling. Sometimes functions are defined by a recursive process, which can be modeled effectively using a spreadsheet or other technology.

Core Skills · Students can and do:

1 Recognize proportional relationships and solve problems involving rates and ratios.

Include being able to express proportional relationships as functions.

2 Describe the qualitative behavior of common types of functions using graphs and tables.

Identify: intercepts; intervals where the function is increasing, decreasing, positive or negative; relative maximums and minimums; symmetries; end behavior; and periodicity. Use technology to explore the effects of parameter changes on the graphs of linear, power, quadratic, polynomial, simple rational, exponential, logarithmic, sine and cosine, absolute value and step functions.

3 Analyze functions using symbolic manipulation.

Include slope-intercept and point-slope form of linear functions; vertex form of quadratic functions to identify symmetry and find maximums and minimums; factored form to find zeros. Use manipulations as described under Expressions.

4 Use the families of linear and exponential functions to solve problems.

For linear functions $f(x) = mx + b$, understand b as the intercept or initial value and m as the slope or rate of change. For exponential functions $f(x) = a \cdot b^x$, understand a as the intercept or initial value and b as the growth factor.

5 Find and interpret rates of change.

Compute the rate of change of linear functions and make qualitative observations about how the rate of change varies for nonlinear functions.

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Modeling

Core Concepts · Students understand that:

A Mathematical models involve choices and assumptions that abstract key features from situations to help us solve problems.

B Even very simple models can be useful.

A Coherent Understanding of Modeling. Modeling uses mathematics to help us make sense of the real world—to understand quantitative relationships, make predictions, and propose solutions.

A model can be very simple, such as a geometric shape to describe a physical object like a coin. Even so simple a model involves making choices. It is up to us whether to model the solid nature of the coin with a three-dimensional cylinder, or whether a two-dimensional disk works well enough for our purposes. For some purposes, we might even choose to adjust the right circular cylinder to model more closely the way the coin deviates from the cylinder.

In any given situation, the model we devise depends on a number of factors: How precise an answer do we want or need? What aspects of the situation do we most need to understand, control, or optimize? What resources of time and tools do we have? The range of models we can create and analyze is constrained as well by the limitations of our mathematical and technical skills. For example, modeling a physical object, a delivery route, a production schedule, or a comparison of loan amortizations each requires different sets of tools. Networks, spreadsheets and algebra are powerful tools for understanding and solving problems drawn from different types of real-world situations. One of the insights provided by mathematical modeling is that essentially the same mathematical structure might model seemingly different situations.

The basic modeling cycle is one of (1) identifying the key features of a situation, (2) creating geometric, algebraic or statistical objects that describe key features of the situation, (3) analyzing and performing operations on these objects to draw conclusions and (4) interpreting the results of the mathematics in terms of the original situation. Choices and assumptions are present throughout this cycle.

Connections to Quantity, Equations, Functions, Shape, Coordinates and Statistics. Modeling makes use of shape, data, graphs, equations and functions to represent real-world quantities and situations.

Core Skills · Students can and do:

1 Model numerical situations.

Include readily applying the four basic operations in combination to solve multi-step quantitative problems with dimensioned quantities; making estimates to introduce numbers into a situation and get problems started; recognizing proportional or near-proportional relationships and analyzing them using characteristic rates and ratios.

2 Model physical objects with geometric shapes.

Include common objects that can reasonably be idealized as two- and three-dimensional geometric shapes. Identify the ways in which the actual shape varies from the idealized geometric model.

3 Model situations with equations and inequalities.

Include situations well described by a linear inequality in two variables or a system of linear inequalities defining a region in the plane.

4 Model situations with common functions.

Include situations well described by linear, quadratic or exponential functions; and situations that can be well described by inverse variation ($f(x) = k/x$). Include identifying a family of functions that models features of a problem, and identifying a particular function of that family and adjusting it to fit by changing parameters. Understand the recursive nature of situations modeled by linear and exponential functions.

5 Model situations using probability and statistics.

Include using simulations to model probabilistic situations; describing the shape of a distribution of values and summarizing a distribution with measures of center and variability; modeling a bivariate relationship using a trend line or a regression line.

6 Interpret the results of applying a model and compare models for a particular situation.

Include realizing that models seldom fit exactly and so there can be error; identifying simple sources of error and being careful not to over-interpret models. Include recognizing that there can be many models that relate to a situation, that they can capture different aspects of the situation, that they can be simpler or more complex, and that they can have a better or worse fit to the situation and the questions being asked.

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Shape

Core Concepts · Students understand that:

A Shapes and their parts, attributes, and measurements can be analyzed deductively.*

B Congruence, similarity, and symmetry can be analyzed using transformations.

C Mathematical shapes model the physical world, resulting in practical applications of geometry.

D Right triangles and the Pythagorean theorem are central to geometry and its applications, including trigonometry.

A Coherent Understanding of Shape. From only a few axioms, the deductive method of Euclid generates a rich body of theorems about geometric objects, their attributes and relationships. Once understood, those attributes and relationships can be applied in diverse practical situations—interpreting a schematic drawing, estimating the amount of wood needed to frame a sloping roof, rendering computer graphics, or designing a sewing pattern for the most efficient use of material.

Understanding the attributes of geometric objects often relies on measurement: a circle is a set of points in a plane at a fixed distance from a point; a cube is bounded by six squares of equal area; when two parallel lines are crossed by a transversal, pairs of corresponding angles are congruent.

The concepts of congruence, similarity and symmetry can be united under the concept of geometric transformation. Reflections and rotations each explain a particular type of symmetry, and the symmetries of an object offer insight into its attributes—as when the reflective symmetry of an isosceles triangle assures that its base angles are congruent. Applying a scale transformation to a geometric figure yields a similar figure. The transformation preserves angle measure, and lengths are related by a constant of proportionality. If the constant of proportionality is one, distances are also preserved (so the transformation is a rigid transformation) and the figures are congruent.

The definitions of sine, cosine and tangent for acute angles are founded on right triangle similarity, and, with the Pythagorean theorem, are fundamental in many practical and theoretical situations.

Connections to Coordinates, Functions and Modeling. The Pythagorean theorem is a key link between geometry, measurement and distance in the coordinate plane. Parameter changes in families of functions can be interpreted as transformations applied to their graphs and those functions, as well as geometric objects in their own right, can be used to model contextual situations.

*In this document, deductive analysis aligns with the notion of adaptive reasoning as defined in *Adding it Up*, and includes empirical exploration, informal justification, and formal proof.

Core Skills · Students can and do:

1 Use multiple geometric properties to solve problems involving geometric figures.

Properties include: measures of interior angles of a triangle sum to 180°; vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; measures of supplementary angles sum to 180°; two lines parallel to a third are parallel to each other; points on a perpendicular bisector of a segment are exactly those equidistant from the segment's endpoints; and a line tangent to a circle is perpendicular to the radius meeting it.

2 Prove theorems, test conjectures and identify logical errors.

Include theorems establishing the properties in Core Skill 1 and other theorems about angles, parallel and perpendicular lines, similarity and congruence of triangles.

3 Construct and interpret representations of geometric objects.

Include classical construction techniques and construction techniques supported by modern technologies. Include moving between two-dimensional representations and the three-dimensional objects they represent, such as in schematics, assembly instructions, perspective drawings and multiple views.

4 Solve problems involving measurements.

Include measurement (length, angle measure, area, surface area, and volume) of a variety of figures and shapes in two- and three-dimensions. Compute measurements using formulas and by decomposing complex shapes into simpler ones.

5 Solve problems involving similar triangles and scale drawings.

Include computing actual lengths, areas and volumes from a scale drawing and reproducing a scale drawing at a different scale.

6 Apply properties of right triangles and right triangle trigonometry to solve problems.

Include using the Pythagorean theorem and properties of special right triangles, and applying sine, cosine and tangent to determine lengths and angle measures of right triangles. Use right triangles and their properties to solve real-world problems. Limit angle measures to degrees.

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Coordinates

Core Concepts · Students understand that:

A Locations in the plane or in space can be specified by pairs or triples of numbers called coordinates.

B Coordinates link algebra with geometry and allow methods in one domain to solve problems in the other.

C The set of solutions to an equation in two variables forms a curve in the coordinate plane—such as a line, parabola, circle—and the solutions to systems of equations correspond to intersections of these curves.

A Coherent Understanding of Coordinates. Applying a coordinate system to Euclidean space connects algebra and geometry, resulting in powerful methods of analysis and problem solving.

Just as the number line associates numbers with locations in one dimension, a pair of perpendicular axes associates pairs of numbers with locations in two dimensions. This correspondence between numerical coordinates and geometric points allows methods from algebra to be applied to geometry and vice versa. The solution set of an equation becomes a geometric curve, making visualization a tool for doing and understanding algebra. Geometric shapes can be described by equations, making algebraic manipulation into a tool for geometric understanding, modeling and proof.

Coordinate geometry is a rich field for exploration. How does a geometric transformation such as a translation or reflection affect the coordinates of points? How is the geometric definition of a circle reflected in its equation?

Adding a third perpendicular axis associates three numbers with locations in three dimensions and extends the use of algebraic techniques to problems involving the three-dimensional world we live in.

Connections to Shape, Quantity, Equations and Functions. Coordinates can be used to reason about shapes. In applications, coordinate values often have units (such as meters and bushels). A one-variable equation of the form $f(x) = g(x)$ may be solved in the coordinate plane by finding intersections of the curves $y = f(x)$ and $y = g(x)$.

Core Skills · Students can and do:

1 Translate fluently between lines in the coordinate plane and their equations.

Include predicting visual features of lines by inspection of their equations, determining the equation of the line through two given points, and determining the equation of the line with a given slope passing through a given point.

2 Identify the correspondence between parameters in common families of equations and the location and appearance of their graphs.

Include common families of equations—the graphs of $Ax + By = C$, $y = mx + b$ and $x = a$ are straight lines; the graphs of $y = a(x - h)^2 + k$ and $y = Ax^2 + Bx + C$ are parabolas; and the graph of $(x - h)^2 + (y - k)^2 = r^2$ is a circle.

3 Use coordinates to solve geometric problems.

Include proving simple theorems algebraically, using coordinates to compute perimeters and areas for triangles and rectangles, finding midpoints of line segments, finding distances between pairs of points and determining when two lines are parallel or perpendicular.

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Probability

Core Concepts · Students understand that:

A Probability models outcomes for situations in which there is inherent randomness, quantifying the degree of uncertainty in terms of relative frequency of occurrence.

B The law of large numbers provides the basis for estimating certain probabilities by use of empirical relative frequencies.

C The laws of probability govern the calculation of probabilities of combined events.

D Interpreting probabilities contextually is essential to rational decision-making in situations involving randomness.

A Coherent Understanding of Probability. Probability assesses the likelihood of an event in a situation that involves randomness. It quantifies the degree of certainty that an event will happen as a number from 0 through 1. This number is generally interpreted as the relative frequency of occurrence of the event over the long run.

The structure of a probability model begins by listing or describing the possible outcomes for a random situation (the sample space) and assigning probabilities based on an assumption about long-run relative frequency. In situations such as flipping a coin, rolling a number cube, or drawing a card, it is reasonable to assume various outcomes are equally likely.

Compound events constructed from these simple ones can be represented by tree diagrams and by frequency or relative frequency tables. The probabilities of compound events can be computed using these representations and by applying the additive and multiplicative laws of probability. Interpreting these probabilities relies on an understanding of independence and conditional probability, approachable through the analysis of two-way tables.

Converting a verbally-stated problem into the symbols and relations of probability requires careful attention to words such as *and*, *or*, *if*, and *all*, and to grammatical constructions that reflect logical connections. This is especially true when applying probability models to real-world problems, where simplifying assumptions are also usually necessary in order to gain at least an approximate solution.

Connections to Statistics and Expressions. Probability is the foundation for drawing valid conclusions from sampling or experimental data. Counting has an advanced connection with Expressions through Pascal's triangle and binomial expansions.

Core Skills · Students can and do:

1 Compute theoretical probabilities by systematically counting points in the sample space.

Make use of symmetry and equally likely outcomes. Include permutation and combination problems as long as small numbers are involved or technology is used, so that formulas are not required.

2 Interpret probabilities of compound events using concepts of independence and conditional probability.

Include reading conditional probabilities from two-way tables.

3 Compute probabilities of compound events.

Make use of the additive and multiplicative laws of probability, tree diagrams and frequency or relative frequency tables in real contexts. Do not emphasize fluency with the related formulas

4 Estimate probabilities empirically.

Include using data from simulations carried out with technology to estimate probabilities.

5 Identify and explain common misconceptions regarding probability.

Include misconceptions about long-run versus short-run behavior of relative frequencies (the law of large numbers). Include attention to the use and misuse of probability in the media, especially in terms of interpreting charts and tables and in the contextual meaning of terms connected to probability, such as 'odds' or 'risk.'

6 Adapt probability models to solve real-world problems.

Include the use of conditional probability to assess subsets of data (e.g., what does the data say about males and females separately). Include the use of independence as a simplifying assumption (e.g., find the probability that two students both contract the disease this year).

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Statistics

Core Concepts · Students understand that:

A Statistical methods take variability into account to support making informed decisions based on quantitative studies designed to answer specific questions.

B Visual displays and summary statistics condense the information in data sets into usable knowledge.

C Randomness is the foundation for using statistics to draw conclusions when testing a claim or estimating plausible values for a population characteristic.

D The design of an experiment or sample survey is of critical importance to analyzing the data and drawing conclusions.

A Coherent Understanding of Statistics. Decisions or predictions are often based on data—numbers in context. These decisions or predictions would be easy if the data always sent a clear message, but the message is often obscured by variability in the data. Statistics provides tools for describing variability in data and for making informed decisions that take variability into account.

Data are gathered, displayed, summarized, examined and interpreted to discover patterns. Data can be summarized by a statistic measuring center, such as mean or median, and a statistic measuring spread, such as interquartile range or standard deviation. Different distributions can be compared numerically using these statistics or visually using plots. Which statistics to compare, and what the results of a comparison might mean, depend on the question to be investigated and the real-life actions to be taken.

Randomization has two important uses in drawing statistical conclusions. First, collecting data from a random sample of a population makes it possible to draw valid conclusions about the whole population, taking variability into account. Second, randomly assigning individuals to different treatments allows a fair comparison of the effectiveness of those treatments. A statistically significant outcome is one that is unlikely to be due to chance and this can be evaluated only under the condition of randomness.

In critically reviewing uses of statistics in public media and other reports, it is important to consider the study design, how the data were collected, and the analyses employed as well as the data summaries and the conclusions drawn.

Connections to Probability, Functions and Modeling. Valid conclusions about a population depend on designed simulations or other statistical studies using random sampling or assignment and rely on probability for their interpretation. Functional models may be used to approximate data. If the data are approximately linear, the relationship may be modeled with a trend line and the strength and direction of such a relationship may be expressed through a correlation coefficient. Technology facilitates the study of statistics by making it possible to simulate many possible outcomes in a short amount of time, and by generating plots, function models, trend lines and correlation coefficients.

Core Skills · Students can and do:

1 Formulate questions that can be addressed with data. Identify the relevant data, collect and organize it to respond to the question.

Include determining whether a question can best be addressed through a sample survey, randomized experiment or observational study. Include unbiased selection for a sample and randomization of assignment to treatment for an experiment.

2 Use appropriate displays and summary statistics for data.

Include univariate, bivariate, categorical and quantitative data. Include the thoughtful selection of displays and measures of center and spread to summarize data.

3 Interpret data displays and summaries critically; draw conclusions and develop recommendations.

Include paying attention to the context of the data, interpolating or extrapolating judiciously, and examining the effects of extreme values of the data on summary statistics of center and spread. Include data sets that follow a normal distribution. Include observing and interpreting linear trends in bivariate quantitative data.

4 Draw statistical conclusions involving population means or proportions using sample data.

Conclusions should be based on simulations or other informal techniques, rather than formulas.

5 Evaluate reports based on data.

Include looking for bias or flaws in the way the data were gathered or presented, as well as unwarranted conclusions, such as claims that confuse correlation with causation.

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- *Secondary School Curriculum, (2010).* (Grades 9-10). Central Board of Education.
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C. International Baccalaureate, Mathematics Standard Level, 2006.

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E. EdExcel, General Certificate of Secondary Education, Mathematics, 2009.

F. Lundsgaard Hansen, Birthe and Vagn. Reference levels in School Mathematics, Education in Europe, National Presentation, Denmark, 2001. Last retrieved July 15, 2009, from http://www.emis.de/projects/Ref/doc_ems_pdf/EMS_NATIONAL_PRESENTATIONS/EMS_DENMARK.pdf

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B. Florida State Standards

C. Georgia State Standards

D. Massachusetts State Standards

E. Mathematics Curriculum Framework Revision Panel [Revised Progress Report]. Massachusetts Department of Elementary and Secondary Education, 2009. Last retrieved July 15, 2009, from http://www.doe.mass.edu/boe/docs/0509/item5_report.pdf.

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English Language Arts

K–12

Introduction

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

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

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

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

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

Key design considerations

A blend of cross-cutting and specific standards

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

A focus on results rather than means

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

Shared responsibility for literacy

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

Grade bands to describe growth, grades to focus instruction

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

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

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

Research and media skills integrated into the standards as a whole

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

An integrated model of English language arts

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

Central features of the document

Reading and Literature: Text complexity and the growth of comprehension

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

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

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

Speaking and Listening: Flexible communication

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

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Language Development: Conventions and vocabulary

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

Appendices

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

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

January 2010

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

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

* * *

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

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

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

2. They build strong content knowledge.

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

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

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

4. They comprehend as well as critique.

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

5. They privilege evidence.

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

6. They care about precision.

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

7. They craft and look for structure.

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

8. They use technology strategically and capably.

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

9. They come to understand other perspectives and cultures.

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

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English Language Learners

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

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

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

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

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

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

Access for Students with Disabilities

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

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

Meeting English Language Arts (ELA) Standards

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

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

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

[2] See the Council of Chief State School Officers, (2005). *Training District and State Personnel on Accommodations: A Study of State Practices, Challenges, and Resources* at http://www.ccsso.org/publications/details.cfm?PublicationID=221 for further explanation and evidence around accommodations.

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

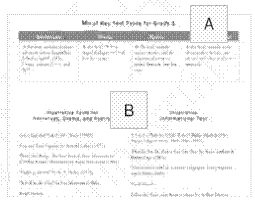
How to Read This Document

The *Standards* are divided into an ELA-specific document (*Standards for English Language Arts K–12*) and a literacy document for history and science (*Standards for Literacy in History and Science 6–12*). The ELA document includes standards for and examples of history and science reading in K–5.

The ELA-specific document is organized by grade (kindergarten and grades 1, 2, and 3) and grade band (grades 4–5, 6–8, 9–10, and 11–CCR). The *Standards for Literacy in History and Science* are organized by grade band (grades 4–5, 6–8, 9–10, and 11–CCR). Each grade/band is divided into strands—Reading, Writing, Speaking and Listening, and Language Development.

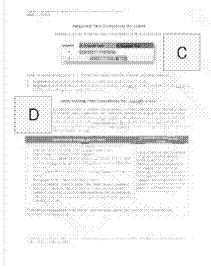
While all strands contain standards statements, each strand also has its own specific features.

Reading and Literature (ELA)/Reading (History/Science)

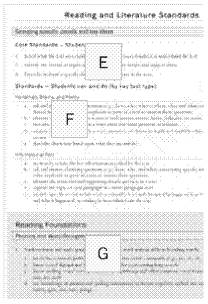


Kindergarten and grade 1 begin with the **mix of key text types (A)**, which identifies the genres and subgenres of reading material appropriate for each grade. This is followed by a list of **illustrative texts (B)** in the key text types. This list is suggestive of the sorts of texts appropriate for the grade in terms of complexity and quality; excerpts appear in Appendix B.

Grades 2, 3, 4–5, 6–8, 9–10, and 11–CCR include this information immediately after a graphic specifying **required text complexity by grade (C)**—in brief, the proportion of texts within and above grade band that students must read each year. (For example, 70% of the texts that grade 3 students read should come from the grades 2–3 text complexity band, while the other 30% should come from the grades 4–5 band.) An overview of the method for **determining text complexity (D)** in the particular grade band follows. (A fuller treatment is provided in Appendix A.)

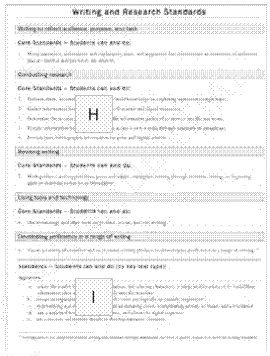


All grades/bands organize standards under a number of boxed subheadings (e.g., "Grasping specific details and key ideas"). The standards at all grade levels are divided into cross-cutting **Core Standards (E)**, which are numbered and applicable to many types of reading, and more specific **Standards (F)**, which are lettered and organized by text type (e.g., "Narratives, Drama, and Poetry"). Kindergarten and grades 1, 2, and 3 also include boxed sections of **reading foundations (G)**, which enumerate basic concepts of print and other foundational skills in reading that very young students must acquire.



Writing and Research

Cross-cutting **Core Standards (H)**, which are numbered and apply to many types of writing, are organized under a number of boxed subheadings (e.g., "Writing to reflect audience, purpose, and task"). **Standards (I)** specific to writing in particular text types—narrative, informative and explanatory text, and argument—are lettered and follow in a separate section. In kindergarten through grade 5, writing arguments takes the form of opinion writing, hence the parenthetical notation next to "Arguments" in those grades/bands.

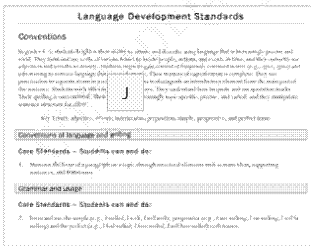


Speaking and Listening

Cross-cutting **Core Standards**, which are numbered and apply to speaking and listening in many situations, are grouped with lettered **Standards**, which set requirements for speaking and listening in key communication (e.g., "Presentation of Ideas and Information").

Language Development

This strand is organized differently in the ELA and history/science documents. The ELA strand comprises two full sections: Conventions and Vocabulary. Each section includes numbered **Core Standards** organized under a number of boxed subheadings (e.g., "Mechanics") and introduced by a brief summative paragraph and list of **key terms (J)** intended to be taught explicitly in grade-appropriate ways. ELA Vocabulary consists of three subsections—determining the meaning of words, understanding the nuances of words, and acquiring vocabulary—under each of which numbered Core Standards appear. Language Development in the history/science document consists of the summative paragraphs for Conventions and all of the Vocabulary section found in ELA except for nuances in word meaning.

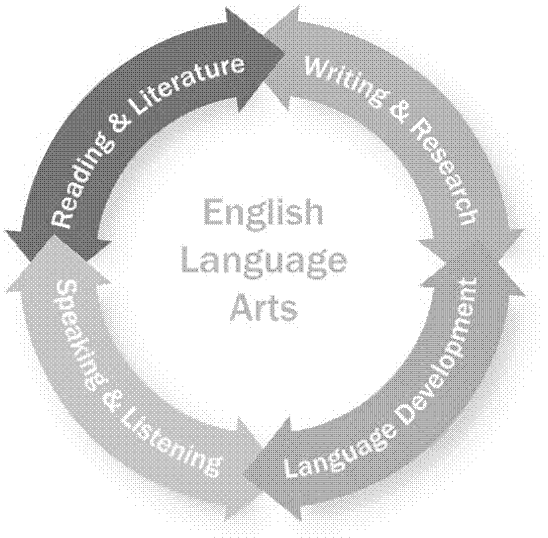


Focus for Instruction

Beginning with grade 4, a page summarizing grade-level responsibility, including grade-specific areas of focus, is provided to help distinguish responsibilities within multiyear bands.

English Language Arts

Kindergarten



Mix of Key Text Types for Kindergarten

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

Illustrative Texts for Narratives, Drama, and Poetry[4]

Are You My Mother? by P.D. Eastman (1960)

Put Me in the Zoo by Robert Lopshire (1960)

"Mix a Pancake" by Christina Rosetti (1986)

Wouldn't You?" by John Ciardi (1986)

Illustrative Informational Texts

My Five Senses by Aliki (1962)

Read Alouds:

Amazing Whales! by Sarah L. Thomson (2005)

The Year at Maple Hill Farm by Alice and Martin Provensen (1978)

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

Reading and Literature Standards[5]

Grasping specific details and key ideas

Core Standards — Students can and do:

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

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

Narratives, Drama, and Poetry

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

Informational Text

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

Reading Foundations

Print Concepts

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

Linguistic Awareness

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

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

COMMON CORE STANDARDS

Observing craft and structure

Core Standards — Students can and do:

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

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

Narratives, Drama, and Poetry

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

Informational Text

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

Reading Foundations, continued

Phonics and Word Recognition

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

Developing Fluency

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

Integrating information and evaluating evidence

Core Standards — Students can and do:

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

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

Narratives, Drama, and Poetry

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

Informational Text

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

Developing habits for reading text

Core Standards — Students can and do:

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

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

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

Conducting research

Core Standards — Students can and do:

2. Gather information from experiences or provided text sources.

Revising writing

Core Standards — Students can and do:

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

Using tools and technology

Core Standards — Students can and do:

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

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

Narratives

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

Informative and Explanatory Texts

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

Arguments (opinions)

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

Speaking and Listening Standards

Listening closely and participating productively

Core Standards — Students can and do:

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

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

Classroom discussions and participating productively

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

Exchanging information and speaking effectively

Core Standards — Students can and do:

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

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

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

Presentation of ideas and information

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

Language Development Standards

Conventions

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

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

Conventions of language and writing

Core Standards — Students can and do:

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

Grammar and usage

Core Standards — Students can and do:

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

Mechanics

Core Standards — Students can and do:

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

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

Vocabulary

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

Determining the meaning of words

Core Standards — Students can and do:

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

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

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

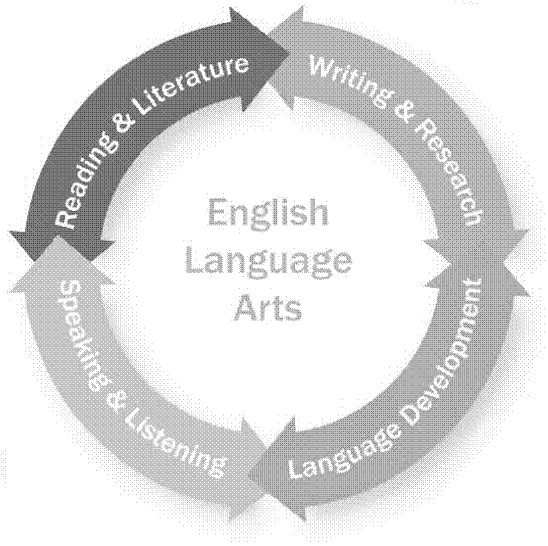
Acquiring vocabulary

Core Standards — Students can and do:

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

English Language Arts

Grade 1



Mix of Key Text Types for Grade 1

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

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

Green Eggs and Ham by Dr. Seuss (1960)

Frog and Toad Together by Arnold Lobel (1971)

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

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

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

Read alouds:

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

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

Illustrative Informational Texts

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

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

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

Read alouds:

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

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

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

Reading and Literature Standards[8]

Grasping specific details and key ideas

Core Standards — Students can and do:

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

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

Narratives, Drama, and Poetry

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

Informational Text

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

Reading Foundations

Linguistic Awareness

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

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

Observing craft and structure

Core Standards — Students can and do:

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

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

Narratives, Drama, and Poetry

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

Informational Text

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

Reading Foundations, continued

Phonics and Word Recognition

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

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

Integrating information and evaluating evidence

Core Standards — Students can and do:

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

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

Narratives, Drama, and Poetry

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

Informational Text

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

Developing habits for reading text

Core Standards — Students can and do:

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

Reading Foundations, continued

Developing Fluency

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

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

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

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

Conducting research

Core Standards — Students can and do:

2. Gather information from experiences or provided text sources.

Revising writing

Core Standards — Students can and do:

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

Using tools and technology

Core Standards — Students can and do:

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

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

Narratives

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

Informative and Explanatory Texts

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

Arguments (opinions)

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

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

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

Speaking and Listening Standards

Listening closely and participating productively

Core Standards — Students can and do:

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

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

Classroom discussions and participating productively

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

Exchanging information and speaking effectively

Core Standards — Students can and do:

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

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

Presentation of ideas and information

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

Language Development Standards

Conventions

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

Key Terms: comma, pronoun, verb

Grammar and usage

Core Standards — Students can and do:

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

Mechanics

Core Standards — Students can and do:

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

Vocabulary

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

Determining the meaning of words

Core Standards — Students can and do:

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

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

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

Acquiring vocabulary

Core Standards — Students can and do:

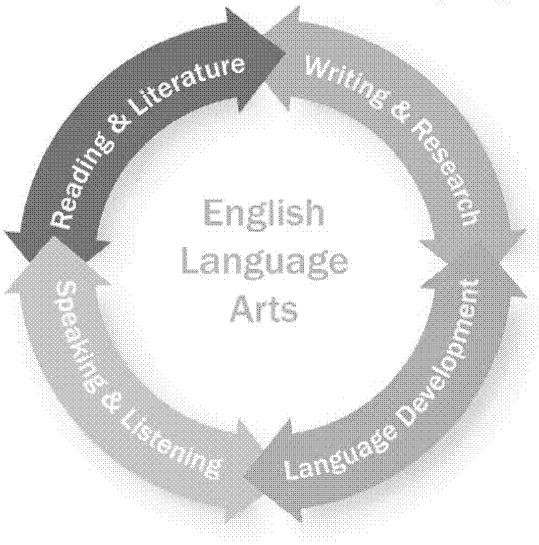
6. Acquire and use new vocabulary taught directly and gained through conversations and hearing texts read aloud.

CONFIDENTIAL DRAFT

CONFIDENTIAL

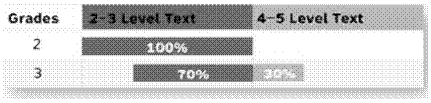
English Language Arts

Grade 2



Required Text Complexity by Grade

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



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

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

Determining Text Complexity for Grades 2–3

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

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

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

Mix of Key Text Types for Grade 2

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

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

Crow Boy by Taro Yashima (1955)

The Stories Julian Tells by Ann Cameron (1981)

Tops and Bottoms by Janet Stevens (1995)

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

"Weather" by Eve Merriam (1969)

Read alouds:

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

"Fireflies" by Paul Fleischman, illustrated by Eric Beddows (1988)

Illustrative Informational Texts

Maps & Globes by Jack Knowlton, pictures by Harriet Barton (1985)

Sunshine Makes the Seasons by Franklyn M. Branley (1985)

From Seed to Plant by Gail Gibbons (1991)

Boy, Were We Wrong About Dinosaurs by Kathleen V. Kudlinski, illustrated by S.D. Schindler (2005)

[11] See Appendix B for other texts illustrative of Grades 2-3 text complexity.

Reading and Literature Standards

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Retell what the text says explicitly and make inferences required to understand the text.
2. Identify the lessons or topics of the text and the key details that support them.
3. Describe in detail a specific character, event, or topic in the text.

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

Narratives, Drama, and Poetry

a. ask and answer clarifying questions (e.g., how, why, where, when, who, and what) concerning specific details in the text and refer explicitly to parts of a text to answer these questions
b. identify or infer the moral or lesson in well-known stories, fables, folktales, or myths
c. describe how major events in a story often lead from problem to solution
d. examine a specific incident in a story, narrative, or drama in depth and establish when, where, and why it occurs
e. describe characters based upon what they say and do

Informational Text

a. accurately restate the key information provided by the text
b. ask and answer clarifying questions (e.g., how, why, and what) concerning specific details in the text and refer explicitly to parts of a text to answer these questions
c. identify the main idea and supporting details and facts in a text
d. explain the topic of each paragraph in a multi-paragraph text
e. identify specific events in historical or scientific texts and discuss what happened, as well as where, when, and why it happened, according to facts taken from the text

Reading Foundations

Phonics and Word Recognition

1. Students know and apply grade-level phonics and word analysis skills in decoding words.
   a. know the common spelling-sound correspondences for consonants (e.g., *wr-*, *sh*, *-ck*, *-ll*)
   b. know vowel digraph and final-*e* conventions for representing long vowels
   c. know spelling-sound correspondences for diphthongs and other common vowel teams (e.g., *loud*, *cow*, *look*, *loop*, *boy*, *boil*)
   d. use knowledge of phonics and spelling conventions to decode regularly spelled one-syllable words (e.g., *sick*, *march*, *sight*, *slice*, *bake*, *spring*)

Observing craft and structure

Core Standards — Students can and do:

4. Explain the meanings of words and phrases as they are used in the text.
5. Gain familiarity with different ways of presenting stories and information in text.
6. Compare and contrast different versions of the same story or informational texts on the same subject.

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

Narratives, Drama, and Poetry

a. recognize sensory details and how they are used to describe events, feelings, and objects
b. describe the different ways poets use rhyme, rhythm, and sensory images to convey a topic or message
c. identify repetitions in phrases, refrains, or sounds in poems and songs
d. describe story elements, including characters, setting, the problem, and how it is resolved
e. discuss stories written by the same author about similar characters or compare different versions of similar well-known tales and myths from various cultures

Informational Text

a. locate key words, facts, or other details using features of texts (e.g., captions, headings, glossaries, indexes, electronic menus, and icons)
b. distinguish between writing that is based on real events and writing that is based on fantasy or fictional events
c. combine information from two different parts of a text and identify how they are related (e.g., chronology, causation)
d. after reading two passages on the same subject, combine the information to more fully describe a topic

Reading Foundations, continued

Developing Fluency

2. Students read with sufficient accuracy and fluency to support comprehension.
   a. demonstrate increased accuracy, fluency, and expression on successive readings of a text
   b. use context to confirm or self-correct word recognition and understanding, rereading as necessary
   c. read alone or with a partner at least 20 minutes each day, in school or out

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Locate and use information from graphs, illustrations, and electronic sources.
8. Identify and understand words and phrases that indicate logical relationships.
9. Identify who is telling the story or providing information at any given point in the text.

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

Narratives, Drama, and Poetry

a. efficiently navigate stories in print and electronic text and explain how images and illustrations connect to and clarify the content
b. identify who is telling the story or who is speaking in a drama

Informational Text

a. use information from visual elements of print and electronic texts (e.g., graphs, maps, charts, illustrations, photographs, diagrams) and explain how they help a reader understand the text
b. identify words (e.g., *such as*, *because*, *therefore*, *in order to*, *since*) that logically connect ideas in sentences and paragraphs

Developing habits for reading complex text

Core Standards — Students can and do:

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding text.

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

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

Conducting research

Core Standards — Students can and do:

2. Gather information from experiences or provided text sources.

Revising writing

Core Standards — Students can and do:

3. With specific guidance, strengthen writing through revision.

Using tools and technology

Core Standards — Students can and do:

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

Standards — Students can and do (by key text type):[12]

Narratives

a. establish a situation in time and/or place that is appropriate for the sequence of events to follow
b. recount a single well-elaborated event or sequence of events, managing chronological sequence with temporal words, phrases, and clauses
c. tell what the narrator thought or felt
d. include dialogue if appropriate and specific details
e. provide closure through reaction, commentary, or summation

Informative and Explanatory Texts

a. produce a brief introduction
b. create an organizational structure that presents similar information together, frequently patterned after chapter book headings or picture books
c. use adequate and specific facts and definitions to develop points
d. use linking words, such as *also*, *another*, *and*, and *more*, to connect ideas within categories of information, and headers to signal groupings
e. include a concluding sentence or section

Arguments (opinions)

a. introduce the topic or book(s) directly
b. state opinion(s) relative to the topic
c. provide reasons for opinions and details to support them
d. create a list-like structure for organization
e. use words to link and organize opinions and reason(s) (e.g., *because*, *another*, *and*, *also*)
f. refer to the text(s) when writing about literature
g. close with a concluding statement or recommendation

Speaking and Listening Standards

Listening closely and participating productively

Core Standards — Students can and do:

1. Participate productively in small groups and as a class, engaging in a series of oral exchanges about texts and topics.

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

2. Sustain concentration on information presented orally, visually, or multi-modally and confirm understanding by paraphrasing the information.

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

Classroom discussions and participating productively

a. engage in conversations on familiar topics
b. paraphrase the key information or ideas of others presented orally or through other media
c. inquire about oral or visual presentations to deepen understanding or clarify comprehension
d. link additions to conversation to the previous remarks of others
e. participate productively by listening politely to the ideas of others, taking turns speaking, and extending their ideas in light of discussions

Exchanging information and speaking effectively

Core Standards — Students can and do:

3. Share experiences and ideas, thinking about the needs of their listeners.
4. Speak audibly and clearly at an understandable pace.

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

Presentation of ideas and information

a. recount stories or experiences with descriptive details by answering who, what, where, when, how, and why questions about them
b. report on a topic, including appropriate facts and details
c. use appropriate tone to express ideas, feelings, and needs clearly
d. recite or read aloud poems, rhymes, songs, and stories, speaking clearly at an understandable pace

Language Development Standards

Conventions

In grade 2, students create sentences of expanding length and complexity, though their control over these sentences is likely to be imperfect. Their command of noun and verb formation extends to common irregular forms. Students capitalize correctly in most situations. Their use of punctuation has grown to include commas in greetings and closings of letters as well as apostrophes to form contractions and to signal possession. Their spelling is increasingly conventional, and they now consult references, such as beginning dictionaries, to aid them when needed.

Key Terms: apostrophe, contraction, regular and irregular nouns and verb, possessive

Grammar and usage

Core Standards — Students can and do:

1. Generate and expand sentences with embedded, dependent, or conjoined clauses (e.g., *After we came home from school, I fed the gerbil and my sister cleaned the cage*).
2. Form common irregular plural nouns (e.g., *feet, children, teeth, mice, fish, women*).

3. Form the past tense of common irregular verbs (e.g., *sat, hid, told*).

Mechanics

Core Standards — Students can and do:

4. Capitalize holidays, product names, geographic names, and important words in titles.
5. Use commas in greetings and closings of letters.
6. Use apostrophes to punctuate contractions and to form common possessives.
7. Use conventional spelling for high-frequency and other studied words.
8. Generalize learned spelling patterns when writing words (e.g., *cage* → *badge; boy* → *boil; paper* → *copper*).
9. Use spelling rules for adding suffixes to base words (e.g., *sitting, smiled, cries, happiness*).
10. Consult reference materials, including beginning dictionaries, to check and correct spellings.

Vocabulary

In grade 2, students use a repertoire of strategies for dealing with unknown words. They can analyze the word itself, consider how it is used, consult reference materials, use the components of a compound word as clues to the word's meaning, or employ some combination of these strategies to determine or clarify word meanings. They figure out which meaning of a multiple-meaning word is most likely intended in a particular circumstance, and they differentiate among the connotations of related verbs and adjectives. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly.

Determining the meaning of words

Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
   - identifying its base word when it has affixes (e.g., *happiness, finally, grimy, busily*)
   - determining how it is used in a sentence when reading, including whether it names or describes a thing or an action
   - consulting reference materials, including glossaries and beginning dictionaries, both print and digital
2. Determine the relevant meaning of multiple-meaning words by using context.
3. Explain the meaning of grade-appropriate compound words (e.g., *birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark*).

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

4. Distinguish among related verbs (e.g., *toss, throw, hurl*) to gain a sense of their shadings of meaning.
5. Distinguish among related adjectives (e.g., *thin, slender, skinny, scrawny; irritated, mad, angry, furious*) to gain a sense of their shadings of meaning.

Acquiring vocabulary

Core Standards — Students can and do:

6. Acquire and use new vocabulary taught directly and gained through reading and conversations.

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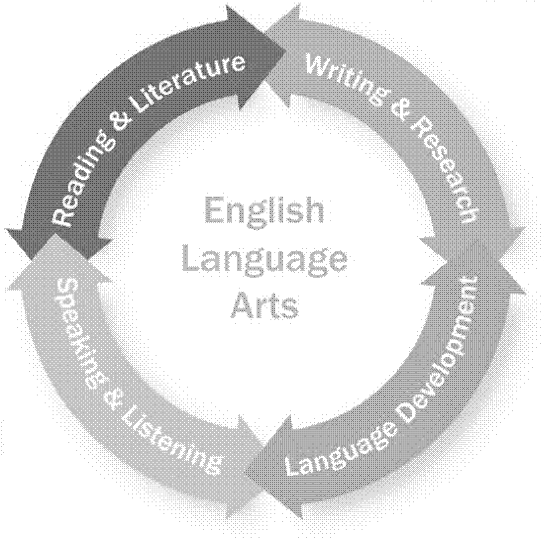
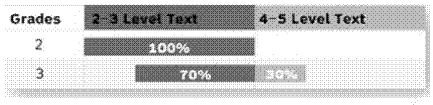
English Language Arts

Grade 3



Required Text Complexity by Grade

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



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

- **In grade 3**, students focus on reading texts in the 2–3 grade band level text (70 percent) independently and are introduced to texts in the 4–5 grade band level as "stretch" texts (30 percent), which will likely require scaffolding.

Determining Text Complexity for Grades 2–3

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

Qualitative Measures of Texts[12]	Quantitative Measures of Texts
• *Structure:* Explicit, simple, conventional, simple graphic representations are supplementary to meaning; texts are relatively short • *Purpose:* Single; explicitly stated • *Style and Language:* Familiar, accessible, plain, few literary devices; mostly clear, everyday language; limited use of Tier 2 and 3 words and figurative language • *Richness:* A few ideas/concepts; concrete; low information density • *Relationships:* A few connections; explicit • *Knowledge Demands:* Ability to handle simple themes and fantastical elements as well as draw upon common, everyday experiences; general background knowledge and familiarity with genre conventions required; some everyday and general content knowledge	A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.
Professional Judgment that weighs students' prior knowledge and life experiences as well as their interests, motivations, and maturity level.	

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

Mix of Key Text Types for Grade 3

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

Illustrative Texts for Narratives, Drama, and Poetry[14]

My Father's Dragon by Ruth Stiles Gannett, illustrated by Ruth Chrisman Gannett (1948)

Sarah, Plain and Tall by Patricia MacLachlan (1985)

The One-Eyed Giant (Book One of Tales from the Odyssey) by Mary Pope Osborne (2002)

"Knoxville, Tennessee" by Nikki Giovanni (1968)

"Eating While Reading" by Gary Soto (1995)

Read Alouds:

"How the Camel Got His Hump" in *Just So Stories* by Rudyard Kipling (1902)

Illustrative Informational Text

A Medieval Feast by Aliki (1983)

So You Want to Be President? by Judith St.George, illustrated by David Small (2000)

Bat Loves the Night by Nicola Davies, illustrated by Sarah Fox-Davies (2008)

Moonshot: The Flight of Apollo 11 by Brian Floca (2009)

[14] See Appendix B for other texts illustrative of Grades 2-3 text complexity.

Reading and Literature Standards

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Retell what the text says explicitly and make inferences required to understand the text.
2. Identify lessons or topics of the text and the key details that support them.
3. Describe in detail a specific character, event, or topic in the text.

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

Narratives, Drama, and Poetry

a. ask and answer clarifying questions (e.g., how, why, where, when, who, and what) concerning specific details in the text and refer explicitly to parts of a text to answer these questions
b. identify or infer the moral or lesson in well-known stories, fables, folktales, or myths
c. describe how major events in a story often lead from problem to solution
d. examine a specific incident in a story, narrative, or drama in depth, and establish when, where, and why it occurs
e. describe characters based upon what they say and do

Informational Text

a. accurately restate key information provided by the text
b. ask and answer clarifying questions (e.g., how, why, and what) concerning specific details in the text and refer explicitly to parts of a text to answer these questions
c. identify the main idea and supporting details and facts in a text
d. explain the topic of each paragraph in a multi-paragraph text
e. identify specific events in historical or scientific texts and discuss what happened, as well as where, when, and why it happened, according to facts taken from the text

Reading Foundations

Phonics and Word Recognition

1. Students know and apply grade-level phonics and word analysis skills in decoding words.
   a. identify and know the meaning of the most common prefixes and derivational suffixes (e.g., *un-*, *re-*, *mis-*, *-ful*, *-tion*, *-able*)
   b. decode regularly spelled single-syllable and multi-syllable words (e.g., *vocabulary*, *refrigerator*, *terrible*, *frightening*)
   c. read grade-appropriate irregularly spelled words by sight
   d. use phonics and word analysis to identify visually new words when reading

Observing craft and structure

Core Standards — Students can and do:

4. Explain the meanings of words and phrases as they are used in the text.
5. Gain familiarity with different ways of presenting stories and information in text.
6. Compare and contrast different versions of the same story or informational texts on the same subject.

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

Narratives, Drama, and Poetry

a. recognize sensory details and how they are used to describe events, feelings, and objects
b. describe the different ways poets use rhyme, rhythm, and sensory images to convey a topic or message
c. identify repetitions in phrases, refrains, or sounds in poems and songs
d. describe story elements, including characters, setting, the problem, and how it is resolved
e. discuss stories written by the same author about similar characters or compare different versions of similar well-known tales and myths from various cultures

Informational Text

a. locate key words, facts, or other details using features of texts (e.g., captions, headings, glossaries, indexes, electronic menus, and icons)
b. distinguish between writing that is based on real events and writing that is based on fantasy or fictional events
c. combine information from two different parts of a text and identify how they are related (e.g., chronology, causation)
d. after reading two passages on the same subject, combine the information to more fully describe a topic

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Locate and use information from graphs, illustrations, and electronic sources.
8. Identify and understand words and phrases that indicate logical relationships.
9. Identify who is telling the story or providing information at any given point in the text.

Reading Foundations, continued

Developing Fluency

2. Students read with sufficient accuracy and fluency to support comprehension.
   a. demonstrate increased accuracy, fluency, and expression on successive readings of a text
   b. use context to confirm or self-correct word recognition and understanding, rereading as necessary
   c. read at least 20 minutes each day, in school or out

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

Narratives, Drama, and Poetry

a. efficiently navigate stories in print and electronic text and explain how images and illustrations connect to and clarify the content
b. identify who is telling the story or who is speaking in a drama

Informational Text

a. use information from visual elements of print and electronic texts (e.g., graphs, maps, charts, illustrations, photographs, diagrams) and explain how they help a reader understand the text
b. identify words (e.g., *such as*, *because*, *therefore*, *in order to*, *since*) that logically connect ideas in sentences and paragraphs

Developing habits for reading complex text

Core Standards — Students can and do:

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding text.

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

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

Conducting research

Core Standards — Students can and do:

2. Gather information from experiences or provided text sources.

Revising writing

Core Standards — Students can and do:

3. With specific guidance, strengthen writing through revision.

Using tools and technology

Core Standards — Students can and do:

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

Standards — Students can and do (by key text type):[15]

Narratives

a. set the time, indicate a location, introduce characters, or enter immediately into the story line to engage the reader
b. recount a single, well-elaborated event or a sequence of events that unfold naturally using temporal words, phrases, and clauses
c. tell what the narrator thought or felt
d. develop a focus, provide pacing, and include only relevant information
e. develop a character through the description of external behavior
f. provide descriptive details
g. employ dialogue and other narrative strategies
h. provide a satisfying conclusion that is reflective and/or that effectively ties up loose ends

Informative and Explanatory Texts

a. produce an introduction that names the topic and provides at least one general detail about it
b. create an organizational structure that presents similar information together, frequently patterned after chapter book headings or picture books
c. use adequate, relevant, and specific facts and definitions to develop points
d. logically categorize details and facts drawn from personal experience and other sources
e. use linking words, such as *also*, *another*, *and*, and *more*, to connect ideas within categories of information, and use headers to signal groupings
f. include only appropriate information
g. include a concluding sentence or section

Arguments (opinions)

a. introduce the topic or book(s) directly, and attempt to capture the reader's interest
b. state an opinion relative to the topic (e.g., *This is a good book* or *John is a good friend*)
c. provide facts and details to support the opinion
d. create a list-like organizing structure that provides reasons for the opinion
e. use appropriate words to link and organize opinions and reason(s) (e.g., *because*, *another*, *and*, *also*)
f. refer to the text(s) when writing about literature
g. provide a concluding statement, reflection, and/or recommendation

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

Speaking and Listening Standards

Listening critically and participating productively

Core Standards — Students can and do:

1. Participate productively in small groups and as a class, engaging in a series of oral exchanges about texts and topics.
2. Sustain concentration on information presented orally, visually, or multi-modally and confirm understanding by paraphrasing the information.

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

Classroom discussions and participating productively

a. engage in conversations on familiar topics
b. paraphrase the key information or ideas of others presented orally or through other media
c. inquire about oral or visual presentations to deepen understanding or clarify comprehension
d. link additions to conversation to the previous remarks of others
e. participate productively by listening politely to the ideas of others, taking turns speaking, and extending their ideas in light of discussions

Exchanging information and speaking effectively

Core Standards — Students can and do:

3. Share experiences and ideas, thinking about the needs of their listeners.
4. Speak audibly and clearly at an understandable pace.

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

Presentation of ideas and information

a. recount stories or experiences with descriptive details by answering who, what, where, when, how, and why questions about them
b. report on a topic, including appropriate facts and details
c. use appropriate tone to express ideas, feelings, and needs clearly
d. recite or read aloud poems, rhymes, songs, and stories, speaking clearly at an understandable pace

Language Development Standards

Conventions

By grade 3, students have learned the foundations of written and spoken language, including letter, word, and sentence formation and crucial forms of punctuation. They ensure agreement between subject and verb and between pronoun and antecedent in simple situations. Students use quotation marks to indicate dialogue. They know most of the conventions of spelling and consult references to look up words when they still have difficulty. They use precise everyday language to describe and begin to consider the effects of word choice in writing and speaking.

Key Terms: subject-verb and pronoun-antecedent agreement, comma splice, fragment, run-on, quotation mark

Conventions of language and writing

Core Standards — Students can and do:

1. Group related ideas into a paragraph.

Grammar and usage

Core Standards — Students can and do:

2. Generate complete sentences, avoiding fragments, comma splices, and run-ons.*
3. Ensure subject-verb and pronoun-antecedent agreement.*

Mechanics

Core Standards — Students can and do:

4. Use quotation marks in dialogue.
5. Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing regular words.
6. Consult reference materials, including dictionaries, to check and correct spellings.

Word choice and style

Core Standards — Students can and do:

7. Use precise everyday language.
8. Choose words for effect.*[16]

[16] Conventions standards noted with an asterisk (*) need to be revisited by students in subsequent grades. See Appendix A for a full listing.

Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In grade 3, students use their repertoire of strategies to determine and clarify the meaning of unknown and multiple-meaning words. They know that words are sometimes used in nonliteral ways and can use that knowledge to help them understand common idioms. They learn and can paraphrase many common idioms and sayings. They recognize that words have nuances in meaning and rely on context and background knowledge to sort among related words that describe abstract concepts. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly.

Determining the meaning of words

Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
   - using prefixes and suffixes when it is a multimorpheme word (e.g., *thoughtless, recycle, unforgettable*)
   - determining how it is used in a sentence when reading
   - consulting reference materials, including glossaries and dictionaries, both print and digital
2. Determine the meaning of multiple-meaning words by using context.
3. Distinguish between literal and nonliteral uses of language.
4. Paraphrase the meaning of common idioms and sayings.

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

5. Distinguish among related words that describe states of mind, degrees of certainty, or other abstract concepts (e.g., *knew, believed, suspected, heard, wondered*).

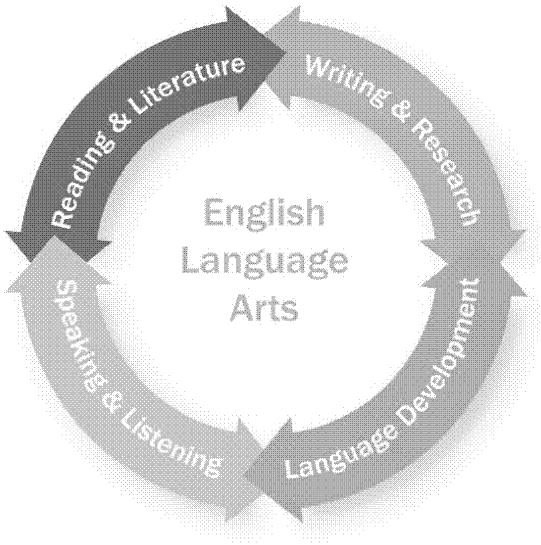
Acquiring vocabulary

Core Standards — Students can and do:

6. Acquire and use new vocabulary taught directly and gained through reading and conversations.

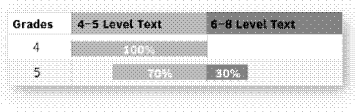
English Language Arts

Grades 4–5



Required Text Complexity by Grade

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



While advancing through grades 4–5, students must engage with texts of steadily increasing complexity.

- **In grade 4**, students focus on reading texts in the 4–5 grade band level with scaffolding likely required for texts at the high end of the range.
- **In grade 5**, students focus on reading in the 4–5 grade band level (70 percent) independently and are introduced to texts in the 6–8 grade band level as "stretch" texts (30 percent), which will likely require scaffolding.

Determining Text Complexity for Grades 4–5[17]

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

Qualitative Measures of Texts	Quantitative Measures of Texts
• *Structure:* Largely explicit and direct; graphic representations are supplementary to meaning; texts are of increasing length • *Purpose:* Single or twofold; clearly indicated • *Style and Language:* Moderately accessible; some literary devices; some everyday language; some use of Tier 2 and Tier 3 words and figurative language • *Richness:* Some ideas/concepts; mostly concrete; moderate information density • *Relationships:* Some connections; largely explicit • *Knowledge Demands:* Ability to handle fairly simple themes, consider a perspective somewhat different from one's own, and understand unfamiliar experiences; general background knowledge and familiarity with genre conventions required; some general and discipline-specific content knowledge	A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.
Professional Judgment that weighs students' prior knowledge and life experiences as well as their interests, motivations, and maturity level.	

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

Mix of Key Text Types for Grades 4–5

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

Illustrative Texts for Narratives, Drama, and Poetry[18]	Illustrative Informational Texts
Alice in Wonderland by Lewis Carroll (1865)	*Discovering Mars* by Melvin Berger (1992)
The Little Prince by Antoine de Saint-Exupery (1943)	*Hurricanes: Earth's Mightiest Storms* by Patricia Lauber (1996)
Bud, Not Buddy by Christopher Paul Curtis (1999)	"Ancient Mound Builders" by E. Barrie Kavash from *Cobblestone* (2003)
"The Echoing Green" from *Songs of Innocence* by William Blake (1789)	*Volcanoes* by Seymour Simon (2006)
"Casey at the Bat" by Ernest Lawrence Thayer (1888)	"Kenya's Long Dry Season" by Nellie Gonzalez Cutler from *Time for Kids* (2009)
"Words Free As Confetti" by Pat Mora (1996)	"Seeing Eye to Eye" by Leslie Hall from *National Geographic Explorer* (2009)
Where the Mountain Meets the Moon by Grace Lin (2009)	

[18] See Appendix B for other texts illustrative of Grades 4–5 text complexity.

Reading and Literature Standards

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Determine what the text says explicitly and make inferences required for understanding; explain how those inferences stem from the text.
2. Articulate the main ideas and themes of the text and provide a summary that captures the key supporting details.
3. Describe in detail two or more characters, events, or topics in the text and explain how they are related to one another.

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

Narratives, Drama, and Poetry

a. determine the theme of a story or drama, basing the understanding of theme on how characters adapt or change in response to the challenges posed in the plot
b. summarize accurately the significant events of a play or narrative in chronological order, describing where, when, why, and how specific actions take place
c. describe characters based on evidence from their thoughts, words, deeds, and interactions with others
d. describe the setting in detail, drawing on evidence of the time, place, and other cues
e. determine the theme of a poem, basing the understanding of theme on the key observations, images, or statements in a poem

Informational Text

a. outline the main and supporting ideas in the text and provide an accurate summary
b. identify the topic sentence and gist of each paragraph in a multi-paragraph text
c. describe related events in a history text or related topics in a science text and explain the relationships between the events or topics

Observing craft and structure

Core Standards — Students can and do:

4. Explain the meanings of words and phrases in the text, distinguishing literal and figurative uses.
5. Comprehend literature and information presented in a range of structures.
6. Compare and contrast texts written on the same topic or theme and explain how they are different and similar.

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

Narratives, Drama, and Poetry

a. describe the sensory details in texts and distinguish the use of literal versus figurative language
b. observe and explain how words with similar meanings can have different connotations
c. identify the meaning of figurative phrases and culturally significant characters found in mythology that are integral to understanding other works of literature and texts (e.g., *Herculean*, *Pandora's box*)
d. identify how narratives and plays are structured to describe the progress of characters through a series of events and challenges

e. identify rhymes and other repetitions of sounds that supply rhythm and pattern in poems and narrative prose
f. compare a narrative or a play with a presentation in another format, such as film, stage, or interactive text, and note what is surprising or different about the alternative version
g. compare works of literature on the same topic or with a similar theme

Informational Text

a. explain the meaning of key words and terms as they are used in the text
b. understand information drawn from a variety of texts with different structures, such as chronological, compare-and-contrast, or as a chain of causes and effects
c. identify and use text features (e.g., bold print, key words, topic sentences, hyperlinks, electronic menus, and icons) to locate information quickly and aid in comprehension
d. compare and contrast related accounts on the same or similar topics by different authors, by analyzing their content and perspectives

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Explain and use information presented graphically or visually in print, videos, or electronic texts.
8. Outline the information or evidence used to support an explanation or argument, determining which points support which key statements.
9. Determine the point of view or purpose that guides how events or ideas are described.

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

Narratives, Drama, and Poetry

a. identify the narrator of a story and explain how different stories are narrated from different perspectives
b. compare accounts of historical events and figures or natural phenomena with their depiction in a fictional work

Informational Text

a. explain how factual information presented graphically or visually (e.g., maps, charts, diagrams, timelines, animations, and other interactive visual elements) aids in the comprehension of print and electronic texts
b. explain how authors support their specific claims with evidence, including which evidence supports which claims
c. determine the author's purpose and how that is reflected in the description of the events and ideas

Developing habits for reading complex text

Core Standards — Students can and do:

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding texts.

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

1. Write narratives, informative and explanatory texts, and arguments that demonstrate an awareness of audiences that are familiar and known to the student.

Conducting research

Core Standards — Students can and do:

2. Perform short, focused research tasks that build knowledge by exploring aspects of a single topic.
3. Gather information from experience, as well as print and digital resources.
4. Determine the accuracy and relevance of the information gathered to answer specific questions.
5. Restate information from source materials in one's own words, through summary or paraphrase.
6. Provide basic bibliographic information for print and digital sources.

Revising writing

Core Standards — Students can and do:

7. With guidance and support from peers and adults, strengthen writing through revision, editing, or beginning again to maintain a clear focus throughout.

Using tools and technology

Core Standards — Students can and do:

8. Use technology and other tools to produce, revise, and edit writing.

Developing proficiency in a range of writing

9. Create writing over extended timeframes (time for reflection and revision) and shorter timeframes (a single sitting or a day or two), responding to specific sources.

   Focus by grade level:

   Grade 4: Describing the content of literary or informational sources at the 4-5 grade band level of text complexity and content
   Grade 5: Comparing the contents of literary or informational sources at the 4-5 grade band level of complexity and content

Standards — Students can and do (by key text type):[19]

Narratives

a. orient the reader by establishing a situation, introducing characters, setting, and location, or by backfilling information after entering immediately into the storyline
b. create an organizing structure in which events are logically or causally sequenced
c. in producing a story, create a plot with an initiating event, complicating action, a climax, and a resolution
d. use a variety of temporal words, phrases, and clauses to signal sequence
e. use concrete and sensory details to develop narrative elements
f. develop the narrative using techniques such as dialogue, pacing, and reporting the narrator's thoughts
g. show both external behaviors and the internal responses of characters to events
h. provide closure and a realistic outcome of the narrative's events

Informative and Explanatory Texts

a. state the topic clearly and provide a general observation and focus
b. develop the subject using relevant facts, concrete details, quotations, or other information and examples
c. group related information logically in basic structures (paragraphs, sections) and provide headings or illustrations when useful
d. employ specialized vocabulary and a formal, objective style when appropriate
e. use appropriate links to join ideas
f. include only relevant appropriate information to demonstrate focus
g. provide a conclusion related to the information or explanation offered

Arguments (opinions)

a. introduce an opinion about a concrete issue or topic
b. support opinions with relevant reasons
c. support reasons with specific details
d. link the reasons together using words, phrases, and clauses (e.g., *because*, *since*)
e. adopt a relatively formal style for sharing and defending an opinion when appropriate to the discipline or context
f. provide a concluding statement or section that offers reflections, restatement, or recommendations consistent with the opinion presented

Speaking and Listening Standards

Listening closely and participating productively

Core Standards — Students can and do:

1. Participate productively one on one, in small groups, and as a whole class, joining in discussions and making relevant points about what they have read, heard, or written.
2. Sustain concentration on information presented orally, visually, or multi-modally and confirm understanding by summarizing the main ideas and supporting details.

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

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

Classroom discussions and collaboration

a. come to discussions having read required material and, in conversation, build upon background knowledge from that material and other information known about the topic
b. demonstrate understanding of the content and ideas presented or discussed by distilling them into an accurate summary
c. ask questions to clarify or follow up on ideas or information presented orally or through other media
d. respond to questions and make comments that contribute to the topic and ideas of previous speakers
e. explain information presented graphically or visually in conjunction with other information presented orally
f. engage productively and respectfully with others during discussions, including listening actively, gaining the floor respectfully, and qualifying or justifying what they think after listening to others' questions or accounts

Exchanging information and speaking effectively

Core Standards — Students can and do:

3. Share experiences, opinions or other information, choosing material that is relevant to the topic and to the listeners.
4. Speak audibly and clearly at an appropriate and understandable pace, using formal English when indicated or appropriate (e.g., presenting ideas versus class discussion).

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

Presentation of ideas and information

a. speak coherently about events, topics, or texts that focus and organize ideas in a logical sequence and include facts, details, or other information that support the main ideas
b. use appropriate volume, phrasing, and pace for clarity
c. read aloud prose and poetry, with appropriate emotion and fidelity to the text

Language Development Standards

Conventions

In grades 4–5, students heighten their ability to situate and describe using language that is increasingly precise and vivid. They form and use verbs of various tenses to locate people, actions, and events in time, and they correctly use adjectives and adverbs to modify. Students begin to gain control of frequently confused words (e.g., *effect, affect*) and edit writing to remove language that is not idiomatic. Their mastery of capitalization is complete. They use punctuation to separate items in a series and a comma to distinguish an introductory element from the main part of the sentence. Students mark titles in conventional ways. They understand how to quote and use quotation marks. Their spelling is conventional. Their language is increasingly topic specific, precise, and varied, and they manipulate sentence structure for effect.

Key Terms: adjective; adverb; interjection; preposition; simple, progressive, and perfect tense

Conventions of language and writing

Core Standards — Students can and do:

1. Maintain the focus of a paragraph on a topic through structural elements such as main ideas, supporting sentences, and transitions.

Grammar and usage

Core Standards — Students can and do:

2. Form and use the simple (e.g., *I walked, I walk, I will walk*), progressive (e.g., *I was walking, I am walking, I will be walking*) and the perfect (e.g., *I had walked, I have walked, I will have walked*) verb tenses.
3. Recognize and correct inappropriate shifts in verb tense.*
4. Form and choose between adjectives and adverbs (including comparative and superlative forms), placing them appropriately within the sentence.*
5. Correctly use frequently confused words.*
6. Use idiomatic language.*

Mechanics

Core Standards — Students can and do:

7. Capitalize the first word in quotations as appropriate and other important words, such as section headers.
8. Use punctuation to separate items in a series.*
9. Use a comma to separate an introductory element from the rest of the sentence.
10. Use underlining, quotation marks, or italics to indicate titles of works.
11. Use quotation marks to mark direct speech and quotations from a text.
12. Spell grade-appropriate words correctly, consulting references as needed.*

Word choice and style

Core Standards — Students can and do:

13. Use specialized, topic-specific language to convey ideas precisely.*
14. Use figurative language to create images or make comparisons and connections between people, objects, or ideas.*
15. Use punctuation for effect.*
16. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.*[20]

Focus by Grade-Level
Grade 4: Distinguish one idea or thing from another (Conventions Standards #'s1-3, #8, #9, #11)
Grade 5: Word choice (Conventions Standards #'s 4-6, #13, #14)

[20] Conventions standards noted with an asterisk (*) need to be revisited by students in subsequent grades. See Appendix A for a complete listing.

Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In grades 4–5, students are capable of selecting among a wide range of strategies—analyzing the word itself, using localized context clues (particularly at the sentence level), and consulting reference materials—to determine and clarify the meaning of unknown and multiple-meaning words. They develop the habit of verifying their inferences of word meanings. They are able to interpret simple figurative language found in what they read. They learn and can paraphrase many common idioms, proverbs, and adages. They make distinctions among words based on connotation. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly. This includes a focus on "Tier 2" words and phrases (those that commonly appear in writing but not in spoken language), "Tier 3" words and phrases (those that are specific and important to particular disciplines).[21]

Determining the meaning of words

Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
   - analyzing the word's sounds, spelling, and meaningful word parts
   - using semantic clues in sentences, such as definitions, examples, or restatements included within the text
   - using syntactic clues, such as using its position within the sentence as a guide to whether it represents a thing or an action
   - consulting reference materials, including glossaries, dictionaries, and thesauruses, both print and digital
2. Determine the relevant meaning of multiple-meaning words by using context.
3. Verify the preliminary determination of a word's meaning (e.g., by checking the inferred meaning in context or by looking up the word in a dictionary).
4. Interpret figurative language, including simple similes and metaphors.
5. Paraphrase the meaning of common idioms, adages, and proverbs.

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

6. Distinguish a word from other words with similar but not identical meanings (synonyms).

Acquiring vocabulary

Core Standards — Students can and do:

7. Acquire and use a grade-appropriate vocabulary of Tier 2[22] words taught directly and gained through reading.
8. Acquire and use a grade-appropriate vocabulary of Tier 3 words taught directly and gained through reading.
9. Know and use words and phrases that signal contrast, addition, or other logical relationships (e.g., *however*, *although*, *nevertheless*, *similarly*, *moreover*, *in addition*).

[21] Beck I. L., McKeown, M.G. & Kucan, L. (2002). *Bringing Words to Life; Robust Vocabulary Instruction*, New York; Guilford Press

Grade 4 English Language Arts: Focus for Instruction

Reading and Literature

In grade 4, students apply the reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read text at the 4-5 grade band level independently, with scaffolding likely required for texts at the high end of the range.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 100% text at the 4-5 grade band level

100%

Writing and Research

In grade 4, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by describing the contents of literary or informational sources at the 4-5 grade band level of complexity and content

Speaking and Listening

In grade 4, students apply the core speaking and listening standards in different contexts.

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentation of ideas and information

Language Development

In grade 4, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Distinguish one idea or thing from another:
  - Maintain the focus of a paragraph on a topic… (Conventions Standard #1)
  - Form and use the simple, progressive and perfect verb tenses … (Conventions Standard #2)
  - Recognize and correct inappropriate shifts in verb tense. (Conventions Standard #3)
  - Use punctuation to separate items in a series … (Conventions Standard #8)
  - Use a comma to separate an introductory element … (Conventions Standard #9)
  - Use quotation marks to mark direct speech and quotations … (Conventions Standard #11)

English Language Arts

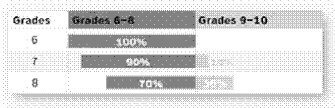
Grades 6–8

Grade 7 English Language Arts: Focus for Instruction

Reading and Literature
In grade 7, students apply the reading standards to the full range of text types, including literature, nonfiction, poetry, and informational text. Students locate an argument in text as the 7–8 grade band level implementation and use information to 6–8 grade band "meet" text, match with their reading ability scaffolding.
• Reading standards applied to different text types • Mix of text types: Narrative, Drama, Poetry, Informational Text • **Text complexity focus:** 70% text at the 7–8 grade band level, 30% text at the 6–8 grade band level
Writing and Research
In grade 7, students apply the standards in writing to the full range of text types, including: narrative, informative/explanatory, and argument. Students locate an argument in text as the 7–8 grade band level implementation and use information to 6–8 grade band "meet" text, match with their reading ability scaffolding.
• Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument • Research, including short focused research tasks • **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by comparing the content of literary or informational sources at the 7–8 grade band level of complexity and content.
Speaking and Listening
In grade 7, students apply the speaking and listening standards in different contexts. • Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentation of ideas and information.
Language Development
In grade 7, students apply the standards to the full range of text types, including literature, nonfiction, poetry, and informational text. Students locate an argument in text as the 7–8 grade band level implementation and use information to 6–8 grade band "meet" text, match with their reading ability scaffolding.
• Vocabulary standards applied to both research, writing, speaking and listening • **Grade-specific conventions focus:** Word choice • Form and choose between adjectives and adverbs. (Conventions standard 1c) • Correctly use a prepositional construct word. (Conventions standard 1d) • Use idiomatic language. (Conventions Standard 1e) • Use descriptive, topic specific language to convey ideas precisely. (Conventions Standard 1f) • Use punctuate language to create images … (Conventions standard 1h)

Required Text Complexity by Grade

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



While advancing through grades 6–8, students must engage with texts of steadily increasing complexity.

- **In grade 6**, students focus on reading texts in the 6–8 grade band level with scaffolding likely required for texts at the high end of the range.
- **In grade 7**, students focus on reading texts in the 6–8 grade band level (90 percent) independently and are introduced to texts in the 9–10 grade band level as "stretch" texts (10 percent), which will likely require scaffolding.
- **In grade 8**, students focus on reading texts in the 6–8 grade band level (70 percent) independently as well as sustained practice with texts in the 9–10 grade band level as "stretch" texts (30 percent), which will likely require scaffolding.

Determining Text Complexity for Grades 6–8[23]

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

Qualitative Measures of Texts	Quantitative Measures of Texts
• *Structure:* Largely implicit and subtle; graphic representations are essential to meaning; texts are of increasing length • *Purpose:* Single or multiple; subtly stated • *Style and Language:* Moderately demanding; several literary devices; consistent use of Tier 2 and 3 words and figurative language • *Richness:* Several ideas/concepts; mostly abstract; moderate information density • *Relationships:* Several connections; largely implicit • *Knowledge Demands:* Ability to handle fairly challenging themes, consider multiple perspectives, and understand unfamiliar experiences; cultural and historical knowledge useful for understanding characters, settings, and allusions; some discipline-specific content knowledge	A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.
Professional Judgment that weighs students' prior knowledge and life experiences as well as their interests, motivations, and maturity level.	

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

Mix of Key Text Types for Grades 6–8

Narratives	Drama	Poetry	Informational Text
At this level, includes the subgenres of adventure stories, biographies, memoirs, historical fiction, mysteries, folktales, legends, fables, tall tales, myths, fantasy, science fiction, realistic fiction, and graphic novels.	*At this level, includes one-act and multi-act plays both as text and film.*	*At this level, includes the subgenres of narrative poems, lyrical poems, free verse, odes, ballads, and epics.*	*At this level, includes such subgenres as exposition and argument in the form of essays, opinion pieces, speeches, opinion pieces as well as other documents and digital media sources on a range of topics.*

Illustrative Texts for Narratives, Drama, and Poetry[24]	Illustrative Informational Texts
Little Women by Louisa May Alcott (1869)	*Preamble and First Amendment to the United States Constitution* by United States (1787, 1791) **
The Adventures of Tom Sawyer by Mark Twain (1876)	*Narrative of the Life of Frederick Douglass an American Slave* by Frederick Douglass (1845)
A Wrinkle in Time by Madeline L'Engle (1962)	"Gettysburg Address"** by Abraham Lincoln (1863)
The Dark Is Rising by Susan Cooper (1973)	"Blood, Toil, Tears and Sweat" by Winston Churchill (1940)
Black Ships before Troy: The Story of the Iliad by Rosemary Sutcliff (1993)	*Travels with Charley: In Search of America* by John Steinbeck (1962)
A Midsummer Night's Dream by William Shakespeare (1596)	*I Know Why the Caged Bird Sings* by Maya Angelou (1969)
"Oh Captain, My Captain" by Walt Whitman (1865)	
"Stopping by a Wood on a Snowy Evening" by Robert Frost (1923)	
"I, Too" by Langston Hughes (1925)	

Seminal historical texts that all students are expected to read

[24] See Appendix B for other texts illustrative of Grades 6-8 text complexity.

Reading and Literature Standards

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Read the text closely to determine what the text says explicitly and to make logical inferences from it; cite text evidence to support understanding in discussion and in writing.
2. Articulate the text's main ideas and themes and provide a summary that captures the key supporting details, without taking a position or expressing an opinion.
3. Explain in detail how events, ideas, and characters unfold in the text and interact with one another.

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

Narratives, Drama, and Poetry

a. infer themes when they are not explicitly stated and provide evidence on which those inferences are based
b. analyze the development of the narrative, describing how particular incidents advance or foreshadow the plot
c. recognize how the setting unfolds over the course of the text and describe its significance to the work
d. build on an author's explicit descriptions and other evidence to draw reasonable conclusions about characters and how they interact, change, and influence the central events
e. describe how a play unfolds and how particular lines of dialogue propel the action, reveal aspects of a character, or provoke a decision
f. analyze how patterns of imagery in a poem contribute to its overall theme or meaning

Informational Text

a. summarize a text without expressing a personal opinion by drawing on the author's specific description of events or information
b. determine how key ideas or concepts build on one another to reveal an overarching theme or idea

Observing craft and structure

Core Standards — Students can and do:

4. Interpret the meanings of words and phrases, including connotative and figurative meanings, and explain how specific word choices shape the meaning of the text.
5. Explain the text's structure, including how specific sentences, paragraphs, and larger portions build on each other and contribute to the whole of the text.
6. Compare and contrast how two or more texts written on similar topics or themes differ in their focus and key details.

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

Narratives, Drama, and Poetry

a. analyze how the author's choice of specific words or details contributes to the understanding of events and characters or to the tone of a narrative
b. trace the specific comparisons made by similes, metaphors, and analogies and explain how they contribute to the meaning of the text
c. compare similar ideas and themes as well as character types in myths, folktales, and legends from different cultures
d. analyze the impact of line breaks and stanzas on the meaning of a poem and acts, scenes, and stage directions on the meaning of a drama
e. compare the events, characters, ideas, and themes in texts written by the same author or on similar topics or themes

Informational Text

a. interpret the connotative meaning of closely related words and phrases as they are used in the text (e.g., *angry* versus *irate*)
b. describe how an author organizes the explanation or argument, as well as the ways in which the text's structure, language, and examples support its purpose
c. examine the structure of a Web site or other electronic text and describe how it organizes information and links to additional sources

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Interpret information presented graphically or visually in print, videos, or electronic texts and explain how this information clarifies and contributes to the text.
8. Analyze the structure and content of an argument, including its main claims or conclusions, supporting premises, and evidence.
9. Determine the point of view or purpose represented in the text, assessing how it shapes the content.

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

Narratives, Drama, and Poetry

a. compare the points of view from which different novels and poems are told, as well as the viewpoints of different characters in a drama
b. compare the fictional portrayal of a time, place, or character to historical sources from the period to determine which historical details have been emphasized, deleted, or changed in the fictional portrayal

Informational Text

a. interpret factual and quantitative data presented in diverse formats (including maps, charts, and diagrams as well as electronic media) and explain how this information clarifies or contributes to the text
b. distinguish between fact, opinion, and reasoned judgment presented in essays, speeches, and critiques
c. evaluate the strength of an argument's premises and specific claims as well as the degree to which each is supported by evidence
d. compare and contrast the viewpoints and use of evidence of two different authors writing about the same topic

Developing habits for reading complex text

Core Standards — Students can and do:

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding texts.

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

1. Write narratives, informative and explanatory texts, and arguments that match purpose to task and address familiar as well as somewhat distant audiences (e.g., mayor, readers of school or neighborhood newspaper).

Conducting research

Core Standards — Students can and do:

2. Perform short, focused research projects that demonstrate understanding of the material under investigation and generate additional related questions for research.
3. Gather information independently using a variety of relevant print and digital resources.
4. Assess the credibility, reliability, consistency, and accuracy of the information and sources gathered.
5. Represent and cite accurately the data, conclusions, and opinions of others, quoting and paraphrasing them into one's own work while avoiding plagiarism.
6. Provide full bibliographic information for print and digital sources in a standard format and document quotations, paraphrases, and other information.

Revising writing

Core Standards — Students can and do:

7. With some guidance and support from peers and adults, strengthen writing through revising, editing, or beginning again to ensure logical organization, precision of word choice, and coherence.

Using tools and technology

Core Standards — Students can and do:

8. Use technology and other tools to produce, revise, and distribute writing, as well as interact online with others about writing, including responding to and providing feedback

Developing proficiency in a range of writing

9. Create writing over extended timeframes (time for reflection and revision) and shorter timeframes (a single sitting or a day or two), responding to specific sources.

   Focus by grade level:

   Grade 6: Conveying the main ideas and key details of literary or informational sources at the 6-8 grade band level of text complexity and content
   Grade 7: Analyzing the contents of literary or informational sources at the 6-8 grade band level of complexity and content
   Grade 8: Comparing or evaluating the contents of literary or informational sources at the 6-8 grade band level of complexity and content

Standards — Students can and do (by key text type):[25]

Narratives

a. orient the reader by establishing a situation, introducing characters, setting, and location, or by backfilling information after entering immediately into the storyline
b. create an organizing structure in which events are logically or causally sequenced
c. in producing a story, create a plot with well-structured episodes (e.g., initiating event, complicating action, resolution)
d. use a variety of temporal words, phrases, and clauses to convey sequence, to shift from one time frame to another, and to show the relationships among events
e. use relevant, specific details and literary devices, such as imagery and metaphor, purposefully to develop setting, plot, and character
f. use techniques such as pacing, dialogue, or foreshadowing to highlight the significance of events or create particular effects (e.g., tension or suspense)
g. show internal mental processes to develop complex characters and convey their needs, motives, and emotional responses
h. provide an engaging conclusion, such as a surprise ending, a reflection, or a conclusion that returns to the beginning

Informative and Explanatory Texts

a. establish the topic in an introduction that provides a sense of what's to follow
b. develop the subject through relevant and specific facts, concrete details, quotations, or other information and examples
c. organize specific information under broader concepts or categories and provide headings, figures, tables, or diagrams when useful
d. use factual, precise language and maintain a formal, objective style when appropriate
e. use strategies appropriate to informational and explanatory texts such as defining, classifying, comparing/contrasting, and cause/effect
f. use appropriate links to join ideas and create cohesion
g. provide only accurate and relevant information
h. provide a conclusion that follows logically from the information or explanation presented

Arguments

a. introduce a claim about a topic or concept
b. support claims with logical reasons
c. support reasons with detailed and relevant evidence

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

d. signal the relationship between reasons, or between reasons and evidence, using words, phrases, and clauses (*e.g., another reason, such as, therefore, in addition*)
e. sustain an objective style and tone appropriate for making a case when appropriate to the discipline or context
f. include only relevant information and evidence in support of claims
g. provide a concluding statement or section that offers reflections, a restatement, or recommendations that follow from the argument

Speaking and Listening Standards

Listening closely and participating productively

Core Standards — Students can and do:

1. Participate productively one on one, in small groups, and as a whole class, joining in discussions and remaining flexible and adaptable as participants.
2. Sustain concentration on information presented orally, visually, or multi-modally and confirm understanding by drawing well-supported inferences about the purpose and meaning of the information.

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

Classroom discussions and collaboration

a. come to discussions having completed reading or other preparation in advance and draw on that material explicitly in discussions
b. determine a speaker's attitude or point of view toward a topic presented orally or through other media
c. ask questions to check understanding to clarify the main ideas and the supporting evidence of material presented orally or through other media
d. advance a discussion by answering questions precisely and sharing specific factual knowledge and observations supported by credible evidence
e. interpret information presented in visual and digital formats and explain how this data clarifies and contributes to a discussion or information presented orally
f. support productive teamwork by setting clear goals and deadlines, monitoring progress and participation of each team member, and taking different views into account and modifying own views when indicated in light of what others say

Exchanging information and speaking effectively

Core Standards — Students can and do:

3. Share experiences, opinions, and other information, gaining and maintaining the interest and response of listeners.
4. Use appropriate tone and phrasing for emphasis, demonstrating a growing command of formal English when indicated or appropriate (e.g., presenting ideas versus class discussion).

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

Presentation of ideas and information

a. organize and present information about situations, topics, or texts that emphasize salient points and clarify and support claims and findings with pertinent and specific descriptions, facts, and examples in ways that are accessible and verifiable to listeners
b. use gesture, tone, phrasing, and pace for emphasis
c. incorporate visual displays and electronic media when helpful and in a manner that strengthens the presentation
d. perform dramatic readings of various prose and poetry speaking with clarity, fidelity, and responsiveness to the text, noting changes in the situation, mood, or tone of text

Language Development Standards

Conventions

In grades 6–8, students develop a firm command of sentence structure. They are able to form sentences of varying structures, place phrases and clauses properly within a sentence, and use a variety of coordinating and subordinating conjunctions to express relationships between sentence parts. Students have also mastered pronoun use, ensuring proper case, number, and person and avoiding vagueness. They understand and use verb voice and mood, and identify and correct inappropriate shifts in pronouns and verbs. Students set off nonrestrictive or parenthetical elements from the rest of the sentence with proper punctuation and use a comma before a coordinating conjunction in a compound sentence. They vary sentence patterns for effect and edit writing for redundancy and wordiness.

Key Terms: conjunction; dash; nonrestrictive/parenthetical element; indicative, imperative, interrogative, conditional, and subjunctive mood; parentheses; phrase and clause; pronoun case, number, and person; simple, compound, complex, and compound-complex sentence; active and passive voice

Grammar and usage

Core Standards — Students can and do:

1. Form compound, complex, and compound-complex sentences.
2. Place phrases and clauses within a sentence, avoiding misplaced and dangling modifiers.*
3. Ensure that pronouns are in the proper case (subjective, objective, possessive).
4. Recognize and correct inappropriate shifts in pronoun number and person.*
5. Recognize and correct vague pronouns with unclear or ambiguous antecedents.*
6. Form and use verbs in the active and passive voice.
7. Form and use verbs in the indicative, imperative, interrogative, conditional, and subjunctive mood.
8. Avoid inappropriate shifts in verb voice and mood.*

Mechanics

Core Standards — Students can and do:

9. Use punctuation to set off nonrestrictive/parenthetical elements with commas, parentheses, or dashes.*
10. Use a comma before a coordinating conjunction in a compound sentence.

Word choice and style

Core Standards — Students can and do:

11. Use verbs in the active and passive voice and in the conditional and subjunctive moods to achieve particular effects (e.g., emphasizing the actor or the action; expressing uncertainty or describing a state contrary to fact).
12. Vary sentence patterns for meaning, reader/listener interest, and style.*
13. Choose words and phrases to express ideas precisely and concisely, avoiding wordiness and redundancy.*[26]

Grade-Level Focus
Focus by Grade-Level
Grade 6: Pronouns (Conventions Standards #s 3-5)
Grade 7: Sentence structure (Conventions Standards #1, #2, #12)
Grade 8: Verb voice and mood (Conventions Standards #s 6-8, #11)

Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In grades 6–8, students continue to make use of a range of strategies to determine and clarify the meaning of unknown and multiple-meaning words. This repertoire now includes considering the word's use in a broader context that includes the content of the paragraph in which the word appears and the overarching structure of the text. They habitually verify their inferences of word meanings. They interpret a variety of figurative language found in what they read. They make distinctions among words based on connotation. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly. This includes a continuing focus on "Tier 2" words and phrases (those that commonly appear in writing but not in spoken language), "Tier 3" words and phrases (those that are specific and important to particular disciplines).

Determining the meaning of words

Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
   - using knowledge of roots, prefixes, and suffixes
   - using semantic clues, such as sentence and paragraph context as well as the organizational structure of the text (e.g., cause and effect, comparison and contrast)
   - using syntactic clues, such as using its position within the sentence as a guide to whether it is a subject, verb, or object
   - consulting reference materials, including glossaries, dictionaries, and thesauruses, both print and digital
2. Determine the relevant meaning of multiple-meaning words by using context.
3. Verify the preliminary determination of a word's meaning (e.g., by checking the inferred meaning in context or by looking up the word in a dictionary).
4. Interpret figurative language, including metaphors, similes, and idioms.

[26] Conventions standards noted with an asterisk (*) need to be revisited by students in subsequent grades. See Appendix A for a complete listing.

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

5. Distinguish a word from other words with similar but not identical meanings (synonyms).

Acquiring vocabulary

Core Standards — Students can and do:

6. Acquire and use a grade-appropriate vocabulary of Tier 2 words taught directly and gained through reading.
7. Acquire and use a grade-appropriate vocabulary of Tier 3 words taught directly and gained through reading.

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Grade 6 English Language Arts: Focus for Instruction

Reading and Literature

In grade 6, students apply the reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read text at the 6-8 grade band level independently, with scaffolding likely required for texts at the high end of the range.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 100% text at the 6-8 grade band level

Writing and Research

In grade 6, students apply the writing standards to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter time frames, responding to specific sources by conveying the main ideas and key details of literary or informational sources at the 6-8 grade band level of complexity and content.

Speaking and Listening

In grade 6, students apply the core speaking and listening standards in different contexts.

- Speaking and listening Standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

Language Development

In grade 6, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions

- Vocabulary standards applied to both reading, writing, speaking and listening
- **Grade-specific conventions focus:** Pronouns
  - Ensure that pronouns are in the proper case… (Conventions Standard #3)
  - Recognize and correct inappropriate shifts… (Conventions Standard #4)
  - Recognize and correct vague pronouns… (Conventions Standard #5)

Grade 7 English Language Arts: Focus for Instruction

Reading and Literature

In grade 7, students apply the reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read text at the 6-8 grade band level independently and are introduced to 9-10 grade band level "stretch" texts, which will likely require scaffolding.

- Reading Standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 90% at the 6-8 grade band level, 10% at the 9-10 grade band level

Writing and Research

In grade 7, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by analyzing the contents of literary or informational sources at the 6-8th grade band level of complexity and content.

Speaking and Listening

In grade 7, students apply the core speaking and listening standards in different contexts.

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

Language Development

In grade 7, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.

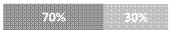
- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Sentence structure
  - Form compound, complex… (Conventions Standard #1)
  - Place phrases and clauses… (Conventions Standard #2)
  - Vary sentence patterns… (Conventions Standard #12)

Grade 8 English Language Arts: Focus for Instruction

Reading and Literature

In grade 8, students apply the reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on reading text at the 6-8 grade band level independently as well as on sustained practice with 9-10 grade band level "stretch" texts, which may require scaffolding.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text



- **Text Complexity focus:** 70% at the 6-8 grade band level, 30% at the 9-10 grade band level

Writing and Research

In grade 8, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by analyzing the contents of literary or informational sources at the 6-8th grade band level of complexity and content.

Speaking and Listening

In grade 8, students apply the core speaking and listening standards in different contexts.

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

Language Development

In grade 8, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Verb voice and mood
  - Form and use verbs in the active and passive voice (Conventions Standard #6)
  - Form and use verbs in the indicative… (Conventions Standard #7)
  - Avoid inappropriate shifts… (Conventions Standard #8)
  - Use verbs in the …voice …mood… (Conventions standard #11)

English Language Arts

Grades 9–10

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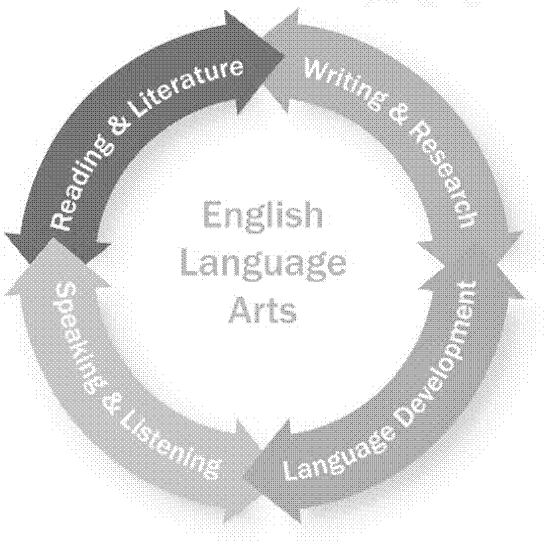
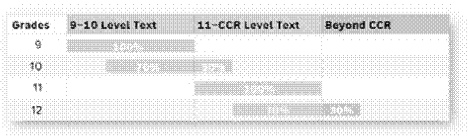


Required Text Complexity by Grade

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



While advancing through grades 9–10, students must engage with texts of steadily increasing complexity.

- **In grade 9**, students focus on reading texts in the 9–10 grade band level with scaffolding likely required for texts at the high end of the range.
- **In grade 10**, students focus on reading texts in the 9–10 grade band level (70 percent) independently and are introduced to texts in the 11–CCR grade band level as "stretch" texts (30 percent), which will likely require scaffolding.

Determining Text Complexity for Grades 9–10[27]

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

Qualitative Measures of Texts	Quantitative Measures of Texts
• *Structure:* Implicit, subtle, graphic representations are essential to meaning, texts of increasing length • *Purpose:* Multiple, often implicit • *Style and Language:* Demanding, many literary devices, extensive use of Tier 2 and 3 words and figurative language • *Richness:* Several ideas/concepts; abstract • *Relationships:* Several connections; implicit • *Knowledge Demands:* Ability to handle challenging themes, consider multiple perspectives, and understand experiences distinctly different from one's own; cultural and historical knowledge useful for understanding characters, settings, and allusions; extensive discipline-specific content knowledge	A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.
Professional Judgment that weighs students' prior knowledge and life experiences as well as their interests, motivations, and maturity level.	

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

Mix of Key Text Types for 9–10

Narratives	Drama	Poetry	Informational Text
At this level, includes the subgenres of adventure stories, biographies, memoirs, historical fiction, mysteries, science fiction, mysteries, myths, science fiction, realistic fiction, allegories, parodies, satire, and graphic novels.	*At this level, includes one-act and multi-act plays both in written form and on film.*	*At this level, includes the subgenres of narrative poems, lyrical poems, free verse, odes, ballads, and epics.*	*At this level, Includes such subgenres as exposition and argument in the form of essays, speeches, opinion pieces as well as other documents and digital media sources on a range of topics.*

Illustrative Texts for Narratives, Drama, and Poetry[28]

The Odyssey by Homer (8th century B.C.E.) translated by Robert Fagles

The Grapes of Wrath by John Steinbeck (1939)

The Killer Angels by Michael Shaara (1975)

In the Time of the Butterflies by Julia Alvarez (1994)

The Glass Menagerie by Tennessee Williams (1944)

"Song" by John Donne (1635)

"The Raven" by Edgar Allen Poe (1845)

"Loveliest of Trees" by A.E. Houseman (1896)

"I Am Offering This Poem to You" by Jimmy Santiago Baca (1977)

Illustrative Informational Texts

"Second Inaugural Address" by Abraham Lincoln (1865)**

"State of the Union Address" by Franklin Delano Roosevelt (1941)

"Remarks to the Senate in Support of a Declaration of Conscience" by Margaret Chase Smith (1950)

"Address at the March on Washington" by Martin Luther King, Jr. (1963)**

"A Quilt of a Country" by Anna Quindlen (2001)

Seminal historical texts that all students are expected to read

[28] See Appendix B for other texts illustrative of Grades 9–10 text complexity.

Reading and Literature Standards

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Read the text closely to determine what the text says explicitly and to make logical inferences from it; cite text evidence to support analyses in discussion and in writing.
2. Articulate the theses and themes and summarize how they develop over the course of the text and how they are expressed by the key details.
3. Analyze in detail how complex and multifaceted events, ideas, and characters unfold and interact over the course of the text.

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

Narratives, Drama, and Poetry

a. draw on specific details to describe how the events, characters, or setting develops over the course of the drama, narrative poem, or story
b. summarize the development of a theme and describe how that theme resonates throughout the text
c. weave together the details of texts to form a comprehensive understanding of its characters, including their overlapping or competing motivations
d. describe how the accumulation of specific phrases and images within poems contributes to a theme as a whole

Informational Text

a. demonstrate a command of the precise details of the exposition or argument, drawing on specific points to support an understanding of a part or the text as a whole
b. analyze the development of theses or explanations in texts and summarize succinctly the key relationships among ideas and supporting details

Observing craft and structure

Core Standards — Students can and do:

4. Interpret the meanings of words and phrases, including connotative and figurative meanings, and explain how specific word choices shape the meaning and tone of the text.
5. Analyze the structure of complex text and its parts, including how specific sentences, paragraphs, and larger portions build on each other and contribute to the whole of the text.
6. Compare and contrast the content and style of two or more texts written on similar topics or themes.

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

Narratives, Drama, and Poetry

a. analyze how the precise choice of words and phrases creates vivid images and sets the tone, mood, and theme of the text; compare the impact of words selected by the author to similar words with different connotations

b. explain how authors manipulate time (e.g., flashbacks, foreshadowing, pacing) to create suspense, mystery, or humor
c. evaluate how playwrights use soliloquies to portray the internal thinking and feeling of characters
d. compare and contrast similarities and differences in styles and forms of poems on a similar theme or topic

Informational Text

a. analyze how the author uses specific words and metaphors to establish tone or to make illuminating comparisons in an argument, explanation, or description
b. explain how the author structures information or an argument to emphasize key points and advance a point of view
c. analyze how different authors organize and categorize similar information and describe the impact of those different approaches

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Synthesize information presented graphically or visually in print, videos, or electronic texts with the information provided by the text.
8. Follow and evaluate the logic and reasoning of the text, including assessing whether the evidence provided is sufficient to support the claims.
9. Analyze the point of view or purpose represented in the text, assessing how it shapes the content, style, and tone.

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

Narratives, Drama, and Poetry

a. explain how a story unfolds when it is told by alternating or multiple narrators with different points of view
b. analyze literature in terms of its connection to related historical and cultural events and contexts

Informational Text

a. interpret complex, multifaceted, quantitative, or technical information presented in maps, charts, illustrations, graphs, and time lines
b. provide an account of an author's precise claims, including how specific assertions are defined and distinguished from opposing statements
c. analyze the explicit and implicit premises of an argument and determine if the conclusions reached are logically justified by the evidence presented in the text
d. compare how different authors construct and develop different points of views or perspectives on similar events or issues by assessing their assumptions, evidence, and reasoning

Developing habits for reading complex text

Core Standards — Students can and do:

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding texts.

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

1. Write informative and explanatory texts and arguments that match purpose to task and address familiar as well as more distant, unknown and general audiences (e.g., peers, elected officials and policy makers, community members).

Conducting research

Core Standards — Students can and do:

2. Demonstrate proficiency at performing short, focused research projects as well as more sustained inquiries that demonstrate an increasing command of the subject under investigation.
3. Assemble evidence independently from authoritative and credible print and digital sources.
4. Assess the credibility, reliability, consistency, and accuracy of the information and sources gathered and determine the strengths and limitations of each source and avoiding over-reliance on any one source.
5. Represent and cite accurately the data, conclusions, and opinions of others, effectively incorporating them into one's own work while avoiding plagiarism.
6. Cite print or electronic sources correctly and document quotations, paraphrases, graphics, and other information using a standard format.

Revising writing

Core Standards — Students can and do:

7. Strengthen writing through revision, editing, or beginning again to ensure to ensure logical organization, precision of word choice, and coherence.

Using tools and technology

Core Standards — Students can and do:

8. Use technology and other tools to produce, revise, and distribute writing, as well as to interact online with others about writing, including responding to and providing feedback.

Developing proficiency in a range of writing

9. Create writing over extended timeframes (time for reflection and revision) and shorter timeframes (a single sitting or a day or two), responding to specific sources.

   Focus by grade level:

   Grade 9: Analyzing the content of literary or informational sources at the 9-10 grade band level of text complexity and content
   Grade 10: Comparing or evaluating the contents of literary or informational sources at the 9-10 grade band level of complexity and content

Standards — Students can and do (by key text type):[29]

Narratives

By high school, students are most often using narrative writing as a technique embedded within other genres. They use narrative writing to inform and persuade. They may, for example, provide a brief anecdote to support a point made in an argument or a scenario to illustrate an explanation. In such cases, narrative writing is a technique rather than a form in itself.

Informative and Explanatory Texts

a. provide a clear and coherent introduction that establishes the subject and conveys a knowledgeable stance
b. develop a complex subject through relevant and specific facts, concrete details, quotations, or other information and examples
c. organize complex information into categories that make clear distinctions and provide headings, figures, tables, and diagrams when useful
d. employ discipline-specific and technical vocabulary and maintain a formal, objective style
e. adapt strategies to present information and explanations (e.g., if/then, extended definitions, classification, comparison/contrast, and cause/effect) and employ them to manage the complexity of a topic
f. link ideas with transitions and by varying sentence structures to express relationships between ideas and create cohesion
g. emphasize the most significant information and confirm the accuracy of key points
h. provide a conclusion that articulates the implications and significance of the information or explanation

Arguments

a. establish a substantive claim and distinguish it from alternate or opposing claims
b. support claims with logical reasons
c. provide relevant and sufficient evidence from credible sources in support of the reasons
d. explain how the evidence links to the claim
e. develop the argument in part based on knowledge of the audience (e.g., building bridges by opening with areas of agreement)
f. convey relationships between reasons, as well as between reasons and evidence, and signal alternative claims using words, phrases, and clauses (e.g., *on the other hand*, *however*, *but*, *nevertheless*, *because*, *therefore*, *in addition*).
g. maintain a formal style when appropriate to the discipline or context
h. enhance the reliability of the argument by employing strategies such as paraphrasing or quoting explicitly from a credible, authoritative source
i. provide a concluding statement or section that enhances the argument, using strategies such as articulating the implications, summing up the key factors, or weighing the evidence to support the claim

Speaking and Listening Standards

Listening closely and participating productively

Core Standards — Students can and do:

1. Participate productively in a range of structured interactions—both interpersonally and in groups—exchanging information constructively and with confidence.

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

2. Sustain concentration on complex information presented orally, visually, or multi-modally and confirm understanding by summarizing, analyzing, and elaborating on key ideas.

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

Classroom discussions and collaboration

a. come to discussions having researched, studied, and taken notes on topics or issues under study and draw upon that preparation in discussions
b. determine the key ideas as well as the tone and mood of communications presented orally or through other media
c. ask questions to test the evidence that supports a speaker's claims and conclusions presented orally or through other media
d. build on essential information from others' input and respond constructively by making cogent and verifiable comments that aid in the furthering and deepening of discussions
e. integrate multiple streams of data presented through a variety of multi-modal media into a cohesive, meaningful understanding of the information
f. support productive teamwork by identifying the comments and claims made on all sides of an issue; evaluating the degree to which each claim is supported by evidence; sifting, summarizing, and putting to use the most important ideas developed by the group; and determining what additional information, research, and tasks are required in order to move the group towards its goals

Exchanging information and speaking effectively

Core Standards — Students can and do:

3. Present information and points of view, structuring and organizing comments to support their purposes and guide the listener.
4. Vary intonation and phrasing for emphasis and effect, demonstrating command of formal English when indicated or appropriate (e.g., presenting ideas versus class discussion).

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

Presentation of ideas and information

a. organize and present complex information about situations, topics, or texts so that listeners can follow the line of thought by grouping related ideas, using transitional markers, and clarifying one's claims with evidence that is verifiable and accessible
b. align verbal (tone, phrasing, pacing) and nonverbal strategies (gestures and facial expressions) for emphasis and effect
c. make strategic use of multimedia elements and visual displays of data to enhance understanding
d. perform dramatic readings of various prose and poetry, speaking with clarity, fidelity, and responsiveness to the text, reflecting on syntax and diction for cues regarding emphasis and rhythm

Language Development Standards

Conventions

In high school, students gain a broad range of sophisticated language skills to enhance meaning, achieve stylistic effect, and create subtle links between and among ideas. They maintain parallel structure. They acquire a more conceptual understanding of usage and the limits of "rules." They use a full range of punctuation, including ellipses, semicolons,

colons, and hyphens, and have a fuller understanding of how to employ commas and dashes. They make use of a wide range of phrases and clauses for effect. They maintain a consistent style and tone, using a style manual appropriate to the discipline in which they are working to help conventionalize their writing.

Key Terms: colon, ellipses, hyphen, semicolon, parallel structure, verbal

Grammar and usage

Core Standards — Students can and do:

1. Use parallel structure in writing.
2. Consult references (e.g., *Merriam-Webster's Dictionary of English Usage*) as needed to resolve particular usage issues, particularly when the usage is contested.

Mechanics

Core Standards — Students can and do:

3. Use a comma to separate coordinate adjectives (e.g., *It was a fascinating, enjoyable movie* but not *He wore a light[,] blue suit*).
4. Use a comma, ellipses, or dash to indicate a pause or break.
5. Use a semicolon (and perhaps a conjunctive adverb) to link two or more closely related independent clauses.
6. Use a colon to introduce a list or a quotation.
7. Observe the conventions concerning using hyphens to join words.

Word choice and style

Core Standards — Students can and do:

8. Use various types of phrases (noun, verb, adjectival, adverbial, participial, prepositional, absolute) and clauses (independent, dependent; noun, relative, adverbial) to add variety and interest to writing.
9. Maintain consistency in style and tone.
10. Write and edit work so that it conforms to the guidelines in a style manual.

Focus by Grade-Level
Grade 9: Style (Conventions Standards #9, #10)
Grade 10: Advanced punctuation use (Conventions Standards #s 3-7)

Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In high school, students continue to make use of a range of strategies to determine and clarify the meaning of unknown and multiple-meaning words. This repertoire now includes considering multiple levels of context (sentence, paragraph, and text levels) and the word's history. They habitually verify their inferences of word meanings. They interpret a wide range of figurative language found in what they read and consider its contribution to the text. Possessing a highly developed sense of the shadings among words with similar denotations,

they evaluate an author's or speaker's choice of words as well as alternatives to the words chosen. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly. This includes a continuing focus on "Tier 2" words and phrases (those that commonly appear in writing but not in spoken language), "Tier 3" words and phrases (those that are specific and important to particular disciplines).

Determining the meaning of words

Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
   - using knowledge of roots, prefixes, and suffixes
   - using context, including syntactic and semantic clues, at the sentence, paragraph, and text levels
   - consulting reference materials, including general and specialized dictionaries and thesauruses, both print and digital
2. Determine the relevant meaning of multiple-meaning words by using context.
3. Verify the preliminary determination of a word's meaning (e.g., by checking the inferred meaning in context or by looking up the word in a dictionary).
4. Interpret figurative language and analyze its role within the text.

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

5. Assess and explain the merits of the choice of one word over another in reading, writing, speaking, and listening.
6. Gain a clearer sense of a word's meaning and use by comparing it to other words with similar but not identical meanings (synonyms).

Acquiring vocabulary

Core Standards — Students can and do:

7. Acquire and use a grade-appropriate vocabulary of Tier 2 words taught directly and gained through reading.
8. Acquire and use a grade-appropriate vocabulary of Tier 3 words taught directly and gained through reading.

Grade 9 English Language Arts: Focus for Instruction

Reading and Literature

In grade 9, students apply the core reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read 9-10 grade band text independently, with scaffolding likely required for texts at the high end of the range.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 100% 9-10 Band Text

100%

Writing and Research

In grade 9, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus: Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by analyzing the contents of literary or informational sources at the 9-10th grade band level of complexity and content.

Speaking and Listening

In grade 9, students apply the core speaking and listening standards in different contexts.

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

Language Development

In grade 9, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Style
  - Maintain consistency … (Conventions Standard #9)
  - (Style manual)… (Conventions Standard #10)

Grade 10 English Language Arts: Focus for Instruction

Reading and Literature

In grade 10, students apply the core reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read 9-10 grade band text independently as well as on sustained practice with 11-CCR band "stretch" texts, which will likely require scaffolding.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 70% 9-10 Band Text; 30% 11-CCR text

70% 30%

Writing and Research

In grade 10, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by analyzing the contents of literary or informational sources at the 9-10th grade band level of complexity and content.

Speaking and Listening

In grade 10, students apply the core speaking and listening standards in different contexts.

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

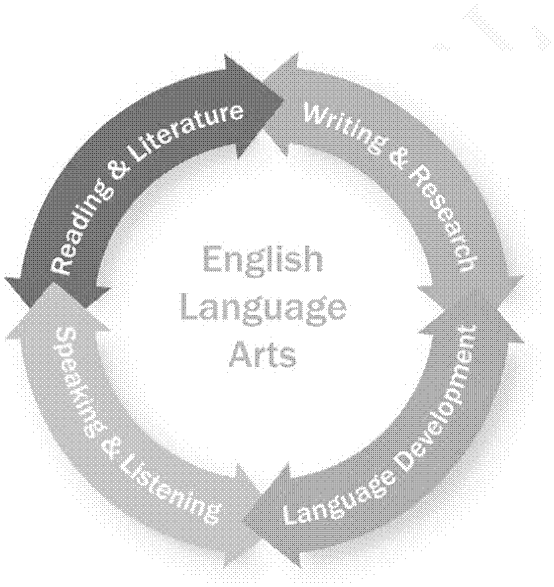
Language Development

In grade 10, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Advanced Punctuation Use
  - Coordinate adjectives … (Conventions Standard #3)
  - Comma/dash/ellipsis… (Conventions Standard #4)
  - Semicolon … (Conventions Standard #5)
  - Colon … (Conventions Standard #6)
  - Hyphen … (Conventions Standard #7)

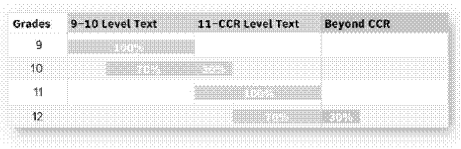
English Language Arts

Grades 11–CCR



Required Text Complexity by Grade

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



While advancing through grades 11-12, students must engage with texts of steadily increasing complexity.

- **In grade 11**, students focus on reading texts in the 11-CCR grade band level with scaffolding likely required for texts at the high end of the range.
- **In grade 12**, students focus on reading texts in the 11-CCR grade band level (70 percent) independently and are introduced to texts in the "Beyond CCR" grade band level as "stretch" texts (30 percent), which will likely require scaffolding.

Determining Text Complexity for Grades 11–CCR[30]

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

Qualitative Measures of Texts	Quantitative Measures of Texts
• *Structure:* Implicit, complex, unconventional; sophisticated graphic representations are essential to meaning; texts are sufficiently long to address complex subjects • *Purpose:* Multiple; often implicit and may be hidden or obscure • *Style and Language:* Unfamiliar, demanding, complex; many literary devices; extensive use of Tier 2 and 3 words and figurative language; language may be intentionally or unintentionally ambiguous • *Richness:* Many ideas/concepts; highly abstract; high information density • *Relationships:* Many implicit, complex, interwoven connections • *Knowledge Demands:* Ability to handle one or more complex themes, consider multiple and unusual perspectives, and understand experiences distinctly different from one's own; cultural and historical knowledge useful for understanding characters, settings, and allusions; extensive, perhaps specialized discipline-specific content knowledge	A study is underway with Cole-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.
Professional Judgment that weighs students' prior knowledge and life experiences, students' interests, motivations, and maturity level.	

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

Mix of Key Text Types for 11–CCR

Narratives	Drama	Poetry	Informational Text
At this level, includes the subgenres of adventure stories, biographies, memoirs, historical fiction, mysteries, science fiction, mysteries, myths, science fiction, realistic fiction, allegories, parodies, satire, and graphic novels.	*At this level, includes one-act and multi-act plays both in written form and on film.*	*At this level, includes the subgenres of narrative poems, lyrical poems, free verse, odes, ballads, and epics.*	*At this level, Includes such subgenres as exposition and argument in the form of essays, speeches, opinion pieces as well as other documents and digital media sources on a range of topics.*

Illustrative Texts for Narratives, Drama, and Poetry[31]

Pride and Prejudice by Jane Austen (1813)

Black Boy by Richard Wright (1945)

Their Eyes Were Watching God by Zora Neale Hurston (1937)

The Bluest Eye by Toni Morrison (1970)

The Namesake by Jhumpa Lahiri (2003)

The Importance of Being Earnest by Oscar Wilde (1895)

Death of a Salesman by Arthur Miller (1949)

"Ode on a Grecian Urn" by John Keats (1820)

"Because I Could Not Stop for Death" by Emily Dickinson (1890)

Illustrative Informational Texts

The Declaration of Independence by Thomas Jefferson (1776)**

The Crisis by Thomas Paine (1776)

Walden by Henry David Thoreau (1854)

"Politics and the English Language" by George Orwell (1946)

"Letter from a Birmingham Jail" by Martin Luther King (1963)**

"Mother Tongue" by Amy Tan (1990)

***Seminal historical texts that all students are expected to read*

[31] See Appendix B for other texts illustrative of Grades 11–CCR text complexity.

Reading and Literature Standards

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Read the text closely to determine what the text says explicitly and to make logical inferences from it; cite text evidence to defend and challenge analyses in discussion and in writing.
2. Articulate the text's theses and themes and provide a summary that clarifies the relationships among ideas and the connections between key details.
3. Analyze in detail how complex and multifaceted events, ideas, and characters unfold and influence one another over the course of the text.

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

Narratives, Drama, and Poetry

a. analyze where the author chooses to focus and which details the author chooses to emphasize
b. analyze how multiple themes and ideas in the text interact and build on one another
c. evaluate the extent to which setting shapes the course of events and sets the mood
d. trace the origins and evolution of the traits, motivations, and relationships among characters and how they interact to influence the plot and its resolution
e. describe how the poet develops a central image, preoccupation, or idea through the accumulation of specific phrases and images

Informational Text

a. demonstrate an understanding of the precise elements of an author's explanation or argument, including the distinctions the author makes between different ideas or information
b. scrutinize the details within specific portions of texts and connect the insights gained to develop an understanding of the text as a whole
c. analyze how the text captures the interaction between complex ideas or multifaceted events

Observing craft and structure

Core Standards — Students can and do:

4. Interpret the meanings of words and phrases, including connotative and figurative meanings, and analyze how word choices have a significant effect on the meaning and tone of the text.
5. Analyze the ways the author chooses to structure the text, including how to present complex ideas and events and where to begin and end.
6. Compare and contrast the choices different authors make in treating similar topics or themes, including content, style, and tone.

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

Narratives, Drama, and Poetry

a. analyze how the author's use of language impacts the text, including the degree of formality of the diction and how it is evocative of a particular setting (e.g., a courtroom, a rural town)
b. evaluate how authors create meaningful ambiguity and multiple layers of meaning in poetry, drama, and other narratives
c. analyze how an author choice of where to begin a story, poem, or drama impacts the overall plot structure
d. contrast alternative treatments of the same dramatic work in different stage productions and evaluate how the directors' different interpretations relate to evidence within the script
e. analyze how the author draws upon and transforms fictional or historical source material (e.g., how Shakespeare draws on Plutarch or a story in Ovid)

Informational Text

a. describe how the choice of a particular word, phrase, or series of words can impact significantly the meaning of a document (e.g., contract, court opinion, essay)
b. evaluate how the author's choice of structure contributes to the effectiveness of the exposition or argument
c. compare and contrast presentations of the same topic in different media and describe the differences in focus, organization, and links to other sources

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Synthesize information presented graphically or visually in print, videos, or electronic texts and, when appropriate, note discrepancies of fact or interpretation (e.g., data in a table inconsistent with the author's analysis).
8. Rigorously evaluate the logic and reasoning of the text, including assessing whether the evidence provided is relevant and sufficient.
9. Analyze how the point of view or purpose develops in the text and explain how it is revealed in the key details.

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

Narratives, Drama, and Poetry

a. compare points of view from which different stories are told and trace how they shift within a story and influence characterization and plot
b. explain how dramatic irony created by the differences between what the audience or reader knows and what the characters know in a drama or narrative fiction creates suspense, anxiety, or humor

Informational Text

a. synthesize ideas and data presented graphically and determine their purpose and relationship to the rest of the text (print or digital), noting any inconsistencies or discrepancies between the two
b. evaluate the reasoning and rhetoric that support an argument or explanation, including assessing the sufficiency and relevance of the evidence as well as identifying any unsubstantiated statements or fallacious reasoning
c. analyze documents of historical and literary significance for their premises, perspectives, and logical structure

Developing habits for reading complex text

Core Standards — Students can and do:

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding texts.

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

1. Write informative and explanatory texts and arguments that match purpose to task and are tailored to audiences with specific requirements (e.g., admissions officer, human resources officer, skeptical audience).

Conducting research

Core Standards — Students can and do:

2. Demonstrate proficiency at performing short, focused research projects as well as more sustained inquiries that synthesize multiple authoritative sources on a subject.
3. Analyze evidence independently gathered from multiple authoritative and credible print and digital sources.
4. Assess the credibility, reliability, consistency, and accuracy of the information and sources gathered and determine their usefulness and relevance for the specific audience, purpose, and task.
5. Represent and cite accurately the data, conclusions, and opinions of others, effectively incorporating them into one's own work while avoiding plagiarism.
6. Cite print or electronic sources correctly and document quotations, paraphrases, graphics, and other information using a standard format.

Revising writing

Core Standards — Students can and do:

7. Strengthen writing through revision, editing, or beginning again to ensure to ensure logical organization, precision of word choice, and coherence.

Using tools and technology

Core Standards — Students can and do:

8. Demonstrate command of technology and other tools to produce, revise, and distribute writing, as well as to interact online with others about writing, including responding to and providing feedback.

Developing proficiency in a range of writing

9. Create writing over extended timeframes (time for reflection and revision) and shorter timeframes (a single sitting or a day or two), responding to specific sources.

   Focus by grade level:

   Grade 11: Analyzing the content of literary or informational sources at the 11-CCR grade band level of text complexity and content
   Grade 12: Synthesizing or evaluating the contents of literary or informational sources at the 11-CCR grade band level of complexity and content

Standards — Students can and do (by key text type):[32]

Narratives

By high school, students are most often using narrative writing as a technique embedded within other genres. They use narrative writing to inform and persuade. They may, for example, provide a brief anecdote to support a point made in an argument or a scenario to illustrate an explanation. In such cases, narrative writing is a technique rather than a form in itself.

Informative and Explanatory Texts

a. provide a clear and coherent introduction that establishes the subject and conveys a knowledgeable stance
b. develop complex subjects through judicious use of relevant and specific facts, details, quotations, examples, or other information
c. organize and present information so that each new piece of information builds upon what precedes it to create a unified whole
d. demonstrate command of discipline-specific and technical vocabulary when appropriate and adjust style as appropriate to the situation
e. demonstrate control of a range of strategies to present complex information or explanations and employ them effectively to manage the complexity of the topic and accomplish the writer's purpose
f. link ideas with transitions and by varying sentence structures to express the precise relationships among ideas and create cohesion
g. provide a conclusion that articulates the implications and significance of the information or explanation

Arguments

a. establish the importance of the issue, make a substantive claim, and distinguish it from alternate or opposing claims
b. support claims with logical reasons
c. provide relevant, sufficient, and convincing evidence from credible sources in support of the reasons
d. make logical connections between the evidence and the claim
e. develop the argument in part based on an awareness of the audience's values, knowledge of the issue, and possible biases
f. convey relationships between reasons, as well as between reasons and evidence, and signal alternative claims using words, phrases and clauses (e.g., *on the other hand*, *however*, *but*, *nevertheless*, *because*, *therefore*, *in addition*)
g. maintain a formal style when appropriate to the discipline or context
h. enhance the credibility of the argument by demonstrating control of strategies, including paraphrasing or quoting from authoritative sources and citing logical consequences
i. provide a concluding statement or section that enhances the argument, using strategies such as articulating the implications, summing up the key factors, or weighing the evidence to support the claim

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

Speaking and Listening Standards

Listening closely and participating productively

Core Standards — Students can and do:

1. Participate productively in a range of structured interactions—both interpersonally and in groups—exchanging information constructively and with confidence, adapting to different levels of formality.
2. Sustain concentration on complex information presented orally, visually, or multi-modally and confirm understanding by challenging or defending key ideas and supporting evidence.

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

Classroom discussions and collaboration

a. come to discussions having formulated considered judgments on the topics or issues under study and draw upon that preparation in discussions
b. evaluate the content and rhetoric of a speaker, noting when evidence is exaggerated or distorted
c. ask questions that probe the reasoning and evidence that support the claims and conclusions made orally or through other media, including offering counter examples or other points of view
d. propel conversations forward by providing essential information and sharing findings that clarify, accommodate, or challenge ideas
e. synthesize information presented visually or digitally with other information presented orally, noting the effect on meaning of any discrepancies between the two presentations
f. assist in the formulation and productive functioning of both formal and informal self-directed work groups by identifying and assigning tasks and maintaining conversational norms as well as evaluating the progress of the team towards its goals

Exchanging information and speaking effectively

Core Standards — Students can and do:

3. Present information clearly and persuasively to others, selecting the most appropriate way to structure comments for clarity and effect.
4. Adapt delivery, tone, and mood for emphasis and effect, demonstrating command of formal English when indicated or appropriate (e.g., presenting ideas versus class discussion).

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

Presentation of ideas and information

a. organize and present complex information about topics, situations, or texts, providing reliable and credible evidence from authoritative sources in support of findings and claims such that the line of reasoning is clear and alternative perspectives are addressed
b. shape delivery and message to the occasion and the audience's values, knowledge of the issue, and possible biases
c. engage an audience and improve comprehension through visual aids in presentations, including multimedia platforms
d. portray and explain various ways to perform dramatic readings of various prose and poetry, citing text evidence for the alternative readings

Language Development Standards

Conventions

In high school, students gain a broad range of sophisticated language skills to enhance meaning, achieve stylistic effect, and create subtle links between and among ideas. They maintain parallel structure. They acquire a more conceptual understanding of usage and the limits of "rules." They use a full range of punctuation, including ellipses, semicolons, colons, and hyphens, and have a fuller understanding of how to employ commas and dashes. They make use of a wide range of phrases and clauses for effect. They maintain a consistent style and tone, using a style manual appropriate to the discipline in which they are working to help conventionalize their writing.

Key Terms: colon, ellipses, hyphen, semicolon, parallel structure, verbal

Grammar and usage

Core Standards — Students can and do:

11. Use parallel structure in writing.
12. Consult references (e.g., *Merriam-Webster's Dictionary of English Usage*) as needed to resolve particular usage issues, particularly when the usage is contested.

Mechanics

Core Standards — Students can and do:

13. Use a comma to separate coordinate adjectives (e.g., *It was a fascinating, enjoyable movie* but not *He wore a light*[,] *blue suit*).
14. Use a comma, ellipses, or dash to indicate a pause or break.
15. Use a semicolon (and perhaps a conjunctive adverb) to link two or more closely related independent clauses.
16. Use a colon to introduce a list or a quotation.
17. Observe the conventions concerning using hyphens to join words.

Word choice and style

Core Standards — Students can and do:

18. Use various types of phrases (noun, verb, adjectival, adverbial, participial, prepositional, absolute) and clauses (independent, dependent; noun, relative, adverbial) to add variety and interest to writing.
19. Maintain consistency in style and tone.
20. Write and edit work so that it conforms to the guidelines in a style manual.

Focus by Grade-Level
Grade 11: Parallel structure and phrasing (Conventions Standards #1, #8)
Grade 12: Usage (Conventions Standard #2)

Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In high school, students continue to make use of a range of strategies to determine and clarify the meaning of unknown and multiple-meaning words. This repertoire now includes considering multiple levels of context (sentence, paragraph, and text levels) and the word's history. They habitually verify their inferences of word meanings. They interpret a wide range of figurative language found in what they read and consider its contribution to the text. Possessing a highly developed sense of the shadings among words with similar denotations, they evaluate an author's or speaker's choice of words as well as alternatives to the words chosen. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly. This includes a continuing focus on "Tier 2" words and phrases (those that commonly appear in writing but not in spoken language), "Tier 3" words and phrases (those that are specific and important to particular disciplines).

Determining the meaning of words

Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
   - using knowledge of roots, prefixes, and suffixes
   - using context, including syntactic and semantic clues, at the sentence, paragraph, and text levels
   - consulting reference materials, including general and specialized dictionaries and thesauruses, both print and digital
   - using the word's history (etymology)
2. Determine the relevant meaning of multiple-meaning words by using context.
3. Verify the preliminary determination of a word's meaning (e.g., by checking the inferred meaning in context or by looking up the word in a dictionary).
4. Interpret figurative language and analyze its role within the text.

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

7. Assess and explain the merits of the choice of one word over another in reading, writing, speaking, and listening.
8. Gain a clearer sense of a word's meaning and use by comparing it to other words with similar but not identical meanings (synonyms).

Acquiring vocabulary

Core Standards — Students can and do:

7. Acquire and use an extensive vocabulary of Tier 2 words taught directly and gained through reading.
8. Acquire and use a grade-appropriate vocabulary of Tier 3 words taught directly and gained through reading.

Grade 11 English Language Arts: Focus for Instruction

Reading and Literature

In grade 11, students apply the core reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read 11-CCR grade band text independently, with scaffolding likely required for texts at the high end of the range.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 100% 11-CCR Band Text

100%

Writing and Research

In grade 11, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by analyzing the contents of literary or informational sources at the 11-CCR grade band level of complexity and content.

Speaking and Listening

In grade 11, students apply the core speaking and listening standards in different contexts.

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

Language Development

In grade 11, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Parallel Structure and Phrasing
  - Use parallel structure in writing … (Conventions Standard #1)
  - Use various types of phrases… (Conventions Standard #8)

Grade 12 English Language Arts: Focus for Instruction

Reading and Literature

In grade 12, students apply the core reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read 11-CCR grade band text independently as well as on sustained practice with Beyond CCR band "stretch" texts, which will likely require scaffolding.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 70% 11-CCR Band Text; 30% Beyond CCR text

Writing and Research

In grade 12, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter time frames, responding to specific sources by synthesizing or evaluating the contents of literary of informational sources of 11-CCR grade band level complexity and content.

Speaking and Listening

In grade 12, students apply the core speaking and listening standards in different contexts.

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

Language Development

In grade 12, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Usage
  - Consult references … (Conventions Standard #2)

APPENDIX A

Text Complexity Next Steps

A key requirement of the Core Standards in Reading is that all students engage with texts of steadily increasing complexity as they advance through school. The Core Standards' model of *text complexity*—in the simplest terms, how easy or difficult a text is to read—blends qualitative and quantitative measures of inherent text difficulty with educators' knowledge of their students. All three elements should be considered together when evaluating a text's appropriateness for particular students.

Qualitative dimensions are aspects of text best measured by readers applying trained judgment to the evaluation task. These dimensions include the text's structure, format, and length; its purpose; its style and language; the quality, nature, and density of its ideas, concepts, and information; relationships among ideas, information, and characters in it; and the knowledge and experience demands it places upon readers.

Quantitative dimensions include not only those aspects of text traditionally measured by readability formulas—word length and sentence length—but also computer-assessable aspects of text cohesion. These include referential cohesion (the degree to which a text refers back to previous points) and word frequency.

The qualitative and quantitative measures of a text are balanced in the model by educators' *professional judgment* of the appropriateness of the text for particular students given their background knowledge, interests, and motivation. Harder texts may be appropriate for highly knowledgeable or motivated students, and easier texts may be suitable as a means for building struggling readers' skills up to required levels.

While the tools included in this draft and the forthcoming ones described below represent an important advance over those previously available, no measure or set of measures is perfectly accurate. The mandate is that the body of works that students study in a given year represent an appropriate level of complexity as defined by these standards.

Current and next steps

A qualitative rubric, derived from prior studies and refined through feedback from trained teacher-raters, is included in this draft to define some ways in which text complexity should increase as students move through the grades. The rubric can be used (in conjunction with forthcoming quantitative measures) to place individual texts into grade bands by complexity. The qualitative dimensions are best understood, however, as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; assigning a text to a grade band is therefore a matter of "best fit," or determining which grade band's set of descriptors most accurately describes the text.

The Core Standards work team is presently conducting a study with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity. Graphically, these three elements will appear together in a "label" defining complexity for a given text.

Following the completion of that study in early 2010, the work team will oversee the development of a Web site designed to make the text complexity tools more user-friendly and broadly available. The site will contain a database of complexity information for a range of widely used texts, including links to texts and test passages of similar complexity. Educators will be able to input additional texts for evaluation and comment on the suitability of particular texts for particular groups of students. The overarching goal is to make text complexity a vital and easy-to-incorporate element of reading instruction.

Text Complexity Qualitative Scheme

Dimension of Text		Grade Span			
		2–3	4–5	6–8	9–10	11–12
Structure		Explicit, simple, conventional; simple graphic representations are supplementary to meaning; texts are relatively short	Largely explicit and direct; graphic representations are supplementary to meaning; texts are of increasing length	Largely implicit and subtle; graphic representations are essential to meaning; texts are of increasing length	Implicit, subtle; graphic representations are essential to meaning; texts are of increasing length	Implicit, complex, unconventional; sophisticated graphic representations are essential to meaning; texts are sufficiently long to address complex subjects
Purpose		Single; explicitly stated	Single or twofold; clearly indicated	Single or multiple; subtly stated	Multiple; often implicit	Multiple; often implicit and may be hidden or obscure
Style and Language	Style	Familiar, accessible, plain; few literary devices	Moderately accessible; some literary devices	Moderately demanding; several literary devices	Demanding; many literary devices	Unfamiliar, demanding, complex; many literary devices
	Language	Mostly clear, everyday language; limited use of Tier 2 and 3 words and figurative language	Some everyday language; some use of Tier 2 and 3 words and figurative language	Consistent use of Tier 2 and 3 words and figurative language	Extensive use of Tier 2 and 3 words and figurative language	Extensive use of Tier 2 and 3 words and figurative language; language may be intentionally or unintentionally ambiguous
Ideas		A few ideas/concepts; concrete; low information density	Some ideas/concepts; mostly concrete; moderate information density	Several ideas/concepts; mostly abstract; moderate information density	Several ideas/concepts; abstract; high information density	Many ideas/concepts; highly abstract; high information density
Organization		A few connections; explicit; simple	Some connections; largely explicit	Several connections; largely implicit	Several connections; implicit	Many connections; implicit; complex and interwoven
Knowledge Demands	Life experiences (literary texts)	Ability to handle simple themes and fantastical elements as well as draw upon common, everyday experiences	Ability to handle fairly simple themes, consider a perspective somewhat different from one's own, and understand unfamiliar experiences	Ability to handle fairly challenging themes, consider multiple perspectives, and understand unfamiliar experiences	Ability to handle challenging themes, consider multiple perspectives, and understand experiences distinctly different from one's own	Ability to handle one or more complex themes, consider multiple and unusual perspectives, and understand experiences distinctly different from one's own
	Cultural/literary knowledge (chiefly literary texts)	General background knowledge and familiarity with genre conventions required	Cultural and historical knowledge useful for understanding characters, settings, and allusions			
	Content/discipline knowledge (chiefly informational texts)	Some everyday and general content knowledge	Some general and discipline-specific content knowledge	Some discipline-specific content knowledge	Extensive discipline-specific content knowledge	Extensive, perhaps specialized discipline-specific content knowledge

Adapted from ACT, Inc., 2006; Carnegie Council on Advancing Adolescent Literacy 2010; Chall, Bissex, Conrad, & Harris-Sharples 1996; and Hiebert and Pearson 2004.

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

Structure

- Explicit, simple, conventional → Implicit, complex, unconventional
- Simple graphic representations → Sophisticated graphic representations
- Graphic representations supplementary to meaning → Graphic representations essential to meaning
- Relatively short texts → Texts sufficiently long to address complex subjects

Purpose

- Single purpose → Multiple purposes
- Explicitly stated → Often implicit and may be hidden or obscure

Style

- Familiar, accessible, plain → Unfamiliar, demanding, complex
- Few literary devices → Many literary devices

Language

- Mostly everyday language → Extensive use of Tier 2 and 3 words
- Limited use of figurative language → Extensive use of figurative language
- Clear language → Potentially ambiguous language

Richness

- A few ideas/concepts → Many ideas/concepts
- Concrete ideas/concepts → Abstract ideas/concepts
- Low information density → High information density

Relationships

- A few connections → Many connections
- Explicit connections → Implicit connections
- Simple connections → Complex, interwoven connections

Knowledge Demands: Life Experiences

- Simple themes → Complex themes
- Single theme → Multiple themes
- Common, everyday experiences and fantastical elements → Experiences distinctly different from one's own
- Single perspective like one's own → Multiple and unusual perspectives

Knowledge Demands: Cultural Knowledge

- General background knowledge and familiarity with genre conventions required → Cultural and historical knowledge useful

Knowledge Demands: Content/Discipline Knowledge

- Some everyday and general content knowledge → Extensive, perhaps specialized discipline-specific content knowledge

Definitions of Key Writing Types

Narrative

Narrative writing is organized by time. Time is central because narrative writing depicts events, whether real or imagined. Narrative writing is fundamental to novels, short stories, biographies, autobiographies, historical accounts, and plays. With practice, students' repertoire of narrative strategies expands and their control of them increases. Students learn to provide visual details of scenes, objects, or people; to depict specific actions (movements, gestures, postures, and expressions); to use dialogue and interior monologue in order to provide insight into the narrator's and characters' personalities and motives; and to manipulate pace in order to highlight the significance of certain events and create tension and suspense. Narrative writing serves a variety of purposes; frequently it is embedded in other kinds of writing, such as writing intended to inform, instruct, or persuade.

Informative/Explanatory Text

Informative/explanatory writing conveys information accurately. This kind of writing can serve one or more of several closely related purposes: to increase readers' knowledge of a subject, to help readers better understand a procedure or process, or to enhance readers' comprehension of a concept. Informative/explanatory writing addresses questions, such as questions about types (What are the different types of whales?), about components (What are the parts of a motor?), about aspects of a subject such as its size, function, or behavior (How big is the United States? What is an x-ray used for? How do penguins find food?), about how things work (How does a camera work?), and about why things happen (Why is Earth warming?). To produce this kind of writing, students draw on what they already know and on primary and secondary sources. With practice, students become better able to develop a controlling idea that supports coherence and focus, and they can select examples, facts, and details that are relevant. They are also able to employ a variety of techniques that writers use to convey information, such as naming, describing, or differentiating different types or parts; comparing or contrasting one subject with another; and relating an anecdote or scenario to illustrate a point.

Argument

The purpose of argument is to persuade in order to change the reader's point of view or to bring about some action on the reader's part. There are many techniques employed by writers to persuade readers—for example, appeals to emotions, appeals to common beliefs, and the creation of a believable authorial voice. However, the core of argument is logic and evidence. A logical argument convinces its audience of the merit and reasonableness of the claims and the proof offered in support of the claims. Writers of logical arguments provide credible evidence (facts and details) to support their assertions. Although young children are not able to produce fully developed logical arguments, they are developing a variety of ways to extend and elaborate their work around opinions or judgments. They provide examples, they offer reasons for their assertions, and they explain cause and effect. These kinds of expository structures are steps on the road to argument.

Conventions

Three goals undergird the Conventions standards:

(1) Students should have a carefully specified range of broadly useful terms in order to be precise in their discussions about language. Such key terms (noted below) should be defined in grade-appropriate ways for younger students and fleshed out more fully in later grades. (For guidance on this matter, see, for example, Brock Haussamen with Amy Benjamin, Martha Kolln, and Rebecca S. Wheeler, *Grammar Alive!: A Guide for Teachers* [Urbana, IL: NCTE, 2003] and Amy Benjamin with Tom Oliva, *Engaging Grammar: Practical Advice for Real Classrooms* [Urbana, IL: NCTE, 2007].) Additional terminology may be helpful in particular instructional situations; avoiding terminology altogether may be appropriate in others.

(2) Students must be able to observe the conventions of standard English in their formal writing and speaking for the sake of having their efforts widely understood and taken seriously.

(3) Students need to understand that effective language use is more than simply observing a series of rules but also about making careful choices among alternatives, considering those choices in relation to task, purpose, audience, occasion, and discipline.

Many conventions-related issues are likely to arise in students' writing and speaking prior to their formal appearance in the sequence below. For example, students in kindergarten are expected to know what a complete sentence is even though the concept of a fragment is not mentioned specifically in the standards until grade 3.

Conversely, many skills and understandings introduced at lower grades will require continued attention as students advance in the grades. Students in grade 3, for instance, can ensure subject-verb agreement in simple situations, such as when the subject and verb appear next to each other in a sentence. As students' writing and speaking become more complex, however, new agreement challenges arise, such as intervening phrases suggesting a different number for the verb than the subject calls for. "Errors" with applying previously mastered skills and understandings are thus often a sign of progress in that students are stretching their ability to communicate. "Relearning" is then a matter of students becoming able to apply old skills and understandings in new, more sophisticated ways.

While all the Conventions standards should be considered cumulative, certain ones, noted with an asterisk (*), are particularly likely to need to be revisited by older students as they convey ever more elaborate ideas in writing and speech.

ELA Conventions Progressive Skills: By Standard

The following standards, marked with an asterisk (*) in the standards document, are skills and understandings that require continued attention in higher grades (after their introduction in lower grades) as they are applied to increasingly sophisticated writing and speaking.

Grade 3	Grades 4–5	Grades 6–8	(Grade/band in which the standard is introduced)
3.1			Generate complete sentences, avoiding sentence fragments, comma splices, and run-ons.
3.2			Ensure subject-verb and pronoun-antecedent agreement.
3.7			Choose words for effect.
	4–5.2		Recognize and correct inappropriate shifts in verb tense.
	4–5.3		Form and choose between adjectives and adverbs (including comparative and superlative forms), placing them appropriately within the sentence.
	4–5.4		Correctly use frequently confused words.
	4–5.5		Use idiomatic language.
	4–5.7		Use punctuation to separate items in a series.
	4–5.11		Spell grade-appropriate words correctly, consulting references as needed.
	4–5.12		Use specialized, topic-specific language to convey ideas precisely.
	4–5.13		Use figurative language to create images or make comparisons and connections between people, objects, or ideas.
	4–5.14		Use punctuation for effect.
	4–5.15		Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.
		6–8.2	Place phrases and clauses within a sentence, avoiding misplaced and dangling modifiers.
		6–8.4	Recognize and correct inappropriate shifts in pronoun number and person.
		6.8.5	Recognize and correct vague pronouns with unclear or ambiguous antecedents.
		6–8.8	Recognize and correct inappropriate shifts in verb voice and mood.
		6–8.9	Set off nonrestrictive/parenthetical elements with commas, parentheses, or dashes.
		6–8.12	Vary sentence patterns for meaning, reader/listener interest, and style.
		6–8.13	Choose words and phrases to express ideas precisely and concisely, avoiding redundancy and wordiness.

Vocabulary Instruction

> Words are not just words. They are the nexus — the interface — between communication and thought. When we read, it is through words that we build, refine, and modify our knowledge. What makes vocabulary valuable and important is not the words themselves so much as the understandings they afford.
>
> Marilyn Adams[13]

The importance of students acquiring a rich and varied vocabulary cannot be overstated. Research suggests that if students are going to grasp and retain words and comprehend text, they need incremental, repeated exposure to words they are trying to learn in a variety of contexts. When students make multiple connections between new words and their own experiences they develop a nuanced and flexible understanding of the word. In this way, students learn not only what a word means, but how to use that word in a variety of contexts and apply appropriate senses of the word's meaning in order to understand different contexts.[14]

Initially children readily learn words from oral conversation because oral conversations are context rich in ways that aid in vocabulary acquisition: in discussion a small set of words (accompanied by gesture and intonation) is used with great frequency to talk about a narrow range of situations children are exposed to on a day to day basis. Yet as children reach school age, new words are less frequently introduced in conversation, and consequently vocabulary acquisition eventually stagnates by fourth or fifth grade unless students acquire additional words from written context.[15]

Written language, by contrast, contains hundreds of times as many different words as are typically used in conversational language. Yet writing lacks the interactive opportunities and nonverbal context provided by oral conversation so it presents a special challenge towards successful vocabulary acquisition without purposeful and ongoing concentration on vocabulary.[16] In fact, at most, between five and fifteen percent of new words encountered when reading are retained.[17] The weaker a student's vocabulary is, the slighter the gain.[18] Yet research shows that if students are going to understand what they read, they must understand upward of 95 percent of the words. [19]

As this "tipping point" for lexical dexterity is quite challenging for students to reach, every classroom needs to focus on providing students with high quality contextual encounters with vocabulary words that epitomize what they encounter in written texts. The aim should be to expose students to words that have the widest application—concepts that students are likely to meet again and again not just in classroom settings but outside the school walls as well. Some of these highly transferable academic words, often referred to as Tier 2 words, such as qualifying adjectives and adverbs (e.g., important, typically) are used broadly across domains and indeed in contexts that transcend the classroom.[40] However, the meanings of most words are specific to their domains—often referred to as Tier 3 words—including those that arise in multiple domains (e.g., chemical constituents, constituent voting patterns). To learn words, students have to read multiple selections from multiple authors within key domains of learning.

The problem is that, in any given instance, it is not the entire spectrum of a word's history, meanings, usages, and features that matters, but only those aspects that are relevant to the surrounding context. That means, first, that the reader's internal representation of the word must be sufficiently complete and well-articulated so that the intended meaning is available and, second, that the reader must understand the context well enough to select the intended meaning – which, in turn, depends on good understanding of the surrounding words of the passage.

Key to students' vocabulary development is building rich and flexible word knowledge. Students need plentiful opportunities to use and respond to the words they learn, through playful informal talk, discussion, and reading or being read to and responding to what is read. Along with attention to academic (Tier 2 words) and content-specific words (Tier 3 words), students benefit from instruction about the connections and patterns in language. Developing in students an analytical attitude toward the logic and sentence structure of their texts alongside an awareness of word parts, word origins, and word relationships provides students with a sense of how language works so that syntax, morphology and etymology can become useful cues to word in building meaning as students encounter new words and concepts in their reading.[41] As students are exposed to and interact with language throughout their school careers, they are able to acquire understandings of word meanings, build awareness of the workings of language, and apply word meanings to comprehend and produce language.

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[13] Adams, M. (2009). "The Challenge of Advanced Texts: The Interdependence of Reading and Learning," in Hiebert (Ed.), Reading more, reading better: Are American students reading enough of the right stuff?, New York: Guilford Publications.

[14] Landauer, TK, McNamara, DS, Dennis, S and Kintsch, W (2007) Handbook of Latent Semantic Analysis; Landauer, T. K., & Dumais, S. T. (1997). A solution to Plato's problem: The latent semantic analysis theory of acquisition, induction, and representation of knowledge. *Psychological Review, 104(2)*, 211-240; Nagy, W. E., Herman, P., & Anderson, R. C. (1985). Learning words from context. *Reading* Research Quarterly, 20, 233-253.

[15] Hayes, D and Ahrens, M: "Vocabulary simplification for children: A special case of 'motherese?" Journal of Child Language, Vol 15(2), Jun 1988, 395-410

[16] Ibid.

[17] Ibid.

[18] Daneman & Green, 1986; Herman, Anderson, Person &Nagy, 1987; Sternberg & Powell

[19] Betts, E. A. (1946). *Foundations of reading instruction.* New York, NY: American Book Company; Carver, R. P. (1994). Percentage of unknown vocabulary words in text as a function of the relative difficulty of the text: Implications for instruction. *Journal of Reading Behavior, 26,* 413-437; Hu, M., & Nation, P. (2000). Unknown vocabulary density and reading comprehension. *Reading in a Foreign Language, 13(1),* 403-430; Laufer, B. (1988). What percentage of text-lexis is essential for comprehension. In C. Lauren & M. Nordmann (Eds.), *Special language: From humans to thinking machines,* pp. 316-323. Clevedon, UK: Multilingual Matters.

[40] Indeed, the fact that these words transcend specific disciplines argues for them being taught and used across the curriculum by all teachers.

[41] Beck, I. L., McKeown, M. & Kucan, L. (2008). *Creating robust vocabulary: Frequently asked questions and extended examples.*

APPENDIX B

Exemplars of Reading Text Complexity and Quality, ELA K–12

Selecting Text Samples

The following text samples primarily serve to exemplify the level of complexity and quality that the *Standards* require all students in a given grade band to engage with while additionally suggesting the breadth of text types that students should encounter. The choices should serve as useful guideposts in helping educators select texts of similar **complexity**, **quality**, and **breadth** for their own classrooms. The process of text selection was guided by these criteria in the following fashion:

- *Complexity.* Appendix A describes in detail a three-part model of measuring text complexity based on qualitative and quantitative indices of inherent text difficulty balanced with educators' professional judgment. In selecting texts to serve as exemplars, the work group began by soliciting contributions from teachers, educational leaders, and researchers who have experience working with students in the grades for which the texts have been selected. These contributors were asked to propose texts that they or their colleagues have used successfully with students in a given grade band. The work group made final selections based in part on whether qualitative and quantitative measures identified by the *Standards* indicated that the proposed texts were of sufficient complexity for the grade band. For those types of texts—particularly poetry and multimedia sources—for which these measures are not as well suited, professional judgment necessarily played a greater role in selection.

- *Quality.* While it is possible to have high-complexity texts of low inherent quality, the work group solicited only texts of recognized value. From the pool of submissions gathered from outside contributors, the work group selected classic or historically significant texts as well as contemporary works of comparable literary merit, cultural significance, and/or content richness.

- *Breadth.* After identifying texts of appropriate complexity and quality, the work group applied a range of secondary criteria to ensure that the samples presented in each band represented as broad a range of sufficiently complex, high-quality texts as possible. Among the factors considered were initial publication date, authorship, and subject matter.

Copyright and Permissions

For those exemplar texts not in the public domain, the work group is seeking permission from the rights holders for limited use by the Common Core State Standards Initiative of the National Governors Association.

While we await permissions grants from the rights holders, we will make use of texts under a conservative interpretation of Fair Use, which allows limited, partial use of copyrighted text for a nonprofit, educational purpose as long as that purpose does not impair the rights holder's ability to seek a fair return for his or her work.

Please note that these texts are included solely as exemplars in support of the *Standards*. Any additional use of those texts that are not in the public domain, such as for classroom use or curriculum development, requires independent permission from the rights holders. The texts may not be copied or distributed in any way other than as part of the overall Common Core Standards Initiative document.

Organization and Excerpting

Texts are organized first by category, with narrative texts followed by drama and poetry and then the informational texts. Within each category, the texts are organized by date, usually of first publication, beginning with the oldest and ending with the most recent. In some cases, the date of any given work may be open to debate.

The excerpts given here are meant to stand in for the full work in most instances. Works that are not in the public domain may be represented by short excerpts or snippets while the work group awaits permission from the rights holders for full use.

Media Texts

Selected excerpts are accompanied by annotated links to related media texts available online at the time of the publication of this document.

Kindergarten to Grade 1 Exemplar Texts

Narratives

Little Bear by Else Holmelund Minarik, illustrated by Maurice Sendak (1957)

Are You My Mother? by P. D. Eastman (1960)

The Fire Cat by Esther Averill (1960)

Green Eggs and Ham by Dr. Seuss (1960)

Put Me in the Zoo by Robert Lopshire (1960)

Frog and Toad Together by Arnold Lobel (1971)

Owl at Home by Arnold Lobel (1975)

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

Poppleton in Winter by Cynthia Rylant, illustrated by Mark Teague (2001)

Cowgirl Kate and Cocoa by Erica Silverman, illustrated by Betsy Lewin (2005)

Poetry

"Mix a Pancake" by Christina G. Rossetti (1893)

"Singing-Time" by Rose Fyleman (1919)

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

"As I Was Going to St. Ives" by Unknown, collected by Peter and Iona Opie (1951)

"Drinking Fountain" by Marchette Chute (1957)

"Poem" by Langston Hughes (1958)

"Wouldn't You?" by John Ciardi (1961)

"In the Falling Snow" by Richard Wright (1973)

"Covers" by Nikki Giovanni (1980)

"It Fell in the City" by Eve Merriam (1985)

"Celebration" by Alonzo Lopez (1993)

"Two Tree Toads" by Jon Agee (2009)

Informational Texts

A Tree Is a Plant by Clyde Robert Bulla, illustrated by Stacey Schuett (1960)

My Five Senses by Aliki (1962)

Starfish by Edith Thacher Hurd, illustrated by Robin Brickman (1962)

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

From Seed to Pumpkin by Wendy Pfeffer, illustrated by James Graham Hale (2004)

Mouse in a Meadow by John Himmelman (2005)

Petting Zoo by Dorling Kindersley (2005)

Meet the Meerkat by Darrin Lunde, illustrated by Patricia J. Wynne (2007)

"The Forest in Spring" in National Geographic Young Explorer! April 2009 (2009)

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

Read-Aloud Narratives

The Wonderful Wizard of Oz by L. Frank Baum (1900)

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

Mr. Popper's Penguins by Richard Atwater (1938)

Finn Family Moomintroll by Tove Jansson, translated by Elizabeth Portch (1948)

A Story A Story by Gail E. Haley (1970)

The Paper Crane by Molly Bang (1985)

Read-Aloud Poetry

"The Owl and the Pussycat" by Edward Lear (1871)

"April Rain Song" by Langston Hughes (1932)

"The Fox's Foray" – Traditional rhyme in Opie / *The Oxford Nursery Rhyme Book* (1955)

Over in the Meadow by John Langstaff, illustrated by Feodor Rojankovsky (1957)

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

Read-Aloud Informational Texts

The Year at Maple Hill Farm by Alice and Martin Provensen (1978)

Fire! Fire! by Gail Gibbons (1984)

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

Amazing Whales! by Sarah L. Thomson (2005)

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

Grades 2–3 Exemplar Texts

Narratives

My Father's Dragon by Ruth Stiles Gannett, illustrated by Ruth Chrisman Gannett (1948)

Crow Boy by Taro Yashima (1955)

Amos & Boris by William Steig (1971)

The Treasure by Uri Shulevitz (1978)

The Stories Julian Tells by Ann Cameron (1981)

Sarah, Plain and Tall by Patricia MacLachlan (1985)

Tops and Bottoms by Janet Stevens (1995)

The Raft by Jim LaMarche (2000)

The Lighthouse Family: The Storm by Cynthia Rylant, illustrated by Preston McDaniels (2002)

The One-Eyed Giant (Book One of Tales from the Odyssey) by Mary Pope Osborne (2002)

Poetry

"Autumn" by Emily Dickinson (1893)

"Who Has Seen the Wind" by Christina G. Rossetti (1893)

"Afternoon on a Hill" by Edna St. Vincent Millay (1917)

"Stopping by Woods on a Snowy Evening" by Robert Frost (1923)

"Something Told the Wild Geese" by Rachel Field (1934)

"Grandpa's Stories" by Langston Hughes (1938)

"A Bat Is Born" by Randall Jarrell (1964)

"Knoxville, Tennessee" by Nikki Giovanni (1968)

"Weather" by Eve Merriam (1969)

"Eating While Reading" by Gary Soto (1995)

Informational Texts

A Medieval Feast by Aliki (1983)

Maps & Globes by Jack Knowlton, pictures by Harriet Barton (1985)

Sunshine Makes the Seasons by Franklyn M. Branley (1985)

From Seed to Plant by Gail Gibbons (1991)

Throw Your Teeth on the Roof: Tooth Traditions Around the World by Selby B. Beeler, illustrated by G. Brian Karas (1998)

So You Want to Be President? By Judith St. George, illustrated by David Small (2000)

Boy, Were We Wrong About Dinosaurs by Kathleen V. Kudlinski, illustrated by S.D. Schindler (2005)

Bat Loves the Night by Nicola Davies, illustrated by Sarah Fox-Davies (2008)

Moonshot: The Flight of Apollo 11 by Brian Floca (2009)

Where Do Polar Bears Live? by Sarah L. Thomson, illustrated by Jason Chin (2010)

Read-Aloud Narratives

"How the Camel Got His Hump" in *Just So Stories* by Rudyard Kipling (1902)

The Thirteen Clocks by James Thurber (1950)

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

The Search for Delicious by Natalie Babbitt (1969)

Bud, Not Buddy by Christopher Paul Curtis (1999)

Read-Aloud Poetry

"The Jumblies" by Edward Lear (1871)

"The Pied Piper of Hamelin" by Robert Browning (1888)

"Your World" by Georgia Douglas Johnson (1918)

"The Song of the Jellicles" by T.S. Eliot (1939)

"Fireflies" by Paul Fleischman, illustrated by Eric Beddows (1988)

Read-Aloud Informational Texts

Lincoln: A Photobiography by Russell Freedman (1987)

A Drop of Water: A Book of Science and Wonder by Walter Wick (1997)

The Museum Book: A Guide to Strange and Wonderful Collections by Jan Mark, illustrated by Richard Holland (2007)

What the World Eats by Faith D'Aluisio, photographed by Peter Menzel (2008)

Wild Tracks! A Guide to Nature's Footprints by Jim Arnosky (2008)

Grades 4–5 Exemplar Texts

Narratives

Alice in Wonderland by Lewis Carroll (1865)

The Secret Garden by Frances Hodgson Burnett (1911)

The Black Stallion by Walter Farley (1941)

The Little Prince by Antoine de Saint-Exupery (1943)

Tuck Everlasting by Natalie Babbitt (1975)

"Zlateh the Goat" by Isaac Bashevis Singer (1984)

M. C. Higgins, the Great by Virginia Hamilton (1993)

The Birchbark House by Louise Erdrich (1999)

Bud, Not Buddy by Christopher Paul Curtis (1999)
[Also a read-aloud narrative at Grades 2–3]

Where the Mountain Meets the Moon by Grace Lin (2009)

Poetry

"The Echoing Green" from *Songs of Innocence* by William Blake (1789)

"The New Colossus" by Emma Lazarus (1883)

"Casey at the Bat" by Ernest Lawrence Thayer (1888)

"A Bird Came Down the Walk" by Emily Dickinson (1893)

"Fog" by Carl Sandburg (1916)

"Dust of Snow" by Robert Frost (1923)

"Little Red Riding Hood and the Wolf" by Roald Dahl (1982)

"They Were My People" by Grace Nichols (1988)

"Words Free As Confetti" by Pat Mora (1996)

Informational Texts

Discovering Mars by Melvin Berger (1992)

Let's Investigate Marvelously Meaningful Maps by Madelyn Wood Carlisle (1992)

Hurricanes: Earth's Mightiest Storms by Patricia Lauber (1996)

The Kid's Guide to Money by Steve Otfinoski (1996)

Toys: Amazing Stories behind Some Great Inventions by Don Wulffson (2000)

"Good Pet, Bad Pet" by Elizabeth Schleichert from *Ranger Rick* (2002)

"Ancient Mound Builders" by E. Barrie Kavash from *Cobblestone* (2003)

About Time: A First Look at Time and Clocks by Bruce Koscielniak (2004)

England the Land by Erinn Banting (2004)

A History of US by Joy Hakim (2005)

My Librarian Is a Camel by Margriet Ruurs (2005)

Horses by Seymour Simon (2006)

Quest for the Tree Kangaroo by Sy Montgomery (2006)

Volcanoes by Seymour Simon (2006)

We Are the Ship: The Story of Negro League Baseball by Kadir Nelson (2008)

"Kenya's Long Dry Season" by Nellie Gonzalez Cutler from *Time for Kids* (2009)

"Seeing Eye to Eye" by Leslie Hall from *National Geographic Explorer* (2009)

"Computer" from *Britannica Junior Encyclopedia* (2010)

"Telescopes" by Ronan, Colin A. from *The New Book of Knowledge* (2010)

"Underground Railroad" by Henrietta Buckmaster from *The New Book of Knowledge* (2010)

Grades 6–8 Exemplar Texts

Narratives

Little Women by Louisa May Alcott (1869)

The Adventures of Tom Sawyer by Mark Twain (1876)

A Wrinkle in Time by Madeline L'Engle (1962)

The Dark is Rising by Susan Cooper (1973)

Dragonwings by Laurence Yep (1975)

Roll of Thunder, Hear My Cry by Mildred Taylor (1976)

"The People Could Fly" from *The People Could Fly: American Black Folktales* by Virginia Hamilton (1985)

The Tale of the Mandarin Ducks by Katherine Paterson (1990)

"Eleven" from *Woman Hollering Creek: And Other Stories* by Sandra Cisneros (1992)

Black Ships Before Troy: The Story of the Iliad by Rosemary Sutcliff (1993)

Drama

A Midsummer Night's Dream by William Shakespeare (1596)

The Diary of Anne Frank by Frances Goodrich and Albert Hackett (1958)

Poetry

"Paul Revere's Ride" by Henry Wadsworth Longfellow (1861)

"O Captain, My Captain" by Walt Whitman (1865)

"Jabberwocky" by Lewis Carroll (1872)

"Twelfth Song of Thunder" from *The Mountain Chant: A Navajo Ceremony* Navajo tradition (1887)

"The Railway Train" by Emily Dickinson (1893)

"The Song of Wandering Aengus" by W. B. Yeats (1899)

"Chicago" from *Chicago Poems* (1914) by Carl Sandburg

"Stopping by a Wood on a Snowy Evening" by Robert Frost (1923)

"I, Too" by Langston Hughes (1925)

"The Book of Questions" by Pablo Neruda (1973) translated by William O'Daly

"Oranges" from *Black Hair* (1985) by Gary Soto

"A Poem for My Librarian, Mrs. Long" from *Acolytes* (2007) by Nikki Giovanni

Informational Texts (English Language Arts)

"Allegory of the Cave" from *The Republic* by Plato (380 BCE) translated by G.M.A. Grube

"Letter on Thomas Jefferson" by John Adams (1822)

Narrative of the Life of Frederick Douglass an American Slave by Frederick Douglass (1845)

"Gettysburg Address" by Abraham Lincoln (1863)

"Lee Surrenders to Grant" by Horace Porter (1865)

"Blood, Toil, Tears and Sweat" by Winston Churchill (1940)

Travels with Charley: In Search of America by John Steinbeck (1962)

"Address to the Nation on Civil Rights" by John F. Kennedy (1963)

I Know Why the Caged Bird Sings by Maya Angelou (1969)

"Address to Students at Moscow State University" by Ronald Reagan (1988)

Grades 9-10 Exemplar Texts

Narratives

The Odyssey by Homer (8th century B.C.E.) translated by Robert Fagles

"The Nose" by Nikolai Gogol (1836) translated by Ronald Wilks

"The Gift of the Magi" by O. Henry (1906)

The Grapes of Wrath by John Steinbeck (1939)

Fahrenheit 451 by Ray Bradbury (1953)

"I Stand Here Ironing" by Tillie Olsen (1956)

The Killer Angels by Michael Shaara (1975)

The Joy Luck Club by Amy Tan (1989)

In the Time of the Butterflies by Julia Alvarez (1994)

The Book Thief by Marcus Zusak (2005)

Drama

The Tragedy of Romeo and Juliet by William Shakespeare (1592)

The Glass Menagerie by Tennessee Williams (1944)

Rhinoceros by Eugene Ionesco (1959) translated by Derek Prouse

Master Harold...and the Boys by Athol Fugard (1982)

Poetry

"Song" by John Donne (1635)

"Ozymandias" by Percy Bysshe Shelley (1810)

"The Raven" by Edgar Allen Poe (1845)

"We Grow Accustomed to the Dark" by Emily Dickinson (1893)

"Loveliest of Trees" by A. E. Houseman (1896)

"Lift Ev'ry Voice and Sing" by James Weldon Johnson (1900)

"Domination of Black" by Wallace Stevens (1916)

"Yet Do I Marvel" by Countee Cullen (1925)

"Women" by Alice Walker (1970)

"I Am Offering This Poem to You" by Jimmy Santiago Baca (1977)

Informational Texts (English Language Arts)

"Preface to Lyrical Ballads" by William Wordsworth (1800)

"Speech to the Second Virginia Convention" by Patrick Henry (1775)

"Second Inaugural Address" by Abraham Lincoln (1865)

"State of the Union Address" by Franklin Delano Roosevelt (1941)

"I Am an American Day Address" by Learned Hand (1944)

"Remarks to the Senate in Support of a Declaration of Conscience" by Margaret Chase Smith (1950)

"Address at the March on Washington" by Martin Luther King, Jr. (1963)

"Nobel Prize Acceptance Speech" by Elie Wiesel (1986)

"A Quilt of a Country" by Anna Quindlen (2001)

Grades 11-12 Exemplar Texts

Narratives

Pride and Prejudice by Jane Austen (1813)

Jane Eyre by Charlotte Brontë (1848)

"At Home" by Anton Chekov (1887) translated by Constance Garnett

The Great Gatsby by F. Scott Fitzgerald (1925)

As I Lay Dying by William Faulkner (1930)

Their Eyes Were Watching God by Zora Neale Hurston (1937)

Black Boy by Richard Wright (1945)

The Adventures of Augie March by Saul Bellow (1949)

The Bluest Eye by Toni Morrison (1970)

Dreaming in Cuban by Cristina García (1992)

The Namesake by Jhumpa Lahiri (2003)

Drama

Macbeth by William Shakespeare (c1611)

The Importance of Being Earnest by Oscar Wilde (1895)

Death of a Salesman by Arthur Miller (1949)

A Raisin in the Sun by Lorraine Hansberry (1959)

Poetry

"A Valediction Forbidding Mourning" by John Donne (1633)

"Ode on a Grecian Urn" by John Keats (1820)

"Song of Myself" from *Leaves of Grass* by Walt Whitman (c1860)

"Because I Could Not Stop for Death" by Emily Dickinson (1890)

"Mending Wall" by Robert Frost (1914)

"Ode to My Suit" by Pablo Neruda (1954) translated by Margaret Sayers Peden

"Sestina" by Elizabeth Bishop (1983)

"The Latin Deli: An Ars Poetica" by Judith Ortiz Cofer (1988)

"Demeter's Prayer to Hades" by Rita Dove (1995)

"Man Listening to Disc" by Billy Collins (2001)

Informational Texts (English Language Arts)

The Declaration of Independence by Thomas Jefferson (1776)

The Crisis by Thomas Paine (1776)

Walden by Henry David Thoreau (1854)

"Society and Solitude" by Ralph Waldo Emerson (1857)

"The Fallacy of Success" by G.K. Chesterton (1909)

The American Language by H.L. Mencken (1938)

"Politics and the English Language" by George Orwell (1946)

"Abraham Lincoln and the Self-Made Myth" by Richard Hofstadter (1948)

"Letter from Birmingham City Jail" by Martin Luther King, Jr. (1963)

"Mother Tongue" by Amy Tan (1990)

"Take the Tortillas Out of Your Poetry" by Rudolfo Anaya (1995)

The Common Core K–12 Mathematics Standards

This document provides grade level standards for mathematics in grades K–8, and high school standards organized under the headings of the *College and Career Readiness Standards in Mathematics*. Students reaching the readiness level described in that document (adjusted in response to feedback) will be prepared for non-remedial college mathematics courses and for training programs for career-level jobs. Recognizing that most students and parents have higher aspirations, and that ready for college is not the same as ready for mathematics-intensive majors and careers, we have included in this document standards going beyond the readiness level. Most students will cover these additional standards. Students who want the option of entering STEM fields will reach the readiness level by grade 10 or 11 and take precalculus or calculus before graduating from high school. Other students will go beyond readiness through statistics to college. Other pathways can be designed and available as long as they include the readiness level. The final draft of the K–12 standards will indicate which concepts and skills are needed to reach the readiness level and which go beyond. We welcome feedback from states on where that line should be drawn.

English Language Learners in Mathematics Classrooms

English language learners (ELLs) must be held to the same high standards expected of students who are already proficient in English. However, because these students are acquiring English language proficiency and content area knowledge concurrently, some students will require additional time and all will require appropriate instructional support and aligned assessments.

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

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

Language proficiency is a complex construct that can reflect proficiency in multiple contexts, modes, and academic disciplines. Current measures of language proficiency may not give an accurate picture of an individual's language competence. In particular, we do not have measures or assessments for language proficiency related to competence in mathematics for different ages or mathematical topics. These two facts can confuse discussions of mathematics instruction for ELLs. In particular, because of the complexity of language proficiency and the limitations of the label "English Language Learner" as currently implemented, instructional decisions should not be made solely based on that label. However, research on language and mathematics education for this student population does provide a few clear results to guide practices for teaching ELLs mathematics:

- English learners can participate in mathematical discussions as they learn English (Moschkovich, 1999a, 2002, 2007a, 2007b, 2007d).

- Mathematics instruction for students who are learning English should draw on multiple resources and modes available in classrooms—such as objects, drawings, inscriptions, and gestures—as well as home languages and mathematical experiences outside of school.

- While mathematics instruction for ELLs should address mathematical discourse and academic language, this involves much more than vocabulary instruction.

Basic principles for improving the mathematics achievement of ELLs

Language is a resource for learning mathematics, it is not only a tool for communicating, but also a tool for thinking and reasoning mathematically. All languages (English, Spanish, Tagalog,etc.) and language varieties (different dialects, home or everyday ways of talking, vernacular, slang, etc.) provide resources for mathematical thinking, reasoning, and communicating.

Regular and active participation in the classroom—not only reading and listening but also discussing, explaining, writing, representing, and presenting—is crucial to ELLs' success in mathematics, and that ELLS can produce explanations, presentations, etc. and participate in classroom discussions *as they are learning English* (Moschkovich, 1999 and 2007).

- ELLs, like English-speaking students, require regular access to teaching practices that are most effective for improving student achievement. These practices include: a) Keeping mathematical tasks at high-cognitive demand (Henningsen & Stein, 1997; Silver & Stein, 1996); b) teachers and students attend explicitly to concepts (Hiebert & Grouws, 2007), and c) students wrestle with important mathematics (Hiebert & Grouws, 2007).
- See the evidence of ELLs' mathematical thinking, hear how ELLs use language to communicate about mathematics, understand the competence that ELLS bring to the classroom, build on this competence, and provide access to opportunities for advancing their mathematics learning.

Overall, research suggests that:

- Classroom instruction should allow bilingual students to choose the language they prefer for arithmetic computation. Language switching can be swift, highly automatic, and facilitate rather than inhibit solving word problems in the second language, as long as the student's language proficiency is sufficient for understanding the text of the word problem.
- Instruction should ensure that students understand the text of word problems before they attempt to solve them.
- Instruction should include a focus on "mathematical discourse" and "academic language" because these are important for English learners. Although it is crucial that students who are learning English have opportunities to communicate mathematically, this is not primarily a matter of learning vocabulary. Students learn to participate in mathematical reasoning, not by learning vocabulary, but by making conjectures, presenting explanations, and/or constructing arguments.
- While vocabulary instruction is important, it is not sufficient for supporting mathematical communication. Furthermore, vocabulary drill and practice are not the most effective instructional practices for learning vocabulary. Instead, research has demonstrated that vocabulary learning occurs most successfully through instructional environments that are language-rich, actively involve students in using language, require that students both understand spoken or written words and also express that understanding orally and in writing, and require students to use words in multiple ways over extended periods of time (Blachowicz, Camille, and Peter Fisher, 2000). To develop written and oral communication skills, students need to participate in negotiating meaning for mathematical situations and in mathematical practices that require output from students (Moschkovich, 2009).

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Access for Students with Disabilities

The Common Core Standards articulate rigorous expectations in the areas of mathematics, reading, writing, and speaking and listening in order to prepare students to be college- and career-ready. These standards identify the knowledge and skills students must acquire in order to be successful. Research shows that students with disabilities are capable of high levels of learning and should not be limited by low expectations and watered down curriculum. It is imperative that these highly capable students—regardless of their disability—are held to the same expectations articulated in the Core Standards as other students.[1]

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

Meeting English Language Arts (ELA) Standards

Reading, writing, speaking, and listening standards often require accommodations for students with disabilities. In the case of students who are deaf, a standard that calls for "listening" should be interpreted to include reading sign language. In a similar vein, "speaking" as it occurs in standards for certain students with speech impairments should be read broadly to include "communication" or "self-expression." Students who are blind or have low vision should be able to read via Braille, screen reader technology, or other assistive technology to demonstrate their comprehension

[1] Research suggests that the vast majority of the population of students with intellectual impairments *can* achieve proficiency when they receive high quality instruction in the grade-level content and appropriate accommodations.
[2] According to the Individuals with Disabilities Act (IDEA), an IEP includes appropriate accommodations that are necessary to measure the individual achievement and functional performance of a child.

skills. "Writing" should not preclude the use of a scribe, computer, or speech-to-text technology for students with disabilities that interfere with putting pen to paper. In the case of students with intellectual impairments—less than 2 percent of the total population of all students and less than 20 percent of students with disabilities—accommodations should allow them to demonstrate their knowledge and skills through alternative modes like text to speech software or reading aloud. For these students, writing may involve the use of pictures to assist in illustrating plot or argument, or offering them the opportunity to "choose words and phrases" by selecting from options rather than generating direct answers. With appropriate accommodations and support, students with all levels of disabilities can participate in the general education curriculum and achieve grade-level proficiency with regard to the ELA content and skills articulated in the Core.

Meeting Mathematics Standards

In curriculum for students with disabilities, ELA skills often take precedence over mathematics understanding. However, most of these students can master mathematical concepts with accommodations in instructional delivery and the use of specialized technology, including computers and calculators. For example, students with visual disabilities might require enhanced verbal descriptions from teachers and the use of large-print to demonstrate subsequent knowledge. Students who are deaf might require visual aids such as charts, diagrams, and mental images and increased reliance on computers and calculators. Manipulatives can enable students with intellectual impairments to grasp abstract concepts and continue learning. Evidence suggests that students with disabilities, even those with full intellectual abilities, tend to lag behind their peers in mathematics achievement; strong curriculum that gives equal priority to mathematics and ELA will help these students succeed.

In short, while the standards remain and retain high expectations of students, they may need to be translated and occasionally modified to appropriately apply to students with disabilities, including all levels of intellectual impairment. Every student deserves to be treated with respect, and every student deserves an outstanding education. Promoting a culture of high expectations for all students is a fundamental goal of the Core Standards. Reaching students with disabilities requires broadening our understanding of what the standards say and being ready to make appropriate accommodations and/or modifications to meet individual students' needs.

How to read this document

The K–8 standards are organized by grade level. Within each grade level there are several headings, each one the title of a single progression having significant presence in the grade in question. Under each of these progression headings, there appear **core standards**, divided into standards describing concepts students should understand and standards describing skills students should acquire. A typical progression spans a number of grades, but does not span all of K-8. The progressions and their grade spans are listed at the end of the document.

The high school standards are not organized by grade level or by course, but rather are organized under headings of the *College and Career Ready Standards for Mathematics*: Expressions, Equations, Functions, Coordinates, Modeling, Statistics, Probability, and Geometry.[3] Subheadings under each heading refer either to mathematical practices or to principle topics, and core standards are listed under each subheading, as in the K-8 standards. The subheadings are not necessarily curricular units, but rather can describe concepts and skills that are revisited throughout a student's high school career. This design necessitates a future effort to develop course sequences (either traditional or integrated).

[3] Number and Quantity are not included, since they are principally the domain of K-8. In response to feedback, the headings have been reordered and Shape has been renamed to Geometry.

Mathematical Practice[4]

Proficient students expect mathematics to make sense. They take an active stance in solving mathematical problems. When faced with a non-routine problem, they have the courage to plunge in and try something, and they have the procedural and conceptual tools to carry through. They are experimenters and inventors, and can adapt known strategies to new problems. They think strategically.

Students who engage in these practices discover ideas and gain insights that spur them to pursue mathematics beyond the classroom walls. They learn that effort counts in mathematical achievement.[a] These are practices that expert mathematical thinkers encourage in apprentices. Encouraging these practices in our students should be as much a goal of the mathematics curriculum as is teaching specific content topics and procedures.[b] Taken together with the Standards for Mathematical Content, they support productive entry into college courses or career pathways.

Core Standards · Students can and do:

1 Attend to precision.

Mathematically proficient students organize their own ideas in a way that can be communicated precisely to others, and they analyze and evaluate others' mathematical thinking and strategies noting the assumptions made. They clarify definitions. They state the meaning of the symbols they choose, are careful about specifying units of measure and labeling axes, and express their answers with an appropriate degree of precision. Rather than saying, "let v be speed and let t be time," they would say "let v be the speed in meters per second and let t be the elapsed time in seconds from a given starting time." They recognize that when someone says the population of the United States in June 2008 was 304,059,724, the last few digits indicate unwarranted precision.

2 Construct viable arguments.

Mathematically proficient students understand and use stated assumptions, definitions and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They break things down into cases and can recognize and use counterexamples. They use logic to justify their conclusions, communicate them to others and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose.

3 Make sense of complex problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They consider analogous problems, try special cases and work on simpler forms. They evaluate their progress and change course if necessary. They try putting algebraic expressions into different forms or try changing the viewing window on their calculator to get the information they need. They look for correspondences between equations, verbal descriptions, tables, and graphs. They draw diagrams of relationships, graph data, search for regularity and trends, and construct mathematical models. They check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?"

4 Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern. For example, in $x^2 + 5x + 6$ they can see the 5 as $2 + 3$ and the 6 as 2×3. They recognize the significance of an existing line in a geometric figure and can add an auxiliary line to make the solution of a problem clear. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects. For example, by seeing $5 - 3(x - y)^2$ as 5 minus a positive number times a square, they see that it cannot be more than 5 for any real numbers x and y.[b]

[4] Slated for review and editing, based on feedback to the College and Career Readiness Standards, and in order to apply more naturally to elementary school as well.

5 Look for and express regularity in repeated reasoning.

Mathematically proficient students pay attention to repeated calculations as they carry them out, and look both for general algorithms and for shortcuts. For example, by paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, they might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel in the expansions of $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x^2 + x + 1)$ leads to the general formula for the sum of a geometric series. As they work through the solution to a problem, proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.[b]

6 Reason quantitatively.

Quantitative reasoning is a way of thinking by which one reasons with quantities and about relations among quantities. It entails habits of creating a coherent image of the problem at hand; considering the units involved; continually attending to the meaning of quantities, not just how to compute them; and having multiple images of a concept and being flexible in transitioning among them. In problems dealing with quantitative relationships, students exercise two inseparable abilities: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referential meanings for the symbols involved in the manipulation.

7 Make strategic decisions about the use of technological tools.

Mathematically proficient students consider the available tools when solving a mathematical problem, whether pencil and paper, ruler, protractor, graphing calculator, spreadsheet, computer algebra system, statistical package, or dynamic geometry software. They are familiar enough with all of these tools to make sound decisions about when each might be helpful. They use mathematical understanding and estimation strategically, attending to levels of precision, to ensure appropriate levels of approximation and to detect possible errors. They are able to use these tools to explore and deepen their understanding of concepts.

Mathematics: Kindergarten[5]

Developing Coherent Understanding

[Temporarily removed for editing.]

Counting and Cardinality

Core Standards · Students understand that:

1. The number words have a standard order.
2. In counting, each object receives one and only one number word.
3. The last number word tells the number of objects.
4. Numbers said later in the count refer to larger quantities.
5. Counting on 1 more is the same as adding 1. That is, one more than a number is the next number in the count.

Core Standards · Students can and do:

a. Count by ones from 1 to 100; count by tens to 100.[6]
b. Count forward from a given number within the known sequence (instead of always counting forward from 1).[7]
c. See collections of up to 10 objects as being composed of subgroups.
d. Count to answer "how many?" questions with up to 10 things in various arrangements (e.g., array, circular, scattered), or up to 25 things if in a row.
e. Write numerals from 1 to at least 30.

Base Ten Computation

Core Standards · Students understand that:

1. Ten ones make a tens unit (ten things can be thought of as bundled into a single unit).
2. Decade words refer to groups of tens units. For example, thirty refers to a group of three tens units.
3. A teen number[8] is a ten and some ones. The number 10 can be thought of as a ten and no ones.
4. Any teen number is larger than any single digit number. Teen numbers are ordered according to their ones digits.
5. A two-digit number is some tens and some ones. For example, 29 is two tens and nine ones.

Core Standards · Students can and do:

a. Make 10 with each number from 1 to 9 (i.e., know the number that makes 10 with the given number).
b. Show each teen number as a ten and some ones.

Early Relations and Operations

Core Standards · Students understand that:

[5] Some material is used verbatim from National Research Council. (2009). *Mathematics Learning in Early Childhood: Paths Toward Excellence and Equity*. Committee on Early Childhood Mathematics, Christopher T. Cross, Taniesha A. Woods, and Heidi Schweingruber, Editors. Center for Education, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.
[6] To "count" here means only to say the number words, not to determine how many objects are in a collection.
[7] To "count" here means only to say the number words, not to determine how many objects are in a collection.
[8] Glossary: Teen number. A whole number that is greater than or equal to 11 and less than or equal to 19.

1. Adding is putting two groups together or putting some more with a group, and subtracting is taking some from a group.
2. Addition and subtraction can be represented with physical or mental objects (including fingers), pictures, drawings, sounds (e.g. number words), motions, or equations.
3. Adding can be recorded by an expression, as when "three more than six" is recorded as $6 + 3$, or by an equation that also shows the answer ($6 + 3 = 9$). Likewise, subtracting can be recorded by an expression, as when "how much more than 9 is 5" is recorded as $9 - 5$, or by an equation that also shows the answer ($9 - 5 = 4$).
4. Breaking apart a group can be recorded in an equation such as $8 = 5 + 3$. Breaking apart a group in more than one way can be recorded in an equation such as $7 + 6 = 10 + 3$.
5. In all equations, the equals sign indicates that the values on either side are the same.

Core Standards · Students can and do:

a. Use matching and counting strategies to decide whether one set is more than, less than, or equal to another set in number of objects (less than or equal to 10).
b. Compare and order numbers less than or equal to 10.
c. Use concrete objects to determine the answer to addition and subtraction word problems and additions and subtractions with totals less than or equal to 10.
d. Experience enough problem situations so that additions to five and the corresponding subtractions and some additions and subtractions within ten become well known.

Quantity and Measurement

Core Standards · Students understand that:

1. Things have attributes—such as length, weight, capacity, loudness, softness, and so on. A single thing might have several attributes of interest (as when we focus on a child's height and gender).

Core Standards · Students can and do:

a. Directly compare two objects to see which one has "more of" a shared attribute.
b. Rank three objects by a shared attribute (especially length), and use transitivity[9] to compare two objects indirectly.
c. ♦ Classify objects or people into predetermined categories, and count the numbers in each category. List the categories and counts in order by count. (Each category count less than or equal to 10.)[10]

Shapes

Core Standards · Students understand that:

1. Names refer to shapes regardless of orientation or overall size.[11]

Core Standards · Students can and do:

a. Study a range of 2D and 3D shapes, in different sizes and orientations, and discuss their properties, similarities, and differences using informal language.

[9] Glossary: Transitive property of measurement order: If one object is bigger than a second, and the second object is bigger than a third object, then the first object is bigger than the third object.
[10] The symbol ♦ indicates material in data analysis and statistics that appears under another progression heading in order to make an important connection.
[11] For example, a square rotated to form a "diamond" is still a square, even though it is rotated. Students at this grade might need to physically rotate a shape until it is "level" before they can correctly name it.

b. Move shapes using translations, reflections and rotations.[12]

[12] This is not meant to be assessed by showing students a picture of a shape and asking them to draw or select a translated, reflected or rotated version of it.

Mathematics: First Grade[13]

Developing Coherent Understanding

[Temporarily removed for editing.]

Early Relations and Operations

Core Standards · Students understand that:

1. Counting on is an efficient method of counting all, in which the initial count of the first addend is omitted.
2. Addition and subtraction apply to situations of joining, separating, part-part-whole, and comparing quantities to one another.[14] These situations can be represented by addition and subtraction equations such as $7 + 5 = 12$, $10 = 5 + 5$, and so on.
3. Addition and subtraction are inverse operations; that is $10 - 8$ can be found by thinking $8 + 2 = 10$.
4. When any two of the numbers in an addition or subtraction equation are known, the unknown number can be found.
5. One-to-one dealing of objects in a collection (e.g., "One for you, one for me, one for him, …") creates fair shares.

Core Standards · Students can and do:

a. Use counting on strategies or decomposing strategies for additions and subtractions within 20.
b. Solve addition problems containing three addends.
c. Use objects, pictures and story contexts to explain what happens when the order of addends in a sum is changed, when 0 is added to a number, and when one addend in a sum is increased by 1 and another decreased by 1.
d. Experience enough problem situations so that many or all sums and differences within 20 become well known.
e. Use drawings and equations to represent and solve word problems involving addition and subtraction.[15]
f. ♦ Organize, represent and interpret data with several categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another
g. Create n fair shares from a collection of objects. Identify the size of one share, and recognize the original collection as n copies of a single share.

Quantity and Measurement

Core Standards · Students understand that:

1. Lengths can be added by placing long objects, rods, or unit cubes end to end in a straight line. The total length is the same in whatever order the rods are placed.

[13] Some material is used verbatim from National Research Council. (2009, op. cit.)
[14] In join and separate problems, there is change over time. In part-part-whole problems, two quantities make up a whole in a static situation. Compare problems involve two quantities and the difference between them. Compare problems add specificity to the notions of greater than and less than.
[15] Include join, separate, part-part-whole, and compare problems, with unknowns in all positions. Represent these situations with equations that use a small square or a ? for the unknown.

2. Lengths can be compared by placing rods side by side, with one end lined up. The difference in length is how far the longer extends beyond the end of the shorter.
3. Lengths are measured (assigned numerical values) by comparing them to other lengths—that is, by using another object as a length unit. The length of an object can be expressed numerically by counting the number of length units that span it with no gaps or overlaps.
4. When an object or figure is decomposed into several pieces, the length of the whole can be found by placing the pieces end to end in any order.
5. A sum of two whole numbers represents a total length; a difference of two whole numbers represents a difference in length.
6. Durations of time are measured by comparing them to other durations of time, such as the earth's rotation period, or the time a minute hand takes to complete a circle around a clock face.

Core Standards · Students can and do:

a. Using an object as a length unit, measure, compare and estimate length.[16]
b. Using an object as a length unit, determine total length by adding lengths of two parts.[17] Compare lengths using addition and subtraction.
c. Decompose circles and rectangles into 2 and 4 equal parts. Describe the parts using the words "halves" and "quarters," and using the phrases "half of" and "quarter of." Describe the wholes as twice or four times as large as the parts.
d. Tell time in hours from clocks; subtract to find whole-hour durations on a clock (within AM or within PM).

Base Ten Computation

Core Standards · Students understand that:

1. In comparing two-digit numbers, the number with more tens units is larger; if the number of tens units is the same in each, the number of ones units decides.
2. In adding or subtracting 2-digit numbers, one adds or subtract like units (tens units and tens units, or ones units and ones units).

Core Standards · Students can and do:

a. Count to 100 or beyond, switching appropriately to the new decade after a 9 has been said in the ones place.
b. Compare and order numbers to 100 based on meanings of the tens and ones places.
c. Easily write numerals to 20; write numerals to 100.
d. Use break-apart and make-a-ten strategies to add and subtract with teen totals as in $7 + 6 = 10 + 3$ and $17 - 9 = 17 - 7 - 2$.
e. Find 10 more or 10 less than a number without having to count.
f. Add one-digit numbers to two-digit numbers, and add multiples of 10 to one-digit and two-digit numbers.
g. Represent addition of two-digit numbers using 10-rods and unit cubes,[18] including rearranging rods and cubes to show regrouping when needed.
h. Add two-digit numbers to two-digit numbers using strategies based on place value, Properties of Arithmetic, or the inverse relationship between addition and subtraction.

Shapes

[16] Select and iterate units, partition into equal parts, and compare lengths indirectly by using a reference length.
[17] Restrict to whole-unit lengths.
[18] Any concrete model that can show individual units and ten connected units will do.

Core Standards · Students understand that:

1. Several shapes can be joined together to form a larger shape. A single shape can also be visualized as a collection of smaller shapes joined together.
2. Decomposing larger shapes into equal-sized parts creates fair shares.
3. When an identical figure is decomposed into more fair shares, the shares are smaller than in the first instance.

Core Standards · Students can and do:

a. Form different 2D figures with cutouts of rectangles, squares, triangles, semicircles, and quarter-circles.[19]
b. Form different 3D figures with concrete models of cubes, rectangular prisms, cones, and cylinders.[20]
c. Decompose 2D shapes into rectangles, squares, triangles, semicircles, and quarter-circles, including decomposing into fair shares.

[19] From Singapore Primary 2
[20] From Singapore Primary 2

Mathematics: Second Grade

Developing Coherent Understanding

[Temporarily removed for editing.]

Operations and the Problems They Solve

Core Standards · Students understand that:

1. Addition and subtraction apply to situations of joining, separating, part-part-whole, and comparing quantities to one another.[21] These situations can be represented by addition and subtraction equations such as $17 + 5 = 22$, $36 = 56 - 26$, and so on.
2. Addition and subtraction are inverse operations; that is $100 - 98$ can be found by thinking $98 + 2 = 100$.
3. Numbers can be added and subtracted only when they refer to the same underlying unit.

Core Standards · Students can and do:

a. Use representations (objects, pictures, story contexts) to describe and justify properties of addition and subtraction.[22]
b. Produce full sets of related equations for addition and subtraction, as in the set $5 + 3 = 8$, $3 + 5 = 8$, $8 = 5 + 3$, $8 = 3 + 5$, $8 - 5 = 3$, $8 - 3 = 5$, $3 = 8 - 5$, $5 = 8 - 3$.
c. Solve up to two-step addition/subtraction word problems with whole numbers and whole number quantities within 100.[23]

Base Ten Computation

Core Standards · Students understand that:

1. A three-digit number is made up of hundreds, tens and ones units. Digits in each place are worth ten times as much as digits in the place to the right.
2. Comparison of numbers is decided by the leftmost digit, with subsequent digits breaking ties.
3. Three-digit numbers can be expanded into sums of hundreds, tens and ones units. In adding or subtracting, one adds or subtracts the units of each size; regrouping might be needed to write a total in standard form if there are too many of a unit, or to get enough of a unit to subtract from it.
4. The scheme for regrouping is the same at each place, because each unit is composed of ten of the smaller unit.

Core Standards · Students can and do:

a. Compare and order numbers to 1,000.

[21] In join and separate problems, there is change over time. In part-part-whole problems, two quantities make up a whole in a static situation. Compare problems involve two quantities and the difference between them. Compare problems add specificity to the notions of greater than and less than.

[22] Include properties such as that the sum is the same when multiple addends are added in a different order; if adding two numbers gives a certain sum, then subtracting one of the addends from the sum results in the other addend; that if more is subtracted from a number, the difference is decreased and if less is subtracted the difference is increased; that in an addition problem, each addend can be taken apart and the parts can be recombined in any order without changing the sum.

[23] Include join, separate, part-part-whole, and compare problems, with unknowns in all positions. Represent these situations with equations that use a small square or a ? for the unknown.

b. Given a three-digit number, quickly find 10 more or 10 less than the number, and quickly find 100 more or 100 less than the number.
c. Rapidly add and subtract within 20.[24]
d. Add and subtract three-digit numbers to three-digit numbers using strategies based on place value, Properties of Arithmetic, or the inverse relationship between addition and subtraction.
e. Add and subtract three-digit numbers using an algorithm[25] based on place value and regrouping, such as the standard algorithm.
f. Explain why addition and subtraction strategies and algorithms work, using place value and the Properties of Arithmetic (including explanations supported by drawings or objects).

Quantity and Measurement

Core Standards · Students understand that:

1. 1 inch, 1 foot, 1 centimeter and 1 meter are conventionally defined lengths that allow standardized length measurements.
2. When measuring a length, if a smaller unit is chosen, more units must be iterated to measure the length in those units. But the length of an object itself does not depend on the choice of unit.
3. Units can be decomposed into smaller units, e.g. a foot contains 12 inches and a meter contains 100 centimeters. A small number of long units might form a greater total length than a large number of small units.
4. Sharing a circle or rectangle fairly among 2-6 shares creates equal parts, each of which is a single unit. Copying one unit by the number of pieces measures the whole in terms of the units.
5. A half, a third, or a quarter of a given rectangle encloses the same amount of space regardless of its shape.

Core Standards · Students can and do:

a. Measure, compare and estimate whole-unit lengths in units of inches, feet centimeters and meters.
b. Construct a number line with an origin (0) and a unit (1), marking off whole numbers one unit distance apart. Use a number line to represent sums and differences; determine lengths of intervals on the number line.
c. Decompose circles and rectangles into 2-6 equal parts. Describe the parts using the words "halves," "thirds," "half of," "a third of," etc. Describe the wholes as 2-6 times as large as the parts.
d. Construct a number line to 100 using tens-unit lengths, showing ones-unit lengths within a decade of interest. Explain regrouping by composing and decomposing concrete lengths.
e. ♦ Draw a bar graph (with single-unit scale) to represent a data set with several categories. Solve simple part-part-whole and compare problems using information presented in a bar graph.[26]
f. ♦ Identify correspondences in different representations of a data set with several categories.
g. Solve word problems involving dollar bills, quarters, dimes, nickels and pennies.

Shapes

Core Standards · Students understand that:

[24] Acceptable strategies include: mental strategies such as making a ten, use of fingers to assist in rapid counting-on, and producing sums or differences from memory.

[25] Glossary: Algorithm. A step by step routine that always gives some answer, rather than ever giving no answer; that always gives the right answer, and never gives a wrong answer; that can always be completed in a finite number of steps, rather than in an infinite number of steps; and that applies to all problems of a given type (e.g., adding any two multidigit whole numbers, or bisecting any angle). Cf. Wikipedia's "effective procedure," from which this definition is adapted.

[26] For part-part-whole problems, only sum-unknown problems are required to meet this standard. For compare problems, only difference-unknown problems are required to meet the standard.

1. A given category of shapes (e.g., triangles) can be divided into subcategories (e.g., isosceles triangles) on the basis of special properties. Conversely, different classes of shapes (e.g., squares and rectangles) can be united into a larger category (e.g., quadrilaterals) on the basis of shared properties.

Core Standards · Students can and do:

a. Draw and identify equilateral triangles, isosceles triangles,[27] squares and rectangles.[28]
b. Recognize squares and rectangles as examples of quadrilaterals; draw examples of quadrilaterals that are neither squares nor rectangles.
c. Draw and identify radii and diameters of a circle.
d. Recognize objects that resemble spheres, cylinders and rectangular prisms.

[27] Students at this grade need not understand that equilateral triangles are isosceles.
[28] Students at this grade need not understand that squares are rectangles.

Mathematics: Third Grade

Developing Coherent Understanding

[Temporarily removed for editing.]

Operations and the Problems They Solve

Core Standards · Students understand that:

1. Multiplication and division apply to situations of equal grouping, fair sharing, measuring, and comparing ("times as much").
   - An equation of the form $a \times b = n$ applies to a situation in which a groups of b things each make n things in all, or in which a copies of a continuous quantity of size b form a continuous quantity of size n. (See table for examples.)
   - An equation of the form $n \div a = b$ tells how many things, b, are in each group when n things are divided equally into a groups, or tells how large a quantity b results when a continuous quantity of size n is shared fairly into a shares. (See table for examples.)
   - An equation of the form $n \div b = a$ tells how many groups, a, result when n things are divided into equal groups of b things each, or tells how many fair shares, a, a quantity of size n yields when each share has size b. (See table for examples.)
   - Two quantities can be compared by multiplication or division. An equation of the form $a \times b = n$ means n is a times as much as b and b times as much as a.
2. Multiplication is commutative: The total number of things in a groups of b things each is the same as the total number of things in b groups of a things each, that is, $a \times b = b \times a$. Likewise, a copies of a continuous quantity of size b are equal in size to b copies of a continuous quantity of size a.
3. The area of a rectangle with whole number side lengths can be calculated by multiplying because the rectangle can be decomposed into equal rows (or columns) of unit squares.
4. Multiplication and division are inverse operations; that is $35 \div 7$ can be found by thinking $5 \times 7 = 35$. When any two of the numbers in a multiplication or division equation are known, the unknown number can be found.

	$3 \times 6 = 18$	$18 \div 3 = 6$	$18 \div 6 = 3$
Collections	3 rows of apples with 6 apples in each row are 18 apples.	If 18 apples are arranged into 3 equal rows, each row will have 6 apples in it.	If 18 apples are arranged into equal rows of 3 apples, there will be 6 rows.
Continuous Quantities	If you have enough ribbon to make 6 bows, then 3 times as much ribbon will make 18 bows.	If you have enough ribbon to make 18 bows and share the ribbon fairly among 3 kids, then each kid has enough ribbon to make 6 bows.	If each kid wants to make 6 bows and there's enough ribbon to make 18 bows, then 3 kids can make bows.

Core Standards · Students can and do:

a. Use representations (objects, pictures, story contexts) to describe and justify properties of multiplication and division.[29]
b. Solve simple multiplication and division word problems involving equal groups, length and area.
c. Solve up to two-step word problems involving the four operations with whole numbers and whole number quantities. (Whole number quotients only)
d. Solve multiplicative comparison problems with whole numbers (problems involving the notion of "times as much").
e. ♦ Draw a scaled bar graph to represent a data set with several categories. Solve "how many more"/"how many less" problems (two-step problems) using information presented in scaled bar graphs.[30]

Base Ten Computation

Core Standards · Students understand that:

1. Patterns in the multiplication table can be explained by the Properties of Arithmetic. For example, the distributive property explains why, for any row, the entries in the 7 column are the sums of the entries in the 5 and 2 columns.
2. The Properties of Arithmetic can be used to derive new multiplications and divisions from known ones.

Core Standards · Students can and do:

a. Explain strategies for multiplying and dividing that use the Properties of Arithmetic and properties of the base ten system.
b. Rapidly multiply and divide within 100.[31]
c. Produce full sets of fact families for multiplication and division, as in the set $6 \times 7 = 42$, $7 \times 6 = 42$, $42 = 7 \times 6$, $42 = 6 \times 7$, $42 \div 7 = 6$, $42 \div 6 = 7$, $6 = 42 \div 7$, $7 = 42 \div 6$.
d. Find the factor pairs for a given number, as in the factor pairs for the number 42: {42, 1}, {21, 2}, {14, 3}, {7, 6}.

Fractions

Core Standards · Students understand that:

1. When a whole, 1, is divided into b equal parts, the size of the parts is written $1/b$. To show $1/b$ of something, divide the thing into b equal parts.
2. For a whole number a and a positive whole number b, a/b is defined as a copies of $1/b$.[32] This can be thought of as the sum $1/b + 1/b + \ldots + 1/b$ (with a summands).
3. Whole numbers can be written as fractions, as in $b/b = 1$, $n/1 = n$, and cases such as $(4 \times 7)/4 = 7$.
4. Fractions are numbers and can be seen as lengths on a number line.[33]

[29] Include properties such as that the product is the same when the order of the factors is changed; that multiplication problems involving 1-digit numbers can be solved by breaking one factor apart additively and multiplying each part by the other factor; and that multiplying a quantity by a number, then dividing by the same number, leaves the original quantity unchanged.

[30] Include single-unit scales and multiple-unit scales. For multiple-unit scales, all counts should be evenly divisible by the scale factor. No count should represent more than ten of the scale unit, and no scale unit should represent more than ten counts.
[31] A variety of mental strategies are acceptable, including derived fact strategies and producing products or quotients from memory.
[32] This includes fractions greater than 1. For example, $17/5$ is 17 copies of $1/5$.
[33] For example, $17/5$ is 17 copies of the subinterval $1/5$ laid end to end.

5. Two fractions are equal when they represent the same portion of a whole, or when they have the same length on a number line. One fraction is greater than another when it represents a greater portion of the whole than the other, or lies to the right of the other on the number line.
6. Given two unit fractions, the fraction with the larger denominator is smaller, because dividing a whole into a larger number of parts leads to smaller parts.
7. Fractions with the same denominator can be added or subtracted by adding or subtracting the units indicated by the unit fraction. For example, $2/3 + 4/3$ is 2 copies of $1/3$ plus 4 copies of $1/3$, or 6 copies of $1/3$ in all, that is $6/3$.
8. The decimal 0.1 denotes the fraction $1/10$, 0.2 denotes $2/10$, and so on through 0.9, which denotes $9/10$.

Core Standards · Students can and do:

a. Use fractions to describe quantities and parts of wholes.
b. Compare and order fractions with equal numerators or equal denominators, including in contextual situations, using the fractions themselves, bar strip drawings, number line representations, and area models.
c. Reason about fractions to establish equivalences between fractions with unlike denominators 2, 3, 4 and 6 (e.g. $1/2 = 2/4$, $4/6 = 2/3$).
d. Add and subtract fractions with like denominators.
e. Solve word problems that involve adding, subtracting, ordering and comparing fractions.
f. Represent fractions of the form $a/10$ in decimal notation; compare and order to tenths in decimal notation.

Quantity and Measurement

Core Standards · Students understand that:

1. A unit of measure can be partitioned into equal-sized parts, whose sizes can be represented as fractions of the unit.
2. The area of a closed plane figure is a measure of how much space it encloses. A square with side length 1 unit is said to enclose "one square unit" of area.
3. The area of a closed plane figure can be measured (expressed numerically) by the number of square units that fit inside it with no gaps or overlaps.
4. Area is a model for multiplication because tiling a rectangle with unit squares shows that a rectangle a units long by b units wide encloses an area of $a \times b$ square units.

Core Standards · Students can and do:

a. Measure lengths using rulers marked with halves and fourths of inches. Make a dot plot to show repeated measurements.
b. Convert compound units to a smaller or a larger unit, and solve problems involving mixed units (feet and inches, yards and feet).
c. Using customary units, demonstrate and justify correct processes for measuring, comparing, and estimating length, mass, capacity, and durations of time, including unit selection, partitioning and iterating units, and transitivity.
d. Compute perimeters of polygons by adding given side lengths, and find an unknown length in a polygon given the perimeter and all other side lengths. Represent these problems with equations involving a symbol for the unknown quantity.
e. Determine and compare areas by counting square units (improvised units, cm^2, m^2 in^2, ft^2).
f. Compute elapsed time and solve problems involving elapsed time (to the nearest minute).

Mathematics: Fourth Grade

Developing Coherent Understanding

[Temporarily removed for editing.]

Operations and the Problems They Solve

Core Standards · Students understand that:

1. Quantities in a problem might be described with whole numbers, fractions or decimals; the operations used to solve the problem depend on the relationships between the quantities whatever numbers are involved.
2. The distributive property (of multiplication over addition) relates addition and multiplication. The distributive property can be shown numerically and visually, using arrays and area models.

Core Standards · Students can and do:

a. Solve multistep word problems involving the four operations with whole numbers.[34]
b. Estimate answers to computations and compute mentally to assess reasonableness of results.
c. Solve problems that involve comparing, ordering, adding and subtracting fractions with like denominators. Compare fractions to benchmark fractions.
d. Solve problems that involve comparing and ordering decimal numbers to hundredths. Compare decimals to benchmark decimals.
e. ♦Make a table from given data, ask and answer questions about data in a table, solve multi-step problems using information presented in tables, and find patterns in tables.[35]

Fractions

Core Standards · Students understand that:

1. The fraction a/b can be written as $a \times 1/b$ because a/b is a copies of $1/b$.
2. When a identical things are divided into b equal parts, each of a things contributes $1/b$. So $a \div b = a/b$.[36]
3. A fraction can be multiplied by a whole number as $n \times a/b = n^{\times a}/b$. For example, $3 \times 2/5$ can be seen as 3 groups of 2 unit fractions $1/5$.[37]
4. A decimal of two digits stands for a sum of fractions whose denominators are 10 and 100. For example, 0.34 stands for $3/10 + 4/100$.

Core Standards · Students can and do:

a. Reason about fractions to establish equivalences between related fractions[38] (e.g. $3/10 = 30/100$, $9/12 = 3/4$).

[34] Use the properties of multiplication (commutative, associative, identity) or the inverse relationship between multiplication and division (multiplying a number by b then dividing by b, and vice versa, leaves the number unchanged) to make sense of single digit multiplication and division situations and solve problems.
[35] Include tables with data from proportional relationships.
[36] This definition agrees with previous understandings of division in cases like $28 \div 7$ (i.e., when a is a multiple of b), but also gives meaning to quotients such as $3 \div 4$ or $7 \div 2$.
[37] Using the Properties of Arithmetic, $n \times a/b = n \times (a \times 1/b) = (n \times a) \times 1/b = (n \times a)/b$.

b. Add and subtract related fractions in simple cases within one whole (e.g. $1/2 + 1/4$, $3/10 + 4/100$).
c. Solve word problems posed with whole numbers that have fractional answers.
d. Represent multiplication of whole numbers by fractions and fractions by whole numbers, using length and area models.
e. Solve word problems involving multiplying fractions by whole numbers and multiplying whole numbers by fractions.[39]
f. Use decimals to hundredths to describe quantities and parts of wholes, compare and order decimals to hundredths, and write fractions of the form $a/10$ or $a/100$ in decimal notation.
g. Round decimals (to hundredths) to the nearest whole number.
h. Solve addition and subtraction story problems involving fractions with related denominators (situations familiar from whole number work).

Base Ten Computation

Core Standards · Students understand that:

1. The product of a one-digit number times a multidigit number is the sum of the products of the one-digit number times each place value component. This is an instance of the distributive property.
2. Multi-digit multiplication algorithms can be derived and explained by decomposing numbers into their place value components and applying the distributive property.
3. Digits in each place are worth ten times as much as digits in the place to the right and a tenth as much as digits to the left; comparison of numbers is decided by the leftmost digit, with subsequent digits breaking ties.
4. Given whole numbers a and b, find whole numbers Q and R so that $a = Q \times b + R$. For example, given 325 and 7, express 325 in the form $325 = 46 \times 7 + 3$.

Core Standards · Students can and do:

a. Demonstrate place value understanding for whole numbers to 1,000,000 and compare numbers within this range.
b. Round whole numbers to the nearest 10 or 100 and use rounding to estimate computations.
c. Multiply single place numbers (to 9000) by single digit numbers.[40]
d. Multiply two-, three- and four-digit numbers by single-digit whole numbers, and multiply two-digit numbers by two-digit numbers, using strategies based on place value, Properties of Arithmetic, or the inverse relationship between multiplication and division.
e. Multiply two-digit numbers by two-digit numbers using an algorithm based on place value and regrouping, such as the standard algorithm.
f. Divide two-, three- and four-digit numbers by single-digit numbers, with or without remainder. In the case of remainders, express results in the form of an equation, as in $325 = 46 \times 7 + 3$.
g. Explain why multiplication and division strategies and algorithms work, using place value and the Properties of Arithmetic (including explanations supported by drawings or objects).

Quantity and Measurement

Core Standards · Students understand that:

[38] Glossary: Related fractions. Two fractions are *related* if one denominator is a factor of the other. (See Ginsburg, Leinwand and Decker (2009), *Informing Grades 1-6 Mathematics Standards Development: What Can Be Learned from High-Performing Hong Kong, Korea, and Singapore?*, Table A1, p. A-5, grades 3 and 4.)
[39] Include sharing multiple continuous wholes a fairly among b people, naming an individual share as a/b. For example 5 meters of pink ribbon shared among 3 people results in $5/3$ meters each.
[40] Glossary: Single-place number. The numbers that result when a whole number between 1 and 9 (inclusive) is multiplied by the numbers 10, 100, 1000, etc.

1. Area is additive: If a figure is decomposed into several pieces, then the area of the whole figure can be found by adding the areas of the pieces (expressed in common units).
2. An angle is two rays with a common endpoint, and is measured by the relative amount of a circle that you trace when turning from one ray to the other.
3. A one-degree angle turns through 1/360 of a circle, where the circle is centered at the origin of the rays; the measure of an angle is the number of one-degree angle turned with no gaps or overlaps.

Core Standards · Students can and do:

a. Apply the formula for area of squares and rectangles. Measure and compute whole-square-unit areas of objects and geometric figures decomposable into rectangles.[41]
b. ♦ Make a dot plot to show repeated measurements in common fractions of a unit ($1/2$, $1/4$, $1/8$). Solve problems involving addition and subtraction of fractions by using information presented in dot plots (e.g., finding the difference in length between the longest and shortest specimens in an insect collection).
c. Draw scales (number line representations) of problem situations involving length, height and distance including fractional units or decimal numbers.
d. Find one dimension of a rectangle given the other dimension and its area or perimeter; find the length of one side of a square given its area or perimeter. Represent these problems with equations involving a symbol for the unknown quantity.
e. Measure angles in whole-number degrees using a protractor; sketch angles of specified measure. Find the measure of a missing part of an angle, given the measure of the angle and the measure of a part of it; represent these problems with equations involving a symbol for the unknown quantity.

Shapes

Core Standards · Students understand that:

1. Shapes can be analyzed and classified using concepts of parallelism, perpendicularity and angle measure.

Core Standards · Students can and do:

a. Draw points, lines, line segments, rays and angles; identify these in geometric figures.
b. Associate angles of a quarter turn (subtending ¼ of a circle) with angle measure 90°, a half turn (½ of a circle) with angle measure 180°, ¾ turn (¾ of a circle) with angle measure 270°, and a full turn (complete circle) with angle measure 360°.[42]
c. Draw perpendicular and parallel lines; identify these in geometric figures.
d. Identify right angles and angles smaller than/greater than a right angle in geometric figures; recognize right triangles.
e. Given a quadrilateral, say whether it is a square, whether it is a rectangle, and whether it is a parallelogram (with an understanding that a given shape may fit more than one category).

[41] using one-digit or two-digit numbers times two-digit numbers
[42] From Singapore Primary 4

Mathematics: Fifth Grade

Developing Coherent Understanding

[Temporarily removed for editing.]

Fractions

Core Standards · Students understand that:

1. Fractions a/b and $(n\times a)/(n\times b)$ are equal: for $1/b$ is n copies of $1/(n\times b)$, so a/b is $n \times a$ copies of $1/(n\times b)$. Example: $1/3$ is 4 copies of $1/12$, so $2/3$ is 8 copies of $1/12$; thus $2/3 = 8/12$.
2. Fractions can be added or subtracted by replacing each with an equal fraction so that the resulting fractions have the same denominator. Example: $2/3 + 5/4 = 8/12 + 15/12 = 23/12$.
3. Multiplying unit fractions gives a new unit fraction with denominator equal to the product of the initial denominators. For example, $1/3 \times 1/2 = 1/(3\times2)$. The product $1/3 \times 1/2$ is 1 part when a whole of size $1/2$ is divided into 3 parts, i.e. it is "$1/3$ of $1/2$."[43]
4. Multiplying unit fractions can be extended to multiplying fractions in general. For example, $2/3 \times 4/5$ can be seen as 2 groups of 4 unit fractions $1/15$, hence the product is $8/15$.[44] The product $2/3 \times 4/5$ is 2 parts when a whole of size $4/5$ is divided into 3 parts, i.e. it is "$2/3$ of $4/5$."[45]
5. Dividing a unit fraction $1/b$ by a whole number n gives a unit fraction with denominator $n \times b$, because when $1/b$ is divided into n equal parts, the size of each part is $1/(n\times b)$. For example, $1/3 - 2 = 1/6$.
6. Dividing a whole number n by a unit fraction $1/b$ gives a whole number $n \times b$, because, as there are b units of $1/b$ in 1, there are $n \times b$ units of $1/b$ in n. For example, $2 - 1/3 = 6$.
7. A mixed number stands for the sum of its whole number part and a fractional part less than 1. A mixed number can be written as a fraction greater than 1, such as $17/5$. This equivalence can be shown using area, length, and number line models.
8. The ratio of two whole number quantities a and b, written $a:b$ or a/b, is a multiplicative comparison telling how much of one quantity there is for a given amount of the other, or how many times as much one is than the other.[46]

Core Standards · Students can and do:

a. Use area models and length models (such as strip drawings or the number line) to represent multiplication of fractions, division of unit fractions by whole numbers, and division of whole numbers by unit fractions.
b. Multiply fractions, divide unit fractions by whole numbers, and divide whole numbers by unit fractions, and solve word problems involving these operations.
c. Divide whole numbers by single digit decimals by seeing that they are fractions with denominator 10 or 100.
d. Rename fractions and mixed numbers to equivalent forms and identify equivalent fractions.
e. Compare and order fractions and mixed numbers with like or unlike denominators, including in contextual situations, using the fractions themselves, strip drawings or number line representations, and area models. Describe the size of fractional quantities with reference to the problem situation.
f. Make tables of equal ratios relating whole number quantities, and find missing values in the tables. Plot pairs of values on the coordinate plane. Example

[43] On the number line, $1/a \times 1/d$ is 1 part when the interval from 0 to $1/d$ is divided into n parts. This is the same as 1 part when the interval from 0 to 1 is divided into $n \times d$ parts, and thus $1/a \times 1/d = 1/a\times d$.
[44] Using the Properties of Arithmetic, $2/3 \times 4/5 = (2 \times 1/3) \times (4 \times 1/5) = (2 \times 4) \times (1/3 \times 1/5) = (2 \times 4) \times 1/3\times5 = 2\times4/3\times5$.
[45] On a number line, $m/n \times c/d$ means m parts when the interval from 0 to c/d is divided into n parts.
[46] For example, in a mixture of 5 cups of flour and 2 cups of sugar, the ratio is 5 cups flour to 2 cups sugar. There is $5/2$ times as much flour as sugar (equivalently, 2 $1/2$ times as much or 2.5 times as much).

Cups of Flour	5	10	?	20
Cups of Sugar	2	?	6	8
Flour:Sugar (fraction form)	5/2	10/4	?	20/8
Flour:Sugar (decimal form)	?	?	?	?

Hours of Snowfall	5	10	?	20
Inches of Snow	2	?	6	8
Inches:Hours (fraction form)	2/5	4/10	?	8/20
Inches:Hours (decimal form)	?	?	?	?

Base Ten Computation

Core Standards · Students understand that:

1. The standard division algorithm is based on successively finding the largest single digit multiple of the divisor that is less than the dividend, regrouping to the next lower unit if necessary, and then subtracting the multiple and repeating to find the next digit in the quotient.
2. The division algorithm can be used to express a fraction in decimal form by carrying the division into the decimal places.
3. The features of the place value system for whole numbers extend to the decimal positions and the combined system is symmetric around the ones place.
4. In adding or subtracting decimal numbers, one operates separately with the units of each size, except when regrouping is needed; the scheme for regrouping is the same at each place, because each unit is composed of ten of the next smaller unit.
5. Numbers in decimal notation can be shown on the number line by dividing and sub-dividing the unit intervals as many times as needed to locate the number. This process can be visualized as zooming in on the number line.

Core Standards · Students can and do:

a. Divide two, three and four digit numbers by two digit numbers, with remainder, using an algorithm based on place value and regrouping, such as the standard algorithm. In the case of remainders, express results in the form of an equation, as in $145 = 11 \times 13 + 2$.
b. Understand very large and very small numbers (from millionths to hundreds of millions); round very large numbers.
c. Quickly find 0.1 more than a number and less than a number; 0.01 more than a number and less than a number; and 0.001 more than a number and less than a number.
d. Add and subtract decimals using an algorithm based on place value and regrouping, such as the standard algorithm, and solve problems involving these operations.
e. Write fractions in decimal notation for denominators 2, 3, 4, 5, 6, 8, 10 and 100.
f. Explain why strategies and algorithms for decimals work, using place value and the Properties of Arithmetic (including explanations supported by drawings or objects).

Quantity and Measurement

Core Standards · Students understand that:

1. The volume of a solid figure is a measure of how much space it encloses. A cube with side length 1 unit is said to contain "one cubic unit" of volume. The volume of a solid figure can be measured (expressed numerically) by the number of cubic units that fit inside it with no gaps or overlaps.
2. Packing a rectangular prism with unit cubes and decomposing the prism into layers shows that a rectangular prism ℓ units long by w units wide by h units tall contains a volume $V = \ell \times w \times h$ cubic units. The base of the prism has area $A = \ell \times w$ square units, and the prism can be viewed as h layers, each containing $\ell \times w$ cubic units, so the volume of the prism can also be expressed as $V = A \times h$ cubic units.
3. Volume is additive: If a solid figure is decomposed into several pieces, then the volume of the whole figure can be found by adding the volumes of the pieces (expressed in common units).
4. Quantities with like units can be added or subtracted giving a sum or difference with the same unit; quantities with unlike units can be multiplied or divided giving products or quotients with derived units.
5. The ratio of a length, area or amount to another length, area or amount is the same regardless of the size of the unit used for measurement.
6. The number line is a scale that can be used to show units such as pounds, liters, etc.

Core Standards · Students can and do:

a. Measure and compute whole-cubic-unit volumes for rectangular prisms and for objects well described as rectangular prisms.
b. Convert among different-sized standard measurement units within a given measurement system (e.g. feet to yards, centimeters to meters) and use conversion to solve story problems.
c. Form ratios of lengths, areas, and other quantities, including when quantities being compared are measured in different units.
d. Solve word problems involving addition, subtraction, multiplication and/or division using quantities expressed as whole numbers, fractions, or decimals with measurement units.
e. Solve multi-step problems involving units of weight, capacity, money, volume and area.

Coordinate Geometry

Core Standards · Students understand that:

1. A pair of perpendicular number lines ("axes") defines a coordinate system. A given point in the plane has a separate position along each of the two axes; the two positions of the point are called its coordinates.
2. Graphs on coordinate axes can be used to make sense of relationships among quantities in complex problems.

Core Standards · Students can and do:

a. Graph points in the first quadrant the coordinate plane, and read off the coordinates of graphed points.[47]
b. Determine the lengths of horizontal and vertical segments in the plane, given the coordinates of their endpoints.
c. ♦ Collect data on continuous covarying quantities and display the data in a line graph with broken lines; distinguish bar graphs from line graphs; ask and answer questions from line graphs, including comparisons of ratios.

Statistics

Core Standards · Students understand that:

[47] The axes should sometimes represent dimensioned quantities, and the units of measure should not always be the same for both axes. Coordinates may be whole numbers, fractions or decimals.

1. Data are collected purposefully to answer a predefined question (e.g., "How tall are the fifth graders in our school?")
2. A set of data typically shows variability—not all of the values are the same—and yet the values also typically show some tendency to cluster. Identifying a "center" for a data set is a way to describe its many values using a single number.
3. The median is a measure of center in the sense that approximately half the data values are less than median, while approximately half are greater.
4. Variation in a data set can be measured by the range and by typical deviations from the center.

Core Standards · Students can and do:

a. Collect data to answer a predefined question about a measurement quantity. Make a dot plot to display the data, and describe the data using the median and typical deviations from the it.

Mathematics: Sixth Grade

Developing Coherent Understanding

[Temporarily removed for editing.]

Ratios and Proportional Relationships

Core Standards · Students understand that:

1. Multiplicative comparisons can be extended from whole numbers to fractions and decimals. When the ratio q/m is formed, or when q is r times as much as m, the numbers q, r and m can be fractions or decimals.
2. p% of a quantity means $p/100$ times as much as the quantity. The number p can be a fraction or decimal, as in 3.75%.
3. A unit rate is the multiplicative factor relating the two quantities in a ratio. Two quantities q and m can be compared by $q = r \times m$, where the unit rate r tells how much q per m.
4. Given two quantities in a ratio (e.g. distance and time), finding the unit rate produces a new type of quantity (e.g. speed).

Core Standards · Students can and do:

a. Solve for an unknown quantity in a problem involving two equal ratios.
b. Find a percentage of a quantity; solve problems involving finding the whole given a part and the percentage.
c. Solve unit rate problems including unit pricing and constant speed. (See table.)

$D = s \times T$	$D \div T = s$	$D \div s = T$
A car driving at a speed of 30 miles per hour for 6 hours travels a distance of 180 miles.	If a car drives 180 miles for 6 hours at a constant speed, that speed is 30 miles per hour.	When a car drives 180 miles at a speed of 30 miles per hour, the trip takes 6 hours.

d. Represent unit rate problems on a coordinate plane where each axis represents one of the two quantities involved, and find unit rates from a graph. Explain what a point (x, y) means in terms of the situation, with special attention to the points $(0, 0)$ and $(1, r)$ where r is the unit rate.

The Number System

Core Standards · Students understand that:

1. The Properties of Arithmetic govern operations on all numbers.
2. Division of fractions follows the "invert and multiply" rule because multiplication and division are inverse operations. For example, $(2/3) \div (3/7) = 14/15$ because $(14/15) \times (3/7) = 2/3$.
3. Every nonzero fraction has a unique multiplicative inverse,[48] namely its reciprocal. Division can be defined as "multiplying by the multiplicative inverse." Then $(2/3) \div (3/7) = 14/15$ because the division symbol indicates multiplication by the multiplicative inverse.
4. A two-sided number line can be created by reflecting the fractions across zero. Numbers located to the left of zero on the number line are called negative numbers and are labeled with a negative sign.

[48] Glossary: Multiplicative inverses. Two numbers whose product is 1 are multiplicative inverses of one another. Example: $3/4$ and $4/3$ are multiplicative inverses of one another because $3/4 \times 4/3 = 4/3 \times 3/4 = 1$.

5. Two different numbers, such as 7 and −7, that are equidistant from zero are said to be opposites of one another. The opposite of 7 is −7 and the opposite of −7 is 7. The opposite of the opposite of a number is the number itself. The opposite of 0 is 0. The operation of attaching a negative sign to a number can be interpreted as reflecting the number across zero on the number line.
6. The absolute value of a number is its distance from zero on the number line. For any positive number q, there are two numbers whose absolute value is q, namely q and $-q$.
7. The absolute value of a signed quantity (e.g. account balance, elevation) tells the size of the quantity irrespective of its sense (debit or credit; above or below sea level).
8. Comparison of numbers can be extended to the full number system. The statement $p > q$ means that p is located to the right of q on the number line, while $p < q$ means that p is located to the left of q on the number line. The statement $p > q$ does not mean $|p| > |q|$.

Core Standards · Students can and do:

a. Divide fractions, and divide finite decimals by expressing them as fractions.
b. Solve problems requiring arithmetic with fractions presented in various forms, converting between forms as appropriate and estimating to check reasonableness of answers.
c. Find and position rational numbers[49] on the number line.
d. Use rational numbers to describe quantities such as elevation, temperature,[50] account balance and so on. Compare these quantities using > and < symbols and also in terms of absolute value.
e. Graph points and identify coordinates of points on the Cartesian coordinate plane in all four quadrants.

Statistics

Core Standards · Students understand that:

1. The mean is a measure of center in the sense that it is the balance point; the mean is the value each data point would take on if the total value of all the data points were redistributed fairly.
2. When the mean and median of a data set differ substantially, both measures should be provided, and the difference explained in terms of the data values.

Core Standards · Students can and do:

a. Collect data to answer a predefined question about a measurement quantity. Make a dot plot to display the data, and describe the data using measures of center and measures of variation.[51]

Geometry

Core Standards · Students understand that:

1. Triangles and parallelograms can be dissected and reassembled into rectangles with the same area; this leads to a formula for area in terms of base and height.
2. Polygons can be dissected into triangles in order to find their area.

Core Standards · Students can and do:

[49] Glossary: Rational number. A number expressible in the form a/b for integers a and $b \neq 0$. The rational numbers include positive and negative integers, positive and negative fractions, and 0.
[50] A caution for temperature problems: The rational numbers are not a good model for a temperature scale. There is no temperature that solves the equation $T + 1000°C = 0$.
[51] Data sets should include fractional values at this grade but not negative values.

a. Find the area of right triangles, other triangles, special quadrilaterals, and polygons (by dissection into triangles and other shapes).
b. Find surface area of cubes, prisms and pyramids (include the use of nets to represent these figures).
c. Solve problems involving area, volume and surface area of objects.
d. Examine the relationship between volume and surface area. Exhibit rectangular prisms with the same surface area and different volume, and with the same volume and different surface area.
e. Use exponents and symbols for square roots and cube roots to express the area of a square and volume of a cube in terms of the side length, and to express the side length in terms of the area or volume.

Expressions and Equations

Core Standards · Students understand that:

1. A number that is the result of a sequence of operations with other numbers can be expressed in different ways using conventions about order of operations and parentheses, rules for working with fractions, and the Properties of Arithmetic. All such expressions are equivalent.
2. A letter is used to stand for a number in an expression in cases where one doesn't know what the number is, or where, for the purpose at hand, it can be any number in the domain of interest. Such a letter is called a variable.
3. An equation is a statement that two expressions are equal, and a solution to an equation is a value of the variable (or a set of values for each variable if there is more than one variable) that makes the equation true.

Core Standards · Students can and do:

a. Represent an unknown number using a letter in simple expressions such as $y + 2$, $y - 3$, $6 + y$, $5 - y$, $3y$, $y/2$, and $(3+y)/5$.
b. Interpret $3y$ as $y + y + y$ or $3 \times y$, $y/2$ as $y - 2$ or $1/2 \times y$, $(3+y)/5$ as $(3 + y) - 5$ or $1/5 \times (3 + y)$.[52]
c. Evaluate simple expressions when values for the variables in them are specified (exclude expressions with a variable in denominator).
d. Choose variables to represent quantities in a word problem and construct simple equations to solve the problem by reasoning about the quantities.
e. Solve equations of the form $x + p = q$ (for $p < q$) and $px = q$ where p and q are fractions.

[52] From Singapore Secondary 1

Mathematics: Seventh Grade

Developing Coherent Understanding

[Temporarily removed for editing.]

Ratios and Proportional Relationships

Core Standards · Students understand that:

1. Two variable quantities x and y are said to be proportional to one another if the ratio x/y is always equal to the same quantity k, so that $y = kx$. The constant k is the unit rate, and tells how much of y per unit of x.

Core Standards · Students can and do:

a. Compare proportional relationships represented in different ways (e.g. compare a graph to an equation to determine which of two objects has greater speed).
b. Decide whether two quantities that vary together have a proportional relationship, analyze proportional relationships using the unit rates that characterize them, and solve word problems involving proportional relationships.
c. Plot pairs (x, y) from a proportional relationship $y = kx$, and pass a straight line through them and the origin. Observe that increases in y are proportional to increases in x, and calculate [increase in y]/[increase in x] = k.

The Number System

Core Standards · Students understand that:

1. On the number line, the sum $p + q$ is defined to be the number lying distance $|q|$ from p, to the right of p if q is positive and to the left of p if q is negative. A number and its opposite are additive inverses (add to zero).[53]
2. Sums of signed numbers can be computed using the Properties of Arithmetic.[54]
3. The additive inverse of a sum is the sum of the additive inverses.[55]
4. Subtraction is defined as adding the additive inverse. This definition of subtraction allows subtraction of rational numbers and agrees with previous understandings of subtraction with positive numbers.[56] On the number line, the difference $p - q$ lies distance $|q|$ from p, to the left of p if q is positive and to the right of p if q is negative.
5. The absolute value of $p - q$ equals the distance between p and q on the number line.
6. Products of signed numbers can be computed using the Properties of Arithmetic.[57] In particular, multiplying a number by −1 produces its additive inverse.[58]

[53] Glossary: Additive Inverses. Two numbers whose sum is 0 are additive inverses of one another. Example: $3/4$ and $-3/4$ are additive inverses of one another because $3/4 + (-3/4) = (-3/4) + 3/4 = 0$.
[54] For example, 7 + (−3) = 4 because 7 + (-3) = (4 + 3) + (-3) = 4 + [3 + (-3)] = 4 + [0] = 4. And (−2) + (−3) = −5 because 5 + [(-2) + (-3)] = (2 + 3) + [(-2) + (-3)] = [2 + (-2)] + [3 + (-3)] = [0] + [0] = 0 so (-2) + (-3) is the additive inverse of 5, that is −5.
[55] For example, −(6 + −2) = (−6) + 2 because [6 + (−2)] + [(−6) + 2] = [6 + (−6)] + [(−2) + 2] = [0] + [0] = 0.
[56] For example, the subtraction 7 − 3 means 7 plus the additive inverse of 3, i.e. 7 + (−3), which equals 4. The subtraction 9 − (−4) means 9 plus the additive inverse of −4, i.e. 9 + 4, which equals 13.
[57] For example, (−1) × (−1) = 1 because (−1) + (−1) × (−1) = 1 × (−1) + (−1) × (−1) = [1 + (−1)] × (−1) = 0 × (−1) = 0.
[58] Because (−1) × a + a = (−1) × a + (1) × a = [(−1) + (1)] × a = 0 × a = 0.

7. Every nonzero rational number has a multiplicative inverse. Division of rational numbers is defined as multiplying by the multiplicative inverse.
8. The operation of adding the rational number q to points on the number line is a translation; it shifts points to the right if $q > 0$, to the left if $q < 0$, and not at all if $q = 0$. The operation of adding $-q$ undoes the operation of adding q.
9. The operation of multiplying points on the number line by a positive rational number k is a dilation; it scales points further away from zero if $k > 1$, closer to zero if $k < 1$, and not at all if $k = 1$. The operation of multiplying by $1/k$ undoes the operation of multiplying by k.

Core Standards · Students can and do:

a. Explore and explain with number lines the rules for adding rational numbers, e.g., $r + s = s + r$; $r + (-s) = r - s$; $p - (q + r) = p - q - r$.
b. Use the rules of arithmetic to explore and explain with specific numbers the rules for multiplying rational numbers, e.g., 4×-5 is -5 added to itself 4 times, so equal to -20; $-3 \times (-2 + 2) = -3 \times 0 = 0$, so $-3 \times -2 = -(-3) \times 2 = -(-6) = 6$.
c. Add and subtract rational numbers, and use these operations to solve word problems (including signed quantities such as elevation, temperature, account balance, and so on).
d. Multiply and divide rational numbers, and use these operations to solve word problems (including signed quantities).

Expressions and Equations

Core Standards · Students understand that:

1. Expressing a quantity in different forms serves a purpose in analyzing quantitative situations.
2. The distributive property can be used in two directions, both to expand linear expressions, and to factor a sum of terms with a common factor.

Core Standards · Students can and do:

a. Construct algebraic expressions for simple real-world situations and generate equivalent expressions to interpret their meaning (e.g., $P + 0.05P = 1.05P$ means that "increase by 5%" is the same as "multiply by 1.05").
b. Generate equivalent expressions from a given expression, including putting linear expressions in standard form and taking out a common factor. Include expressions involving negative numbers and exponents 2 and 3.
c. Solve multi-step word problems that lead to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are rational numbers, by undoing the operations involved in producing the expression on the left, using additive and multiplicative inverses.
d. Solve simple absolute value equations of the form $|x + h| = j$ and $|x - h| = j$, where h and j are integers.
e. Read the structure in a numerical expression at a level necessary to enter it into a calculator or spreadsheet, making use of parentheses and the conventions on order of operations.

Statistics

Core Standards · Students understand that:

1. In addition to measurement variability, another source of variation in data is randomness.

Core Standards · Students can and do:

a. Collect experimental or simulation data from repeated random trials. Make a histogram showing absolute frequencies and a bar graph of relative frequencies. Discuss the patterns and make predictions for further experiments or simulations.

Probability

Core Standards · Students understand that:

1. Chance events fall along a spectrum: nearly impossible | unlikely | neither likely nor unlikely | likely | nearly certain.
2. Probability is a quantitative measure of likelihood. Probabilities are numbers lying between 0 and 1, with 0 representing impossible and 1 representing certain (in the case of a finite sample space).
3. The experimental probability of a specified outcome is the observed fraction of the outcome in a data set collected from a process involving randomness or chance.
4. In a random process, the individual outcomes are unpredictable, but patterns may emerge after repeated trials. Experimental probabilities in random experiments tend to approach stable values as more and more data is generated.
5. In a theoretical probability model, the set of distinct possible outcomes for a random experiment is called the sample space. An event is a set of sample points; a sample point may belong to several events. A specified event occurs in some fraction of the sample space. This fraction is called the theoretical probability of the event.
6. When computing theoretical probabilities, all members of the sample space are assumed equally probable. Theoretical probabilities will not match long-run experimental probabilities if this assumption is inappropriate (e.g., as in the case of a loaded die).

Core Standards · Students can and do:

a. Compute experimental probabilities from data sets, including data sets generated by simulations or sampling experiments.
b. Compute experimental probabilities to estimate theoretical probabilities when no theoretical probability model is apparent.
c. Represent sample spaces for one-stage random experiments; identify members of the sample space in which specified events occur.
d. Use a theoretical probability model to compute theoretical probabilities for one-stage random experiments, expressing theoretical probabilities as fractions, decimals and percents.
e. Compare experimental probabilities to theoretical probabilities for one-stage random experiments, examining and if feasible revising the assumptions of the theoretical model when the two conflict.

Geometry

Core Standards · Students understand that:

1. Two polygons are congruent[59] if and only if there is a correspondence between vertices so that the corresponding sides are equal and the corresponding angles are equal.
2. A plane or solid figure is similar to another if the second can be obtained from the first by a similarity transformation.[60] All ratios of lengths in the second figure to corresponding lengths in the first figure are equal to the scale factor of the dilation.

[59] Glossary: Congruent. Two plane or solid figures are *congruent* if one can be obtained from the other by a sequence of rigid motions (rotations, reflections, and translations).
[60] Glossary: Similarity transformation. A rigid motion followed by a dilation. Glossary: Dilation. A transformation that moves each point along the ray through the point emanating from a fixed center, and multiplies distances from the center by a common scale factor.

3. Congruent figures have the same area or volume. A similarity transformation with a scale factor of k leaves angle measures unchanged, changes lengths by a factor of k, changes areas by a factor of k^2, and changes volumes by a factor of k^3.
4. Given a line in the coordinate plane not parallel to either axis, any two right triangles with legs parallel to the axes and hypotenuse on the given line are similar, and so the slope of the line (rise over run) is the same regardless of which two distinct points are used to compute it.

Core Standards· Students can & do:

a. Solve problems involving similar triangles and scale drawings (including computing actual lengths, areas and volumes from a scale drawing and reproducing a scale drawing at a different scale).
b. Explore using hands-on activities the area of non-rectangular figures and the perimeter of curvilinear figures, and the fact that a dilation of the plane changes areas by the square of the scale factor.[61]
c. Use scale factors to find lengths and areas of similar figures, including an informal derivation of the formulas relating the area, radius and circumference of a circle.
d. Give an explanation of why the volume of a cylinder is the area of the base times the height, using informal arguments involving slices.
e. Use coordinate grids to transform figures and to predict the effect of dilations, translations, rotations and reflections.
f. Use two-dimensional representations of three-dimensional objects (schematics, assembly instructions, perspective drawings and multiple views) to solve problems.
g. Explore three-dimensional figures formed by translations and rotations of plane figures through space.
h. Sketch and describe cross-sections of cones, cylinders, pyramids and prisms.

[61] Include using grids of squares with fractional side lengths to estimate area, and measuring the length of strings wrapped around the perimter.