XVIII. APPENDIX TABLE OF CONTENTS

The Appendix must include a complete Table of Contents, which includes the page number or attachment number, attachment title, and relevant selection criterion. A sample table of contents form is included below. Each attachment in the Appendix must be described in the narrative text of the relevant selection criterion, with a rationale for how its inclusion supports the narrative and the location of the attachment in the Appendix.

Appendix Number	Appendix Title	Relevant Selection Criterion	Page(s)
A1	Baldrige Performance Excellence and Best Practices	(A)(1)(i); (A)(3)(ii)	**1**
A2	Wyoming Public Education Strategic Plan	(A)(1)(i); (A)(1)(iii); (A)(3)(ii)	**2-3**
A3	Wyoming Participating LEA Memorandum of Understanding	(A)(1)(ii)	**4-7**
A4	Wyoming Department of Education Focus Areas	(A)(1)(iii)	**8**
A5	NAEP, ESEA, PAWS and Hathaway Results	(A)(1)(iii)(a); (A)(1)(iii)(b); (A)(1)(iii)(d); (A)(3)(ii)(a); (A)(3)(ii)(b)	**9-55**
A6	Wyoming's Tribal Children's Triad Member List	(A)(1)(iii)(b)	**56**
A7	Historical Graduation Rates – All Students	(A)(1)(iii)(c); (A)(3)(ii)(c)	**57**
A8	Graduation Rates Trend Report – Subgroups	(A)(1)(iii)(c); (A)(3)(ii)(c)	**58**
A9	Graduation Rate Formulas	(A)(1)(iii)(c); (A)(3)(ii)(c)	**59**
A10	Early Learning Plan	(A)(1)(iii)(c)	**60-88**
A11	Sample 8th Grad Unit of Study Curriculum	(A)(1)(iii)(d)	**89**
A12	Hathaway Success Curriculum	(A)(1)(iii)(d); (A)(3)(ii)(c)	**90-94**
A13	Budget Management System	(A)(2)(i)(c)	**95-98**
A14	Grants Management System	(A)(2)(i)(c)	**99-101**
A15	Parrascope Benefits for Wyoming	(A)(2)(i)(c); (C)(2)	**102-107**
A16	Letters of Support	(A)(2)(ii)(a); (A)(2)(ii)(b)	**108-118**
A17	Coordination of Efforts with WDE Partners	(A)(3)(ii)	**119**
A18	Sample District Profile	(A)(3)(ii)(a)	**120-121**
A19	Instructional Facilitator Report to the Legislature	(A)(3)(ii)(a)	**122-131**
B1	Consortium States List	(B)(1)(i); (B)(2)(ii)	**132**
B2	CCSSO – NGA Common Core Standards MOA	(B)(1)(i)	**133-135**

B3	Evidence of International Bench Marking	(B)(1)(i)	**136-137**
B4	ELA Standards Sources	(B)(1)(i)	**138-146**
B5	Math Standards Sources	(B)(1)(i)	**147-158**
B6	Wyoming Content and Performance Standards Review Process	(B)(1)(ii)	**159**
B7	MOU- Common Core Standards	(B)(2)(ii)	**160-166**
B8	MOU- MOSAIC	(B)(2)(ii)	**167-169**
B9	MOU- Smarter	(B)(2)(ii)	**170-171**
C1	LDW19	(C)(2)	**172**
C2	CCSSO Letter of Support	(C)(2)	**173**
C3	WHIN Letter of Support	(C)(2)	**174**
D1	Baldrige Framework Graphic Organizer	(D)(2)(ii)	**175**
D2	Wyoming Equity Plan	(D)(3)(i) & (ii)	**176-195**
D3	Evaluation of Wyoming's Instructional Facilitator Program	(D)(5)(ii)	**196-197**
E1	State System of Support Overview	(E)(2)	**198**
E2	Wyoming District Classification Rubric	(E)(2); (A)(1)(iii)(a); (A)(3)(ii); (D)(5)(i)	**199-217**
E3	Pillar of Support	(E)(2)	**218**
E4	Map of Rural States	(E)(2)	**219**
F1	Section F(1)(i) Evidence	(F)(1)(i)	**220-227**
F2	Section F(1)(ii) Evidence	(F)(1)(ii)	**228-243**
P1	Additional Examples of Wyoming STEM Activities	VII Priority 2	**244**
BUD1	Budget Summary Narrative	VIII Budget Part 1	**244-247**

State of Wyoming

Race to the Top

Application for Initial Funding

CFDA Number: 84.395A

Submitted to
U.S. Department of Education
Washington, D.C. 20202
OMB Number: 1810-0697
Date: 01/15/2010

APPENDICES

APPENDIX TABLE OF CONTENTS

Appendix Number	Appendix Title	Relevant Selection Criterion	Page(s)
A1	Baldrige Performance Excellence and Best Practices	(A)(1)(i); (A)(3)(ii)	**1**
A2	Wyoming Public Education Strategic Plan	(A)(1)(i); (A)(1)(iii); (A)(3)(ii)	**2-3**
A3	Wyoming Participating LEA Memorandum of Understanding	(A)(1)(ii)	**4-7**
A4	Wyoming Department of Education Focus Areas	(A)(1)(iii)	**8**
A5	NAEP, ESEA, PAWS and Hathaway Results	(A)(1)(iii)(a); (A)(1)(iii)(b); (A)(1)(iii)(d); (A)(3)(ii)(a); (A)(3)(ii)(b)	**9-55**
A6	Wyoming's Tribal Children's Triad Member List	(A)(1)(iii)(b)	**56**
A7	Historical Graduation Rates – All Students	(A)(1)(iii)(c); (A)(3)(ii)(c)	**57**
A8	Graduation Rates Trend Report – Subgroups	(A)(1)(iii)(c); (A)(3)(ii)(c)	**58**
A9	Graduation Rate Formulas	(A)(1)(iii)(c); (A)(3)(ii)(c)	**59**
A10	Early Learning Plan	(A)(1)(iii)(c)	**60-88**
A11	Sample 8th Grad Unit of Study Curriculum	(A)(1)(iii)(d)	**89**
A12	Hathaway Success Curriculum	(A)(1)(iii)(d); (A)(3)(ii)(c)	**90-94**
A13	Budget Management System	(A)(2)(i)(c)	**95-98**
A14	Grants Management System	(A)(2)(i)(c)	**99-101**
A15	Parrascope Benefits for Wyoming	(A)(2)(i)(c); (C)(2)	**102-107**
A16	Letters of Support	(A)(2)(ii)(a); (A)(2)(ii)(b)	**108-118**
A17	Coordination of Efforts with WDE Partners	(A)(3)(ii)	**119**
A18	Sample District Profile	(A)(3)(ii)(a)	**120-121**
A19	Instructional Facilitator Report to the Legislature	(A)(3)(ii)(a)	**122-131**
B1	Consortium States List	(B)(1)(i); (B)(2)(ii)	**132**
B2	CCSSO – NGA Common Core Standards MOA	(B)(1)(i)	**133-135**
B3	Evidence of International Bench Marking	(B)(1)(i)	**136-137**
B4	ELA Standards Sources	(B)(1)(i)	**138-146**
B5	Math Standards Sources	(B)(1)(i)	**147-158**
B6	Wyoming Content and Performance Standards Review Process	(B)(1)(ii)	**159**
B7	MOU- Common Core Standards	(B)(2)(ii)	**160-166**

APPENDIX TABLE OF CONTENTS

B8	MOU- MOSAIC	(B)(2)(ii)	**167-169**
B9	MOU- Smarter	(B)(2)(ii)	**170-171**
C1	LDW19	(C)(2)	**172**
C2	CCSSO Letter of Support	(C)(2)	**173**
C3	WHIN Letter of Support	(C)(2)	**174**
D1	Baldrige Framework Graphic Organizer	(D)(2)(ii)	**175**
D2	Wyoming Equity Plan	(D)(3)(i) & (ii)	**176-195**
D3	Evaluation of Wyoming's Instructional Facilitator Program	(D)(5)(ii)	**196-197**
E1	State System of Support Overview	(E)(2)	**198**
E2	Wyoming District Classification Rubric	(E)(2); (A)(1)(iii)(a); (A)(3)(ii); (D)(5)(i)	**199-217**
E3	Pillar of Support	(E)(2)	**218**
E4	Map of Rural States	(E)(2)	**219**
F1	Section F(1)(i) Evidence	(F)(1)(i)	**220-227**
F2	Section F(1)(ii) Evidence	(F)(1)(ii)	**228-243**
P1	Additional Examples of Wyoming STEM Activities	VII Priority 2	**244**
BUD1	Budget Summary Narrative	VIII Part 1	**244-247**

WDE Performance Excellence Criteria

- Leadership
- Strategic Planning
- Student, Stakeholder & Market Focus
- Measurement, Analysis, and Knowledge Management
- Workforce Focus/Human Resources
- Process Management
- Results

WDE Organizational Best Practices That Support Continuous Improvement

- Visionary Leadership
- Learning-Centered Education
- Organizational & Personal Learning
- Valuing, Customers, Staff, and Partners
- Agility
- Focus on the Future
- Managing for Innovation
- Management by Fact
- Social Responsibility
- Focus on Results & Creating Value
- Systems Perspective

teamwork

Wyoming Public Education & Wyoming Department of Education

Strategic Plan 2009 through 2014

Dr. James McBride, State Superintendent of Public Instruction

One Team, One Effort

VISION: By 2014 the Wyoming public education system will be recognized as the best education system in America based upon overall student performance and citizenship.

CRITICAL STATE EDUCATION ISSUES

- Statewide PAWS proficiency levels are below expectations
- Graduation rates are declining
- Remediation rates for high school graduates attending postsecondary education are too high
- Students continue to report high levels of alcohol use

STATE GOAL –

Governor's Quality of Life Result: Students are successfully educated and prepared for life's opportunities.

Department Goals	Department & Districts' Focus Areas	Performance Measures
To Improve Student Performance	**- Improve attendance rates** **- Increase graduation rates** - Increase Hathaway Scholarship eligibility **- Improve 3rd grade reading proficiency** - Improve 8th grade math proficiency - Increase % of advanced and comprehensive diplomas awarded	**- Annual State Attendance Rate (B 94% - T 96%)** **- Annual State Graduation Rate (B 79.3% - T 85%)** - Annual Hathaway Scholarship % **-Annual PAWS Reading Proficiency Rate (B 60% - T 65%)** - Transcript Endorsements %
To Ensure Efficient and Effective Operations	**- Improve the system capacity of Districts and the Department by implementing the Performance Excellence/ Baldrige Management System** **- Improve North Central Accreditation (NCA) average score** - Improve customer service ratings - Improve performance on special education core indicator results - Increase the # of schools & districts making AYP	**- Department System Check III (B 2.05 – T 3.05)** - Krenek Organizational Assessment (OA) **- NCA Average Score (B 3.05 – T 3.25)** - WDE Annual Customer Service Survey - Annual Core indicators: graduation, dropouts, PAWS proficiency, and discipline - Annual AYP Federal Report
To Ensure Safe, Orderly, and Healthful School Environments	**- Adopt and implement policies and programs to reduce bullying** -Improve prevention & intervention activities to reduce alcohol and chemical use rates	**- Bullying: Youth Risk Behavior Survey (YRBS) & Prevention Needs Assessment (PNA)** **(B 29.1% (HS) – T 24.1%)** **(B 50.0% (MS) - T 45.0%)**

B = Baseline; T = Target; Bold Items = 2009-2010 School Year Initiatives

MISSION: **The Wyoming Department of Education will model the highest possible character, integrity and leadership focused on the support of continuous academic achievement.**

MISSION ELEMENTS: **Professionalism – Continuous Improvement – Effective Teamwork**

Rev. – December 4, 2009

Wyoming Department of Education
Strategic Five Year Planning Document
2009 through 2014

Year 1	Year 2	Year 3	Year 4	Year 5
Student Performance 1. Improve state average attendance rate. 2. Improve state graduation rate 3. Improve 3rd grade reading proficiency	***Student Performance*** 1. Improve 8th grade math proficiency	***Student Performance*** 1. Increase Hathaway Scholarship eligibility	***Student Performance*** 1. Increase % of advanced and comprehensive diplomas awarded	***Student Performance***
Effective & Efficient Operations 1. Improve Department System Check III scores 2. Improve school state average NCA system scores	***Effective & Efficient Operations*** 1. Improve WDE customer service ratings 2. Improve Districts OA state average scores	***Effective & Efficient Operations*** 1. Improve performance in special education core indicators	***Effective & Efficient Operations*** 1. Increase the number of districts and schools making AYP	***Effective & Efficient Operations***
Safe, Orderly and Healthful School Environments 1. Reduce bullying	***Safe, Orderly and Healthful School Environments*** 1. Reduce alcohol use rates supported by state partners	***Safe, Orderly and Healthful School Environments***	***Safe, Orderly and Healthful School Environments*** 1. Reduce all chemical use rates supported by state partners	***Safe, Orderly and Healthful School Environments***

Rev. – November 16, 2009

Wyoming Participating LEA Memorandum of Understanding

This Memorandum of Understanding ("MOU") is entered into by and between the **Wyoming Department of Education** ("State") and **Laramie County School District Number One** ("Participating LEA"). The purpose of this agreement is to establish a framework of collaboration, as well as articulate specific roles and responsibilities in support of the State in its implementation of an approved Race to the Top grant project.

I. SCOPE OF WORK

Exhibit I, the Preliminary Scope of Work, indicates in each area of the State's proposed reform plans ("State Plan") the Participating LEA is agreeing to implement. (Note that, in order to participate, the LEA must agree to implement all or significant portions of the State Plan.)

II. PROJECT ADMINISTRATION

A. PARTICIPATING LEA RESPONSIBILITIES

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

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

B. STATE RESPONSIBILITIES

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

1) Work collaboratively with, and support the Participating LEA in carrying out the LEA Plan as identified in Exhibits I and II of this agreement;
2) Timely distribution of 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;
3) Provide feedback on the LEA's status updates, annual reports, any interim reports, and project plans and products; and
4) Identify sources of technical assistance for the project.

C. JOINT RESPONSIBILITIES

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

D. STATE RECOURSE FOR LEA NON-PERFORMANCE

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

E. LEA AGREEMENTS

In the event there is a conflict between the terms of this MOU and the terms of any agreement executed between the local educational agency and an alternative educational association or organization/agency, the local educational agency shall maintain the right to collaboratively renegotiate or amend the terms of the agreement between itself and the alternative educational association or organization/agency.

III. ASSURANCES

The Participating LEA hereby certifies and represents that it:

1) Has all requisite power and authority to execute this MOU;

2) Is familiar with the 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;

3) Agrees to be a Participating LEA and will implement those portions of the State Plan indicated in Exhibit I, if the State application is funded,

4) Will provide a Final Scope of Work to be attached to this MOU 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

5) Will comply with all of the terms of the Grant, the State's sub-grant, and all applicable Federal and State laws and regulations, including laws and regulations applicable to the Program, and the applicable provisions of EDGAR (34 CFR Parts 75, 77, 79, 80, 82, 84, 85, 86, 97, 98 and 99).

IV. MODIFICATIONS

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

V. DURATION/TERMINATION

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

VI. SIGNATURES

LEA Superintendent (or equivalent authorized signatory) -required:

T J Adams 11/11/10

Signature/Date

Ted J. Adams / Supt.

Print Name/Title

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

Jan Stalcup 11/11/10

Signature/Date

Jan Stalcup LCSD #1 Board Chair

Print Name/Title

Local Teachers' Union Leader (if applicable):

JoAnn F Baumhover, 1-11-2010
Signature/Date

JoAnn F Baumhover, Cheyenne Teachers Ed. Assn. President
Print Name/Title

Authorized State Official -required:
By its signature below, the State hereby accepts the LEA as a Participating LEA.

DR. Jim McBride / 12 JAN 2010
Signature/Date

WY State Superintendent of Public Instruction
Print Name/Title

A. EXHIBIT I –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 Plans	LEA Participation (Y/N)	Comments from LEA (optional)
B. Standards and Assessments		
(B)(3) Supporting the transition to enhanced standards and high-quality assessments	Yes	We believe Wyoming is perfectly positioned to become the model for SEA & LEA collaboration
C. Data Systems to Support Instruction		
(C)(3) Using data to improve instruction:		
(i) Use of local instructional improvement systems	Yes	
(ii) Professional development on use of data	Yes	
(iii) Availability and accessibility of data to researchers	Yes	
D. Great Teachers and Leaders		
(D)(2) Improving teacher and principal effectiveness based on performance:		
(i) Measure student growth	Yes	
(ii) Design and implement evaluation systems	Yes	
(iii) Conduct annual evaluations	Yes	
(iv)(a) Use evaluations to inform professional development	Yes	
(iv)(b) Use evaluations to inform compensation, promotion, and retention	Yes	
(iv)(c) Use evaluations to inform tenure and/or full certification	Yes	
(iv)(d) Use evaluations to inform removal	Yes	
(D)(3) Ensuring equitable distribution of effective teachers and principals:		
(i) High-poverty and/or high-minority schools	Yes	
(ii) Hard-to-staff subjects and specialty areas	Yes	
(D)(5) Providing effective support to teachers and principals:		
(i) Quality professional development	Yes	
(ii) Measure effectiveness of professional development	Yes	
E. Turning Around the Lowest-Achieving Schools		
(E)(2) Turning around the lowest achieving schools	Yes	

For the Participating LEA

Authorized LEA Signature/Date

Ted J. Adams Supt.

Print Name/Title

For the State

DR. Jim McBride 12JAN2010

Authorized State Signature/Date

Jim McBride, State Supt.

Print Name/Title

WYOMING DEPARTMENT OF EDUCATION FOCUS AREAS – CORE COMPETENCIES

1. Professional Development: provide on-going learning opportunities that enhance knowledge, skills and behaviors to improve job effectiveness.

2. Technical Assistance: a focused, collaborative process of assessing customer needs, providing support and facilitating access to resources.

3. Monitoring: a systematic process of gathering evidence and analyzing data to evaluate compliance regarding procedures, rules, regulations and/or statutes.

4. Coordination, Partnerships, and Relationships: convene and coordinate new, statewide initiatives/projects/programs as well as being a liaison between school districts and state and federal policymakers.

5. Leadership: lead others toward a positive vision of educational improvement and change throughout the state.

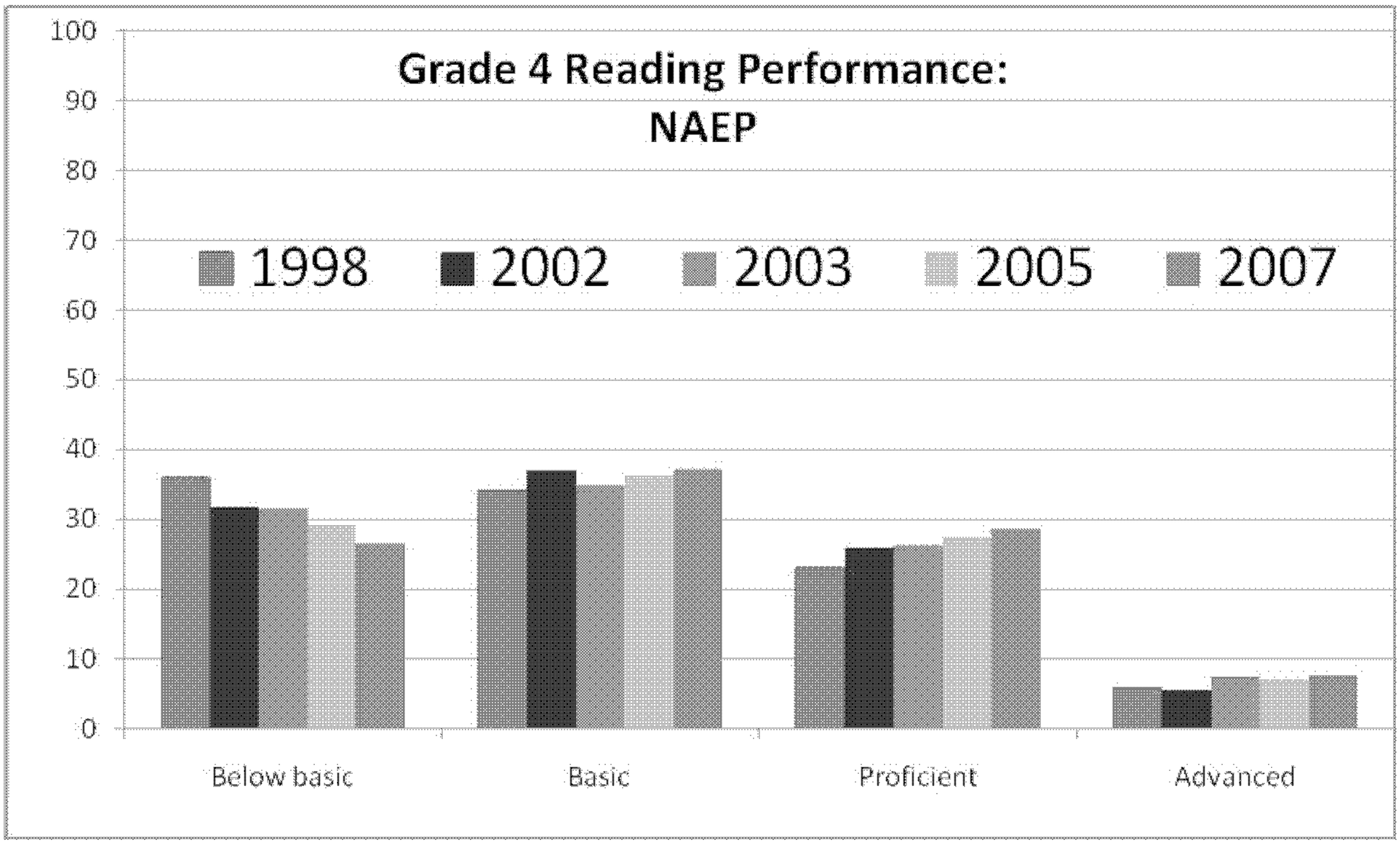
6. Communication: effectively convey and generate support for the strategic decisions and processes necessary to improve education in the state.

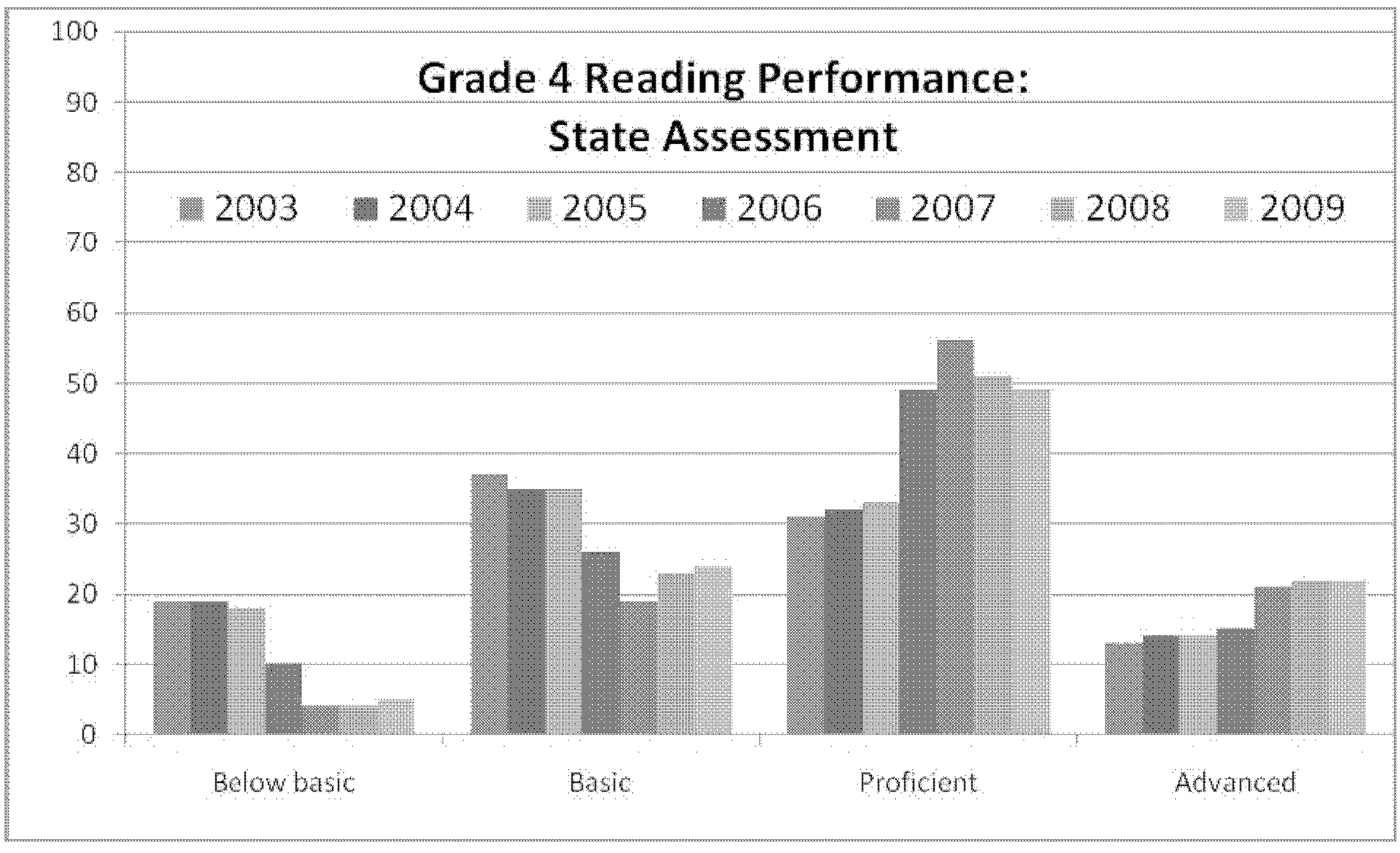
7. Capacity: the ability of districts, partners and WDE to effectively and efficiently achieve their goals and core competencies.

8. Student-Focused: the philosophical vision that supports all future activities and work of the WDE.

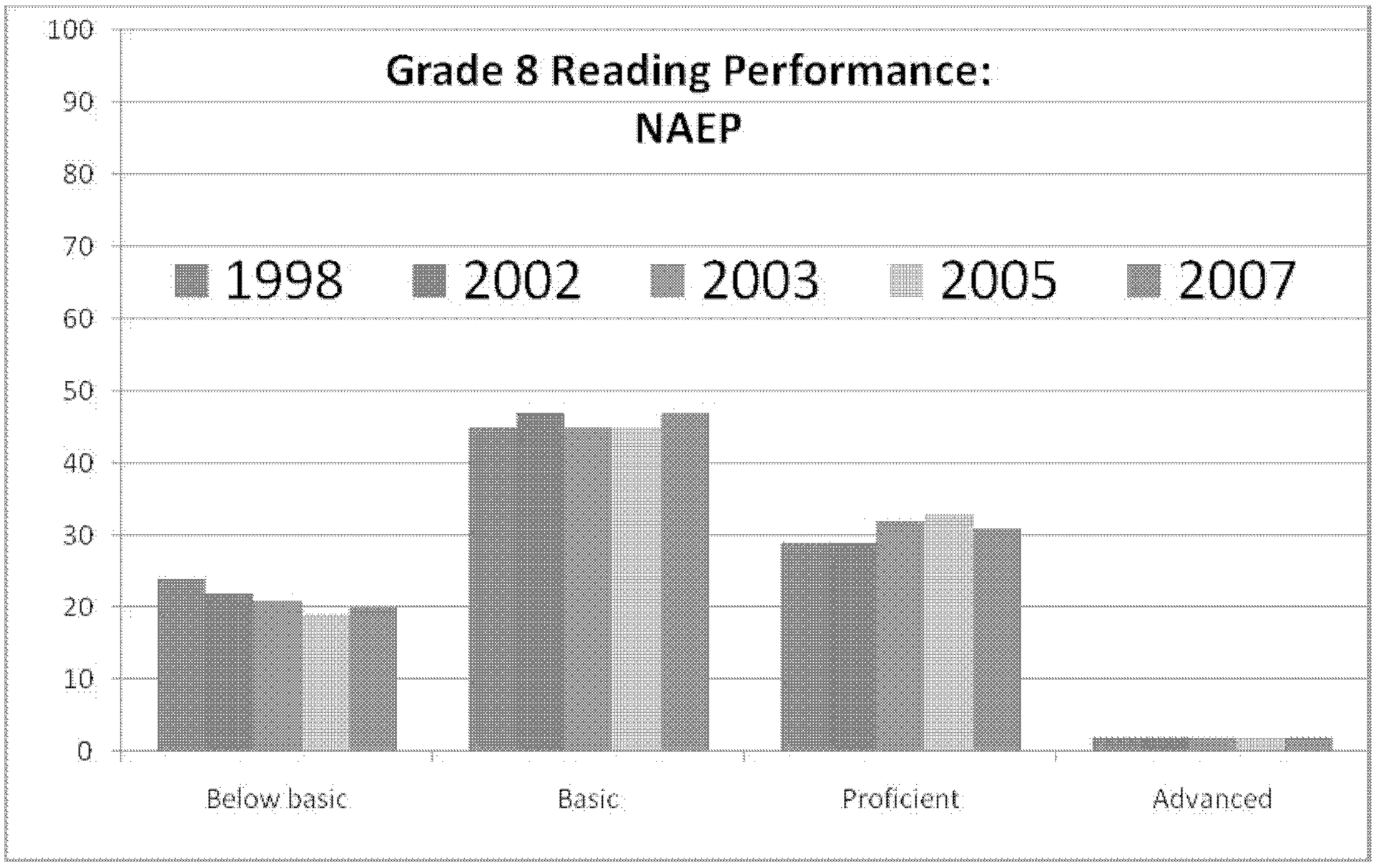
NAEP AND ESEA STATE LEVEL RESULTS

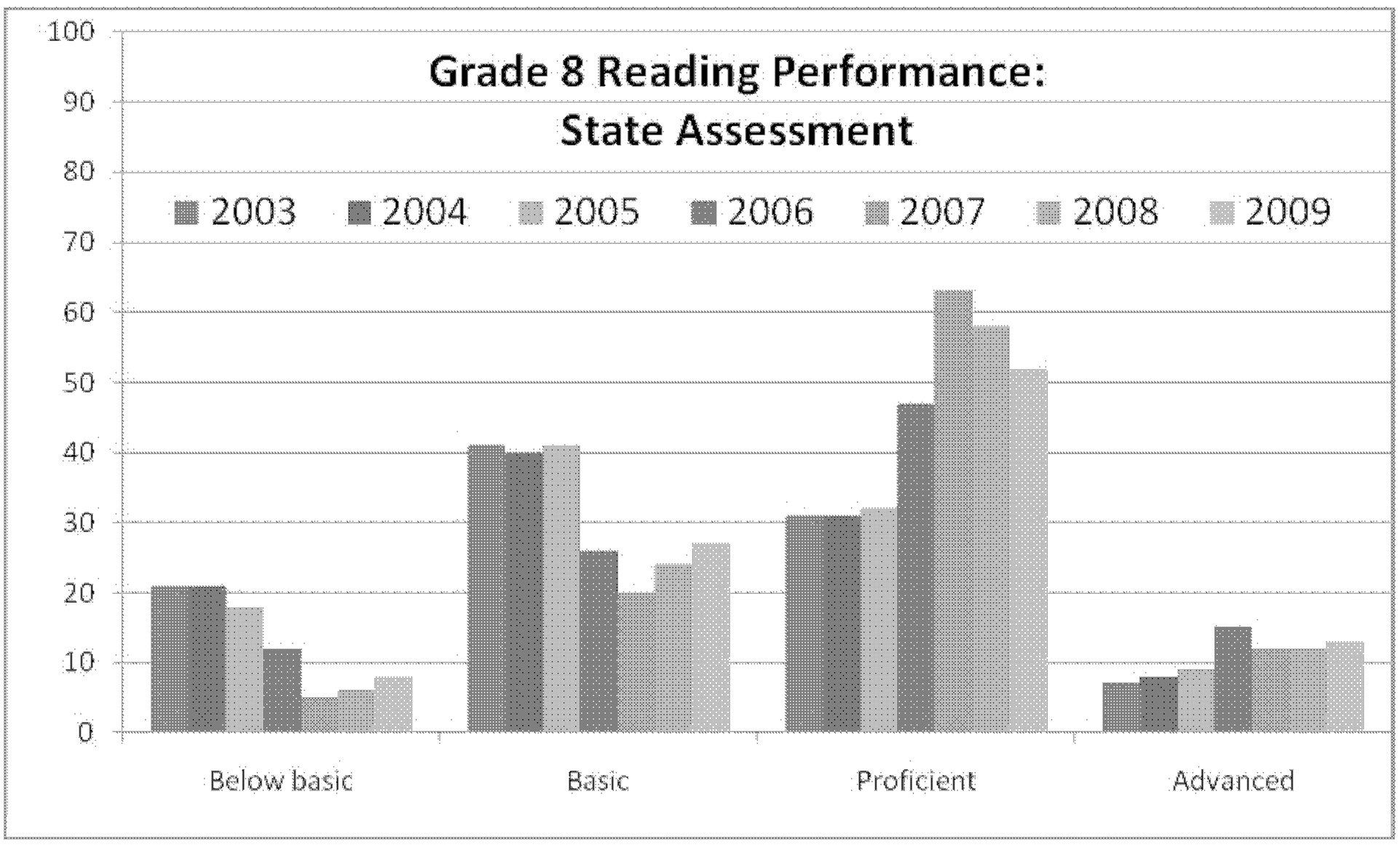
GRADE 4 READING – ALL STUDENTS



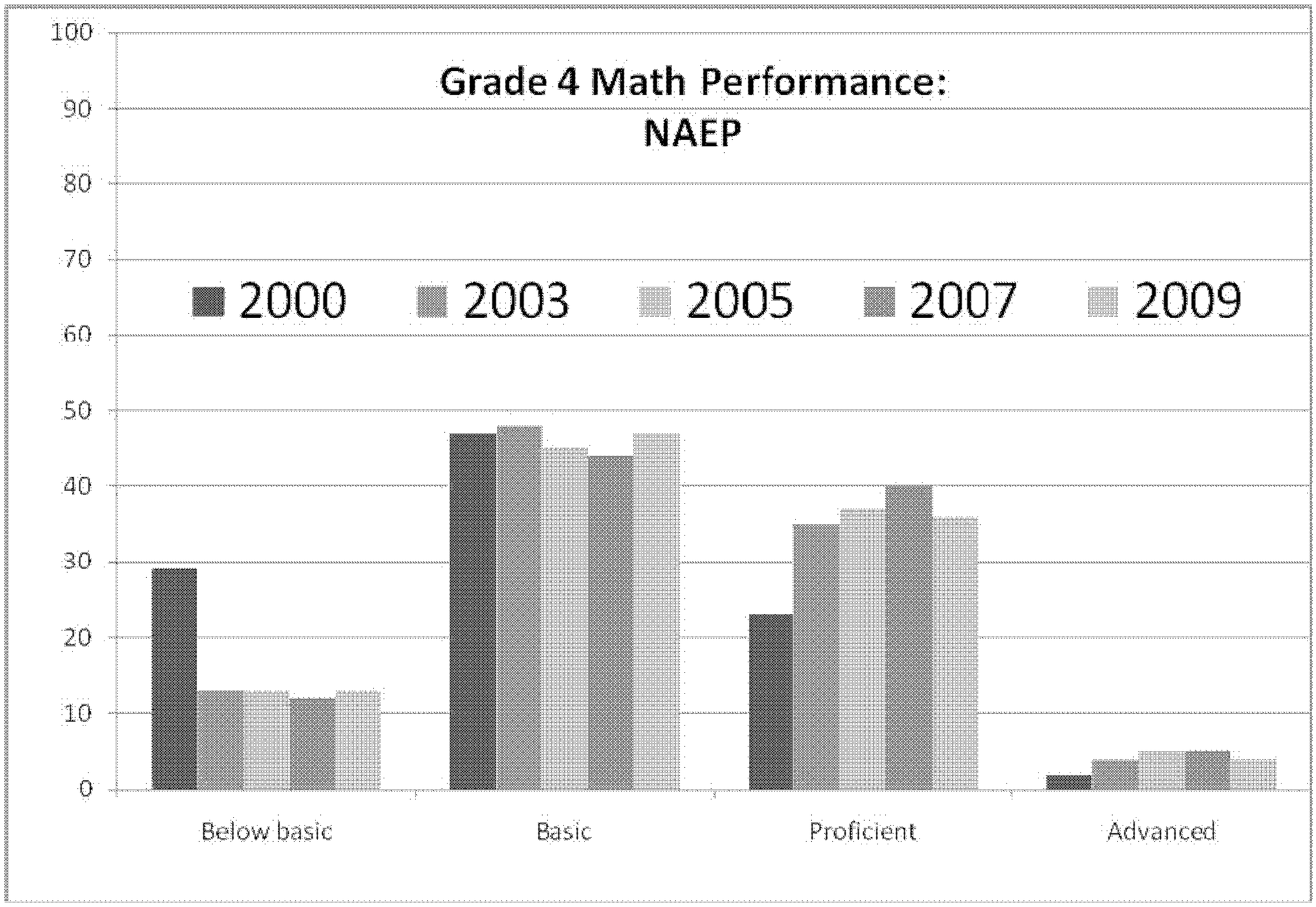


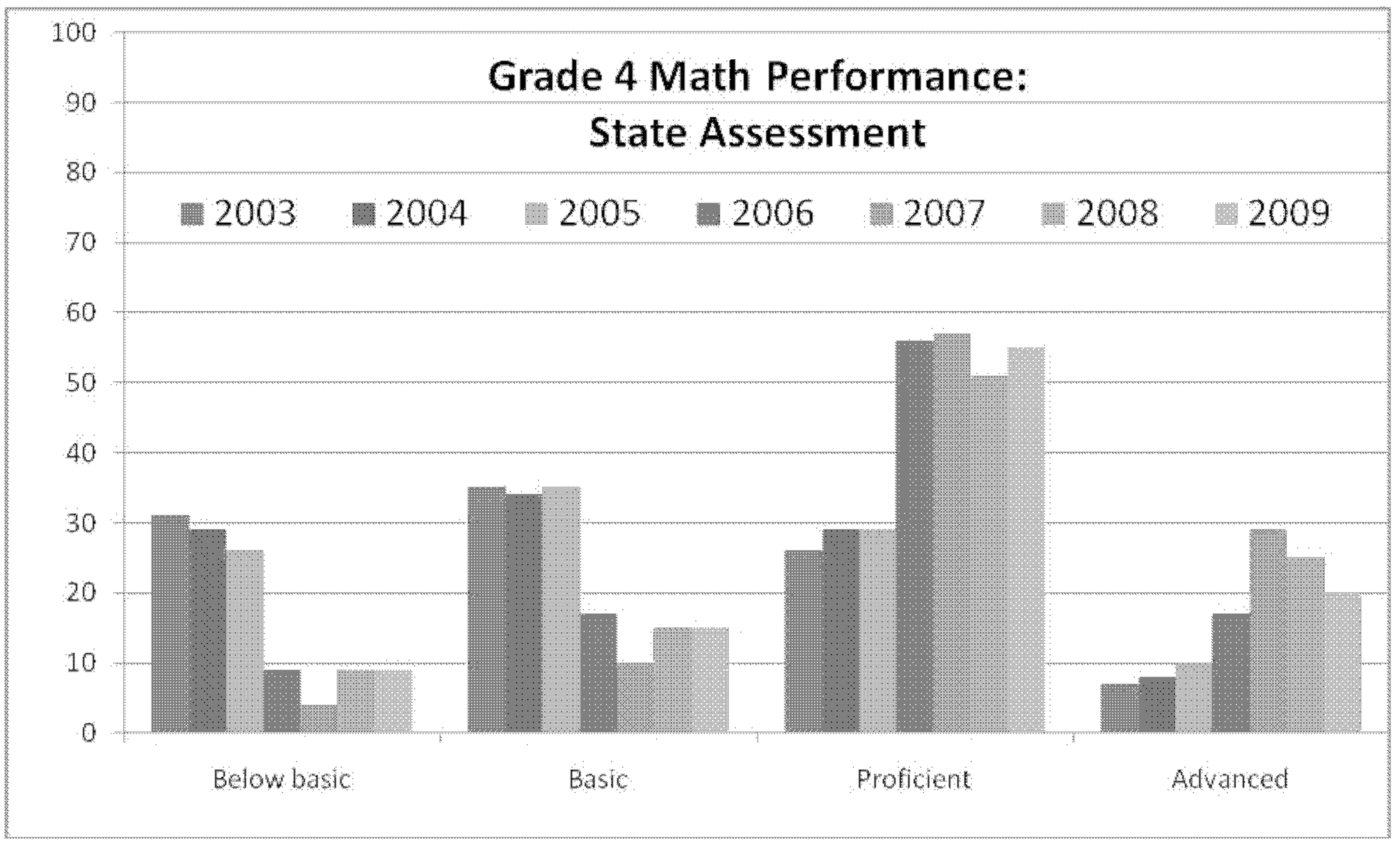
GRADE 8 READING—ALL STUDENTS

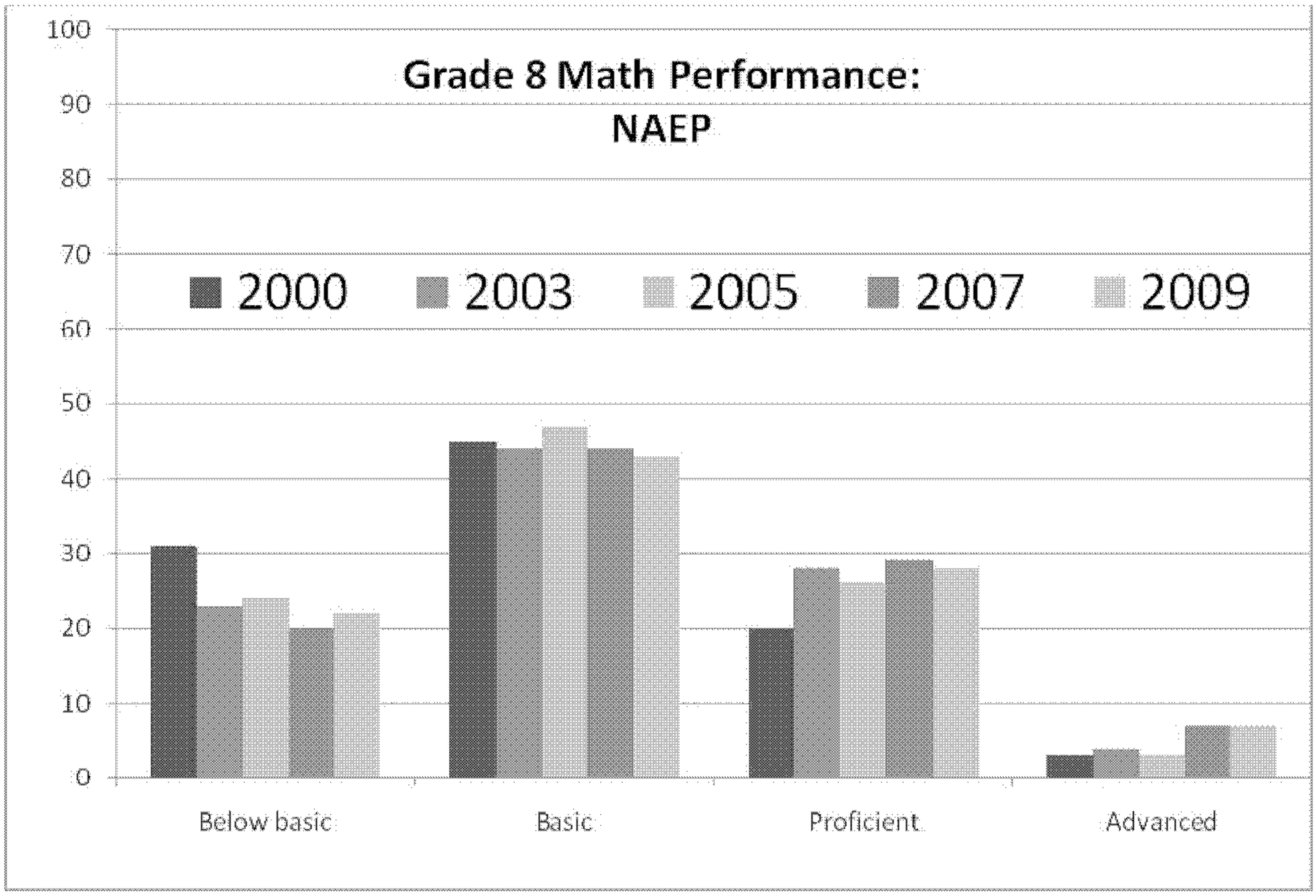




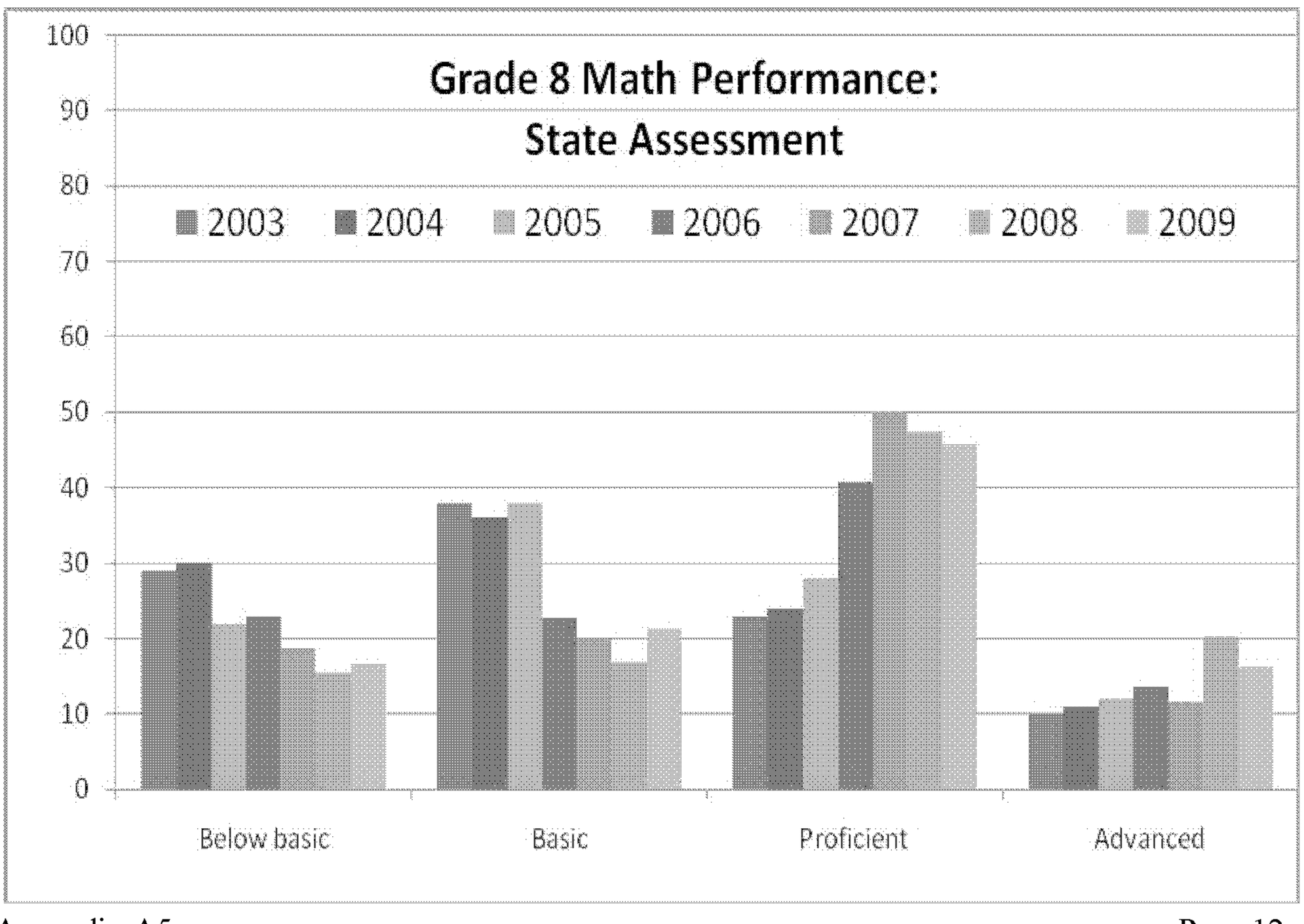
GRADE 4 MATH – ALL STUDENTS

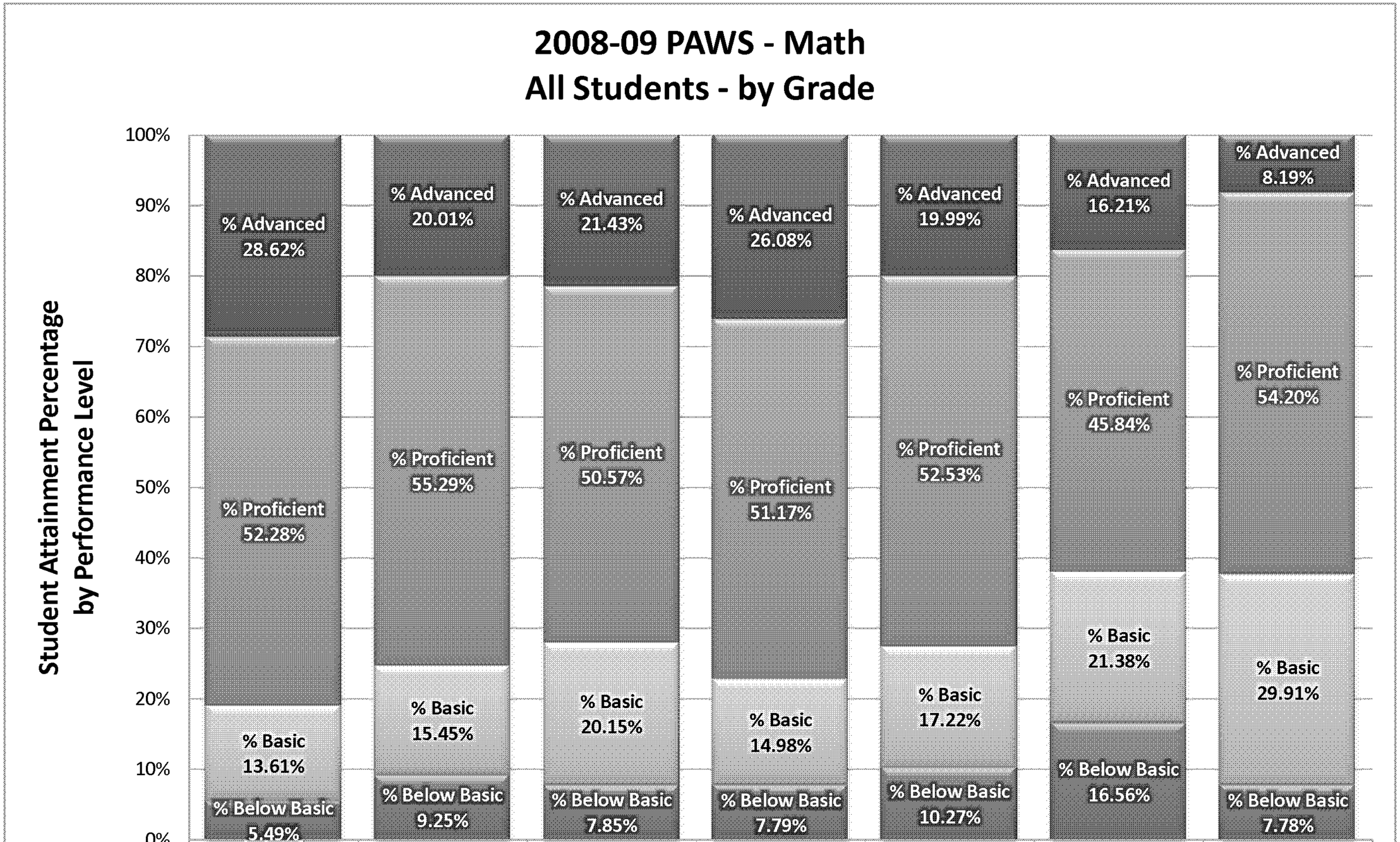






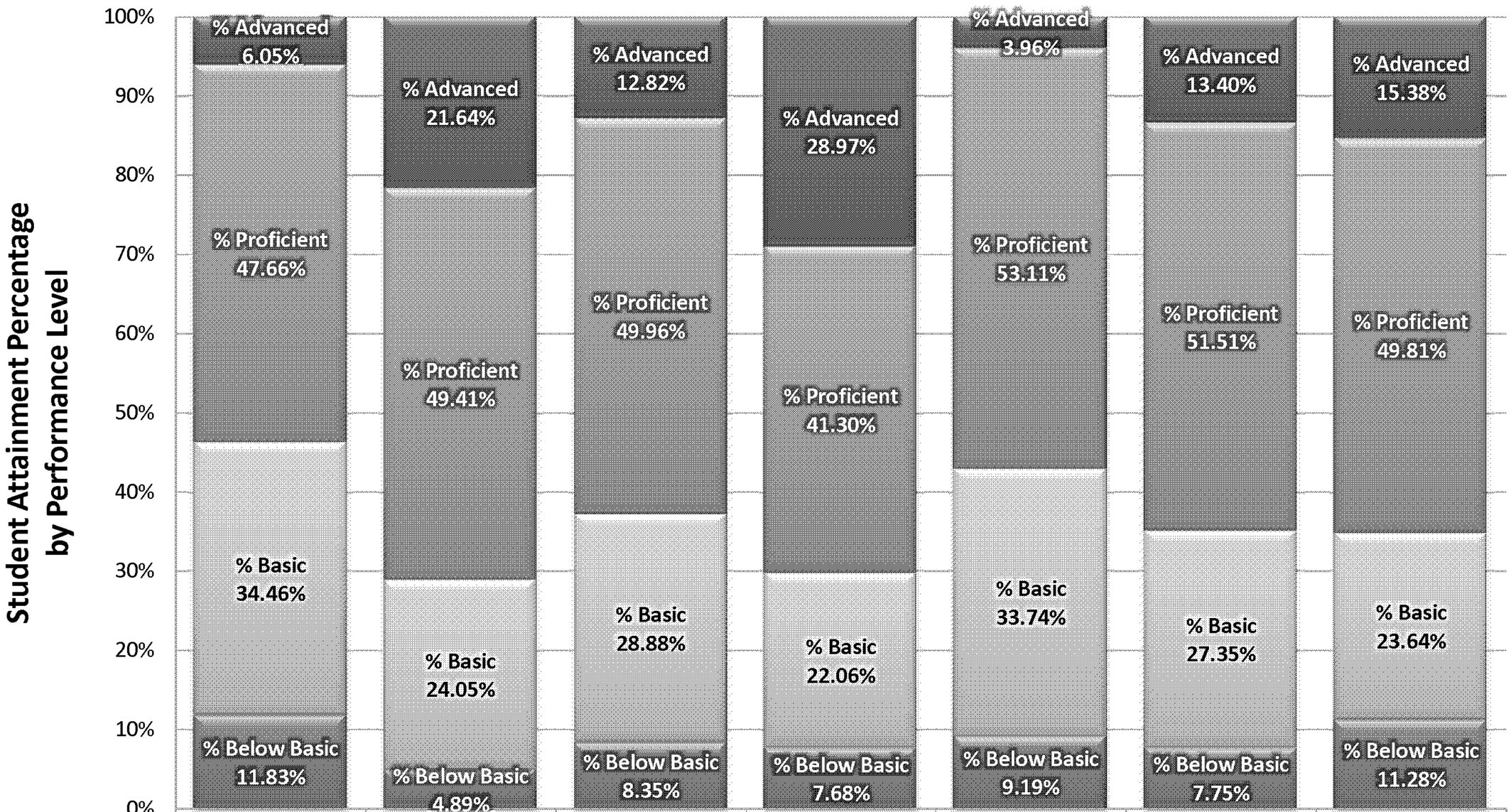
GRADE 8 MATH – ALL STUDENTS





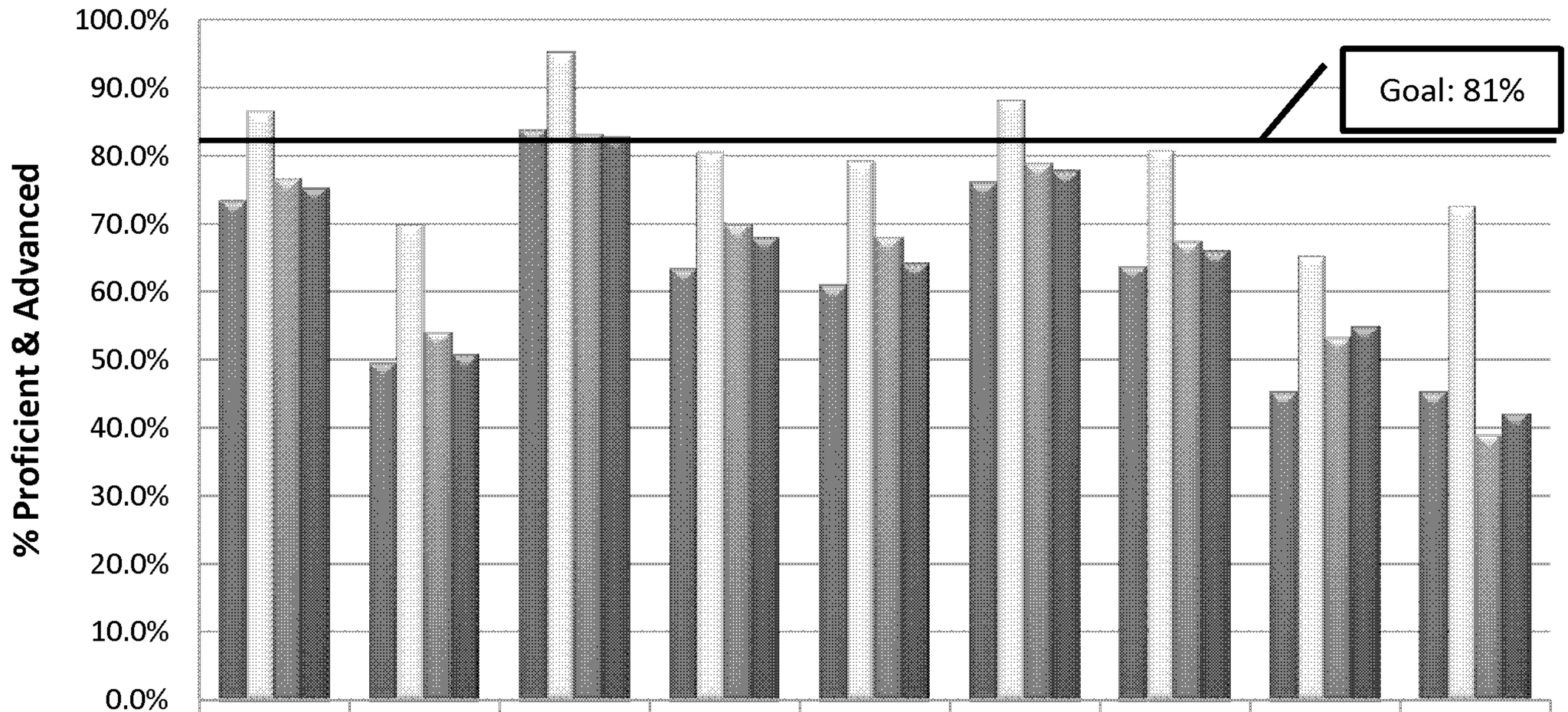
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
% Advanced	28.62%	20.01%	21.43%	26.08%	19.99%	16.21%	8.19%
% Proficient	52.28%	55.29%	50.57%	51.17%	52.53%	45.84%	54.20%
% Basic	13.61%	15.45%	20.15%	14.98%	17.22%	21.38%	29.91%
% Below Basic	5.49%	9.25%	7.85%	7.79%	10.27%	16.56%	7.78%

2008-09 PAWS - Reading
All Students - by Grade



	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
% Advanced	6.05%	21.64%	12.82%	28.97%	3.96%	13.40%	15.38%
% Proficient	47.66%	49.41%	49.96%	41.30%	53.11%	51.51%	49.81%
% Basic	34.46%	24.05%	28.88%	22.06%	33.74%	27.35%	23.64%
% Below Basic	11.83%	4.89%	8.35%	7.68%	9.19%	7.75%	11.28%

4th Grade - Math - PAWS
Historical Data by Subgroup

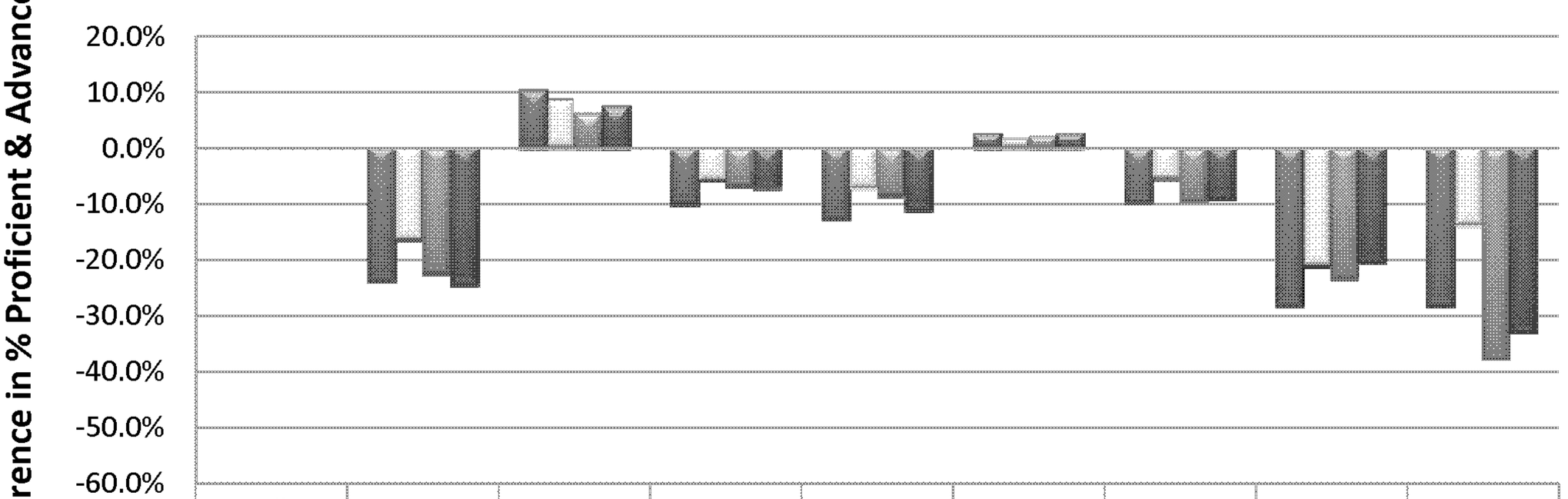


	All Students	American Indian	Asian	Black	Hispanic	White	F/R Lunch	IEP	ELL
2005-06	73.5%	49.6%	83.9%	63.4%	60.8%	76.1%	63.7%	45.2%	45.2%
2006-07	86.5%	70.0%	95.2%	80.6%	79.2%	88.1%	80.8%	65.3%	72.6%
2007-08	76.8%	54.0%	83.1%	69.8%	68.1%	79.0%	67.4%	53.3%	38.9%
2008-09	75.3%	50.7%	82.7%	68.0%	64.1%	77.8%	66.0%	54.7%	42.1%

 # Tested

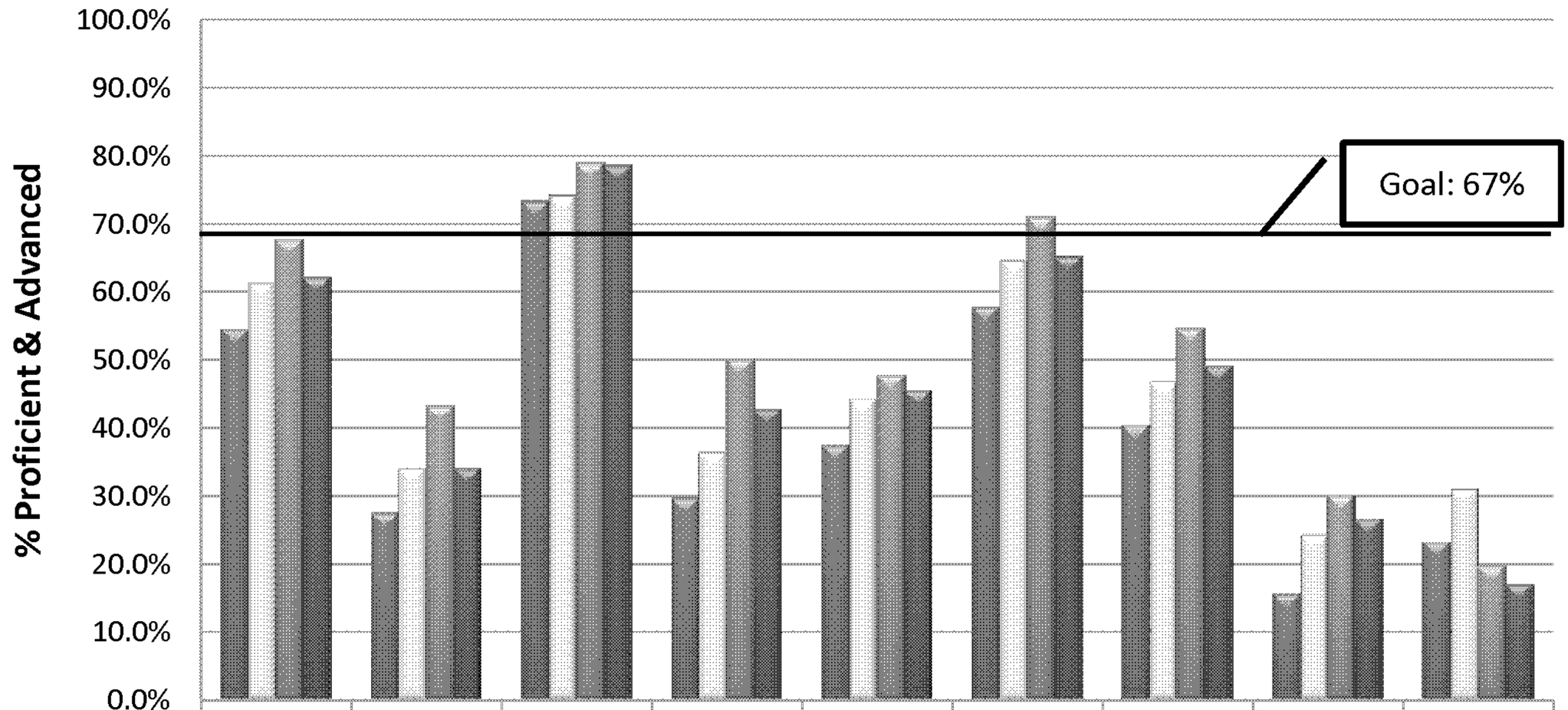
	All Students	American Indian	Asian	Black	Hispanic	White	F/R Lunch	IEP	ELL
2005-06	6172	236	87	112	587	5150	2387	1004	248
2006-07	6240	233	63	108	634	5202	2281	950	248
2007-08	6467	237	65	106	692	5367	2362	1063	185
2008-09	6616	215	81	103	716	5501	2487	1058	178

Comparison of Subgroups vs. All Students



	All Students	American Indian	Asian	Black	Hispanic	White	F/R Lunch	IEP	ELL
2005-06	0.0%	-23.9%	10.4%	-10.1%	-12.7%	2.6%	-9.8%	-28.3%	-28.3%
2006-07	0.0%	-16.5%	8.8%	-5.9%	-7.3%	1.7%	-5.7%	-21.2%	-13.9%
2007-08	0.0%	-22.8%	6.3%	-7.0%	-8.7%	2.2%	-9.4%	-23.5%	-37.8%
2008-09	0.0%	-24.6%	7.4%	-7.3%	-11.2%	2.5%	-9.3%	-20.6%	-33.2%

8th Grade - Math - PAWS
Historical Data by Subgroup



	All Students	American Indian	Asian	Black	Hispanic	White	F/R Lunch	IEP	ELL
2005-06	54.5%	27.4%	73.5%	29.6%	37.5%	57.7%	40.3%	15.6%	23.2%
2006-07	61.3%	34.0%	74.2%	36.4%	44.2%	64.7%	46.8%	24.2%	31.0%
2007-08	67.7%	43.1%	79.1%	50.0%	47.6%	70.9%	54.7%	30.0%	19.5%
2008-09	62.1%	34.0%	78.8%	42.7%	45.6%	65.2%	49.0%	26.5%	17.0%

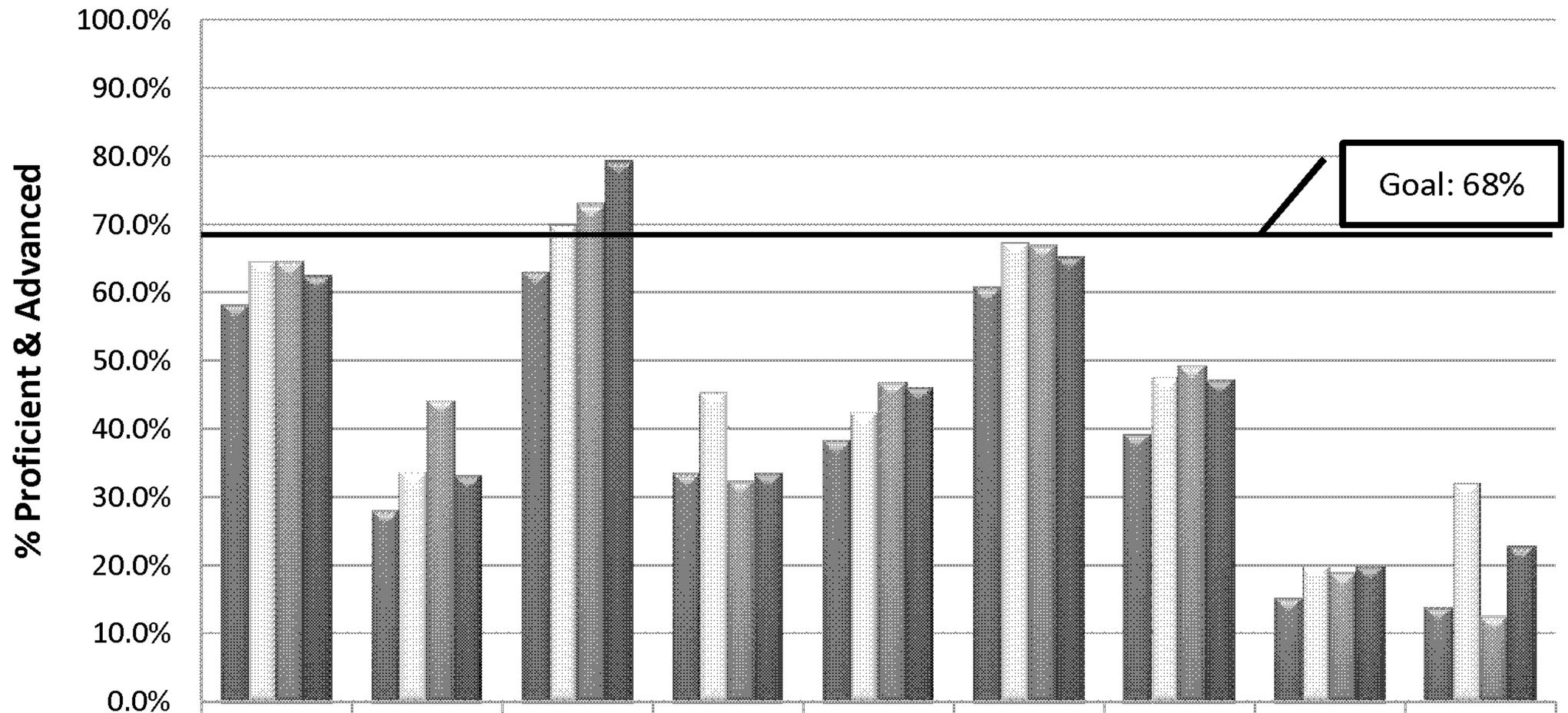
 # Tested

	All Students	American Indian	Asian	Black	Hispanic	White	F/R Lunch	IEP	ELL
2005-06	6704	259	68	98	611	5668	2141	854	177
2006-07	6609	250	62	88	611	5598	2006	858	200
2007-08	6524	204	67	96	609	5548	1887	873	154
2008-09	6309	191	66	82	652	5318	1932	777	112

Comparison of Subgroups vs. All Students

	All Students	American Indian	Asian	Black	Hispanic	White	F/R Lunch	IEP	ELL
2005-06	0.0%	-27.1%	19.1%	-24.9%	-17.0%	3.3%	-14.2%	-38.9%	-31.3%
2006-07	0.0%	-27.3%	12.9%	-25.0%	-17.1%	3.3%	-14.6%	-37.1%	-30.3%
2007-08	0.0%	-24.6%	11.4%	-17.7%	-20.1%	3.3%	-13.0%	-37.7%	-48.2%
2008-09	0.0%	-28.0%	16.7%	-19.4%	-16.5%	3.1%	-13.0%	-35.5%	-45.1%

11th Grade - Math - PAWS
Historical Data by Subgroup

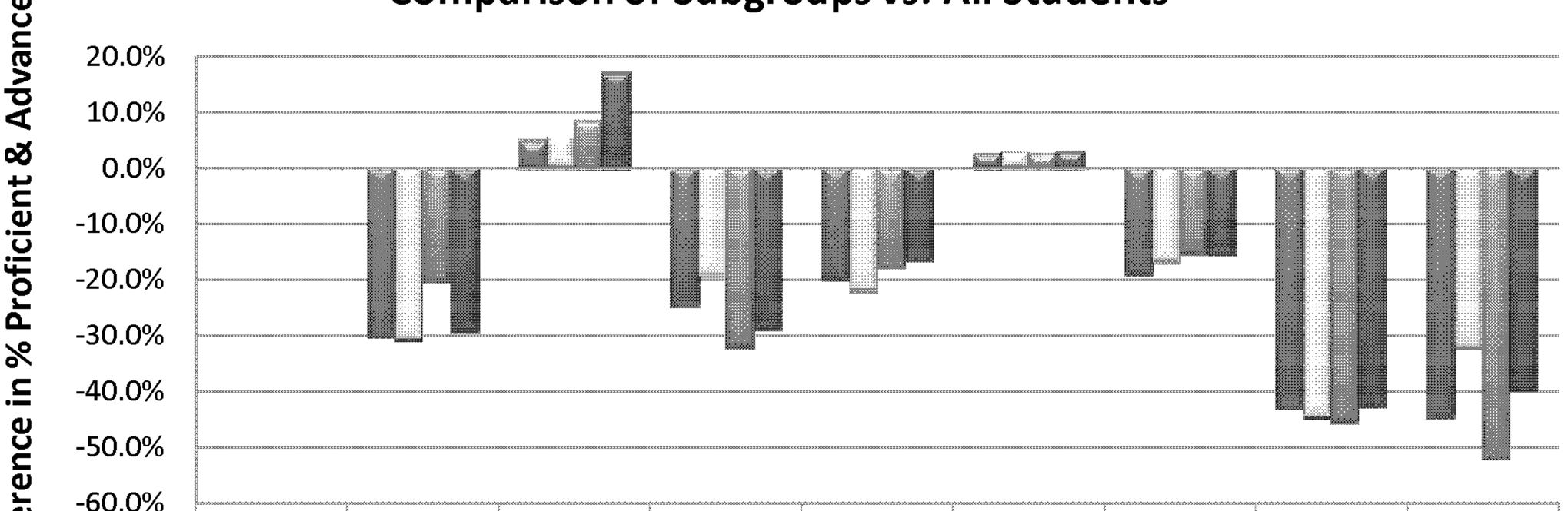


	All Students	American Indian	Asian	Black	Hispanic	White	F/R Lunch	IEP	ELL
2005-06	58.2%	27.9%	63.1%	33.3%	38.2%	60.7%	39.2%	15.1%	13.6%
2006-07	64.5%	33.6%	70.0%	45.2%	42.4%	67.2%	47.6%	19.8%	32.1%
2007-08	64.5%	44.2%	73.0%	32.4%	46.8%	66.9%	49.2%	18.8%	12.3%
2008-09	62.4%	33.1%	79.4%	33.3%	46.0%	65.2%	47.0%	19.8%	22.6%

 # Tested

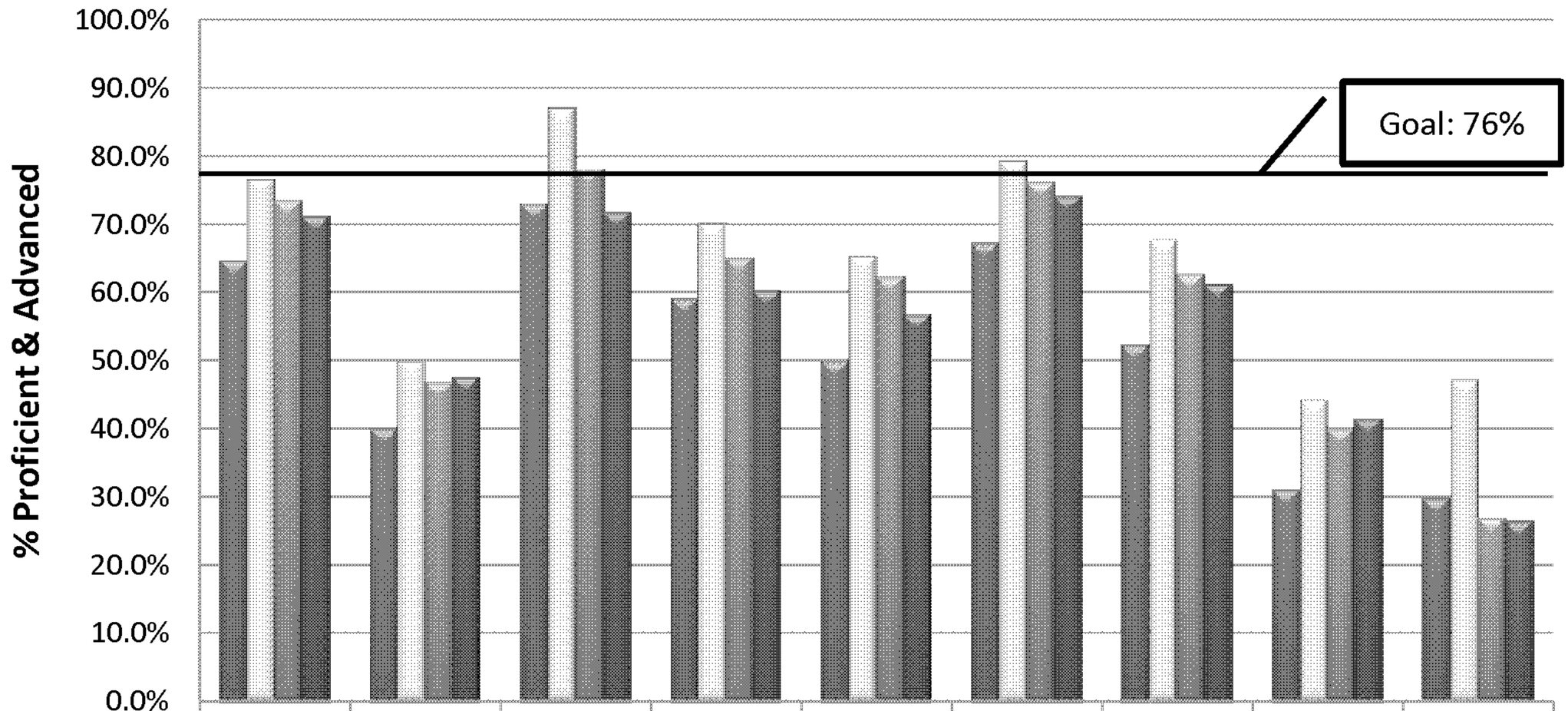
	All Students	American Indian	Asian	Black	Hispanic	White	F/R Lunch	IEP	ELL
2005-06	5965	147	65	69	393	5291	1093	615	88
2006-07	5950	140	60	62	425	5263	1059	601	106
2007-08	5963	154	74	68	462	5205	1059	584	81
2008-09	6031	160	68	84	533	5186	1175	567	62

Comparison of Subgroups vs. All Students



	All Students	American Indian	Asian	Black	Hispanic	White	F/R Lunch	IEP	ELL
2005-06	0.0%	-30.3%	4.9%	-24.8%	-20.0%	2.6%	-19.0%	-43.0%	-44.5%
2006-07	0.0%	-30.9%	5.5%	-19.3%	-22.1%	2.8%	-16.9%	-44.7%	-32.4%
2007-08	0.0%	-20.3%	8.5%	-32.1%	-17.7%	2.5%	-15.3%	-45.6%	-52.1%
2008-09	0.0%	-29.3%	17.0%	-29.1%	-16.4%	2.8%	-15.4%	-42.6%	-39.8%

4th Grade - Reading - PAWS
Historical Data by Subgroup

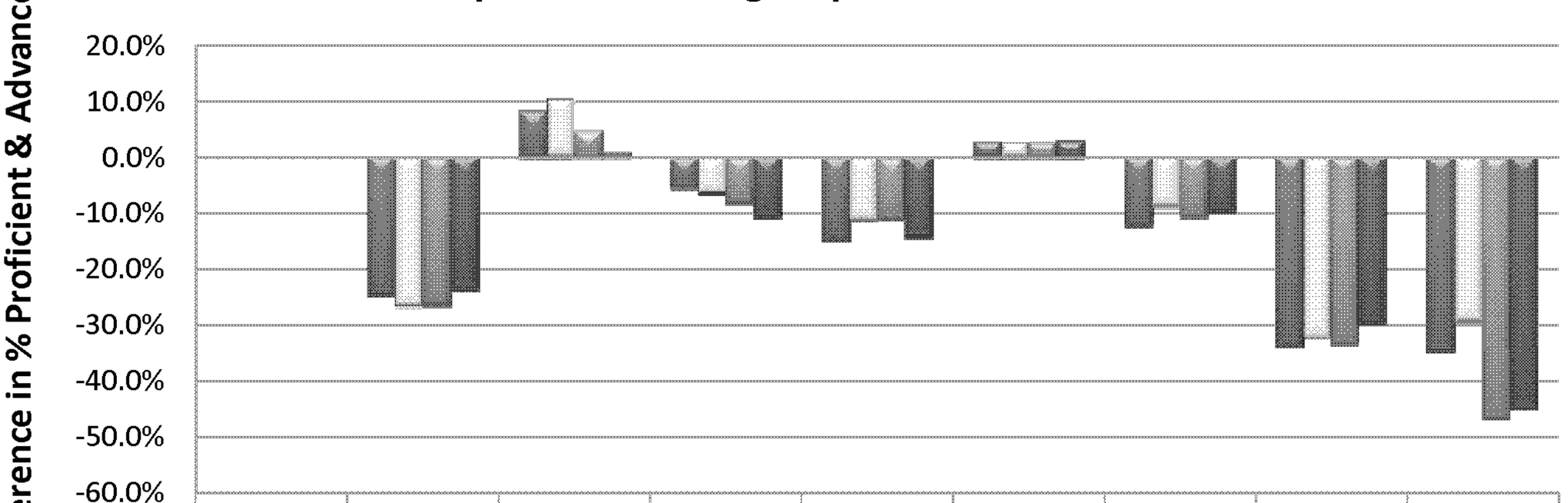


	All Students	American Indian	Asian	Black	Hispanic	White	F/R Lunch	IEP	ELL
2005-06	64.5%	39.8%	72.9%	58.9%	49.8%	67.3%	52.2%	30.9%	29.6%
2006-07	76.6%	49.8%	87.1%	70.1%	65.2%	79.2%	67.7%	44.2%	47.1%
2007-08	73.4%	46.8%	78.1%	65.1%	62.3%	76.1%	62.6%	39.9%	26.6%
2008-09	71.1%	47.4%	71.8%	60.2%	56.7%	74.0%	61.2%	41.3%	26.2%

 # Tested

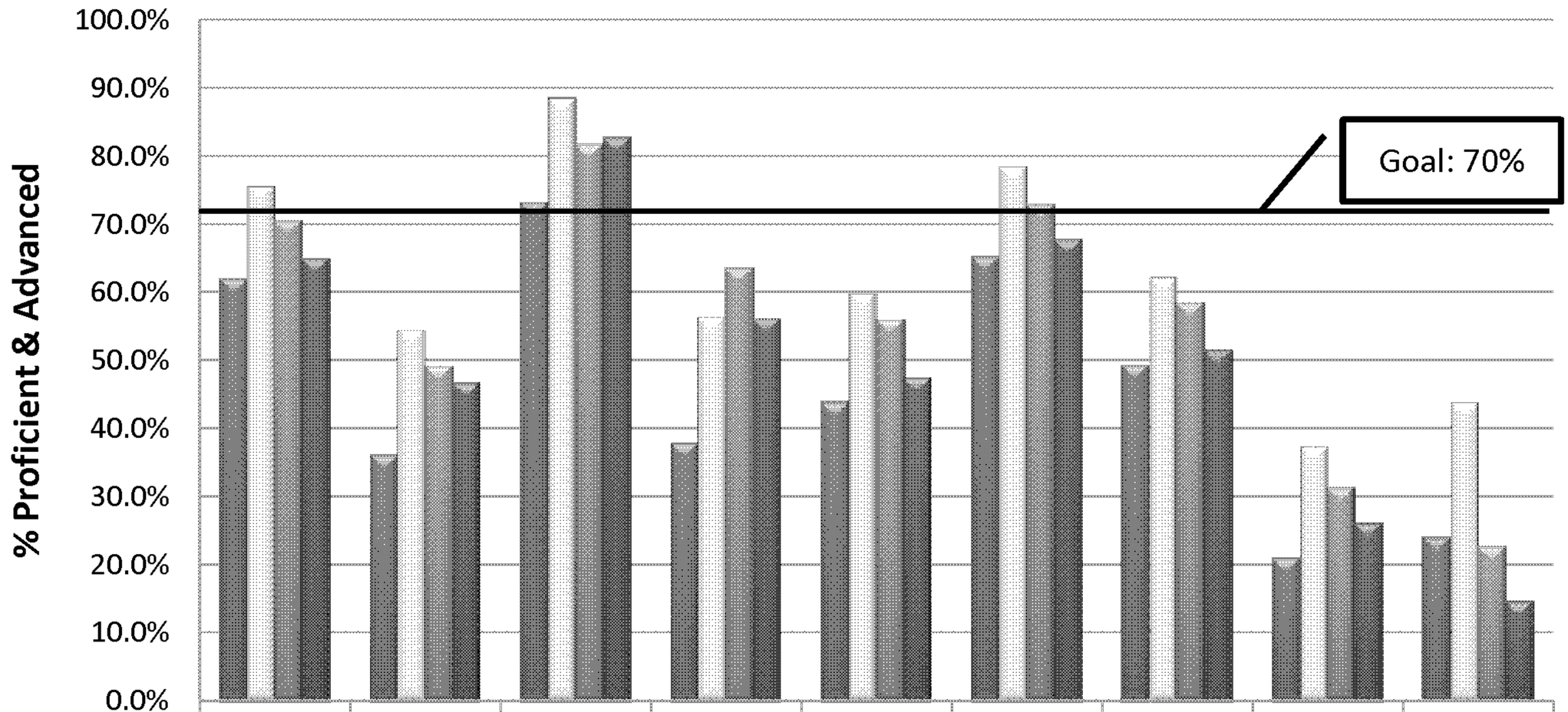
2005-06	6163	236	85	112	582	5148	2384	1005	243
2006-07	6234	233	62	107	630	5202	2279	953	240
2007-08	6460	246	64	106	679	5365	2360	1059	184
2008-09	6602	215	78	103	707	5499	2480	1057	168

Comparison of Subgroups vs. All Students



	All Students	American Indian	Asian	Black	Hispanic	White	F/R Lunch	IEP	ELL
2005-06	0.0%	-24.7%	8.4%	-5.6%	-14.7%	2.8%	-12.4%	-33.7%	-34.9%
2006-07	0.0%	-26.8%	10.5%	-6.5%	-11.3%	2.6%	-8.9%	-32.4%	-29.5%
2007-08	0.0%	-26.6%	4.7%	-8.3%	-11.1%	2.7%	-10.8%	-33.5%	-46.8%
2008-09	0.0%	-23.6%	0.7%	-10.9%	-14.3%	3.0%	-9.8%	-29.8%	-44.9%

8th Grade - Reading - PAWS
Historical Data by Subgroup

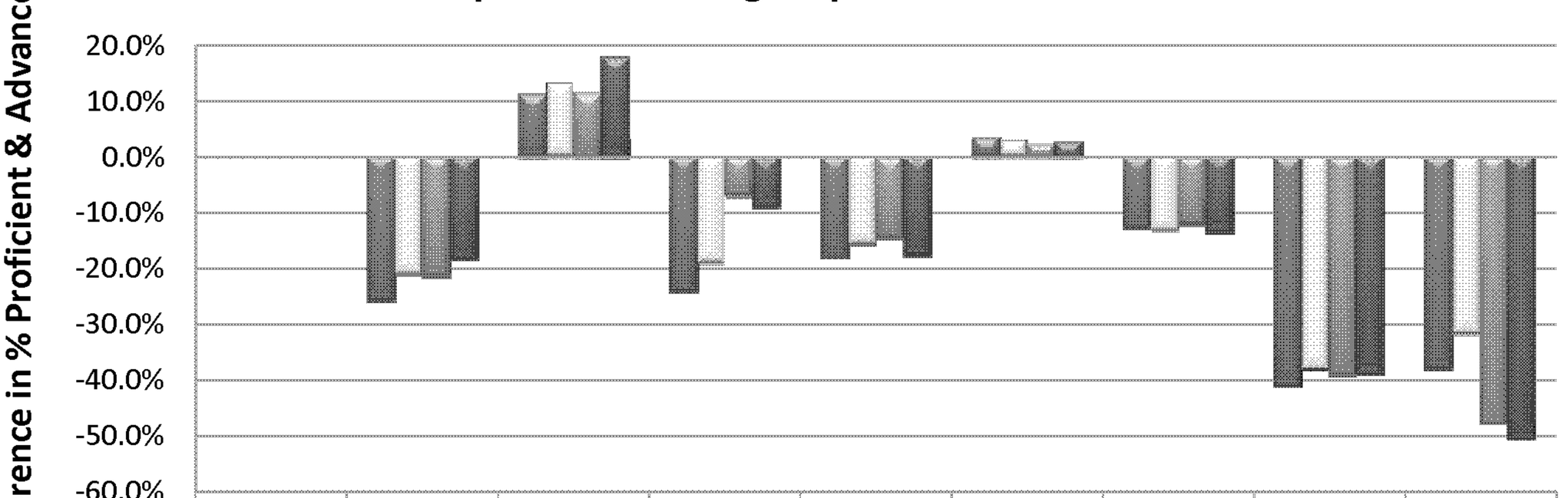


	All Students	American Indian	Asian	Black	Hispanic	White	F/R Lunch	IEP	ELL
2005-06	61.9%	36.1%	73.1%	37.8%	43.8%	65.3%	49.2%	20.7%	23.9%
2006-07	75.5%	54.4%	88.5%	56.3%	59.7%	78.3%	62.2%	37.3%	43.7%
2007-08	70.5%	49.0%	81.8%	63.6%	56.0%	72.8%	58.3%	31.2%	22.5%
2008-09	64.9%	46.6%	82.8%	56.1%	47.3%	67.6%	51.4%	25.9%	14.4%

 # Tested

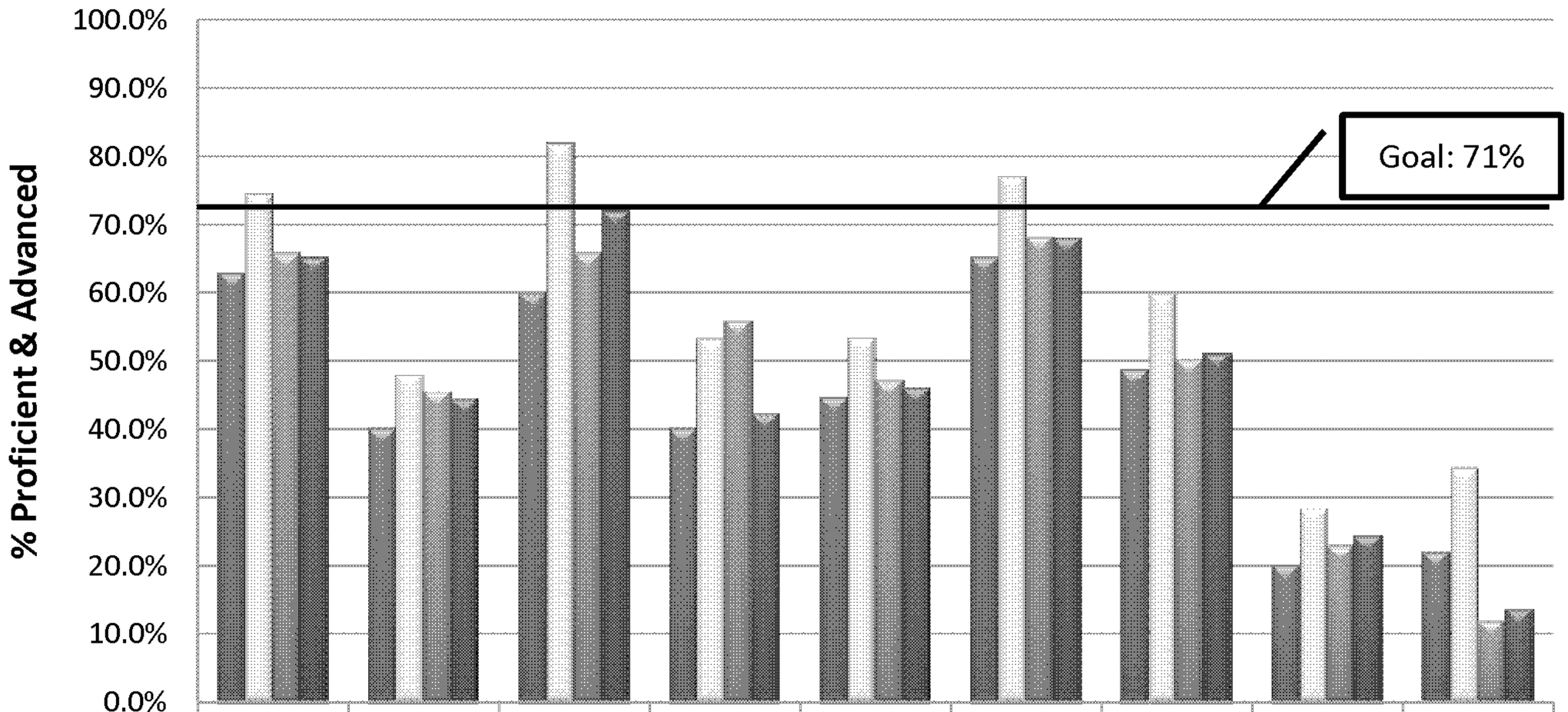
2005-06	6697	258	67	98	607	5667	2132	849	176
2006-07	6599	250	61	87	601	5600	1996	865	190
2007-08	6519	204	66	96	606	5547	1887	869	151
2008-09	6300	191	64	82	647	5316	1927	776	104

Comparison of Subgroups vs. All Students



	All Students	American Indian	Asian	Black	Hispanic	White	F/R Lunch	IEP	ELL
2005-06	0.0%	-25.8%	11.3%	-24.1%	-18.1%	3.4%	-12.7%	-41.2%	-38.0%
2006-07	0.0%	-21.1%	13.0%	-19.2%	-15.8%	2.8%	-13.3%	-38.2%	-31.8%
2007-08	0.0%	-21.4%	11.4%	-6.9%	-14.5%	2.4%	-12.1%	-39.3%	-47.9%
2008-09	0.0%	-18.3%	17.9%	-8.8%	-17.6%	2.7%	-13.5%	-39.0%	-50.5%

11th Grade - Reading - PAWS
Historical Data by Subgroup

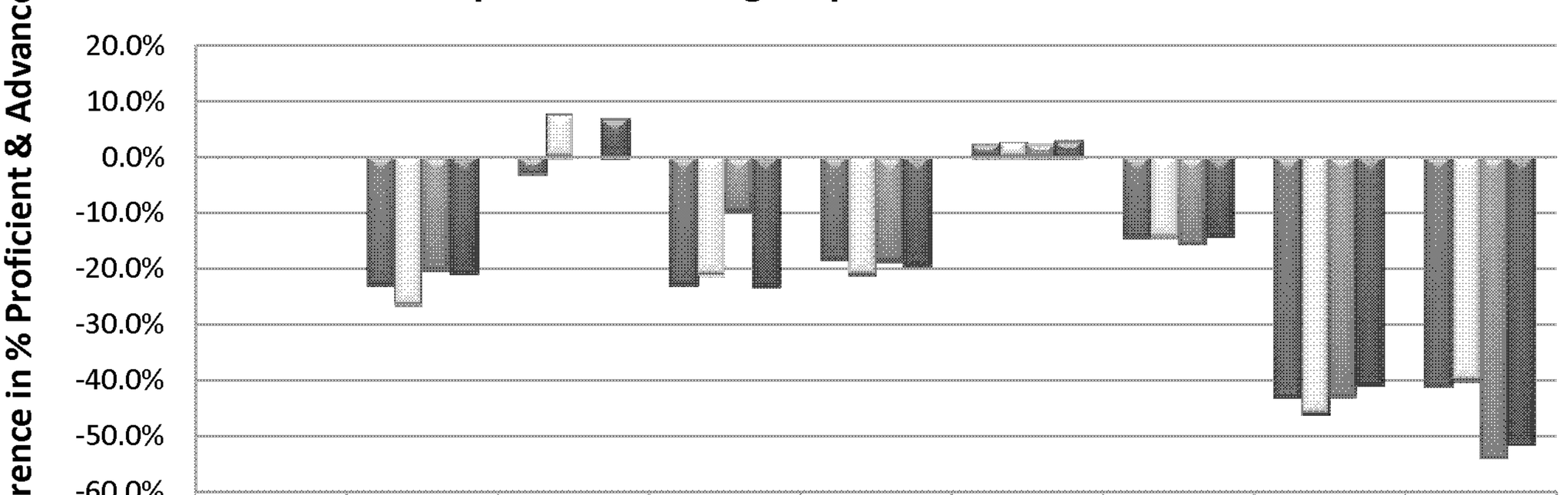


	All Students	American Indian	Asian	Black	Hispanic	White	F/R Lunch	IEP	ELL
2005-06	62.9%	40.0%	60.0%	40.0%	44.5%	65.2%	48.6%	19.9%	21.8%
2006-07	74.4%	47.9%	82.0%	53.2%	53.3%	76.9%	59.9%	28.4%	34.3%
2007-08	65.8%	45.5%	65.8%	55.9%	47.1%	68.1%	50.2%	22.9%	11.8%
2008-09	65.2%	44.4%	72.1%	42.2%	45.9%	68.1%	51.0%	24.2%	13.6%

 # Tested

	All Students	American Indian	Asian	Black	Hispanic	White	F/R Lunch	IEP	ELL
2005-06	5946	145	65	70	391	5275	1090	617	87
2006-07	5961	140	61	62	424	5274	1061	603	105
2007-08	5946	154	73	68	459	5192	1056	586	76
2008-09	6019	160	68	83	527	5181	1168	566	59

Comparison of Subgroups vs. All Students

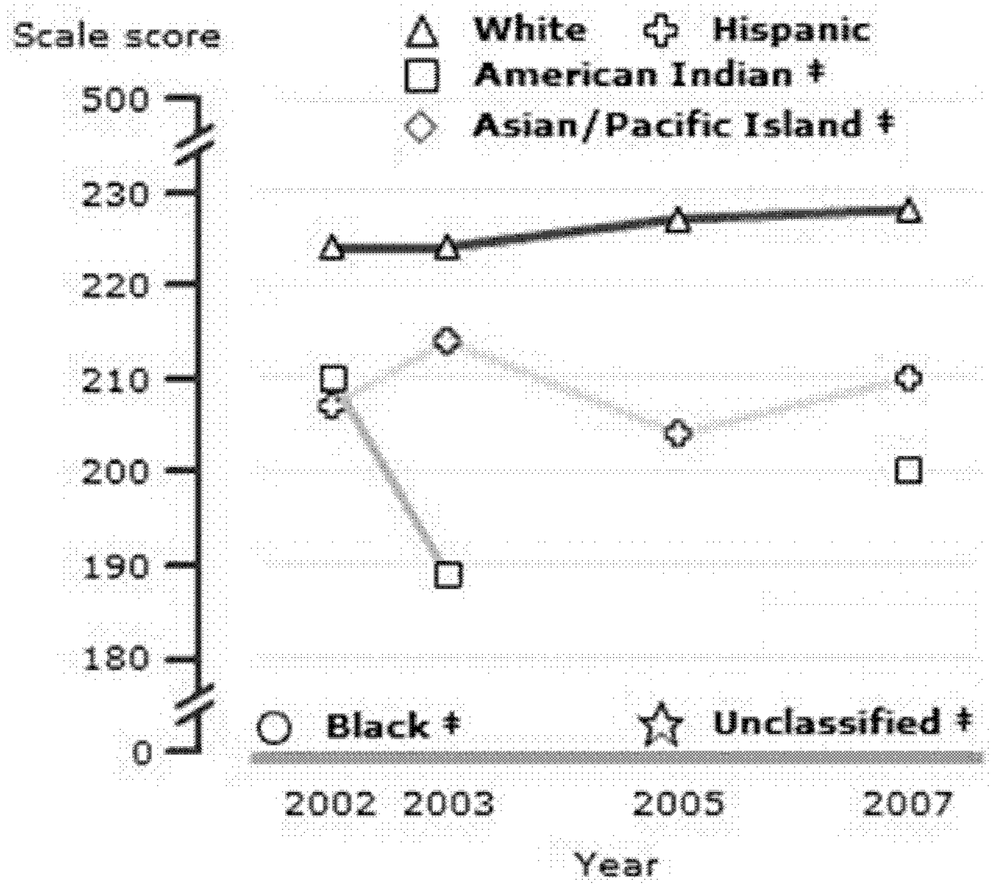


	All Students	American Indian	Asian	Black	Hispanic	White	F/R Lunch	IEP	ELL
2005-06	0.0%	-22.9%	-2.9%	-22.9%	-18.4%	2.3%	-14.3%	-43.0%	-41.1%
2006-07	0.0%	-26.5%	7.6%	-21.2%	-21.1%	2.6%	-14.4%	-46.0%	-40.1%
2007-08	0.0%	-20.3%	0.0%	-9.9%	-18.7%	2.4%	-15.6%	-42.9%	-53.9%
2008-09	0.0%	-20.8%	6.9%	-23.0%	-19.3%	2.9%	-14.2%	-41.0%	-51.6%

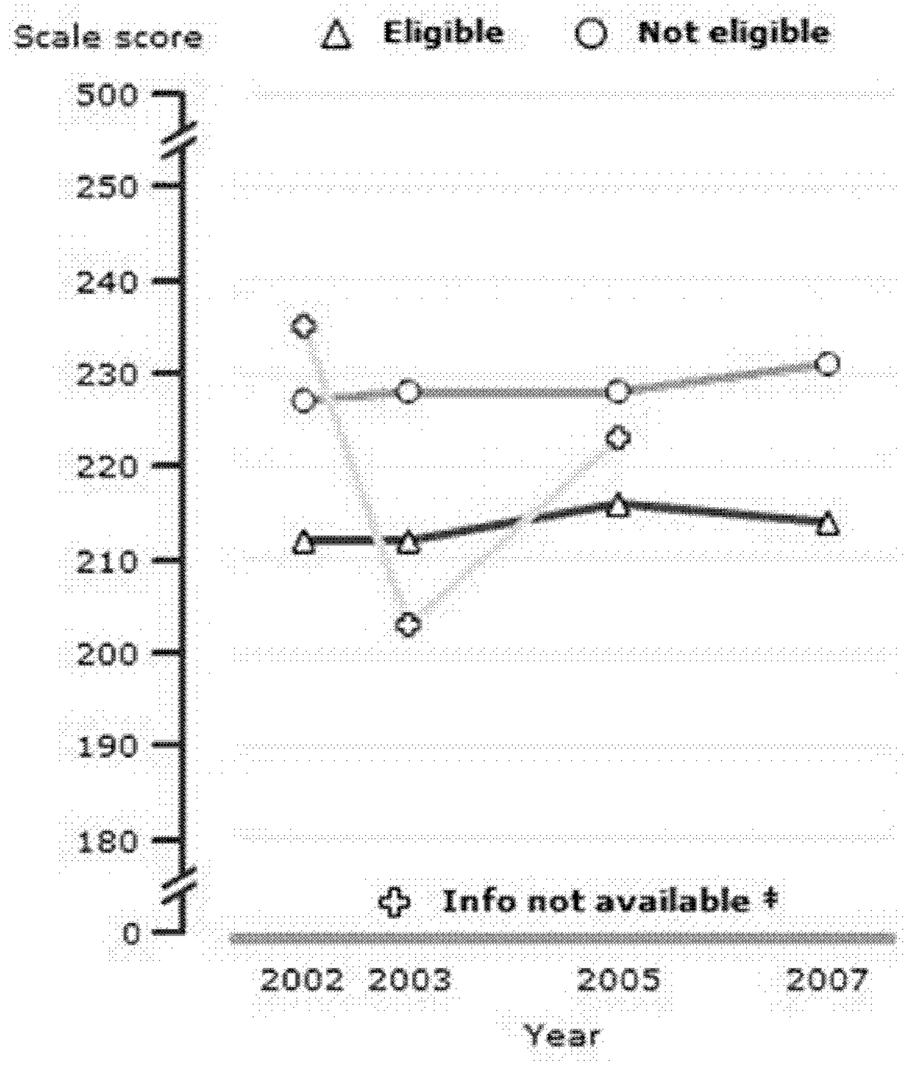
National Center for Education Statistics (NCES)

Institute of Education Sciences (IES)
National Assessment of Educational Progress (NAEP)
This report was generated using the NAEP Data Explorer. http://nces.ed.gov/nationsreportcard/naepdata/

Grade 4 Reading, Race/Ethnicity



Grade 4 Reading, Free/Reduced Lunch

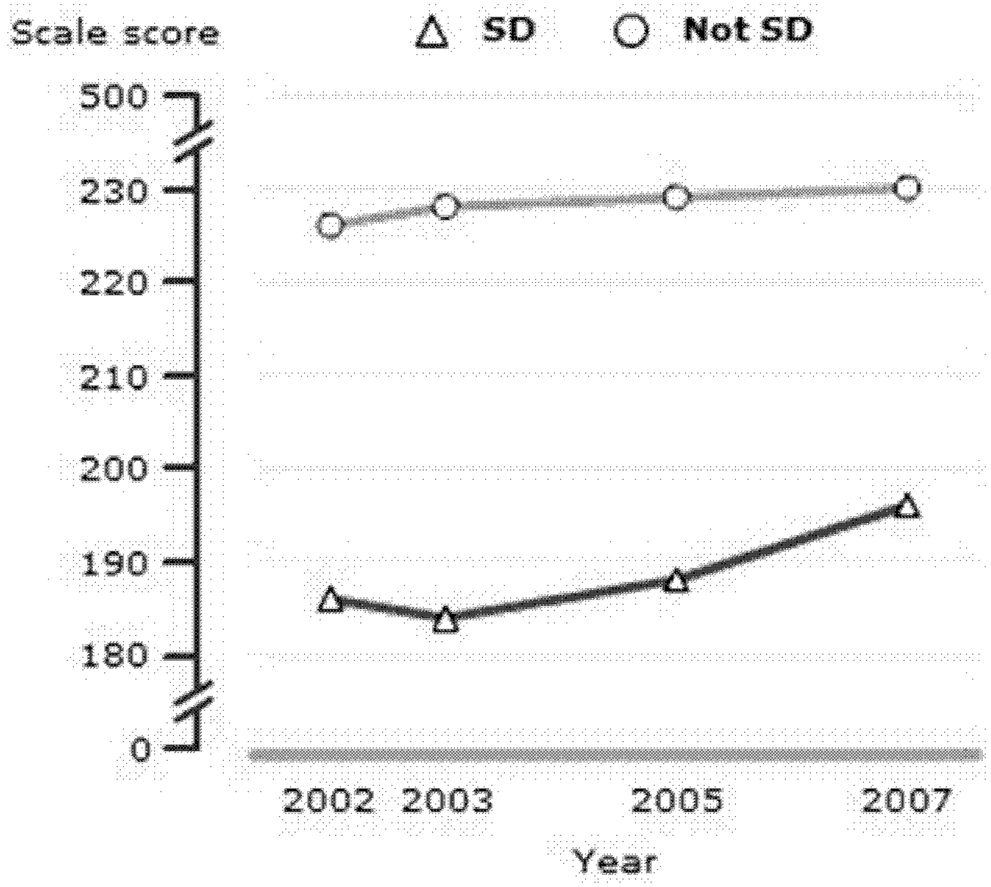


‡ Reporting standards not met.
NOTE: The NAEP Mathematics scale ranges from 0 to 500. Some apparent differences between estimates may not be statistically significant.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000, 2003, 2005, 2007, and 2009 Mathematics Assessments.

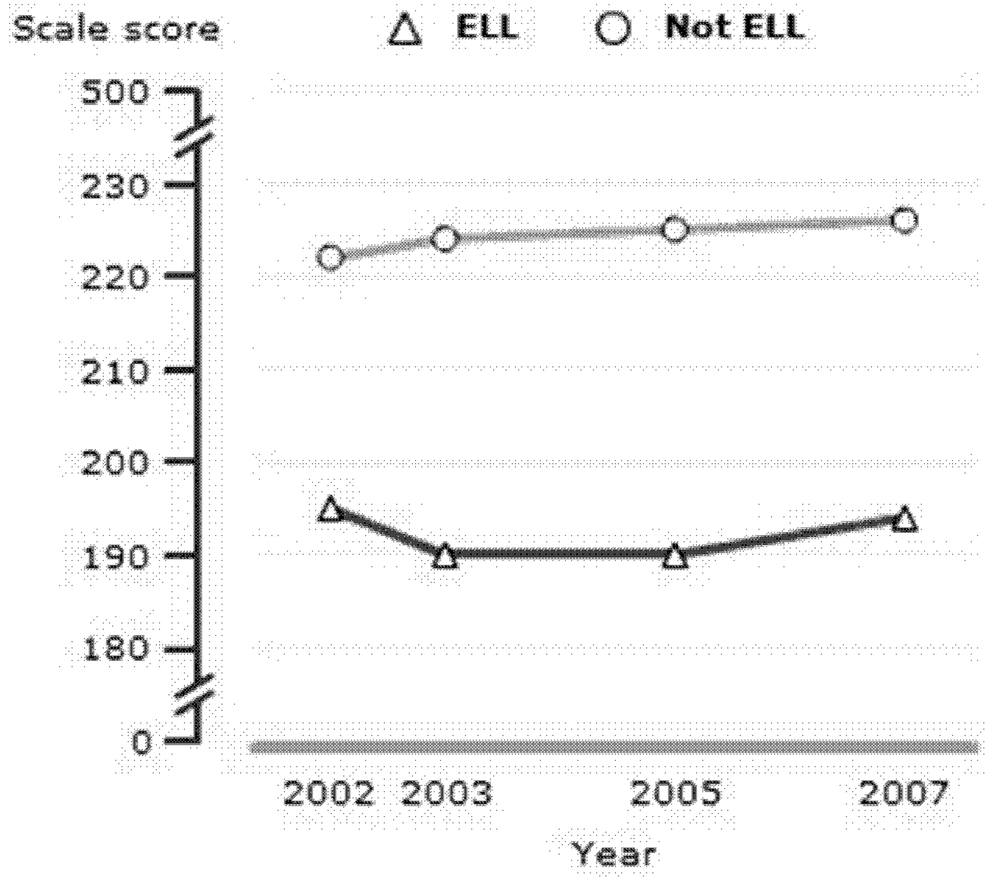
National Center for Education Statistics (NCES)

Institute of Education Sciences (IES)
National Assessment of Educational Progress (NAEP)
This report was generated using the NAEP Data Explorer. http://nces.ed.gov/nationsreportcard/naepdata/

Grade 4 Reading, Students with Disabilities



Grade 4 Reading, English Language Learners

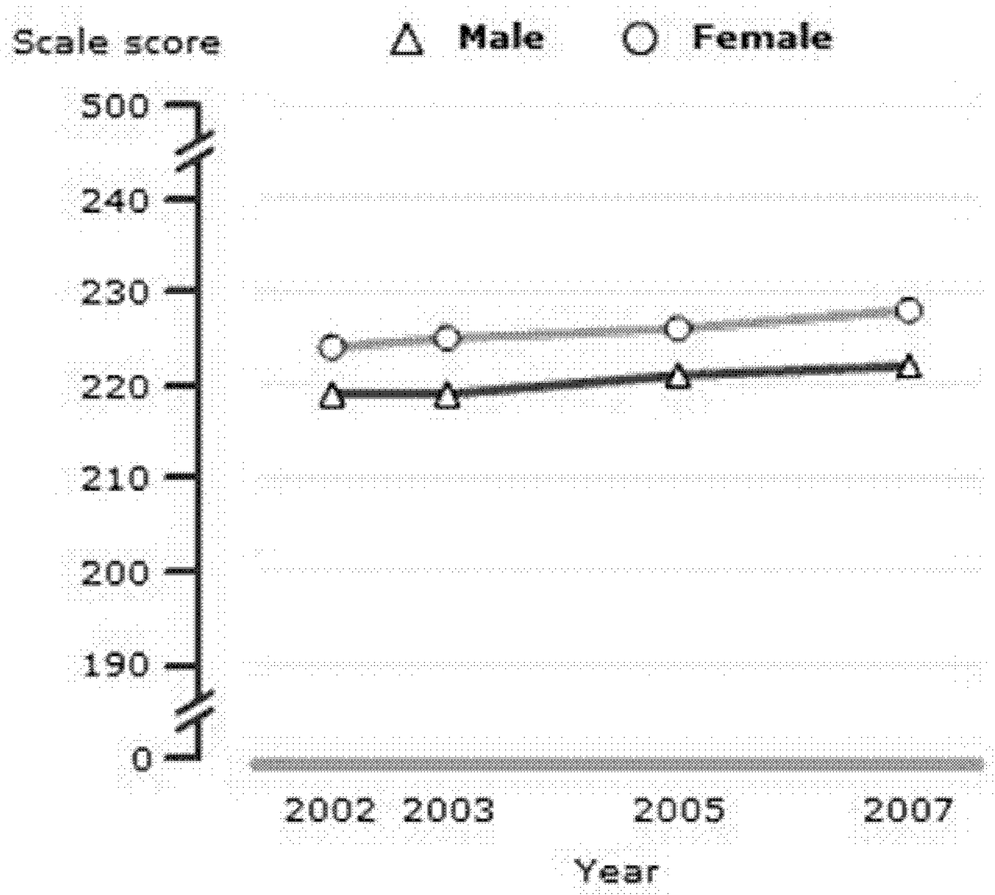


‡ Reporting standards not met.
NOTE: The NAEP Mathematics scale ranges from 0 to 500. Some apparent differences between estimates may not be statistically significant.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000, 2003, 2005, 2007, and 2009 Mathematics Assessments.

National Center for Education Statistics (NCES)

Institute of Education Sciences (IES)
National Assessment of Educational Progress (NAEP)
This report was generated using the NAEP Data Explorer. http://nces.ed.gov/nationsreportcard/naepdata/

Grade 4 Reading, Gender

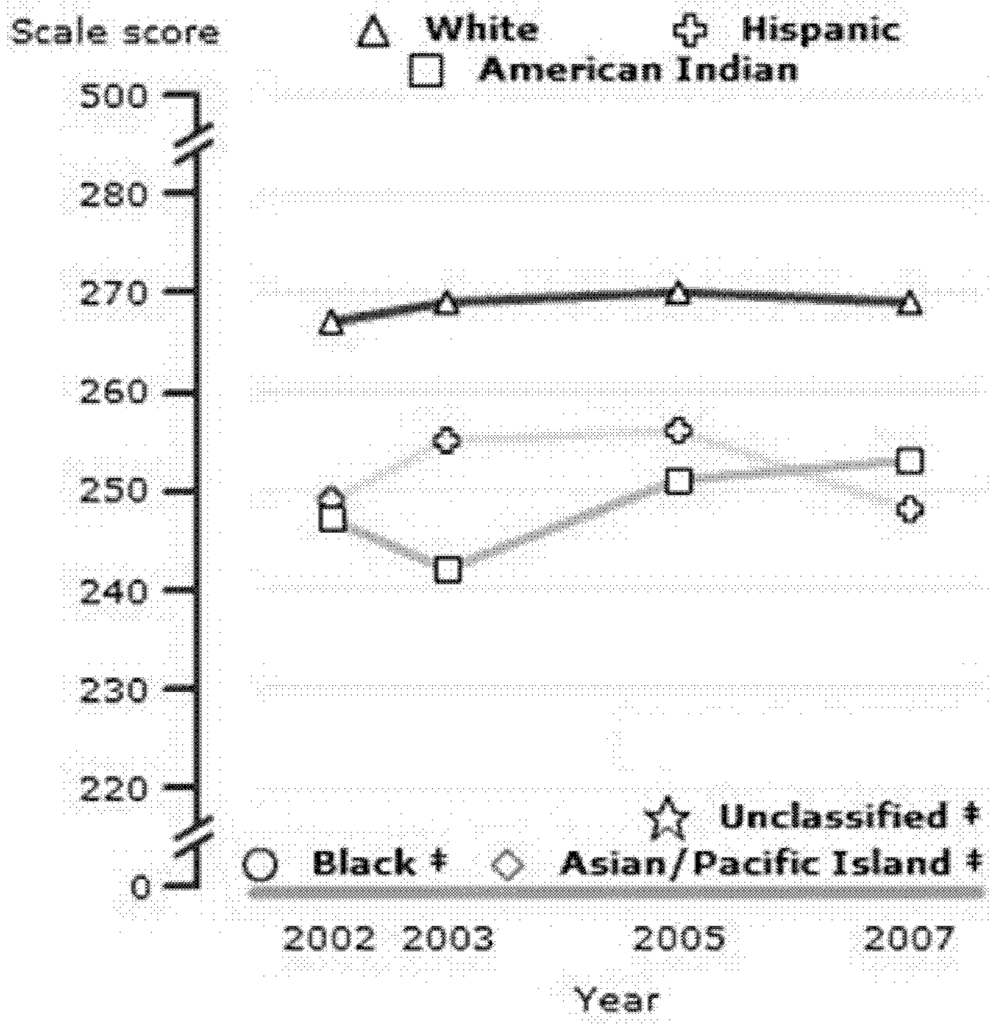


‡ Reporting standards not met.
NOTE: The NAEP Mathematics scale ranges from 0 to 500. Some apparent differences between estimates may not be statistically significant.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000, 2003, 2005, 2007, and 2009 Mathematics Assessments.

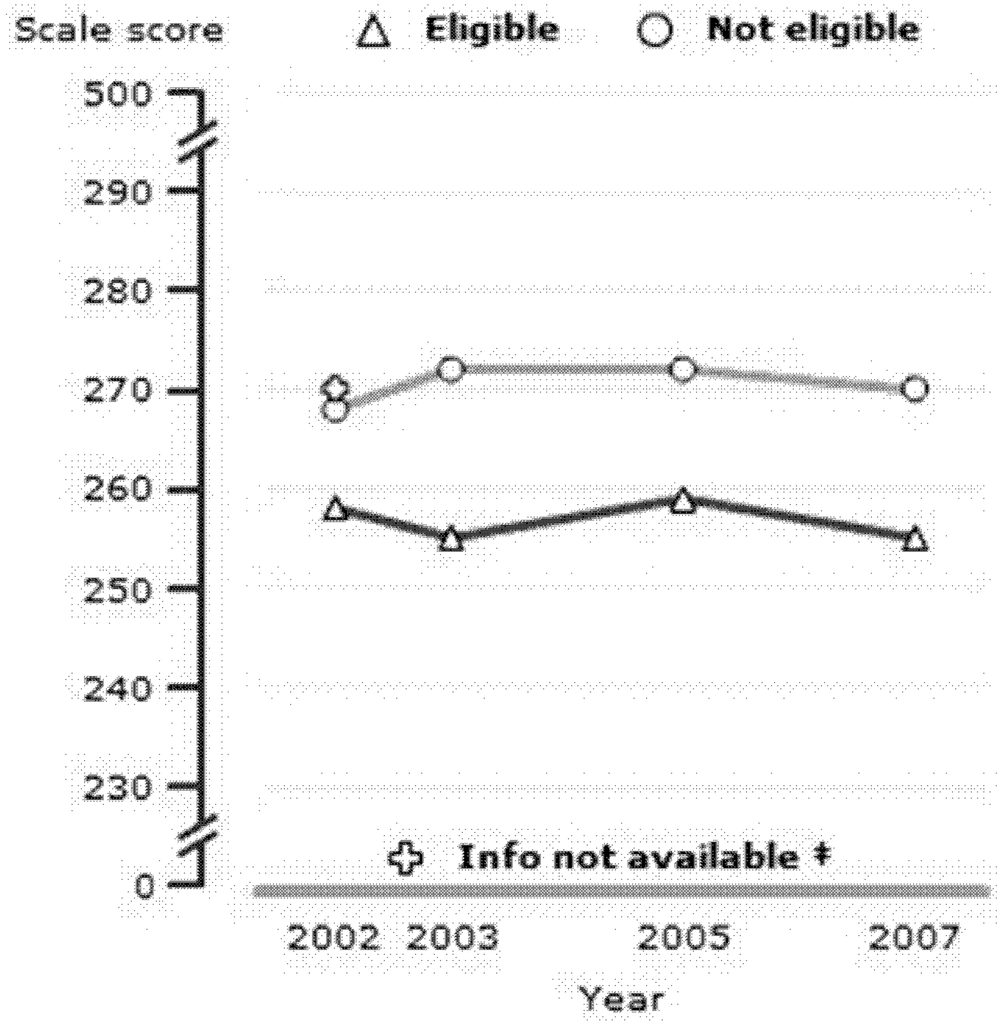
National Center for Education Statistics (NCES)

Institute of Education Sciences (IES)
National Assessment of Educational Progress (NAEP)
This report was generated using the NAEP Data Explorer. http://nces.ed.gov/nationsreportcard/naepdata/

Grade 8 Reading, Race/Ethnicity



Grade 8 Reading, Free/Reduced Lunch

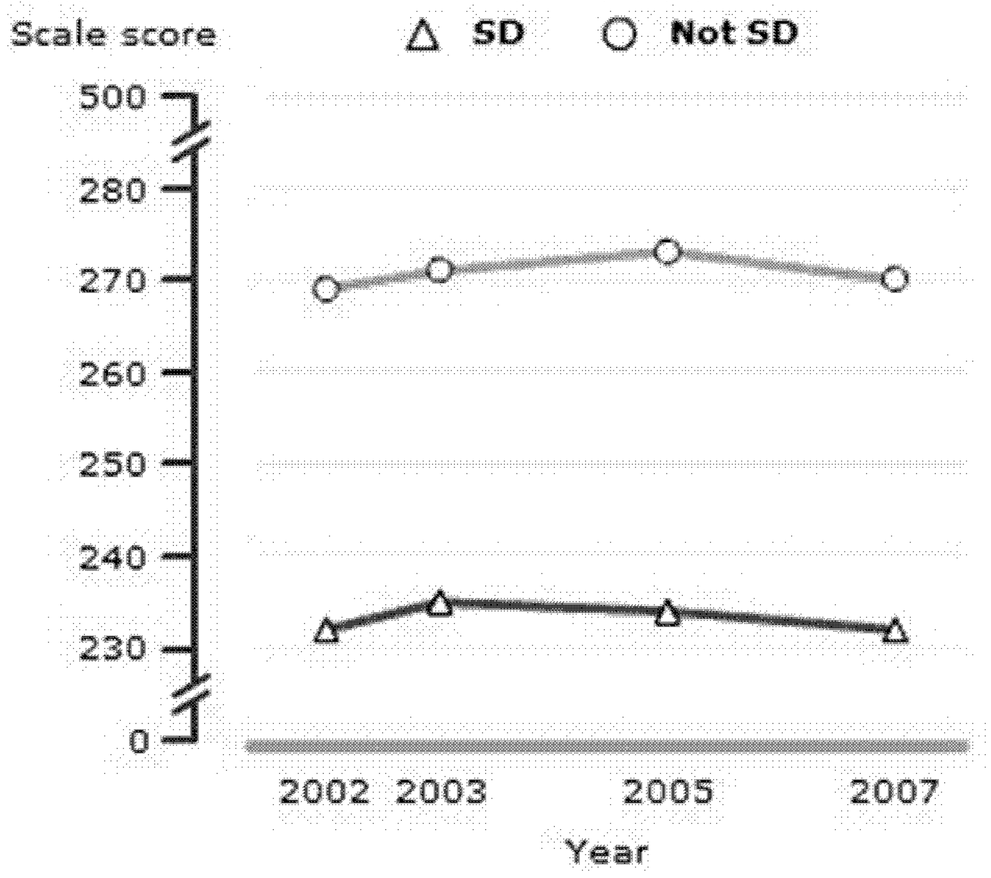


‡ Reporting standards not met.
NOTE: The NAEP Mathematics scale ranges from 0 to 500. Some apparent differences between estimates may not be statistically significant.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000, 2003, 2005, 2007, and 2009 Mathematics Assessments.

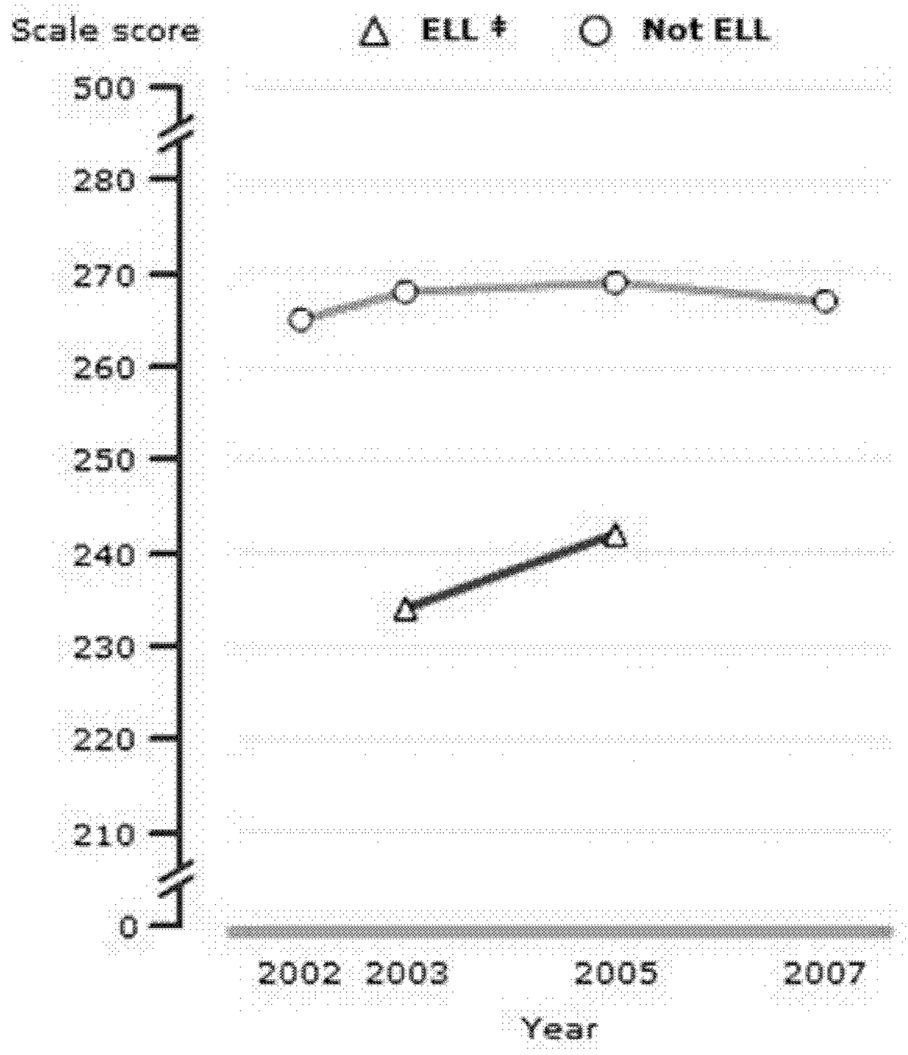
National Center for Education Statistics (NCES)

Institute of Education Sciences (IES)
National Assessment of Educational Progress (NAEP)
This report was generated using the NAEP Data Explorer. http://nces.ed.gov/nationsreportcard/naepdata/

Grade 8 Reading, Students with Disabilities



Grade 8 Reading, English Language Learners

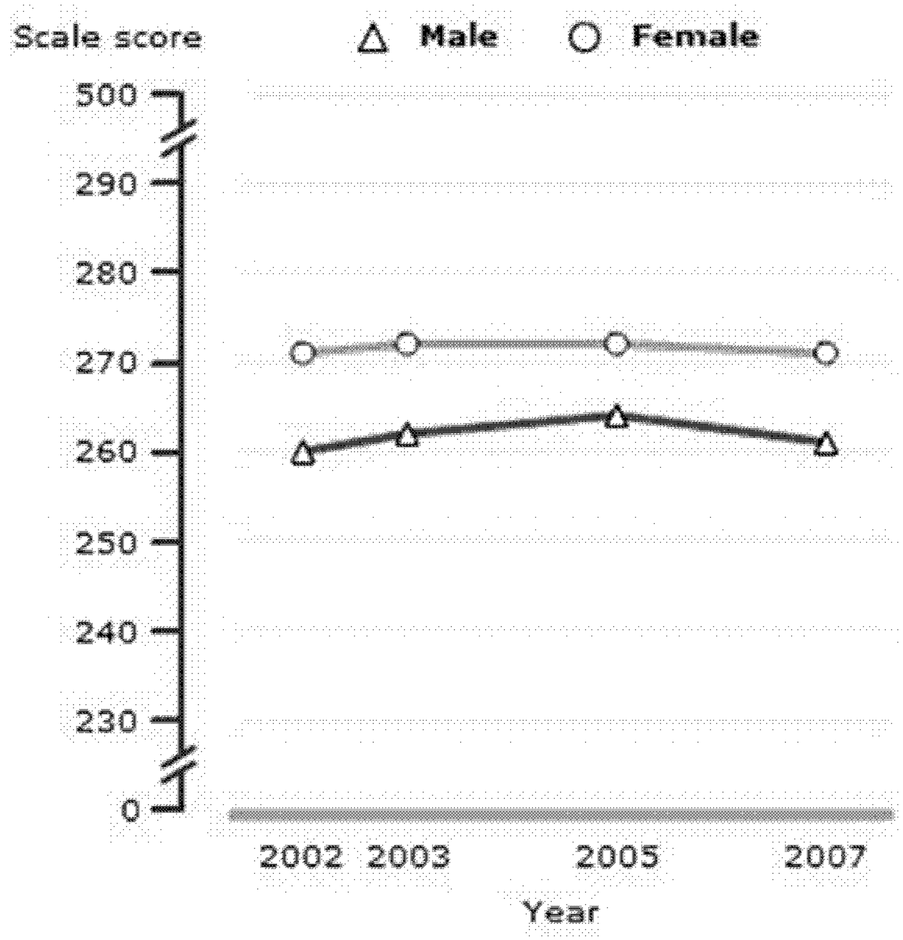


‡ Reporting standards not met.
NOTE: The NAEP Mathematics scale ranges from 0 to 500. Some apparent differences between estimates may not be statistically significant.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000, 2003, 2005, 2007, and 2009 Mathematics Assessments.

National Center for Education Statistics (NCES)

Institute of Education Sciences (IES)
National Assessment of Educational Progress (NAEP)
This report was generated using the NAEP Data Explorer. http://nces.ed.gov/nationsreportcard/naepdata/

Grade 8 Reading, Gender

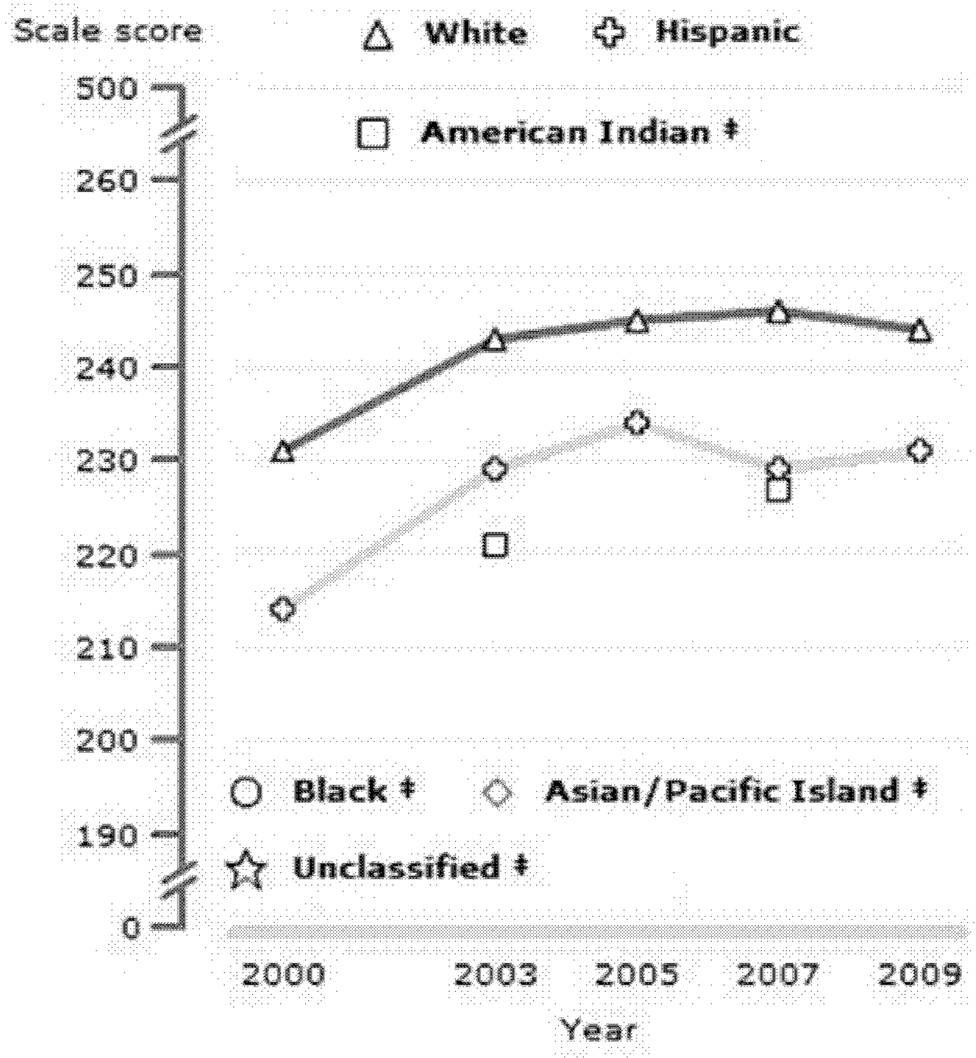


‡ Reporting standards not met.
NOTE: The NAEP Mathematics scale ranges from 0 to 500. Some apparent differences between estimates may not be statistically significant.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000, 2003, 2005, 2007, and 2009 Mathematics Assessments.

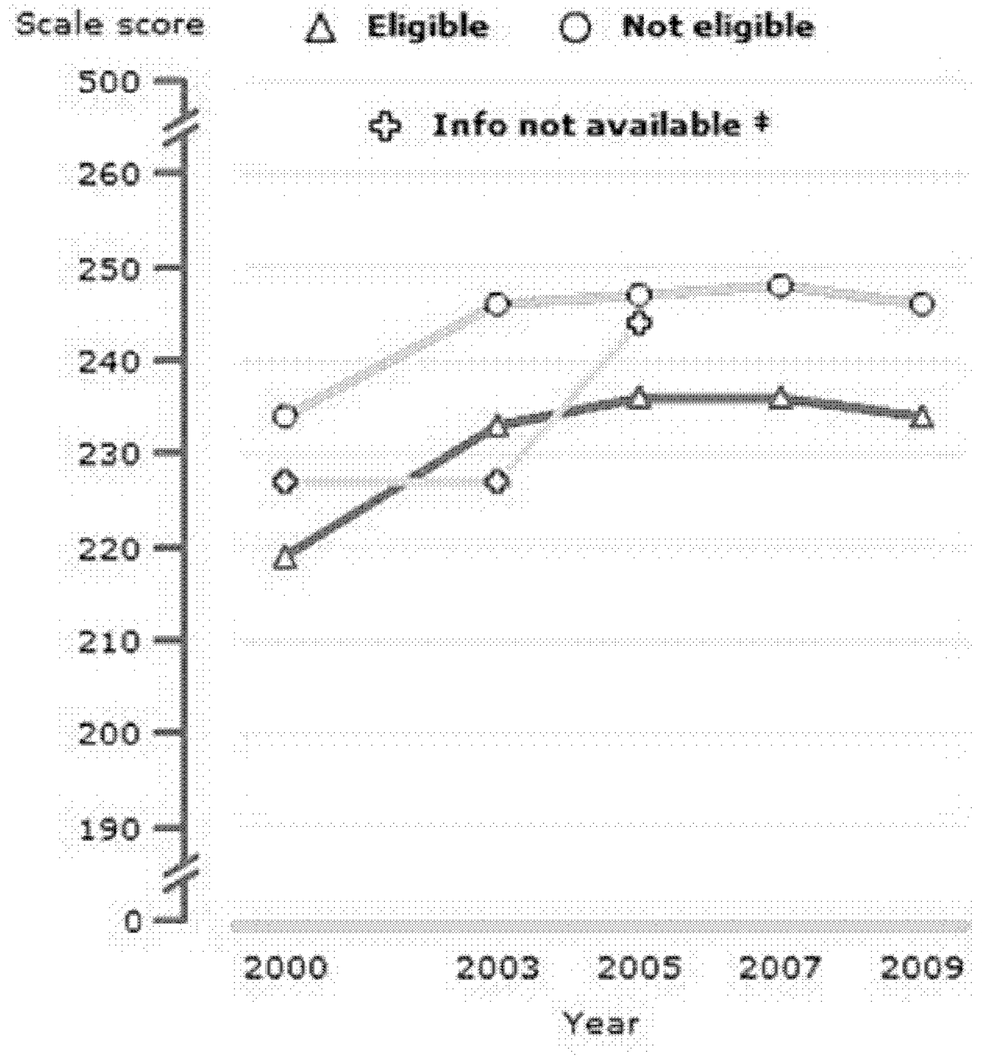
National Center for Education Statistics (NCES)

Institute of Education Sciences (IES)
National Assessment of Educational Progress (NAEP)
This report was generated using the NAEP Data Explorer. http://nces.ed.gov/nationsreportcard/naepdata/

Grade 4 Mathematics, Race/Ethnicity



Grade 4 Mathematics, Free/Reduced Lunch

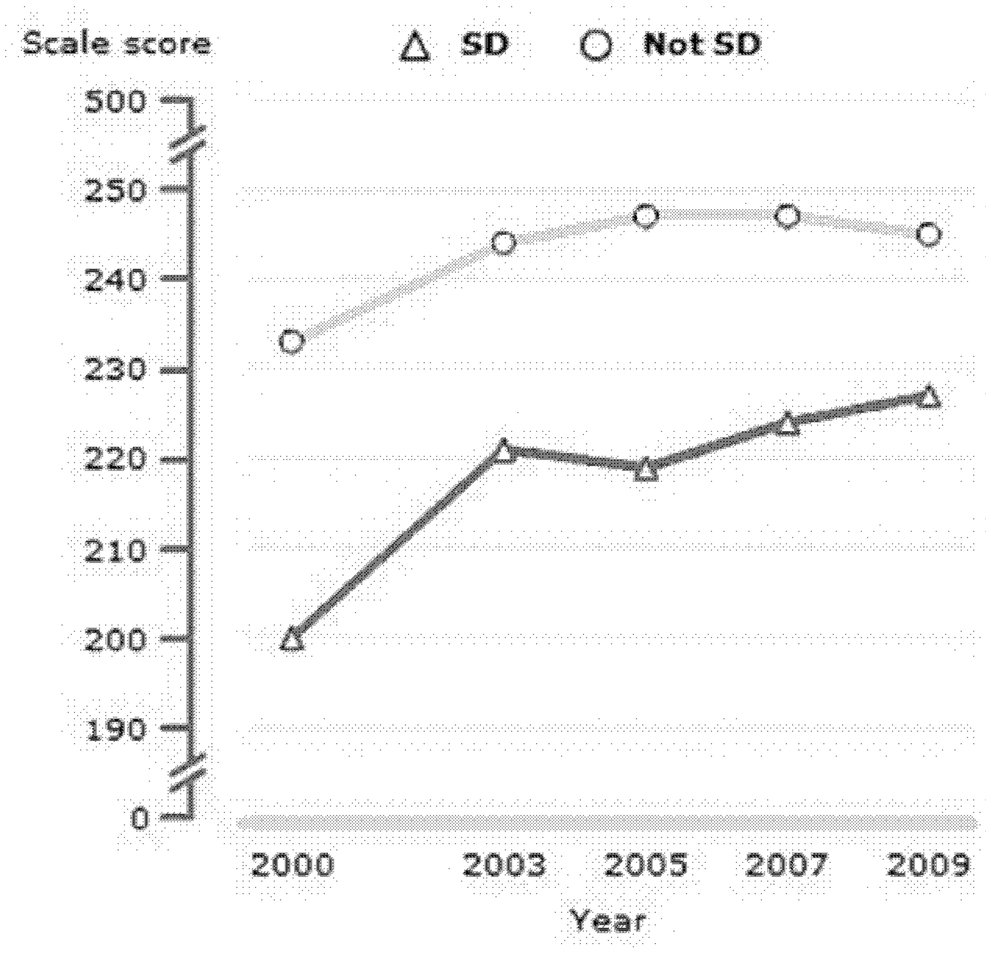


Grade 4 Mathematics, Students with Disabilities

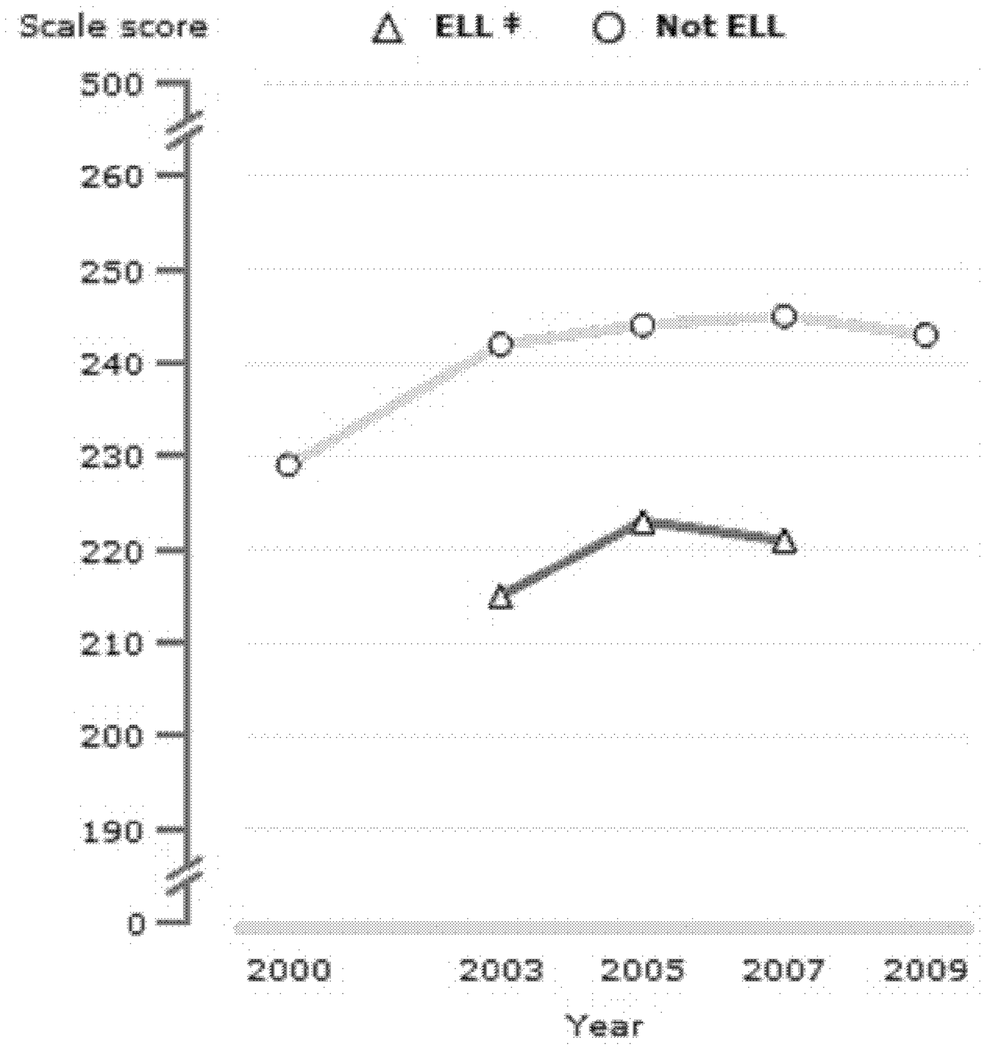
‡ Reporting standards not met.
NOTE: The NAEP Mathematics scale ranges from 0 to 500. Some apparent differences between estimates may not be statistically significant.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000, 2003, 2005, 2007, and 2009 Mathematics Assessments.

National Center for Education Statistics (NCES)

Institute of Education Sciences (IES)
National Assessment of Educational Progress (NAEP)
This report was generated using the NAEP Data Explorer. http://nces.ed.gov/nationsreportcard/naepdata/



Grade 4 Mathematics, English Language Learners

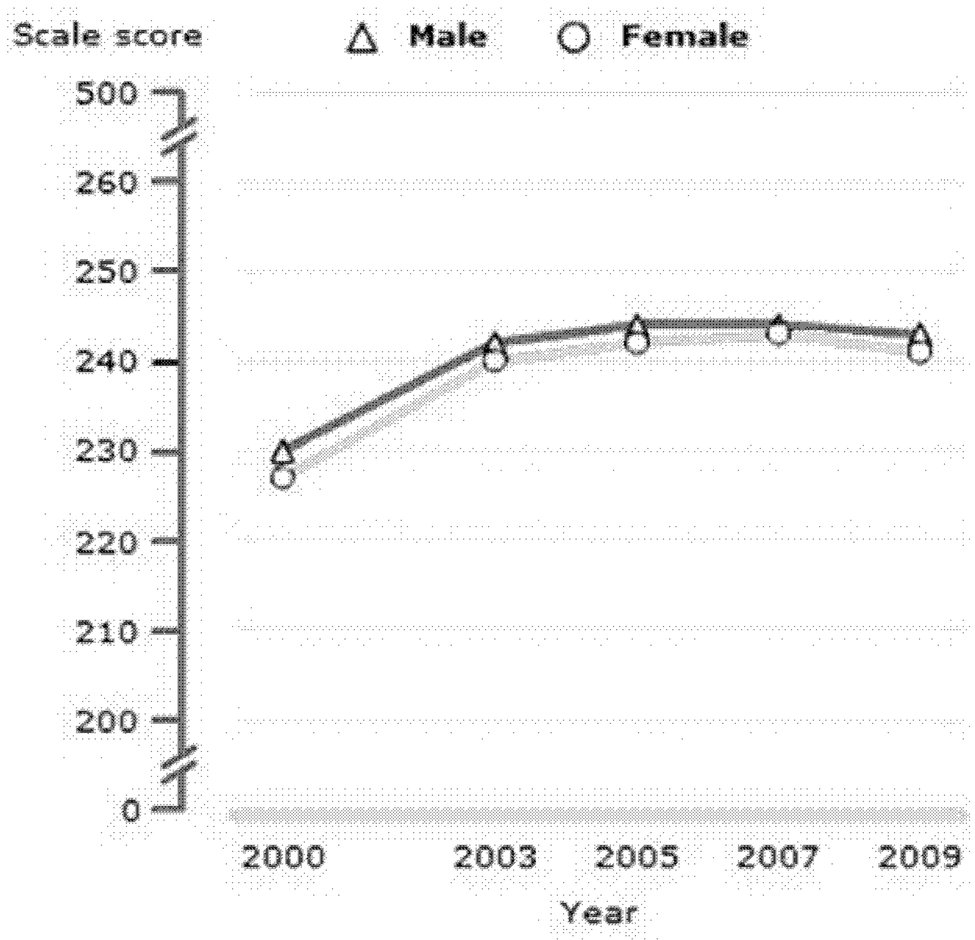


Grade 4 Mathematics, Gender

ǂ Reporting standards not met.
NOTE: The NAEP Mathematics scale ranges from 0 to 500. Some apparent differences between estimates may not be statistically significant.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000, 2003, 2005, 2007, and 2009 Mathematics Assessments.

National Center for Education Statistics (NCES)

Institute of Education Sciences (IES)
National Assessment of Educational Progress (NAEP)
This report was generated using the NAEP Data Explorer. http://nces.ed.gov/nationsreportcard/naepdata/

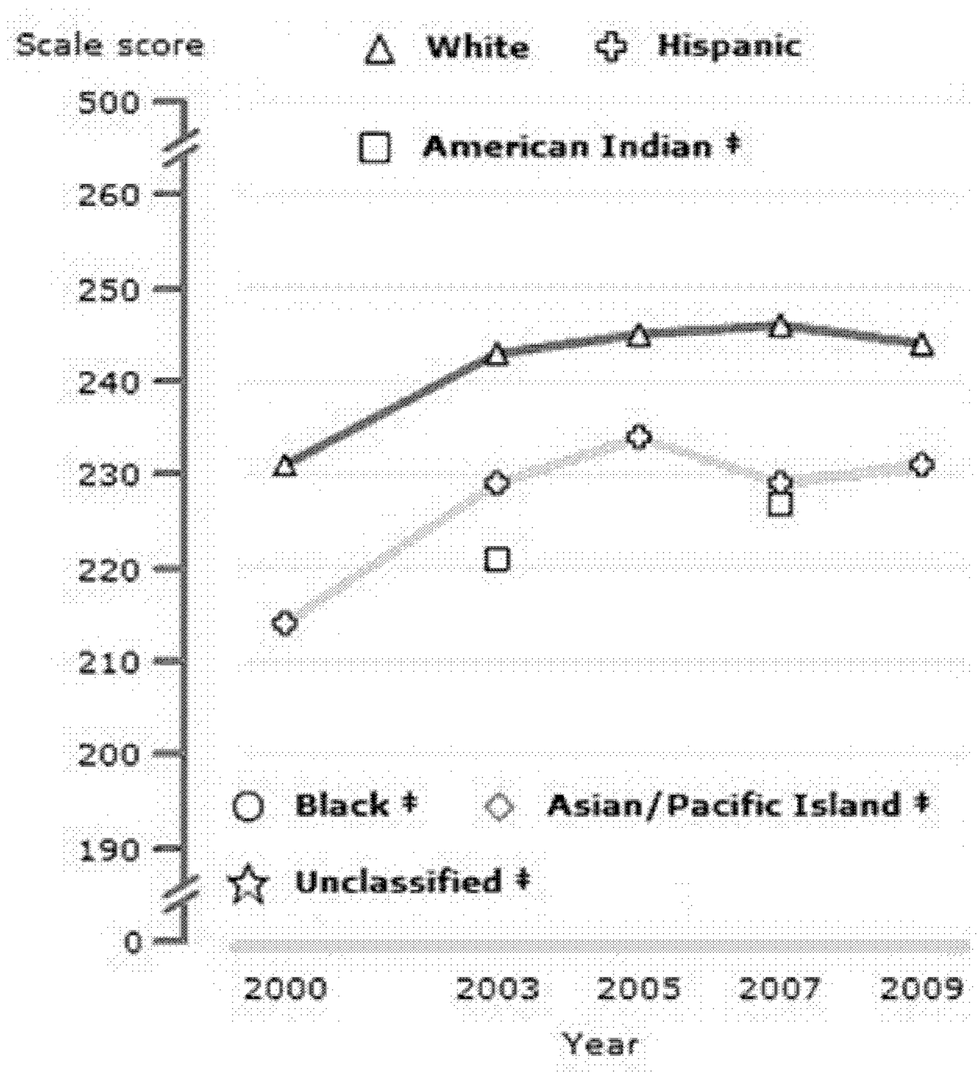


Grade 8 Mathematics, Race/Ethnicity

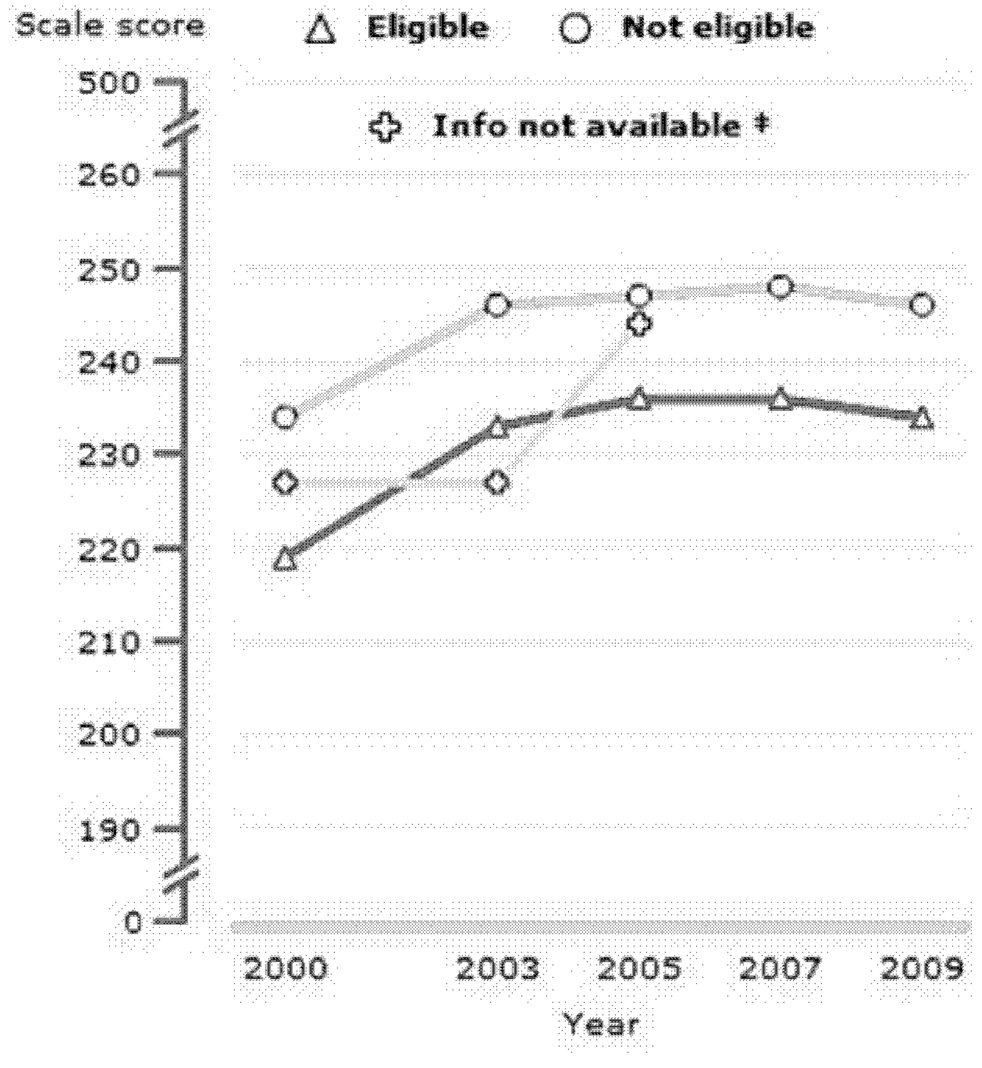
‡ Reporting standards not met.
NOTE: The NAEP Mathematics scale ranges from 0 to 500. Some apparent differences between estimates may not be statistically significant.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000, 2003, 2005, 2007, and 2009 Mathematics Assessments.

National Center for Education Statistics (NCES)

Institute of Education Sciences (IES)
National Assessment of Educational Progress (NAEP)
This report was generated using the NAEP Data Explorer. http://nces.ed.gov/nationsreportcard/naepdata/



Grade 8 Mathematics, Free/Reduced Lunch

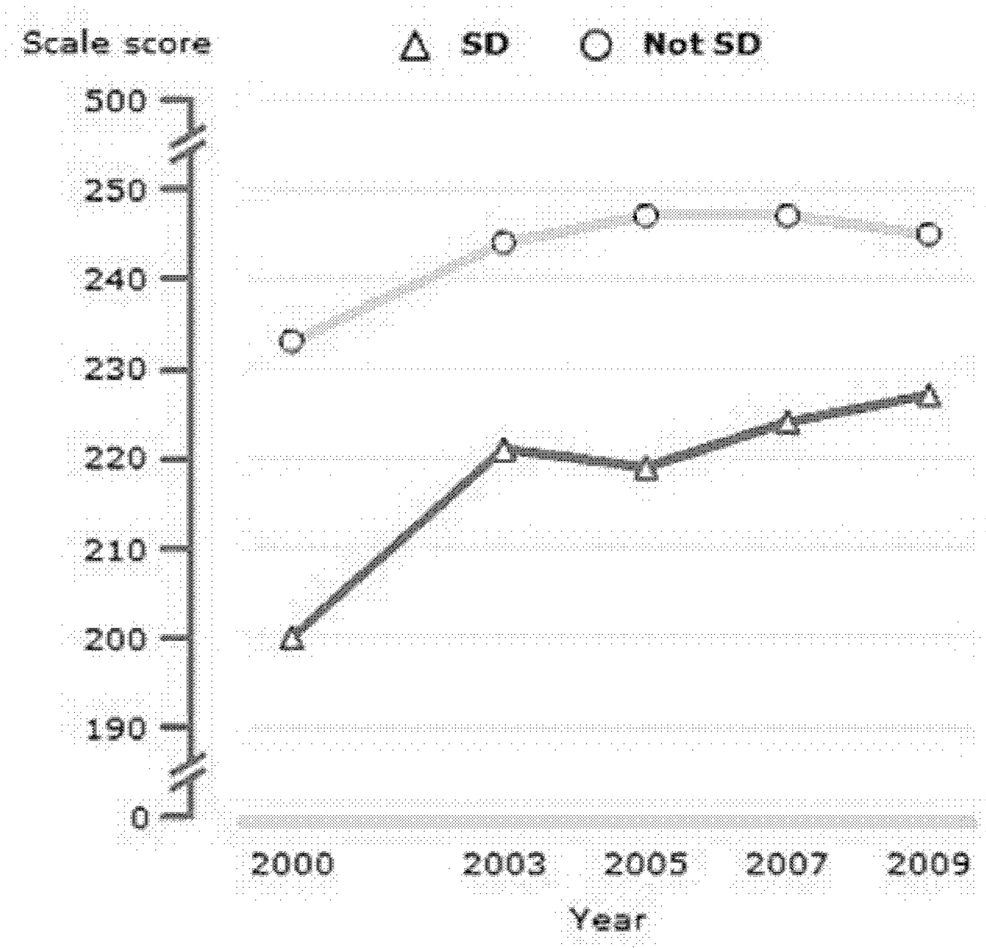


Grade 8 Mathematics, Students with Disabilities

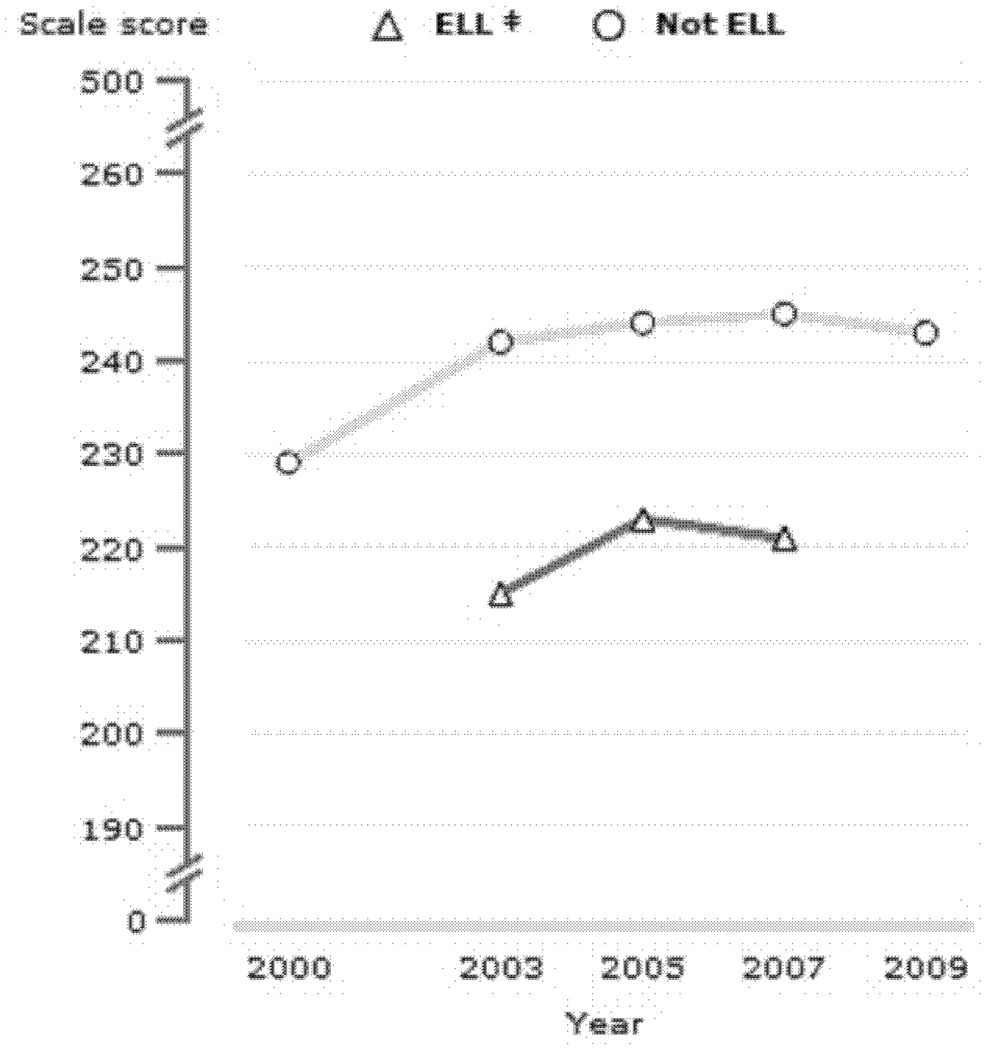
‡ Reporting standards not met.
NOTE: The NAEP Mathematics scale ranges from 0 to 500. Some apparent differences between estimates may not be statistically significant.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000, 2003, 2005, 2007, and 2009 Mathematics Assessments.

National Center for Education Statistics (NCES)

Institute of Education Sciences (IES)
National Assessment of Educational Progress (NAEP)
This report was generated using the NAEP Data Explorer. http://nces.ed.gov/nationsreportcard/naepdata/



Grade 8 Mathematics, English Language Learners

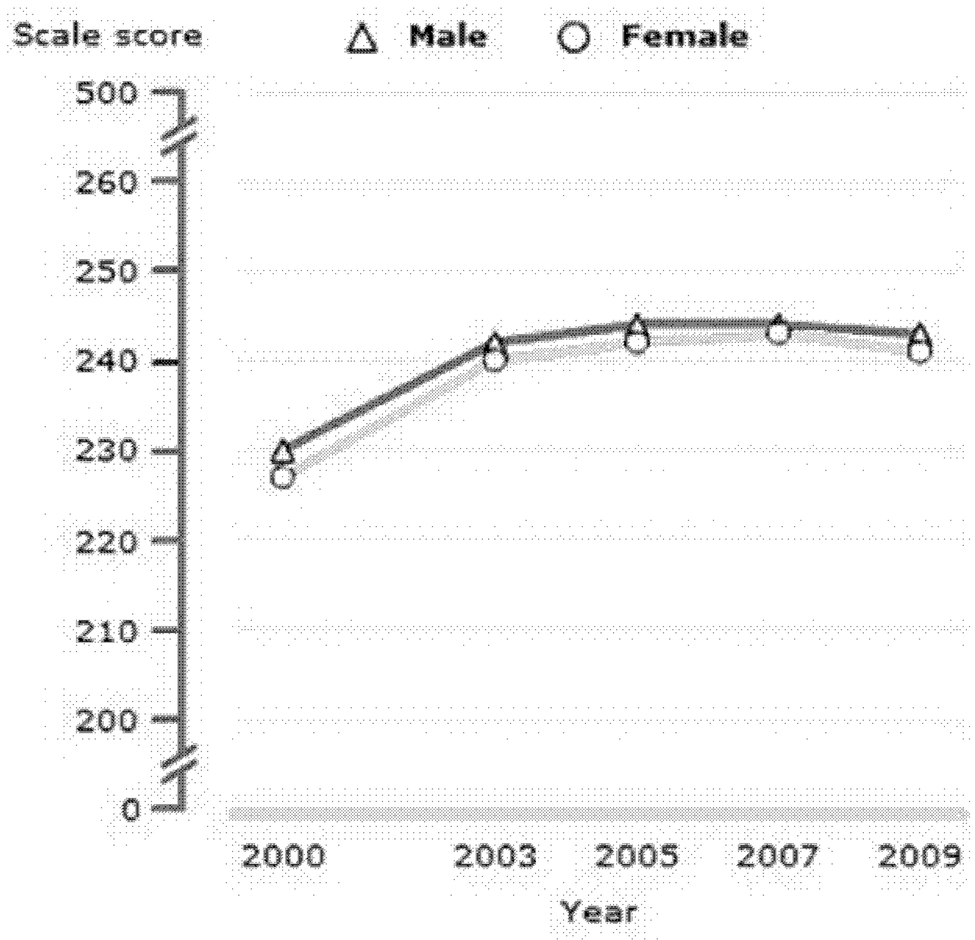


Grade 8 Mathematics, Gender

‡ Reporting standards not met.
NOTE: The NAEP Mathematics scale ranges from 0 to 500. Some apparent differences between estimates may not be statistically significant.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000, 2003, 2005, 2007, and 2009 Mathematics Assessments.

National Center for Education Statistics (NCES)

Institute of Education Sciences (IES)
National Assessment of Educational Progress (NAEP)
This report was generated using the NAEP Data Explorer. http://nces.ed.gov/nationsreportcard/naepdata/



‡ Reporting standards not met.
NOTE: The NAEP Mathematics scale ranges from 0 to 500. Some apparent differences between estimates may not be statistically significant.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000, 2003, 2005, 2007, and 2009 Mathematics Assessments.

Subgroup Achievement and Gap Trends — Wyoming

K-12 enrollment — 85,578

The raw data used to develop these state profiles, including data for additional grade levels and years before 2002, can be found on the CEP Web site at www.cep-dc.org. Click on the link on the left for State Testing Data. Below the name of the report, click on the link for View State Profiles and Worksheets. Scroll down the page, and click on the Worksheet links for any state.

Subgroup Achievement Trends and Gap Trends — Key Findings

Summary

This year the Center on Education Policy analyzed data on the achievement of different groups of students in two distinct ways. First, we looked at grade 4 test results to determine whether the performance of various groups improved at three achievement levels—basic and above, proficient and above, and advanced. Second, we looked at gaps between these groups at the proficient level across three grades (grade 4, grade 8 in most cases, and a high school grade). These two types of analyses show whether elementary school achievement has generally gone up for different groups of students and whether achievement gaps at different grade levels have narrowed, widened, or stayed the same.

Wyoming test score trends have gone in an upward direction. Progress is being made on achievement gaps as well, with a more positive picture in reading than in math.

Subgroup trends by achievement level at grade 4

- Main trend: All subgroups made gains in reading and math at three achievement levels—basic-and-above, proficient-and-above, and advanced. Specifically, 9 of the 9 trend lines analyzed across the three achievement levels in reading showed gains, as did all 9 trend lines in math.

Gap trends at three grade levels

- Main trend: In most instances, gaps in the percentages of students scoring at the proficient level narrowed between Latino and white students at grades 4 and 8 and between low-income and non-low-income students, at grades 4 and 8 and at the high school grade tested. Specifically, 5 of the 6 trend lines analyzed in reading and math showed evidence of gaps narrowing. In the remaining instances, gaps widened.

- Contradicting trends using two different measures: According to percentages of students scoring proficient on the state test, achievement gaps narrowed in most cases between Latino and white students and between low-income and non-low-income students. But according to mean scale scores 2 of 6 trend lines in math showed average test score gaps narrowing. Percentage proficient and mean score data in reading were more consistent.

Source: State Test Score Trends Through 2007-08: Are Achievement Gaps Closing and Is Achievement Rising for All? Center for Education Policy, (2009)

Data notes

- Limited data: Wyoming has made some changes to its testing program in the last few years. As a result, only three years of comparable test data (2006-2008) are available, the minimum number needed to discern a trend.

- Subgroups analyzed: Trends were analyzed for white, Latino, and low-income students. The African American, Asian, and Native American subgroups are too small in Wyoming to yield reliable trend data. Trends for students with disabilities, English language learners, and male and female students have not been summarized because they will be discussed in separate reports.

- Grades analyzed: Analyses of subgroup trends by three achievement levels are limited to one elementary grade because of the massive amounts of data involved and because this is the pilot year of a process that CEP hopes to extend to the middle and high school levels in future years. Analyses of achievement gap trends cover three grade levels: grade 4, grade 8, and the high school grade tested for NCLB.

Data Limitations

Years of comparable percentage proficient data	2006 through 2008
Years of comparable mean scale score data	2006 through 2008
Disaggregated data for all subgroups and comparison groups	Available 2006 through 2008 Percentage proficient data not available until 2007 for comparison group of students who are *not* disabled, so the subgroup of students with disabilities is compared with all tested students in the state

Test Characteristics

The characteristics highlighted below are for the state reading and mathematics tests used for accountability under the No Child Left Behind Act (NCLB).

Test(s) used for NCLB accountability	Proficiency Assessments for Wyoming Students (PAWS) PAWS-ALT (for the most severely cognitively challenged students)
Grades tested for NCLB accountability	3–8, 11
State labels for achievement levels	WY uses four achievement levels: Below Basic, Basic, Proficient, and Advanced. For our analyses we treated Basic as Basic, Proficient as Proficient, and Advanced as Advanced.
High school NCLB test also used as an exit exam?	No

Source: State Test Score Trends Through 2007-08: Are Achievement Gaps Closing and Is Achievement Rising for All? Center for Education Policy, (2009)

First year test used	2006
Time of test administration	Spring
Major changes in testing system (2002–present)	2004–05: PAWS system developed to replace the WyCAS system 2006: First operational PAWS assessment in grades 3–8 and 11 (formerly 4, 8, and 11 were assessed under WyCAS)

Source: State Test Score Trends Through 2007-08: Are Achievement Gaps Closing and Is Achievement Rising for All? Center for Education Policy, (2009)

Achievement by Subgroup — Gap Trends (Percentages Proficient)

Table WY-11. Subgroup Achievement Trends in Reading by Percentages Proficient

NOTE: L = Larger gain than comparison group. S = Smaller gain than comparison group. E = Equal gain to comparison group.

If the average annual gain for the subgroup of interest, such as African American students, is larger than the average annual gain for the comparison group, such as white students, this indicates that the achievement gap has narrowed. If the average gain for the subgroup of interest is smaller, this means the gap has widened.

	Grade 4					Grade 8					Grade 11				
Subgroup	Year Span	Starting PP	Ending PP	Average Annual Gain[1]	Gain Larger or Smaller Than Comparison Group	Year Span	Starting PP	Ending PP	Average Annual Gain[1]	Gain Larger or Smaller Than Comparison Group	Year Span	Starting PP	Ending PP	Average Annual Gain[1]	Gain Larger or Smaller Than Comparison Group
All tested students	06-08	64%	73%	4.6		06-08	62%	70%	4.5		06-08	62%	66%	1.7	
White	06-08	67%	76%	4.5		06-08	65%	73%	3.9		06-08	65%	68%	1.7	
African American	06-08	59%	65%	3.2[2]	S	06-08	37%	64%	13.5[2]	L	06-08	38%	56%	9.2[2]	L
Latino	06-08	50%	62%	6.2	L	06-08	44%	56%	6.2	L	06-08	44%	47%	1.8[2]	L
Asian	06-08	74%	78%	2.3[2]	S	06-08	74%	82%	4.2[2]	L	06-08	59%	66%	3.4[2]	L
Native American	06-08	38%	47%	4.4[2]	S	06-08	35%	49%	7.3[2]	L	06-08	37%	46%	4.2[2]	L

Source: State Test Score Trends Through 2007-08: Are Achievement Gaps Closing and Is Achievement Rising for All? Center for Education Policy, (2009)

Not low-income	06-08	72%	80%	3.7		06-08	68%	75%	3.8		06-08	66%	69%	1.5	
Low-income	06-08	52%	63%	5.3	L	06-08	49%	58%	4.7	L	06-08	48%	50%	1.3	S
All tested students	06-08	64%	73%	4.6		06-08	62%	70%	4.5		06-08	62%	66%	1.7	
Students with disabilities[3]	06-08	28%	40%	5.8	L	06-08	19%	31%	6.2	L	06-08	15%	23%	4.1	L
Not ELLs	06-08	66%	75%	4.4		06-08	63%	72%	4.4		06-08	64%	67%	1.5	
English language learners[3]	06-08	30%	27%	-1.7[2]	S	06-08	24%	23%	-0.6[2]	S	06-08	22%	12%	-4.9[2]	S
Female	06-08	68%	76%	4.1		06-08	69%	75%	3.1		06-08	71%	73%	1.2	
Male	06-08	61%	71%	5.0	L	06-08	55%	66%	5.8	L	06-08	55%	59%	2.1	L

Table reads: In 2006, 67% of white 4th graders and 59% of African American 4th graders scored at the proficient level on the state reading test. In 2008, 76% of white 4th graders and 65% of African American 4th graders scored at the proficient level in reading. Between 2006 and 2008, the percentage proficient improved at an average rate of 4.5 percentage points per year for white students and 3.2 percentage points per year for African American students, indicating a smaller rate of gain and a widening of the achievement gap for African American 4th graders.

[1]Numbers in these columns are subject to rounding error.

[2]The number of students tested in this subgroup at this grade level was fewer than 500 in 2008 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

Source: State Test Score Trends Through 2007-08: Are Achievement Gaps Closing and Is Achievement Rising for All? Center for Education Policy, (2009)

[3]Trends for students with disabilities and English language learners should be interpreted with caution because state and federal policy changes may have affected the year-to-year comparability of test results for these subgroups.

Source: State Test Score Trends Through 2007-08: Are Achievement Gaps Closing and Is Achievement Rising for All? Center for Education Policy, (2009)

Table WY-12. Subgroup Achievement Trends in Mathematics by Percentages Proficient

NOTE: L = Larger gain than comparison group. S = Smaller gain than comparison group. E = Equal gain to comparison group.

If the average annual gain for the subgroup of interest, such as African American students, is larger than the average annual gain for the comparison group, such as white students, this indicates that the achievement gap has narrowed. If the average gain for the subgroup of interest is smaller, this means the gap has widened.

	Grade 4					Grade 8					Grade 11				
Subgroup	Year Span	Starting PP	Ending PP	Average Annual Gain[1]	Gain Larger or Smaller Than Comparison Group	Year Span	Starting PP	Ending PP	Average Annual Gain[1]	Gain Larger or Smaller Than Comparison Group	Year Span	Starting PP	Ending PP	Average Annual Gain[1]	Gain Larger or Smaller Than Comparison Group
All tested students	06-08	73%	77%	1.8		06-08	54%	68%	6.9		06-08	57%	65%	3.6	
White	06-08	76%	79%	1.5		06-08	57%	71%	6.8		06-08	60%	67%	3.4	
African American	06-08	63%	70%	3.4[2]	L	06-08	29%	50%	10.5[2]	L	06-08	30%	32%	1.4[2]	S
Latino	06-08	61%	68%	3.8	L	06-08	37%	48%	5.5	S	06-08	37%	47%	5.0[2]	L
Asian	06-08	84%	83%	-0.6[2]	S	06-08	74%	79%	2.6[2]	S	06-08	64%	73%	4.7[2]	L
Native American	06-08	47%	54%	3.4[2]	L	06-08	26%	43%	8.4[2]	L	06-08	24%	44%	10.2[2]	L
Not low-income	06-08	80%	82%	1.3		06-08	61%	73%	6.0		06-08	62%	68%	2.7	
Low-income	06-08	64%	67%	1.9	L	06-08	40%	55%	7.4	L	06-08	38%	49%	5.7	L

Source: State Test Score Trends Through 2007-08: Are Achievement Gaps Closing and Is Achievement Rising for All? Center for Education Policy, (2009)

NAEP, ESEA, PAWS and Hathaway Results

All tested students	06-08	73%	77%	1.8		06-08	54%	68%	6.9		06-08	57%	65%	3.6	
Students with disabilities[3]	06-08	44%	53%	4.6	L	06-08	13%	30%	8.4	L	06-08	9%	19%	4.8	L
Not ELLs	06-08	75%	78%	1.6		06-08	55%	69%	6.8		06-08	59%	65%	3.2	
English language learners[3]	06-08	44%	39%	-2.7[2]	S	06-08	23%	20%	-1.6[2]	S	06-08	13%	12%	-0.5[2]	S
Female	06-08	74%	76%	1.0		06-08	54%	67%	6.5		06-08	59%	64%	2.7	
Male	06-08	73%	78%	2.7	L	06-08	54%	68%	7.2	L	06-08	56%	65%	4.4	L

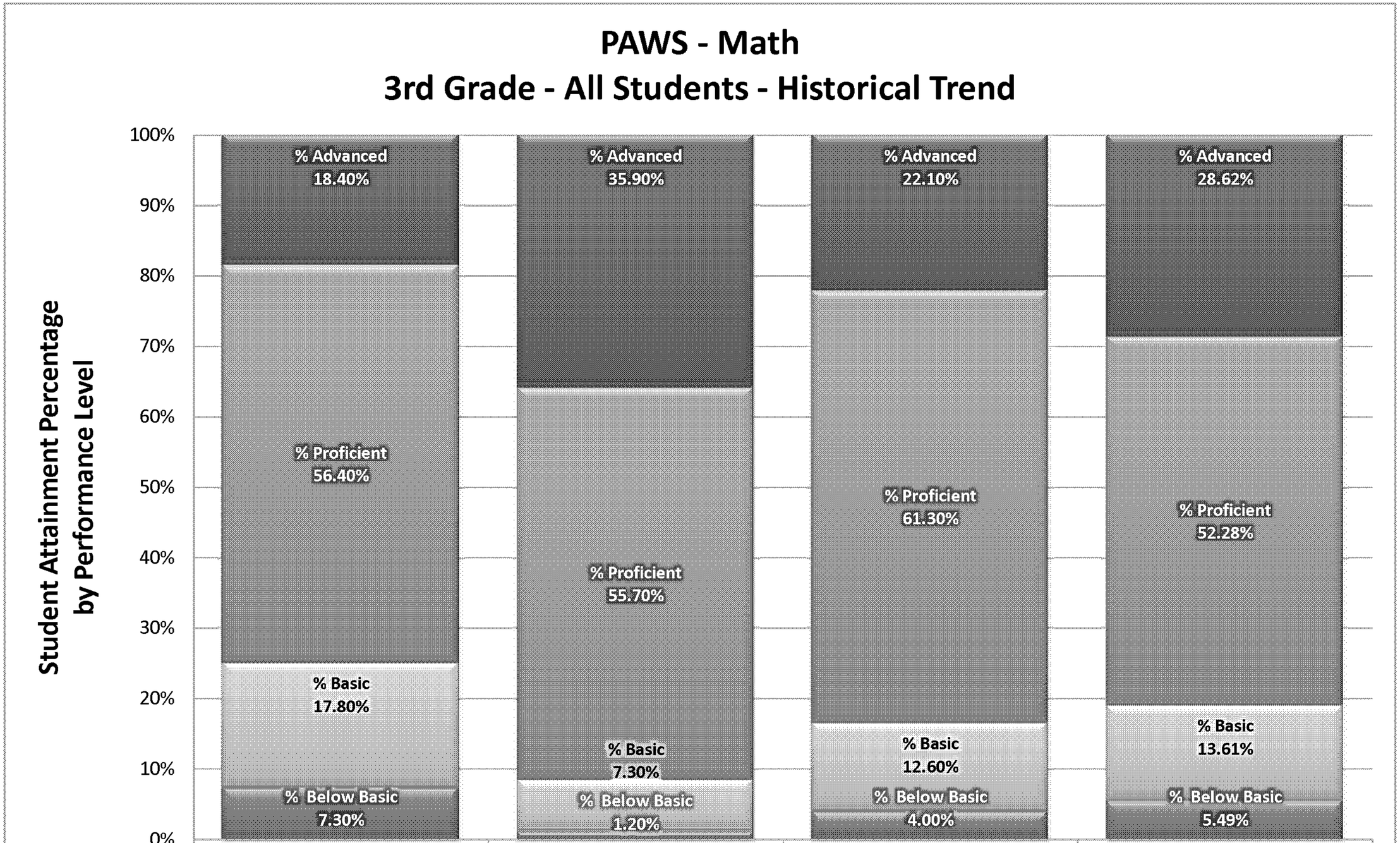
Table reads: In 2006, 76% of white 4th graders and 63% of African American 4th graders scored at the proficient level on the state math test. In 2008, 79% of white 4th graders and 70% of African American 4th graders scored at the proficient level in math. Between 2006 and 2008, the percentage proficient improved at an average rate of 1.5 percentage points per year for white students and 3.4 percentage points per year for African American students, indicating a larger rate of gain and a narrowing of the achievement gap for African American 4th graders.

[1]Numbers in these columns are subject to rounding error.

[2]The number of students tested in this subgroup at this grade level was fewer than 500 in 2008 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

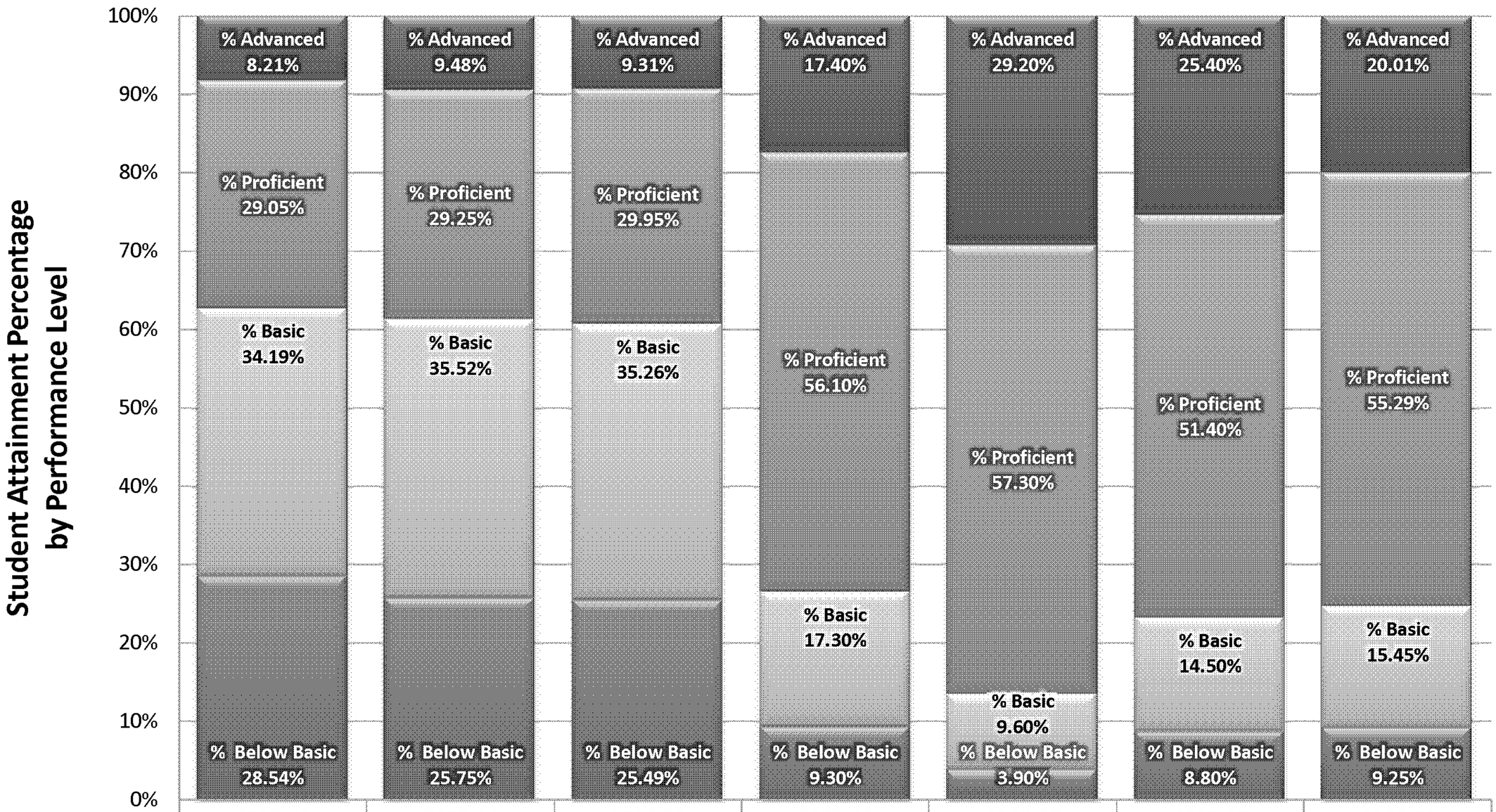
[3]Trends for students with disabilities and English language learners should be interpreted with caution because state and federal policy changes may have affected the year-to-year comparability of test results for these subgroup

Source: State Test Score Trends Through 2007-08: Are Achievement Gaps Closing and Is Achievement Rising for All? Center for Education Policy, (2009)

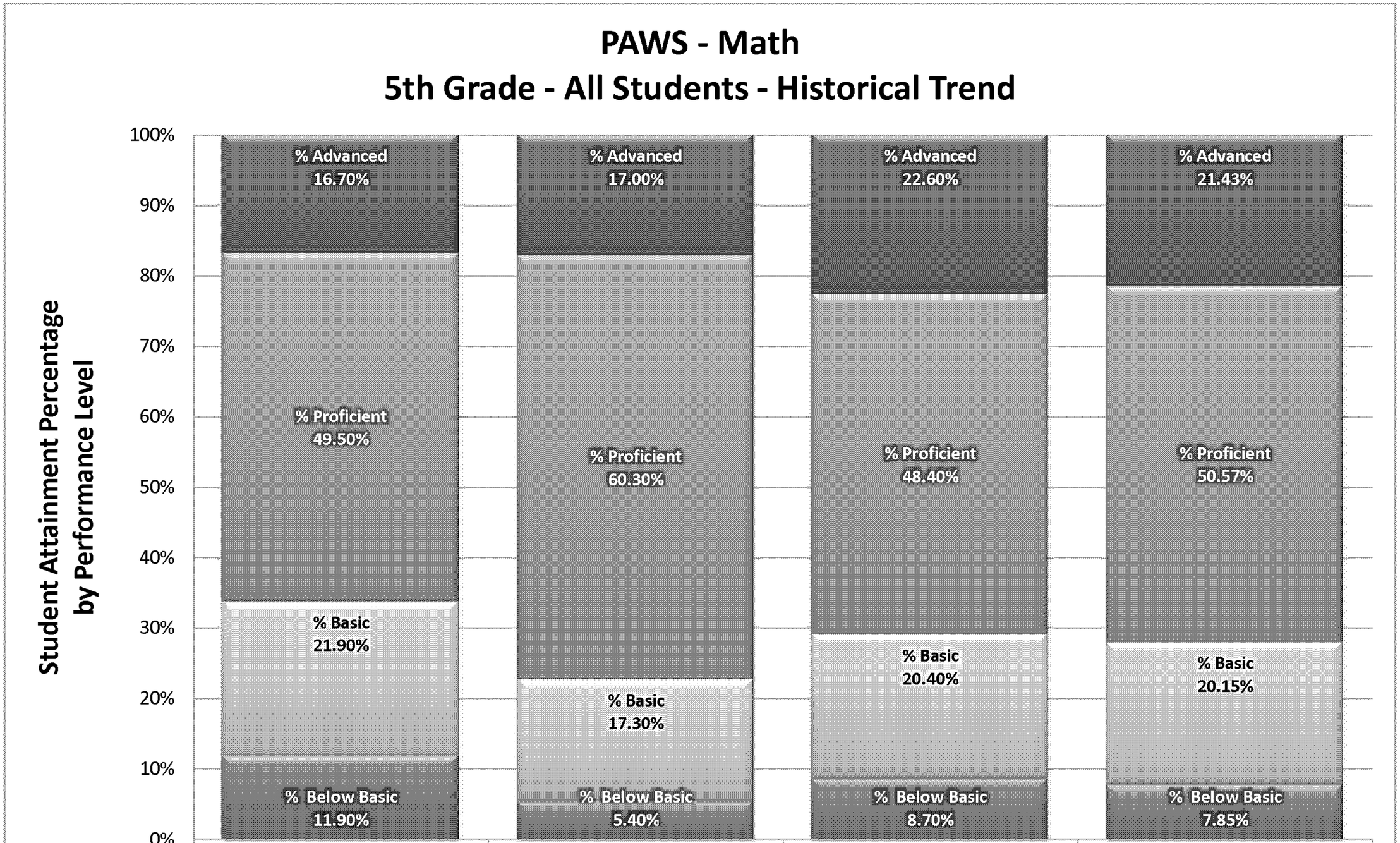


	2005-06	2006-07	2007-08	2008-09
% Advanced	18.40%	35.90%	22.10%	28.62%
% Proficient	56.40%	55.70%	61.30%	52.28%
% Basic	17.80%	7.30%	12.60%	13.61%
% Below Basic	7.30%	1.20%	4.00%	5.49%

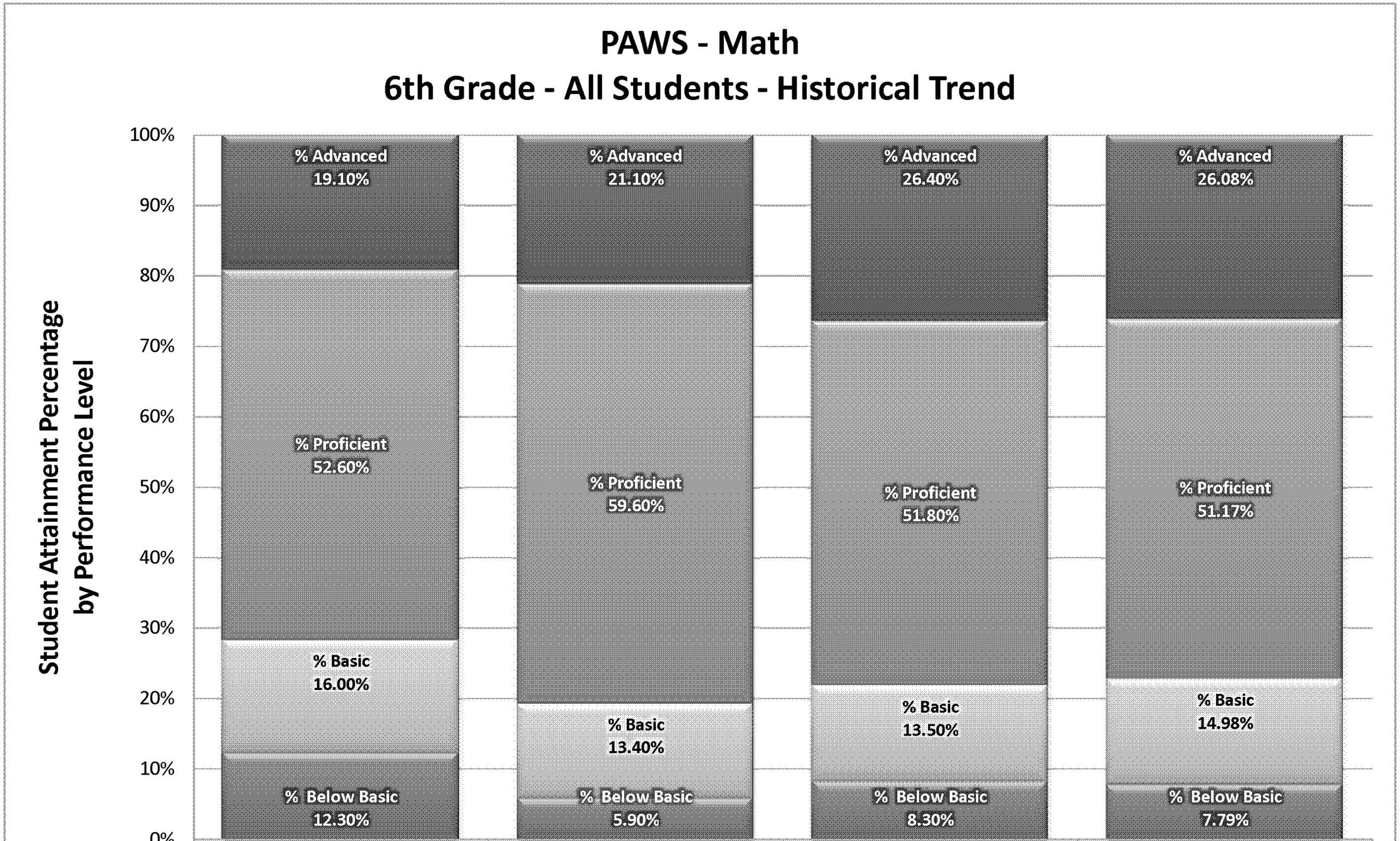
PAWS and WYCAS (2002-03 to 2004-05) - Math
4th Grade - All Students - Historical Trend



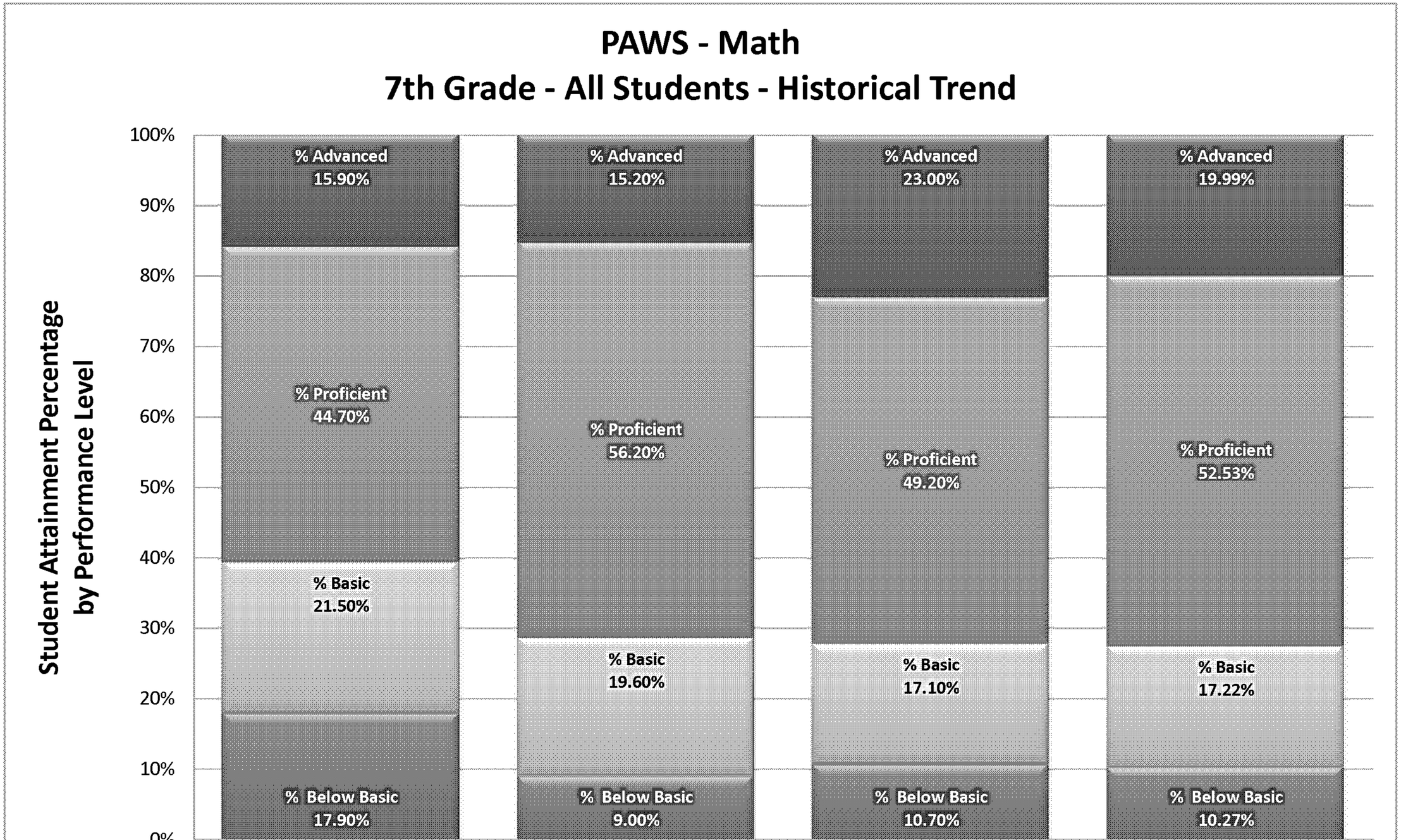
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
% Advanced	8.21%	9.48%	9.31%	17.40%	29.20%	25.40%	20.01%
% Proficient	29.05%	29.25%	29.95%	56.10%	57.30%	51.40%	55.29%
% Basic	34.19%	35.52%	35.26%	17.30%	9.60%	14.50%	15.45%
% Below Basic	28.54%	25.75%	25.49%	9.30%	3.90%	8.80%	9.25%



	2005-06	2006-07	2007-08	2008-09
% Advanced	16.70%	17.00%	22.60%	21.43%
% Proficient	49.50%	60.30%	48.40%	50.57%
% Basic	21.90%	17.30%	20.40%	20.15%
% Below Basic	11.90%	5.40%	8.70%	7.85%

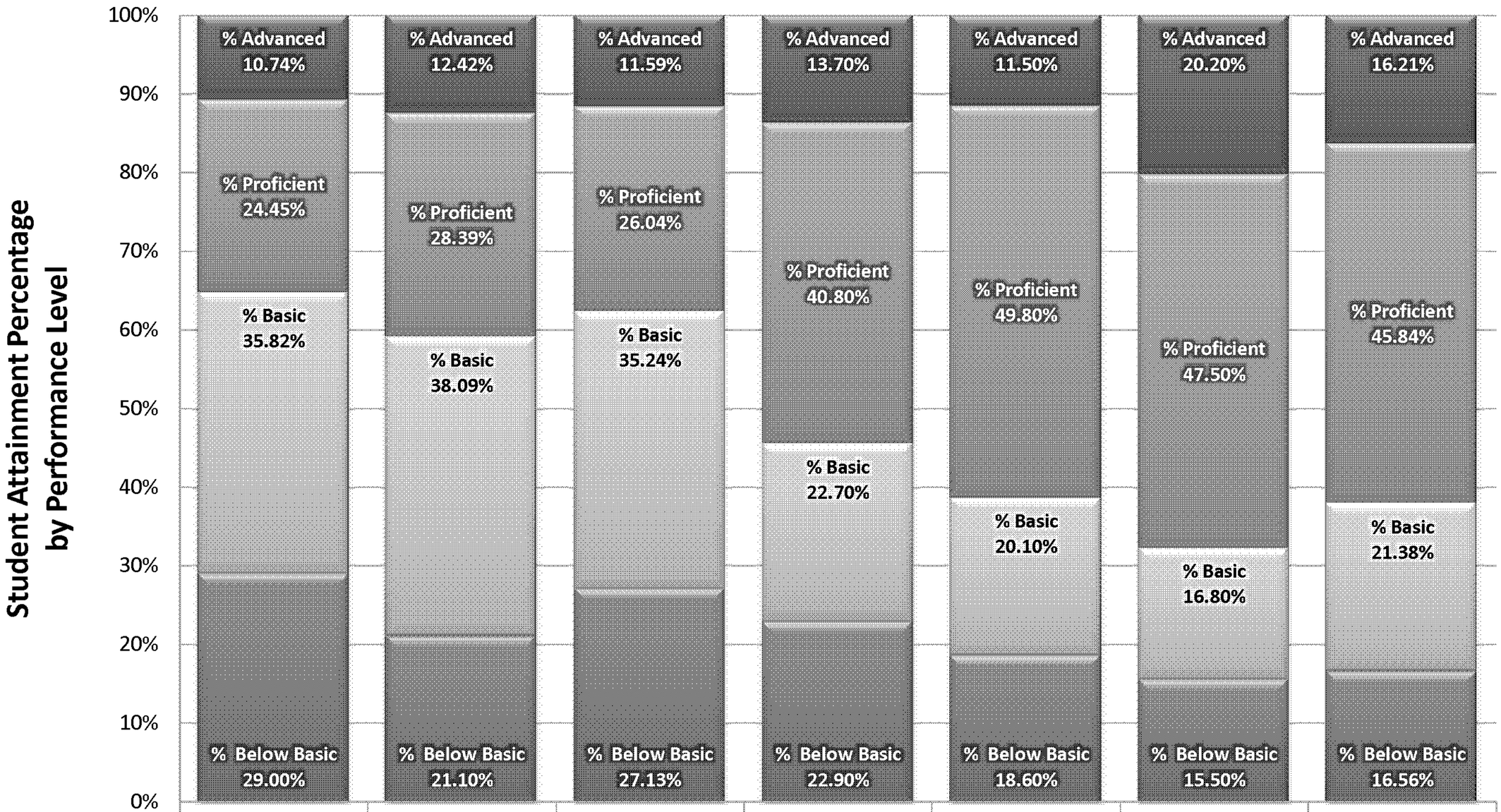


	2005-06	2006-07	2007-08	2008-09
% Advanced	19.10%	21.10%	26.40%	26.08%
% Proficient	52.60%	59.60%	51.80%	51.17%
% Basic	16.00%	13.40%	13.50%	14.98%
% Below Basic	12.30%	5.90%	8.30%	7.79%



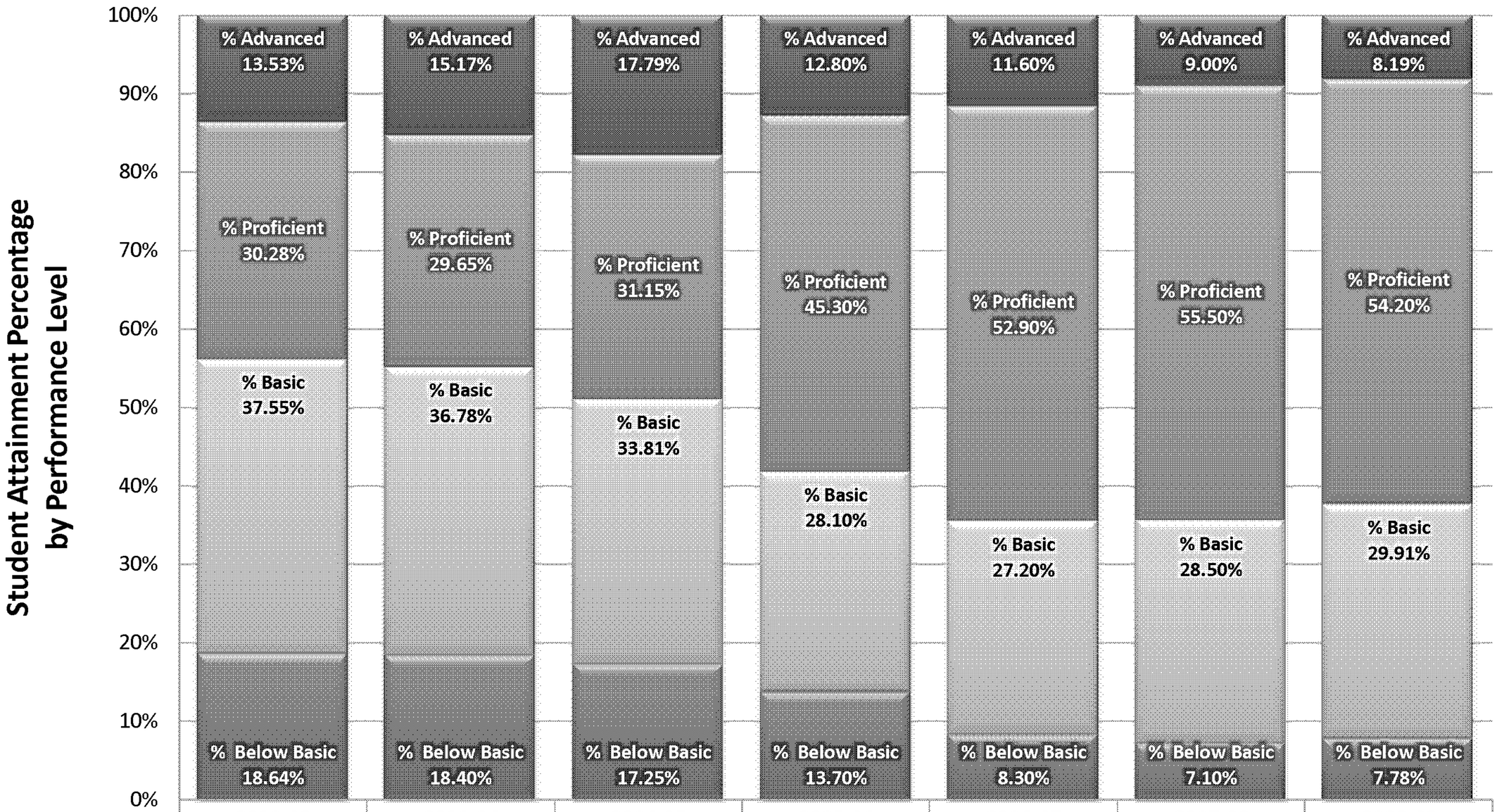
	2005-06	2006-07	2007-08	2008-09
% Advanced	15.90%	15.20%	23.00%	19.99%
% Proficient	44.70%	56.20%	49.20%	52.53%
% Basic	21.50%	19.60%	17.10%	17.22%
% Below Basic	17.90%	9.00%	10.70%	10.27%

PAWS and WYCAS (2002-03 to 2004-05) - Math
8th Grade - All Students - Historical Trend

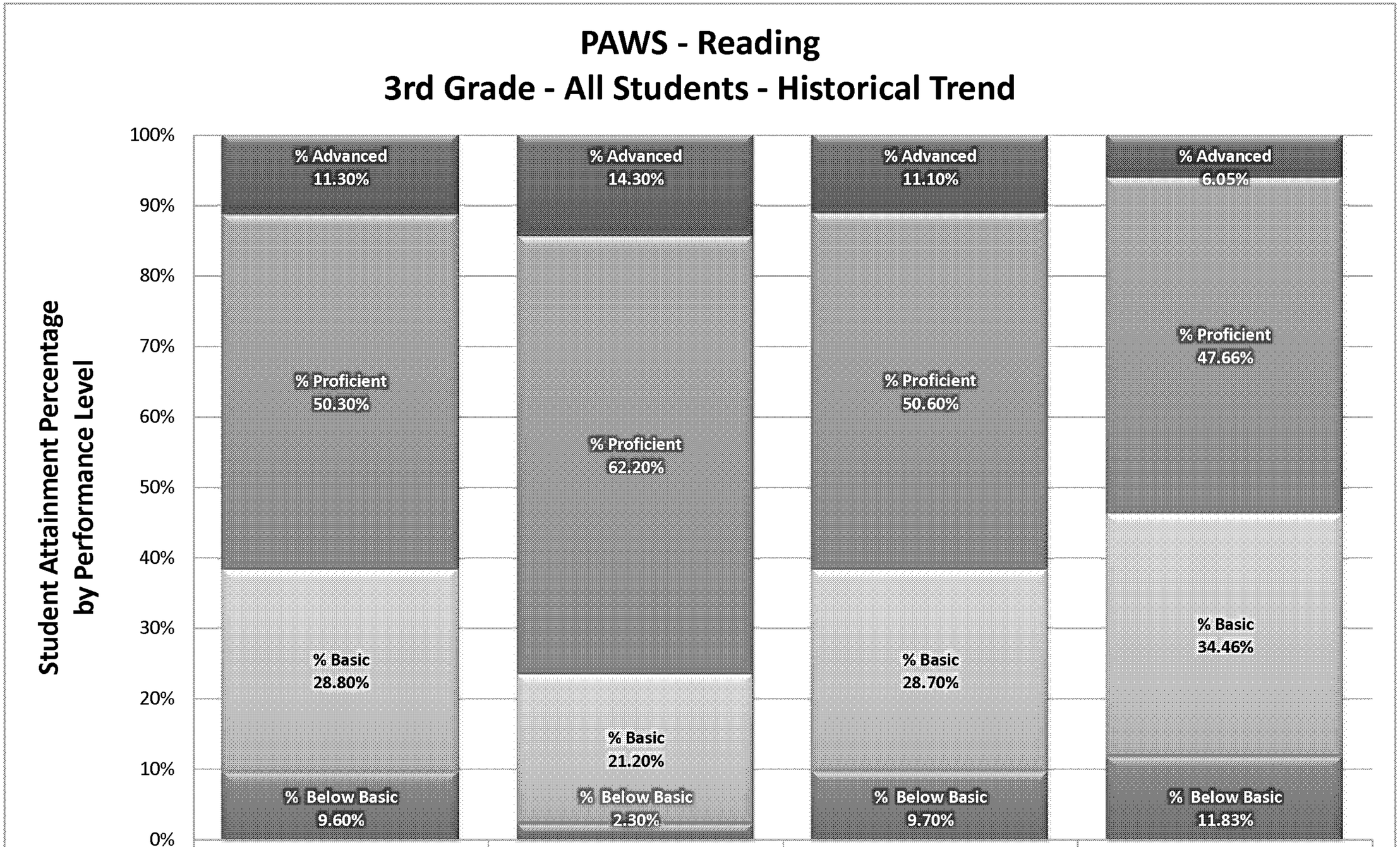


	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
% Advanced	10.74%	12.42%	11.59%	13.70%	11.50%	20.20%	16.21%
% Proficient	24.45%	28.39%	26.04%	40.80%	49.80%	47.50%	45.84%
% Basic	35.82%	38.09%	35.24%	22.70%	20.10%	16.80%	21.38%
% Below Basic	29.00%	21.10%	27.13%	22.90%	18.60%	15.50%	16.56%

PAWS and WYCAS (2002-03 to 2004-05) - Math
11th Grade - All Students - Historical Trend

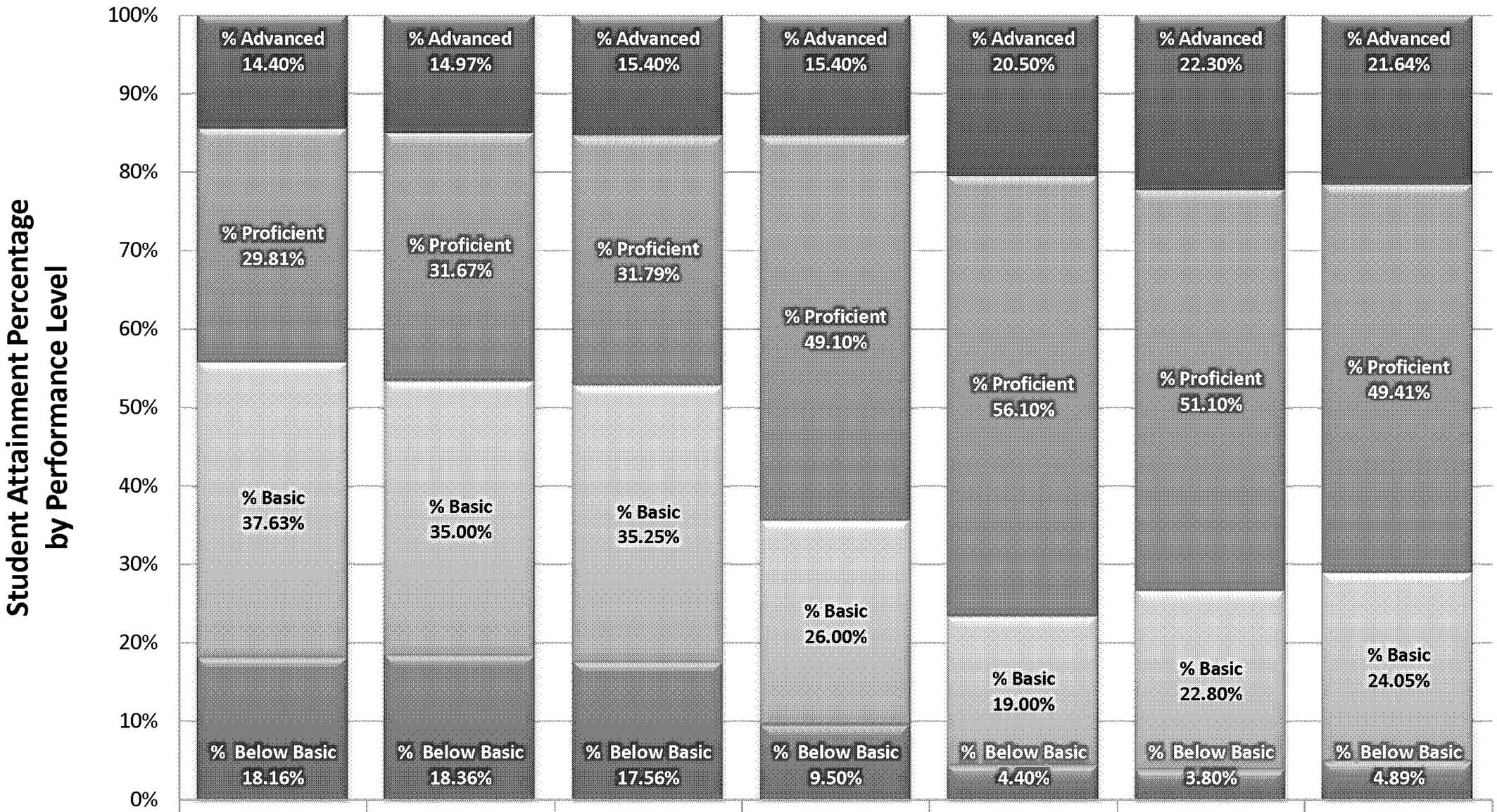


	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
% Advanced	13.53%	15.17%	17.79%	12.80%	11.60%	9.00%	8.19%
% Proficient	30.28%	29.65%	31.15%	45.30%	52.90%	55.50%	54.20%
% Basic	37.55%	36.78%	33.81%	28.10%	27.20%	28.50%	29.91%
% Below Basic	18.64%	18.40%	17.25%	13.70%	8.30%	7.10%	7.78%

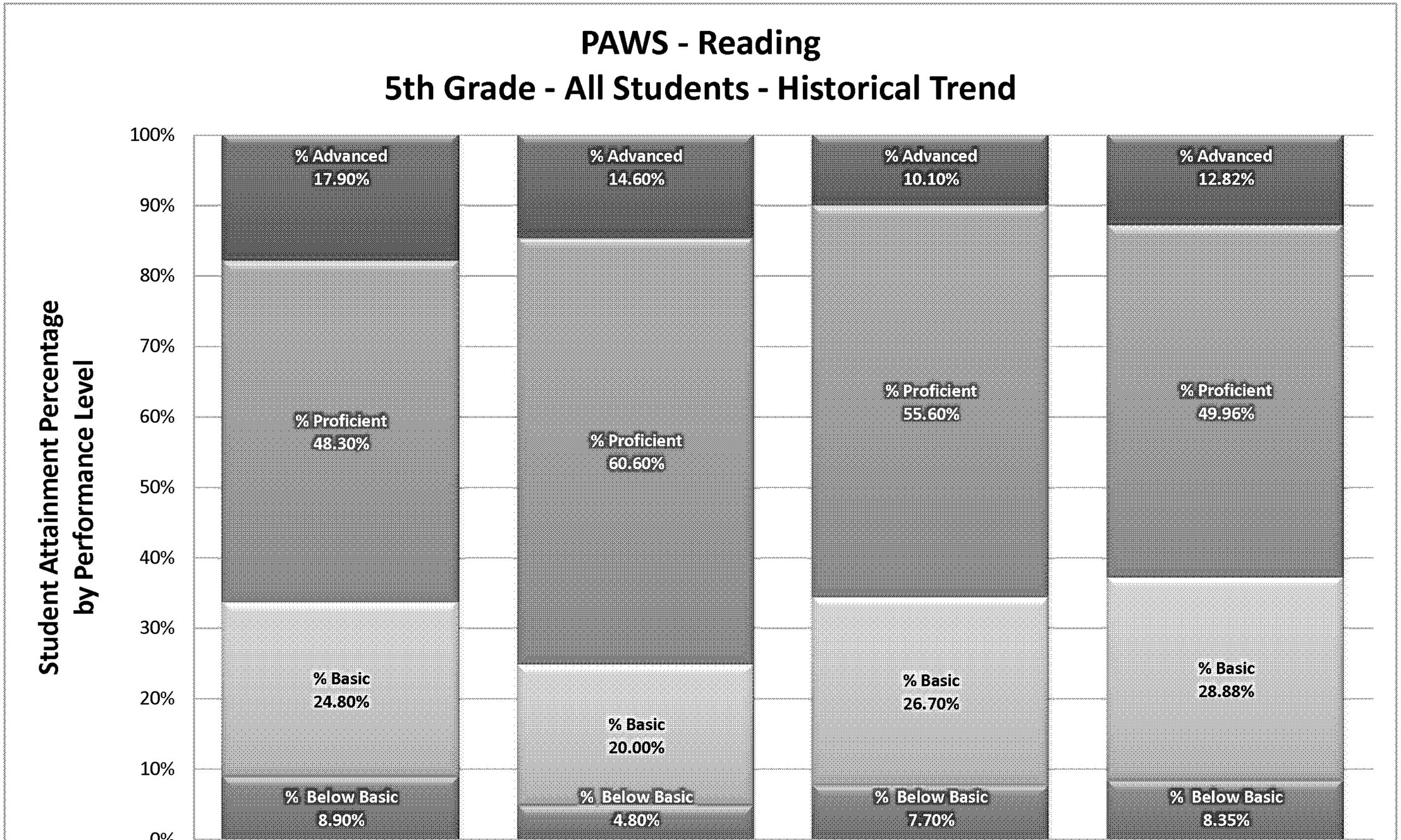


	2005-06	2006-07	2007-08	2008-09
% Advanced	11.30%	14.30%	11.10%	6.05%
% Proficient	50.30%	62.20%	50.60%	47.66%
% Basic	28.80%	21.20%	28.70%	34.46%
% Below Basic	9.60%	2.30%	9.70%	11.83%

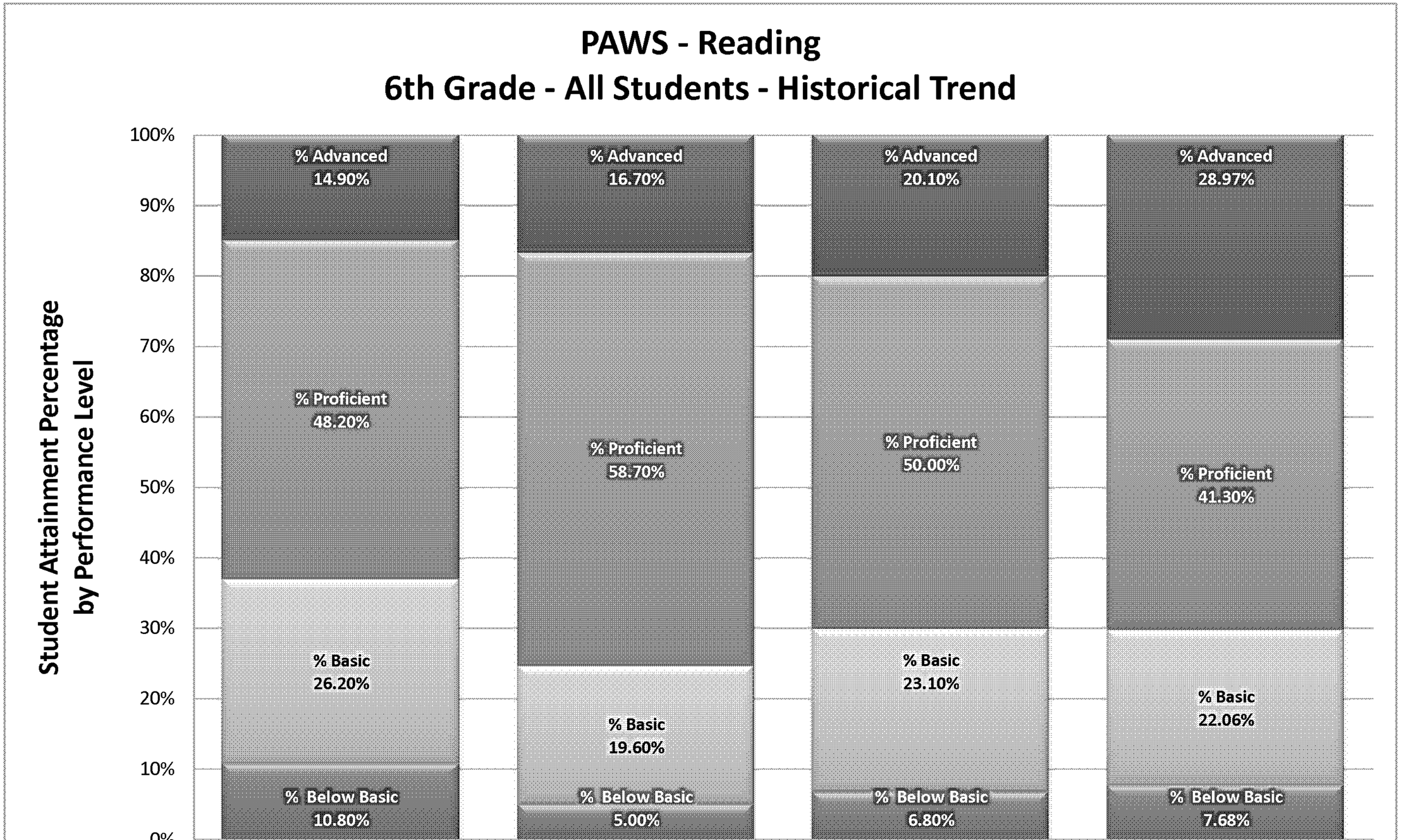
PAWS and WYCAS (2002-03 to 2004-05) - Reading
4th Grade - All Students - Historical Trend



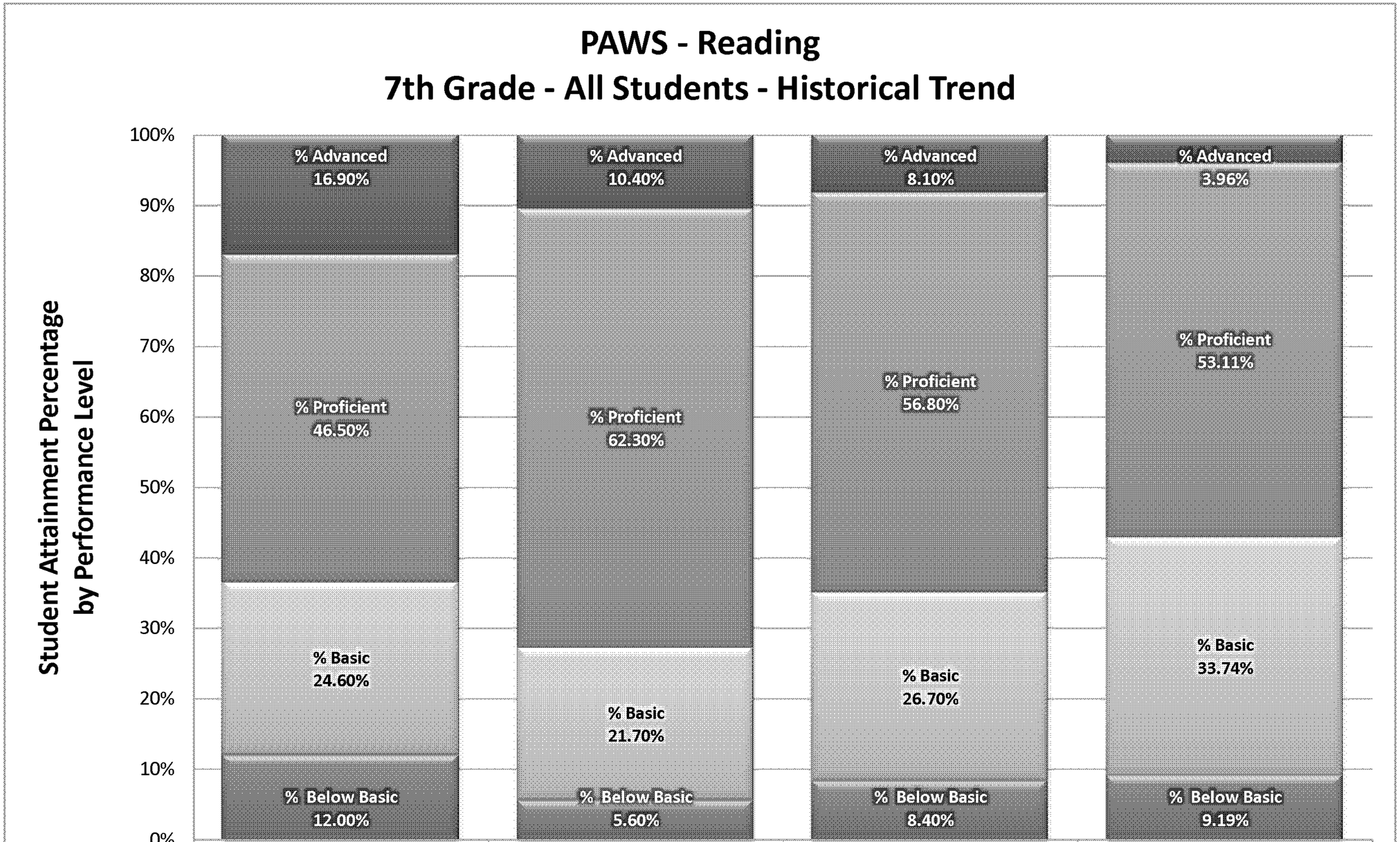
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
% Advanced	14.40%	14.97%	15.40%	15.40%	20.50%	22.30%	21.64%
% Proficient	29.81%	31.67%	31.79%	49.10%	56.10%	51.10%	49.41%
% Basic	37.63%	35.00%	35.25%	26.00%	19.00%	22.80%	24.05%
% Below Basic	18.16%	18.36%	17.56%	9.50%	4.40%	3.80%	4.89%



	2005-06	2006-07	2007-08	2008-09
% Advanced	17.90%	14.60%	10.10%	12.82%
% Proficient	48.30%	60.60%	55.60%	49.96%
% Basic	24.80%	20.00%	26.70%	28.88%
% Below Basic	8.90%	4.80%	7.70%	8.35%

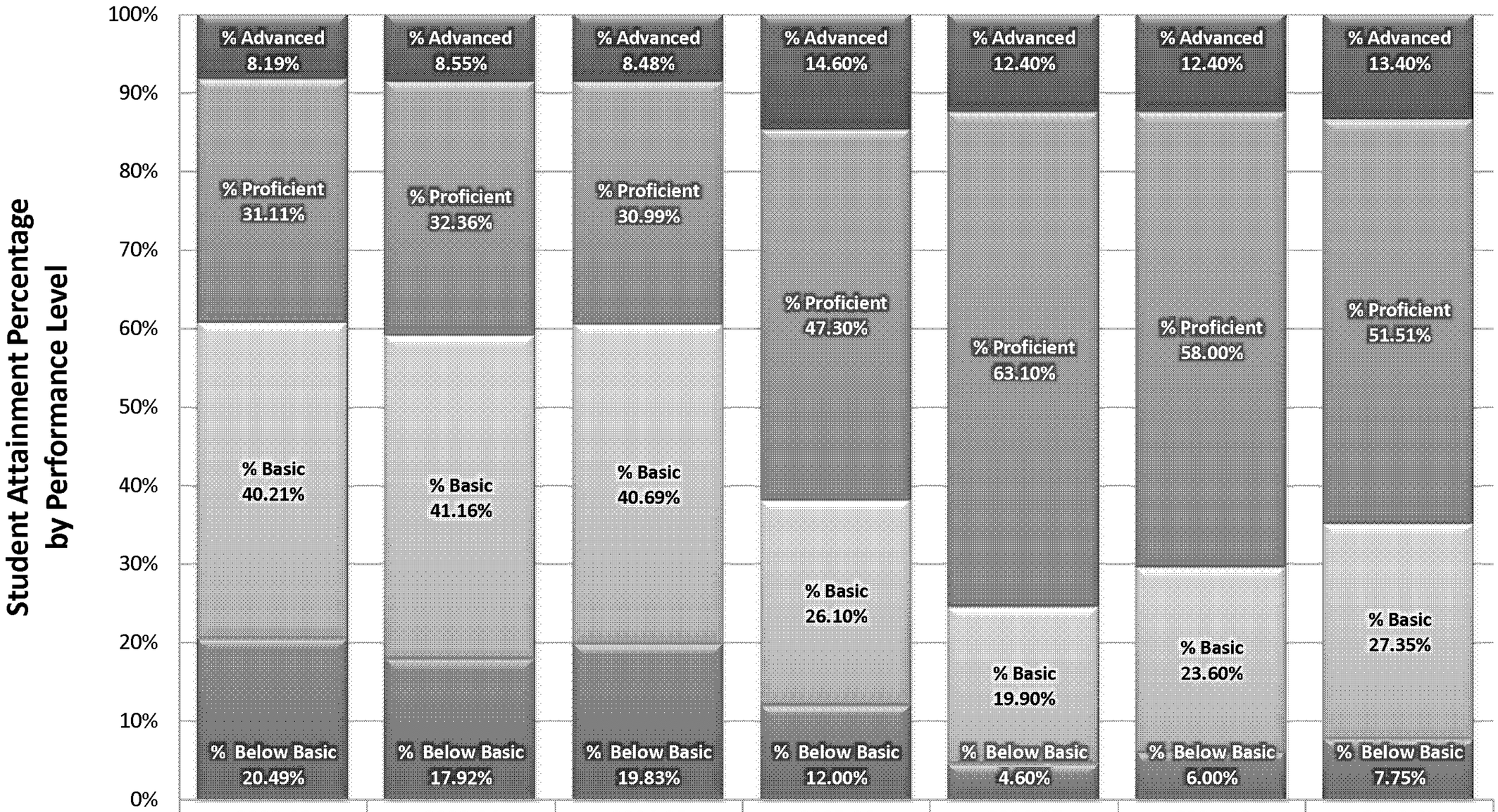


	2005-06	2006-07	2007-08	2008-09
% Advanced	14.90%	16.70%	20.10%	28.97%
% Proficient	48.20%	58.70%	50.00%	41.30%
% Basic	26.20%	19.60%	23.10%	22.06%
% Below Basic	10.80%	5.00%	6.80%	7.68%

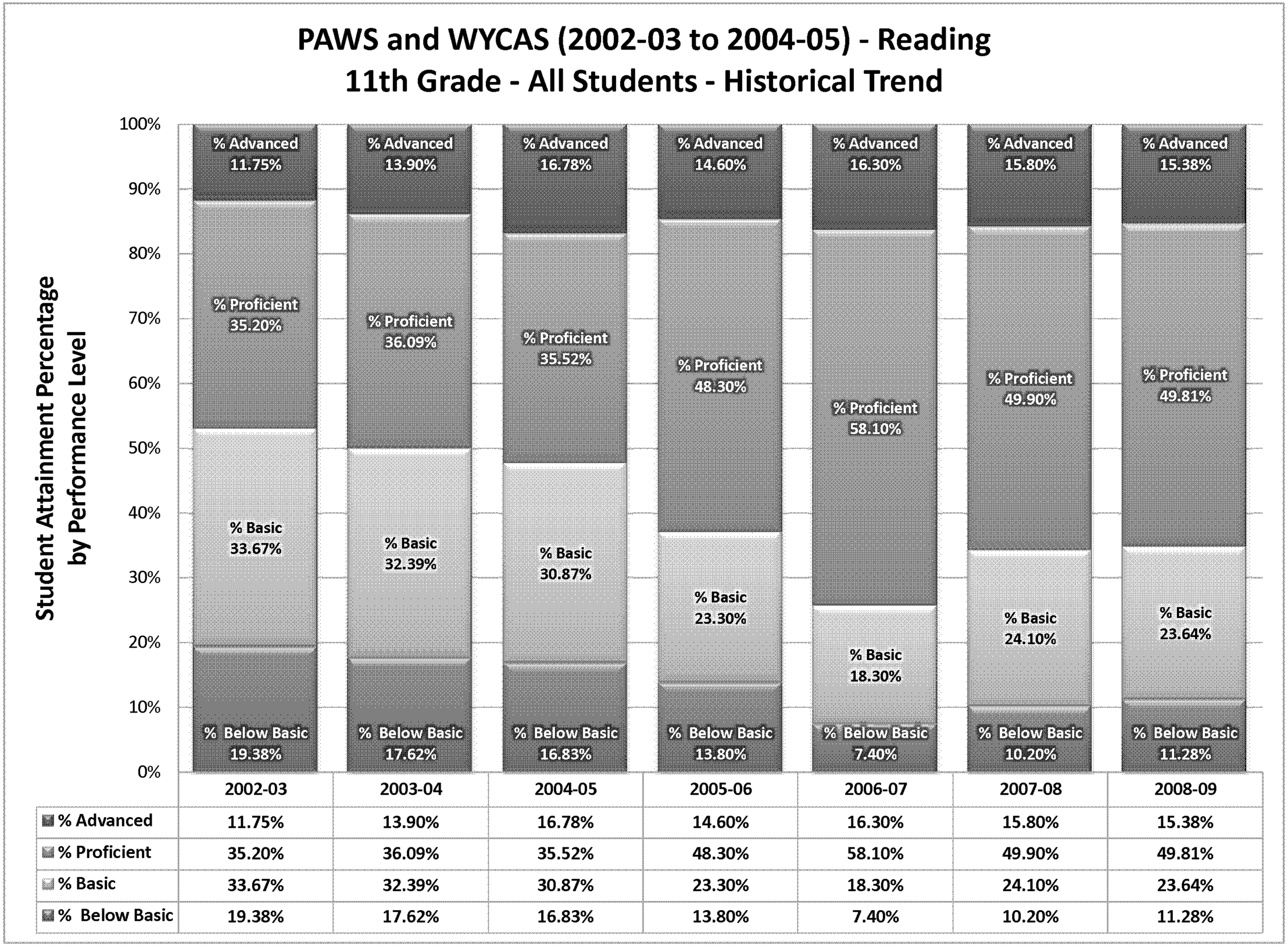


	2005-06	2006-07	2007-08	2008-09
% Advanced	16.90%	10.40%	8.10%	3.96%
% Proficient	46.50%	62.30%	56.80%	53.11%
% Basic	24.60%	21.70%	26.70%	33.74%
% Below Basic	12.00%	5.60%	8.40%	9.19%

PAWS and WYCAS (2002-03 to 2004-05) - Reading
8th Grade - All Students - Historical Trend



	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
% Advanced	8.19%	8.55%	8.48%	14.60%	12.40%	12.40%	13.40%
% Proficient	31.11%	32.36%	30.99%	47.30%	63.10%	58.00%	51.51%
% Basic	40.21%	41.16%	40.69%	26.10%	19.90%	23.60%	27.35%
% Below Basic	20.49%	17.92%	19.83%	12.00%	4.60%	6.00%	7.75%



	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
% Advanced	11.75%	13.90%	16.78%	14.60%	16.30%	15.80%	15.38%
% Proficient	35.20%	36.09%	35.52%	48.30%	58.10%	49.90%	49.81%
% Basic	33.67%	32.39%	30.87%	23.30%	18.30%	24.10%	23.64%
% Below Basic	19.38%	17.62%	16.83%	13.80%	7.40%	10.20%	11.28%

RTTT - (A)(1)(iii)(d) - Data and Goals

NAEP, ESEA, PAWS and Hathaway Results

Hathaway Cohort/Initiation Year	Number of High School Graduates who Initiated Hathaway within 16 Months of Graduating	Number of Hathaway Students who Earn at Least 24 Credits Within 2 yrs	Percent of Hathaway Students who Earn at Least 24 Credits Within 2 yrs
2006-07	1,800	1,337	74.3%
2007-08	2,075	1,658	79.9%
2008-09	2,172	1,770	81.5%
2009-10	2,259	1,875	83.0%
2010-11	2,349	1,985	84.5%
2011-12	2,443	2,101	86.0%
2012-13	2,541	2,223	87.5%
2013-14	2,643	2,352	89.0%

Notes regarding data:

These data reflect the Hathaway Scholarship Program (HSP) students only (see Narrative).

Data for total college enrollment (as defined in the RTTT application) and persistence (earning 24 credits within 2 years) is not available from the Wyoming IHEs at the time of application. However, the State is using HSP data (which is a significant subset of total college enrollment) to illustrate established goals for program enrollment and persistence.

Data in red indicate goals.

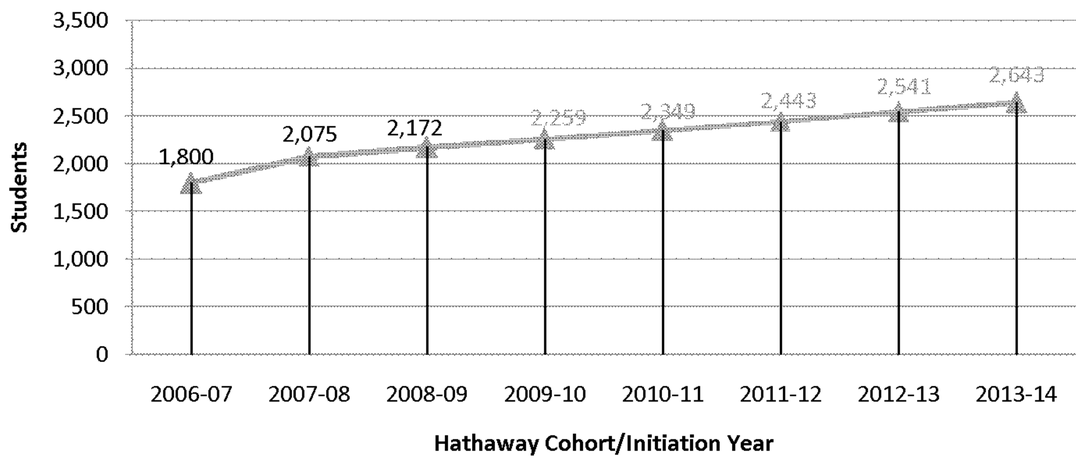
Goal 1:

Increase enrollment in the Hathaway Scholarship Program by 4% each year to reach an HSP enrollment count of 2,600 high school graduates by the 2013-114 school year.

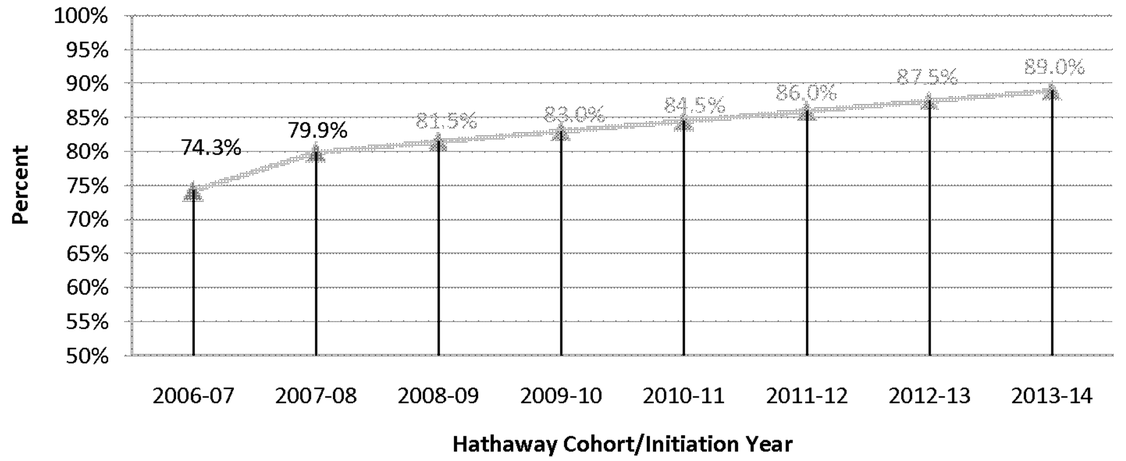
Goal 2:

Increase the rate of students earning at leat 24 credits within 2 years of enrollment by 1.5% for each successive cohort, resulting in a rate of 89% for the 2013-14 cohort.

Number of High School Graduates who Initiate Hathaway within 16 Months of Graduating

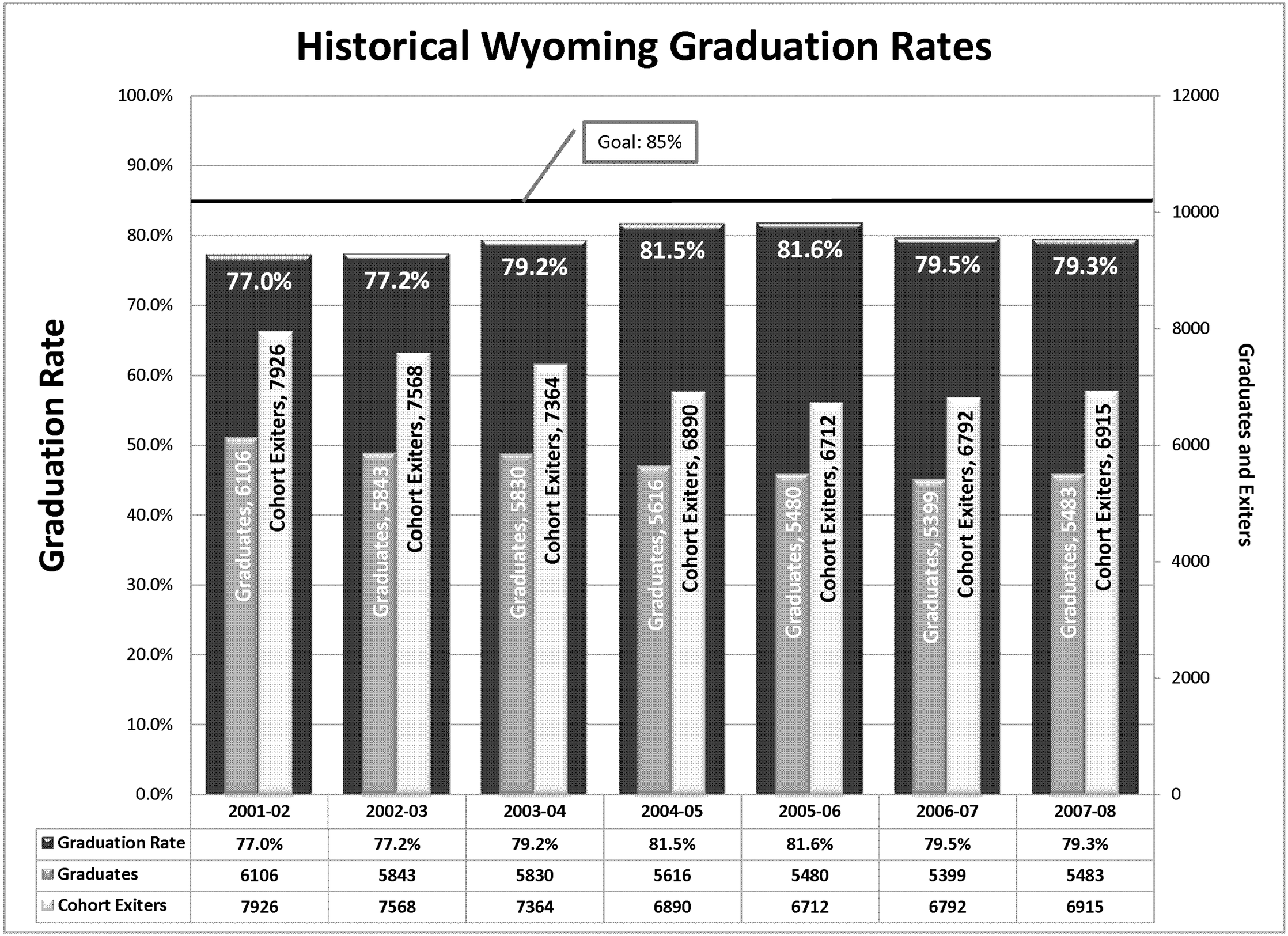


Percent of Hathaway Students who Earn at Least 24 Credits Within 2 yrs



Wyoming's Tribal Children's Triad Member List

Wyoming Tribal Children's Triad Member List					
Name	**Organization**	**Address**	**City, State and Zip**	**Phone**	**Email**
Barney Laycock	Fremont County School District # 38	445 Little Wind River Bottom Road	Arapahoe, WY 82510	307-856-9333	blacock@fremont38.k12.wy.us
Rick Lindblad	Fremont County School #38				Rlindblad@fremont38.k12.wy.us
Belle Ferris	Arapaho Tribe	PO Box 708	Fort Washakie, WY 82514-0708	307-332-6120	bferris@northernarapaho.com
Ed Miller	Courts			307-332-7094	emiller@wyoming.com
Ed Wadda	Shoshone Tribe/Unity			307-631-2298 cell 307-349-3574 home	ewadda@wyoming.com
Gary Collins	Arapaho Tribe			307-851-5964	redcloud@wyoming.com
Gregory Cox	Fremont County School District #21	90 Ethete Road	Washakie, WY 82514	307-332-5983	gcox@fremont21.k12.wy.us
Harvey Spoonhunter	Chairman, Arapaho Tribe			307-438-2118	
John St Clair	Courts			307-332-7094	sa_tribalcourt@yahoo.com
Kathy Dresser	Legal Council, Arapaho Tribe			307-332-9311	
Keja Whiteman	St Stephen's Indian School Board			307-851-2274	whiteman@wyoming.com
Louis Headley	St Stephen's Indian School	128 Mission Road	St. Stephens, WY 82524	307-856-4147	lheadley@wyoming.com
Merle Haas	Sky People			307-332-5286	director@skypeopleed.org
Michele Hoffman	Fremont County School District #14	638 Blue Sky Highway	Ethete, WY 82520	307-332-3904	michelleh@fremont14.k12.wy.us
Patricia Bergie	Shoshone Tribe			307-349-2497	pbergie@washakie.net
Patrick Goggles	WY State Representatives/NA Housing	505 Blue Sky Highway	Ethete, WY 82510	307-332-6443	pgoggles@wyoming.com
Vivian Swallow	Indian Health Service			307-332-7300	vivian.swallow@ihs.gov
Richard Brannon	Health			307-332-7300	richard.brannan@ihs.gov
Richard Ferris	Courts			307-332-7094	
Scotty Ratliff	Enzi's representation			307-851-5678	sratliff@wyoming.com
Sergio Maldonado	St Stephen's Indian School Board	Box 271	Ethete, WY 82520	307-855-2285 307-349-8264 cell	smaldonado@cwc.edu
Joe Brooks	BIA-Chief			307-332-3112	
Deb Smith	WDE	320 West Main	Riverton, WY 82501		dsmith@educ.state.wy.us
Gerry Maas	WDE	2020 Grand Avenue, Suite 500	Laramie, WY 82070	307-777-3691	gmaas@educ.state.wy.us
Joy Mockelmann	WDE	2300 Capitol Avenue, 2nd Fl.	Cheyenne, WY 82002	307-777-8712	jmocke@educ.state.wy.us
Joe Simpson	WDE	2300 Capitol Avenue, 2nd Fl.	Cheyenne, WY 82002	307-777-7674	deputysupt@educ.state.wy.us
David Holbrook	WDE	2300 Capitol Avenue, 2nd Fl.	Cheyenne, WY 82002	307-777-6260	dholbr@educ.state.wy.us
Alfred Redman	Northern Arapaho Education			307-332-5286	AlfredPRedman@yahoo.com
Tania Baker	Eastern Shoshone Education			307-335-2077	windrivertld@yahoo.com
Roma Jimerson	Tribal Prosecutors Office			307-856-9404	saprosecutor@yahoo.com
Carol Justice	Tribal Prosecutors Office			307-856-9404	wyjustice@msn.com
Donna Trosper	Wind River Tribal Youth Program	PO Box 386	Fort Washakie, WY 82514	307-332-5050	dltrosper@hotmail.com
John Whitefeather	Wind River Tribal Youth Program				windrivertruancy@yahoo.com
Larry McAdams	Eastern Shoshone DFS			307-332-6591	lmcada@state.wy.us
Chris Tafoya	Eastern Shoshone DFS				ctafoya@wyoming.com
Aline Kitchen	Northern Arapaho DFS			307-857-5728	
Susan CrazyThunder	Northern Arapaho DFS			307-857-5728	scrazy@state.wy.us
Chuck Kratz	Fremont County Youth Services			307-332-1085	ckratz@wyoming.com
Leslie Shakepeare	juvenile probation			307-349-8788	lshake@state.wy.us
Kathleen Adee	NEA			307-921-8284	Kadee@nea.org
Paige Fenton Hughes	Fremont District 1				PFHughes@landerschools.org
Rebecca Alexander	Fremont County Detention/ District 1				ralexander@landerschools.org
Lisa McCart	Fremont District 1			307-349-1056	lmccart@fre1.k12.wy.us
Joseph Henry	Headstart			307-332-7163	josephh@tribcsp.com
Jim Sutter	N Arapaho TANF			307-857-2436	jsutte@wyoming.com
Patty Lincoln	E Shoshone TANF			307-332-6591	pflincoln@eshoshone.com
Ron Hutchinson	Sunrise School				ronh@sunriseschool.us
Craig Beck	Fremont County School District #25	121 North 5th Street West	Riverton, WY 82501	307-856-9407	cbeck@fremont25.k12.wy.us
Diana Clapp	Fremont County School District #6	PO BOX 10	Pavillion, WY 82523-0010	307-856-7970	dianac@fre6.k12.wy.us
Tammy Cox	Fremont County School District #24	112 West 3rd St	Shoshoni, WY 82649	307-876-2583	tcox@fremont24.com
Sunny Goggles	Tribal Drug Court			307-335-8374	sgoggles@wyoming.com



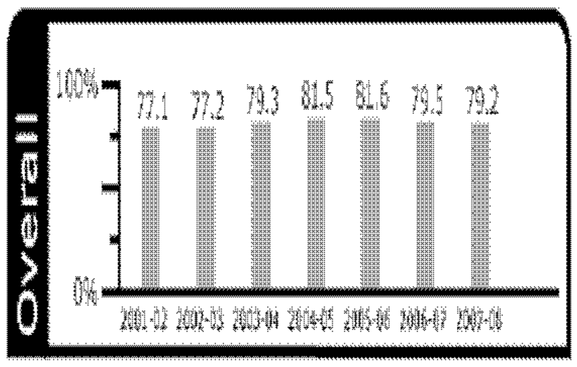
	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
Graduation Rate	77.0%	77.2%	79.2%	81.5%	81.6%	79.5%	79.3%
Graduates	6106	5843	5830	5616	5480	5399	5483
Cohort Exiters	7926	7568	7364	6890	6712	6792	6915

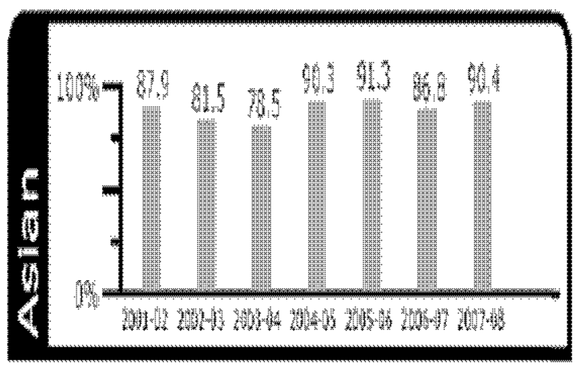
State of Wyoming

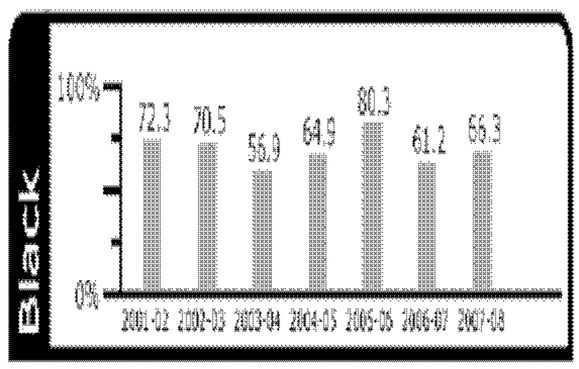
2008-09 School Year

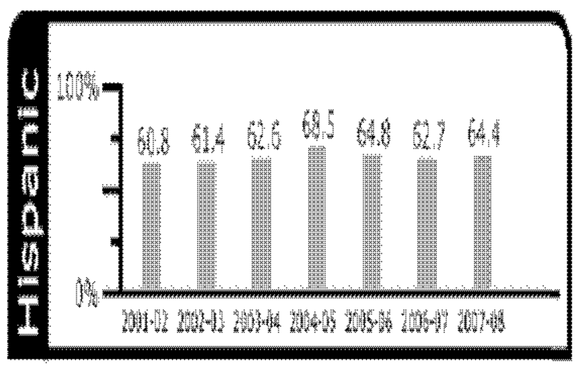
for more information
www.k12.wy.us

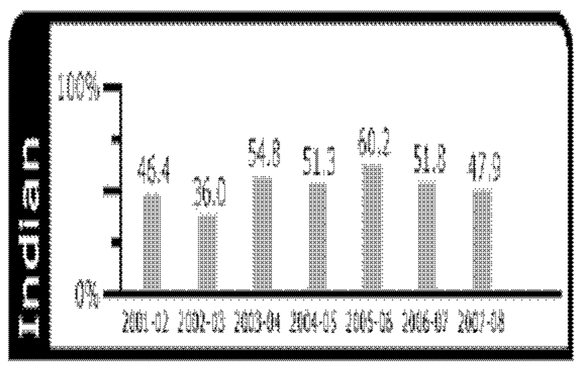
Graduation Rates Trend Report

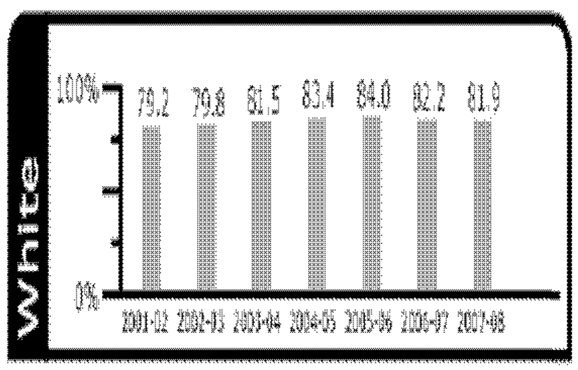


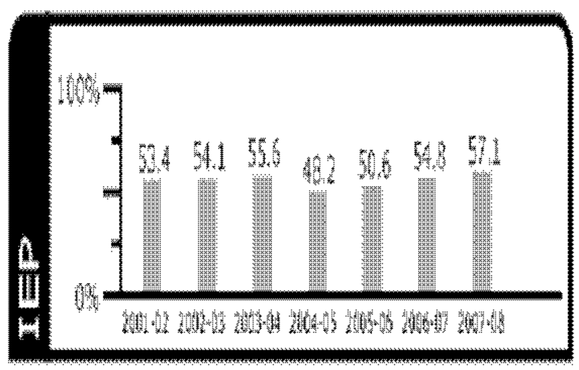


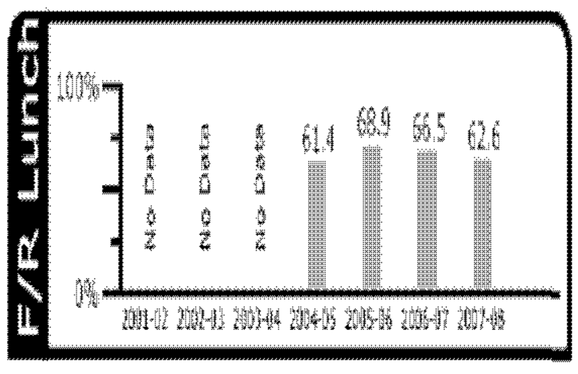


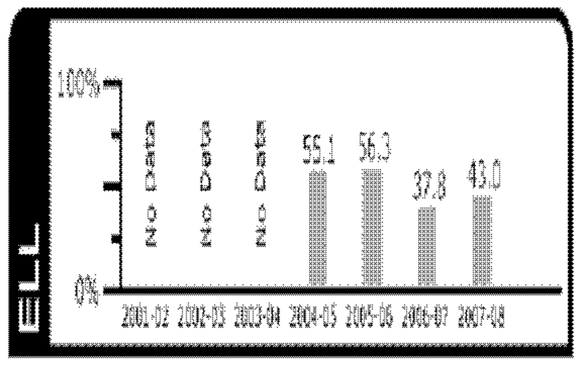












5 and fewer students
No statistical data

This graduation rate is an "Exit Rate." It is based on a pseudo-cohort assuming 1999-2000 graduates were 9th graders in 1996-97. The "exiters" for this cohort graduating in 1999-00 is the sum of:

1999-00 completers (graduates and other completers)
1999-00 12th grade drop-outs
1998-99 11th grade drop-outs
1997-98 10th grade drop-outs
1996-97 9th grade drop-outs

These are the students who "exited" elementary-secondary education. The rate is "what percent of those were graduates?"

Created - 06-Jan-2010

Wyoming's K-12 Graduation Rate

Post-October 2008 Federal Graduation Rate Requirements:

In October of 2008, the U.S. Department of Education (USDE) announced final regulations establishing a uniform and more accurate way of calculating high school graduation rates that will be comparable across states. In December of 2008, the USDE then released detailed guidance for implementation of the uniform graduation rate across the nation: *http://www.ed.gov/policy/elsec/guid/hsgrguidance.pdf.*

Beginning with the calculation of 2009-10 graduation rates, Wyoming will transition into calculation of rates utilizing the formula presented in this federal guidance document (example formula is for the 2011-12 school year):

$$\text{Four-year adjusted cohort graduation rate} = \frac{\text{Number of cohort members who earned a regular high school diploma by the end of the 2011- 2012 school year}}{\text{Number of first-time 9th graders in fall 2008 (starting cohort) plus students who transfer in, minus students who transfer out, emigrate, or die during school years 2008-2009, 2009-2010, 2010-2011, and 2011-2012}}$$

Pre-October 2008 Federal Graduation Rate Requirements:

Prior to implementation of new federal regulations announced in October 2008, Wyoming's graduation rate was an "Exit Rate." 2008-09 (and earlier) graduation rate calculation is based on a pseudo-cohort assuming 2008-09 graduates were 9th graders in 2005-06. The "exiters" for this cohort graduating in 2008-09 is the sum of:

- 2008-09 Graduates (receive a regular, standard, diploma)
- 2008-09 Other Completers (receive a certificate of attendance or other non-standard completion designation)
- 2008-09 12th grade drop-outs
- 2007-08 11th grade drop-outs
- 2006-07 10th grade drop-outs
- 2005-06 9th grade drop-outs

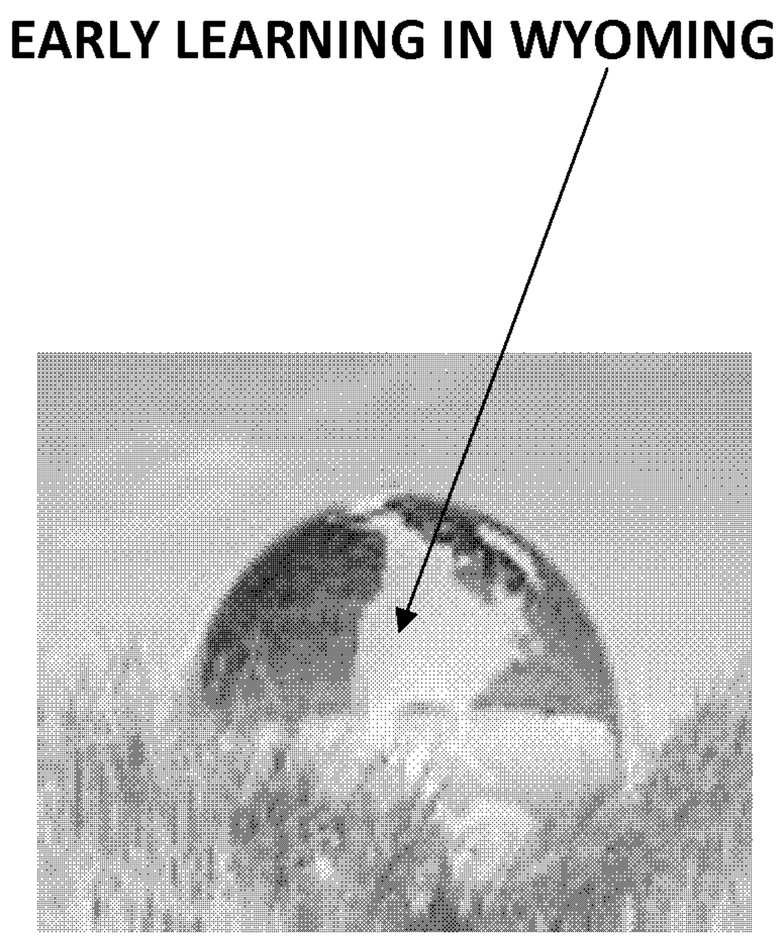
These are the students who "exited" elementary-secondary education. The rate is "what percent of those were graduates?"

Students who transfer out of a school (verified transfer to another school) are not included in the graduation rate calculation for the school. Students who transfer into a school are included in the graduation rate calculation for the school as either a graduate, other completer, or dropout.

$$\text{GRADUATION RATE [2008-09]} = \frac{\text{Graduates [2008-09]}}{\underbrace{\text{Graduates [2008-09]} + \text{Other Completers [2008-09]}}_{\text{Completers}} + \underbrace{\text{12th Grade Dropouts [2008-09]} + \text{11th Grade Dropouts [2007-08]} + \text{10th Grade Dropouts [2006-07]} + \text{9th Grade Dropouts [2005-06]}}_{\text{Cohort Dropouts}}}$$

$$\text{Exiters} = \text{Completers} + \text{Cohort Dropouts}$$

Early Learning Plan, Sullivan



Recommendations for Action

in 2010 and Beyond

Wyoming Department of Education

Draft #2, January 6, 2010

Early Learning Plan, Sullivan

Beginning with the System

What is Systems Thinking?

"Systems thinking is a vantage point from which you see a whole, a web of relationships, rather than focusing only on the detail of any particular piece. Events are seen in the larger context of a pattern that is unfolding over time." *isee Systems*

"Systems thinking is a discipline for seeing wholes. It is a framework for seeing interrelationships rather than things, for seeing patterns of change rather than static "snapshots."
Peter Senge

Understanding the Whole Rather than The Parts

In order to determine what creates an early childhood system requires an understanding of Systems Thinking. Systems Thinking is a theoretical framework that came from the work of Peter Senge. Senge was influenced by how the sciences were looking at chaos and self-organization of systems. The Fifth Discipline, The Art and Practice of the Learning Organization, Senge, (Doubleday: 1990).

Although rooted in business, the model was adopted for education and schools when business leaders and school leaders saw the interconnections in their work. Whether or not a systems model is adopted by organizations, the influence of systems' self-organization still exists. **Organizations and human beings self- organize around internal and external influences.**

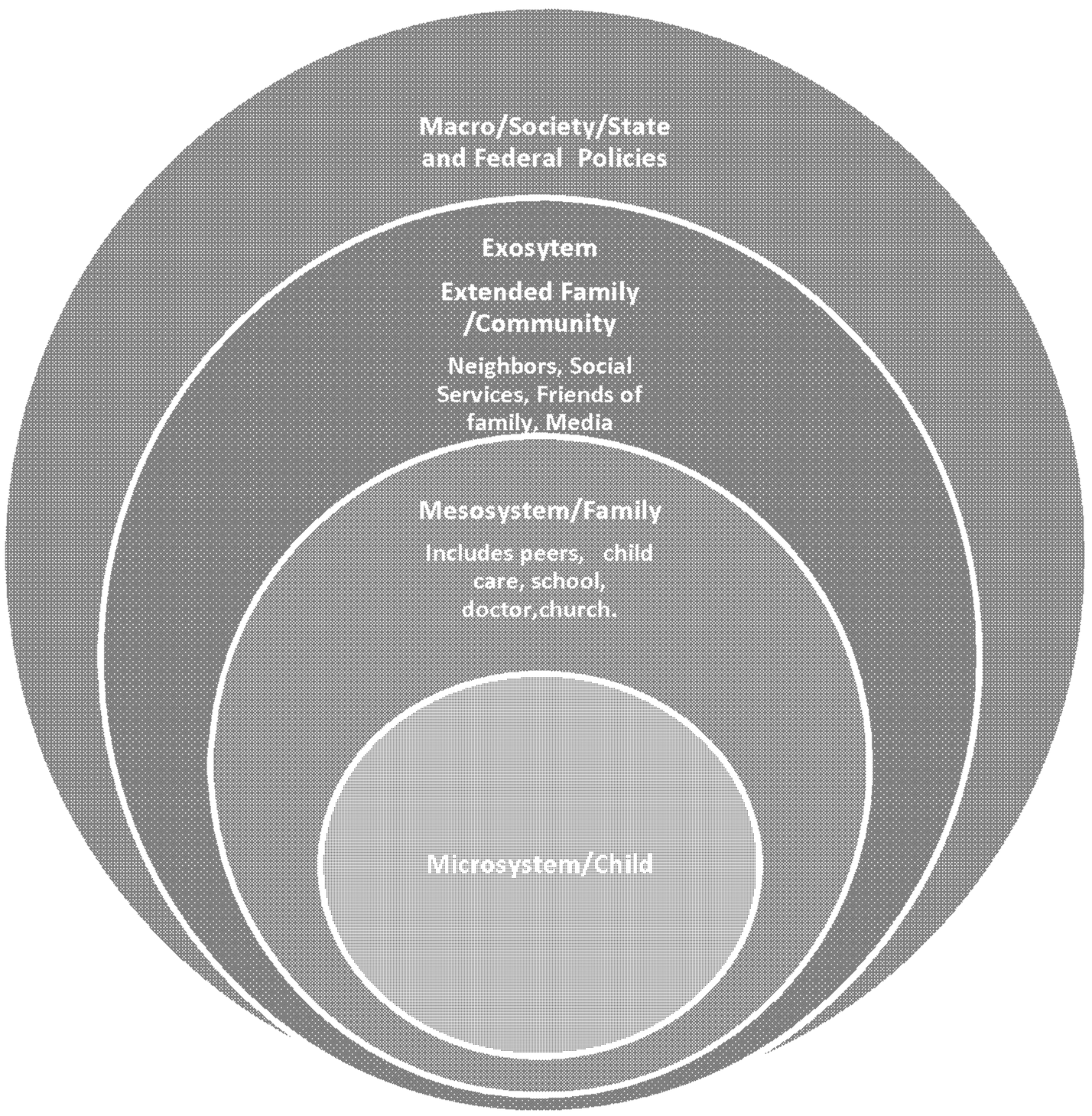
Urie Bronfenbrenner, noted researcher and theorist in early learning, took the systems model a step further in defining how we can impact children and families by creating an **ecological model and demonstrating how these internal and external influences are linked.**

Systems are interdependent and complex. Change in one part of a system influences the actions of another part of the system. However, because in early childhood, the system lacks this interconnectedness and leaders lack the knowledge to

take charge and anticipate patterns and trends through knowledge management, the system functions with the same solutions to the wrong problems. It is a guessing game of what works based on opinion and ideology rather than research and evidence.

We are unable to address the inefficiency and ineffectiveness of the system. Therefore we continue to spend money on grant and funding driven solutions that isolate and simplify our efforts. Sadly, they have little impact on children's and families' well-being or improved outcomes.

Urie Bronfenbrenner's Ecological Model



Wyoming's Context

While many people have grasped that a system is based on components that work together, they have not adopted the knowledge necessary to create the change needed for **systems synergy**. They have no influence on the system because they continue the same patterns of behavior that no longer have an impact. Similar to the story of the frog that is dropped in a pot of water that gradually heats up, the frog remains until it dies from being stewed, unaware of the changes occurring that lead to its demise. Whether

we want change to occur, it is happening all the time. How we respond either allows us to jump out of the hot pot, or keeps us immobilized.

In particular, recent economic conditions are an example of how change that occurs in any part of the world's system, ripples through the global economy affecting all interconnected systems. In early childhood, we continue to operate as if we are disconnected from each other and the evidence before us that our efforts are not working. Our boiling point is evidenced by a **lack of response to the changing needs of children and families because we have not changed our process of working toward solutions.**

Early Learning Plan, Sullivan

Department of Education Efforts

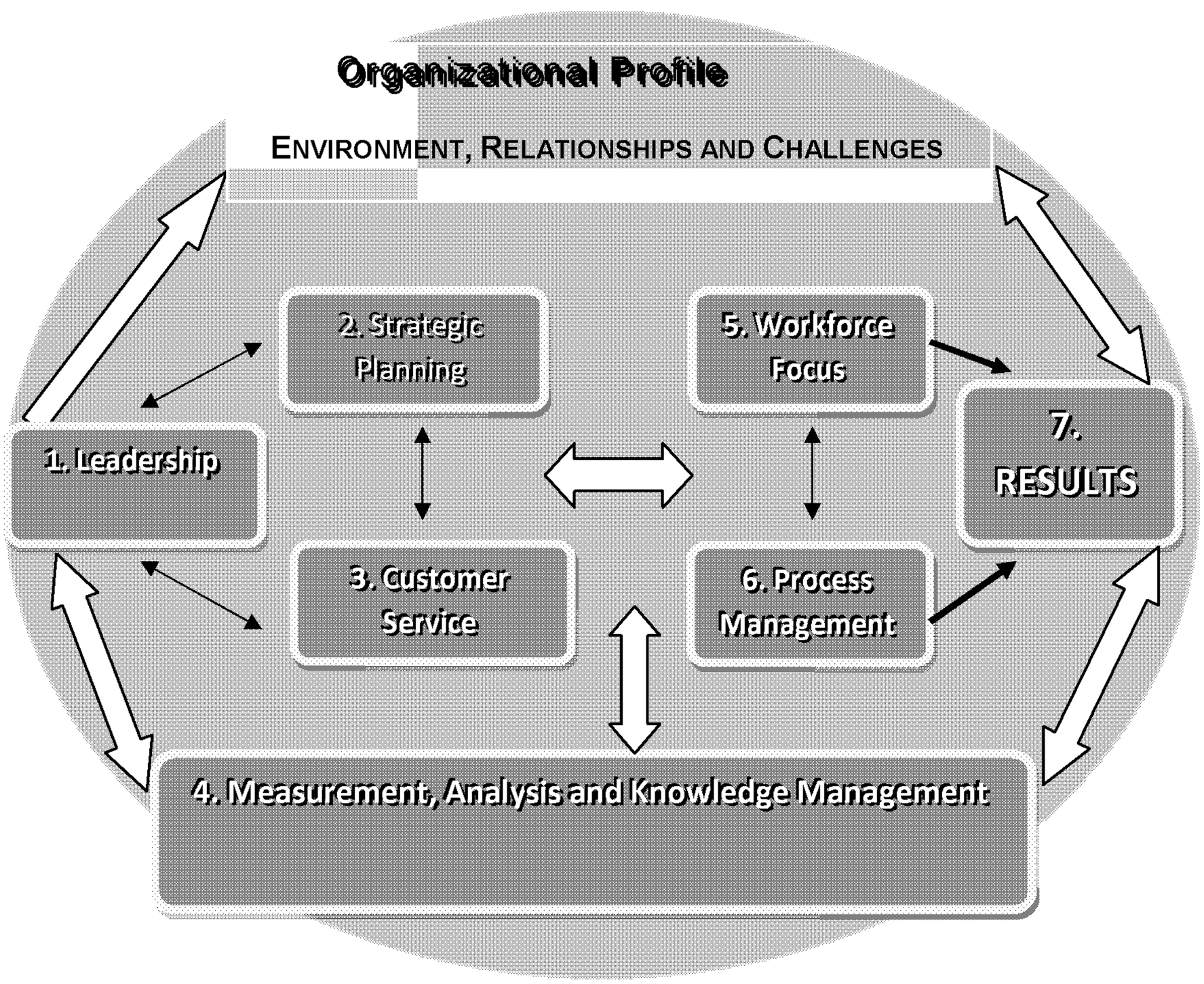
The Department of Education has taken the lead by adopting the Baldrige Systems Framework for Wyoming Education.

Early Learning Plan, Sullivan

The Malcolm Baldrige National Quality Award was created by Public Law 100-107, signed into law on August 20, 1987. The Award Program, responsive to the purposes of Public Law 100-107, led to the creation of a new public-private partnership. Principal support for the program comes from the Foundation for the Malcolm Baldrige National Quality Award, established in 1988. The Award is named for Malcolm Baldrige, who served as Secretary of Commerce from 1981 until his tragic death in a rodeo accident in 1987. His managerial excellence contributed to long-term improvement in efficiency and effectiveness of government. *http://www.baldrige.nist.gov/Improvement_Act.htm*

Baldrige is organized around a set of principles that guide organizations to restructure around best practices in organizational design and management.

Baldrige Criteria for Excellence



What This Means for Early Learning in Wyoming

Early Learning Plan, Sullivan

By implementing Baldrige, the efforts in early childhood not only have a systems framework that is research and theory- based, it is driven by a system intended to create **efficiency, effectiveness and excellence in government.** The Baldrige system moves individuals from working in isolation to working together as a team to redefine how they see their role and also their processes in working with others. It also works to increase knowledge across the system through data and knowledge management and shared responsibility for change in the system- **"work smarter, not harder".**

Most important, it recognizes that the **role of government is to respond to customer- driven requirements. Customer service is a central component in Baldrige and for creating a plan that works in Wyoming. Too often, agencies and programs respond to national efforts or adopt what works in other states with little attention to the Wyoming child and family as well as the uniqueness of local communities.** This customer focus will require a shift from looking at others for answers to finding out what our local leaders, practitioners and parents know and what they want from state government. Our recent WDE experiences with the Instructional Foundations for Kindergarten, Preschool Standards and Early Learning Guidelines, have shown us that **by taking the time to listen to providers and teachers with direct child and family experience results in a better match for our local systems efforts.** Our processes include respecting the knowledge and competence of the grassroots. It also means that collaboration between local communities and across state agencies is the most effective and efficient way to shift current practice to reflect what Wyoming families and practitioners support and understand. Interagency agreements at local and state levels can help define roles and responsibilities as well as delineate shared efforts. In this way, we will model the collaboration expected for all new funds at the federal level.

While we look at creating a well-run system for the future, we know that this requires knowledgeable participants. **Training in Baldrige as well as Systems Thinking will move us forward more quickly. There will also be a great need to look at the current research and bring the best minds together to ensure we are building on the future and not the past.** Collaboration with our higher education system as well as with those outside of the education system will bring groups together that have traditionally been outside of the decisions, but are affected by these decisions. Local government, business leaders, legislators, and foundations play a key role in the well-being of Wyoming families. Our ability to listen and share across various disciplines not only brings the best minds in Wyoming together but also allows us to think outside of the box and learn new practices. Coalition building in partnership with Kids First and the Governor's Advisory Council will help bring the knowledge of the field together with the knowledge of leaders across Wyoming.

The following chart shows progress toward implementing an effective, high quality system.

The colors indicate existing system work in WDE:

Existing Function Initial Stages of Development Planned Development

Early Learning Plan, Sullivan

Baldrige Criteria	Plan for Implementation in Early Learning
1. Leadership	Staff support for Governor's Council (New Advisory Council) Research Group on Readiness-UW Interdisciplinary Think Tank, National Researcher Expertise, Wyoming Women's Foundation and Ellbogen/WECP. Interagency Council/PTAC Early Childhood
2. Strategic Planning	Review and Coordination with existing plans/Kids First. Integration - one plan across all agencies. Focus on What Works-Evidence Based Practice.
3. Customer Service	Communication and Feedback Processes Regional Consultants for TA/Training Quality Counts Website as Technology Link for All Early Learning
4. Measurement, Analysis and Knowledge Management	Expansion of Data Systems in WDE to include Early Learning and WISER ID. Instructional Foundations for Kindergarten Readiness Cross- agency Indicators of child well-being. Data and analysis for decisions and coordination with agencies including Children's Action Alliance.
5. Workforce Focus	Professional Development for Early Childhood Specific College Coursework for administrators and teachers. Training and Technical Assistance in Systems Thinking and Evidence-Based Practice. Training in Baldrige and Systems Thinking. Expansion of CLASS/Mentoring
6. Process Management	Organizational Assessment related to Baldrige Criteria for early childhood. Interagency MOU –State Level/Model for Schools
7. Results	Data reporting and TA on measuring results to move toward results-based accountability

Federal Systems Building Efforts

Early Learning Plan, Sullivan

At the federal level, several major shifts will impact Wyoming's children. **The federal government is framing their documents around systems building for education that includes early learning. The end result of this work is the readiness of children for kindergarten.** The Department of Education and the Department of Health and Human Services (DHHS) have formed an interagency collaboration that breaks down a long-standing division between education and social services. Head Start was developed in DHHS with systems thinking in mind; however, lack of educational knowledge and funding resources limited the ability of Head Start grantees to fulfill the promise of Head Start. New efforts have a renewed focus on education, funding and professional development.

Four cornerstones are integrated into planned federal legislation affecting children. No longer will Health and Human Services oversee birth to five year olds, while Education supports K-12 and disabilities services. The responsibility and accountability for improved outcomes for children will span the agencies and the ages from birth through college.

WDE READINESS FOR EARLY LEARNING, LITERACY AND RACE TO TOP GRANTS

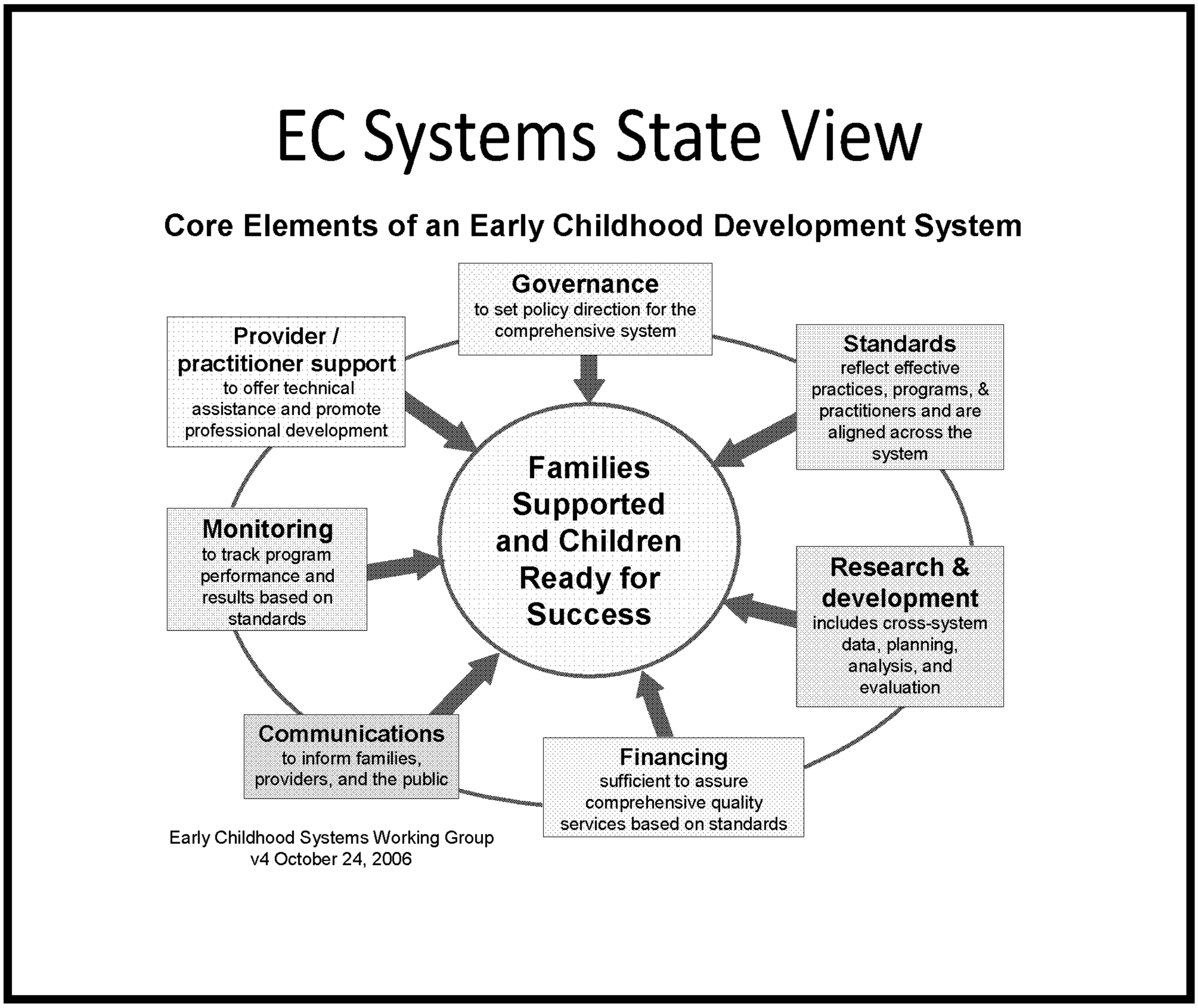
Federal	WDE Status
High standards	Board of Education approved preschool standards. Guiding Infant Toddler guidelines process.
Valid and reliable assessments	Readiness assessment developed with UW.

Federal	WDE Status
Teacher effectiveness	Preschool CLASS (Teacher Performance Measures). Mentoring and Pre-service.
Administrator effectiveness	Development with UW/PTSB

Federal	WDE Status
Pre-K to college data systems meeting data quality principles.	WDE met all principles-Quality Counts.
Longitudinal and performance-based system.	Coordinate existing data. Build capacity.

Federal	WDE Status
Effective interventions for low performing schools	Survey of Preschools in Districts. Organizational Assessment.
Support for High Risk Students	TANF Preschool Title I Disabilities

Early Learning Plan, Sullivan



In 2006, national organizations and federal agencies came together to develop the components of state government that would lead to success for young children and their families. Governors were instrumental in developing how state government could improve existing efforts toward developing a coordinated early childhood system.

Governance

While some states are bringing their Early Childhood Departments together under the umbrella of a new Department for Early Childhood, some are using Interagency Groups to achieve the same purpose-coordinating across funding, programs and processes. In Wyoming, efforts to coordinate programs by external councils, has been largely ineffective. Looking through the lens of systems, one can see that the structure of these councils is largely outside of the system of state government. Council members have no ability to make decisions, or have the authority to make changes to state agencies. Neither is it appropriate for these external councils to make decisions for state and federal funds since their systems are not responsible for accountability.

Wyoming, therefore, needs a structure that inventories the components of the system in place and begins to link these systems together through formalized agreements. At times, this may mean that funds follow an agency's mission/statutory authority. It is obvious that learning is aligned to the WDE mission, however, where do disabilities services belong when they bridge both education and health? As Head Start moves into a focus on education and alignment with K-12 as written in the Head Start Act of 2007, is the Head Start Collaboration grant in the appropriate agency? Does professional development which now resides in Workforce Services, DFS and UW, need to be linked in a more seamless manner. While these conversations are difficult at the state level, from the local level, the amount of standards and associated rules, regulations and paperwork forms for compliance is overburdening the local programs, where some agencies report that 50% of their staff time is used to complete federal and state accountability paperwork. With increasing accountability attached to state and federal funding, some efforts need to be made to create policies that organize agency standards and regulations to streamline the data collection systems.

Governance Components for Potential Coordination

Early Learning Plan, Sullivan

Standards

For the new Early Learning Challenge grant expected to be approved in 2010, Wyoming will be positioned to apply and receive this funding for systems building. The WDE already has met the major components of the grant- standards, readiness assessment, and high quality programs standards; however, alignment between early learning and the K-12 system as well as pre-service teacher preparation will be necessary.

Standards are the broad category for setting expectations of "high quality" around services to children and families. Quality has many meanings; however, there is well documented research on early childhood quality that has existed for many years. Some standards cross all disciplines such as child and family-centered practice. Other types such as child outcomes standards and early learning guidelines are specific to education. Standards for early childhood are typically divided in to three main categories:

- **Program**
- **Child**
- **Professional**

PROGRAM

The generally accepted definition for quality is delineated in program accreditation**. Many states use the National Association for the Education of Young Children's criteria for quality program standards.** Wyoming has 38 accredited programs, including the F.E. Warren Air Force Base Child Development Center. Recently all agencies were involved in helping the Wyoming Early Childhood Partnership develop Community Standards for the Kids First Partnerships.

CHILD

WDE has preschool standards aligned with Head Start national standards and is working with agencies across the state to support the Governor's Council initiative to develop Infant-Toddler Learning Guidelines. The Board of Education has responsibility for approving standards and WDE will look at how a continuum is developed for child standards from P (birth through five years) through 16.

PROFESSIONAL

Professional Standards for entry level providers are being developed. **At- risk students who are targeted in the federal funding streams, will require highly qualified staff to access federal early learning funds. This means specific coursework and degrees in early education.** Head Start must already meet the standard by 2013 for 50% of its teachers. With the diversity of students coming to the classroom, including children with disabilities, English Language Learners, and children with moderate to severe behaviors, restructuring teacher education and articulation across all higher education will need to be reviewed. **Lack of comparable compensation means that a degreed Head Start teacher will make approximately $20,000 less than his/her counterpart in kindergarten. In addition, most teachers of at risk preschoolers receive no benefits. The turnover rate for Head Start teachers is higher in Wyoming than surrounding states-25% in Wyoming compared to an average of 15% nationally.**

Administrators in early childhood have no standards or certifications for their role. This has left many administrators to learn on the job resulting in gaps in their ability to administer an agency in the most effective and efficient manner. Leadership in early childhood requires knowledge of the field and best practice, fiscal and legal accountability, data and knowledge management, and supervision, training and mentoring of staff. Administrative competence in

early childhood is generally limited to what has been learned on the job. **The leaders may not know how to guide the programs to excellence or high quality.**

Professional development and human resource sub-system development will require new thinking. Developing a quality rating system based on researched practices will need to link the public private partnership to state government efforts. Child care licensing will no longer be the standard for program practice, but **we have yet to decide how private providers opt into higher standards.**

WYOMING EARLY CHILDHOOD STANDARDS

Early Learning Guidelines for Child Outcomes

Birth to Three	Preschool	K-2	Head Start	Intervention
Under Development	WDE Completed	WDE revision	Federal	Federal

Program Standards

Birth to Three	Preschool	TANF Preschool	Title 1	Child Care
Head Start NAEYC Accreditation	Head Start NAEYC Accreditation	NAEYC Accreditation	NAEYC Accreditation Advance Ed Head Start	Licensing is not considered a Quality Program Standard

Professional Standards for Practitioners

Birth to Three	Preschool	Intervention	Schools	Child Care
Minimal in Head Start	Head Start Title 1 -PTSB	PTSB Licensing Boards	PTSB Highly Qualified	Entry Level Development

Research and Development

This category includes cross-system data, planning and analysis and evaluation. Each agency collects information related to their state and federal requirements. This includes Head Start and Child Development Centers. WDE has gathered student level data on readiness through the **Instructional Foundations for Kindergarten and TANF Preschools.**

Missing is a unified data system that would help develop an inventory of existing collections and longitudinal data to research what works in Wyoming so that children receive the programs that lead to success. Having a **unique identifier such as WISER IDs** and a data warehouse will help to look at Wyoming programs through a Wyoming lens. This would include research from graduate students to researchers in higher education. Teachers may also have insights from research done in their classrooms as well as evaluation of programs implemented at the local level.

This data area may be a quality priority since decisions on what works at the program level is currently based on what a program is willing to offer and the expertise of the staff. In most cases, the staff ideology or personal opinion prevails. The research that is done does not trickle down to the programs in a practical way so that practitioners can use it. Generally, providers and parents will purchase workbooks from K-Mart or the latest kit from publishers.

Early Learning Plan, Sullivan

Another barrier to developing a common framework for early learning and readiness is the difference in theoretical frameworks between birth to five programs and public schools. At the local level, this can vary so greatly that there is no connection between the lesson planning in preschool and what is expected in kindergarten. Some programs do not work. Other program pieces such as poor environments and limited language experiences are most likely creating delays for children.

Developing a process on how to use field tests, pilots and evaluation can help Wyoming move smaller projects to larger scale. Having data experts and analysts with specialized knowledge of statistics and research will help us create a data plan with validity and reliability processes.

Financing

Resources help to create quality and readiness for young children. Wyoming's system is not only under-resourced for the challenges of a diverse student population in birth to five, but **programs must patch multiple funding sources together. This creates instability in the whole system and ensures that quality can't be met by most programs.**

For children at risk and who live in poverty, the current programs are only funded to serve 1/3 of the eligible children who need services. In addition, **inefficiency and ineffectiveness are created through: lack of qualified staff, high turnover, limited resources for materials and inability to link families into needed services. The children enter kindergarten already behind.** One of the major myths about early childhood is that some programs receive enough funding. This applies to Home Visiting Programs, Family Crisis Programs, Head Start, Even Start, and Intervention.

Comparison of At Risk Wyoming Programs for Preschool

Program for At Risk	Funding (2008-9)	Change in Funding 2009	% of eligible children served
Early Head Start	$ 7,888	3%	2%
Head Start	$ 6,709	3%	31%
Early Intervention	$ 9,800	-10%	100%
EvenStart	Varies	Proposed defunding	No Data
Title I Preschool	Varies	0 (Add'l ARRA)	N/A

Comparison between Average Preschool and School District Programs

Program	Preschool	Kindergarten	Source of Preschool Funds
Average Preschool	½ day (3-3.5 hrs)	Full Day	Federal
Per Child Head Start	$6,709		Federal
Per Child Regular Education	0	$13,266 (2007, FEBP)	None
Per child Intervention	$9,800	100%	State and Federal
Per child TANF Preschool	$2,665	N/A	Federal
Teacher Salary	$26,000 (B.A., up to 20 Yrs experience)	$ 45,000	Mix- Federal and Local
Benefits	Varies-0- 22%	25%	
Turnover	25%	15% (Nat'l Avg)	

Early Learning Plan, Sullivan

Since not all of the children are being served who are eligible for at –risk preschool programs, an increase of state and/or federal funding, would have an immediate impact. All research has shown that targeted programs for at-risk children, in particular, those for children in poverty have the greatest increase on a child's well-being and readiness. It has been estimated by James Heckman, Nobel Laureate in Economics, that an investment by Wyoming of $6M would serve all at- risk preschool students.

Federal Funds for Preschool Currently Approved –January,2010

Recent Funding for Early Education Programs, plus President's Request (in billions)				
Program	FY2009	ARRA	FY2010 President's Request	FY 2010
Title I	$14.5	$10	$13	$14.5
Title I Early Childhood Grants	--	--	$0.500	--
Early Learning Challenge Fund	--	--	$0.300	--
Early Reading First	$0.113	--	$0.163	--
Striving Readers	$0.035	--	$0.370	$0.250
Even Start	$0.066	--	--	$0.066
IDEA Preschool	$0.374	$0.400	$0.374	$0.374
IDEA Infants and Families (Part C)	$0.439	$0.500	$0.439	$0.439
Child Care and Development Block Grant	$2.13	$2	$2.13	$2.13
Head Start (includes Early Head Start)	$7.11	$2.1	$7.23	$7.23

Early Learning Plan, Sullivan

Funding for Wyoming Preschool Children –DWS is State only funding

Budgets

WDE

- TANF Preschool
- Title 1
- EvenStart
- 619/VIB
- Other grants-
- Summer school,
- Innovative Grants
- 21st Century
- USDA Food

DFS

- CCDBG
- Child care subsidy

DWS

- Quality Counts
- Professional Development
- Parent Education

DH

- Preschool, Part C
- Mental health
- Medicaid
- CHIPS
- ECCS

Communications

While a comprehensive communication system is not yet established, **the early stages of the system were supported through the Wyoming Quality Counts Initiative.** Local programs generally develop their own communication strategies, as do state advocacy groups. **The major concern from parents is that the system lacks integration, making services difficult to find with varying eligibility requirements and multiple requests for forms and personal information.** Creating a website for one-stop parent information by expanding Quality Counts and supporting streamlined and unified applications at the local level would alleviate some access issues. Another concern from parents who receive TANF or child care subsidies is that they must complete the paperwork frequently, often resulting in missed work and wages as well as lapsed contracts for services. Transitions between birth to five programs and K-12 schools can also be strengthened through interagency agreements for shared information and professional development. The Interagency PTAC will also support improved state communications for children's services across state agencies. With federal agreements for shared responsibility at the federal level between DHHS and USDOE, Wyoming may model these same efforts through collaborative agreements for young children's programs and services.

Technology now exists that can also support communication efforts. Generational changes mean that younger parents have more access to cell phones, podcasts and the Internet. Young children coming to Kindergarten have generally had experience with technology at a greater level than their parents. Libraries in Wyoming have also created access to the Internet and other resources to serve communities, including electronic books.

Technology can also be used for communications with children and families who are non-English speakers, families with disabilities, and families in remote and isolated areas of the state. Supporting early childhood programs to gain access to the E-Rate can open yet another door for communicating with families and professionals by making early childhood tech services affordable.

Monitoring

Supporting improvements to the Early Childhood System means that programs who receive state and federal funds must become more accountable. Monitoring can also be used as a means to guide programs through improvement efforts. In the WDE, two monitoring processes have worked to effectively bring systems thinking to the local program level.

The Organizational Assessment, is a self assessment based on the Baldrige Quality Criteria. Mardi Krenek, a national consultant on Baldrige, has designed this instrument to connect local districts into the systems efforts at the state level. The Organizational Assessment is conducted with the local program so that strengths are identified through self assessment teams who document their efforts at meeting the excellence criteria. These results are reviewed by an external monitoring team.

Special education also has a monitoring system that uses federal indicators and then monitors not only compliance but also the efforts at growth and improvement. This system digs deeply into the functioning of the system that supports special education efforts at the local level.

Head Start has one of the most effective monitoring systems in the country. Every three years a program undergoes an external review of each component of their program. The system includes collecting data, reviewing files, interviewing key members including parents and community, as well as direct observations of case management, home visiting, and classrooms.

Monitoring is only one part of efforts to build improvements in early childhood. **Once the monitoring for compliance is completed, programs need technical assistance for improvement s and an external evaluation for a 360 degree feedback loop. Not only is the assessment about accountability, but also how to make changes that are sustainable and improve public perception and participation in supporting the program.**

Provider/Practitioner Support

Wyoming's STARS system has been in existence for over 15 years. This system is used by child care licensing to determine what skills the child care providers have and what trainings are attended. The Department of Family Services is also adding to the system a component credentialing process for high school graduates who are entry level, which is the majority of child care providers. This system will compensate center staff or providers who achieve credential status.

Early Learning Plan, Sullivan

Licensed child care providers include not only private in home businesses, but also non-profit and for profit centers, Head Start, and Child Development Centers. STARS clock hours do not provide the type of training needed by certified teachers or special educators to maintain their certification. This creates a problem of duplication of paperwork between PTSB and STARS.

One of the issues for high quality programs is still the lack of enough qualified and degreed people in early childhood who will be needed to meet federal mandates for highly qualified, whether in public schools, Head Start, Child Development Centers or TANF Preschools. Child care licensed programs that declare themselves as preschools do not need to verify that they have a curriculum or expertise so many parents pay extra under the assumption the provider is a degreed and certified teacher. DWS has provided much needed incentives for college coursework, including graduate level. As Head Start, TANF Preschools and Public Schools increase their efforts to expand services to at risk students, more teachers will need the knowledge to work with the increasingly diverse and challenging population of young children. In addition, the WDE has developed definitions for preschool and readiness to help parents understand what they should be paying for. A systematic voluntary licensing process may need to be developed by the Wyoming Professional Teaching Standards Board (PTSB). Public and private providers could require that candidates are voluntarily licensed by PTSB before hiring.

The University of Wyoming is planning to revisit articulation among all higher education courses throughout the state. This will include discussions around whether or not to change coursework to reflect the current student population and to also provide a consistent content standard for freshman through graduate schools. This may include looking at current PTSB certification.

CLASS or the Classroom Assessment Scoring System is used by states who integrate this into their quality rating systems. The research on CLASS shows that Instructional Support is lacking in preschool classrooms. For children who need support, this teacher knowledge is critical for kindergarten readiness. In research done across the United States with birth to five teachers, the average score was 1, the lowest level, on a scale of one to seven on proficiency in Instructional Support. The CLASS is now mandated for all Head Start programs and TANF Preschool programs. The crucial components of CLASS are:

1. Emotional Support: Social and emotional functioning in the classroom is an indicator of school readiness. CLASS evaluates the dimensions of positive climate, negative climate, teacher sensitivity, and regard for student perspectives.
2. Classroom Organization: Classrooms provide the most opportunities for learning when students are well behaved, active and engaged. CLASS considers behavior management, productivity, and instructional learning formats.
3. Instructional Support: Are teachers making the most of opportunities to effectively support cognitive and language development through the curriculum? CLASS focuses on the roles of concept development

Children and Families

Wyoming has made major commitments to the health and well-being of young children. The children's health program (KID CARE CHIP) helps to ensure access to health care for the majority of young children. The USDA food program is also supported so that programs are reimbursed for meeting the standards for daily nutrition and food safety. Mental Health for young children has also been an innovative program that is helping to build early intervention services at the earliest ages when it makes a difference. In addition, the number of screenings and evaluations for children with developmental disabilities is one of the highest in the nation. Child care subsidy rates are also higher than some states so that more families can access support for licensed child care up to 200% Federal Poverty Level (FPL). TANF Preschool funding is allowing more children to receive expanded services in high quality programs. Over 500 at -risk children are being served in TANF Preschools and home nursing visits are reaching more newborns through local public health offices.

Parents and providers are also receiving the benefits from the investment in Wyoming's Quality Counts at DWS. There is an increase in practitioners taking college courses that lead to certification. Parents and providers now have regional offices and access to a sophisticated website with many opportunities for increasing knowledge of parenting and child care.

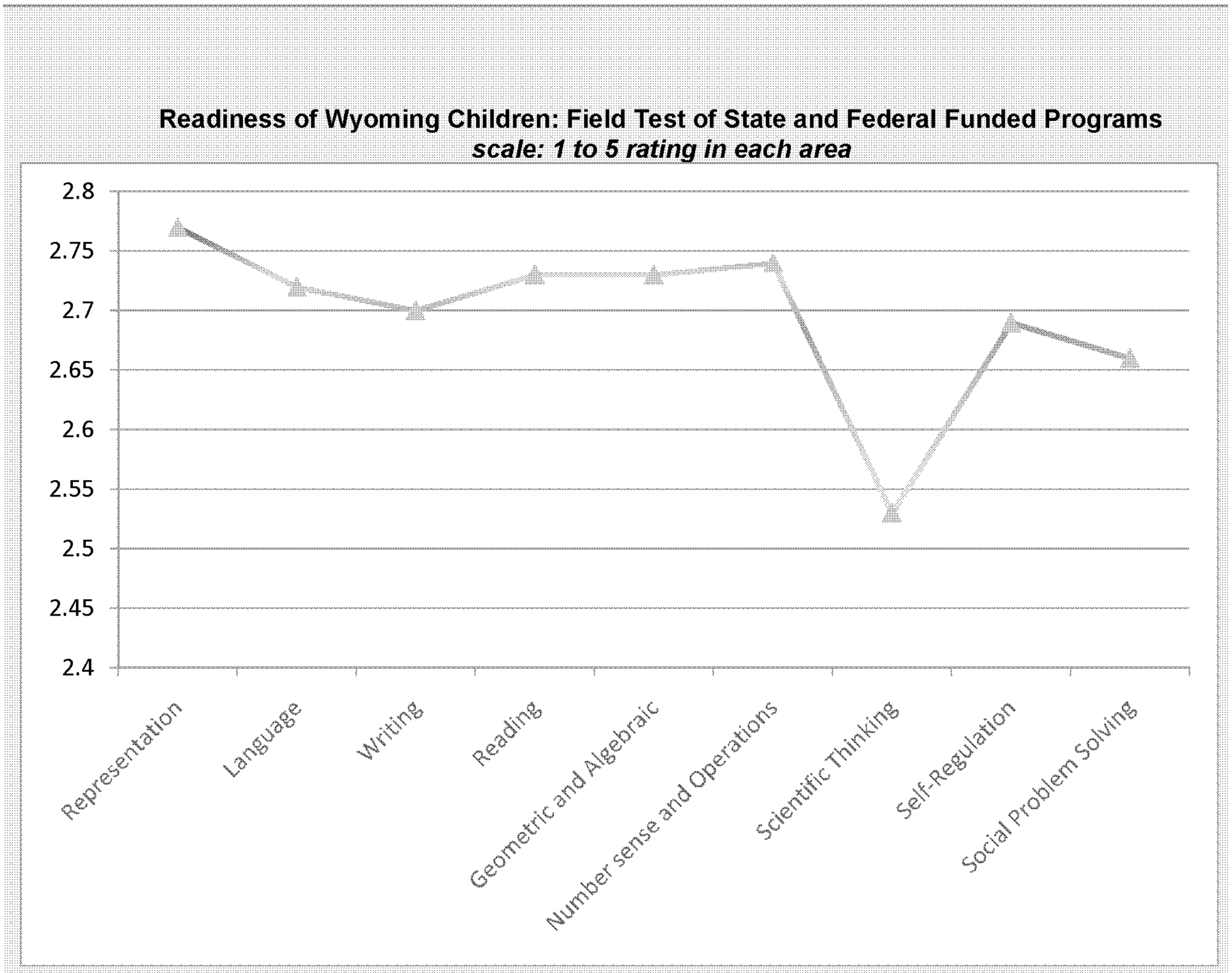
Very few programs can meet high quality standards and many of the highest risk children receive no services at all before kindergarten. This is particularly a reality for infants and toddlers. With greater demands on systems such as Head Start, only 45% of their budget is used for education, 45% is used to support families in wraparound services. While Head Start accountability increases, there is no funding available to hire data support staff. Teachers are being asked to spend more time completing paperwork. In a survey of Head Start and child care centers, teachers are not able to plan their curriculum or in some cases have a lunch break because there is a shortage of staff. At a turnover rate of 25%, and wages that have remained flat, more experienced and knowledgeable practitioners are leaving the field. New staffs have fewer skills to work with groups of diverse children. With local programs and agencies having increased waiting lists, programs lack facilities to expand and meet national child care facility standards. There is still more work to be done.

As a state, we must decide how to provide resources now, so that we are not paying the costs for lack of effective early learning for children at a later and more costly age.

Trends for children birth to five are:

- **Increasing population in more metropolitan areas of the state.**
- **Increasing birth rate statewide.**
- **Births to non-English speaking, low literacy and teen mothers are increasing.**
- **Kindergarten population of 7200 children is an increase of 2,000 over 2000.**
- **Highest % of Wyoming residents living in poverty is children under five.**
- **7, 335 children are living at or below federal poverty level (FPL)of 100%.**
- **Almost ½ of the children in Wyoming are living under 200% FPL.**
- **Over 65% of the parents of young children in Wyoming are working parents.**
- **3rd Grade Reading scores are declining, bullying is increasing.**
- **% of at- risk children receiving preschool is declining.**
- **Only 1/3 of the lowest income children who qualify are served by Head Start due to limited federal funding.**

Early Learning Plan, Sullivan



Representation	ability to use symbols and represent concepts
Language	complex vocabulary for communication and comprehension
Writing	understand relationship between spoken and written words
Reading	knowledge of print materials, their use, and simple text
Geometry/Algebra	understanding shapes and patterns
Number/Operations	knowledge of numbers and use in solving problems
Scientific thinking	create/ test hypotheses, properties and change
Self-regulation	ability to control impulses and use age appropriate behaviors
Social problem-solving	Ability to get along and resolve conflicts with peers/adults

Preschool Baldrige- Making it Work

Leadership

- No Early Childhood Specialization required for Leadership.
- UW Director's Certificate is geared to Child Care.
- State Licensing requires 100 clock hours and 1 year experience.
- 100% of TANF Preschool Directors have a degree but not in Early Childhood Administration.
- State and federal funded programs have a vision and mission, but it is generally not aligned to closing the achievement gap.
- CDS and Head Start of Wyoming provide opportunity for Administrators to network.
- School Districts generally do not have focus on preschool leadership.
- Some initial shared coordination being promoted by Partnership. Some evidence of stakeholder involvement.

Strategic Plan

- A statewide plan is developed by Partnership but focused on child care/ local community grassroots efforts.
- Individual agencies may have a strategic plan, but these are not typically focused on school reform as it relates to student achievement.
- Many initiatives, multiple funding requirements and directions make it difficult for preschools to focus efforts.

Curriculum and Teaching

- Creative Curriculum, which is used in CDCs and Head Starts, may not have the rigor expected of and education curriculum.
- TANF Preschools, CDCs, All Ready Preschools and Head Starts have aligned their curricula to the standards, however, there are no systematic efforts to implement the curricula and assess, align and adapt improvements. This makes the curriculum dependent on the knowledge and expertise of the teacher who "selects" what to teach.
- Only TANF Preschools have a validated approach to increasing quality teaching through the CLASS. This needs to be strengthened by having a "Train the Trainer" to oversee the CLASS monitoring and training. Head Starts have integrated CLASS into their monitoring.
- In reviewing national research as well as self- reports on data collection, preschools seem to inflate scores for students. The revision to the KRS is intended to provide a common language as well as continuum of learning for students linked with professional development in order to ensure inter-rater reliability between preschools and kindergartens.
- Professional development (PD) is tied to individual choices. Head Starts have begun to link PD to college coursework and degrees due to federal mandates.
- Data is inconsistently used for student performance, especially in CDCs where there is a limited link to the regular curriculum or functional assessment.
- Programs that are state and federal funded have mechanisms through licensing and monitoring of funding to ensure a safe and nurturing environment. These mechanisms may or may not exist in public school preschools. Child care has minimal standards.

Early Learning Plan, Sullivan

Stakeholder Engagement

- Limited stakeholder involvement at local level. However, parents are generally more involved in preschool and it is mandated for CDCs, Head Start and TANF Preschool.
- No formal processes in place in the general preschool population for input.
- CDCs have a parent survey, and Head Start includes parents in policy decisions and also involves community members on Boards and Policy Councils.

Stellar People

- Teaching staff are generally committed despite low wages and minimal support from administrators. Most pursue professional development and support out of pocket.
- Communities also support Head Start and CDCs so they can provide services through in-kind and some funding, grants, fundraisers and with marketing efforts.
- CDS has been successful with 1 before 2 campaign.

Effective and Efficient Processes

- Limited by funding and multiple mandates. Programs tend to meet obligations but staff wear multiple hats undermining the efficiency and effectiveness of processes.

Accountability

- Preschools who receive federal and state funds are usually driven by the required data collections, but do not usually monitor trends or use data for continuous improvement. External evaluations are done in Head Starts and TANF Preschool on an annual basis.

A Word on Quality Rating Systems

Quality Rating is a component of systems efforts that failed legislatively in Wyoming. Many child care providers are private businesses. Their concern is that with the small profit margin in child care, that they will not be able to afford quality and instead will receive poor ratings. Constitutional issues also emerged with whether private businesses could receive state funding.

The message did not resonate with other citizens whose values do not support state involvement in the lives of young children. Respect for these values and collaboration to develop a shared meaning on what will work for Wyoming's children has yet to be developed.

Before a system develops, or plans are created, it must be done with knowledge of Wyoming's political and social systems. Working at the local level and building partnerships in communities may be the most effective way to raise quality. The research is consistent that the education and experience of the teacher is one of the most critical components. Family leadership and support is critical to lifelong success for a child. While some standards can be set, efforts that target the most at- risk children, will not only leverage change in the whole system but also support the population of children most in need of preschool for readiness. Focusing on children in poverty ensures that they have the nutrition, health, and learning that also meets the needs of parents who have the most difficulty accessing and affording quality preschool services. Preschool is defined in WDE as a learning environment with evidence based curriculum, best practice, and a qualified teacher. By building on the existing state and federal funded programs and attaching criteria to resources, local programs will have the ability to serve more children and hire staffs that are better prepared to meet the challenges of working with families in need of greater support.

Our focus must always be on what is best for young children in Wyoming.

The Student Aid and Fiscal Responsibility Act

To ensure more kids reach kindergarten ready to succeed, the Student Aid and Fiscal Responsibility Act includes an Early Learning Challenge Fund to increase the number of low-income children in high quality early learning settings. Specifically, the legislation will:

Invest $1 billion each year in competitive grants to challenge states to build a comprehensive, high quality early learning system for children birth to age 5 that includes:

- **Early learning standards reform.** .
- **Evidence-based program quality standards.** .
- **Enhanced program review and monitoring of program quality.** .
- **Comprehensive professional development.** .
- **Coordinated system for facilitating screenings for disability, health, and mental health needs.** .
- **Improved support to parents.** .
- **Process for assessing children's school readiness.** .
- **Use data to improve child outcomes.**

Transform early learning programs by insisting upon real change in state standards and practices:

1. **Build an effective, qualified, and well-compensated early childhood workforce** by supporting more effective providers with degrees in early education and providing sustained, intensive, classroom-focused professional development to improve the knowledge and skills of early childhood providers.
2. **Best practices in the classroom** by implementing research-based early learning standards aligned with academic content standards for grades K-3. .
3. **Promote parent and family involvement** by developing outreach strategies to parents to improve their understanding of their children's development. .
4. **Fund quality initiatives** that improve instructional practices, programmatic practices, and classroom environment that promote school readiness. .
5. **Quality standards reform that** moves toward pre-service training requirements for early learning providers, and adopting best practices for teacher-child ratios and group size.

Early Learning Plan, Sullivan

SYSTEM BUILDING

Recommendation # 1

Challenge: Lack of systems knowledge to build a comprehensive system.

- Provide Baldrige Framework and training across state agencies and local public and private providers.
- Provide technical assistance through the Organizational Assessment System and work with state agencies and others to build a resource system to provide technical assistance

LEADERSHIP

Recommendation # 2

Challenge: Lack of expertise and leadership in early childhood system building at state and local levels

- Identify existing expertise in early childhood in Wyoming through the University and Community Colleges and create an interdisciplinary think tank on evidence-based practices for readiness.
- Provide national expertise for technical assistance to state agencies.
- Design professional development and certification specifically for early childhood administrators.
- Require new positions for early learning to have early childhood credentials and experience at the teacher and administrative level.
- Work with the professional Teaching Standards Board to create voluntary licensing requirements
- Seek resources to support successful evidence-based programs such as TANF Preschools, Olds Home Visiting, PITC, Parents as Teachers, Home Visiting, Head Start, EvenStart, etc.

STRATEGIC PLAN

Recommendation # 3

Challenge: Lack of an integrated plan across agencies for strategic planning. Lack of communication and integration of early childhood services within agencies.

- Develop a comprehensive long- term statewide strategic plan for early childhood services with annual action planning
- Provide uniform definitions of quality and expect evidence-based practices in all funding streams.
- Use state expertise and higher education to determine evidence- based practices that work in Wyoming and that are culturally, linguistically responsive.
- Consider more effective and efficient organization of early childhood services by creating an Office for Early Childhood

Early Learning Plan, Sullivan

- Align birth through 3rd grade standards
- Create Interagency MOUs that define shared responsibility
- Identify areas for collaboration, efficiency and effectiveness

CUSTOMER SERVICE

Recommendation # 4

Challenge: There is a general belief that state agencies are indifferent and unwilling to serve the public. Perceptions of different agencies depend on personal experience, political perspectives and public reporting.

- Involve key stakeholders in planning, ongoing review
- Provide systems training for all state agencies
- Develop metrics for customer service by provider.
- Provide training on professional and customer- centered practices.
- Support collaboration and involvement with Councils and Partnerships.
- Plan for regional and local community councils/grassroots feedback through preschool surveys, online reports, technical assistance feedback.

MEASUREMENT, ANALYSIS AND KNOWLEDGE MANAGEMENT

Recommendation # 5

Challenge: Much data is collected yet remains unused for decisions at all levels. Reporting does not come back to the program and consumer in a way that makes sense. There is a disconnect because many parents and practitioners do not understand data or research.

- Create a Wyoming early learning dash board
- WISER IDS or a unique identifier for children can streamline the data through sharing of information; provide opportunities for data analysis and longitudinal research to determine evidence on the well-being of Wyoming children.
- Expand Instructional Foundations for Kindergarten to preschools programs and develop stronger transitions across programs.
- Develop unified data system to relieve parents and practitioners from the burden of multiple data collection systems that request the same information. Data-sharing can also be used to determine the gaps in services as well as population indicators for child well-being.
- Create baseline data for gap analysis and identify trends.
- Identify evidence-based curricula and practice that works in Wyoming.
- Expanded DWS website to include links to key information on Wyoming resources for Young Children.
- Look at aligning standards, programs from preschool through K-2.
- Embed standards, accreditation into state and federal funded programs.

Early Learning Plan, Sullivan

WORKFORCE FOCUS

Recommendation #6

Challenge: The majority of workers in early childhood have limited knowledge of early learning. Children do not receive the readiness components that make a difference for a child's success. Literacy, Language, Math and Science are weak areas, but so are social emotional behaviors that support group functioning of children.

- Support expansion of mental health project to include mental health support for frontline workers.
- Support higher standards for professional development including stand- alone and combination degrees for early childhood .teachers and other professionals E.g. Only one early special education course is taught at University of Wyoming for regular education teachers. Provide teachers with the skills to work with diversity, inclusion and family-centered practice.
- Recruit native Spanish speakers for young children to maintain home language and build a foundation for second language acquisition.
- Articulate and align coursework from entry level through college degrees.
- Seek support to sustain system development at local level by ensuring wage equity for teachers and professionals with comparable degrees, experience and responsibilities.

PROCESS MANAGEMENT

Recommendation # 7

Challenge: Most processes are inefficient and ineffective due to lack of systems integration and technical assistance and appropriate tools for systems implementation.

- Bring Organizational Assessment training and evaluations to schools and early care and learning providers and follow-up with technical assistance for change.
- Develop model MOUs and forms to support local collaboration and streamlined services e.g. unified form for access to services, agreements between schools and early childhood services such as Head Start.
- Support programs to create policies, procedures and forms in alignment with state and federal regulation.

RESULTS

Recommendation # 8

Challenge: We do not know whether our efforts work. Many programs are not evaluated for effectiveness. Therefore funding cannot be targeted.

- Evaluate the quality of the system through external evaluation processes.
- Work across agencies to identify key indicators and chart progress using RBA.
- Target high risk populations in Wyoming to impact student outcomes.

Early Learning Plan, Sullivan

Wyoming Public Education & Wyoming Department of Education
Strategic Plan for 2009-2014
Dr. James McBride, State Superintendent

Dare Reach. Dare Excel.

VISION: By 2014 the Wyoming public education system will be recognized as one of the best education systems in America based upon overall student performance and citizenship.

CRITICAL STATE EDUCATION ISSUES	Department Goals	Department & Districts' Focus Areas	Performance Measures
Statewide PAWS proficiency levels are below expectations Graduation rates are declining Remediation rates for high school graduates attending post-secondary education are too high Students continue to report high levels of alcohol use	To Improve Student Performance	- Improve attendance rates - Increase graduation rates - Increase Hathaway Scholarship eligibility - Improve 3rd grade reading proficiency - Improve 8th grade math proficiency - Increase % of advanced and comprehensive diplomas awarded	Annual State Attendance Rate (B 94% - T 96%) Annual State Graduation Rate (B 78.3% - T 85%) - Annual Hathaway Scholarship % - Annual PAWS Proficiency Rate (B 60% - T 65%) - Transcript Endorsements % - Annual ACT Scores
	To Ensure Efficient and Effective Operations	Improve the system capacity of Districts and the Department by implementing the Performance Excellence/ Baldrige Management System Improve North Central Accreditation (NCA) average score Improve customer service ratings Improve performance in special education post-graduation results Increase the # of schools & districts making AYP	- Department System Check III (B 2.05 – T 3.05) - Stupski Organizational Assessment (OA) NCA Average Score (B 3.05 – T 3.25) - WDE Annual Customer Service Survey Annual Core indicators: graduation, dropouts, PAWS proficiency, and discipline Annual AYP Federal Report
	To Ensure Safe, Orderly, and Healthful School Environments	Adopt and implement policies and programs to reduce bullying Improve prevention & intervention activities to reduce alcohol and chemical use rates	Bullying: Youth Risk Behavior Survey (YRBS) & Prevention Needs Assessment (PNA) (B 29.1% (HS) – T 24.1%) (B 50.0% (MS) - T 45.0%)

STATE GOAL –
Governor's Quality of Life Result: Students are successfully educated and prepared for life's opportunities.

B = Baseline; T = Target; Bold Items = 2009 Initiatives

MISSION: The Wyoming Department of Education will model the highest possible character, integrity and leadership focused on the support of continuous academic achievement.

MISSION ELEMENTS: Professionalism – Continuous Improvement – Effective Teamwork

Rev. – July 26, 2009

Each child needs someone who cares enough to advocate for, teach and nurture the child and the family.

"Somebody's got to be crazy about that kid, and vice versa!" But what does "crazy" mean? It means that the adult in question regards this particular child as somehow special — even though objectively the adult may well know that this is not the case... For the child, the adult is also special — someone to whom the child turns most readily in trouble and in joy, and whose comings and goings are central to the child's experience and well-being. (Bronfenbrenner, 1994, pp. 118-119)

Early Learning Plan, Sullivan

Malcolm Baldrige National Quality Improvement Act of 1987 - Public Law 100-107

1. the leadership of the United States in product and process quality has been challenged strongly (and sometimes successfully) by foreign competition, and our Nation's productivity growth has improved less than our competitors' over the last two decades.

2. American business and industry are beginning to understand that poor quality costs companies as much as 20 percent of sales revenues nationally and that improved quality of goods and services goes hand in hand with improved productivity, lower costs, and increased profitability.

3. strategic planning for quality and quality improvement programs, through a commitment to excellence in manufacturing and services, are becoming more and more essential to the well-being of our Nation's economy and our ability to compete effectively in the global marketplace.

4. improved management understanding of the factory floor, worker involvement in quality, and greater emphasis on statistical process control can lead to dramatic improvements in the cost and quality of manufactured products.

5. the concept of quality improvement is directly applicable to small companies as well as large, to service industries as well as manufacturing, and to the public sector as well as private enterprise.

6. in order to be successful, quality improvement programs must be management-led and customer-oriented, and this may require fundamental changes in the way companies and agencies do business.

7. several major industrial nations have successfully coupled rigorous private-sector quality audits with national awards giving special recognition to those enterprises the audits identify as the very best; and

8. a national quality award program of this kind in the United States would help improve quality and productivity by:

    a. helping to stimulate American companies to improve quality and productivity for the pride of recognition while obtaining a competitive edge through increased profits;

    b. recognizing the achievements of those companies that improve the quality of their goods and

services and providing an example to others;

c. establishing guidelines and criteria that can be used by business, industrial, governmental, and other organizations in evaluating their own quality improvement efforts; and

d. providing specific guidance for other American organizations that wish to learn how to manage for high quality by making available detailed information on how winning organizations were able to change their cultures and achieve eminence."

What Works

Improved coordination in each agency and across agencies

Designation of a lead agency and alignment of grants and programs- create presence

Data

Standards and Assessment

Research

NEW! 8th Grade Unit of Study Curriculum Options
(Developed October 2009)

Online Career/Interest Inventory Activity (can be combined with attached Career Research Project)

- COPS, Bridges, Kuder, etc. (online inventory site)
- Discuss results of inventories (what jobs might be right for you?)
- Research education/training requirements for occupations
- Research salaries for occupations
- Also see COIN through the Wyoming State Library—it's FREE!!

Career Research Project (can be combined with Online Career/Interest Inventory Activity above)

- See the following attachments for lesson/activity:
    - "Career Research Project" (Lesson Plan)
    - "Career Research Project Preliminary Outline"

Cost-of-Living Lesson

- See attached "Cost-of-Living Lesson"
    - This is a great activity for opening students' eyes up about how much it costs to live on their own!

How Do I Pay for School? (Informational Narrative)

- See attached "How Do I Pay for School" document
    - Many students and families are put off by the cost of getting a college education, and therefore may not even consider attending college. This brief informational narrative teaches students about financial planning for college – starting NOW – and helping them see that a college education may not be as out-of-reach as they think.

Who is Stan Hathaway?

- See attached "Who is Stan Hathaway" document which features a couple of interesting articles explaining who he was.

Occupational Outlook Handbook Activity/Report

- See attached "Occupational Outlook Handbook Activity"
    - This FREE web site, www.bls.gov/oco, is full of information about hundreds of jobs!

Adult Interview

- Have the students interview an adult about his/her life after high school. Questions can include:
    - What were your goals after high school?
    - What steps did you take to achieve those goals?
    - Why did you choose the job/career you chose?
    - How many years of college did you have to complete to do your job?
    - What were some challenges you encountered while pursuing your career?
    - How did you handle those challenges?
    - Do you think you will ever go back to college? Why or why not?

Hathaway Success Curriculum – *MATH* Requirements

Hathaway Scholarship	**Math** Phase-In 2009-10 Graduating Class	**Math** Graduating Class of 2010-11 And Thereafter
Honors or **Performance** Scholarship Requirements	Algebra I, Algebra II, and Geometry or their functional equivalents*	FOUR years of math to include: Algebra I, Algebra II, and Geometry (or their functional equivalents*), plus an additional math course taken in grades 9 through 12.
Opportunity Scholarship Requirements	Current high school graduation requirements	FOUR years of math to include: Algebra I, Algebra II, and Geometry (or their functional equivalents*), plus an additional math course taken in grades 9 through 12.
Provisional Opportunity Scholarship Requirements	Current high school graduation requirements	The current high school graduation requirements must include and combination of at least TWO years of the following courses: Algebra I, Algebra II, and Geometry or their functional equivalents*

*Courses which districts intend to be used as the functional equivalent of the specified math courses, including courses taken before grade nine used to satisfy the level of the requirement of Algebra I, Algebra II, and Geometry must be approved by the Wyoming Department of Education.

It is the intent of the legislature that, beginning in their 8th grade year, each student be counseled concerning their course history, options for future course selections, and consequences attached to selecting course pathways ***prior to registering for high school classes***.

Hathaway Success Curriculum – *Language Arts* Requirements

Hathaway Scholarship	**Language Arts**	**Language Arts**
	Phase-In 2009-10 Graduating Class	Graduating Class of 2010-11 And Thereafter
Honors or **Performance** Scholarship Requirements	Current high school graduation requirements	FOUR years of language arts at the college or industry preparatory level in grades 9 through 12, to include standards in Reading, Writing, Listening and Speaking.
Opportunity Scholarship Requirements	Current high school graduation requirements	FOUR years of language arts at the college or industry preparatory level in grades 9 through 12, to include standards in Reading, Writing, Listening and Speaking.
Provisional Opportunity Scholarship Requirements	Current high school graduation requirements	Current high school graduation requirements

Courses which districts intend to be used as college or industry preparatory level must be approved by the Wyoming Department of Education (WDE).

It is the intent of the legislature that, beginning in their 8th grade year, each student be counseled concerning their course history, options for future course selections, and consequences attached to selecting course pathways ***prior to registering for high school classes***.

Hathaway Success Curriculum – *Science* Requirements

Hathaway Scholarship	Science Phase-In 2009-10 Graduating Class	Science Graduating Class of 2010-11 And Thereafter
Honors or **Performance** Scholarship Requirements	Choose THREE from the following courses: Physical Science; Physics I; Physics II; Chemistry I; Chemistry II; Biology I; Biology II; Geology I; Computer Science I	Choose THREE from the following courses: Physical Science; Physics I; Physics II; Chemistry I; Chemistry II; Biology I; Biology II; Geology I; Computer Science I ***Plus***, a FOURTH year from any of those courses specified above or an approved additional science course*.
Opportunity Scholarship Requirements	Current high school graduation requirements	FOUR science courses taken in grades 9 through 12, THREE of which shall satisfy High School graduation requirements.
Provisional Opportunity Scholarship Requirements	Current high school graduation requirements	Current high school graduation requirements

*Courses intended to be used as an additional science course must be approved by the Wyoming Department of Education.

It is the intent of the legislature that, beginning in their 8th grade year, each student be counseled concerning their course history, options for future course selections, and consequences attached to selecting course pathways ***prior to registering for high school classes***.

Hathaway Success Curriculum – *Social Studies* Requirements

Hathaway Scholarship	**Social Studies** Phase-In 2009-10 Graduating Class	**Social Studies** Graduating Class of 2010-11 And Thereafter
Honors or **Performance** Scholarship Requirements	Courses covering the subject matter of: American History; and World History.	THREE years of social studies in grades 9 through 12 to include a *combination* of the following subject matter: World History; American History; Geography; American Government; and Economic Systems and Institutions.
Opportunity Scholarship Requirements	Current high school graduation requirements	THREE years of social studies in grades 9 through 12 to include a *combination* of the following subject matter: World History; American History; Geography; American Government; and Economic Systems and Institutions.
Provisional Opportunity Scholarship Requirements	Current high school graduation requirements	Current high school graduation requirements

It is the intent of the legislature that, beginning in their 8th grade year, each student be counseled concerning their course history, options for future course selections, and consequences attached to selecting course pathways ***prior to registering for high school classes***.

Hathaway Success Curriculum – *Foreign Language* Requirements

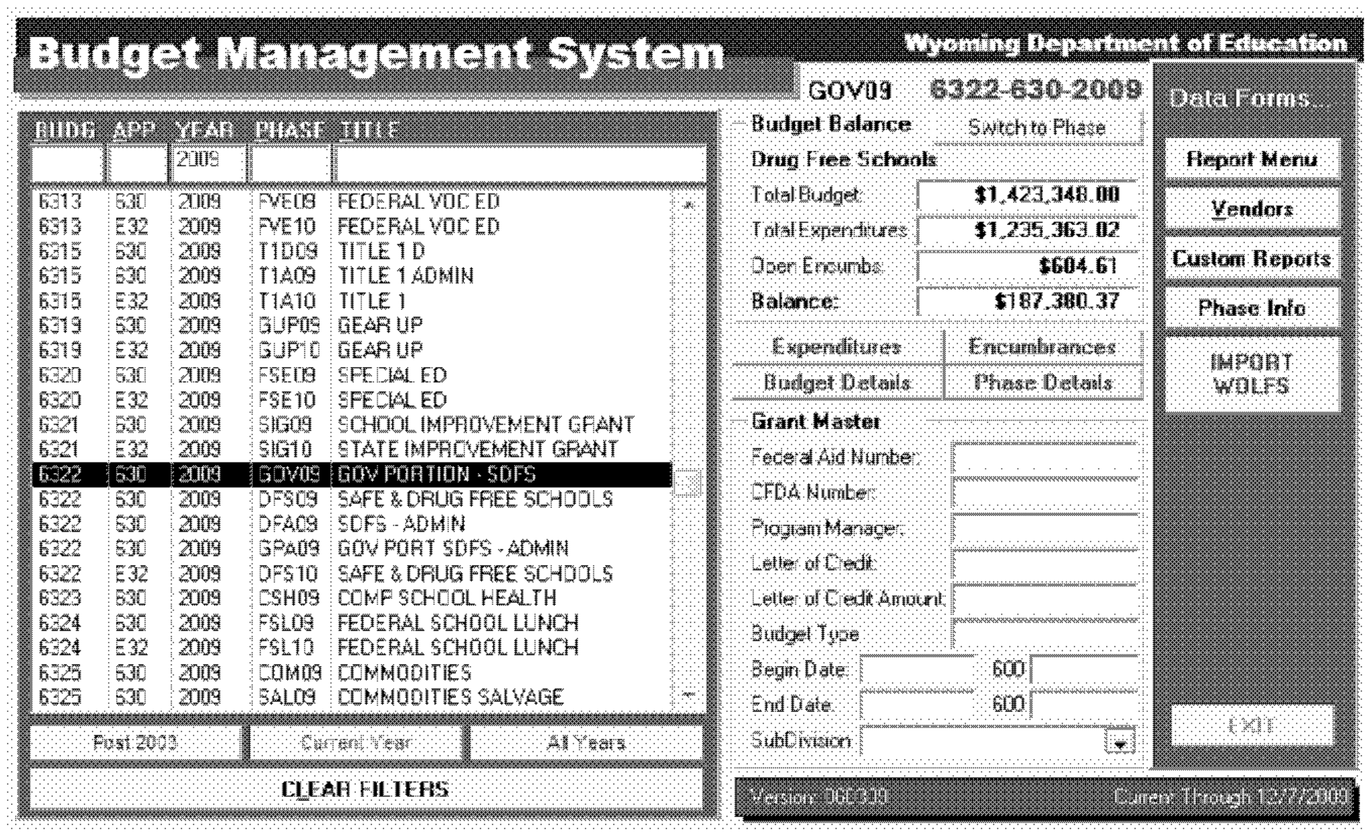
Hathaway Scholarship	**Foreign Language** Phase-In 2009-10 Graduating Class	**Foreign Language** Graduating Class of 2010-11 And Thereafter
Honors or **Performance** Scholarship Requirements	ONE year of foreign language which must be taken in grades 9 through 12. The native langue of the Eastern Shoshone or the Northern Arapaho may be taken in fulfillment of this requirement. American Sign Language (ASL) may be taken in fulfillment of this requirement.	TWO sequenced years of the same foreign language which: need not be taken consecutively; and at least ONE year of which shall be taken in grades 9 through 12. The native language of the Eastern Shoshone or the Northern Arapaho may be taken in fulfillment of this requirement. American Sign Language (ASL) may be taken in fulfillment of this requirement.
Opportunity Scholarship Requirements	Current high school graduation requirements	Demonstrate proficiency on the state standards for the foreign cultures and languages common core of knowledge requirements.
Provisional Opportunity Scholarship Requirements	Current high school graduation requirements	Demonstrate proficiency on the state standards for the foreign cultures and languages common core of knowledge requirements.

It is the intent of the legislature that, beginning in their 8th grade year, each student be counseled concerning their course history, options for future course selections, and consequences attached to selecting course pathways ***prior to registering for high school classes***.

Budget Management System Details

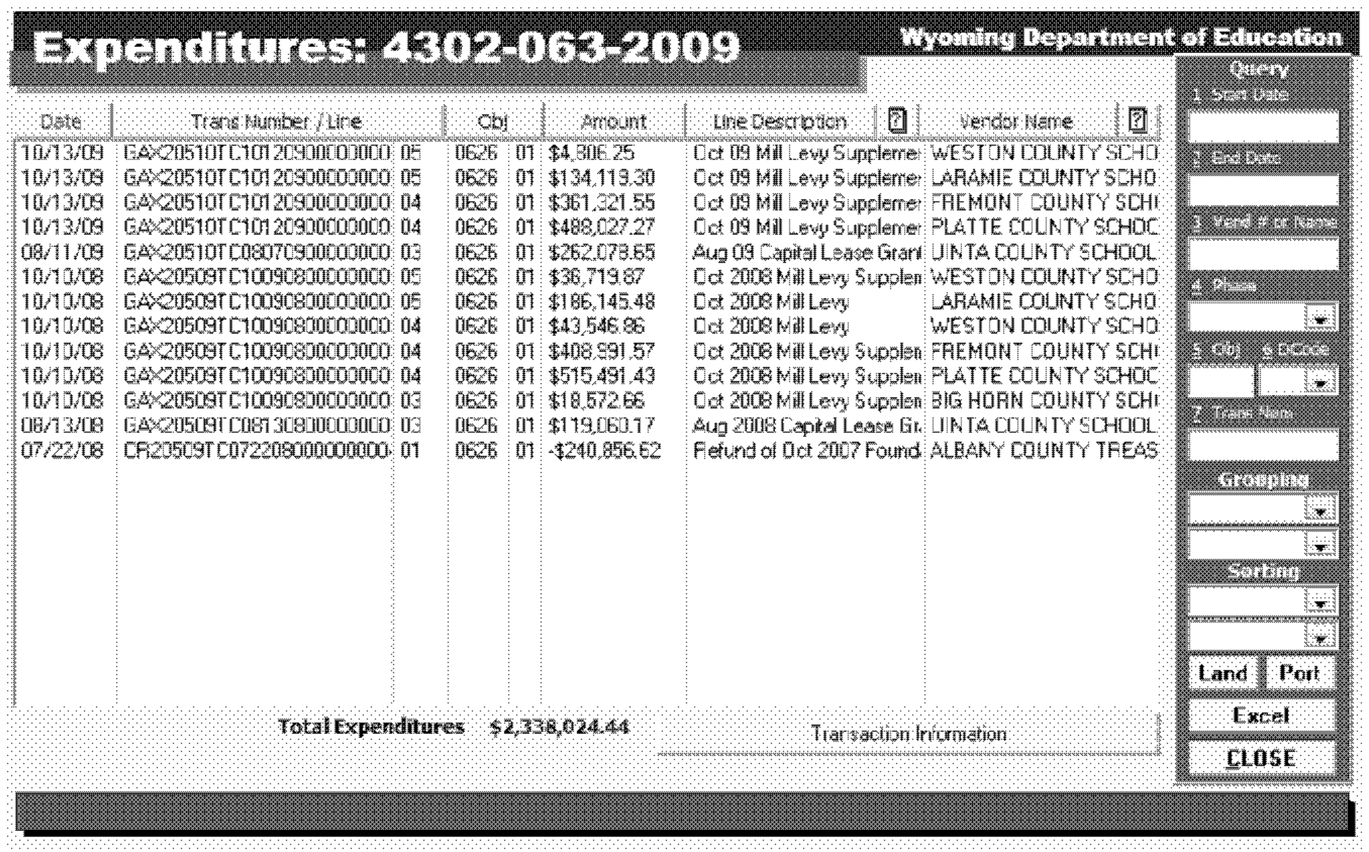
Main Menu

The Main Menu provides basic search options by budget codes and name. Select a budget and balances are displayed on the right with grant related information. Additional screens are provided for expenditures, encumbrances, series level balances, and phase details within each budget.



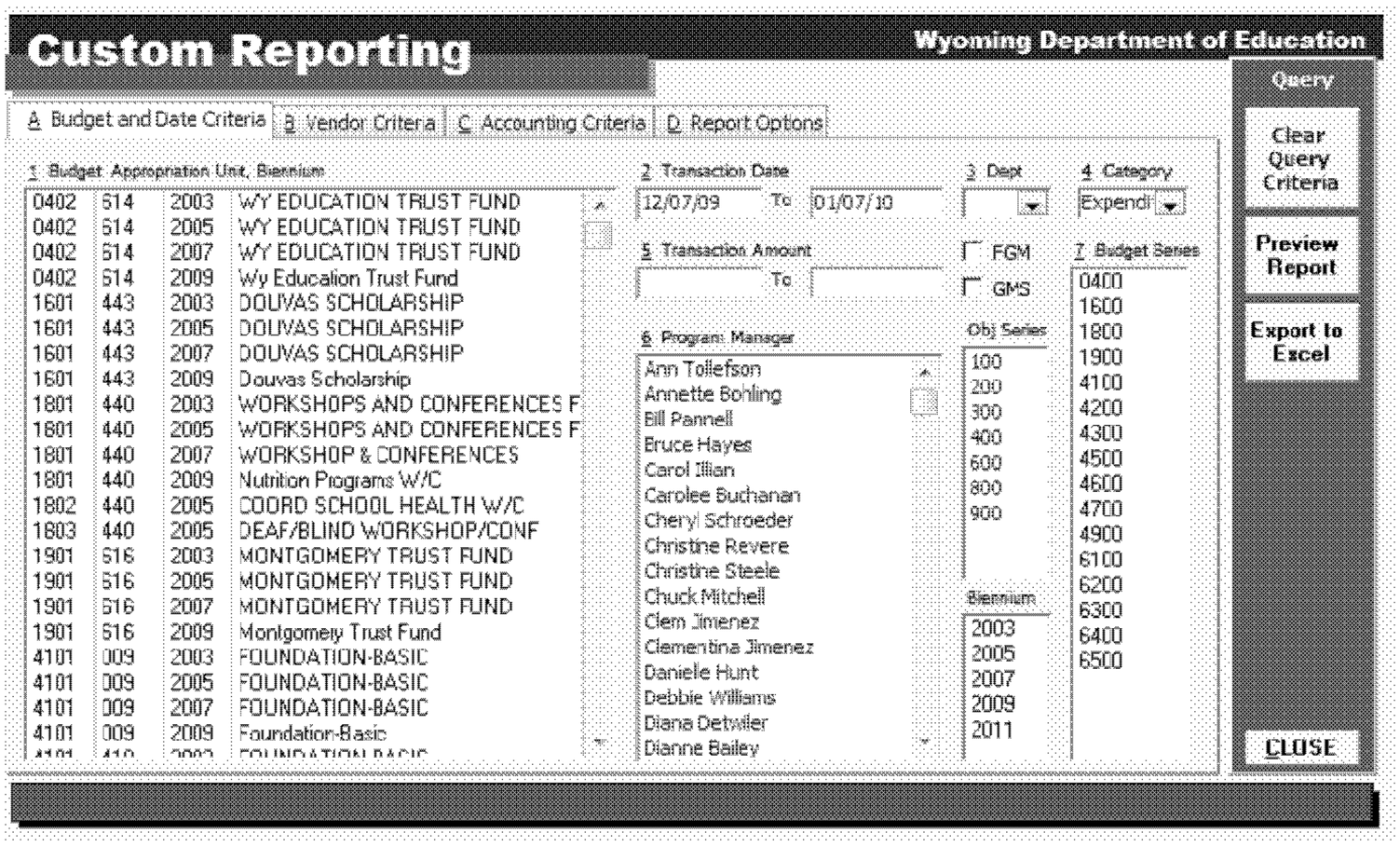
Expenditures

Expenditures within a budget are listed on this page. For large budgets with many expenditures, users can sort by buttons on top of the expenditure list. Expenditure query options are provided on the right side of the screen. There are similar screens for encumbrances, budget details, and phase details. This screen also provides some basic grouping and sorting as described in custom reporting below.



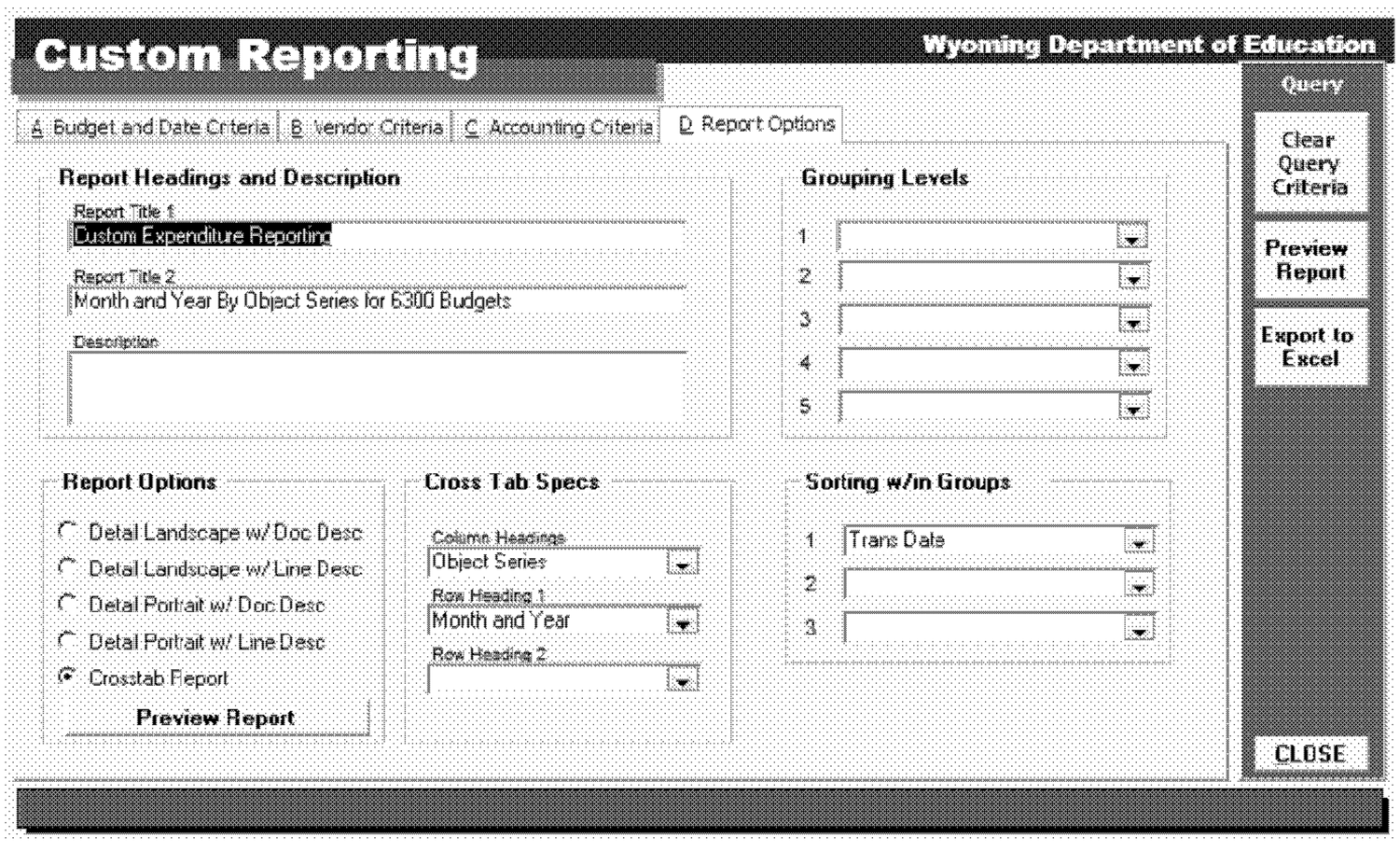
Custom Report Criteria

The Custom Reporting screen gives users the ability to enter query criteria based on all transaction related data fields. Users can select one or more options from list boxes for all accounting codes. The first three tabs provide a variety of options for query criteria.



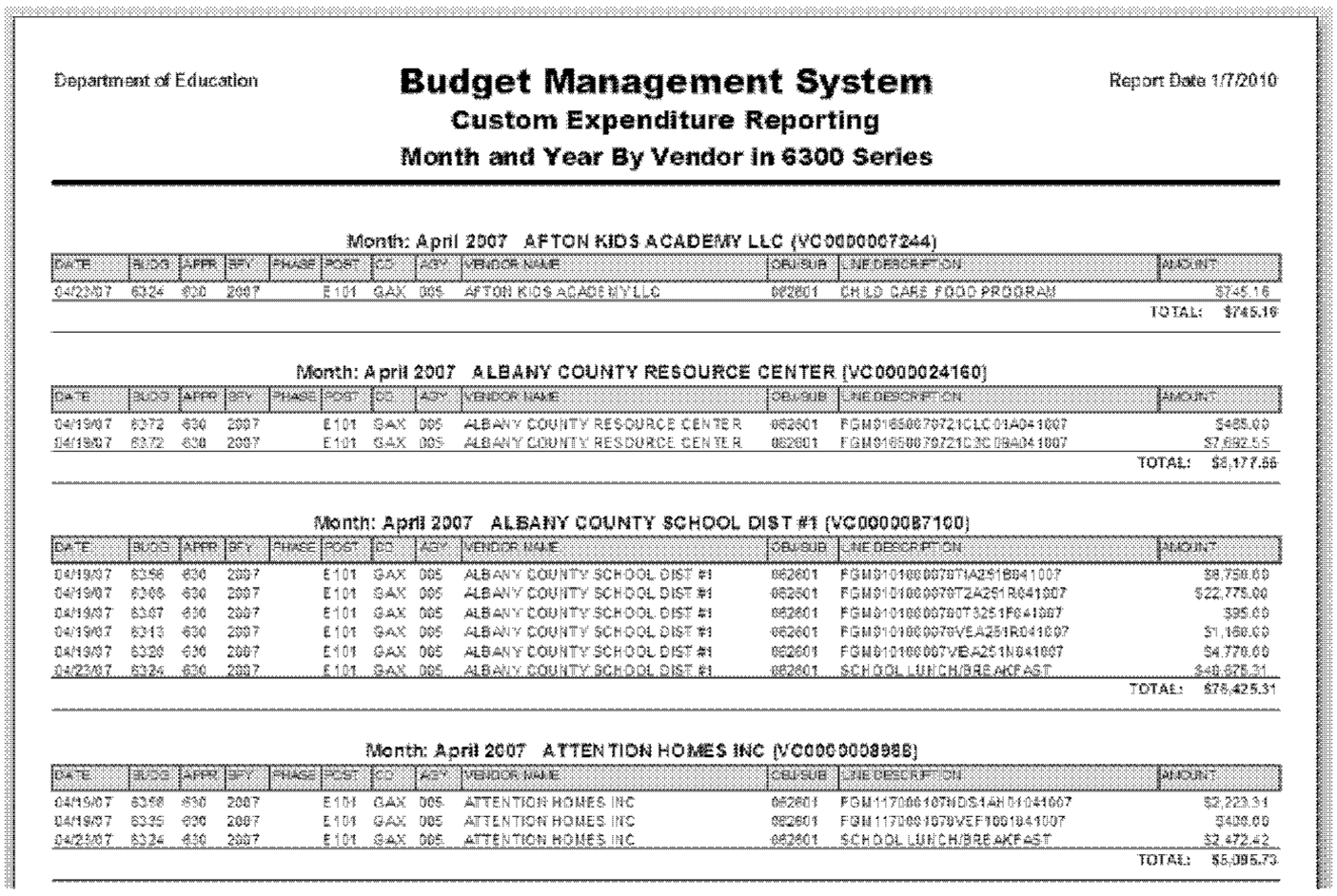
Custom Report Options

After choosing custom report criteria, it is up to the user to define how the report is presented. There are a variety of way a report can be displayed. The default option is a simple list. Lists can be sorted and grouped or presented in a crosstab format as shown below.



Grouping Report Example

Up to five grouping levels can be chosen. Each group would present a transaction subtotal. The following report shows grouping options.



Department of Education

Budget Management System
Custom Expenditure Reporting
Month and Year By Vendor in 6300 Series

Report Date 1/7/2010

Month: April 2007 AFTON KIDS ACADEMY LLC (VC0000007244)

DATE	BUDG	APPR	SFY	PHASE	POST	CO	AGY	VENDOR NAME	OBJ/SUB	LINE DESCRIPTION	AMOUNT
04/23/07	6324	630	2007		E101	GAX	005	AFTON KIDS ACADEMY LLC	062601	CHILD CARE FOOD PROGRAM	$745.16
										TOTAL:	$745.16

Month: April 2007 ALBANY COUNTY RESOURCE CENTER (VC0000024160)

DATE	BUDG	APPR	SFY	PHASE	POST	CO	AGY	VENDOR NAME	OBJ/SUB	LINE DESCRIPTION	AMOUNT
04/19/07	6372	630	2007		E101	GAX	005	ALBANY COUNTY RESOURCE CENTER	062601	FGM9165B079721CLC01A041007	$485.00
04/19/07	6372	630	2007		E101	GAX	005	ALBANY COUNTY RESOURCE CENTER	062601	FGM9165B079721C3C09A041007	$7,692.55
										TOTAL:	$8,177.55

Month: April 2007 ALBANY COUNTY SCHOOL DIST #1 (VC0000087100)

DATE	BUDG	APPR	SFY	PHASE	POST	CO	AGY	VENDOR NAME	OBJ/SUB	LINE DESCRIPTION	AMOUNT
04/19/07	6356	630	2007		E101	GAX	005	ALBANY COUNTY SCHOOL DIST #1	062601	FGM9101B0070TIAZ51B041007	$6,750.00
04/19/07	6365	630	2007		E101	GAX	005	ALBANY COUNTY SCHOOL DIST #1	062601	FGM9101B0070TZA251R041007	$22,775.00
04/19/07	6367	630	2007		E101	GAX	005	ALBANY COUNTY SCHOOL DIST #1	062601	FGM9101B0070T3251P041007	$95.00
04/19/07	6313	630	2007		E101	GAX	005	ALBANY COUNTY SCHOOL DIST #1	062601	FGM9101B0070VEAZ51R041007	$1,160.00
04/19/07	6326	630	2007		E101	GAX	005	ALBANY COUNTY SCHOOL DIST #1	062601	FGM9101B0070VBAZ51N041007	$4,770.00
04/23/07	6324	630	2007		E101	GAX	005	ALBANY COUNTY SCHOOL DIST #1	062601	SCHOOL LUNCH/BREAKFAST	$48,875.31
										TOTAL:	$78,425.31

Month: April 2007 ATTENTION HOMES INC (VC0000008988)

DATE	BUDG	APPR	SFY	PHASE	POST	CO	AGY	VENDOR NAME	OBJ/SUB	LINE DESCRIPTION	AMOUNT
04/19/07	6358	630	2007		E101	GAX	005	ATTENTION HOMES INC	062601	FGM1170B618TNDS14H01041007	$2,223.31
04/19/07	6335	630	2007		E101	GAX	005	ATTENTION HOMES INC	062601	FGM1170B1679VEF1001041007	$400.00
04/23/07	6324	630	2007		E101	GAX	005	ATTENTION HOMES INC	062601	SCHOOL LUNCH/BREAKFAST	$2,472.42
										TOTAL:	$5,095.73

Crosstab Reports

The following shows a custom crosstab report where we chose object series as the column header and month and year as the option for row header. Two variable (column and row) cross-tabs include a pie chart representing the sum of the rows as values on the chart. We also provide a three variable (column and two rows) crosstab with grouping levels on rows.

Department of Education

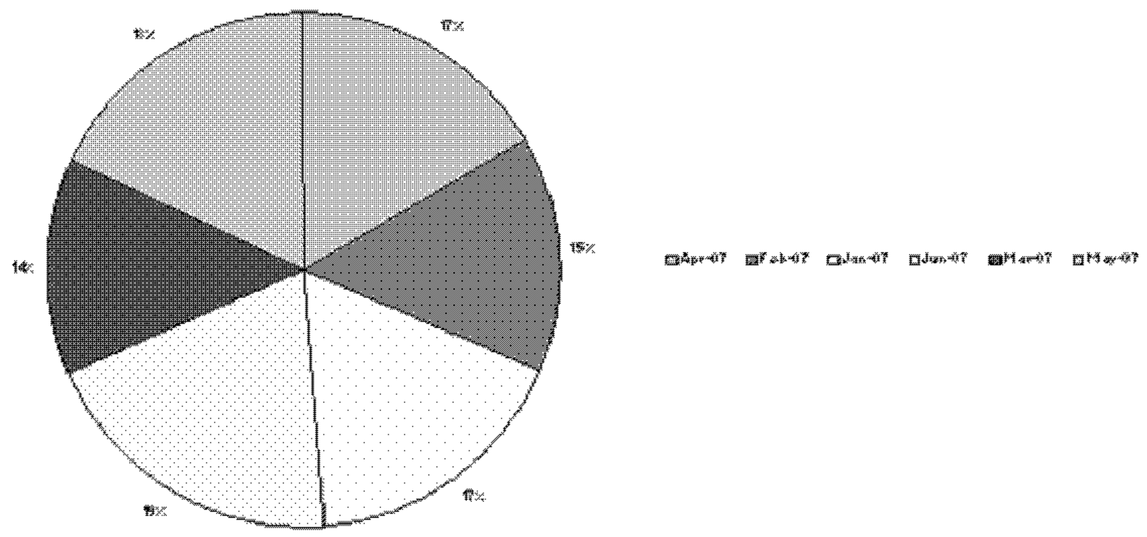
Budget Management System

Custom Expenditure Reporting

Month and Year By Object Series for 6300 Budgets

Report Date: 1/7/2010

Month and Year BY Object Series	100	200	300	400	600	900	TOTAL
April 2007	$150,906.73	$23,546.11	$3,384.00	$1,963.30	$8,425,456.39	$206,476.71	$8,845,397.24
February 2007	$44,336.68	$18,521.03	$4,310.00	$99.26	$7,744,373.16	$64,403.15	$7,875,573.95
January 2007	$73,991.33	$7,310.35	$1,139.00	$99.01	$7,695,437.95	$1,295,815.83	$9,073,793.47
June 2007	$127,115.13	$33,436.26	$10,461.00	$3,415.95	$10,139,736.69	$123,053.64	$10,436,518.70
March 2007	$70,466.07	$21,083.59	$2,393.00	$446.62	$7,151,270.52	$61,515.66	$7,307,175.46
May 2007	$111,068.70	$33,139.60	$8,644.00	$3,962.05	$9,399,342.30	$80,464.38	$9,636,721.03
TOTAL	$610,084.67	$217,075.21	$30,141.00	$11,984.21	$60,556,673.96	$1,750,816.15	$63,209,379.10

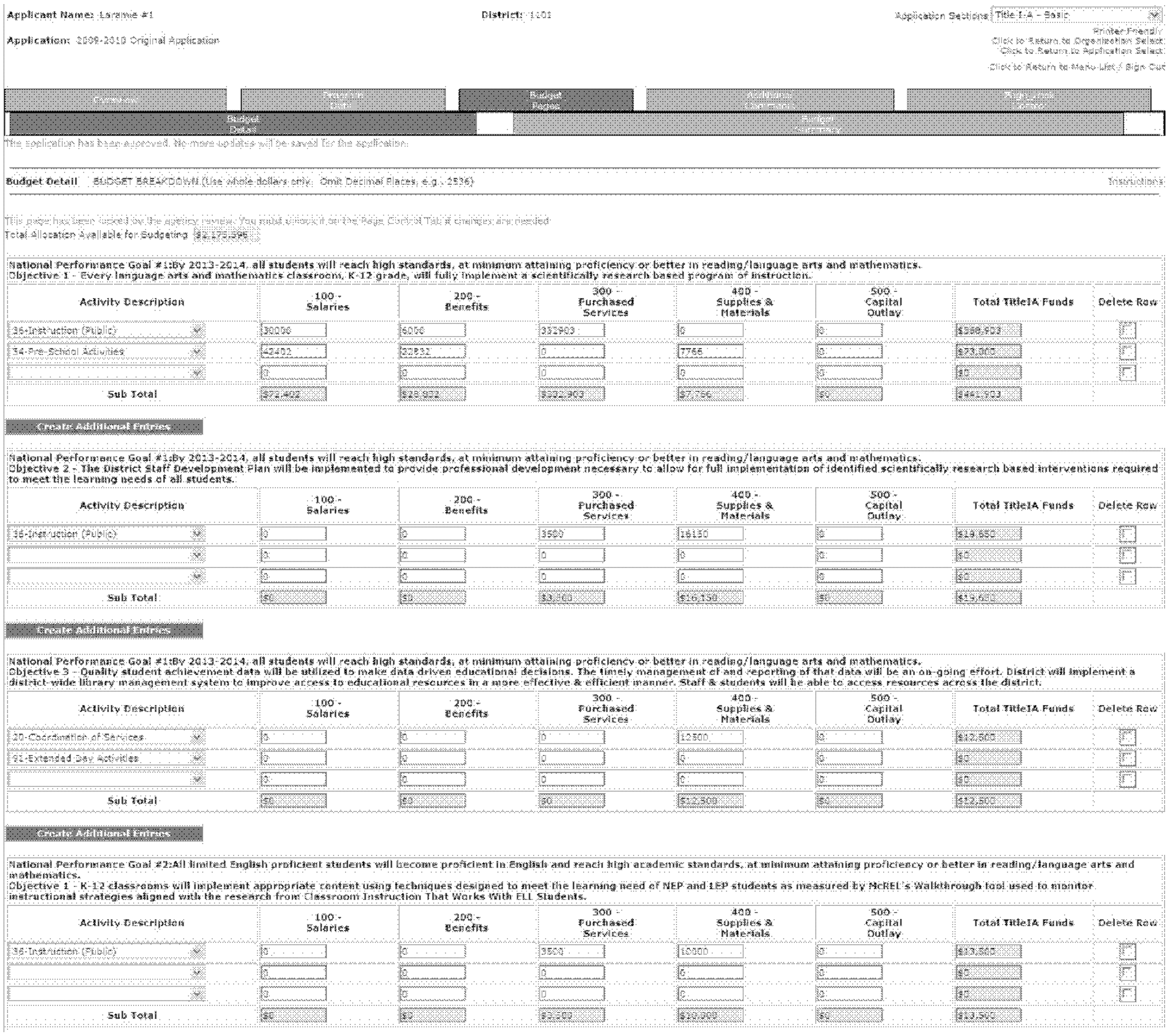


Query Criteria: WHERE WOLFS_TRANSACTION.TRANSACTION_ID > 0 AND ((DATE_OF_ACCEPTANCE) BETWEEN #1/1/2007# AND #7/1/2007#) AND ([EXP] = 'Y') AND (Left([BUDGET_CODE],2) & '00' = '6300')

Description:

Grants Management System:

Our GMS facilitates the capture of Goals and Needs from Wyoming LEAs, which in turn are referenced in the online budgeting process. By tying individual budget line items to specific Goals and Needs, LEAs are forced to consider how their planned expenditures will promote progress towards the Goals and Needs that were identified. The following image shows how budget line items are aligned with specific Goals and Needs. This process is implemented for all programs within our GMS.



Applicant Name: Laramie #1 **District:** 1101 Application Sections: Title I-A – Basic

Application: 2009-2010 Original Application

Printer Friendly
Click to Return to Organization Select
Click to Return to Application Select
Click to Return to Menu List / Sign Out

Preparation | Budget Data | Budget Review | Budget Approval | Budget Submission | Application Approval

The application has been approved. No more updates will be saved for the application.

Budget Detail BUDGET BREAKDOWN (Use whole dollars only. Omit Decimal Places, e.g. 2536) Instructions

This page has been locked by the approval reviewer. You must unlock it on the Page Control Tab if changes are needed.

Total Allocation Available for Budgeting $2,172,295

National Performance Goal #1:By 2013-2014, all students will reach high standards, at minimum attaining proficiency or better in reading/language arts and mathematics.
Objective 1 - Every language arts and mathematics classroom, K-12 grade, will fully implement a scientifically research based program of instruction.

Activity Description	100 - Salaries	200 - Benefits	300 - Purchased Services	400 - Supplies & Materials	500 - Capital Outlay	Total TitleIA Funds	Delete Row
36-Instruction (Public)	30000	6000	332903	0	0	$368,903	
34-Pre-School Activities	42402	22831	0	7766	0	$73,000	
	0	0	0	0	0	$0	
Sub Total	$72,402	$28,831	$332,903	$7,766	$0	$441,903	

Create Additional Entries

National Performance Goal #1:By 2013-2014, all students will reach high standards, at minimum attaining proficiency or better in reading/language arts and mathematics.
Objective 2 - The District Staff Development Plan will be implemented to provide professional development necessary to allow for full implementation of identified scientifically research based interventions required to meet the learning needs of all students.

Activity Description	100 - Salaries	200 - Benefits	300 - Purchased Services	400 - Supplies & Materials	500 - Capital Outlay	Total TitleIA Funds	Delete Row
36-Instruction (Public)	0	0	3500	16150	0	$19,650	
	0	0	0	0	0	$0	
	0	0	0	0	0	$0	
Sub Total	$0	$0	$3,500	$16,150	$0	$19,650	

Create Additional Entries

National Performance Goal #1:By 2013-2014, all students will reach high standards, at minimum attaining proficiency or better in reading/language arts and mathematics.
Objective 3 - Quality student achievement data will be utilized to make data driven educational decisions. The timely management of and reporting of that data will be an on-going effort. District will implement a district-wide library management system to improve access to educational resources in a more effective & efficient manner. Staff & students will be able to access resources across the district.

Activity Description	100 - Salaries	200 - Benefits	300 - Purchased Services	400 - Supplies & Materials	500 - Capital Outlay	Total TitleIA Funds	Delete Row
20-Coordination of Services	0	0	0	12500	0	$12,500	
91-Extended Day Activities	0	0	0	0	0	$0	
	0	0	0	0	0	$0	
Sub Total	$0	$0	$0	$12,500	$0	$12,500	

Create Additional Entries

National Performance Goal #2:All limited English proficient students will become proficient in English and reach high academic standards, at minimum attaining proficiency or better in reading/language arts and mathematics.
Objective 1 - K-12 classrooms will implement appropriate content using techniques designed to meet the learning need of NEP and LEP students as measured by McREL's Walkthrough tool used to monitor instructional strategies aligned with the research from Classroom Instruction That Works With ELL Students.

Activity Description	100 - Salaries	200 - Benefits	300 - Purchased Services	400 - Supplies & Materials	500 - Capital Outlay	Total TitleIA Funds	Delete Row
36-Instruction (Public)	0	0	3500	10000	0	$13,500	
	0	0	0	0	0	$0	
	0	0	0	0	0	$0	
Sub Total	$0	$0	$3,500	$10,000	$0	$13,500	

After the applications and budgets are approved, LEAs are able to begin submitting Cash Requests. The GMS has helped improve our internal controls, in making sure that the Cash Requests are consistent with the budget that was approved by our department. Cash Requests are submitted, approved, and/or returned for revisions in real-time, which has improved our ability to get appropriate funds to LEAs in a timely manner. The following image shows a Cash Request for an approved application.

Cash Request 9 — Instructions

This request has been approved. No more updates will be saved.

Agency: 305
Document #: 49066000412
Check/EFT #: 2009050107251212
Check/EFT Date: 5/1/2009

Program: TitleIA

Itemize and explain each expenditure amount. Provide a complete breakdown of eligible employee benefits. Click on the "Create Additional Entries" button to enter additional information. (Use whole dollars only. Omit Decimal Places, e.g. $2536)

Description of Series Codes

Series Code	Expenditure Description and Itemization (1000 Character Maximum)	Final Approved Budget	Previously Requested	Reimbursement Request	Delete Row
100	Teacher Salaries 04/30/09 to 05/28/09	$1,026,928	$866,770	32759	
200	Payroll Benefits 04/30/09 to 05/28/09	$316,992	$256,683	6158	
300	Purchased Services/ Travel/ Registration 04/30/09 to 05/28/09	$211,149	$121,478	30027	
400	Supplies 04/01/09 to 05/28/09	$33,300	$66,467	10000	
			Total		$81,946
	Indirect Cost Approved Rate 4.0000 % Derived Rate 5.6244 %	$136,884	$127,176		$7,887
			Total		$89,833

NOTE: Data displayed on this page was effective as of 5/28/2009

Vendor Invoice Number: 1101T109905011
End Period Expense: 5/28/2009 (Enter as MM/DD/YYYY)

RECAP	Amount
Grant Award (Allocation):	$1,736,954
Approved Budget:	$1,736,954
Amount Paid To Date	$1,446,874
Expenses To Date	$0
Balance Due LEA	$0
Funds on Hand	$1,446,874

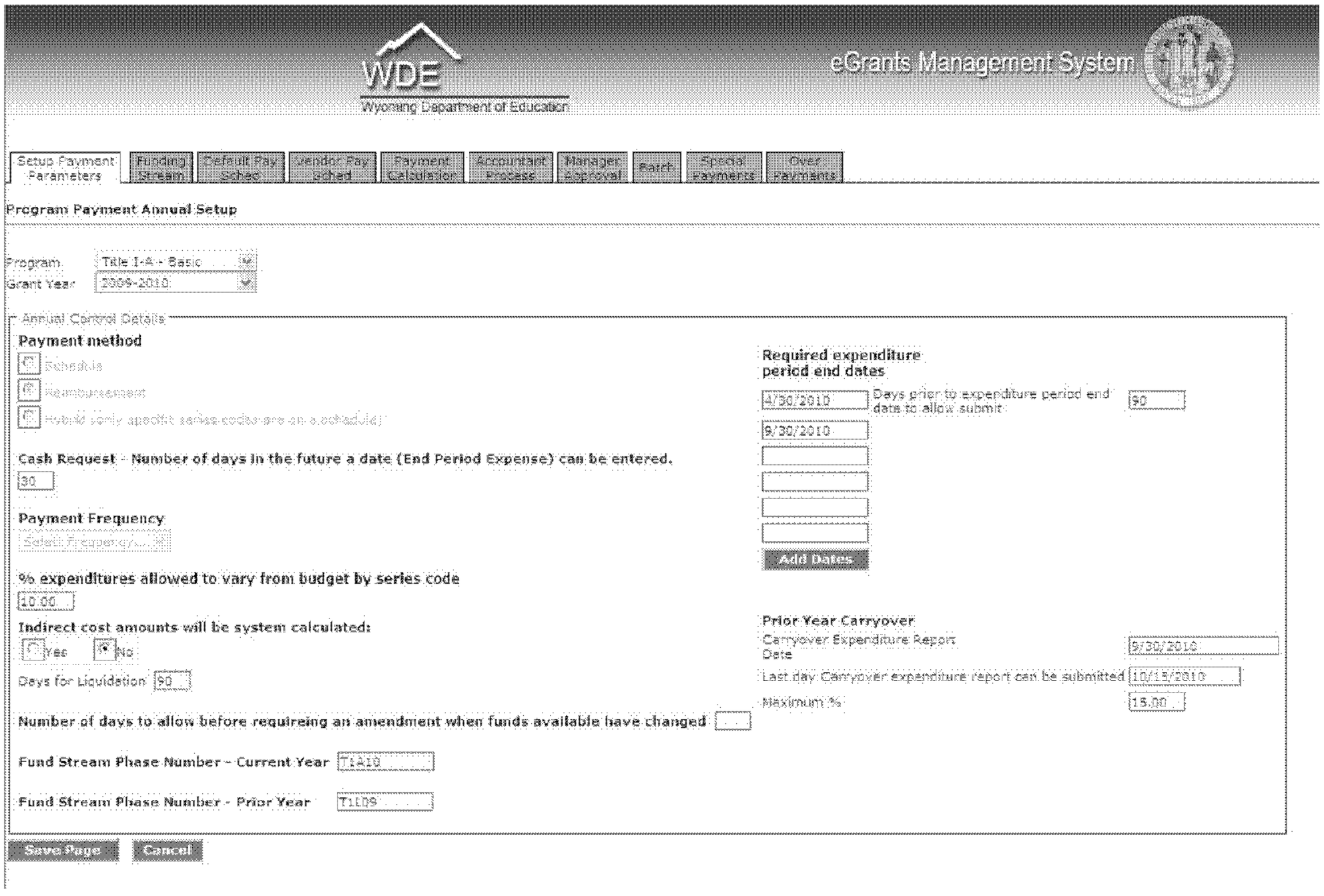
Amount Paid to Date by Fund Source

TitleIA	$1,446,874
Total	$1,446,874

Payment Funding Details

Payment Type	Amount	Fund Stream Program	Reporting Category Year	Code	Federal Aid #
PAYMENT	$89,833	TitleIA	2009	T1L09	3900S6356630
Total:	$89,833				

For each program, for each year, we have the ability to configure Expenditure Reports frequency, allowable tolerance levels, carryover limitations, and other considerations. Through this parameterized approach, far fewer code changes are needed to support emerging requirements. The following image shows some of the parameters that are configured by authorized WDE Staff.



Our GMS also contains significant fiscal controls. Accountant and Manager roles ensure a division of responsibilities – so that at least two people must approve a financial transaction before it can be posted.

PARRASCOPE BENEFITS FOR WYOMING

Private Network

Parrascope allows Wyoming to build a virtual network of trusted vendors and sub-recipients

In the short term, state users interact with those entities online to help produce required quarterly ARRA reports

In the long term, state agencies could use it to produce any reports, generate RFPs, collect bids, award funds, and schedule payments

Audit Trail

All activity in the Parrascope site is logged by date, time, member, user, activity, and notes

This provides a complete record of all changes made to any element of an award from creation to completion

All, or designated portions, of this information can be made available to the public as part of a searchable database

Custom Development Input

Wyoming has direct input on the functionality of Parrascope

Users have direct access to a development team poised to improve the system based on their specific needs and requests

No other state will be afforded this opportunity

Easy Report Review

The federal award data that is submitted to www.federalreporting.gov is cleanly displayed on one web page (the Federal Award Summary page)

User friendly buttons allow reporters to make any necessary changes

Delegating Tasks/Sharing Responsibilities

Parrascope allows the state to create an unlimited number of users with very specific access permissions

Workload is divided amongst within the state

Wyoming also shares responsibilities with vendors and sub-recipients who use Parrascope to provide job/progress data to their prime recipients

Customized Approval Groups

Wyoming has the option to create multiple groups of multiple individuals who, in sequence, review and approve Federal Award reports

The actions of these individuals will be logged automatically by the system, and automated progress notifications will be sent by the system to users involved in the approval group

Reports that pass through the Approval Group successfully may be uploaded to Federal Reporting.gov

Customized Reporting

All users can produce very detailed, advanced reports using our reporting module, or locate data with our search feature

Custom reports can be generated by combining nearly any data field collected by Parrascope

Automated Reporting

Specific reports that must be collected at pre-determined intervals (i.e. monthly spending report) can be produced automatically and emailed to designated state users

Expandable to Grant Management Tool & RFP/Bid/Award Solution

Parrascope is expandable into a full grant management tool, with functionality far beyond what is required by ARRA

Uses existing network of sub-recipients and vendors

Includes RFP creation module

Includes Bid Collection tools

Includes Awarding and Payment software

Improves efficiency and reduces cost of procurement by potentially millions of dollars

External Hosting/Management

Parrascope is hosted and managed by Level One Technologies, Inc.

Level One is responsible for all software updates, maintenance, and support

Level One will be contracted to provide specific levels of service to meet the state's needs, relieving the state of these management burdens

Communication Tools

Parrascope provides state users with an internal communication tool that allow requests for information, edits, or general notes

These requests are emailed directly to the state user and stored as part of the audit log (as public or private notes).

Parrascope also provides communication tools between state users and vendors and sub-recipients

These notes are also classified as private or public notes, and appear as part of the record

Automatic Notifications for Subs & Vendors

In addition to direct messages sent from state users to their vendors and sub-recipients, the system will send these members automated reminders, alerts, and notifications of their reporting responsibilities

This will remove the cumbersome task of the state having to track down vital information during busy reporting times

Sortable, Organized Lists

Federal awards, state programs (NAFRs), and state projects all appear on lists organized by status

These lists provide a great deal of functionality, including sorting, editing, filtering, and batching

Status Labels on Reports & Jobs

Using color coded icons, the main lists in Parrascope inform the user at a glance if a federal award record is under review, approved, or still in progress

Entries on jobs/progress are also color coded

Parrascope provides vendors and sub-recipients with a tool to calculate jobs (or claim no jobs impact)

The prime recipient must review and certify these totals, and the lists provide them with icons that immediately notify them of the jobs reporting status (no data, in progress, submitted for review, reviewed and certified)

Historical Record of All Project Data

Parrascope provides a complete historical record of all data associated with a federal award, state program, or state project

Searchable Public Site

If Wyoming desires, the data from Parrascope could be mirrored onto a searchable site open to the public, which would be managed and maintained by Level One

Customized Public Transparency

If Wyoming decides to offer a searchable database at the state level, it can customize the level of transparency it provides its citizens

It can limit it to the data provided to the federal government, offer a complete view of all audit trails and documents, or provide something in between

This can be dictated by Wyoming and altered as needed

Ability to Attach Documents (Private and Public)

State agencies, sub-recipients, and vendors can each attach external files (pdf, tiff, doc, xls, etc) to records within Parrascope

These supplementary files can be designated as documents open or closed to public view

Managed Version Control

Updates to the required reporting fields are easily modified within Parrascope

Modifications are made to one database within our system and the results are automatically available to all users

The excel template provided could change at any time and required the state to re-key all data into the newer version

Easy Quarterly Updates

Data from previous quarters is maintained by the system and is the default data set for new quarters

This allows Wyoming, sub-recipients, and vendors to quickly and efficiently update the fields that change each quarter

Form Validation

Business logic will be built into all Parrascope forms preventing users from skipping required fields, or entering invalid data

Preserves the integrity of the data and reduce errors

Databases

Parrascope allows all members to maintain databases of Users, Agencies, Sub-Recipients, Vendors, and Addresses

These databases reduce duplicate data entry, improving efficiency and reducing errors

Able to Import Data

Parrascope can accommodate both simple and advanced importing

Files stored in an excel format can be imported as .csv documents, or state databases could automatically push data to the Parrascope system

Able to Export Data

Parrascope can accommodate simple and advanced exporting

On all lists, one click will produce a csv export

Advanced automated exports for long term storage or accounting purposes can also be developed as needed

Automatic Calculations

Parrascope reduces errors by performing numerous quarterly calculations automatically

The jobs FTE, total sub-awards under $25K. total expenditures, total funds received/invoiced are just a few

Batch Functionality

Lists provide batch functionality, which allows the user to group records together and perform changes in batch form

If there are 10 of 100 projects that need job data updates, the state user can batch the 10 projects, create one note, and click a button to send it to all 10 vendors/sub-recipients automatically

Advanced Filtering

Users looking to perform specific tasks can filter their lists by specific customized criteria

For instance, the active federal award list may contain 150 records, but the user only wants to view records tied to the Wyoming Business Council with no jobs associated and under $200,000.00

Setting up the list filter will hide the records that don't meet that functionality

Training & Support

The Level One team will provide ongoing support, phone training, and video tutorials for the site

Wyoming users will have access to designated members of the team 24/7

Simplified Jobs Collection/Calculation

Parrascope provides a jobs module that automatically calculates the FTE and aggregates job data for the state in one location on each award

With a standardized job creation tool, the state can be confident in the integrity of the data

Certification can occur in batch form, further minimizing the role of the state

Federal Reporting Performed by the Prime

Parrascope handles the management, review, and correction of all data prior to the submission of the report

This allows the state to certify information provided by the sub-recipients and report on their behalf

Prestige

State government is a prestigious organization, and should use a prolific solution, not a basic one

This is a unique opportunity to pleasantly surprise citizens

SUB/VENDOR BENEFITS

One time registration

Vendors and sub-recipients perform a quick one time registration to join Wyoming's network

This exercise will allow them to remain part of future developments including grant management and RFP/bidding

Simplified form

For ARRA reporting, vendors and sub-recipients must complete just one short form per project per quarter

It's conveniently available online

Prevents phone calls, emails, invalid, or inaccurate data

Jobs Calculation Simplified

Letting each and every vendor and sub-recipient calculate their own FTE could open the state up to numerous headaches and errors (excel)

Parrascope provides these members with a standardized tool that simplifies jobs reporting each quarter, and allows the state to quickly review and certify the vendor/sub-recipient

provided data

Email reminders

Vendors and sub-recipients are sent multiple reminders throughout the quarter notifying them that updates are required

These reminders will include a link to the specific location where the update occurs

Federal Reporting Performed by the Prime

Sub-recipients use Parrascope to report data to the prime recipient (one short form/quarter/project)

This allows the prime to report on behalf of the sub-recipient and relieve them of the need to upload to www.federalreporting.gov

Support & Training Tools

Vendor and sub-recipient functionality in Parrascope is greatly reduced compared to that of the state

This user-friendly design minimizes the need for training and support

Personal training and support will be provided for those who need it, along with video tutorials and pdf manuals

Network Participation

Participating in a network, especially one with the potential to grow into something quite large, has obvious advantages over excel

Bidding, accepting, tracking, and reporting on awards will be easier for vendors and sub-recipients in Wyoming than anywhere else

WYOMING EDUCATION ASSOCIATION
115 East 22 Street, #1 Cheyenne WY 82001-3795 800.442.2395 wyoea.org

January 11, 2010

BOARD of DIRECTORS
Kathryn Valido
President

Craig Williams
Vice President

Jon Van Overbeke
Treasurer

Kathy Vetter
NEA Director

Sara Simpson
Student WEA President

Julie Tucker
ESP Representative

Chris Garcia
Minority Representative

Jacque Harrod
Retired Representative

Cathy Rogers
Higher Ed Representative

Debbie Bovee
CD President

Anne Howe
CD Representative

Mary Smiley
NED President

Jennifer Fowler
NED Representative

Brendan O'Connor
NWD President

Carrie Johnson
NWD Representative

Sue Cochran
SED President

Lisa Esquibel
SED Representative

Amy Simpson
SED Representative

Tyler Ruby
SWD President

Kay Freudenberg
SWD Representative

Don Mende
SWD Representative

Chris Canterbury
Acting Executive Director

Dr. James McBride, Superintendent of Public Instruction
Wyoming Department of Education
2300 Capitol Avenue, 2nd Floor
Cheyenne, WY 82002-0050

Dear Dr. McBride,

The Wyoming Education Association supports the application from the Wyoming Department of Education for funding under the Race to the Top competitive grant process. We have been a part of the process developing the application and we appreciate the effort and passion that has been poured into the proposal.

Wyoming students learn in an environment of support, thanks to the efforts of both the judicial and legislative branches of our state government. The opportunities that will be afforded by additional funding will clearly offer the opportunity to add to our current high quality public education. The application is written with strong emphasis on collaboration of all education entities in our state; we are confident that the same collaboration will be the bedrock of the reform efforts that will result.

Please give this grant strong consideration. Our association stands ready to support their efforts!

Sincerely,

Kathryn Valido

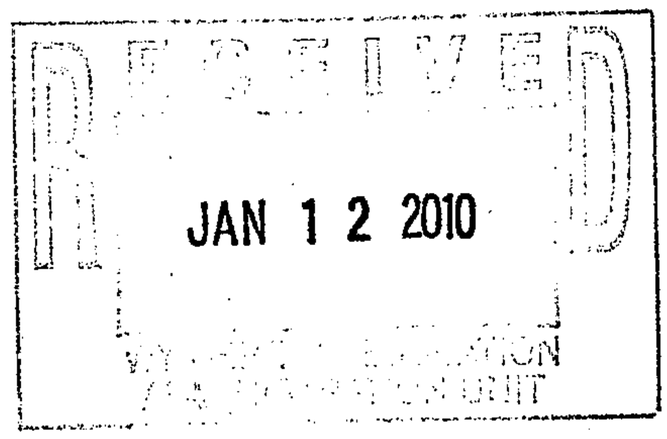
Kathryn Valido
President
Wyoming Education Association
kvalido@nea.org
307-214-5533

Brent D. Sherard, M.D., M.P.H., F.A.C.P., Director and State Health Officer

Governor Dave Freudenthal

January 11, 2010

Ref: S-2010-125



Dr. James McBride, Superintendent of Public Instruction
Wyoming Department of Education
Hathaway Bldg., Second Floor
2300 Capitol Avenue
Cheyenne, WY 82002-0050

Dear Dr. McBride:

On behalf of the Wyoming Department of Health, I am pleased to write this letter in support of the Wyoming Department of Education application for funding under the Race to the Top competitive grant process.

The Wyoming Department of Education has supported innovation in our state, seeking the best practices to help the children of Wyoming with their educational needs. The Wyoming State Legislature has supported the Department, districts, state partners and stakeholders' efforts to transform public education by passing supporting legislation. Like many state agencies, in these difficult economic times, they can use additional resources to efficiently and effectively deliver their services and support school districts efforts to continuously improve.

I understand that the Wyoming Department of Education's grant application will help with needed reforms in the critical areas of developing high standards and assessments, implementing good data systems, developing great teachers and leaders and turning around the lowest-achieving schools. The Wyoming Department of Health supports these initiatives and can see the value in implementing these reform efforts for the benefit of Wyoming children.

I would appreciate your serious consideration of the Wyoming Department of Education's application. I can assure you the Wyoming Department of Health will support their efforts.

Sincerely,

Brent D. Sherard, M.D., M.P.H., F.A.C.P.
Director and State Health Officer
Wyoming Department of Health

BDS/JS/jg

Professional Teaching Standards Board

Dr. Connie J. Pollard, Director
1920 Thomes Avenue - Suite 400
Cheyenne, Wyoming 82002-0190
Website: http://ptsb.state.wy.us

cpolla@state.wy.us
(307) 777-7291
Fax (307) 777-8718
Toll Free 800-675-6893

Dr. James McBride, Superintendent of Public Instruction
Wyoming Department of Education
2300 capitol Avenue
Hathaway Bldg., 2nd Floor
Cheyenne, WY 82002-0050

January 12, 2010

Dear Dr. McBride,

This letter is in support of the Wyoming Department of Education (WDE) application for funding under the Race to the Top (RTTT) competitive grant process. WDE supports innovation in our state by continually seeking best practices to help the students in Wyoming schools. The Wyoming Legislature has supported the department, districts, state partners and stakeholders' efforts to transform public education by passing supporting legislation. Like many state agencies, in these difficult economic times, WDE needs additional resources to efficiently and effectively deliver services and support school districts' efforts to continuously improve. The RTTT grant application will help with reforms in the critical areas of continuing to develop high standards and assessments, implement effective data systems, develop great teachers and leaders and turning around the lowest-achieving schools. I support these initiatives and can see the value in implementing these reform efforts for the benefit of Wyoming children.

I would appreciate your serious consideration of the WDE application. I can assure you I will support their efforts in any way I can.

Sincerely,

Dr. Connie J. Pollard

WYOMING

State Board of Education

Hathaway Building, 2nd Floor
2300 Capitol Avenue
Cheyenne, Wyoming 82002-0050
(307) 777-6213 • (307) 777-6234 FAX

BILL ANTHONY
Chair, Casper

SANDRA BARTON
Vice-chair, Riverton

JAN TORRES
Treasurer, Rock Springs

PAMALA ANDERSON
Glenrock

MATT GARLAND
Gillette

MIKE HEJTMANEK
Worland

NORINE KASPERIK
Gillette

DANA MANN-TAVEGIA
Osage

LARRY McGARVIN
Ten Sleep

PHILLIP ORTON
Evanston

GERALD REICHARDT
Wheatland

JIM MCBRIDE, ED.D.
State Superintendent

MARY KAY HILL
Board Liaison

TERESA CANJAR
Executive Assistant

January 11, 2010

Dr. James McBride, Superintendent of Public Instruction
Wyoming Department of Education
2300 Capitol Avenue
Hathaway Bldg., 2nd Floor
Cheyenne, WY 82002-0050

Dear Dr. McBride,

This letter is in support of the Wyoming Department of Education (WDE) application for funding under the Race to the Top competitive grant process. WDE has supported innovation in our State seeking best practices to help the children of Wyoming with their educational needs. The Wyoming Legislature has supported the Department, districts, state partners and stakeholders' efforts to transform public education by passing supporting legislation.

Like many state agencies, in these difficult economic times, they can use additional resources to efficiently and effectively deliver their services and support school districts efforts to continuously improve. I understand that their grant application will help with needed reforms in the critical areas of developing high standards and assessments, implementing good data systems, developing great teachers and leaders, and turning around the lowest-achieving schools. I support these initiatives and can see the value in implementing these reform efforts for the benefit of Wyoming children.

I would appreciate your serious consideration of the WDE application. I can assure you I will support their efforts in any way I can.

Sincerely,

Bill Anthony

Bill Anthony, Chair

WYOMING DEPARTMENT of
Family Services
Make a Difference

Letters of Support

2300 Capitol Ave.
Third Floor, Hathaway
Cheyenne 82002
Office: 307.777.7564
Fax: 307.777.7747
TLEWIS1@state.wy.us
dfsweb.state.wy.us

January 12, 2010

Dr. James McBride, Superintendent of Public Instruction
Wyoming Department of Education
2300 capitol Avenue
Hathaway Bldg., 2nd Floor
Cheyenne, WY 82002-0050

Ref. No. TL-10-03

Dear Dr. McBride:

This letter is in support of the Wyoming Department of Education (WDE) application for funding under the Race to the Top competitive grant process. WDE has supported innovation in our state seeking best practices to help the children of Wyoming with their educational needs.

The Wyoming Legislature has supported the department, districts, state partners and stakeholders' efforts to transform public education by passing supporting legislation. Like many state agencies, in these difficult economic times, they can use additional resources to efficiently and effectively deliver their services and support school districts efforts to continuously improve.

I understand that their grant application will help with needed reforms in the critical areas of developing high standards and assessments, implementing good data systems, developing great teachers and leaders and turning around the lowest-achieving schools. I support these initiatives and can see the value in implementing these reform efforts for the benefit of Wyoming children. I would appreciate your serious consideration of the WDE application.

The Department strongly supports your continued hard work on these crucial issues our children face.

Sincerely,

Tony Lewis
Director

National American Indian, Alaskan & Hawaiian

Educational Development Center

Tim Lockwood
Public Information Officer
Wyoming Department of Education
2300 Capitol Avenue, 2nd Floor
Cheyenne, Wyoming 82002

January 8, 2010

Greetings Mr. Lockwood:

Thank you for your briefing on the Wyoming Department of Education's (WDE) strategy for the Race to the Top application and how the National American Indian, Alaskan & Hawaiian Educational Development Center (NAIAHEDC) can be involved.

NAIAHEDC is a grassroots 501c3 non-profit organization located in Sheridan, Wyoming. NAIAHEDC provides integral numeracy and literacy recovery programs through monthly on-site professional development of guided support to educators in primary grades PreK-5 serving predominately Native American students.

NAIAHEDC currently provides and is poised to continue to provide systemic services that position schools to meet the reform priorities as outlined in the ARRA eligibility requirements.

Please accept this letter of support as a statement of NAIAHEDC's commitment to continue our work in the Wind River Indian Reservation schools. NAIAHEDC's work effectively compliments the schools' efforts as they strive to meet current Wyoming Department Education educational reform goals.

As you are aware, NAIAHEDC does not offer a "quick fix"; but instead a model which embraces a long term plan and partnership commitment with schools and their communities that serve primarily Native American students. A unique aspect of NAIAHEDC's work is a well defined process that empowers the school, family and tribal community in defining a clear vision for mathematics and taking steps to reach this goal.

NAIAHEDC understands that states are required to implement ambitious yet achievable reform based actions in order to access Race to the Top funds. NAIAHEDC, by the very nature of its work, is poised to help schools meet these requirements.

Specifically, NAIAHEDC provides:

- Assessments that directly impact teacher effectiveness and student achievement.

  For example, Strength in Number assessments are continuous throughout the school year and are not only used to direct instruction but are also used as excellent predictors of how students will perform on the state assessments/PAWS as early as late fall.

- Data collection which contributes to effective measurement of student growth and information on how to improve instruction.

808 Coffeen Avenue
Sheridan, Wyoming 82801
(307) 673-0035 phone

www.naiahedc.org

Data on individual students as well as classrooms and schools is continually being gathered and is assessed monthly to inform the professional development provided to the educators.

An elementary teacher on the Wind River Indian Reservation recalls, "Teaching Math Recovery is my favorite part of the job. Focusing on a level of difficulty that challenges and spawns good hard thinking and striving for 30 minutes of optimal learning is gratifying." But she also emphasizes the dire need to continue NAIAHEDC's program. "In 2005 when I began Math Recovery, I assessed 10 students in first grade. None of the students were able to say the numbers in order to 32. Only two or three could say the numbers in order to 10 and none could say the numbers in order backward from 10."

- Increased Teacher effectiveness and retention.

  With each year of NAIAHEDC program implementation, participating schools experience greater levels of retention as teacher support, knowledge and confidence increases.

  One elementary teacher who has been participating in NAIAHEDC professional development states "I've been in Indian Education for 17 years, and in the last two years I feel like I've had more of an impact on learning than I ever had before".

- Support in turning around the lowest performing schools.

  The schools on the Wind River Indian Reservation are among the lowest performing Schools in Wyoming. NAIAHEDC's work is having a positive impact in these schools.

  NAIAHEDC helps schools to identify at-risk students through a unique assessment system that allows educators to know exactly where students are in their mathematical development and apply necessary short-term intervention strategies. The primary goal is to intervene as early and quickly as possible before at-risk students fall too far behind their peers. This approach allows teachers, trainers and even parents to step in at the earliest stages of numerical development in order to form a strong foundation for children's future success – school's success.

NAIAHEDC also understands that non-profits are not directly eligible to receive ARRA funding. For a number of years, NAIAHEDC has maintained a sound and productive relationship with WDE specifically through WDE's Standards Team Supervisor, Tom Collins in management of services and funds to assist the Wind River Indian Reservation schools. Relationships are in place with these schools, their communities and their corresponding Tribes allowing the ease to plan and build NAIAHEDC services directly in the school districts' budgets.

Mr. Lockwood, should you need additional information and documentation, please notify NAIAHEDC and we shall get it directly to you immediately.

Thank you for your time and consideration of NAIAHEDC's request to be included as a service provider to Wyoming Schools in the WDE's Race to the Top application.

All our Best to Your Staff.

(b)(6)

Charitina Fritzler
Executive Director

UNIVERSITY
OF WYOMING

Office of Academic Affairs
Rollin Abernethy, Associate Provost
1000 E. University Avenue
Dept. 3302, 312 Old Main
Laramie, WY 82071
307.766.4286 • fax: 307.766.2606

January 11, 2010

Dr. James McBride, Superintendent of Public Instruction
Wyoming Department of Education
2300 Capitol Avenue
Hathaway Bldg., 2nd Floor
Cheyenne, WY 82002-0050

Dear Dr. McBride,

With this letter I am expressing support of the application from the Wyoming Department of Education (WDE) for funding under the Race to the Top competitive grant process. WDE has supported innovation to identify and implement best practices for Wyoming's K-12 education system. The state Legislature has supported the department, districts, state partners and stakeholders' efforts to transform public education by passing supporting legislation. Like the University of Wyoming, in these difficult economic times, the WDE can use additional resoures to efficiently and effectively deliver their services and support school districts efforts to continuously improve. I have some familiarity with the elements of the grant application and understand Race to the Top funding will help with needed reforms in the critical areas of developing high standards and assessments, implementing good data systems, developing great teachers and leaders and turning around the lowest-achieving schools. The University of Wyoming supports these broad initiatives and can see the value in implementing these reform efforts for the benefit of Wyoming youth. The university and the Wyoming P-16 Education Council, for which I currently serve as President, are particularly interested in the enhancement of the statewide data system to inform our efforts to strengthen alignment with secondary schools and improve postsecondary learning outcomes.

I would appreciate your serious consideration of the WDE application. I can assure you I will support their efforts.

Sincerely,

Rollin Abernethy
Associate Provost and Professor of Plant Biology

WYOMING SCHOOL BOARDS ASSOCIATION

"Serving Wyoming Education Through School Board Leadership"

2323 Pioneer Avenue
Cheyenne, WY 82001
Phone (307) 634-1112
FAX (307) 634-1114
www.wsba-wy.org

January 11, 2010

Dr. James McBride, Superintendent of Public Instruction
Wyoming Department of Education
2300 Capitol Avenue, 2nd Floor
Cheyenne, WY 82002-0050

Dear Dr. McBride,

This letter is in support of the Wyoming Department of Education (WDE) application for funding under the Race to the Top competitive grant process. WDE has supported innovation in our state seeking best practices to help the children of Wyoming with their educational needs. The Wyoming Legislature has supported the department, districts, state partners and stakeholders' efforts to transform public education by passing supporting legislation. Like many state agencies, in these difficult economic times, they can use additional resoures to efficiently and effectively deliver their services and support school districts efforts to continuously improve. I understand that their grant application will help with needed reforms in the critical areas of developing high standards and assessments, implementing good data systems, developing great teachers and leaders and turning around the lowest-achieving schools. I support these initiatives and can see the value in implementing these reform efforts for the benefit of Wyoming children.

I would appreciate your serious consideration of the WDE application. I can assure you I will support their efforts in any way I can.

Sincerely,

Dr. Mark A. Higdon, Executive Director

UNIVERSITY
OF WYOMING

Kay A. Persichitte, Dean
College of Education
Dept. 3374
1000 E. University Avenue • Laramie, Wyoming 82071
(307) 766-3145 • fax: (307)766-6668 • kpersi@uwyo.edu

Dr. James McBride, Superintendent of Public Instruction
Wyoming Department of Education
2300 capitol Avenue
Hathaway Bldg., 2nd Floor
Cheyenne, WY 82002-0050

January 11, 2010

Dear Dr. McBride,

I provide this letter in support of the Wyoming Department of Education (WDE) application for funding under the Race to the Top (RTTT) competitive grant process. WDE supports innovation in our state seeking best practices to help the children of Wyoming with their educational needs. The Wyoming Legislature has supported the Department, school districts', other stakeholders', and the University of Wyoming (UW) College of Education efforts to transform public education by passing legislation and facilitating cooperation across the breadth of agencies and constituents concerned with education for all. In these difficult economic times, additional resources to efficiently and effectively deliver educational services and support school district efforts to continuously improve may be critical as we push toward new accountability expectations. It is my understanding that the WDE RTTT grant (if funded) will provide direct support to developing and implementing reforms in the critical areas of developing high standards and assessments, implementing valid data systems, developing effective teachers and leaders, and turning around the lowest-achieving schools. As the sole state-supported teacher preparation program in the state of Wyoming, the UW College of Education supports these reform efforts for the benefit of Wyoming children.

I hope you will give the WDE grant application your most serious consideration. The UW College of Education stands ready to support these efforts.

Sincerely,

Kay A. Persichitte

Kay A. Persichitte, Ph.D.
Dean

11 January 2010

Dr. James McBride, Superintendent of Public Instruction
Wyoming Department of Education
2300 Capitol Avenue
Hathaway Bldg., 2nd Floor
Cheyenne, WY 82002-0050

Dear Dr. McBride:

I am pleased to provide a letter supporting the Wyoming Department of Education's application as part of the Race to the Top competitive grant process.

Given the numerous opportunities that we have had to work together and collaborate on educational issues, I can say without reservation that your efforts on behalf of Wyoming schoolchildren are both noticed and appreciated by those of us in the postsecondary arena. We are all equal partners in the transformation of education in this state. Support received from policy makers like you, remains vital to our continued progress. Coupled with the strong fiscal support in recent years from legislators, Wyoming can count itself as truly fortunate. But as we both know, resources are rapidly dwindling and our capacity to continue necessary changes to sustain progress in important areas such as school improvement, depends on external assistance through funding such as RttT.

As I understand the grant, it will provide much needed assistance in the development and implementation of strategies, assessments and standards directed to improving low-performing schools and inspiring innovation and leadership. I believe it will also encourage refinement of existing data systems to facilitate the necessary levels of information dissemination and accountability.

I wholeheartedly support your application and will assist in any way possible to accomplish the objectives of the grant should you be successful.

Best wishes,

(b)(6)

James O. Rose

Coordination of Efforts with WDE Partners

1) Early learning in Wyoming involves many partners. These partnerships include a variety of public and partners. A list of the partners can be found in Appendix A10, Page 70.

2) Wyoming Tribal Children's Triad coordinates the education and wrap around services to support the Native American students. Partners in the Triad include: Wyoming Department of Education (WDE) Bureau of Indian Education, LEAs, Northern Arapahoe Tribe, Eastern Shoshone Tribe, and community partners

3) Superintendent's Public Education Advisory Council meets monthly to review strategic plan progress, communicate, and problem solve. The representatives come from the: Wyoming State Board of Education, Wyoming Education Association, Wyoming School Boards Association, Wyoming Superintendents' Association, Governor's Office, Wyoming Professional Teaching Standards Board. Dr. McBride plans on expanding his Advisory Council by inviting the University of Wyoming's, Dean of Education and the Chairman of the Wyoming Education P-16 Council to become members. The advisory council

4) Wyoming Planning Team for Children, Youth and Families works on many issues involving children, youth and families. This would include: out of district placed students, court ordered placements, mental health services, youth services, detention centers, multidisciplinary teams in communities, juvenile justice community boards, monitoring of health issues including vaccinations, early care and learning services, community wrap around services, and public safety and workforce service issues. This state government team includes the WDE, Department of Family Services, Department of Health, Workforce Services, and the Governor's Office.

CITIZENSHIP & DISCIPLINE

2007-08	DISTRICT	STATE
Percent of Students Involved in Incidences	5.3%	6.5%
Percent of Incidents Resulting in In-School Suspensions	18.9%	62.3%
Percent of Incidents Resulting in Out-of-School Suspensions	81.1%	37.5%
Percent of Incidents Resulting in Expulsions	0.0%	0.2%
Percent of Incidents Involving Alcohol and Drugs	17.0%	8.1%

- To maintain student confidentiality the data cannot be reported.

DATA ANALYSIS

- The PAWS scores for math are highest in grades 3 through 7. The worst performing grade still has over 50% proficient, and 6th grade is over 80% proficient.
- Third grade reading scores consistently show 60% of students who are proficient.
- The reading scores for 4th grade students in 2007-08 fell dramatically as did 5th graders in 2008-09.
- The PAWS science scores in 4th and 8th grades are near or at the state average.
- Writing scores are generally better in the higher grade levels.
- The district is experiencing decreased enrollment, and less than one-third of the student population receives free or reduced lunch.
- The attendance rates are consistently in the low 90%. Attendance rates are lower starting in 9th grade when compared to ADM.
- The district's graduation rate in 2007-08 increased by 6.8%. The graduation rate is now above 80%.
- One-third of students from this district took advantage of the Hathaway Scholarship in 2008.
- The ACT Average Composite Score is higher than the state average.
- The number of students on an IEP has fallen over time.
- As a district, 56% of the special education students are identified as having either a learning disability or a speech/language disability.
- The Total Cost per ADM in this district is close the state average.
- The district's population is mostly white.
- The percentage of students involved in incidences is below the state average, but 17% of the district's incidences involved drugs or alcohol.
- The percentage of students receiving out-of-school suspensions is well above the state average.

DISTRICT PROFILE
2009-10

FREMONT COUNTY SCHOOL DISTRICT #1

Superintendent: Paige Fenton-Hughes

Fremont County School District Number One is located in Lander, Wyoming.

Mission Statement

In partnership with parents, families and the greater community, and within a safe and positive learning environment, Fremont County School District 1 is dedicated to helping all learners acquire the core knowledge, essential skills and personal characteristics necessary to become lifelong learners and caring and contributing citizens in the 21st century.

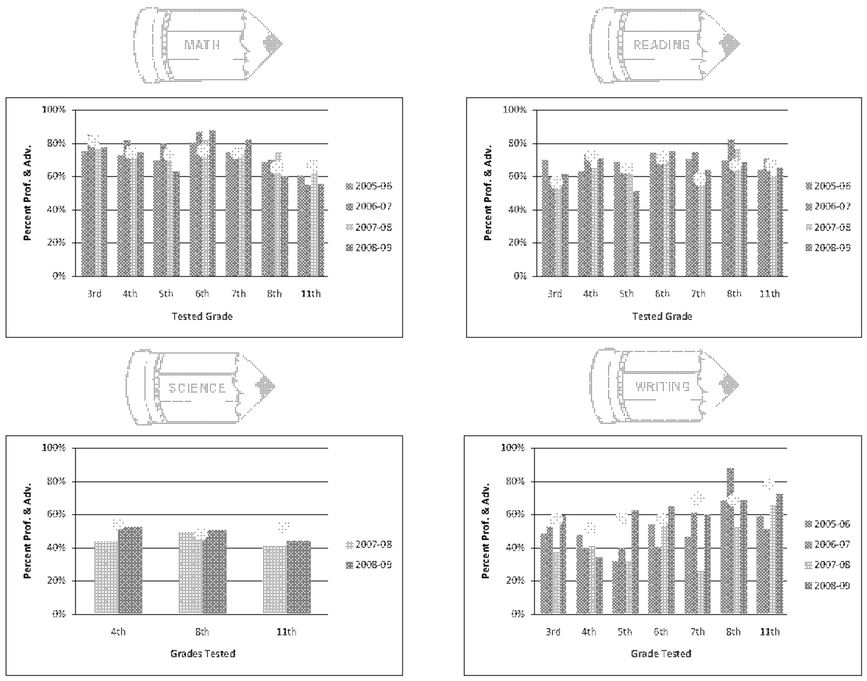
Vison Statement

FCSD1 will be recognized for its excellence and celebrated for its dedication to the welfare of children and youth. A unified effort with the community will help all students discover their unique abilities, talents, interests and realize their personal potential. Continuous progress and success for every student will be the ultimate goal.

PAWS & AYP RESULTS*

PERCENT PROFICIENT & ADVANCED**

This is the State average for the 2008-09 PAWS.



AYP PARTICIPATION

	MATH									LANGUAGE ARTS								
	ALL STUDENTS	ASIAN	BLACK	HISPANIC	AMERICAN INDIAN	WHITE	ELL	F/R LUNCH	IEP	ALL STUDENTS	ASIAN	BLACK	HISPANIC	AMERICAN INDIAN	WHITE	ELL	F/R LUNCH	IEP
2006	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2007	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2008	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2009	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

AYP ACADEMIC ACHIEVEMENT

	MATH									LANGUAGE ARTS								
	ALL STUDENTS	ASIAN	BLACK	HISPANIC	AMERICAN INDIAN	WHITE	ELL	F/R LUNCH	IEP	ALL STUDENTS	ASIAN	BLACK	HISPANIC	AMERICAN INDIAN	WHITE	ELL	F/R LUNCH	IEP
2006	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2007	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2008	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2009	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

✓ = Made AYP X = Missed AYP

AYP ADDITIONAL INDICATOR***

	All Students
2006	✓
2007	✓
2008	✓
2009	✓

* The 2006-07 administration of PAWS allowed students the opportunity to take PAWS twice and then use the highest score in performance calculations.

** To protect individual student confidentiality, results are not reported for 5 or fewer students and performance percentages are capped at 5% and 95%.

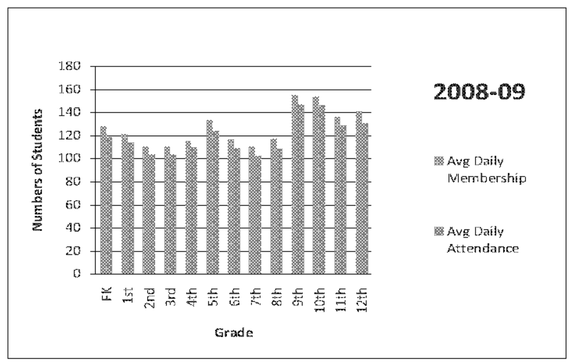
*** AYP Additional Indicator for high school is the graduation rate. For elementary and middle schools it is the percent of students reading below basic.

DEMOGRAPHICS

SCHOOL DEMOGRAPHICS

	2006	2007	2008	2009
Enrollment	1,745	1,761	1,734	1,671
Attendance Rate	92.6%	94.6%	93.5%	93.8%
Graduation Rate	69.9%	76.1%	82.9%	+
Free Reduced Lunch	539	547	571	+
Percent on Individual Education Plan	18.3%	16.9%	13.3%	+
Students per Certified Staff	14.0	15.3	13.4	+

DISTRICT AVERAGE DAILY MEMBERSHIP & ATTENDANCE



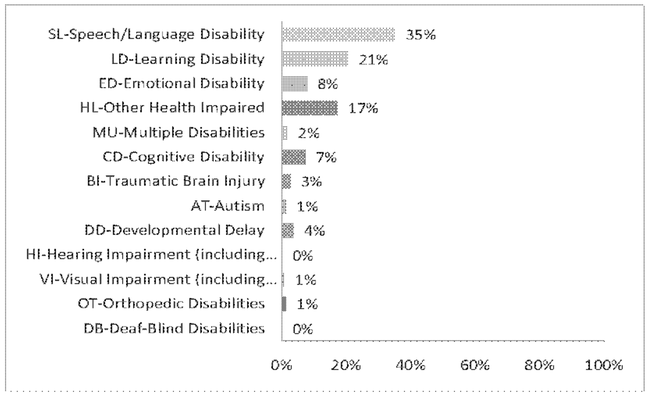
COST PER AVERAGE DAILY MEMBERSHIP 2007-08

	DISTRICT	STATE
Instruction	$9,544.00	$8,546.00
Instructional Support	$1,312.00	$1,751.00
Support Services	$4,661.00	$4,168.00
Non-Instructional Services	$411.00	$528.00
Facilities Acquisition	$0.00	$46.00
Total Cost per Average Daily Membership	$15,928.00	$15,039.00

2009 HATHAWAY/ACT DATA

	DISTRICT	STATE
% Students Eligible/Accepted Hathaway Scholarship Program (2008 Graduates)	33.8%	37.3%
ACT/WorkKeys Participation Rate	92.1%	90.9%
ACT Average Composite Score	20	19.2

SPECIAL EDUCATION COUNTS BY DISABILITY 2008



ETHNICITY COUNT 2008

American Indian/Alaskan Native	303
Asian	31
Black (not Hispanic)	10
Hispanic	73
White (not Hispanic)	1254

+ Information is not yet available.

Wyoming Department of Education School-Based Instructional Facilitators/ Instructional Coaches Grant Update

Joint Education Interim Committee

November 4-5, 2009
Casper, Wyoming

Presented by
Jillian Balow, Instructional Facilitator Program Manager (in transition) and
Joe Simpson, Deputy Superintendent

Authority: Legislation/Statutes

- House Bill 139, 2006
- W.S. 21-13-335, Senate Bill 70, *Reauthorized* 2008

History: Perspective/Process

- House Bill 139 (2006) was established to assist schools with providing ongoing instructional coaching and mentoring.
- Recommendations from the recalibration report by Picus and Odden (2005) included recommendations regarding the responsibilities of instructional facilitators:
  - Coordinate and work with others to improve instructional programs, including technology.
  - Provide ongoing instructional coaching to all teachers.
  - Spend time in the classrooms embedding professional development for teachers (modeling lessons, observing teachers, and giving feedback to teachers).
- Additionally, Picus and Odden (2005) identified instructional facilitators as catalysts for the most effective professional development because they provide a systematic, ongoing, and school-wide approach to improvement.
- W.S. 21-13-335, Senate File 70 (2008) reauthorized financial assistance for instructional facilitators and instructional coaches as a supplemental resource for school district professional development programs which required districts to provide documentation of the following program components:
  - Evidence of a research-based approach to instructional facilitator program implementation.
  - A plan for evaluation of the instructional facilitator program over time.

- Since the inception of the Instructional Facilitator Grant program, much has been learned about the roles and responsibilities of instructional facilitators. Of note, instructional facilitators:
    - Can have profound impacts on the professional practice of teachers and overall improvement of instruction.
    - Have evolved into the role of data analyst.
    - Have a different role in elementary schools versus secondary schools.
- The Instructional Facilitator Task Force, composed of administrators from Wyoming school districts and WDE staff members, provides direction, leadership, and information to support the implementation of the Instructional Facilitator Grant program. Activities of the task force include coordinating professional development for instructional facilitators and sharing evidence-based practices throughout the state.

Actions: Data/Participation/Trainings

- An evaluation by Young and Rush (2009) analyzed the work of instructional facilitators with teachers in Wyoming. Results follow:
- 83% of respondents reported having worked with an instructional facilitator.
- The highest reported activities with instructional facilitators were:
    - Participating in collaborative meetings (often called data or professional learning community (PLC) meetings).
    - Choosing instructional strategies.
- Elementary teachers as well as K-12/other teachers placed the most value on modeled instructional strategies by the instructional facilitator.
- Secondary teachers preferred the support of the instructional facilitator when embedding technology and when choosing evidence-based instructional strategies.
- Teachers ranked their agreement with a variety of statements regarding their work with instructional facilitators (see Figure 1). In general, very positive perceptions from all three groups of teachers were found regarding work with instructional facilitators on teaching practice, reflection, and the impact on student performance. Teachers also perceived that instructional facilitators were available to help them and had the knowledge they needed to do their jobs. Weaker perceptions were found regarding the impact of instructional facilitators on development of collegial relationships among teachers. Elementary teachers were more positive compared to the other two groups of teachers.

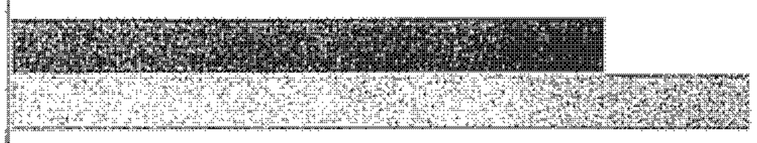
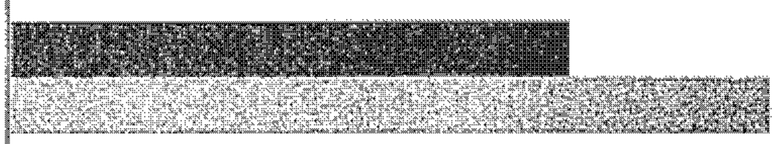
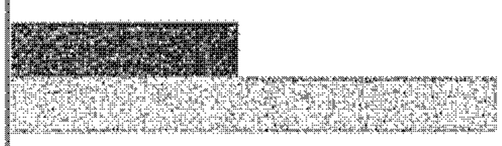
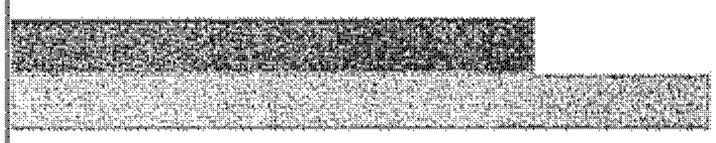
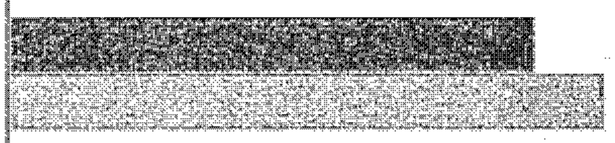
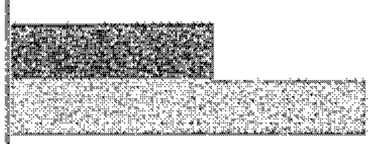
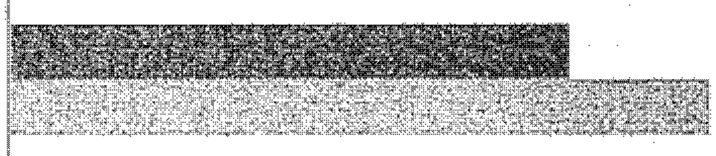
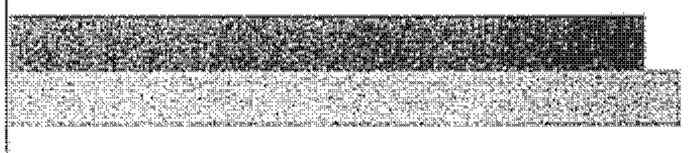
Figure 1: Elementary, Secondary, and K-12/Other Teachers' Perceptions of the Impact of Their Work with Instructional Facilitators

	Elementary Teachers N=507	Secondary Teachers N=537	K-12/Other Teachers N=125
The Instructional Facilitators with whom I work have the knowledge they need to do their jobs effectively.	4.17	3.94	3.94
Instructional Facilitators in my building are easily available to me.	3.75	3.94	3.81
My teaching practice has improved because of my work with an Instructional Facilitator.	3.71	3.40	3.40
My work with an Instructional Facilitator has helped me reflect on my teaching.	3.80	3.59	3.55
My students' performance has improved because of my work with an Instructional Facilitator.	3.67	3.30	3.37
Working with an Instructional Facilitator has helped me to develop a better relationship with my colleagues.	3.26	3.14	3.06
Overall	**3.64**	**3.47**	**3.46**

*Note: response values range from 1 (strongly disagree) to 5 (strongly agree)

- Secondary teachers would most like to work, or continue working, with instructional facilitators to embed technology, use achievement data, choose instructional strategies, and participate in collaborative meetings (see Figure 2).
- Elementary teachers would most like to work, or continue working, with instructional facilitators to use achievement data, develop and use assessments, choose and model instructional strategies, and participate in collaborative meetings (see Figure 2).

Figure 2: Activities Elementary and Secondary Teachers Would Like to Work on with an Instructional Facilitator (n+686).

		PERCENT
Provide support in choosing appropriate instructional strategies		56% 68%
Provide support in developing and/or using appropriate formative assessments		50% 69%
Assist in maintaining a supportive classroom environment		37% 49%
Coach me in my classroom		29% 43%
Model effective instructional strategies		47% 66%
Provide oral or written feedback		46% 53%
Review with me the effectiveness of modeling or coaching		25% 37%
Participate in collaborative meetings		51% 66%
Help me to use student achievement data		57% 70%
Help me identify student needs for instructional focus		49% 64%
Support me in embedding technology in instruction		60% 63%
Facilitate a cohort study group		28% 40%

= Secondary = Elementary

Actions: Data/Participation/Trainings, continued

- Teachers indicated that the Wyoming Instructional Facilitators Grant program is a wise investment of Wyoming's money and they desire to continue to work with instructional facilitators in the future.
- Recommendations from the Young and Rush (2009) evaluation of the Wyoming Instructional Facilitator Grant program include:
  - Address the differentiated work of instructional facilitators who work in elementary schools versus secondary schools.
  - Align the roles, responsibilities, and priorities for instructional facilitators with regard to demands at different grade levels.
- In the report, *The Wyoming Improving School: School use of resources study* by Picus and Odden (2008), twenty educational leaders commented on current professional practices of instructional facilitators. Comments include:
  - Professional development is aided by district and school instructional facilitators, who support the work of all teachers.
  - Instructional facilitators model the best ways to deliver instruction and facilitate discussion about best and successful practices among teachers.
  - Instructional facilitators help teachers develop instruction around essential learnings, develop and administer relevant assessments, analyze data from assessments, and reflect on the success and shortcomings to improve instruction and student performance.
  - Instructional facilitators provide considerable instructional leadership.

Financial: Expenditures to Date/Anticipated Other Costs

- Grant awards are distributed to districts for salaries and benefits costs only. Resources for supplies, materials, professional development, assessment, and training are resourced through the Wyoming funding model (see Figure 3).
- Amount awarded to school districts in 2008-09: **$22,852,468**
- Amount awarded to school districts for 2009-10: **$19,825,481**

Figure 3: Instructional Facilitator Grant Awards 2006-07 through 2009-10

District ID	District Name	2006-07 Grant Award	2006-07 Expenditures	2006-07 Difference	2007-08 Grant Award	2007-08 Expenditures	2007-08 Difference	2008-09 Grant Award	2008-09 Expenditures	2008-09 Difference	2009-10 Grant Award
0101000	Albany #1	622,402.39	534,872.90	(87,529.49)	636,523.05	634,003.10	(2,519.95)	830,547.77	792,180.71	(38,367.06)	743,943.89
0201000	Big Horn #1	121,721.06	121,721.06	-	112,293.25	112,293.25	-	148,910.37	148,910.81	0.44	131,978.40
0202000	Big Horn #2	120,120.14	117,707.78	(2,412.36)	123,393.17	122,315.26	(1,077.91)	162,755.98	171,563.41	8,807.43	142,767.20
0203000	Big Horn #3	97,770.31	97,770.31	-	97,832.60	97,832.60	-	128,166.86	128,166.86	-	113,925.13
0204000	Big Horn #4	59,796.48	60,060.84	264.36	62,665.36	68,619.02	5,953.66	81,870.37	80,175.48	(1,694.89)	68,766.39
0301000	Campbell #1	1,420,158.55	1,371,173.49	(48,985.06)	1,477,356.45	1,445,158.98	(32,197.47)	1,973,427.09	1,952,595.13	(20,831.96)	1,859,466.17
0401000	Carbon #1	297,793.72	199,477.96	(98,315.76)	304,023.19	287,428.54	(16,594.65)	416,901.08	423,517.56	6,616.48	381,020.49
0402000	Carbon #2	111,348.60	74,174.20	(37,174.40)	114,498.66	127,220.91	12,722.25	156,336.11	141,316.66	(15,019.45)	139,013.32
0501000	Converse #1	298,520.80	298,520.80	-	308,900.81	308,130.18	(770.63)	429,882.20	410,683.28	(19,198.92)	373,168.01
0502000	Converse #2	70,103.00	70,103.00	-	132,225.78	81,819.57	(50,406.21)	170,258.70	-	(170,258.70)	156,769.80
0601000	Crook #1	190,996.21	190,996.21	-	201,129.66	210,955.29	9,825.63	273,298.40	154,046.80	(119,251.60)	244,527.67
0701000	Fremont #1	330,760.44	330,760.44	-	330,581.14	448,203.52	117,622.38	440,334.31	570,940.15	130,605.84	380,673.05
0702000	Fremont #2	51,536.99	51,536.99	-	49,327.58	49,968.46	640.88	61,495.15	61,811.99	316.84	49,814.37
0706000	Fremont #6	64,545.67	64,545.67	-	67,008.43	67,008.43	-	90,852.70	90,852.70	-	84,168.12
0714000	Fremont #14	109,531.81	109,531.82	0.01	107,482.19	107,482.19	-	144,427.64	144,427.64	-	132,579.17
0721000	Fremont #21	60,894.60	60,894.60	-	63,652.83	61,043.79	(2,609.04)	97,930.53	87,680.01	(10,250.52)	95,744.79
0724000	Fremont #24	47,442.05	46,857.55	(584.50)	58,772.29	55,686.52	(3,085.77)	85,202.88	72,946.99	(12,255.89)	69,297.87
0725000	Fremont #25	462,263.49	462,263.49	-	474,931.83	474,931.83	-	614,120.11	614,120.11	-	556,603.12
0738000	Fremont #38	52,031.42	-	(52,031.42)	64,082.55	12,834.79	(51,247.76)	-	-	-	69,092.47
0801000	Goshen #1	351,896.43	351,893.43	(3.00)	350,789.94	350,265.04	(524.90)	458,207.15	480,132.20	21,925.05	403,439.27
0901000	Hot Springs #1	131,493.94	119,440.47	(12,053.47)	131,854.21	148,775.19	16,920.98	167,520.40	161,350.84	(6,169.56)	150,611.93
1001000	Johnson #1	232,473.91	232,473.91	-	240,428.11	-	(240,428.11)	317,815.77	317,815.77	-	275,986.94
1101000	Laramie #1	2,561,086.73	2,544,785.84	(16,300.89)	2,547,425.48	3,594,351.15	1,046,925.67	3,390,866.96	4,383,003.03	992,136.07	3,035,835.01
1102000	Laramie #2	167,376.41	147,375.05	(20,001.36)	166,441.28	186,442.64	20,001.36	220,339.94	220,339.94	-	182,493.57
1201000	Lincoln #1	117,552.07	-	(117,552.07)	119,157.55	366,537.65	247,380.10	156,816.73	137,073.61	(19,743.12)	130,753.97
1202000	Lincoln #2	473,957.92	473,680.04	(277.88)	473,129.39	483,926.23	10,796.84	642,964.64	483,705.14	(159,259.50)	592,369.07
1301000	Natrona #1	2,289,908.20	2,289,908.20	-	2,326,366.60	2,742,226.44	415,859.84	3,041,765.45	3,430,706.24	388,940.79	2,715,421.95
1401000	Niobrara #1	45,525.46	39,896.01	(5,629.45)	68,465.07	14,803.59	(53,661.48)	92,404.74	55,572.51	(36,832.23)	83,340.56
1501000	Park #1	317,986.83	317,986.83	-	321,023.88	451,414.13	130,390.25	437,978.35	483,808.84	45,830.49	393,694.64
1506000	Park #6	434,759.00	374,607.84	(60,151.16)	432,584.48	550,100.54	117,516.06	558,194.32	719,759.54	161,565.22	506,006.68
1516000	Park #16	22,294.24	22,294.24	-	21,895.04	21,895.04	-	28,114.57	24,170.58	(3,943.99)	25,613.44
1601000	Platte #1	194,726.49	194,600.77	(125.72)	201,183.68	201,212.22	28.54	263,703.25	263,793.34	90.09	226,909.49
1602000	Platte #2	47,606.28	47,606.28	-	39,667.16	39,667.16	-	49,984.06	49,984.06	-	43,918.94
1701000	Sheridan #1	180,545.59	178,056.10	(2,489.49)	184,869.52	188,490.01	3,620.49	247,665.07	262,704.83	15,039.76	218,545.58
1702000	Sheridan #2	580,803.36	580,803.36	-	603,282.44	612,745.46	9,463.02	809,542.81	809,542.81	-	720,293.79
1703000	Sheridan #3	-	-	-	-	-	-	-	-	-	-
1801000	Sublette #1	149,791.23	211,070.26	61,279.03	179,135.58	369,476.93	190,341.35	254,604.76	371,026.30	116,421.54	245,963.21
1809000	Sublette #9	-	-	-	-	-	-	192,710.54	-	(192,710.54)	173,771.57
1901000	Sweetwater #1	812,893.03	760,422.93	(52,470.10)	859,332.37	866,724.44	7,392.07	1,190,992.73	1,024,487.70	(166,505.03)	1,140,540.28
1902000	Sweetwater #2	513,227.27	513,227.27	-	502,879.64	550,511.49	47,631.85	665,998.77	738,395.45	72,396.68	621,208.64
2001000	Teton #1	525,216.29	525,216.29	-	525,949.71	467,058.17	(58,891.54)	691,718.97	711,714.79	19,995.82	610,121.91
2101000	Uinta #1	546,561.56	516,657.86	(29,903.70)	557,454.07	587,357.77	29,903.70	725,668.95	713,562.87	(12,106.08)	648,304.13
2104000	Uinta #4	130,875.59	80,323.33	(50,552.26)	131,811.46	131,811.46	-	181,008.73	181,008.73	-	157,035.45
2106000	Uinta #6	130,645.76	131,724.60	1,078.84	128,395.10	128,395.10	-	163,562.83	166,824.06	3,261.23	152,833.92
2201000	Washakie #1	256,755.46	254,558.21	(2,197.25)	257,780.03	259,977.28	2,197.25	342,768.06	342,768.06	-	309,256.90
2202000	Washakie #2	-	-	-	-	-	-	21,388.93	-	(21,388.93)	19,692.80
2301000	Weston #1	145,934.42	131,908.93	(14,025.49)	155,829.78	148,518.66	(7,311.12)	202,116.38	202,116.38	-	181,250.63
2307000	Weston #7	48,368.80	48,368.80	-	36,424.50	36,424.50	-	71,163.77	71,163.77	-	66,947.09
Grand Total	STATE	16,000,000.00	15,351,855.96	(648,144.04)	16,350,236.89	18,272,044.52	1,921,807.63	21,894,305.88	22,852,467.68	958,161.80	19,825,480.79
Appropriation		16,000,000.00			16,000,000.00			21,894,306.00			19,756,000.00

Notes:
1. Expenditures are self-reported by districts via the WDE601
2. Grant Awards that exceed the appropriation are due to reallocating unspent/returned district funds from the previous year
3. Many districts supplement their IF program with general fund monies, this could be because IF salaries tend to be more expensive than the average salaries in the model (IFs are typically more experienced and/or educated than the average teacher)

Results: Outcomes/Feedback

- Feedback from Wyoming educators:
  - "I feel like I am the mortar between the bricks. I bring the best strategies and expertise to the teachers and together, we build strong and successful students." –Instructional Facilitator
  - "With my help, new teachers, who would have not been rehired for a second year, according to my principal, developed into skillful instructors because I was able to give them the attention, feedback, modeling, and coaching that they needed." -Instructional Facilitator
  - "Our coach is the one we look to for ideas and suggestions on what would work best with our struggling students. It is her expertise that often places the children where they need to be and keeps us on track." – Teacher
  - "(After a content-specific training attended by the teachers and coach) we scheduled follow-up times to come in and either observe, model, or team-teach new strategies with the teachers…Many teachers are doing amazing things with these strategies in their classrooms." –Instructional Facilitator
  - "Our instructional facilitator is a big reason why what we do works." – Teacher
  - "Instructional coaches will eventually become the very best staff development that a district has to offer…We are to the point of truly improving instruction based on the work of instructional facilitators." – District Administrator
- Wyoming school districts submitted, as required by statute, a research-based approach to their instructional facilitator program.
  - There is an opportunity to construct, based on current research, basic qualifications for the instructional facilitator framework used in Wyoming school districts.
- Wyoming school districts submitted, as required by statute, a system to evaluate the effectiveness of instructional facilitators.
  - There is an opportunity to synthesize this information to determine cohesive professional performance standards for instructional facilitators.
- Components of highly effective instruction exist and include (but are not limited to): active student engagement, assessment, clear student achievement goals, interventions for struggling students, and enrichment.
  - There is an opportunity to define a common core, or continuum, of aspects for instructional facilitators to "coach to."
- Instructional facilitator roles have evolved to include data analysis. Wyoming school districts are beginning to see this as an essential piece to the success and achievement of all students.
- Distinguish between types of instructional facilitators, e.g. elementary and secondary, will help to identify particular subsets of skills, techniques, and approaches to best serve Wyoming students.
- Subsequent data collections should more closely track the "coaching cycle," or, how time and skills are being used by the instructional facilitator and with whom.
- Additionally, subsequent data collections should glean information about how instructional facilitators are providing professional development for teachers.

Recommendations: Next Steps

1) Continue to fund, at the current level, the School-Based Instructional Facilitators Grant.
2) Continue to require annual reporting to WDE, by school districts, to ensure the implementation of a research-based approach to on-going instructional coaching and mentoring.
3) Continue to support the improvement of the School-Based Instructional Facilitators Program:
    a) Require a synthesis by WDE of survey results, action research, scientific research, and Picus and Odden reports to:
        i. Identify evidence-based practices for instructional facilitators, e.g. interventions, differentiation, and instructional strategies.
        ii. Develop professional practice standards for coaches at the elementary level and at the secondary level.
        iii. Develop a common set of instructional standards that all instructional facilitators support in their work.
        iv. Develop a suggested protocol for the implementation of job embedded professional development.

WDE Wyoming Department of Education
School-Based Instructional Facilitators (IF's)/Instructional Coaches
November 2009 -- Talking Points

Currently:

- There are over 400 full and part-time instructional facilitators in 354 schools in Wyoming.
- National leaders have highlighted the work of Wyoming's Instructional Facilitator Grant program.
- Instructional facilitators are becoming the very best professional development in Wyoming school districts.
- The capacity of the instructional facilitator to positively impact instruction is increasing each year.
- When applying for financial assistance, districts include documentation regarding the evidence-based approach being used and a plan for evaluation of the instructional facilitator program over time.
- Addressing several areas within Wyoming's Instructional Facilitator program including professional practice standards for instructional facilitators, differentiating work between elementary and secondary facilitators, and tracking the implementation of coaching in schools, will strengthen the program.

2008-2009 Survey Results:

- Teachers in Wyoming desire continuation of the Instructional Facilitator Grant program and believe it is a wise investment.
- Elementary instructional facilitators, generally, were viewed as being more impactful than secondary instructional facilitators.
- Elementary and secondary teachers would like to continue working with instructional facilitators to bring new and evidence-based instructional strategies to the classroom and to use assessment data to improve student achievement.

Recommendations:

- Continue to fund, at the current level, the School-Based Instructional Facilitators Grant.
- Continue to require annual reporting to WDE, by school districts, to ensure the implementation of a research-based approach to on-going instructional coaching and mentoring.
- Continue to support the improvement of the School-Based Instructional Facilitators Program:
    - Require a synthesis by WDE of survey results, action research, scientific research, and Picus and Odden reports to:
        - Identify evidence-based practices for instructional facilitators, e.g. interventions, differentiation, and instructional strategies.
        - Develop professional practice standards for coaches at the elementary level and at the secondary level.
        - Develop a common set of instructional standards that all instructional facilitators support in their work.
        - Develop a suggested protocol for the implementation of job embedded professional development.

What Do Instructional Facilitators Do?

Data Analysis:

- Guide teachers in the use of data
- Examine classroom, school, district, and state data for program and instructional analysis
- Lead teachers in making instructional decisions based on data from PAWS, BOE, and other assessments
- Align assessment, standards, and instruction

Instructional Leadership:

- Possess extensive knowledge about effective instructional techniques
- Support teachers in meeting the instructional needs of every student
- Collaborate with teachers
- Serve as a "link" to administration
- Lead meetings for members of a department, grade level, data team, or professional learning community (PLC)
- Help schools to set and attain lofty, but realistic goals to improve student performance

Professional Development:

- Provide classroom-based coaching to improve instructional delivery
- Collaborate with teachers and others to determine and deliver a "common core of knowledge"
- Participate in intensive professional development to take to the classrooms
- Provide differentiated instructional coaching for new and experienced teachers

List of states in Common Core State Standards Consortium

Alabama; Arizona; Arkansas; California; Colorado; Connecticut; Delaware; District of Columbia; Florida; Georgia; Hawaii; Idaho; Illinois; Indiana; Iowa; Kansas; Kentucky; Louisiana; Maine; Maryland; Massachusetts; Michigan; Minnesota; Mississippi; 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.

List of states in Balanced Consortium

Alabama; Arizona ; Arkansas; California; Connecticut; Delaware; Illinois; Indiana; Kansas; Kentucky; Maine; Maryland; Massachusetts; Michigan; Mississippi; Missouri; Montana; New Hampshire; New Jersey; North Dakota; Ohio; Pennsylvania; Rhode Island; South Carolina; South Dakota; Utah; Washington DC; West Virginia; Wisconsin; Wyoming

List of states in MOSAIC Consortium

Delaware; Hawaii; Idaho; Iowa; Kansas; Kentucky; Maryland; Michigan; Minnesota; Mississippi; Missouri; Montana; Nebraska; New Jersey; North Dakota; Ohio; Oregon; Pennsylvania; South Carolina; South Dakota; Tennessee; Utah; Washington; Wisconsin; Wyoming

List of states in Smarter Consortium

Nebraska; Washington; Hawaii; Wyoming; Utah; Tennessee; Wisconsin; Kentucky; Kansas; Minnesota; Michigan; Ohio; South Carolina; Oregon; Montana; Illinois; Idaho; Delaware

The Council of Chief State School Officers and
The National Governors Association Center for Best Practices

Common Core Standards
Memorandum of Agreement

Purpose. This document commits states to a state-led process that will draw on evidence and lead to development and adoption of a common core of state standards (common core) in English language arts and mathematics for grades K-12. These standards will be aligned with college and work expectations, include rigorous content and skills, and be internationally benchmarked. The intent is that these standards will be aligned to state assessment and classroom practice. The second phase of this initiative will be the development of common assessments aligned to the core standards developed through this process.

Background. Our state education leaders are committed to ensuring all students graduate from high school ready for college, work, and success in the global economy and society. State standards provide a key foundation to drive this reform. Today, however, state standards differ significantly in terms of the incremental content and skills expected of students.

Over the last several years, many individual states have made great strides in developing high-quality standards and assessments. These efforts provide a strong foundation for further action. For example, a majority of states (35) have joined the American Diploma Project (ADP) and have worked individually to align their state standards with college and work expectations. Of the 15 states that have completed this work, studies show significant similarities in core standards across the states. States also have made progress through initiatives to upgrade standards and assessments, for example, the New England Common Assessment Program.

Benefits to States. The time is right for a state-led, nation-wide effort to establish a common core of standards that raises the bar for all students. This initiative presents a significant opportunity to accelerate and drive education reform toward the goal of ensuring that all children graduate from high school ready for college, work, and competing in the global economy and society. With the adoption of this common core, participating states will be able to:

- Articulate to parents, teachers, and the general public expectations for students;
- Align textbooks, digital media, and curricula to the internationally benchmarked standards;
- Ensure professional development to educators is based on identified need and best practices;
- Develop and implement an assessment system to measure student performance against the common core; and
- Evaluate policy changes needed to help students and educators meet the common core standards and "end-of-high-school" expectations.

An important tenet of this work will be to increase the rigor and relevance of state standards across all participating states; therefore, no state will see a decrease in the level of student expectations that exist in their current state standards.

Process and Structure

- **Common Core State-Based Leadership.** The Council of Chief State School Officers (CCSSO) and the National Governors Association Center for Best Practices (NGA Center) shall assume responsibility for coordinating the process that will lead to state adoption of a common core of standards (see attached timeline). These organizations represent governors and state commissioners of education who are charged with defining K-12 expectations at the state level.

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

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

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

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

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

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

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

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

International Benchmarking and the Common Core

The Common Core State Standards (CCSS) are designed to be **college- and career-ready** and **internationally benchmarked**. To that end, the development process included the review and consideration of many sources, including research studies, existing standards from the U.S and abroad, and the professional judgment of teachers, content area experts, and college faculty. This paper will briefly describe how international benchmarking was used to develop the CCSS.

What documents were used to ensure that the CCSS were internationally benchmarked?

To ensure that the standards prepare students to be globally competitive, the development team used a number of sources, including: the frameworks for PISA and TIMSS; the International Baccalaureate syllabi; the American Institutes for Research report , *Informing Grades 1-6 Mathematics Standards Development: What Can Be Learned From High-Performing Hong Kong, Korea, and Singapore* and; the A+ Composite found in *A Coherent Curriculum: The Case for Mathematics* by Bill Schmidt, Richard Houang, and Leland Cogan.

In addition, the development team looked to the standards of a number of individual countries and provinces to inform the content, structure and language of the CCSS. In *mathematics*, twelve set of standards were selected to help guide the writing of the standards: Belgium, Canada [Alberta], China, Chinese Taipei, England, Finland, Hong Kong, India, Ireland, Japan, Korea, and Singapore.[i] In *English language arts*, the writing team looked closely at ten sets of standards from Australia (New South Wales and Victoria), Canada (Alberta, British Columbia, and Ontario), England, Finland, Hong Kong, Ireland, and Singapore.[ii]

How were the international benchmarks used to inform the development of the CCSS?

The goal of the international benchmarking in the common core state standards development process was to ensure that the CCSS are as rigorous as comparable standards in the high-performing and other countries. However, the use of international benchmarks as evidence is no easy feat; it is not simply a matter of identifying the "best" source and copying it, or of aggregating all viable sources to find some set of shared expectations. Rather, international benchmarks were used to guide critical decisions in the following areas:

- *Whether particular content should be included:* One of the principal ways international standards were used in this development process was as a guide when making tough decisions about whether content should be included or excluded.
- *When content should be introduced and how that content should progress*: The progression of topics in the international mathematics standards helped the development team make decisions about when to introduce topics in the CCSS as well as when to stop focusing on them.
- *Ensuring focus and coherence*: Standards from other countries tend to be very focused, including only what is absolutely necessary.

- *Organizing and formatting the standards*: Certain organizational aspects or characteristics of international standards that promoted clarity and ease of reading and use served as a model for the CCSS.
- *Determining emphasis on particular topics in standards*: Where emphasis on particular topics was found repeatedly in international standard, this was instructive in determining their importance for inclusion in the CCSS.

* * * * *

When the final version of the K-12 Common Core State Standards is released, it will be accompanied by a discussion of the evidence that was used in their development. In the meantime, the evidence from the September 2009 draft of the College and Career Ready Standards is available: The URL for the ELA document is http://www.corestandards.org/Files/ELAEvidence.pdf, and the URL for the mathematics document is http://www.corestandards.org/Files/MathEvidence.pdf.

---

[i] Eight of these were high-performers on either TIMSS, PISA or both: Belgium, Canada [Alberta], Chinese Taipei, Finland, Hong Kong, Japan, Korea, and Singapore. England and Ireland, which have uneven performances on international assessments, were included because of their cultural links to the United States. China and India were included because of their growing global competitiveness.

[ii] Differences in language have a greater impact on the teaching and learning of language arts than of mathematics, so the teams looked primarily at English-speaking countries. All were high-performers on PISA except Singapore, which did not participate, and England, which as in mathematics was selected partly for its cultural links to the United States.

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

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

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

Signatures	
Governor:	
Chief State School Officer:	

College and Career Readiness Standards for Reading, Writing, and Speaking and Listening

Draft for Review and Comment

September 21, 2009

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)

College and Career Readiness Standards for Mathematics

Draft for Review and Comment

September 21, 2009

Mathematical Practice

Proficient students expect mathematics to make sense. They take an active stance in solving mathematical problems. When faced with a non-routine problem, they have the courage to plunge in and try something, and they have the procedural and conceptual tools to carry through. They are experimenters and inventors, and can adapt known strategies to new problems. They think strategically.

Students who engage in these practices discover ideas and gain insights that spur them to pursue mathematics beyond the classroom walls. They learn that effort counts in mathematical achievement.[a] These are practices that expert mathematical thinkers encourage in apprentices. Encouraging these practices in our students should be as much a goal of the mathematics curriculum as is teaching specific content topics and procedures.[b] Taken together with the Standards for Mathematical Content, they support productive entry into college courses or career pathways.

Core Practices · Students can and do:

1 Attend to precision.

Mathematically proficient students organize their own ideas in a way that can be communicated precisely to others, and they analyze and evaluate others' mathematical thinking and strategies noting the assumptions made. They clarify definitions. They state the meaning of the symbols they choose, are careful about specifying units of measure and labeling axes, and express their answers with an appropriate degree of precision. Rather than saying, "let v be speed and let t be time," they would say "let v be the speed in meters per second and let t be the elapsed time in seconds from a given starting time." They recognize that when someone says the population of the United States in June 2008 was 304,059,724, the last few digits indicate unwarranted precision.

2 Construct viable arguments.

Mathematically proficient students understand and use stated assumptions, definitions and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They break things down into cases and can recognize and use counterexamples. They use logic to justify their conclusions, communicate them to others and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose.

3 Make sense of complex problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They consider analogous problems, try special cases and work on simpler forms. They evaluate their progress and change course if necessary. They try putting algebraic expressions into different forms or try changing the viewing window on their calculator to get the information they need. They look for correspondences between equations, verbal descriptions, tables, and graphs. They draw diagrams of relationships, graph data, search for regularity and trends, and construct mathematical models. They check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?"

4 Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern. For example, in $x^2 + 5x + 6$ they can see the 5 as 2 + 3 and the 6 as 2 × 3. They recognize the significance of an existing line in a geometric figure and can add an auxiliary line to make the solution of a problem clear. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects. For example, by seeing $5 - 3(x - y)^2$ as 5 minus a positive number times a square, they see that it cannot be more than 5 for any real numbers x and y.[b]

5 Look for and express regularity in repeated reasoning.

Mathematically proficient students pay attention to repeated calculations as they carry them out, and look both for general algorithms and for shortcuts. For example, by paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, they might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel in the expansions of $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x^2 + x + 1)$ leads to the general formula for the sum of a geometric series. As they work through the solution to a problem, proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.[b]

6 Make strategic decisions about the use of technological tools.

Mathematically proficient students consider the available tools when solving a mathematical problem, whether pencil and paper, ruler, protractor, graphing calculator, spreadsheet, computer algebra system, statistical package, or dynamic geometry software. They are familiar enough with all of these tools to make sound decisions about when each might be helpful. They use mathematical understanding and estimation strategically, attending to levels of precision, to ensure appropriate levels of approximation and to detect possible errors. They are able to use these tools to explore and deepen their understanding of concepts.

(a) For the importance of students' beliefs about effort, see the National Mathematics Advisory Panel's Report of the Task Group on Learning Processes, p. 4-10 (2008). (b) Cuoco, A., Goldenberg, E. P., and Mark, J., *Journal of Mathematical Behavior*, 15 (4), 375-402, 1996; *Focus in High School Mathematics*. Reston, VA: NCTM, in press; Harel, G., What is Mathematics? A Pedagogical Answer to a Philosophical Question. In R. B. Gold & R. Simons (Eds.), *Current Issues in the Philosophy of Mathematics From the Perspective of Mathematicians*, Mathematical Association of America, 2008.

Number

Core Concepts · Students understand that:

A The real numbers include the rational numbers and are in one-to-one correspondence with the points on the number line.

B Quantities can be compared using division, yielding rates and ratios.

C A fraction can represent the result of dividing the numerator by the denominator; equivalent fractions have the same value.

D Place value and the rules of arithmetic form the foundation for efficient algorithms.

A Coherent Understanding of Number. Procedural fluency in operations with real numbers and strategic competence in approximation are grounded in an understanding of place value. The rules of arithmetic govern operations on numbers and extend to operations in algebra:

- Numbers can be added in any order with any grouping and multiplied in any order with any grouping.
- Adding 0 and multiplying by 1 both leave a number unchanged.
- All numbers have additive inverses, and all numbers except zero have multiplicative inverses.
- Multiplication distributes over addition.

Subtraction and division are defined in terms of addition and multiplication, so are also governed by these rules.

The place value system bundles units into 10s, then 10s into 100s, and so on, providing an efficient way to name large numbers. Subdividing in a similar way extends this to the decimal system, which provides an address system for locating all real numbers on the number line with arbitrarily high accuracy. Place value is the basis for efficient algorithms, reducing much computation to single-digit arithmetic. Mental computation strategies also make opportunistic use of the rules of arithmetic, as when the product 5×177×2 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).

Quantity

Core Concepts · Students understand that:

A The value of a quantity is not specified unless the units are named or understood from the context.

B Quantities can be added and subtracted only when they are of the same type (length, area, speed, etc.).

C Quantities can be multiplied or divided to create new types of quantities, called derived quantities.

A Coherent Understanding of Quantity. A quantity is an attribute of an object or phenomenon that can be specified using a number and a unit, such as 2.7 centimeters, 42 questions or 28 miles per gallon.

The length of a football field and the speed of light are both quantities. If we choose units of miles per second, then the speed of light has a value of approximately 186,000 miles per second. But the speed of light need not be expressed in miles per second; it may be approximated by 3×10^8 meters per second or in any other unit of speed. Bare numerical values such as 186,000 do not describe quantities unless they are paired with units.

Speed (distance divided by time), rectangular area (length multiplied by length), density (mass divided by volume), and population density (number of people divided by land area) are examples of derived quantities, obtained by multiplying or dividing quantities.

It can make sense to add two quantities, such as when a child 51 inches tall grows 3 inches to become 54 inches tall. To be added or subtracted, quantities must be of the same type (length, area, speed, etc.); to add or subtract their values, the quantities must be expressed in the same units. Converting quantities to have the same units is like converting fractions to have a common denominator before adding or subtracting. But, even when quantities have the same units it does not always make sense to add them. For example, if a wooded park with 300 trees per acre is next to a field with 30 trees per acre, they do not have 330 trees per acre.

Doing algebra with units in a calculation reveals the units of the answer, and can help reveal a mistake if, for example, the answer comes out to be a distance when it should be a speed.

Connections to Number, Expressions, Equations, Functions, Modeling and Statistics. Operations described under Number and Expressions govern the operations one performs on quantities, including the units involved. Quantity is an integral part of any application of mathematics, and has connections to solving problems using data, equations, functions and modeling.

Core Skills · Students can and do:

1 Know when and how to convert units in computations.

Include the addition and subtraction of quantities of the same type expressed in different units; averaging data given in mixed units; converting units for derived quantities such as density and speed.

2 Use and interpret quantities and units correctly in algebraic formulas.

Include specifying units when defining variables and attending to units when writing expressions and equations.

3 Use and interpret quantities and units correctly in graphs and data displays.

Include function graphs, data tables, scatterplots and other visual displays of dimensioned data.

4 Use units as a way to understand problems and to guide the solution of multi-step problems.

Include examples such as acceleration; currency conversions; people-hours; social science measures, such as deaths per 100,000; and general rates, such as points per game.

Expressions

Core Concepts · Students understand that:

A Expressions are constructions built up from numbers, variables, and operations, which have a numerical value when each variable is replaced with a number.

B Complex expressions are made up of simpler expressions.

C The rules of arithmetic can be applied to transform an expression without changing its value.

D Rewriting expressions in equivalent forms serves a purpose in solving problems.

A Coherent Understanding of Expressions. Expressions use numbers, variables and operations to describe computations. The rules of arithmetic, the use of parentheses and the conventions about order of operations assure that the computation has a well-determined value.

Reading an expression with comprehension involves analysis of its underlying structure, which may suggest a different but equivalent way of writing it that exhibits some different aspect of its meaning. For example, $p + 0.05p$ can be interpreted as the addition of a 5% tax to a price p. But rewriting $p + 0.05p$ as $1.05p$ shows that adding a tax is the same as multiplying by a constant factor.

Algebraic manipulations are based on the conventions of algebraic notation and the rules of arithmetic. Heuristic mnemonic devices are not a substitute for procedural fluency. For example, factoring, expanding, collecting like terms, the rules for interpreting minus signs next to parenthetical sums, and adding fractions with a common denominator are all instances of the distributive law; the definitions for negative and rational exponents are based on the extension of the exponent laws for positive integers. The laws of exponents connect multiplication of numbers to addition of exponents and thus express the deep relationship between addition and multiplication captured by the parallel nature of the rules of arithmetic for these operations.

Complex expressions are made up of simpler expressions using arithmetic operations and substitution. When simple expressions within more complex expressions are treated as single quantities, or chunks, the underlying structure of the larger expression may be more evident.

Connections to Equations and Functions. Setting expressions equal to each other leads to equations. Expressions can define functions of the variables that appear in them, with equivalent expressions defining the same function.

Core Skills · Students can and do:

1 See structure in expressions.

For example, recognize: that the expressions $x^4 - y^4$ and $(x + y)^2 - (x - y)^2$ are differences of squares; that there are different ways to rewrite the latter expression, e.g., by expanding and collecting like terms or by factoring as a difference of squares; that p is a common factor in $p + 0.025p$; that an expression in the form $(x - 3)^2 + 14$ reveals its minimum value.

2 Manipulate simple expressions.

Show procedural fluency in the following cases: factoring out common terms; factoring expressions with quadratic structure; writing in standard form sums, differences, and products of polynomials. Include completing the square and rewriting in standard form sums, differences, products, and quotients of simple rational expressions; rewriting expressions with negative exponents and those involving square or cube roots of a single term involving exponents.

3 Define variables and write an expression to represent a quantity in a problem.

Include contextual problems.

4 Interpret an expression that represents a quantity in terms of the context.

Include interpreting parts of an expression, such as terms, factors and coefficients.

Equations

Core Concepts · Students understand that:

A An equation is a statement that two expressions are equal.

B The solutions of an equation are the values of the variables that make the resulting numerical statement true.

C The steps in solving an equation are guided by understanding and justified by logical reasoning.

D Equations not solvable in one number system may have solutions in a larger number system.

A Coherent Understanding of Equations. An equation is a statement that two expressions are equal. Solutions to an equation are the values of the variables in it that make it true. If the equation is true for all values of the variables, then we call it an identity; identities are often discovered by manipulating one expression into another.

The solutions of an equation in one variable form a set of numbers; the solutions of an equation in two variables form a set of ordered pairs, which can be graphed in the plane. Equations can be combined into systems to be solved simultaneously.

An equation can be solved by successively transforming it into one or more simpler equations. The process is governed by deductions based on the properties of equality. For example, one can add the same constant to both sides without changing the solutions, but squaring both sides might lead to extraneous solutions. Strategic competence in solving includes looking ahead for productive manipulations and anticipating the nature and number of solutions.

Some equations have no solutions in a given number system, stimulating the formation of expanded number systems (integers, rational numbers, real numbers and complex numbers).

A formula is a type of equation. The same solution techniques used to solve equations can be used to rearrange formulas. For example, the formula for the area of a trapezoid, $A = \left(\frac{b_1+b_2}{2}\right)h$, can be solved for h using the same deductive process.

Inequalities can be solved in much the same way as equations. Many, but not all, of the properties of equality extend to the solution of inequalities.

Connections to Functions, Coordinates, and Modeling. Equations in two variables may define functions. Asking when two functions have the same value leads to an equation; graphing the two functions allows for the approximate solution of the equation. Equations of lines involve coordinates, and converting verbal descriptions to equations is an essential skill in modeling.

Core Skills · Students can and do:

1 Understand a problem and formulate an equation to solve it.

Extend to inequalities and systems.

2 Solve equations in one variable using manipulations guided by the rules of arithmetic and the properties of equality.

Solve linear equations with procedural fluency. For quadratic equations, include solution by inspection, by factoring, or by using the quadratic formula. Understand that the quadratic formula comes from completing the square. Include simple absolute value equations solvable by direct inspection and by understanding the interpretation of absolute value as distance.

3 Rearrange formulas to isolate a quantity of interest.

Exclude cases that require extraction of roots or inverse functions.

4 Solve systems of equations.

Focus on pairs of simultaneous linear equations in two variables. Include algebraic techniques, graphical techniques and solving by inspection.

5 Solve linear inequalities in one variable and graph the solution set on a number line.

Emphasize solving the associated equality and determining on which side of the solution of the associated equation the solutions to the inequality lie.

6 Graph the solution set of a linear inequality in two variables on the coordinate plane.

Emphasize graphing the associated equation, using a dashed or solid line as appropriate and shading to indicate the half-plane on which the solutions to the inequality lie.

Functions

Core Concepts · Students understand that:

A A function is a rule, often defined by an expression, that assigns a unique output for every input.

B The graph of a function f is a set of ordered pairs $(x, f(x))$ in the coordinate plane.

C Functions model situations where one quantity determines another.

D Common functions occur in families where each member describes a similar type of dependence.

A Coherent Understanding of Functions. Functions model situations where one quantity determines another. For example, the return on $10,000 invested at an annualized percentage rate of 4.25% is a function of the length of time the money is invested. Because nature and society are full of dependencies between quantities, functions are important tools in the construction of mathematical models.

In school mathematics, functions usually have numerical inputs and outputs and are often defined by an algebraic expression. For example, the time in hours it takes for a plane to fly 1000 miles is a function of the plane's average ground speed in miles per hour, v; the rule $T(v) = 1000/v$ expresses this relationship algebraically and defines a function whose name is T.

The set of possible inputs to a function is called its domain. We often infer the domain to be all inputs for which the expression defining a function has a value, or for which the function makes sense in a given context. The graph of a function is a useful way of visualizing the relationship the function models, and manipulating the expression for a function can throw light on the function's properties.

Two important families of functions characterized by laws of growth are linear functions, which grow at a constant rate, and exponential functions, which grow at a constant percent rate. Linear functions with an initial value of zero describe proportional relationships.

Connections to Expressions, Equations, Modeling and Coordinates. Determining an output value for a particular input involves evaluating an expression; finding inputs that yield a given output involves solving an equation. The graph of a function f is the same as the solution set of the equation $y = f(x)$. Questions about when two functions have the same value lead to equations, whose solutions can be visualized from the intersection of the graphs. Since functions describe relationships between quantities, they are frequently used in modeling. Sometimes functions are defined by a recursive process, which can be modeled effectively using a spreadsheet or other technology.

Core Skills · Students can and do:

1 Recognize proportional relationships and solve problems involving rates and ratios.

Include being able to express proportional relationships as functions.

2 Describe the qualitative behavior of common types of functions using graphs and tables.

Identify: intercepts; intervals where the function is increasing, decreasing, positive or negative; relative maximums and minimums; symmetries; end behavior; and periodicity. Use technology to explore the effects of parameter changes on the graphs of linear, power, quadratic, polynomial, simple rational, exponential, logarithmic, sine and cosine, absolute value and step functions.

3 Analyze functions using symbolic manipulation.

Include slope-intercept and point-slope form of linear functions; vertex form of quadratic functions to identify symmetry and find maximums and minimums; factored form to find zeros. Use manipulations as described under Expressions.

4 Use the families of linear and exponential functions to solve problems.

For linear functions $f(x) = mx + b$, understand b as the intercept or initial value and m as the slope or rate of change. For exponential functions $f(x) = a \cdot b^x$, understand a as the intercept or initial value and b as the growth factor.

5 Find and interpret rates of change.

Compute the rate of change of linear functions and make qualitative observations about how the rate of change varies for nonlinear functions.

Modeling

Core Concepts · Students understand that:

A Mathematical models involve choices and assumptions that abstract key features from situations to help us solve problems.

B Even very simple models can be useful.

A Coherent Understanding of Modeling. Modeling uses mathematics to help us make sense of the real world—to understand quantitative relationships, make predictions, and propose solutions.

A model can be very simple, such as a geometric shape to describe a physical object like a coin. Even so simple a model involves making choices. It is up to us whether to model the solid nature of the coin with a three-dimensional cylinder, or whether a two-dimensional disk works well enough for our purposes. For some purposes, we might even choose to adjust the right circular cylinder to model more closely the way the coin deviates from the cylinder.

In any given situation, the model we devise depends on a number of factors: How precise an answer do we want or need? What aspects of the situation do we most need to understand, control, or optimize? What resources of time and tools do we have? The range of models we can create and analyze is constrained as well by the limitations of our mathematical and technical skills. For example, modeling a physical object, a delivery route, a production schedule, or a comparison of loan amortizations each requires different sets of tools. Networks, spreadsheets and algebra are powerful tools for understanding and solving problems drawn from different types of real-world situations. One of the insights provided by mathematical modeling is that essentially the same mathematical structure might model seemingly different situations.

The basic modeling cycle is one of (1) identifying the key features of a situation, (2) creating geometric, algebraic or statistical objects that describe key features of the situation, (3) analyzing and performing operations on these objects to draw conclusions and (4) interpreting the results of the mathematics in terms of the original situation. Choices and assumptions are present throughout this cycle.

Connections to Quantity, Equations, Functions, Shape, Coordinates and Statistics. Modeling makes use of shape, data, graphs, equations and functions to represent real-world quantities and situations.

Core Skills · Students can and do:

1 Model numerical situations.

Include readily applying the four basic operations in combination to solve multi-step quantitative problems with dimensioned quantities; making estimates to introduce numbers into a situation and get problems started; recognizing proportional or near-proportional relationships and analyzing them using characteristic rates and ratios.

2 Model physical objects with geometric shapes.

Include common objects that can reasonably be idealized as two- and three-dimensional geometric shapes. Identify the ways in which the actual shape varies from the idealized geometric model.

3 Model situations with equations and inequalities.

Include situations well described by a linear inequality in two variables or a system of linear inequalities defining a region in the plane.

4 Model situations with common functions.

Include situations well described by linear, quadratic or exponential functions; and situations that can be well described by inverse variation ($f(x) = k/x$). Include identifying a family of functions that models features of a problem, and identifying a particular function of that family and adjusting it to fit by changing parameters. Understand the recursive nature of situations modeled by linear and exponential functions.

5 Model situations using probability and statistics.

Include using simulations to model probabilistic situations; describing the shape of a distribution of values and summarizing a distribution with measures of center and variability; modeling a bivariate relationship using a trend line or a regression line.

6 Interpret the results of applying a model and compare models for a particular situation.

Include realizing that models seldom fit exactly and so there can be error; identifying simple sources of error and being careful not to over-interpret models. Include recognizing that there can be many models that relate to a situation, that they can capture different aspects of the situation, that they can be simpler or more complex, and that they can have a better or worse fit to the situation and the questions being asked.

Shape

Core Concepts · Students understand that:

A Shapes and their parts, attributes, and measurements can be analyzed deductively.*

B Congruence, similarity, and symmetry can be analyzed using transformations.

C Mathematical shapes model the physical world, resulting in practical applications of geometry.

D Right triangles and the Pythagorean theorem are central to geometry and its applications, including trigonometry.

A Coherent Understanding of Shape. From only a few axioms, the deductive method of Euclid generates a rich body of theorems about geometric objects, their attributes and relationships. Once understood, those attributes and relationships can be applied in diverse practical situations—interpreting a schematic drawing, estimating the amount of wood needed to frame a sloping roof, rendering computer graphics, or designing a sewing pattern for the most efficient use of material.

Understanding the attributes of geometric objects often relies on measurement: a circle is a set of points in a plane at a fixed distance from a point; a cube is bounded by six squares of equal area; when two parallel lines are crossed by a transversal, pairs of corresponding angles are congruent.

The concepts of congruence, similarity and symmetry can be united under the concept of geometric transformation. Reflections and rotations each explain a particular type of symmetry, and the symmetries of an object offer insight into its attributes—as when the reflective symmetry of an isosceles triangle assures that its base angles are congruent. Applying a scale transformation to a geometric figure yields a similar figure. The transformation preserves angle measure, and lengths are related by a constant of proportionality. If the constant of proportionality is one, distances are also preserved (so the transformation is a rigid transformation) and the figures are congruent.

The definitions of sine, cosine and tangent for acute angles are founded on right triangle similarity, and, with the Pythagorean theorem, are fundamental in many practical and theoretical situations.

Connections to Coordinates, Functions and Modeling. The Pythagorean theorem is a key link between geometry, measurement and distance in the coordinate plane. Parameter changes in families of functions can be interpreted as transformations applied to their graphs and those functions, as well as geometric objects in their own right, can be used to model contextual situations.

*In this document, deductive analysis aligns with the notion of adaptive reasoning as defined in *Adding it Up*, and includes empirical exploration, informal justification, and formal proof.

Core Skills · Students can and do:

1 Use multiple geometric properties to solve problems involving geometric figures.

Properties include: measures of interior angles of a triangle sum to 180°; vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; measures of supplementary angles sum to 180°; two lines parallel to a third are parallel to each other; points on a perpendicular bisector of a segment are exactly those equidistant from the segment's endpoints; and a line tangent to a circle is perpendicular to the radius meeting it.

2 Prove theorems, test conjectures and identify logical errors.

Include theorems establishing the properties in Core Skill 1 and other theorems about angles, parallel and perpendicular lines, similarity and congruence of triangles.

3 Construct and interpret representations of geometric objects.

Include classical construction techniques and construction techniques supported by modern technologies. Include moving between two-dimensional representations and the three-dimensional objects they represent, such as in schematics, assembly instructions, perspective drawings and multiple views.

4 Solve problems involving measurements.

Include measurement (length, angle measure, area, surface area, and volume) of a variety of figures and shapes in two- and three-dimensions. Compute measurements using formulas and by decomposing complex shapes into simpler ones.

5 Solve problems involving similar triangles and scale drawings.

Include computing actual lengths, areas and volumes from a scale drawing and reproducing a scale drawing at a different scale.

6 Apply properties of right triangles and right triangle trigonometry to solve problems.

Include using the Pythagorean theorem and properties of special right triangles, and applying sine, cosine and tangent to determine lengths and angle measures of right triangles. Use right triangles and their properties to solve real-world problems. Limit angle measures to degrees.

Coordinates

Core Concepts · Students understand that:

A Locations in the plane or in space can be specified by pairs or triples of numbers called coordinates.

B Coordinates link algebra with geometry and allow methods in one domain to solve problems in the other.

C The set of solutions to an equation in two variables forms a curve in the coordinate plane—such as a line, parabola, circle—and the solutions to systems of equations correspond to intersections of these curves.

A Coherent Understanding of Coordinates. Applying a coordinate system to Euclidean space connects algebra and geometry, resulting in powerful methods of analysis and problem solving.

Just as the number line associates numbers with locations in one dimension, a pair of perpendicular axes associates pairs of numbers with locations in two dimensions. This correspondence between numerical coordinates and geometric points allows methods from algebra to be applied to geometry and vice versa. The solution set of an equation becomes a geometric curve, making visualization a tool for doing and understanding algebra. Geometric shapes can be described by equations, making algebraic manipulation into a tool for geometric understanding, modeling and proof.

Coordinate geometry is a rich field for exploration. How does a geometric transformation such as a translation or reflection affect the coordinates of points? How is the geometric definition of a circle reflected in its equation?

Adding a third perpendicular axis associates three numbers with locations in three dimensions and extends the use of algebraic techniques to problems involving the three-dimensional world we live in.

Connections to Shape, Quantity, Equations and Functions. Coordinates can be used to reason about shapes. In applications, coordinate values often have units (such as meters and bushels). A one-variable equation of the form $f(x) = g(x)$ may be solved in the coordinate plane by finding intersections of the curves $y = f(x)$ and $y = g(x)$.

Core Skills · Students can and do:

1 Translate fluently between lines in the coordinate plane and their equations.

Include predicting visual features of lines by inspection of their equations, determining the equation of the line through two given points, and determining the equation of the line with a given slope passing through a given point.

2 Identify the correspondence between parameters in common families of equations and the location and appearance of their graphs.

Include common families of equations—the graphs of $Ax + By = C$, $y = mx + b$ and $x = a$ are straight lines; the graphs of $y = a(x - h)^2 + k$ and $y = Ax^2 + Bx + C$ are parabolas; and the graph of $(x - h)^2 + (y - k)^2 = r^2$ is a circle.

3 Use coordinates to solve geometric problems.

Include proving simple theorems algebraically, using coordinates to compute perimeters and areas for triangles and rectangles, finding midpoints of line segments, finding distances between pairs of points and determining when two lines are parallel or perpendicular.

Probability

Core Concepts · Students understand that:

A Probability models outcomes for situations in which there is inherent randomness, quantifying the degree of uncertainty in terms of relative frequency of occurrence.

B The law of large numbers provides the basis for estimating certain probabilities by use of empirical relative frequencies.

C The laws of probability govern the calculation of probabilities of combined events.

D Interpreting probabilities contextually is essential to rational decision-making in situations involving randomness.

A Coherent Understanding of Probability. Probability assesses the likelihood of an event in a situation that involves randomness. It quantifies the degree of certainty that an event will happen as a number from 0 through 1. This number is generally interpreted as the relative frequency of occurrence of the event over the long run.

The structure of a probability model begins by listing or describing the possible outcomes for a random situation (the sample space) and assigning probabilities based on an assumption about long-run relative frequency. In situations such as flipping a coin, rolling a number cube, or drawing a card, it is reasonable to assume various outcomes are equally likely.

Compound events constructed from these simple ones can be represented by tree diagrams and by frequency or relative frequency tables. The probabilities of compound events can be computed using these representations and by applying the additive and multiplicative laws of probability. Interpreting these probabilities relies on an understanding of independence and conditional probability, approachable through the analysis of two-way tables.

Converting a verbally-stated problem into the symbols and relations of probability requires careful attention to words such as *and*, *or*, *if*, and *all*, and to grammatical constructions that reflect logical connections. This is especially true when applying probability models to real-world problems, where simplifying assumptions are also usually necessary in order to gain at least an approximate solution.

Connections to Statistics and Expressions. Probability is the foundation for drawing valid conclusions from sampling or experimental data. Counting has an advanced connection with Expressions through Pascal's triangle and binomial expansions.

Core Skills · Students can and do:

1 Compute theoretical probabilities by systematically counting points in the sample space.

Make use of symmetry and equally likely outcomes. Include permutation and combination problems as long as small numbers are involved or technology is used, so that formulas are not required.

2 Interpret probabilities of compound events using concepts of independence and conditional probability.

Include reading conditional probabilities from two-way tables.

3 Compute probabilities of compound events.

Make use of the additive and multiplicative laws of probability, tree diagrams and frequency or relative frequency tables in real contexts. Do not emphasize fluency with the related formulas

4 Estimate probabilities empirically.

Include using data from simulations carried out with technology to estimate probabilities.

5 Identify and explain common misconceptions regarding probability.

Include misconceptions about long-run versus short-run behavior of relative frequencies (the law of large numbers). Include attention to the use and misuse of probability in the media, especially in terms of interpreting charts and tables and in the contextual meaning of terms connected to probability, such as 'odds' or 'risk.'

6 Adapt probability models to solve real-world problems.

Include the use of conditional probability to assess subsets of data (e.g., what does the data say about males and females separately). Include the use of independence as a simplifying assumption (e.g., find the probability that two students both contract the disease this year).

Statistics

Core Concepts · Students understand that:

A Statistical methods take variability into account to support making informed decisions based on quantitative studies designed to answer specific questions.

B Visual displays and summary statistics condense the information in data sets into usable knowledge.

C Randomness is the foundation for using statistics to draw conclusions when testing a claim or estimating plausible values for a population characteristic.

D The design of an experiment or sample survey is of critical importance to analyzing the data and drawing conclusions.

A Coherent Understanding of Statistics. Decisions or predictions are often based on data—numbers in context. These decisions or predictions would be easy if the data always sent a clear message, but the message is often obscured by variability in the data. Statistics provides tools for describing variability in data and for making informed decisions that take variability into account.

Data are gathered, displayed, summarized, examined and interpreted to discover patterns. Data can be summarized by a statistic measuring center, such as mean or median, and a statistic measuring spread, such as interquartile range or standard deviation. Different distributions can be compared numerically using these statistics or visually using plots. Which statistics to compare, and what the results of a comparison might mean, depend on the question to be investigated and the real-life actions to be taken.

Randomization has two important uses in drawing statistical conclusions. First, collecting data from a random sample of a population makes it possible to draw valid conclusions about the whole population, taking variability into account. Second, randomly assigning individuals to different treatments allows a fair comparison of the effectiveness of those treatments. A statistically significant outcome is one that is unlikely to be due to chance and this can be evaluated only under the condition of randomness.

In critically reviewing uses of statistics in public media and other reports, it is important to consider the study design, how the data were collected, and the analyses employed as well as the data summaries and the conclusions drawn.

Connections to Probability, Functions and Modeling. Valid conclusions about a population depend on designed simulations or other statistical studies using random sampling or assignment and rely on probability for their interpretation. Functional models may be used to approximate data. If the data are approximately linear, the relationship may be modeled with a trend line and the strength and direction of such a relationship may be expressed through a correlation coefficient. Technology facilitates the study of statistics by making it possible to simulate many possible outcomes in a short amount of time, and by generating plots, function models, trend lines and correlation coefficients.

Core Skills · Students can and do:

1 Formulate questions that can be addressed with data. Identify the relevant data, collect and organize it to respond to the question.

> Include determining whether a question can best be addressed through a sample survey, randomized experiment or observational study. Include unbiased selection for a sample and randomization of assignment to treatment for an experiment.

2 Use appropriate displays and summary statistics for data.

> Include univariate, bivariate, categorical and quantitative data. Include the thoughtful selection of displays and measures of center and spread to summarize data.

3 Interpret data displays and summaries critically; draw conclusions and develop recommendations.

> Include paying attention to the context of the data, interpolating or extrapolating judiciously, and examining the effects of extreme values of the data on summary statistics of center and spread. Include data sets that follow a normal distribution. Include observing and interpreting linear trends in bivariate quantitative data.

4 Draw statistical conclusions involving population means or proportions using sample data.

> Conclusions should be based on simulations or other informal techniques, rather than formulas.

5 Evaluate reports based on data.

> Include looking for bias or flaws in the way the data were gathered or presented, as well as unwarranted conclusions, such as claims that confuse correlation with causation.

Wyoming Content and Performance Standards Review Process 2013

3 Phases

Phase I: September, 2009 – March, 2011
Phase II: May, 2010 – January, 2012
Phase III: February, 2012 – September, 2013

Phase I: September, 2009 – March, 2011

Fine and Performing Arts
Foreign Language
Health

Phase II: May, 2010 – January, 2012

Language Arts
Mathematics
Physical Education

Phase III: February, 2012 – September, 2013

Career/Vocational Education
Science
Social Studies

MOU for a State Consortium Developing Balanced Assessments of the Common Core Standards

This Non-Binding Memorandum of Understanding ("MOU") is entered into by and between the Balanced Assessment Consortium and Wyoming. The purpose of this agreement is to establish a framework of collaboration for states in supporting assessment of the common core standards. The agreement also articulates tasks in support of a Multi-State Consortium in its implementation of an approved Standards and Assessment Section of a Race to the Top grant. The MOU outlines a set of working principles, the roles of states and local districts within the consortium, and a set of tasks that the Consortium would undertake.

Working Principles

A consortium of states developing a balanced assessment system for evaluating the common core standards would start with working principles derived from an examination of successful state systems in the U.S. and high-achieving systems internationally. For example:

1) **Assessments are grounded in a thoughtful, standards-based curriculum and are managed as part of a tightly integrated system of standards, curriculum, assessment, instruction, and teacher development**.

- Curriculum guidance is lean, clear, and focused on what students should know and be able to *do* as a result of their learning experiences. Assessment expectations are described in the curriculum frameworks or course syllabi and are exemplified by samples of student work.
- Curriculum and assessments are organized around a well-defined set of learning progressions within subject areas. These guide teaching decisions, classroom-based assessment, and external assessment.
- Teachers and other curriculum experts are involved in developing curriculum and assessments which guide professional learning and teaching. Thus, everything that comes to schools is well-aligned and pulling in the same direction.

2) **Assessments elicit evidence of actual student performance on challenging tasks that prepare students for the demands of college and career in the 21st century.** Curriculum and assessments seek to teach and evaluate a broad array of skills and competencies that generalize to higher education and work settings. They emphasize deep knowledge of core concepts within and across the disciplines, including problem solving, analysis, synthesis, and critical thinking, and include essays and open-ended tasks and problems, as well as selected response items.

3) **Teachers are involved in the development of curriculum and the development and scoring of assessments**. Scoring processes are moderated to ensure consistency and to enable teachers to deeply understand the standards and to develop stronger curriculum and instruction leading to greater student proficiency. The moderated scoring process is a strong professional learning experience that helps drive the instructional improvements that enable student learning, as teachers become more skilled at their own assessment practices and their development of curriculum to teach the standards. The assessment systems are designed to increase the capacity of teachers to prepare students for the contemporary demands of college and career.

4) **Assessments are structured to <u>continuously improve teaching and learning</u>**. Assessment *as*, *of*, and *for* learning is enabled by several features of assessment systems:

- The use of school-based, curriculum-embedded assessments provides teachers with models of good curriculum and assessment practice, enhances curriculum equity within and across schools, and allows teachers to see and evaluate student learning in ways that can feed back into instructional and curriculum decisions.

- Close examination of student work and moderated teacher scoring of both school-based components and externally developed open-ended examinations are sources of ongoing professional development that improve teaching.

- Developing both school-based and external assessments around learning progressions allows teachers to see where students are on multiple dimensions of learning and to strategically support their progress.

5) Assessment and accountability systems are designed to <u>improve the quality of learning</u> and schooling. Assessments aim to encourage and support the learning of ambitious intellectual skills in the way they are designed and used for informing teaching, learning, and schooling. Accountability systems publicly report outcomes and take these into account, along with other indicators of school performance, in a well-designed system focused on continual improvement for schools.

6) Assessment and accountability systems <u>use multiple measures</u> to evaluate students and schools.

Multiple measures of learning and performance are used to evaluate skills and knowledge. Students engage in a variety of tasks and tests that are both curriculum-embedded and on-demand, providing many ways to demonstrate and evaluate their learning. These are combined in reporting systems at the school and beyond the school level. School reporting and accountability are also based on multiple measures. Assessment data are combined with other information about schools' resources, capacities, practices, and outcomes to design intensive professional development supports and interventions that improve school performance.

7) **<u>New technologies enable greater assessment quality</u> and information systems that support accountability.**

New technologies enhance and transform the way the assessment process is developed, delivered, and used, providing adaptive tools and access to information resources for students to demonstrate their learning, and providing appropriate feedback by supporting both teacher scoring and computer-based scoring (now possible for both selected response and some forms of constructed-response items). By using technology to reduce costs for delivery of more open-ended assessment formats, scoring, and reporting, resources can be redirected to improvements in assessment quality.

Technology also organizes data about student learning, enhancing system accountability for instruction and reporting by providing more efficient, accurate, and timely information to teachers, parents, administrators, and policymakers. Technology helps to integrate information at as part of longitudinal data systems, contributing to a rich profile of accomplishment for every student.

<u>State and Local Roles within a Consortium</u>

States working within the Consortium would:

- Adopt and augment the Common Core standards as appropriate to their context.

- Create and deploy curriculum frameworks that address the standards—drawing on exemplars and tested curriculum models.
- Build and manage an assessment system that includes both on-demand and curriculum-embedded assessments that evaluate the full range of standards and allow evaluation of student progress. The Consortium may develop both joint assessments (commonly implemented by states) as well as other assessment tasks and items linked to the standards (and grounded in curriculum units) that can be incorporated into states' individual assessment plans for formative or summative purposes.
- Develop rubrics that embody the standards, and clear examples of good work, benchmarked to performance standards.
- Create oversight / moderation / audit systems for ensuring the comparability of locally managed and scored assessment components.
- Ensure that teacher and leader education and development infuse knowledge of learning, curriculum, and assessment.
- Implement high-quality professional learning focused on examination of student work, curriculum and assessment development, and moderated scoring.

Districts and schools would:

- Examine the standards and evaluate current curriculum, assessment, and instructional practice in light of the standards.
- Evaluate state curriculum guidance, and further develop and adapt curriculum to support local student learning, select and augment curriculum materials, and continually evaluate and revise curriculum in light of student learning outcomes.
- Incorporate formative assessments into the curriculum, organized around the standards, curriculum, and learning sequences to inform teaching and student learning.
- Participate in administering and scoring relevant portions of the on-demand and curriculum-embedded components of the assessment system, and examining student work and outcomes.
- Help design and engage in professional development around learning, teaching, curriculum, & assessment.
- Engage in review and moderation processes to examine assessments and student work, within and beyond the school.

Tasks the Consortium Would Undertake

The consortium of states would build on successful efforts already launched in a number of states, seeking to integrate the best knowledge and exemplars from existing efforts, so as to use resources efficiently, take advantage of well-tested approaches, and avoid reinventing the wheel. It would bring together leading curriculum and assessment experts to advise and support efforts to create a system for evaluating the Common Core, building on the most credible and well-vetted knowledge available in the field. With these supports, the Consortium could:

1. Support the Development of Curriculum Frameworks: When the Common Core standards have been released, vetted, and adopted, consortia of states would work with curriculum and assessment experts to develop (or adapt from previously successful work) curriculum frameworks, syllabi, and other materials mapped to the standards. There has been enormous investment in the United States in high-quality curriculum, for example through NSF and other

organizations at the national level, and in many states and districts. Other English-speaking nations have also developed high quality curriculum materials linked to standards and learning progressions that could be evaluated in this process. This effort would inventory and cull from efforts with a strong evidence base of success to support states in building out curriculum frameworks around which they can organize deeper curriculum development at the local level, state and local assessment development, instructional supports, and professional development.

2. Create a Digital Curriculum and Assessment Library: The results of this effort should ultimately be made available on-line in a digital platform that offers materials for curriculum building and, eventually, model syllabi for specific courses linked to the standards, formative and summative assessment tasks and instruments linked to the curriculum materials, and materials for training teachers and school leaders in both strategies for teaching specific curriculum concepts / units and assessment development and scoring. In addition, as described below, an electronic scoring platform supporting training, calibrating, benchmarking, and reporting would be developed and made available across the states.

3. Develop State and Local Assessments: The state consortium would work to create a **common reference examination, which includes selected-response, constructed response and performance components** aimed at higher-order skills, linked to the Common Core standards for grades 3-8, like the NECAP assessment recently developed by a set of New England states. This assessment would be designed to incorporate more rigorous and analytic multiple-choice and open-ended items than many tests currently include and would include strategically selected curriculum-embedded performance assessments at the classroom level that can be part of the summative evaluation, while also providing formative information.

These curriculum-embedded components would be developed around core concepts or major skills that are particularly salient in evaluating students' progress in English language arts and mathematics. (Eventually, work on science could be included.) Exemplars to evaluate and build upon are already available in many states and in nations like England that have developed a set of "tests and tasks" for use in classrooms that help teachers evaluate students' learning in relation to well-described learning progressions in reading, writing, mathematics, and other subjects.

Curriculum-embedded components would link to the skills evaluated in the "on-demand" test, allowing for more ambitious tasks that take more time and require more student effort than can be allocated in a 2 or 3-hour test on a single day; these components would evaluate skills in ways that expect more student-initiated planning, management of information and ideas, interaction with other materials and people, and production of more extended responses that reveal additional abilities of students (oral presentations, exhibitions, and product development, as well as written responses) that are associated with college and career success.

In the context of summative assessments, curriculum-embedded tasks would be standardized, scored in moderated fashion, and scores would be aggregated up to count as part of the external assessment. Curriculum-embedded assessments would also include marker tasks that are designed to be used formatively to check for essential understandings and to give teachers useful information and feedback as part of ongoing instruction. Thoughtful curriculum guidance would outline the scaffolding and formative assessment needed to prepare students to succeed on the summative assessments.

All components of the system would incorporate **principles of universal design** that seek to remove construct-irrelevant aspects of tasks that could increase barriers for non-native English speakers and students with other specific learning needs. In addition, designers who are skilled at developing linguistically supportive assessments and tests for students with learning disabilities would be engaged from the beginning in considering how to develop the assessments for maximum access, as well as how to design appropriate accommodations and modifications to enable as many students as possible to be validly assessed within the system.

The emphasis on evaluating **student growth over time** and on tying standards to a conception of learning progressions should encourage a growth oriented frame for both the "on-demand" examination and the more extended classroom assessments. The Consortium may consider the viability of incorporating computer-based adaptive testing that creates vertically scaled assessments based on the full range of learning progressions in ELA and math. This would allow students to be evaluated in ways that give greater information about their abilities and their growth over time. This approach would not preclude the evaluation of grade-level standards, which could be part of any students' assessment, nor would it preclude a significant number of constructed response, open-ended items, as the technology for machine-scoring structured open-ended items is now fairly well-developed. Strategic use of partial teacher scoring for these items would also be a desirable element of the system to support teachers' understanding of the standards and assessments, and their planning for instruction.

The emphasis on evaluating student growth should also inform the development of the curriculum-embedded elements of the system, which should be selected or developed to strategically evaluate students' progress along the learning continuum. Centrally developed tasks administered and scored by teachers with moderation (see below), using common rubrics, would be part of the set of reported scores. In states with experience and capacity, it may be possible to begin to incorporate information about student learning that teachers develop from their own classroom evidence, linked to the standards and learning progressions and guided by the curriculum frameworks. This could be an optional aspect of the Consortium's work for states and communities with interest and capacity.

At the **high school level**, the Consortium might explore one or both of two options for assessment:

- **Course- or syllabus-based systems** like those in England, Australia, Singapore, Hong Kong, Alberta (Canada), as well as the International Baccalaureate. Generally conceptualized as end-of-course-exams in this country, this approach should become a more comprehensive course assessment approach like that pursued in these other countries. Such an approach would include within-course performance assessments that count toward the examination score, as well as high-quality assessment end-of-course components that feature constructed response as well as selected response items. Within-course performance assessments would tap central modes of inquiry in the disciplines, ensuring that students have the opportunity to engage in scientific investigations, literary analyses and other genres of writing, speaking and listening; mathematical modeling and applications; social scientific research. Such an approach might require an ELA and math assessment at a key juncture that evaluates an appropriate benchmark level for high school standards, and then, as in high-achieving nations, allow for pursuit of other courses/ assessments that are selected by students

according to their interests and expertise. These could serve as additional information on the diploma for colleges and employers.

- **Standards-driven systems** that might include a more comprehensive benchmark assessment in ELA and mathematics complemented by collections of evidence that demonstrate students' abilities to meet certain standards within and across the disciplines. This set of assessments would allow more curriculum flexibility in how to meet the standards. Systems like these are used in some provinces in Canada and Australia, in states like Rhode Island, Wyoming, Nebraska, and New Hampshire, and in systems of schools like the New York Performance Standards Consortium, the Asia Society, and Envision Schools. Sometimes these sets of evidence are organized into structured portfolios, such as the Technology portfolio in New Hampshire and the broader Graduation portfolios in these sets of schools that require specific tasks in each content area, scored with common rubrics and moderation.

- **A mixed model** could combine elements of both course- and standards-driven models, allowing some demonstrations of proficiency to occur in any one of a range of courses (rather than a single, predetermined course) or even outside the bounds of a course, like the efforts by some states to allow students to pass courses via demonstrations of competence rather than seat time (e.g. NH, OH). Such a system could also include specific components intended to develop and display research and inquiry skills that might also be interdisciplinary, such as the Project Work requirements in England, Singapore, and the International Baccalaurate, and the Senior Project requirements in Pennsylvania and Ohio.

4. Develop Moderation and Auditing Systems for Teacher-Scored Work: The consortium would develop protocols for managing moderation and auditing systems and training scorers so as to enable comparable, consistent scoring of performance assessments. In other nations' and states' systems that include these features routinely, procedures have been developed to ensure both widespread teacher involvement – often as part of professional development time – and to create common standards and high levels of reliability in evaluating student work. A range of models are possible, and the consortium would serve as a resource to individual states in developing and implementing strong, efficient approaches.

5. Develop Technology to Support the Assessment System: Technology should be used to enhance these assessments in a number of ways: by delivering the assessments; in on-line tasks of higher-order abilities, allowing students to search for information or manipulate variables and tracking information about the students' problem-solving processes; in some cases, scoring the results or delivering the responses to trained scorers / teachers to assess from an electronic platform. Such a platform may also support training and calibration of scorers and moderation of scores, as well as efficient aggregation of results in ways that support reporting and research about the responses. This use of technology is already being used in the International Baccalaureate assessment system, which includes both on-demand and classroom-based components.

In order to gain the efficiency and cost benefits of machine scoring and the teaching and learning benefits of teachers' moderated scoring, a mixed system could be developed where computer-based scoring is incorporated on constructed response tasks where useful – though teachers would score some of these tasks for anchoring and learning purposes – while other tasks that require human scoring engage most teachers in scoring to support improvements in instruction.

RESPONSIBILITIES OF ALL SEAs PARTICIPATING IN THE CONSORTIUM

1) Each participating SEA in the Consortium will appoint a key contact person.

2) These key contacts from each State will maintain frequent communication with the parties administering the Balanced Assessment Consortium to facilitate cooperation under this MOU.

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

This Non-binding Memorandum of Understanding shall be effective beginning with the date of the last signature hereon:

SEA Superintendent/- Participating State Chief/Commissioner (or equivalent authorized signatory)

Jim McBride — Signature

1/6/10 — Date

Jim McBride — Print Name

State Superintendent of Public Instruction — Title

Please email this signed page to

Tammy Morrill
Tammy.Morrill@maine.gov

****PLEASE email this signed page only by January 7, 2010****

MOSAIC

Multiple Options for Student Assessment and Instruction Consortium

Memorandum of Understanding

This Non-Binding Memorandum of Understanding ("MOU") is entered into by and between the lead state(s): Wisconsin, Nebraska, and Missouri, and Wyoming. The purpose of this agreement is to establish a framework of collaboration, as well as articulate tasks in support of a Multi-State Consortium in its implementation of an approved Standards and Assessment Section of a Race to the Top grant. States might choose to participate in this Consortium even if their Race to the Top grant application is not funded.

I. PROJECT PROPOSAL

A. PARTICIPATING SEA RESPONSIBILITIES

A Consortium of states proposes to build a balanced assessment system of formative and benchmark assessment in a Race to the Top grant application. A state might choose to participate in this agreement through funding of its own choosing. The name of the system to be built is Multiple Options (for) Student Assessment (and) Instruction Consortium (MOSAIC). The MOSAIC system will be designed to complement a summative assessment system aligned to the Common Core such as the one being proposed under the SMARTER Consortium or any other Consortia that may develop a summative assessment aligned to the Common Core.

The proposed Consortium tasks and activities described in the Race to the Top application include the tasks that follow below. States participating in the Consortium will need to determine which of the tasks they wish to undertake with this Consortium. This decision may be made after the submission of the MOU.

Task 1.1.1 COMMON CORE: **The consortium states will adopt the Common Core Standards.** Within one year of state adoption, all districts within the consortium states will have adopted the Common Core Standards, will have integrated the standards to their local curriculum, and will have aligned professional development to familiarize staff with the college and career-ready expectations.

Task 1.1.2 PROFESSIONAL DEVELOPMENT—CURRICULAR INTEGRATION: **The consortium states will develop and build professional development materials around the instructional integration of Common Core standards.** This will include curricular frameworks aligned to the Common Core, defining of learning progressions within content areas, materials on instructional strategies, and suggested interventions. All materials will be disseminated across the states within the consortium and made available in a web-banked system.

Task 1.1.3 INSTRUCTIONAL SUPPORT SYSTEM: **The consortium states will have access to a computerized system that will provide opportunities for districts to** load the system with formative/local assessment tasks, items, and instructional materials including performance assessments. These can be shared across states, and customized for local use. All will be aligned with the Common Core and will be available electronically to students and teachers with timely data turn-around.

Task 1.1.4 STATE FLEXIBILITY: **Each state will define the level at which districts/schools in their state participate in the formative/benchmark assessment system. This may vary from state to state, depending on how each state defines voluntary versus optional participation.** (One level of required participation within a state might be to require the state's persistently low performing schools and districts to participate in this comprehensive assessment system, and to require that student performance data be tracked over time for growth and improvement.)

Task 1.1.5 REPORT DEVELOPMENT: **Each state will contribute to the development of district, school, and student-level performance reports on the Common Core.** Reports will be generated in parent-friendly and teacher-friendly formats to track progress on the Common Core standards. Emphasis will be placed upon growth and improvement over time, with customized feedback about suggested next-steps based on the student's performance.

Task 1.1.6 BENCHMARK ASSESSMENT SYSTEM: **Each state will contribute to the development of a benchmark assessment item bank with the capabilities for adaptive testing.** From this item bank, common diagnostic/benchmark tests will be developed across the "total package" consortia states through a consortia bid process to a single vendor. Each state will contribute field-tested items to the bank. This bank will be used to diagnose student strengths and deficiencies and serve as an "early warning" system. Common performance standards and cut scores for these diagnostic/benchmark tests will be set across the consortium of states. The common tests will be loaded into the computerized system for immediate data turn around. The common tests will be available to districts/schools within each state as defined by that state – varying levels of participation will require different cost to each state to implement, most likely on a per-pupil basis. (States participating at the Partner or Associate level may access items in the bank, but may not utilize the consortia-developed common assessments).

Task 1.1.7 PROFESSIONAL DEVELOPMENT—USING DATA TO IMPROVE INSTRUCTION: **Each state will contribute to the development of hands-on training and workshop modules for educators that focus on user-friendly strategies to make data-informed instructional decisions based upon formative, benchmark, and summative assessment results.** All materials will be disseminated across the collaborating states.

The selection of tasks by each SEA participating in the Consortium will determine the level of participation of each respective state. There are three levels of participation that may be selected by each SEA in the Consortium. While the level of participation does not need to be selected at the time of signing the MOU, by its signature the state is indicating its interest in participating at a minimum of Level Three.

- **Level One: "Total Package"** – The state participates in **all seven tasks** with a common vendor, and shares in all resources available through the project, including all formative/benchmark assessments developed under the project. The state has an active role in developing, disseminating and sharing professional development tasks and materials.

- **Level Two: "Partner"** – The state contributes to the item bank (**Tasks 1.1.1, 1.1.2, and 1.1.6**) and professional development materials, and may use components in their state for state-specific work. (ex: state does not use common assessments developed from the bank; instead, uses the bank to create their own assessment tools with a separate vendor)

- **Level Three: "Associate"** – The state contributes to the item bank, (**Task 1.1.6 only**) and may use components in their state for state-specific work. The state does not contribute to or have access to professional development components developed through the project.

B. RESPONSIBILITIES OF ALL SEA PARTICIPATING IN THE CONSORTIUM

1) Each participating SEA in the Consortium will appoint a key contact person for the Race to the Top grant.

2) These key contacts from each State and the lead state(s) will maintain frequent communication to facilitate cooperation under this MOU.

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

This Non-binding Memorandum of Understanding shall be effective beginning with the date of the last signature hereon:

SEA Superintendent/- Participating State Chief/Commissioner (or equivalent authorized signatory)

Jim M. Bride — 4 JAN 2010

Signature — Date

Jim McBride, Ed.D. — State Superintendent of Public Instruction

Print Name — Title

Authorized Lead SEA Official - Lead State
By its signature below, the lead state(s) hereby accepts the SEA as a Participating SEA in the Consortium

Official State Designee — Date

Print Name — Title

Please email this signed page by January 5, 2010 to

lynette.russell@dpi.wi.gov and pat.roschewski@nebraska.gov

or fax to

(Fax) 608.266.8770 and (Fax) 402.471.4311

****PLEASE email this signed page only by January 5, 2010****

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, state departments of education and institutions of higher education in the design, administration, scoring and reporting of the assessments.
    f. States in the Consortium will report student, school, district and state results based upon a single common set of rigorous achievement standards. Additionally, states in the consortium may choose to report student achievement benchmarked to a variety of achievement standards including NAEP, international assessments, and benchmarks predictive of student success in college and careers.
    g. States in the Consortium will use the summative assessment system to measure school and district effectiveness to meet federal accountability requirements
    h. The assessments will be designed based on principles of Universal Design and will be consistent with professional standards as described by the APA/AERA/NCME *Standards for Educational and Psychological Testing*.
    i. The Consortium will coordinate with the MOSAIC consortium as appropriate and with other interested multi-state formative and benchmark assessment initiatives so that schools and districts will have access to a variety of high quality instructionally supportive assessment options that together yield a coherent balanced assessment system.
    j. The assessment system will use open source software applications accessible to any vendor procured by states in the Consortium.

k. States in the Consortium will create and adhere to common administration guidelines including accommodations and allowable tools and assistive devices based on high quality research regarding student learning and assessment.
l. Grant funds allocated to LEAs will in part be used to ensure participation opportunities for teachers. The estimated allocation and purpose of funds will be described in the budget section of the proposal.
m. States in the Consortium will participate in common procurement practices and deliverables to the extent the procurements are directly related to Consortium-wide activities described in the proposal. Lead states will construct a procurement process taking into account minimum procurement standards used in all participating states.
n. States in the Consortium will share a common reporting format consistent with a goal of aligning reporting systems.
o. States in the Consortium will share common security protocols regarding test items.
p. States in the Consortium will work with their institutions of higher education and teacher preparation institutions to ensure teachers are prepared to use and contribute to the summative assessment system.

This non-binding Memorandum of Understanding shall be effective beginning with the date of the last signature hereon:

Lead State SEA Superintendent/Chief/Commissioner
(or equivalent authorized signatory)

Jim McBride — 4 JAN 2010

Signature — Date

Jim McBride, Ed.D. — State Superintendent of Public Instruction

Print Name — Title

Please sign and date this agreement by no later than January 8th, 2010.

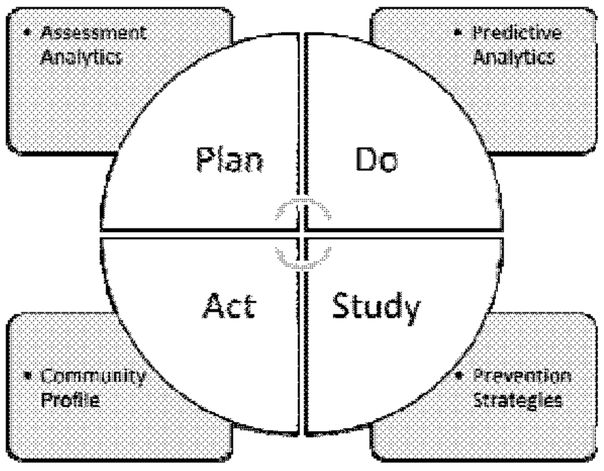
FAX signed copy to Tony Alpert at: (503) 378-5156 or email scanned copy to Tony.Alpert@state.or.us

NEXT-GENERATION
ENTERPRISE EDUCATION INFORMATION SYSTEM (LDW19)

Wyoming Department of Education - December 2009

Information

Interventions



Strategic Planning

- Improving Student Performance
  - State Attendance Rate
  - State Graduation Rate
  - Hathaway Scholarship Percentage
  - PAWS Reading Proficiency Rate
- Ensuring Efficient and Effective Operations
  - System Check III
  - Stupski Organizational Assessment
  - NCA Average Score
  - Customer Service Survey
  - Core Indicators
  - AYP Federal Report
- Ensuring Safe, Orderly, and Healthful School Environments
  - Youth Risk Behavior Survey
  - Prevention Needs Assessment

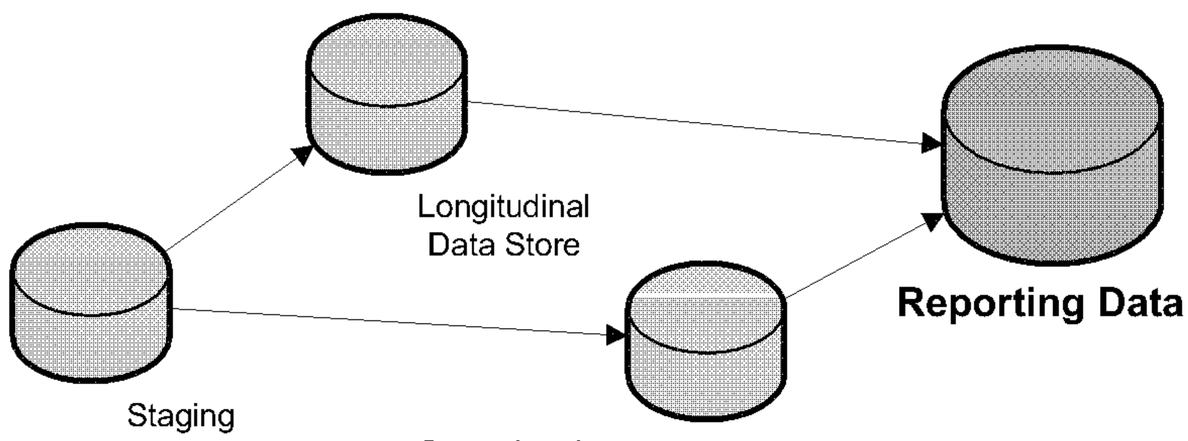
Customized On-Demand Reports

- Statistical Studies
- Independent Researchers
- Localized PAWS and AYP Reports
- Hathaway Analyses

Wyoming Education Fusion Portal

Communities – Interfaces – Role-based access

Data Storage (DW3)



Detailed Areas

- Collection Detail Records
- Common Course Codes
- Data Dictionary
- Grant and Program Detail Records
- Finance Detail Records
- School and District Directory
- Staff ID Records
- State Assessment Results
- Student/Staff Compliance Data
- Student ID Records
- Teacher Certification

Input Methods

- Wyoming Integrated Statewide Education (WISE) Data System
- Wyoming Education Fusion Portal
- Wyoming Transcript Center (WTC)
- Grants Management System (GMS)
- Web Uploads
- Single Entry
- Directory Contacts

Sources

- School Districts
- Accredited Institutions
- Assessment Vendors
- Wyoming Community College Commission (WCCC)
- University of Wyoming
- Professional Teaching Standards Board (PTSB)
- Department of Family Services
- BIE Schools
- Learning Exchange and Resource Network (LEARN)

CCSSO
THE COUNCIL OF CHIEF STATE SCHOOL OFFICERS

ONE MASSACHUSETTS AVENUE, NW, SUITE 700 • WASHINGTON, DC 20001-1431
202 336 7000 TEL • 202 408 8072 FAX
WWW.CCSSO.ORG

December 2, 2009

Dr. Jim McBride
State Superintendent of Public Instruction
Wyoming Department of Education
2300 Capitol Ave, 2nd Floor, Hathaway Building
Cheyenne, WY 82002

RE: Statewide Longitudinal Data Systems (SLDS) Grant Application

Dear Dr. McBride:

I would like to thank you for your extraordinary leadership in the area of statewide longitudinal data systems—it is truly a testament to your guidance and the hard work of your staff that Wyoming has made such strides. Just four years ago the Data Quality Campaign reported Wyoming as having only five of the essential elements, in this year's survey that number is 10—making Wyoming a national leader in the education data policy field.

The Council of Chief State School Officers (CCSSO) stands ready to partner with and support the Wyoming Department of Education on the exciting next steps that you and your staff are undertaking to use data to improve instruction and outcomes for all students.

Through a newly-established consortium, CCSSO is prepared to provide technical assistance to Wyoming and several other states involved in building the Learning Exchange and Resource Network (LEARN). The LEARN consortium – supported by CCSSO – will draft a request for proposals for LEARN's major components, evaluate the responses, and direct the work of subcontractors to implement the LEARN architecture. The LEARN system represents a technology-based, disruptive education innovation for delivering personalized learning plans for every student and personalized professional development plans for every professional.

We believe that this innovative opportunity – based on connecting existing data systems; leveraging known standards for information exchange; and integrating newly-enabled intelligent content – will drive continuous improvement for all learners, while realizing greater efficiencies and cost savings for states. Without this change to our information system paradigm in the United States we believe we will not be able to facilitate the learning of tomorrow.

On behalf of CCSSO, I would like to offer our continued support for your work. It is only through collective state action that we can truly transform our education system and ensure every student is ready for college, work, and citizenship in the 21st century.

Sincerely,
(b)(6)
Gene Wilhoit
Executive Director

THE STATE OF WYOMING

DEPARTMENT OF CORRECTIONS

1934 WYOTT DRIVE, SUITE 100
CHEYENNE, WYOMING 82002
TELEPHONE: (307) 777-7208
FAX: 307-777-7846

DAVE FREUDENTHAL
GOVERNOR

ROBERT O.LAMPERT
DIRECTOR

Department of Education
Institute of Education Sciences
Secretary Arne Duncan
400 Maryland Avenue, SW
Washington, DC 20202

November 18, 2009

Re: State of Wyoming Statewide Longitudinal Data Systems Application

Dear Secretary Duncan,

Wyoming understands the need for longitudinal data to support informed decision making across state agencies. That is why the Wyoming Health Information Network (WHIN) was created in 2004. WHIN contains de-identified claims information of services delivered through the Departments of Corrections, Health, Family Services, Workforce Services and Employment. The directors of these agencies, in concert with members from the Department of Insurance and the Governor's Office, comprise the Executive Leadership Team (ELT) of WHIN. The ELT partners with the private consulting firm Human Capital Management Services Group, which collects the data and conducts sophisticated analytics. The resulting information is used for cross-agency policy development impacting residents who receive services from one or more of the represented agencies.

The Wyoming Department of Education has approached the ELT to include the information available in WHIN in the statewide longitudinal data system application. The overlay of state assistance utilization by school district will provide additional information to school districts as they create strategies to improve the outcomes of their students. WHIN will provide insight into the places where cross-agency interventions can be applied creating wrap-around support to students in need. Once the improved service delivery is implemented, WHIN will contain information demonstrating results through utilization of other state services.

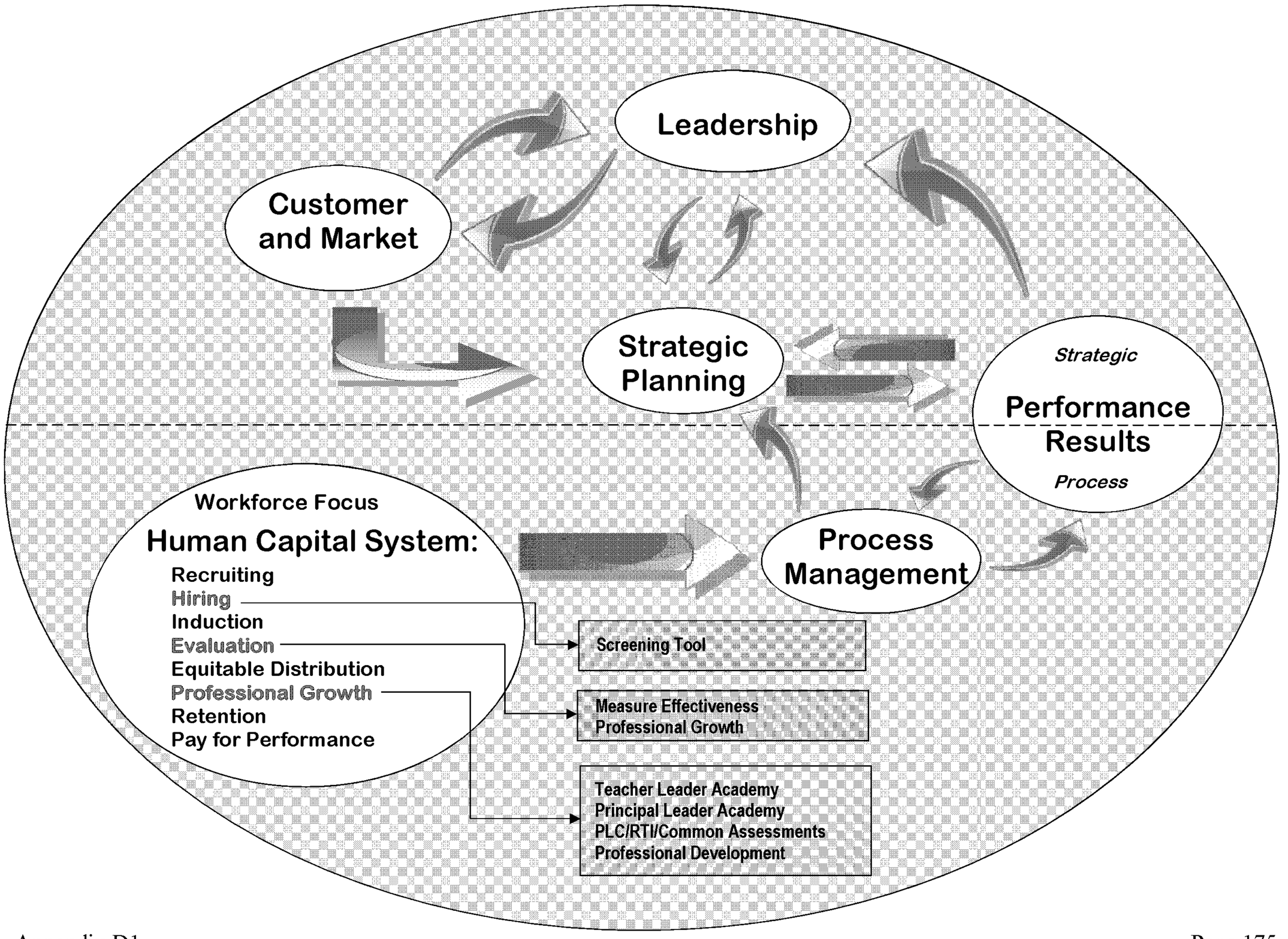
We are confident the Wyoming Department of Education has the qualifications to manage the work described in the grant and to bring together all relevant stakeholders to work collaboratively on this effort for the benefit of all Wyoming children. To support this effort, the ELT will provide the Department of Education access to WHIN for information related to strategic planning and outcome evaluation.

Thank you for your consideration of the State of Wyoming's application for the Statewide Longitudinal Data System. We look forward to our continued partnership with the Wyoming Department of Education.

Sincerely,

Robert Lampert
Chairman
Wyoming Executive Leadership Team

Baldrige Framework Graphic Organizer



Wyoming Department of Education
Hathaway Building, Second Floor
2300 Capitol Avenue
Cheyenne, WY 82002-0050

Highly Qualified Workforce

EQUITY PLAN

No Child Left Behind Act of 2001
Title II, Part A

FEBRUARY 2007

Dr. Jim McBride
Wyoming Superintendent of Public Instruction

Introduction

Ensuring all Wyoming children receive a high-quality education requires an effective teacher in every classroom, effective administrators in every school, and school and district leadership that is focused on raising achievement. Wyoming believes that it is human resources that form the core of Wyoming's educational system.

In keeping with this philosophy, Wyoming is committed to the goal that all teachers and administrators are highly qualified (HQ) and that poor and minority children are not taught at higher rates than other children by inexperienced, unqualified, and/or out-of-field teachers. Wyoming further recognizes that teacher quality has a major impact on student achievement. We remain committed to the goal of ensuring that every child in Wyoming is taught by a teacher who is well prepared and supported in order for each student to experience academic success.

High Quality Teacher (HQT) Statewide Objectives

- 100% highly qualified teachers in every core academic class by the end of the 2006/07 academic year; and
- Poor and minority children are not taught at higher rates than other children by inexperienced, unqualified or out-of-field teachers.

Wyoming's Systemwide Vision

A synchronized, comprehensive human resource system of high quality educators supporting the state's K-12 education structure to ensure all students are taught by a well prepared, effective workforce.

Highly Qualified Workforce Goals:

1. Wyoming will develop a statewide teacher and administrator human resource system to guide and support continuous professional growth for all Wyoming educators.

2. Wyoming will develop and implement a statewide data collection system to monitor and analyze teacher and administrator distribution patterns, to ensure that Wyoming's poor and minority students are not being taught by inexperienced, unqualified or out-of-field teachers at a higher rate than other students.

3. Wyoming will coordinate statewide efforts and strategies that support highly qualified teachers and administrators and provide technical assistance, communication, statewide policy coherence and monitoring to support teacher and administrator quality.

GOAL 1

Wyoming will develop a statewide teacher and administrator human resource system to guide and support continuous professional growth for all Wyoming educators.

WDE will work with districts to develop human resource systems that are professional, standards based, include effective recruitment and selection strategies, provide long term induction, engage in effective supervision through mentoring/coaching techniques and effectively plan long-term for manpower needs through district transition planning.

This new comprehensive system brings a variety of components into synchronization to provide the highest quality human resources for the state's system of K-12 education. Plans are currently being developed to design a statewide system, supported by state, federal and foundation resources, to recruit, retain, select, maintain and grow teachers, teacher leaders and administrators.

This system will ensure that a highly qualified teacher is in every classroom and a highly qualified administrator is in every school; that there is a support system in place for early career teachers and early career administrators; that all schools and districts have tools to recruit, monitor and evaluate teachers and administrators; that high quality professional development is tied directly to the needs of students; and that there is a seamless, looped system of educator development from high school through higher education and pre-service and back into the K-12 classroom.

Stakeholders

- Administrators – Superintendents and Principals
- Boards of Trustees
- Legislators
- Paraeducators
- Pre-Service Teachers
- Professional Development Providers
- Professional Organizations
- Professional Teaching Standards Board (PTSB)
- School Districts
- Schools of Higher Education
- Specialists
- State Board of Education
- Students
- Teachers
- Wyoming Education Association

Scope of Work

Prepare: A system that links high school students interested in entering the field of education with work experiences in local schools; provides a seamless higher education experience through the community college and university system; a teacher education program based on approved program standards and high expectations for content knowledge and pedagogy; and ultimately, placement in a Wyoming K-12 classroom.

Recruit: A system that draws on higher education preparation programs, statewide job fairs, out-of-state connections with teacher candidates, community members such as

paraprofessionals who wish to pursue a teaching credential, and incentives to draw second career professionals into the teaching profession.

Develop: A system that provides tools and resources to assist schools and districts with hiring teachers, administrators, paraeducators and other staff who have the skills and knowledge to meet the academic, emotional and physical needs of their specific student body and community.

License: A system that ensures quality professional standards and accountability for teacher, administrator and specialist certifications; that requires and monitors professional learning; that monitors professional behavior; and provides for high quality staff in every classroom and school in Wyoming.

Induction: A system that supports teachers new to the profession, and retaining existing teachers, through formalized mentoring, coaching, collegial support and professional learning.

Maintain and Enhance: A system that provides high quality, research based, job embedded, life-long professional learning and development planned around individual teacher needs, student learning needs, and school and district goals.

Monitor and Evaluate: A system that ensures teachers, administrators and other staff have high expectations for students; are focused on learning objectives; know and can effectively deliver instructional strategies; work together toward student, school and district goals; and are accountable for high quality work.

Promote: A system that provides development of teacher leaders and administrative leadership through succession planning, research-based leadership training, grow-your-own programs, mentoring, and internships.

GOAL 2

Wyoming will develop and implement a statewide data collection system to monitor and analyze teacher and administrator distribution patterns, to ensure that Wyoming's poor and minority students are not being taught at a higher rate than other students by inexperienced, unqualified or out-of-field teachers.

Data Collection History

The Wyoming Integrated Statewide Education Data System (WISE) is a WDE initiative to enable connection of different software systems and data bases within local school districts. As phases of WISE project implementation move forward, schools and districts will progressively move towards realization of a system in which student, staff and other data will need only to be entered once and will then flow to additional applications that require it.

WISE is also used to assist districts in meeting requirements for the collection, and reporting of school and district data mandated by state and federal statute. The WDE collects staffing data from districts which is cross referenced with related data collected by Wyoming's Professional Teaching Standards Board (PTSB). PTSB maintains a certification database that includes the subject areas in which every certified teacher in the state meets the definition of HQ. In October of each year, the local districts report each teacher's assignment data through the on-line "School District Staff Member Collection" survey via the WISE system administered by WDE. This staffing information is then cross referenced with certification and other highly qualified teacher records collected by PTSB to determine the highly qualified status of the state's teachers.

On September 1, 2006, Phase-one of the HQT data collection was underway and a preliminary analysis of the 2005-2006 highly qualified teacher data was completed. Based on that data, 92.3% of core academic subjects were deemed to be taught by HQT. During the ensuing three months, WDE and the PTSB worked to ensure quality control mechanisms were in place so that all applicable information, (test data, coursework, and HOUSSE rubrics) was accurately entered into the system. On November 22, 2006, an additional component of this system was completed for special education teachers which indicated that statewide, 93.9% of special education classes were taught by highly qualified teachers in 2005-06. The results of the Phase-one data collection and analysis was an increase to **95.3%** of Wyoming's core academic classes taught by highly qualified teachers for the 2005-06 academic year.

Data Collection Planning

With the first phase of the HQT data collection complete, accurately identifying highly qualified teachers and out-of-field teachers, WDE will now turn its attention to identifying inexperienced teachers in order to assure that poor and minority children are equitably served by highly qualified teachers. Phase-two of the HQT data collection system will bring the data on the experience level of teachers and administrators into the yearly staffing data collection. WDE currently collects teacher experience data only based on criteria developed to meet Wyoming's state school funding model. Not all definitions align with those required under Title II. For example, the teacher experience data collected includes years served in non-teaching positions requiring certification such as "school nurse." WDE will bring the data collection into alignment with Title II by either modifying the existing coding system to fill the needs of both state funding and Title II analysis needs, or developing a corollary coding system tailored to the needs of collecting teacher and administrator experience specifically for use in analysis of experienced teachers per Title II program requirements.

Phase-two of the HQT data collection process will begin in the spring of 2007 with communications to districts regarding the 2007-08 academic year data collections. The WDE will inform districts in April 2007 of the federal requirement to analyze teacher experience data and minority student population data to ensure that they are aware this analysis will first take place using 2007-08 data submitted on WDE's staffing collection. WDE will also solicit feedback designed to ensure our collection and analysis methodology will be both valid and reliable. The data collection will commence in the

fall of 2007, with district reporting of data to take place in December 2007 and public reporting of data to take place in the Fall of 2008 via the Every Student Counts report. In December 2008 the data will be included in the State Consolidated Report to USDE, meeting federal reporting requirements.

Phase-two streamlines staffing data collection and analysis processes in conjunction with districts and PTSB, so that with the 2007-08 collection of staffing data from districts, the reporting back will occur in December of the same year. This timely turnaround of data will allow for verification of HQT status to occur early within the current academic year and provide for timely technical assistance and monitoring of both HQT status and placement of experienced teachers in high poverty and high minority schools.

WDE Title II program representatives will work in concert with WDE Data and Technical Services staff to develop and automate analytic processes tailored to provide desired data and reporting to teachers, schools, districts, the State, and the United States Department of Education (USDE).

Data Collection, Analysis, and Reporting Timeline

September 2006 – Phase I – Complete analysis of percentage of classes taught by HQ teachers
HQT Data Collection Phase I – 2005-06 collection of teacher qualifications data, at the course level, from every school in Wyoming and reported to statewide stakeholders and USDE. HQT data was reported by high and low poverty status and FTE.

April 2007 – Phase II (2007-08 data) – Communication to districts
WDE will inform districts of the federal requirement to analyze teacher experience data and minority student population to ensure that they are aware this analysis will take place using data submitted on the 2007-08 WDE staffing collection. WDE will also solicit feedback.

October 2007 – Phase II (2007-08 data) – Data collection from districts due
Statewide HQT Data Collection for all schools and districts. The data collection will include all previously collected HQT data and will be the first collection of teacher and administrator experience data. WDE data analysis will include HQT status and novice/experience data by school and school district, by high and low poverty, by high and low minority, and schools not making AYP.

December 2007 – Phase II (2007-08 data) – Preliminary data analysis complete
District reporting of 2007-08 HQT data. HQT data collection for current school year – data and analysis from all schools and districts provided to districts. WDE data analysis will include HQT status and novice/experience data by school and school district, by high and low poverty, by high and low minority, and schools not making AYP.

October 2008 – Phase II (2007-08 data) - Public reporting
Public reporting of 2007-08 HQT data. HQT data collection for current school year – data and analysis from all schools and districts provided to the public.

December 2008 and following years – Phase II – Data reporting to USDE
Required data from all schools and districts provided to USDE including HQT status and novice/experience data by school and school district, by high and low poverty, by high and low minority, and schools not making AYP. Public reporting will take place via Wyoming's Every Student Counts report and to USDE via the annual Consolidated Report.

HQT Data Collection, Analysis and Reporting Timeline

Data Year	Phase	Collect Data from Districts	Data Analysis to Districts	Report to state through "Every Student Counts"	Report to USDE through "Consolidated Report"
2005-06	I	Fall 2005	Nov 2006	Fall 2006	Dec 2006
2006-07	I	Oct 2006	March 2007	Fall 2007	Dec 2007
2007-08	II	Oct 2007	Dec 2007	Fall 2008	Dec 2008
2008-09	II	Oct 2008	Dec 2008	Fall 2009	Dec 2009

Phase One Data Analysis
Analysis of HQT data from every school in the state from the 2005-06 academic year indicates that 17,385 core academic classes were taught by 5,396 highly qualified teachers. Eight hundred twenty core academic classes were taught by 233 teachers who were not deemed highly qualified. Thus, in Wyoming for the 2005-06 academic year, 95.3% of core academic classes (CAC) were taught by Highly Qualified Teachers (HQT) and 4.7% were taught by Non Highly Qualified Teachers (NHQT).

The 2005-06 HQT data, for the most part, supports the provision of equitable teacher distribution. As a state there is a 1.2% inequity between low and high poverty schools at the elementary level and a 2.2% inequity between low and high poverty schools at the secondary level. However, when comparing those figures to 2004-2005, mixed results emerge. At the elementary level, 2004-2005 data indicated no inequity, while there was a 6.5% inequity at the secondary level. In 2005-2006, a small inequity at the elementary level has developed, but the inequity at the secondary level has corrected by more than 4 percentage points.

As previously noted, Wyoming's HQT equity gap is minimal. However, when examining the disaggregated data for districts and schools, it appears that there are some gaps that must be examined and addressed. During the Phase-two data collection planning process, WDE will define the "equity gap" which must be addressed in all districts and schools; that definition will include highly qualified teachers, teacher experience, poverty, minority, ELL, AYP, and proficiency data.

Following is a table of the 2005-2006 Highly Qualified Teacher composite data for low and high poverty schools in each district:

Distribution of Highly Qualified Teachers Relative to Poverty

District Name	Percent of Classes Taught by HQT in Low Poverty Schools	Percent of Classes Taught by HQT in High Poverty Schools
Albany CSD #1	98.4%	92.5%
Big Horn CSD #1	No low poverty schools	99.3%
Big Horn CSD #2	100%	85.1%
Big Horn CSD #3	100%	96.4%
Big Horn CSD #4	No low poverty schools	98.0%
Campbell CSD #1	94.6%	95.6%
Carbon CSD #1	96.9%	91.4%
Carbon CSD #2	96.4%	99.3%
Converse CSD #1	99.7%	85.0%
Converse CSD #2	92.8%	100%
Crook CSD #1	100%	92.3%
Fremont CSD #1	96.6%	97.6%
Fremont CSD #14	No low poverty schools	90.0%
Fremont CSD #2	No low poverty schools	96.1%
Fremont CSD #21	No low poverty schools	58.5%
Fremont CSD #24	95.6%	98.6%
Fremont CSD #25	98.5%	92.4%
Fremont CSD #38	No low poverty schools	93.3%
Fremont CSD #6	No low poverty schools	90.6%
Goshen CSD #1	No low poverty schools	97.9%
Hot Springs CSD #1	No low poverty schools	99.5%
Johnson CSD #1	92.9%	87.5%
Laramie CSD #1	97.1%	97.2%
Laramie CSD #2	95.0%	100%
Lincoln CSD #1	76.5%	79.3%
Lincoln CSD #2	96.3%	95.1%
Natrona CSD #1	97.2%	96.3%
Niobrara #1	100%	85.4%
Park CSD #1	94.6%	96.3%
Park CSD #16	No low poverty schools	97.4%
Park CSD #6	95.1%	No high poverty schools
Platte CSD #1	80.7%	94.0%
Platte CSD #2	93.7%	96.8%
Sheridan CSD #1	100%	95.4%
Sheridan CSD #2	97.6%	100%
Sheridan CSD #3	No low poverty schools	100%

District Name	Percent of Classes Taught by HQT in Low Poverty Schools	Percent of Classes Taught by HQT in High Poverty Schools
Sublette CSD #1	97.4%	No high poverty schools
Sublette CSD #9	96.0%	No high poverty schools
Sweetwater CSD #1	96.9%	98.0%
Sweetwater CSD #2	93.0%	100%
Teton CSD #1	92.9%	No high poverty schools
Uinta CSD #1	No low poverty schools	92.7%
Uinta CSD #4	92.5%	100%
Uinta CSD #6	95.1%	No high poverty schools
Washakie CSD #1	89.2%	95.6%
Washakie CSD #2	95.0%	71.4%
Weston CSD #1	99.6%	100%
Weston CSD #7	90.4%	88.9%

All schools in five districts in Wyoming are low poverty. In those districts, the percentage of highly qualified teachers teaching core academic classes ranges from 95.1% to 97.4%.

All schools in twelve districts in Wyoming are high poverty. In those districts, the percentage of HQT teaching CAC ranges from 58.5% to 100%. Only one district has a percentage of HQT teaching CAC that is below 90%. In this district 58.5% of classes are taught by HQT. Seven districts have a highly qualified percentage above the state average of 95.3%.

In fourteen Wyoming school districts the percentage of highly qualified teachers teaching CAC is higher in low poverty schools. In seventeen, the percentage is higher in high poverty schools.

Phase-Two Data Reporting

As noted above, phase-two of the HQT data collection system will bring the data on the experience level of teachers and administrators into the yearly staffing data collection. In order to compile this data, Wyoming has defined an experienced teacher as "one who has three or more years of teaching experience." Therefore, the collection will differentiate between teachers who are considered "Novice" with less than three years of teaching experience.

Below is an example of the data reporting which will be included in the Phase-two data collection and reporting. The example portrays the data collection for elementary schools. WDE will report and analyze the data by elementary and secondary schools.

2007-08 Teacher Experience in High and Low Poverty
and High and Low Minority Schools

	Total Number of Teachers	Number of Novice Teachers	Percent of Novice Teachers	Number of Experienced Teachers	Percent of Experienced Teachers
Elementary					
High Poverty					
Low Poverty					
High Minority	Example				
Low Minority					
All Elementary					

GOAL 3

Wyoming will coordinate statewide efforts and strategies that support highly qualified teachers and administrators and provide technical assistance, communication, statewide policy coherence and monitoring to support teacher and administrator quality.

Strategies for Ensuring Equity

Wyoming Department of Education will engage in the following activities in order to ensure that all children in Wyoming are taught by experienced, highly qualified teachers:

1) Beginning Teacher Support
   Develop programs to enhance the success and retention of early career teachers by aiding the transition into teaching; to improve training for new teachers; to provide intensive, individualized support and assistance to each beginning teacher.

2) Recruitment Programs
   Develop programs to increase the number of teachers in the pipeline and to provide incentives for educators to work in areas of highest need.

3) Teacher Preparation
   Collaborate with the University and community college partners to offer programs that more succinctly address the preparation needs of teachers in Wyoming schools

4) Retention Programs
   Identify and support programs that support teachers who are not new to the profession. These include programs that support collaboration with peers such as peer coaching, leadership opportunities such as shared governance, and targeted professional development, especially content area professional development.

5) Mentoring Programs
Nationwide more than half of all new teachers leave the profession within five years of beginning their teaching careers. High-quality, structured mentoring programs have a positive effect both on the retention of qualified teachers and the quality of instruction. For these reasons, as well as requirements under ESEA Section 1116(b)(3), all schools in Wyoming that have not made AYP for two consecutive years must include a teacher mentoring program as part of their required improvement activities.

In this program, new teachers are mentored and coached by instructional facilitators through the $16 million Instructional Facilitator program that provides instructional facilitators in every district statewide. This program is further described in Section 3a of Wyoming's Highly Qualified Teacher Revised State Plan.

6) National Board Certification
State Support
For the 2007-08 biennium, the Wyoming Department of Education budget includes $656,000 to support National Board certification of teachers by:

- Recruitment of teacher applicants for national certification
- Strengthening the support system for teachers in the process of obtaining national certification
- Providing awards and public recognition for teachers receiving National Board Certification

For the biennium, 2007-2008, the Legislature appropriated $600,000 in funding towards a $4000 salary increase to National Board certified teachers for each year of the biennium.

Foundation Support
The John P. Ellbogen Foundation supports a program that actively recruits Wyoming teachers to seek National Board certification, provides them with a statewide support system and a $2000 scholarship. In each of the last 3 years, the board has committed over $260,000. Other financial partners have joined in giving support to the Wyoming Initiative and they include: The Ruth R. Ellbogen Foundation, State Farm Insurance Company, The McMurry Foundation, and The Homer A. and Mildred S. Scott Foundation.

The focus of this support is as follows:

- Recruit teachers for National Board Certification
- Pay a portion of the assessment (including retake and "Take One" fees) for candidates
- Build a comprehensive support system for candidates
- Provide a full scholarship for Pre-candidate, Candidate, and Leadership workshops
- Plan and sponsor a yearly awards and Recognition Event for National Board Certified Teachers

To date 52 teachers in Wyoming have been certified by NBPTS.

7) Assignment of Teachers
Work with education associations to develop policies that eliminate obstacles to redistribution of teachers to high poverty and high minority schools and in developing strategies to assure that teachers in core academic classes are assigned to classes for which they are highly qualified.

8) Bonuses and Incentives
WDE will work to build on existing initiatives as well as develop new strategies to support bonuses and incentives to highly qualified, experienced teachers who agree to work in hard-to-staff schools.

The Public School Teacher Incentive Program was introduced in the State Senate this session (SF0100). This legislation will create incentive reimbursement payments to school districts to employ teachers with multiple teaching endorsements and who teach two or more different courses during a school year for which they are properly endorsed. Teachers holding such multiple endorsements qualify for $2,000 in addition to their regular salary. This incentive will be of particular use by rural and remote schools and districts in Wyoming.

Technical Assistance and Communication

The WDE Title II Office will:

- Work with schools and districts to ensure that HQT plans have adequately addressed the equitable distribution of HQ and experienced teachers;
- Ensure achievement of equity is a viable component of HQT plans;
- Provide all LEAs with data collection tools to report and analyze the equitable distribution of experienced and HQ teachers;
- Review HQT plans and provide feedback;
- Provide technical assistance to districts in the revision and effective implementation of HQT plans;
- Disseminate successful strategies to promote retention of HQ teachers particularly in hard-to-staff schools.
- Administer competitive grants programs that address the HQT needs of high need schools and districts
    - Math and Science Partnership Grants, and
    - Teacher/Leader Quality Partnership Grants;
- Coordinate and provide programs that support the development of highly qualified, experienced teachers
    - Professional Learning Communities at Work Coaching Academies,
    - Reading First/reading initiatives,
    - Statewide writing initiatives,
    - ESL/ELL Endorsement Program, and
    - Focused ESL/ELL statewide professional development;
- Recognize districts and schools that achieve 100% highly qualified teachers and/or make progress on closing the equity gap.

Promoting Leadership

Wyoming is working to promote and develop effective school leaders statewide. This work is tightly intertwined with the human resource system described in Goal One and will include strategies to recruit, retain, select, maintain and grow teacher-leaders and administrators throughout the state of Wyoming. Leithwood, Louis, Anderson, and Wahlstrom, in their 2004 review of research into effective leadership, concluded that leadership is "second only to classroom instruction among all school related factors that contribute to what students learn at school" accounting for about 25% of total school effects and that this effect was even greater in those schools facing the greatest challenges (p. 5). Richard Elmore (2000) asserts that, in order to successfully perform all of the leadership tasks cited in effective schools research, leadership responsibilities must be widely distributed throughout every school. For these reasons, Wyoming has targeted a variety of initiatives toward the development of teacher leaders and administrators.

1) SAHE Principal Leadership Grants

Under Title II, Part A, Subpart 3, funds are made available to state agencies for higher education (SAHEs) to support partnerships intended to ensure that principals have the instructional leadership skills to help them work most effectively with teachers in order to help students master core academic subjects. Through a partnership between the University of Wyoming- Department of Educational Leadership, Wyoming School-University Partnership, and Laramie County #1, Big Horn #1, Fremont #14, Fremont #21 and Fremont #38 , the *Wyoming Leadership Academy* provides new principals and assistant principals with tools and skills to work with staff, students, parents, community stakeholders, and colleagues in the content areas of reading/language arts and mathematics and the WDE school improvement plan and process. This project has statewide impact as all new principals in the state are invited and encouraged to participate.

2) Professional Learning Communities at Work Coaching Academies

Schools operating as professional learning communities collectively examine the conditions and activities that have a positive impact on student learning, seek out effective practices, and work collaboratively to develop shared leadership, evaluate strategies and techniques. Their work is focused directly on the needs of students and the goal of increasing student achievement within their schools. Teachers and administrators work together toward common objectives within a professional learning community. This program provides educational leaders, including teacher-leaders with the knowledge, tools, and skills to effectively coach schools and staff members throughout the change process.

In 2004-2005, a cohort of approximately 60 educators, mostly administrators, participated in a Professional Learning Communities at Work Coaching Academy, and subsequently moved forward with the planning and implementation in their respective districts. Their successes also included challenges, and they requested additional training. As the plans were being

developed to make an Advanced Academy available, it became quite evident that there were many schools and districts who wanted the opportunity to participate in an Introductory Academy.

One-hundred and fifty educators, 33 teams of teachers and administrators from schools across the state, are participating in the Introductory Academy that is happening at two different sites. The training provides each Introductory Strand participant with a working knowledge of Professional Learning Community implementation and sustainability practices. The 50 additional participants in the Advanced Strand are provided advanced facilitation methods in order to strengthen each participant's leadership skills.

Statewide Policy Coherence

WDE is committed to improving internal processes and revising state policies that may inadvertently contribute to staffing inequities in schools. As an SEA, we will lead the effort in assuring that high-need schools have the opportunity to recruit and retain highly qualified teachers. While local school districts assign teachers to schools, grades, subjects, and classes, WDE monitors teaching assignments through HQT data collections, through evaluative processes such as monitoring and routine oversight of school districts. The WDE plan for a comprehensive teacher and administrator human resource system will bring together what might otherwise be disjointed pieces of Wyoming's statewide education environment and ensure policy coherence.

Monitoring Progress, Corrective Action, and Sanctions

All LEAs will be held accountable by WDE for fulfilling their HQT Plans and meeting the two HQT statewide objectives:

- 100% highly qualified teachers in every core academic class by the end of the 2006/07 academic year; and
- poor and minority children are not taught by inexperienced, unqualified or out-of-field teachers at higher rates than other children

WDE will monitor the equitability of teacher assignment through the collection of HQT data, each annual submission of the LEAs Title II, Part A Consolidated Plan, and the HQT plans of each LEA that has not met the statewide annual measurable objective of 100% highly qualified teachers. The State will use HQT data that identifies classes taught by teachers who are not highly qualified and teaching experience (novice/experienced) to determine high priority schools and districts. Technical assistance will be prioritized for high poverty and high minority districts and schools with the greatest percent of classes taught by teachers who are not highly qualified and have high percentages of novice teachers.

As described above, HQT data is collected each October to identify teachers assigned to classes for which they are not HQ and to identify the experience level of teachers. This information will be utilized in the monitoring process and in providing technical assistance to districts. The State will monitor HQT plans for NHQ teachers to become HQ and the equitable distribution of novice and experienced teachers. WDE will also

monitor parental notification requirements as required for Title I schools. When it appears that the school or district is unable to meet its highly qualified goals with ongoing implementation of its plan, WDE will enact a series of progressive monitoring and sanctions in accordance with ESEA section 2141.

The following protocols have been developed by WDE to clearly explain the role and responsibilities of the SEA as we work together to ensure the HQT requirements are understood and implemented.

SEA Responsibilities

- Monitor and approve NCLB Consolidated Plan applications. Ensure Title I-A and Title II-A includes evidence of financial support for teachers who have <u>not</u> met the HQT requirements.

- Monitor and approve LEA Highly Qualified Teacher Plans including alignment with NCLB Consolidated Plans and Wyoming School Improvement Plan/Schoolwide Plan.

- Monitor HQT criteria as a component of the rotating cycle of on-site program monitoring as required for each of the following divisions within WDE:
    - Special Education Unit
    - Title I Office
    - Title II Office

- Monitor LEA compliance with all HQT state and federal program regulations and administer sanctions if necessary.

In order to carry out the above responsibilities, the WDE Title II Office will:

- Ensure on-site monitoring occurs for each LEA on the established cycle and/or upon receipt of a substantiated complaint, and when significant concerns arise over the accuracy of HQT data;
- Participate in the WDE Technical Assistance teams, in which concerns regarding schools and districts are addressed and coordinated technical assistance and/or sanctions are planned and delivered;
- Collect, review, and authorize each LEA HQT Plan;
- Provide technical assistance to LEAs in accessing high quality professional development for their non-HQ teachers;
- Provide on-going support to LEAs to ensure that all teachers are highly qualified by the end of the 2006-07 academic year and that poor and minority children are not taught at higher rates than other children by inexperienced, unqualified, and/or out-of-field teachers; and
- Annually report publicly and to USDE updated HQT data, assess progress relative to the 100% HQT goal, percentage of teachers participating in high quality professional development and equitable distribution of experienced teachers.

Evidence of Probable Success – Research Base

As part of the development of this plan the WDE has created an evaluation system to monitor the degree to which the LEAs implement their agreed upon HQT plans and how successful the activities were in addressing the targeted issues. The WDE Title II staff uses the following criteria to review and evaluate HQT plans:

1) Is the district committed to ensuring that all core academic classes are taught by highly qualified teachers?
2) Do the district and schools assist with and support individual professional development plans for teachers who need to become highly qualified?
3) Is the LEA analyzing and addressing equitable distribution of highly qualified, experienced teachers among low poverty and high poverty schools?

These plans will be required to include on-going evaluation, monitoring, and accountability. WDE is confident that this process, along with intensive technical assistance and the evidence of success collected for HQT compliance so far, will result in effective administration of the HQT program.

Additionally, WDE will continue to monitor and evaluate the success of the programs and initiatives described above through collection of HQT data and evidence of program implementation. WDE staff has utilized a variety of research and the resources from higher education, school districts, the USDE, Comprehensive Centers, professional organizations and others in identifying strategies that will result in meeting the HQT goals. A sampling of the research that informed this plan appears below:

Stanford University: Linda Darling Hammond, "Teacher Quality and Student Achievement: A Review of State Policy Evidence," (2000)

Studies of the effects of teacher experience on student learning have found a relationship between teachers' effectiveness and their years of experience (Murnane & Phillips, 1981; Klitgaard & Hall, 1974), but not always a significant one or an entirely linear one. While many studies have established that inexperienced teachers (those with less than three years of experience) are typically less effective than more senior teachers, the benefits of experience appear to level off after about five years, especially in non-collegial work settings (Rosenholtz, 1986). A possible cause of this trend in experience effects is that older teachers do not always continue to grow and learn and may grow tired in their jobs. Furthermore, the benefits of experience may interact with educational opportunities. Veteran teachers in settings that emphasize continual learning and collaboration continue to improve their performance (Rosenholtz, 1984). It is also possible that uneven effects of experience can be the result of cohort effects (for example, cohorts of teachers hired in times of shortage may be less well-qualified than those hired when schools can be more selective) or of attrition effects (for example, disproportionate early attrition of more able teachers may leave a less capable senior force on average) (Murnane & Phillips, 1981; Vance & Schlechty, 1982). Presumably, the direction of this effect would change if retention policies kept the most able beginning teachers in the profession. Since experience is also correlated with teacher education and certification status, these variables may be confounded in some analyses."

University of Kansas, Andy Tompkins and Anne S. Beauchamp, How Are States Responding to the Issue of Teacher Recruitment and Retention, and What More Needs to Be Done?, (2006)

In a review of issues related to recruiting and retaining teachers in hard-to staff schools, Berry (2004) notes that "salary increases alone are insufficient to attract teachers to hard-to-staff schools" (13). He summarizes the following as other important initiatives to address this problem:

- Recruit from a larger pool of traditional and nontraditional candidates
- Provide strong induction and mentoring programs
- Provide a supportive principal
- Provide opportunities for leadership
- Provide opportunities to influence decision making
- Provide more time to learn from colleagues
- Provide the chance to work closely with fewer numbers of students and their families
- Improve research by the federal government

The National Education Association in Tompkins and Beauchamp, (2006) recommends several strategies for addressing teacher recruitment and retention. Specific recruitment strategies include the following:

- Develop a comprehensive recruitment plan
- Develop a strong marketing and outreach campaign
- Improve the hiring process
- Provide nontraditional routes into the profession
- Provide financial incentives

Specific retention strategies include the following:

- Prepare teachers adequately
- Nurture new teachers
- Improve the working environment
- Provide financial incentives

NGA Center for Best Practice, Richard Ingersoll and Bridget Curran, Out-of-Field Teaching: The Great Obstacle to Meeting the "Highly Qualified" Teacher Challenge, (2004)

States should address the gaps between the HQ teacher requirements and the qualifications of their teachers by considering the following initiatives:

- Creating and streamlining state data systems to include relevant data on teacher qualifications and assignments and requiring schools and districts to report critical data, including data on out-of-field teaching;
- Developing strategies for recruiting and retaining effective teachers in areas where they are needed most;
- Prohibiting out-of-field teaching for new teachers;
- Offering incentives for schools and districts to eliminate out-of-field teaching and imposing consequences for those that do not;

- Helping hard to staff schools improve retention rates;
- Encouraging districts and schools to rethink how staffing decisions are made and use creative solutions;
- Offering scholarships or loan forgiveness;
- Establishing or expanding mentoring and induction programs to help out-of-field teachers work toward competency in additional fields by using expert veteran teachers in those fields;
- Fostering partnerships among institutions of higher education, school districts, and state leaders for developing new strategies and solutions; and
- Tapping federal resources, such as those offered in NCLB to fund these initiatives.

University of Melbourne, Suzanne Rice, Staying or going? Factors that Influence Effective Teachers' Decisions on Where to Teach, (2006)

Schools that have been traditionally hard to staff are facing increasing issues in attracting and retaining teachers, and the pattern of new graduates accepting positions in such schools, only to leave for more desirable locations once they have gained experience, is likely to be exacerbated by teacher shortages. Such staffing patterns only compound the educational difficulties already faced by many students in rural, remote and urban disadvantaged schools, and are likely to further increase inequalities in educational outcomes. If schools in disadvantaged settings are to improve student outcomes, they need to be aware of how best to attract and retain the teachers likely to have a strong positive impact on students. The strong commitment of these teachers to their own learning also suggests that another means education systems might consider to attract these teachers to hard-to staff schools could be to offer payment or subsidy of course fees for postgraduate educational qualifications to teachers willing to accept a position in such a school. Subsidized courses would be linked to school need, thus helping the school to increase its own effectiveness through staff knowledge, while allowing the teacher the personal benefit of building their skills and qualifications…The desire of these teachers for opportunities to shape and influence their schools, particularly through attaining leadership positions in schools, suggests that one means of improving the ability of less-favoured school locations to attract and retain better teachers may be to increase the proportion of leadership positions they offer, relative to more advantaged schools. For this to work, funding would need to be tied specifically to positions, rather than provided as general finances that could, for example, be spent on facilities rather than staffing. In contrast to calls to increase *salary in general* for teachers working in disadvantaged settings, the findings of the study indicate that using funds to increase *positions of responsibility* may have a much greater educational impact.

The Southeast Center for Teaching Quality, Best Practices and Policies, NCLB Teaching Quality Mandates Findings and Themes from the Field, Second of Four Part Series: Recruitment and Retention, (March 2004)

Use the right combination of incentives to proactively recruit and retain teachers — including a focus on building a critical mass of accomplished teachers in these schools and dramatically improving working conditions for them. Many of the schools we visited are not attractive because teacher candidates would not want to teach there without sound principal leadership and like-minded colleagues who can help them teach in effective ways. Just sending a promising recruit to teach in a school where many teachers believe children's minds are like "brick walls" will not suffice. We imagine incentives to include a package of principal development strategies along with a combination of recruiting a critical mass of well-prepared teachers, who receive reduced teaching loads and unique opportunities (through technology and university programs' continued investment in induction) to continue to learn to teach. Furthermore, recent research shows that teachers in high-poverty schools are far more dissatisfied than their peers in low-poverty schools with their working conditions. These under-performing schools are more likely to have poor teacher working conditions— with inadequate time to work with and learn from expert colleagues.

National Staff Development Council, Dennis Sparks, High Performing Cultures Increase Teacher Retention, (December 2002)

"Teachers--even those in the most demanding settings--are far more likely to remain in their positions when they feel supported by administrators, have strong bonds of connection to colleagues, and are aggressively pursuing a collective vision for student learning about which they feel passion and commitment. Teachers' connections to the profession and to their schools are also strengthened when they feel they possess the content knowledge, instructional skills, and technological tools to meet the challenges of standards-based education in increasingly diverse classrooms. Strong professional learning communities do not occur by accident. It is critical that union contracts, district calendars, and teachers' schedules be designed to support results-driven, team-focused professional learning and collaboration that are part of teachers' work days. It's also critical that principals and teacher leaders be equipped with knowledge and skills that enable them to build and sustain performance-oriented cultures that have at their heart high-quality interpersonal relationships founded on trust and respect.

Next Steps

Ultimately, it is WDE's mission to ensure that all students achieve Wyoming academic standards. That goal can only be achieved when every child is taught by a highly qualified teacher and a competent administrator leads every school. We believe that given the opportunity to learn, all students can achieve to high levels. In order to support this mission our next steps are:

Step 1—Dissemination of Information

Information will be disseminated to teachers and administrators at the School Improvement Conference in March reinforcing the importance of having highly qualified and experienced teachers in schools with higher numbers of poor and minority students. Districts will be encouraged to consider this issue as they make teaching assignments. They will also receive information reinforcing NCLB Title II HQT requirements and

Wyoming's certification rules. In addition, technical assistance tools will be made available.

Step 2—Data Collection and Analysis
WDE will begin Phase-two of the annual web-based HQT data collection from all SEAs in October 2007 for the 2007-08 academic year. The data will be analyzed to determine HQT status and teacher experience levels. In addition, the data will be analyzed according to poverty and minority levels to determine if higher poverty schools or higher minority schools have greater numbers of teachers who are unqualified, inexperienced or out-of-field. Adequate Yearly Progress (AYP) data will also be reviewed to determine which groups of students experience an achievement gap.

Step 3—Communicate with Identified Districts
Once districts are identified as having higher numbers of inexperienced, unqualified or out-of-field teachers in higher poverty and/or minority schools, WDE will review the district's *Highly Qualified Teacher* plans to determine what strategies are being implemented to address this issue. The WDE will communicate with the districts to determine what the contributing factors are that cause this situation to exist and provide technical assistance to help ameliorate any inequities.

Step 4—Modifying LEA Plans
Districts may need to modify their *Highly Qualified Teacher* plans if there are insufficient strategies or plans for addressing equity issues. WDE will provide on-going support to LEAs to ensure that all teachers are highly qualified and that poor and minority children are not taught at higher rates than other children by inexperienced, unqualified, and/or out-of-field teachers.

Step 5—Monitoring Equitable Distribution of Teachers
WDE will monitor the issue of equitable teacher assignments in three ways. The first is to annually review the data on teaching assignments through the HQT data collection. The second is through the Local Consolidated Plan monitoring process. The third is through monitoring the LEA *Highly Qualified Teacher* plans. In monitoring Title II Part A, the WDE staff will account for, evaluate, report to the public and address the distribution of highly qualified teachers and inexperienced teachers.

Evaluation of Wyoming's Instructional Facilitator Program:

Impact on Teacher Practice

Suzanne Young, Ph.D.

Leslie S. Rush, Ph.D.

December 1, 2008

Executive Summary

This report, prepared in response to a request from the Wyoming Department of Education's Instructional Facilitator Task Force, presents an evaluation of the work of Instructional Facilitators in Wyoming schools. The Instructional Facilitator program was funded by the state of Wyoming beginning in 2006. In preparation for this report, researchers surveyed classroom teachers throughout the state on the extent of their work with Instructional Facilitators and their perceptions of the impact of this work on their own practice and on student learning, with a response rate of 69%.

Analysis of the data collected through the survey indicates that 81% of the respondents report having worked with an Instructional Facilitator at least once, with the majority reporting typically spending an hour a week or less working with an Instructional Facilitator in either one-on-one or group settings. The highest reported activities on which teachers worked with Instructional Facilitators were participating in collaborative meetings and choosing instructional strategies. Teachers were also asked to evaluate activities on which they have worked with Instructional Facilitators in terms of their effectiveness in changing teaching practice, the value of the time spent, and impact on student learning. Teachers ranked the following activities highest in all three areas: "provide support in choosing instructional strategies" and "model effective instructional strategies."

Teachers were also asked to rank their agreement with a variety of statements regarding their work with Instructional Facilitators. Analysis of these data shows a strong positive perception from teachers regarding the impact of their work with Instructional Facilitators on teaching practice and reflection. Teachers also perceive that Instructional Facilitators are available to help them and have the knowledge they need to do their jobs. Positive but weaker perceptions

among teachers were found regarding the impact of Instructional Facilitators on development of collegial relationships among teachers and on the impact of work with Instructional Facilitators on student performance. Teachers also indicated a positive perception of the Instructional Facilitator program as a wise investment of Wyoming's money and a desire to continue to work with Instructional Facilitators in the future. Activities ranked highest for future work with Instructional Facilitators were "provide support in choosing instructional strategies," "help me to use student achievement data," "help me identify student needs for instructional focus," and "provide support in developing and/or using formative assessment."

Recommendations at the statewide level include continuation of the program, providing funding for Instructional Facilitators to all districts, and continued statewide evaluation at regular intervals. Recommendations at the district and school level include development of a clear vision for the roles and responsibilities of Instructional Facilitators, focusing on the most effective use of Instructional Facilitators' time and energies, and the provision of ongoing professional development for Instructional Facilitators.

State System of Support Overview

- The Wyoming Department of Education's (WDE) theory of action to assist districts/schools in the educational improvement process is called the State System of Support (SSoS) and 2009-2010 will be the pilot year of implementation. WDE is providing direction and leadership in more data-driven decision making. WDE is focusing on building capacity at the district-level to enable districts to better assist their schools.

- WDE is refocusing manpower to provide new services to districts/schools and is providing training/professional development to WDE personnel to help implement the new SSoS.

- WDE is implementing a systems-based operations approach (based on the Baldrige Management System) and several districts are piloting the same type of systems approach. WDE is focusing on accountability by improving customer service and having more effective and efficient operations.

- WDE is also providing leadership and on-site visits to several districts in the systems-based approach called Organizational Assessment—essentially the Baldrige System with curriculum and instruction added to the criteria.

- Every Wyoming school district has a WDE District Consultant or District Coach assigned as their primary point of contact at WDE. In addition to District Consultants/Coaches, WDE is continuing to have WDE regional contacts.

    - The District Consultant/Coach will go onsite at a district at least once a year.
    - The District Consultant/Coach will provide other types of contact throughout the year, i.e., emails, telephone calls, and electronic interaction such as WEN video, etc.
    - Every district/school that did not meet adequate yearly progress (AYP) will be provided additional assistance.
    - For districts that are assigned a Coach and need more assistance from WDE, a WDE oversight team will be created to give more in-depth district support.

- A Toolkit/Notebook will be provided to every district. The Toolkit contains information regarding WDE programs/projects/initiatives, WDE contact information, and educational best-practices and research-based program access information.

- WDE is in partnership with AdvancEd (formerly North Central Accreditation Association) regarding district/school accreditation and district monitoring for compliance with state statutes/rules. SSoS is not only focusing on the monitoring process but also on providing technical assistance for those areas that are not in compliance and/or areas that need to be improved.

- WDE is providing direction and leadership in linking student academic achievement and the certified personnel performance appraisal system as outlined in the revisions of the Chapter 29 Rules.

- WDE is providing technical assistance and professional development to districts to help achieve the Wyoming Public Education and WDE student-focused goals.

For more information, please contact Kay Post at 307.777.3498, kpost@educ.state.wy.us or Joy Mockelmann at 307.777.8712, jmocke@educ.state.wy.us .

Wyoming District Classification Rubric

2009 Revision

Prepared by
The Rubric Review Workgroup

July 15, 2009

Contents

Introduction 1
Technical Assistance Advisory Team Recommendations 3
Categories and Weighting 5
District Classification Rubric Recommendations 7

Appendix A Internal Rubrics, Collections Lists 13
Appendix B Wyoming District Classification Indicators Worksheet 19
Appendix C Original Categories and Ratings 23

Introduction

As part of the Statewide System of Support, the Wyoming Department of Education developed a process to ascertain the types of support needed by school districts and better target resources, technical assistance, and interventions to the districts that need the most assistance. To determine the level of support to provide to districts, the District Classification Rubric was constructed using the district data available at the state level. This rubric was applied to the 48 districts in Wyoming in August 2008. The districts were ranked in 5 areas: student performance, leadership and staffing, fiscal soundness, monitoring and compliance, and accreditation.

At the November 3, 2008, Technical Assistance Advisory Team (TAAT) meeting the Northwest Regional Comprehensive Center (NWRCC) identified concerns regarding the integrity, validity, and scoring of the indicators used to rate the districts. TAAT requested that NWRCC further examine those concerns and submit recommendations for consideration.

After reviewing the recommendations submitted by NWRCC in at the January 13, 2009, meeting, TAAT agreed to formally recommend to deputy superintendent Joe Simpson a full revision of the District Classification Rubric. This recommendation was submitted to the deputy superintendent in February 2009. The recommendation was approved and members of the Rubric Review Workgroup were identified:

- Alan Moore, Standards and Assessment Unit
- Joy Mockelmann, Educational Quality, and Accountability Unit
- Peg Brown-Clark, Special Programs Unit
- Billie Vanlandingham, Educational Quality and Accountability Unit
- Brian Wright, Federal Programs Unit
- Matt Willmarth, Finance Unit
- Aleta Nichols, Technology, Careers and Data Unit
- Rita Hale, Northwest Regional Comprehensive Center

The Rubric Review Workgroup met for the first time during the March 2009 School Improvement Conference in Casper. The group reviewed its mission and determined the best method for scheduling and convening succeeding workgroup sessions. Subsequent meetings occurred via WebEx on the following dates: March 16, May 28, June 9, June 19, June 24, and July 6.

Technical Assistance Advisory Team Recommendations

Due to the unsatisfactory results of the first application of the rubric, TAAT recommends implementing a full review of the components of the proposed District Classification Rubric for relevance, completeness, and overall efficacy. To achieve this goal, the Rubric Review Workgroup, a subgroup of TAAT, will:

1. Consider the relevance of the district categories—Identify the merits of each category as a standard against which to measure district performance.
2. Review the category definitions for significance—Examine which categories clearly codify district performance and construct meaningful distinctions between districts.
3. Examine the categories and associated subcategories in terms of the clarity and complexity of their indicators—Scrutinize the variability allowed by the indicators and the steps to obtaining a particular score.
4. Calibrate the scoring protocol—Determine the value of each category relative to the other categories. Steps 1 and 2 will influence the attribution of value.

Categories and Weighting

The original District Classification Rubric scoring process gave each subcategory indicator equal weight. The Rubric Review Workgroup determined that the more critical characteristics in the rubric should receive more points. The workgroup identified which categories would be best for identifying at-risk districts and which subcategories and indicators were appropriate for each category. The categories were weighted according to their importance compared to other categories (see Exhibit 1).

Exhibit 1
Category Weighting

Category	Subcategory Recommendations	Relative Weight	Contribution to Total Weight	Lead Staff
Student performance (High 40%)	▪ AYP status	75%	30%	Moore
	▪ Graduation rate	25%	10%	Mockelmann
Monitoring and compliance (Medium 30%)	▪ Compliance outcomes	40%	12%	Brown-Clark
	▪ Consolidated grant compliance monitoring	20%	6%	Wright
	▪ Consolidated grant application submission	15%	4.5%	
	▪ Federal grant fiscal responsibility	15%	4.5%	
	▪ Highly qualified teachers	10%	3%	
	▪ Body of evidence	0%	0%	Moore
Data collection (Low 20%)	▪ Timeliness of department data collections	50%	10%	Nichols Manley
	▪ Average days late on data collections	50%	10%	
Accreditation (Low 10%)	▪ School district accreditation score	100%	10%	Vanlandingham Frazer

District Classification Rubric Recommendations

2008–2009 Data to Determine 2009–2010 Level of Support

Student Performance

AYP Status		
Alan Moore, Joy Mockelmann		
Plus	**All schools within the LEA have met Wyoming's 18 (excluding additional indicator) categories of AYP calculation.**	0 Points
Delta	**Of the 18 AYP categories (9 in Math, 9 in Language Arts), convert each X in the AYP chart to numbers: X = 1, 2X = 2, 3X = 3, 4X = 4, etc. Add the numbers together for each district. Count the number of schools in each district. Divide the number of X totals by the number of schools. This will be called the AYP Index on student performance.**	
	The LEA index is .01–.29.	1 Point
	The LEA index is .30–.59.	2 Points
	The LEA index is .60–.89.	3 Points
	The LEA index is greater than or equal to .90.	4 Points

Graduation Rate		
Joy Mockelmann, Alan Moore		
Plus	**The LEA has a graduation rate of 90% or higher.**	0 Points
Delta	**The LEA has a graduation rate of below 90%.**	
	The LEA has an overall graduation rate between 80% and 89.99%.	1 Point
	The LEA has an overall graduation rate between 70% and 79.99% and improved their rate by at least 1% over the previous school year's rate.	2 Points
	The LEA has an overall graduation rate less than 70% and improved their rate by at least 1% over the previous school year's rate.	3 Points
	LEA has an overall graduation rate less than 80% and failed to improve their rate by at least 1% over the previous school year's rate.	4 points

Monitoring and Compliance

Outcomes and Compliance Monitoring for Special Education		
Peg Brown-Clark, Stephanie Weaver, Michael Harris		
Plus	**The LEA met requirements based on the state performance plan indicators and compliance data for the previous school year.**	0 Points
Delta	**The LEA did not meet requirements based on the state performance plan indicators and compliance data for the previous school year.**	
	The LEA is in the first year of Needs Assistance based on performance plan indicators and compliance data.	1 Point
	The LEA is in the second year of Needs Assistance based on performance plan indicators and compliance data.	2 Points
	The LEA is in Needs Intervention based on performance plan indicators and compliance data.	3 Points
	The LEA is in Needs Intervention for 2 or more years based on performance plan indicators and compliance data.	4 points
	The LEA is in Needs Substantial Intervention based on performance plan indicators and continuing noncompliance data.	5 Points

Consolidated Grant Compliance Monitoring		
Darlena Schlachter, Brian Wright		
Plus	**The LEA has not received any findings on past Consolidated Grant monitoring visits or desk audits.**	0 Points
Delta	**The LEA has received one or more findings on past Consolidated Grant monitoring visits or desk audits.**	
	The LEA received only 1 finding on past Consolidated Grant monitoring visits or desk audits.	1 Point
	The LEA received 2–4 findings on past Consolidated Grant monitoring visits or desk audits.	2 Points
	The LEA received 5–8 findings on past Consolidated Grant monitoring visits or desk audits.	3 Points
	The LEA received 9–11 findings on past Consolidated Grant monitoring visits or desk audits.	4 Points
	The LEA received 12 or more findings on past Consolidated Grant monitoring visits or desk audits.	5 Points

Consolidated Grant Application Submission		
Darlena Schlachter, Brian Wright		
Plus	**The LEA met both deadlines (initial and final submission) for the Consolidated Grant Application.**	0 Points
Delta	**The LEA did not meet both deadlines (initial and final submission) for the Consolidated Grant Application.**	1 Point

Federal Grant Fiscal Responsibility		
Darlena Schlachter, Brian Wright, Diana Thompson		
Plus	**The LEA had no grants with a carryover percentage higher than 15% and did not revert any federal funds back to the WDE.**	0 Points
Delta	**The LEA had grants with a carryover percentage higher than 15% and/or reverted federal funds back to the WDE .**	
	The LEA score on a rubric based on the above criteria that takes into account most current carry over and reverted funds between July 1 and June 30 each year.	1–10 Points

Highly Qualified Teachers		
Brian Wright, Carol Illian, Vince Meyer		
Plus	**Highly qualified teachers teach 100% of the core academic classes in the LEA.**	0 Points
Delta	**Highly qualified teachers teach less than 100% of the core academic classes in the LEA.**	
	The LEA's HQT rate of the core academic classes is 95%–99.99%.	1 Point
	The LEA’s HQT rate of the core academic classes is 90%–94.99%.	2 Points
	The LEA's HQT rate of the core academic classes is below 90%.	3 Points
	The LEA's HQT rate of the core academic classes is below 95% and the LEA failed to improve their rate by at least 1% over the previous school year’s rate.	4 Points

Body of Evidence - 5 Design Criteria		
Alan Moore		
Plus	**The LEA met all 5 of the Body of Evidence Design Criteria.**	0 Points
Delta	**The LEA did not meet all 5 of the Body of Evidence Design Criteria.**	
	The LEA met 4 of the Body of Evidence Design Criteria.	1 Point
	The LEA met 3 of the Body of Evidence Design Criteria.	2 Points
	The LEA met 2 of the Body of Evidence Design Criteria.	3 Points
	The LEA met 1 of the Body of Evidence Design Criteria.	4 Points
	The LEA did not meet any of the Body of Evidence Design Criteria.	5 Points

Data Collection

Department Data Collection Submission		
Amy Manley, Aleta Nichols		
Plus	**The LEA submitted appropriate data collections to the Department on or before the due date.**	0 Points
Delta	**The LEA did not submit appropriate data collections to the Department on or before the due date.**	
	The LEA had 80% or more on time submissions of appropriate data collections to the Department.	1 Point
	The LEA had between 75 and 79.99% on time submissions of appropriate data collections to the Department.	2 Points
	The LEA had between 70 and 74.99% on time submissions of appropriate data collections to the Department.	3 Points
	The LEA had less than 70% on time submissions of appropriate data collections to the Department.	4 Points

Average Days Late on Data Collections		
Amy Manley, Aleta Nichols		
Plus	**The LEA averaged 0 days late on appropriate data collections submitted to the Department.**	0 Points
Delta	**The LEA averaged more than 0 days late on appropriate data collections submitted to the Department.**	
	The LEA averaged 0.01–7 days late on appropriate data collections submitted to the Department.	1 Point
	The LEA averaged 7.01–14 days late on appropriate data collections submitted to the Department.	2 Points
	The LEA averaged 14.01–21 days late on appropriate data collections submitted to the Department.	3 Points
	The LEA averaged more than 21 days late on appropriate data collections submitted to the Department.	4 Points

Accreditation

State Board District Accreditation Score		
Billie Vanlandingham, Diane Frazer		
Plus	**The LEA received full accreditation.**	0 Points
Delta	**The LEA did not receive full accreditation.**	
	The LEA received accreditation with follow-up.	1 Point
	The LEA received accreditation with deficiencies.	2 Points
	The LEA received conditional accreditation.	3 Points
	The LEA received non accreditation.	4 Points

Appendix A
Internal Rubrics, Collections Lists

Wyoming Department of Education
Special Programs Unit

Steps in arriving at the Determinations Levels
using both Compliance and Performance Measures
May 14, 2009

1. A Determinations "Total Score" is calculated for each district, each of the 4 population cohorts, and the state as a whole (see chart on page 16):
   - A district's Total Score is the sum of the district's scores on indicators 1, 2, 3b, 3c, 5a, 5b, 5c, 8, 9, 10, 11, 13, 20a, and 20b.
   - Indicators 2, 5b, and 5c are "reversed-score" because for these indicators a lower score is better than a higher score. For example, if a district's indicator 2 (drop-out rate) score is 10%, its score for that item is 100%-10% or 0.9 points.
   - The highest possible Total Score is 16 points (100% on each indicator).

2. The Determination Level for each district is calculated according to the following criteria:
   - If the district is Total Score is 13.5 or higher, then the district **meets requirements** (providing no special circumstances).
   - If the district's Total Score is 13.49–12, then the district **needs assistance** (providing no special circumstances).
   - If a district's Total Score is 11.9–11, then the district **needs intervention** (providing no special circumstances).
   - If a district's Total Score is less than 10.9, then the district **needs substantial intervention** (providing no special circumstances).

   The point value of the Determination Level for each district is entered in the subcategory *Outcomes and Compliance Monitoring for Special Education* in the **Monitoring and Compliance** category of the rubric.

3. Special circumstances are considered:
   - If a district has any outstanding, uncorrected findings of noncompliance from monitoring, due process, or complaints identified during the 2008–2009 school year, then it cannot be in meets requirements.
   - Districts in compliance agreements from the 2007–2008 school year are automatically in needs intervention (year one of the compliance agreement).
   - Districts with uncorrected findings of noncompliance from the 2006–2007 school year are automatically in needs substantial intervention (Year 2 of the compliance agreement).

Special Education Determination Levels

Wyoming Special Programs Unit
District Determinations Process 2007-08

Step 1: Did the District meet the targets on the APR indicators?

	1. Was substantial compliance met for each of the compliance indicators:	*2. Were the targets met, on average, for 10 of the performance indicators:*	*3. Add up points from the compliance and performance indicators*
	Indicator 9 (Yes=1 point)	Performance Indicators: 1,2,3B Read, 3B Math, 3C Read, 3C Math, 5A, 5B, 5C, 8 (Yes= 1 point)	
	+		
	Indicator 10 (Yes=1 point)		
	+		
	Indicator 11 (Yes=1 point)		7 points = Meets Requirements
	+		
	Indicator 13 (Yes=1 point)		6 points = Needs Assistance
	+		
	Indicator 20A: Timeliness (Yes=1 point)		5 points = Needs Intervention
	+		
	Indicator 20B: Accuracy (Yes=1 point)		0-4 points = Needs Substantial Intervention
Points Possible:	0-6 points	+ 0-1 points	= 0-7 points

Step 2: Does the District have special circumstances?

1. If any of the following are present, the district's determinations level changes.

a. Districts with any outstanding issues of non-compliance from monitoring, due process, or state complaints cannot be in Meets Requirements.

b. Districts with Year 1 noncompliance cannot be in Meets Requirements.

c. Districts with uncorrected noncompliance issues for two years automatically in Needs Intervention.

d. Districts with uncorrected noncompliance issues for more than two years are automatically in Needs Substantial Intervention.

Federal Grant Fiscal Responsibility

The LEA score on a rubric based on the following criteria that takes into account most current carry over and reverted funds between July 1 and June 30 each year. District would receive the cumulative score of these 2 tables.

Score	Carryover Percentage
0	All LEA grants had a carryover percentage less than 15%
1	The LEA had a grant with a carryover percentage of 15%–20%
2	The LEA had a grant with a carryover percentage of 21%–40%
3	The LEA had a grant with a carryover percentage of 41%–60%
4	The LEA had a grant with a carryover percentage of 61% or higher
5	The LEA has more than one grant with a carryover percentage of 41% or higher

Score	Fund Reversion
0	The LEA did not revert any funds between July 1, 2008 and June 30, 2009
1	The LEA reverted funds in 1 grant between July 1, 2008 and June 30, 2009
2	The LEA reverted funds in 2–3 grants between July 1, 2008 and June 30, 2009
3	The LEA reverted funds in 4 or more grants between July 1, 2008 and June 30, 2009
4	Any of the funds reverted between July 1, 2008 and June 30, 2009 were from a grant older than fiscal year 2006
5	Any of the funds reverted between July 1, 2008 and June 30, 2009 were from a grant older than fiscal year 2006 and the total amount of the older grants from was more than $1,000

2008–2009 Data Collection List*
30 Data Collection Sources

	Form Number	Title	Steward
1	100	School Foundation Program Funding Worksheet	Amy Manley
2	103	Reimbursable Pupil Transportation Expenditures Report	Grady Prince
3	112	School District National Board Certified Teacher Paid Report	Amy Manley
4	170	Cooperative Services Incentive App.	Amy Manley
5	401	Reimbursable Special Education Expenditures Report	Linda Oetken
6	425	WISE Special Education Fall Snapshot	Stephanie Weaver
7	427	WISE Special Education Data Collection-End of Year	Stephanie Weaver
8	527	Bridges - Summary of Extended Day Programs	Laurel Ballard
9	533	District Report of Homeless Children and Youth	Darlena Schlachter
10	537	Bridges - Summary of Summer Programs	Laurel Ballard
11	549	School District Neglected and Delinquent Counts	Kenya Haynes
12	568	School District Title I, Part D Annual Program Review	Kenya Haynes
13	584	District Technology Survey	Clem Jimenez
14	600	WISE Attendance and Membership	Amy Manley
15	601	Annual District Report	Amy Manley
16	602	School District Staff Member Collection	Susan Kruse
17	607	WISE Dropouts	Leslie Zimmerschied
18	608	School Information Update Form	Susan Kruse
19	609	School District Program Contacts	Susan Kruse
20	613	Gifted and Talented Summary	Tom Collins
21	626	Early Literacy - Longitudinal Data	Jillian Balow
22	632	Advanced Placement Courses	Tom Collins
23	636	WISE Report of Student Disciplinary Actions and Crime and Violence Incidents	Nathaniel Castellanos
24	652	WISE School District Staff Member Collection-End of Year	Susan Kruse
25	663	Student Proficiency on Body of Evidence	Tracy Stibitz
26	670	WISE Graduate and Completer Statistics	Leslie Zimmerschied
27	676	Parent-Teacher Conference Attendance	Susan Kruse
28	682	School Choice & Supplemental Services Offered	Brian Wright
29	684	WISE Spring Certified Teacher/Course/Student (TCS)	Leslie Zimmerschied
30	684	WISE Fall Certified Teacher/Course/Student (TCS)	Leslie Zimmerschied

*Within the **Data Collection Category**, the Collections List used for subcategory *Department Data Collection Submission* will vary annual depending on collections due from districts.

Appendix B
Wyoming District Classification Indicators Worksheet

Wyoming School District Classification Indicators Worksheet

	Student Performance		Monitoring & Compliance						Data Collection		Accrediation	
	AYP Status	Graduation Rate	Compliance Outcomes	Consolicated Grant Monitoring	Consolidated Grant Submission	Federal Grant Fiscal Responsibility	Highly Qualified Teachers	Body of Evidence	Timliness of Data Collection	Average Days Late	Accreditation Score	SCORE
Maximum Rating	4	4	5	5	1	10	4	5	4	4	4	
Weight	30	10	12	6	4.5	4.5	3	0	10	10	10	100
Multiplier	7.50	2.50	2.40	1.20	4.50	0.45	0.75	0.00	2.50	2.50	2.50	
School District												
Albany CSD #1												0
Big Hurn CSD #1												0
Big Horn CSD #2												0
Big Horn CSD #3												0
Big Horn CSD #4												0
Campbell CSD #1												0
Carbon CSD #1												0
Carbon CSD #2												0
Converse CSD #1												0
Converse CSD #2												0
Crook CSD #1												0
Fremont CSD #1												0
Fremont CSD #14												0
Fremont CSD #2												0
Fremont CSD #21												0
Fremont CSD #24												0
Fremont CSD #25												0
Fremont CSD #38												0
Fremont CSD #6												0
Goshen CSD #1												0
Hot Springs CSD #1												0
Johnson CSD #1												0
Laramie CSD #1												0
Laramie CSD #2												0
Lincoln CSD #1												0
Lincoln CSD #2												0
Natrona CSD #1												0
Niobrara CSD #1												0
Park CSD #1												0
Park CSD #16												0
Park CSD #6												0
Platte CSD #1												0
Platte CSD #2												0
Sheridan CSD #1												0
Sheridan CSD #2												0
Sheridan CSD #3												0
Sublette CSD #1												0
Sublette CSD #9												0
Sweetwater CSD #1												0
Sweetwater CSD #2												0
Teton CSD #1												0
Uinta CSD #1												0
Uinta CSD #4												0
Uinta CSD #6												0
Washakie CSD #1												0
Washakie CSD #2												0
Weston CSD #1												0
Weston CSD #7												0

Appendix C
Original Categories and Ratings

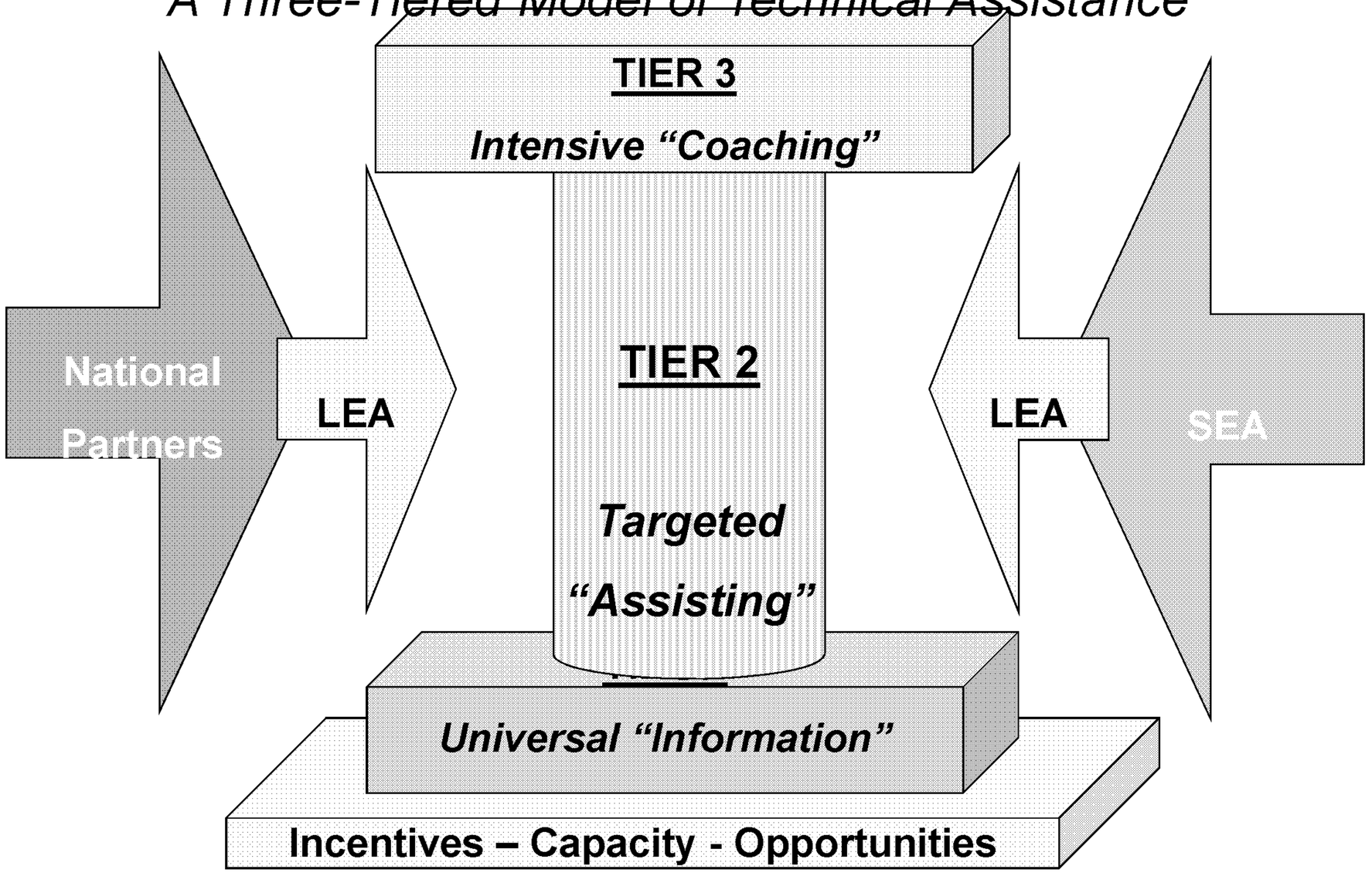
Categories and Ratings Used in Original District Classification Rubric 2007–2008

Category	Subcategories	Rubric Rating	Total Points
Student performance	▪ School improvement status	5	15
	▪ AYP performance	5	
	▪ Graduation rate	5	
Leadership and staffing	▪ Mis-assignments	2	12
	▪ HQT data	5	
	▪ Leadership turnover	5	
Fiscal	▪ Fiscal responsibility	5	7
	▪ State audits findings	2	
Monitor and compliance	▪ Special education monitoring	5	19
	▪ Application submission	5	
	▪ Grant monitoring	5	
	▪ Timely data collection	4	
Accreditation	▪ Desk audit findings	4	9
	▪ Aggregate score	5	

Wyoming Department of Education

PILLAR OF SUPPORT

A Three-Tiered Model of Technical Assistance



The following is evidence of "Rural States" with whom Wyoming will be able to share the results of this plan.

More About Census Summary File 3

The primary source of data for building rural definitions and the associated socioeconomic indicators was Census Summary File 3. Specifically, we used summary level 85. Summary level 85 gives census data for the intersection of States-Counties-Places/Remainder-Tract-Urban/Rural. We needed to use summary level 85 in order to identify the portions of Census Places that were also part of Urban Areas.

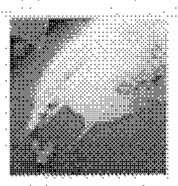
In the case of the Census Place-based definitions, Census Urban Area-based definitions, and the Business and Industry (B&I) Loan Program definition, we were able to designate an observation as "rural" based on SF3 geographic identifiers. For the OMB-based definition, we merged a file identifying metro/nonmetro counties into SF3, matching by a county ID number. For the RUCA-based definition, we merged a file identifying tracts by RUCA code into SF3, matching by a tract ID number.

For more information, contact: John Cromartie and Shawn Bucholtz

United States by State - TM-M2. Persons per Square Mile: 2008

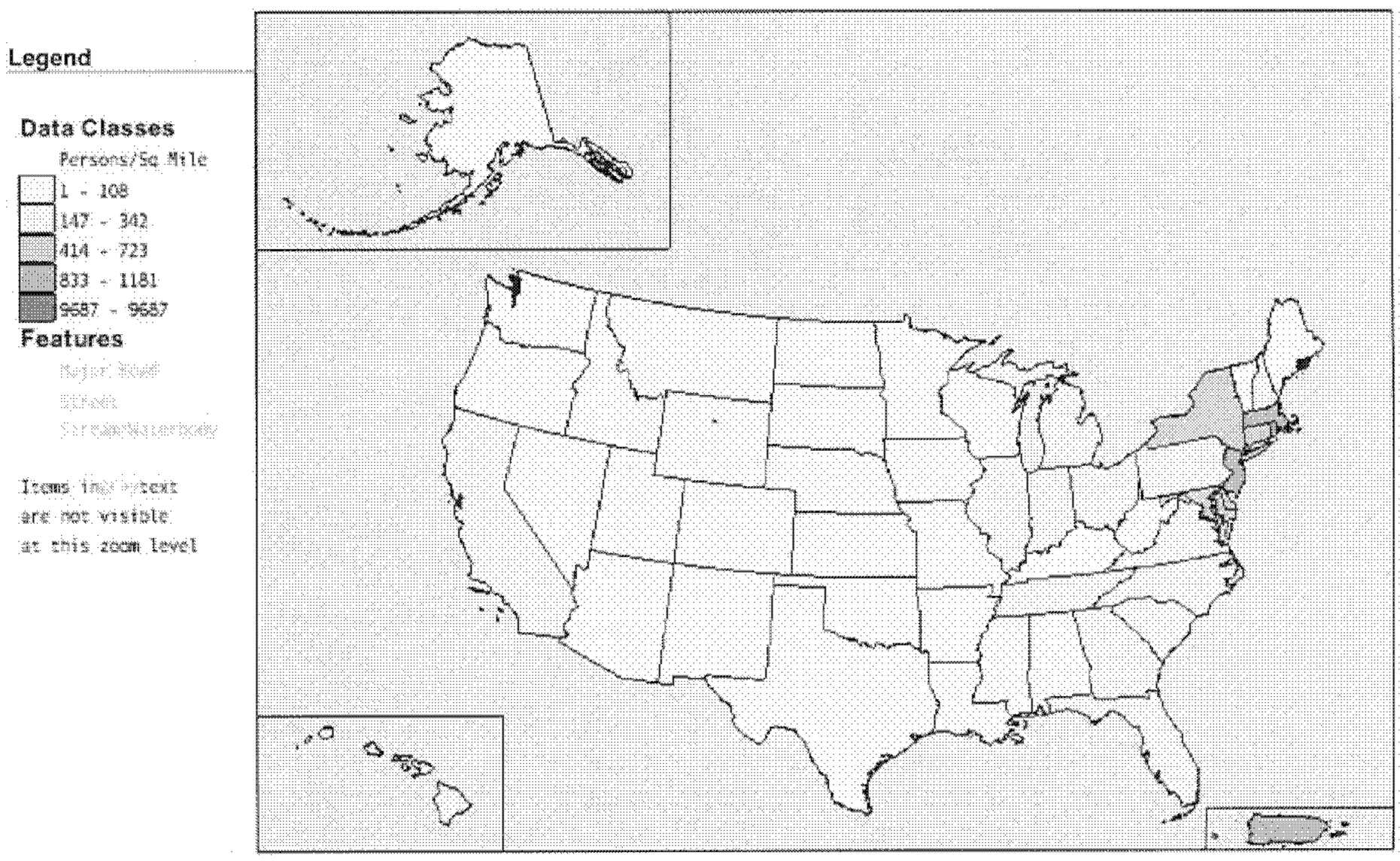
U.S. Census Bureau

American FactFinder



TM-M2. Persons per Square Mile: 2008
Universe: **Total population**
Data Set: **2008 Population Estimates**
United States by State

NOTE: For information on errors stemming from model error, sampling error, and nonsampling error, see: http://www.census.gov/popest/topics/methodology



Agency Code	Agency Name	2008-09 Biennial Appropriation	FY 2008 Appropriations	FY 2008 Expenditures	FY 2008 Percent of Total State Appropriations
005	Department of Education	$ 253,594,061	$ 126,797,031	$ 118,018,550	93%
027	School Facilities Commission	$ 536,108,379	$ 268,054,190	$ 255,733,472	95%
057	Community College Commission	$ 445,544,862	$ 222,772,431	$ 132,141,793	59%
067	University of Wyoming	$ 477,981,239	$ 238,990,620	$ 232,893,375	97%
069	WICHE	$ 4,788,059	$ 2,394,030	$ 2,380,143	99%
167	UW - Medical Education	$ 26,277,246	$ 13,138,623	$ 12,768,310	97%
205	Education - School Finance	$ 1,255,968,641	$ 627,984,321	$ 615,243,203	98%
Total	Elementary, Secondary and Higher Education	$ 3,000,262,487	$ 1,500,131,244	$ 1,369,178,847	91%

Source: 2008-09 Biennium Appropriations Summary

Agency Code	Agency Name	2009-10 Biennial Appropriation	FY 2009 Appropriations	FY 2009 Expenditures	FY 2009 Percent of Total State Appropriations
005	Department of Education	$ 258,637,440	$ 129,318,720	$ 127,773,443	99%
027	School Facilities Commission	$ 452,913,466	$ 226,456,733	$ 309,001,125	136%
057	Community College Commission	$ 350,808,099	$ 175,404,050	$ 140,149,737	80%
067	University of Wyoming	$ 510,304,038	$ 255,152,019	$ 273,738,209	107%
069	WICHE	$ 5,453,400	$ 2,726,700	$ 2,621,590	96%
167	UW - Medical Education	$ 31,550,911	$ 15,775,456	$ 12,915,782	82%
205	Education - School Finance	$ 1,475,108,318	$ 737,554,159	$ 676,984,083	92%
Total	Elementary, Secondary and Higher Education	$ 3,084,775,672	$ 1,542,387,836	$ 1,543,183,970	100%

Source: 2009-10 Biennium Appropriations Summary

Percent Change from FY 2008 to FY 2009 9%

UM APPROPRIATIONS
ENERAL SESSION

DESCRIPTION AGENCY NAME	APPROPRIATIONS THROUGH 2006 SESSION	2007 SESSION SECTION 2 APPROPRIATION	2007 SESSION CAPITAL CONSTRUCTION SECTION 300S	2007 SESSION APPROPRIATIONS BILL	2007 SESSION OTHER BILLS	2007 SESSION TOTAL APPROPRIATIONS	AP
E OF THE GOVERNOR	45,172,229	0	(69,998)	(69,998)	3,649,946	3,579,948	
TARY OF STATE	9,499,285	0	0	0	0	0	
AUDITOR	81,010,383	0	(9,744,378)	(9,744,378)	1,150,000	(8,594,378)	
TREASURER	434,336,505	0	(83,719,188)	(83,719,188)	5,200,000	(78,519,188)	
TMENT OF EDUCATION	252,619,061	965,000	0	965,000	0	965,000	
TMENT OF ADMINISTRATION AND INFORMATION	685,434,030	4,209,246	9,898,400	14,107,646	650,000	14,757,646	
NG MILITARY DEPARTMENT	41,089,969	0	275,000	275,000	0	275,000	
E OF THE PUBLIC DEFENDER	16,825,065	0	0	0	0	0	
NG PIPELINE AUTHORITY	1,267,253	0	0	0	0	0	
TMENT OF AGRICULTURE	34,006,894	460,003	230,000	690,003	25,000	715,003	
TMENT OF REVENUE	195,756,449	0	81,000	81,000	0	81,000	
OF ARCHITECTS & LANDSCAPE ARCHITECTS	213,877	0	0	0	0	0	
NG EUTHANASIA CERTIFICATION BOARD	39,738	0	0	0	0	0	
S' HOSPITAL BOARD	5,156,580	0	0	0	0	0	
E OF THE ATTORNEY GENERAL	74,050,764	646,665	0	646,665	200,000	846,665	
OF BARBER EXAMINER'S	48,010	0	0	0	0	0	
OF RADIOLOGIC TECHNOLOGISTS	139,623	0	0	0	0	0	
STATE COMMISSION	1,045,151	0	0	0	0	0	
SSIONAL TEACHING STANDARDS BOARD	1,106,870	0	0	0	0	0	
TMENT OF ENVIRONMENTAL QUALITY	126,078,079	5,848,877	0	5,848,877	0	5,848,877	
TMENT OF AUDIT	20,187,526	0	0	0	0	0	
RATORY CARE PRACTITIONERS BOARD	59,782	0	0	0	0	0	
SERVICE COMMISSION	15,042,234	0	0	0	0	0	
TMENT OF STATE PARKS & CULTURAL RESOURCES	46,449,148	881,900	928,253	1,810,153	589,129	2,399,282	
TMENT OF EMPLOYMENT	68,701,955	0	0	0	0	0	
TMENT OF WORKFORCE SERVICES	84,328,645	0	0	0	(4,534,308)	(4,534,308)	
L FACILITIES COMMISSION	402,396,941	6,000,000	127,711,438	133,711,438	0	133,711,438	
OF REGISTRATION IN PODIATRY	22,960	0	0	0	0	0	
DEVELOPMENT COMMISSION	98,484,332	0	22,553,656	22,553,656	38,771,454	61,325,110	
OF CHIROPRACTIC EXAMINERS	98,021	0	0	0	0	0	
CTION AGENCY BOARD	91,782	0	0	0	0	0	
NG INFRASTRUCTURE AUTHORITY	6,623,540	0	0	0	0	0	
OF COSMETOLOGY	432,381	0	0	0	0	0	
OF DENTAL EXAMINERS	329,460	0	0	0	0	0	
OF EMBALMERS	45,193	0	0	0	0	0	
ENGINEER	27,032,156	82,310	0	82,310	0	82,310	
UTUEL COMMISSION	1,158,621	0	0	0	0	0	
FE/NATURAL RESOURCE TRUST	31,300,000	19,750,000	0	19,750,000	430,000	20,180,000	

UM APPROPRIATIONS
ENERAL SESSION

DESCRIPTION	APPROPRIATIONS THROUGH 2006 SESSION	2007 SESSION SECTION 2 APPROPRIATION	2007 SESSION CAPITAL CONSTRUCTION SECTION 300S	2007 SESSION APPROPRIATIONS BILL	2007 SESSION OTHER BILLS	2007 SESSION TOTAL APPROPRIATIONS	AP
AGENCY NAME							
AND FISH DEPARTMENT	4,001,739	0	0	0	0	0	
TMENT OF FIRE PREVENTION AND ELECTRICAL. SAFETY	5,996,189	0	0	0	899,218	899,218	
GICAL SURVEY	5,536,906	0	0	0	0	0	
ANCE DEPARTMENT	27,851,713	0	0	0	3,000,000	3,000,000	
TMENT OF TRANSPORTATION	287,547,766	95,473,245	0	95,473,245	0	95,473,245	
TMENT OF HEALTH	1,375,957,790	55,737,420	(247,236)	55,490,184	33,807,510	89,297,694	
TMENT OF FAMILY SERVICES	267,475,577	1,398,000	9,000,000	10,398,000	5,314,308	15,712,308	
OCK BOARD	9,949,167	0	0	0	1,337,675	1,337,675	
AL LICENSING BOARD	992,657	131,178	0	131,178	0	131,178	
OF NURSING	1,835,679	15,913	1,000	16,913	0	16,913	
D GAS COMMISSION	8,722,202	0	0	0	0	0	
OF OPTOMETRY	103,956	0	0	0	0	0	
UNITY COLLEGE COMMISSION	285,851,743	14,270,748	8,896,390	23,167,138	136,525,981	159,693,119	
OF SPEECH PATHOLOGIST AND AUDIOLOGISTS	77,720	0	0	0	0	0	
OF PHARMACY	1,200,127	0	0	0	0	0	
OF STATE LANDS AND INVESTMENTS	334,136,418	11,174,859	51,250,000	62,424,859	6,000,000	68,424,859	
OF CERTIFIED PUBLIC ACCOUNTANTS	570,329	0	0	0	0	0	
OF PHYSICAL THERAPY	139,563	0	0	0	0	0	
NOR'S RESIDENCE	654,973	0	0	0	0	0	
OF HEARING AID SPECIALISTS	63,023	0	0	0	0	0	
RSITY OF WYOMING	447,483,721	(7,328,482)	37,514,000	30,185,518	312,000	30,497,518	
OF PSYCHOLOGIST EXAMINERS	159,017	0	0	0	0	0	
RN INTERSTATE COMMISSION FOR HIGHER EDUCATION	4,788,059	0	0	0	0	0	
CED OIL RECOVERY COMMISSION	6,110,825	0	0	0	0	0	
EMENT SYSTEM	31,483,854	0	0	0	175,000	175,000	
OF OUTFITTERS AND PROFESSIONAL GUIDES	782,213	0	0	0	0	0	
L HEALTH PROFESSIONS LICENSING BOARD	303,924	0	0	0	0	0	
OF NURSING HOME ADMINISTRATORS	46,479	0	0	0	0	0	
TMENT OF CORRECTIONS	217,498,918	938,605	37,435,033	38,373,638	0	38,373,638	
OF PAROLE	1,610,922	0	0	0	0	0	
OF OCCUPATIONAL THERAPY	63,915	0	0	0	0	0	
OF PROFESSIONAL GEOLOGISTS	329,211	0	0	0	0	0	
NG BUSINESS COUNCIL	108,116,211	33,250,000	21,000,000	54,250,000	2,050,000	56,300,000	
ME COURT	46,529,156	1,095,000	0	1,095,000	50,000	1,145,000	
OF LAW EXAMINERS	105,000	0	0	0	0	0	
SSION ON JUDICIAL CONDUCT AND ETHICS	307,387	0	0	0	0	0	
AL DISTRICT 1A	718,196	0	0	0	0	0	

UM APPROPRIATIONS
ENERAL SESSION

DESCRIPTION	APPROPRIATIONS THROUGH 2006 SESSION	2007 SESSION SECTION 2 APPROPRIATION	2007 SESSION CAPITAL CONSTRUCTION SECTION 300S	2007 SESSION APPROPRIATIONS BILL	2007 SESSION OTHER BILLS	2007 SESSION TOTAL APPROPRIATIONS	AP
AL DISTRICT 1B	744,082	0	0	0	0	0	
AGENCY NAME							
AL DISTRICT 2A	763,540	0	0	0	0	0	
AL DISTRICT 2B	811,033	0	0	0	0	0	
AL DISTRICT 3B	785,168	0	0	0	0	0	
AL DISTRICT 3A	779,068	0	0	0	0	0	
AL DISTRICT 4	759,325	0	0	0	0	0	
AL DISTRICT 5A	1,297,302	0	0	0	0	0	
AL DISTRICT 5B	747,241	0	0	0	0	0	
AL DISTRICT 6A	816,489	0	0	0	0	0	
AL DISTRICT 7A	778,917	0	0	0	0	0	
AL DISTRICT 7B	823,911	0	0	0	0	0	
AL DISTRICT 9A	821,932	0	0	0	0	0	
AL DISTRICT 8A	820,910	0	0	0	0	0	
AL DISTRICT 9B	850,202	0	0	0	0	0	
AL DISTRICT 6B	781,466	0	0	0	0	0	
AL DISTRICT 8B	667,667	0	0	0	0	0	
AL DISTRICT 1C	819,999	0	0	0	0	0	
AL DISTRICT 3C	791,339	0	0	0	0	0	
AL DISTRICT 7C	720,120	0	0	0	0	0	
AL DISTRICT 6C	693,905	0	0	0	0	0	
CT ATTORNEY/JUDICIAL DISTRICT 1	3,109,026	167,000	0	167,000	0	167,000	
CT ATTORNEY/JUDICIAL DISTRICT 7	2,993,479	0	0	0	0	0	
Y AND PROSECUTING ATTORNEYS	1,306,000	0	0	0	1,936,000	1,936,000	
RSITY OF WYOMING - MEDICAL EDUCATION	25,682,246	95,000	0	95,000	500,000	595,000	
ATIVE SERVICE OFFICE	15,165,432	0	29,468,208	29,468,208	27,000	29,495,208	
TION - SCHOOL FINANCE	1,195,115,964	60,602,677	0	60,602,677	250,000	60,852,677	
OF EQUALIZATION	1,528,505	0	0	0	0	0	
ONMENTAL QUALITY COUNCIL	604,460	0	0	0	50,000	50,000	
OF VETERINARY MEDICINE	135,911	0	0	0	0	0	
OF ADMINISTRATIVE HEARINGS	2,465,727	0	0	0	0	0	
	7,556,963,103	305,865,164	262,461,578	568,326,742	238,365,913	806,692,655	

UM APPROPRIATIONS
ENERAL SESSION

DESCRIPTION	APPROPRIATIONS THROUGH 2006 SESSION	2007 SESSION SECTION 2 APPROPRIATION	2007 SESSION CAPITAL CONSTRUCTION SECTION 300S	2007 SESSION APPROPRIATIONS BILL	2007 SESSION OTHER BILLS	2007 SESSION TOTAL APPROPRIATIONS	AP
EXPENDITURE SERIES							
NAL SERVICES	968,966,417	2,678,896	(337,234)	2,341,662	2,412,759	4,754,421	
RTIVE SERVICES	284,253,729	10,343,454	10,000	10,353,454	1,257,484	11,610,938	
CTIVE SERVICES	26,479,851	66,500	0	66,500	0	66,500	
AL SERVICES/DATA SERVICES	49,437,634	574,940	0	574,940	32,068	607,008	
RENTAL	14,747,929	(6,702)	0	(6,702)	15,200	8,498	
S AND AID PAYMENTS	4,156,223,845	169,866,230	198,032,438	367,898,668	77,887,237	445,785,905	
L EXPENDITURES	419,806,351	0	93,828,076	93,828,076	137,737,091	231,565,167	
PERATING EXPENDITURES	1,096,608,077	5,900,000	(29,101,702)	(23,201,702)	14,238,000	(8,963,702)	
ACTUAL SERVICES	540,439,270	116,441,846	30,000	116,471,846	4,786,074	121,257,920	
	7,556,963,103	305,865,164	262,461,578	568,326,742	238,365,913	806,692,655	
FUND SOURCE							
AL FUND/BUDGET RESERVE ACCOUNT	3,490,278,710	228,970,395	131,881,100	360,851,495	88,116,573	448,968,068	
AL FUNDS	1,306,752,008	27,395,097	0	27,395,097	4,101,679	31,496,776	
FUNDS	2,759,932,385	49,499,672	130,580,478	180,080,150	146,147,661	326,227,811	
	7,556,963,103	305,865,164	262,461,578	568,326,742	238,365,913	806,692,655	
POSITIONS							
EMPLOYEE COUNT	161	6	1	7	50	57	
ME EMPLOYEE COUNT	7,413	20	(6)	14	19	33	
IME EMPLOYEE COUNT	426	(2)	0	(2)	0	(2)	
	8,000	24	(5)	19	69	88	

UM APPROPRIATIONS							
ENERAL SESSIONS							
	APPROPRIATIONS	2009 SESSION	2009 SESSION	2009 SESSION	2009 SESSION	2009 SESSION	GRA
	THROUGH	SECTION 2	CAPITAL CONSTRUCION	APPROPRIATIONS	OTHER	TOTAL	
DESCRIPTION	2008 SESSION	APPROPRIATION	SECTION 300S	BILL	BILLS	APPROPRIATIONS	APPRO
F THE GOVERNOR	46,935,605	209,637	0	211,637	75,000	286,637	
RY OF STATE	10,151,073	0	0	0	0	0	
DITOR	78,250,292	0	150,600,000	150,600,000	0	150,600,000	
EASURER	72,282,678	0	11,852,480	11,852,480	0	11,852,480	
ENT OF EDUCATION	258,150,440	0	0	0	487,000	487,000	
RATION AND INFORMATION	529,501,294	919,854	84,900,000	85,819,854	12,300	85,832,154	
MILITARY DEPARTMENT	55,338,929	1,376,838	0	1,376,838	1,046,914	2,423,752	
F THE PUBLIC DEFENDER	24,167,077	0	0	0	0	0	
PIPELINE AUTHORITY	1,437,992	0	0	0	0	0	
ENT OF AGRICULTURE	38,616,125	145,752	0	145,752	350,600	496,352	
ENT OF REVENUE	200,151,090	0	0	0	0	0	
F ARCHITECTS & LANDSCAP	220,553	0	0	0	0	0	
EUTHANASIA CERTIFICATION B	39,738	0	0	0	0	0	
OSPITAL BOARD	5,213,000	0	0	0	0	0	
Y GENERAL	88,062,371	1,438,239	0	1,438,239	0	1,438,239	
F BARBER EXAMINER'S	43,135	0	0	0	0	0	
F RADIOLOGIC TECH.	106,198	0	0	0	0	0	
ATE COMMISSION	1,233,286	0	0	0	0	0	
CHING STDS BOARD	1,250,418	0	0	0	0	0	
ENVIRONMENTAL QUALITY	157,219,751	472,358	37,352,337	37,824,695	0	37,824,695	
ENT OF AUDIT	24,417,593	0	0	0	0	0	
ORY CARE PRACTITIONERS BOA	63,493	0	0	0	0	0	
ERVICE COMMISSION	15,862,777	0	0	0	0	0	
RKS & CULTURAL RESOURCES	60,786,876	500,000	1,800,000	2,320,000	1,900,000	4,220,000	
ENT OF EMPLOYMENT	83,704,777	0	0	0	0	0	
ENT OF WORKFORCE SERVICES	79,019,996	0	0	0	0	0	
FACILITIES COMMISSION	452,662,380	61,086	0	61,086	190,000	251,086	
GISTRATION IN PODIATRY	26,542	0	0	0	0	0	
ER DEVELOPMENT OFFICE	79,893,016	0	0	37,500,000	73,578,150	111,078,150	
F CHIROPRACTIC EXAMINER	67,076	0	0	0	0	0	
ON AGENCY BOARD	91,732	0	0	0	0	0	
INFRASTRUCTURE AUTHORITY	1,708,565	0	0	0	0	0	
F COSMETOLOGY	542,294	88,945	0	88,945	0	88,945	
F DENTAL EXAMINERS	300,050	0	0	0	0	0	

F EMBALMERS	48,602	0	0	0	0	0	
GINEER	31,996,155	0	0	0	0	0	
UEL COMMISSION	1,076,640	0	0	0	0	0	
NATURAL RES TRUST	43,279,412	1,000,000	0	1,000,000	4,521,701	5,521,701	
D FISH COMMISSION	25,404,561	-260,000	4,517,000	3,157,000	0	3,157,000	
VENTION & ELECT. SAFETY	7,695,482	0	0	0	0	0	
CAL SURVEY	5,547,970	0	734,616	734,616	0	734,616	
CE DEPARTMENT	52,143,682	0	0	0	0	0	
ENT OF TRANSPORTATION	397,080,706	7,000,000	250,000	7,250,000	1,500,000	8,750,000	
ENT OF HEALTH	1,555,402,167	7,746,472	9,773,462	18,114,934	1,646,696	19,761,630	1
ENT OF FAMILY SERVICES	284,182,683	2,147,666	9,028,948	11,285,614	0	11,285,614	
K BOARD	15,893,253	338,000	0	338,000	160,000	498,000	
LICENSING BOARD	1,516,929	0	0	0	0	0	
F NURSING	2,367,518	0	0	0	0	0	
COMMISSION	9,703,572	0	0	0	0	0	
F OPTOMETRY	103,334	0	0	0	0	0	
TY COLLEGE COMMISSION	337,851,099	2,232,000	10,000,000	12,307,000	650,000	12,957,000	
EECH PATHOLOGIST & AUD	44,751	0	0	0	0	0	
F PHARMACY	1,328,221	0	0	0	80,000	80,000	
NDS AND INVESTMENTS	458,057,229	3,748,384	8,200,000	11,948,384	100,000	12,048,384	
BOARD OF CPA'S	669,312	0	0	0	0	0	
F PHYSICAL THERAPY	121,984	0	0	0	0	0	
R'S RESIDENCE	819,772	0	0	0	0	0	
F HEARING AID SPECIALIS	31,819	0	0	0	0	0	
F ATHLETIC TRAINING	0	0	0	0	10,000	10,000	
TOURISM BOARD	26,052,293	955,000	1,460,304	2,415,304	0	2,415,304	
TY OF WYOMING	455,040,991	100,000	55,213,047	55,013,047	250,000	55,263,047	
YCHOLOGIST EXAMINERS	125,214	0	0	0	0	0	
	5,453,400	0	0	0	0	0	
D OIL REC COMM	6,110,825	0	0	0	0	0	
ENT SYSTEM	9,110,141	2,012,509	175,000	2,187,509	250,000	2,437,509	
F OUTFITTERS	866,375	0	0	0	0	0	
EALTH PROFESSIONS LIC	267,999	0	0	0	0	0	
F NURSING HOME ADMIN	45,630	0	0	0	0	0	
ENT OF CORRECTIONS	243,872,664	19,911,104	150,000	20,061,104	0	20,061,104	
F PAROLE	1,747,725	0	0	0	0	0	
F OCCUPATIONAL THERAPY	83,015	0	0	0	0	0	
F PROF. GEOLOGISTS	379,187	0	0	0	0	0	
BUSINESS COUNCIL	125,600,150	0	0	0	2,125,000	2,125,000	
BRANCH	0	4,394,218	0	4,394,218	0	4,394,218	

ATTORNEY/JUD. DIST. #1	3,957,990	0	0	0	0	0	
ATTORNEY/JUD. DIST. #7	3,544,112	0	0	0	0	0	
S. ATTORNEYS	6,135,000	0	0	0	0	0	
CAL EDUCATION	31,550,911	0	0	0	0	0	
VE SERVICE OFFICE	17,441,790	0	0	10,500	227,500	238,000	
N-SCHOOL FINANCE	1,481,947,028	-14,694,710	0	-14,694,710	7,856,000	-6,838,710	1
F EQUALIZATION	1,845,444	0	0	0	0	0	
MENTAL QUALITY COUNCIL	742,748	4,000	0	4,000	0	4,000	
F VETERINARY MEDICINE	123,505	0	0	0	0	0	
F ADMINISTRATIVE HEARINGS	3,273,968	0	0	0	150,000	150,000	
	8,025,203,170	41,847,352	386,007,194	464,766,046	97,166,861	561,932,907	8
EXPENDITURE SERIES							
IED	0	4,394,218	0	4,394,218	0	4,394,218	
L SERVICES	1,100,913,793	8,710,221	1,470,744	10,180,965	397,331	10,578,296	1
VE SERVICES	301,726,270	3,466,787	707,552	3,086,839	707,629	3,794,468	
IVE SERVICES	28,421,487	6,092	114,959	121,051	0	121,051	
RV./DATA SERV.	58,698,812	4,465,890	24,852	4,490,742	57,300	4,548,042	
NTAL	16,356,571	1,523	39,630	41,153	0	41,153	
AID PAYMENT	4,859,180,914	1,179,726	8,230,000	10,004,726	85,972,601	95,977,327	4
XPENDITURES	247,378,762	0	124,329,714	124,329,714	0	124,329,714	
RATING EXPENDITURES	740,850,108	1,145,000	162,702,480	201,347,480	2,250,000	203,597,480	
TUAL SERVICES	671,676,453	18,477,895	88,387,263	106,769,158	7,782,000	114,551,158	
	8,025,203,170	41,847,352	386,007,194	464,766,046	97,166,861	561,932,907	8
FUND SOURCE							
FUND	3,581,023,383	43,110,796	122,259,678	198,977,974	21,056,510	220,034,484	3
FUNDS	1,282,075,261	7,647,157	100,600,000	108,056,157	0	108,056,157	1
NDS	3,162,104,526	-8,910,601	163,147,516	157,731,915	76,110,351	233,842,266	3
	8,025,203,170	41,847,352	386,007,194	464,766,046	97,166,861	561,932,907	8
POSITIONS							
PLOYEE COUNT	225	2	0	2	2	4	
EMPLOYEE COUNT	7,230	171	0	171	3	174	
E EMPLOYEE COUNT	348	-1	0	-1	0	-1	
	7,803	172	0	172	5	177	

Attachment A(b) – Expanded

Attachment A(b)-Expanded, contains a reprint of Attachment A(b) with all amendments through the 2008 Legislative Session. In addition to the funding components enumerated in each box below, Additional component specific information is included where necessary to aid understanding and provide further clarification. Functionality of the K-12 school funding model is covered extensively in: *The Wyoming Funding Model Guidebook and Technical Specifications.*

2006 Wyoming Session Laws, Chapter 37, Attachment A(b), as amended by 2007 Wyoming Session Laws, Chapter 147, Section 401, is amended to read:

ATTACHMENT "A"

ATTACHMENT "A" CONTAINS AN ENUMERATION OF MODEL COMPONENTS SUMMARIZING AND EXECUTING RECOMMENDATIONS CONTAINED WITHIN THE 2005 COST OF EDUCATION STUDY ON THE RECALIBRATION OF THE EDUCATION RESOURCE BLOCK GRANT MODEL AS FOLLOWS:

SUMMARY OF WYOMING RECALIBRATION RECOMMENDATIONS:

For purposes of this attachment:

"ADM" means as defined under W.S. 21-13-101(a)(i) and reflects a per student computation;

"FTE" means full time equivalency basis as computed in accordance with guidelines prescribed by rule and regulation of the department of education.

(b) To implement this act and notwithstanding subsection (a) of this attachment, the Wyoming education resource block grant model components and the resourcing for those components shall be as follows:

Full-Day Kindergarten:	Funded for all elementary schools.

Class Size:	16 for grades Kindergarten through 5; 21 for grades 6 through 12

Additional component specific information:

Applies to non-alternative schools with model ADM greater than 49.
The class size is 16 for 6th grade, if offered in a non-alternative elementary school with model ADM greater than 49.

Instructional facilitators: 0.

Additional component specific information:

Instructional facilitator funding is provided outside the block grant model through a cost-based categorical grant program.

Tutors: 1 FTE teacher position for every 100 at-risk students with a minimum of 1 FTE teacher position for prototypical elementary, middle and high schools.

Additional component specific information:

Applies to non-alternative schools with model ADM greater than 49.

The block grant model provides 1 tutor FTE per 100 unduplicated at-risk students. If tutor resources generated by the unduplicated at-risk proxy do not equal 1 tutor for every 288 elementary ADM, or 315 middle school ADM, or 315 high school ADM, then the model will provide these minimum tutor FTEs on a pro rata basis (above and below), using the school's total model ADM at the highest grade band component prototype.

ELL: 1 FTE teacher position for every 100 ELL students.

Additional component specific information:

Applies to non-alternative schools with model ADM greater than 49.

Extended day:	0.
Summer school:	0.

Additional component specific information:

Summer School & Extended Day funding is provided outside the block grant model through a cost-based categorical grant program.

Alternative schools:	1 assistant principal position plus 1 FTE teacher position for every 7 students.

Additional component specific information:

Alternative schools receive funding for 1 assistant principal plus funding for 1 teacher for every 7 model ADM within the school. This allocation is to cover all school level staff.

Substitutes:	Additional 5 percent of ADM generated teacher positions at $88.40/day plus 7.65% for benefits.

Additional component specific information:

A substitute teacher FTE is calculated based on 5% of model generated core and specialist teachers and tutors at each school. Funding is provided based upon the FTE, multiplied by 175, (minimum teacher pupil contact days) multiplied by the established daily rate, plus the employer share FICA. The daily rate is subject to the external cost adjustment.

Supervisory aides:	2 for 288 ADM prototypical elementary school; 2 for 315 ADM prototypical middle school; 5 for 630 ADM prototypical high school.

Additional component specific information:

Applies to non-alternative schools with model ADM greater than 49.

Supervisory aides are provided on a pro rata basis for each school in accordance with the prototype that corresponds to the school's highest grade band level of ADM:

- If the school's highest grade level ADM is elementary, the block grant model provides 2 supervisory aide FTE for every 288 model ADM.
- If the school's highest grade level ADM is middle school, the block grant model provides 2 supervisory aide FTE for every 315 model ADM.
- If the school's highest grade level ADM is high school, the block grant model provides 5 supervisory aide FTE for every 630 model ADM.

Pupil support:	1 FTE teacher position for every 100 at-risk students with a minimum of 1 FTE teacher position for prototypical elementary, middle and secondary schools; PLUS 1 FTE position for every 250 students in secondary schools.

Additional component specific information:

Applies to non-alternative schools with model ADM greater than 49.

The block grant model provides 1 pupil support FTE per 100 unduplicated at-risk students. If pupil support resources generated by the unduplicated at-risk proxy do not equal 1 pupil support FTE for every 288 elementary ADM, or 315 middle school ADM, or 315 high school ADM, then the model will provide these minimum pupil support FTEs on a pro rata basis (above and below), using the school's total model ADM at the highest grade band component prototype.

The block grant model also provides an additional 1 pupil support FTE (pro rated) per 250 middle and high school level ADM for counselor resources.

Principal: 1.0 for all schools down to 96 ADM elementary and 105 ADM middle and high, prorated by ADM below these ADM levels.

Additional component specific information:

Applies to non-alternative schools with model ADM greater than 49.

Principal resources are provided at each school in accordance with the prototype that corresponds to the school's highest grade band level of ADM.

Summary of calculation by prototype with specific proration:

- If the school's highest grade level ADM is elementary, the block grant model provides 1 principal FTE for schools with a model ADM between 96 and 288. Between 96 ADM and 49 ADM, the 1 principal FTE is prorated down. Above 288 ADM the 1 principal FTE is prorated up.

- If the school's highest grade level ADM is middle school, the block grant model provides 1 principal FTE for schools with a model ADM of 105 and above. Between 105 ADM and 49 ADM, the 1 principal FTE is prorated down.

- If the school's highest grade level ADM is high school, the block grant model provides 1 principal FTE for schools with a model ADM of 105 and above. Between 105 ADM and 49 ADM, the 1 principal FTE is prorated down.

Assistant principal: Begin phasing in 1 assistant principal for every 315 students at 316 ADM middle and high school.

Additional component specific information:

For non-alternative middle and high schools with model ADM greater than 49, assistant principal resources are phased in according to the schools highest grade band level of ADM, as follows:

If the school's highest grade level ADM is middle school, the block grant model provides 1 assistant principal FTE for every 315 model ADM, beyond the first 315 ADM.

If the school's highest grade level ADM is high school, the block grant model provides 1 assistant principal FTE for every 315 model ADM, beyond the first 315 ADM.

Small and Alternative Schools:
If the school is a small school, (49 model ADM or less), or is designated as an alternative school, the block grant model provides 1 assistant principal FTE.

Chapter 2 – Wyoming Funding Model Worksheets

At-Risk

The At-Risk worksheet counts the number of students that generate school level resources to serve at-risk students. The At-Risk worksheet utilizes several student-count proxies to generate the resources, including students designated as English Language Learner (ELL), students who qualify for the Federal free and reduced lunch program (FRL), and students considered "mobile."[7] Students who are identified as ELL, FRL, or mobile are not necessarily the at-risk students to be served. Rather, the count of these students represents a proxy for the number of struggling or at-risk students in a school. Schools are expected to use the resources generated through these formulas to meet the needs of all students who need such services. Please see pages 42-55 of the report for a more detailed discussion about the use of these proxies. According to the WDE's Chapter 8 Rules and Regulations, the following definitions are used to identify ELL, FRL, and mobile students for the model:

- English Language Learner (ELL) Student – For purposes of calculating the funding model at-risk count, any student on October 1:
  - Who is newly enrolled in the district **or** who enrolled in the district after the State annual ELL assessment was given in the prior school year; **and** has been identified and evaluated by the district as being of limited English proficiency; **or**
  - Who is returning to the district from the previous school year; **and**

[7] Please refer to Appendix A of this *Guidebook* as a flowchart illustrates how the at-risk proxy is determined for the model (http://www.k12.wy.us/F/Docs/AppendixA.pdf).

- Who took the State's annual ELL assessment in the prior school year and has not yet achieved the "proficiency" level (grades K-2) or the "transitional" level (grades 3-12); **or**
- Who has achieved the "proficiency" level (grades K-2) or the "transitional" level (grades 3-12), but is in the first or second year of monitoring.

- Free and Reduced Lunch (FRL) Student – For purposes of calculating the funding model at-risk count, any student within a school who is approved to participate in the free and reduced priced lunch program under the national school lunch program established by 42 U.S.C. 1751 et seq. and is enrolled in the school district on October 1.
- Mobile Student – For purposes of calculating the funding model at-risk count, a student who is enrolled in any grade six (6) through twelve (12), in a school after October 1 and prior to a predefined snapshot date as determined by the Department.

Columns A through E provide school information, including the school's district ID number and name, school ID number and name, and the school's grade configuration, respectively. Columns G through S show each school's unduplicated population of the at-risk student proxy for kindergarten through grade twelve, respectively. Column T sums the at-risk proxy populations in each of the school's grades. Columns V through X calculate each school's elementary school (column V), middle school (column W) and

high school (column X) at-risk proxy population and the formulas are described in Table 2.18.

Table 2.18 – At-Risk

Position	Formula	Description	Comments
Column V *Elementary At-Risk Proxy*	=IF('School Resources'!M3=1,SUM(G3:M3),SUM(G3:L3))	If cell M3 on the *School Resources* worksheet equals "1" (indicating the elementary school serves 6th grade), then sum the at-risk proxy population in columns G (kindergarten) through M (6th grade). If there is not a "1" in cell M3 of the *School Resources* worksheet, then sum columns G (kindergarten) through L (5th grade).	If a school is deemed an elementary school and also serves 6th grade students, the formulas take the 6th grade students into account to determine the elementary at-risk count.
Column W *Middle At-Risk Proxy*	=SUM(G3:S3)-V3-X3	Sum the at-risk proxy population in columns G (kindergarten) through column S (12th grade) and subtract the elementary school at-risk proxy population (column V) and the high school at-risk proxy population (column X).	
Column X *High At-Risk Proxy*	=IF(SUM(ADM!N3:R3)=ADM!S3,SUM(O3:S3),IF(OR	If the sum of the ADM in columns N (8th grade) through R (12th grade) on	If the sum of a school's 8th grade through 12th grade ADM is equal to the school's total ADM, then the at-risk

	(SUM(ADM!F3:O3)=ADM!S3,SUM(ADM!G3:O3)=ADM!S3,SUM(ADM!H3:O3)=ADM!S3,SUM(ADM!I3:O3)=ADM!S3,SUM(ADM!J3:O3)=ADM!S3,SUM(ADM!K3:O3)=ADM!S3,SUM(ADM!L3:O3)=ADM!S3,SUM(ADM!M3:O3)=ADM!S3,SUM(ADM!N3:O3)=ADM!S3),SUM(Q3:S3),SUM(P3:S3)))	the *ADM* worksheet equal the school's total ADM amount in column S of the *ADM* worksheet, then sum the at-risk proxy population in column O (8th grade) through column S (12th grade). If the first IF statement is a false argument, then the second IF statement is evaluated: If the sum of the ADM in column F (kindergarten) through O (9th grade) of the *ADM* worksheet, equals the school's total ADM in column S of the *ADM* worksheet; Or If the sum of the ADM in column G (1st grade) through O (9th grade) of the *ADM* worksheet, equals the school's total ADM in column S of the *ADM* worksheet; Or If the sum of the ADM in column H (2nd grade) through	population will equal the sum of the school's at-risk population in 8th through 12th grade. If the school's ADM in grades kindergarten through 9th grade equals the school's total ADM, then the at-risk population will equal the sum of the school's at-risk population in 10th grade through 12th grade; if not, the school's at-risk population will equal the sum of the school's at-risk population in 9th through 12th grade.

		O (9th grade) of the *ADM* worksheet, equals the school's total ADM in column S of the *ADM* worksheet; Or If the sum of the ADM in column I (3rd grade) through O (9th grade) of the *ADM* worksheet, equals the school's total ADM in column S of the *ADM* worksheet; Or If the sum of the ADM in column J (4th grade) through O (9th grade) of the *ADM* worksheet, equals the school's total ADM in column S of the *ADM* worksheet; Or If the sum of the ADM in column K (5th grade) through O (9th grade) of the *ADM* worksheet, equals the school's total ADM in column S of the *ADM* worksheet; Or If the sum of the	

		ADM in column L (6th grade) through O (9th grade) of the *ADM* worksheet, equals the school's total ADM in column S of the *ADM* worksheet; Or If the sum of the ADM in column M (7th grade) through O (9th grade) of the *ADM* worksheet, equals the school's total ADM in column S of the *ADM* worksheet; Or If the sum of the ADM in column N (8th grade) through O (9th grade) of the *ADM* worksheet, equals the school's total ADM in column S of the *ADM* worksheet; If any of the IF OR statements is true, then Sum the at-risk proxy population in column Q (10th grade) through S (12th grade); Otherwise: Sum the at-risk	

		proxy population in column P (9th grade) through S (12th grade).	

Columns Z through AN of the *At-Risk* worksheet display each school's ELL population as of October 1 of each school year as reported on WDE684. Column AN totals the ELL population as reported in columns Z through AN.

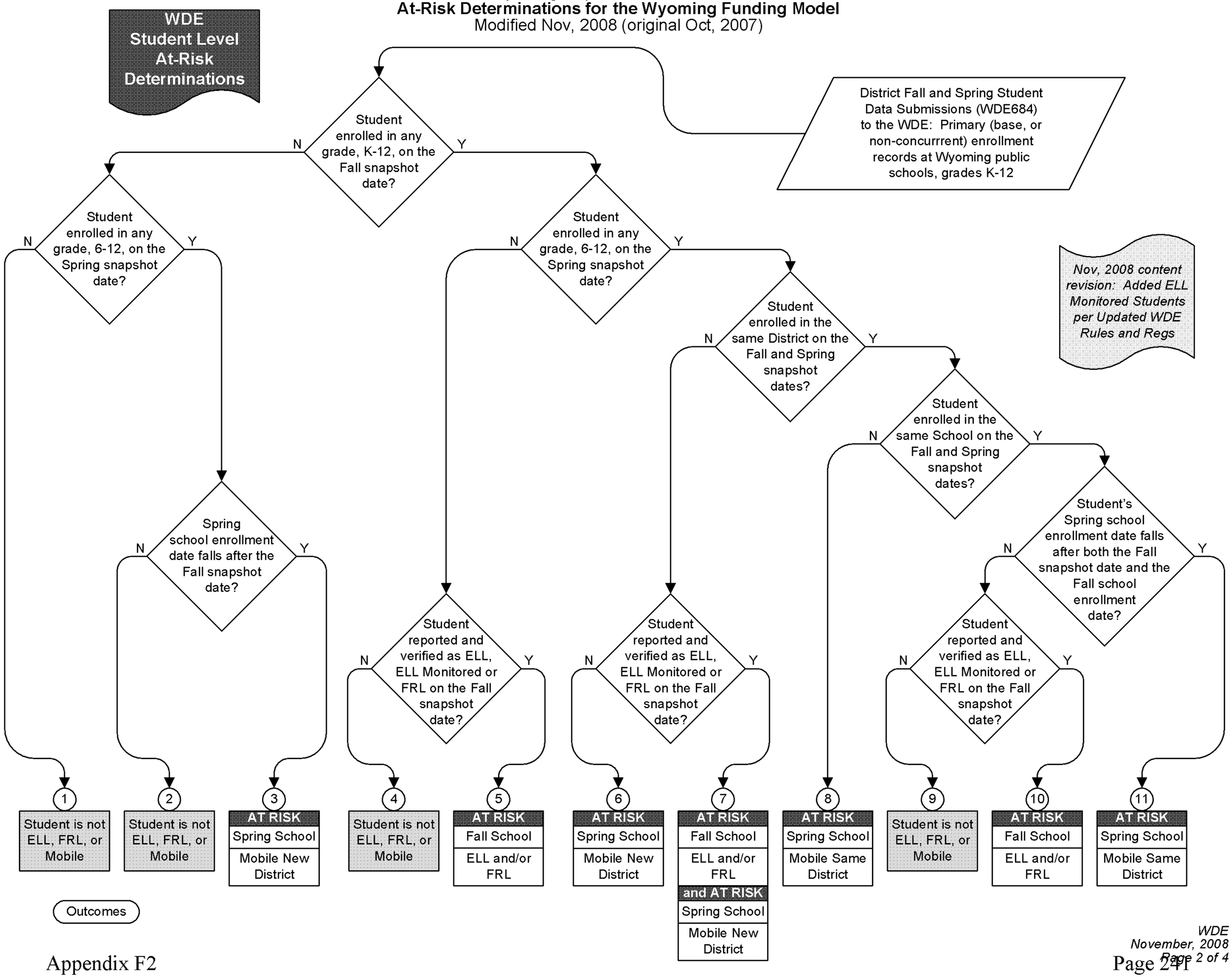
- Wyoming Statute 21-13-309(m)(v)(A):
  - At-risk students, for purposes of model computations, shall include students within a school who are eligible for participation in the free and reduced price lunch program under the national school lunch program established by 42 U.S.C. 1751 et seq., who are identified as limited English proficiency in accordance with rules and regulations of the department of education or who are mobile students as defined by department rule and regulation and enrolled in grades six (6) through twelve (12) for the applicable school year. A student shall be counted only once for purposes of computing school at-risk student populations even though that student may simultaneously be eligible to participate in the free and reduced price lunch program, in programs serving students with limited English proficiency or is defined as a mobile student.
- Wyoming Department of Education Chapter 8 RULES AND REGULATIONS FOR THE SCHOOL FOUNDATION PROGRAM 10-29-2008:
  - Section 17. At-Risk Data Used for the Funding Model.
    - The data constituting a district's at-risk count shall be the unduplicated count of ELL students, FRL students and mobile students.
  - Section 4. Definitions.
    - (j) English Language Learner (ELL) Student. For purposes of calculating the funding model at-risk count, any student on October 1 who:
      - (i) Is newly enrolled in the district or enrolled in the district after the state annual ELL assessment was given in the prior school year; and has been identified and evaluated by the district as being of limited English proficiency; or
      - (ii) Is returning to the district from the previous school year; and
        - (A) Took the state's annual ELL assessment in the prior school year and has not yet achieved the "proficiency" level (grades K-2) or the "transitional" level (grades 3-12); or
        - (B) Has achieved the "proficiency" level (grades K-2) or the "transitional" level (grades 3-12), but is in the first or second year of monitoring.
    - (o) Free and Reduced Lunch (FRL) Student. For purposes of calculating the funding model at-risk count, any student within a school who is approved to participate in the free and reduced priced lunch program under the national school lunch program established by 42 U.S.C. 1751 et seq. and is enrolled in the school district on October 1.
    - (s) Mobile Student. . For purposes of calculating the funding model at-risk count, a student who is enrolled in any grade six (6) through twelve (12) in a school after October 1 and prior to a predefined snapshot date as determined by the Department.

- Snapshot Date
  - District WDE684 submissions consist of records for all students enrolled on a specific "snapshot" date; October 1st in the Fall, for example.
- District Fall and Spring Student Data Submissions to the WDE
  - Currently refers to the WDE684 data collection (WISE Certified Teacher / Course / Student data) in the Fall with an October 1st snapshot date and in the Spring with an accountability snapshot date set by the Department.
- Enrolled / Enrollment
  - A student's primary (base, or non-concurrent) enrollment in any grade KG-12 at a Wyoming public school, as reported by a district to the WDE on a specified snapshot date.
- Student's School Enrollment Date
  - A student's most current first day of enrollment (or re-enrollment) in a school as reported on the WDE684.
- USDA Provision 3 (Free and Reduced School Lunch alternative program)
  - This Provision reduces application burdens and meal counting and claiming procedures. It allows schools to simply receive the same level of Federal cash and commodity assistance each year, with some adjustments, for a 4 year period.
    - Source: http://www.fns.usda.gov/cnd/Governance/prov-1-2-3/Prov1_2_3_FactSheet.htm

Wyoming Department of Education

At-Risk Determinations for the Wyoming Funding Model

Modified Nov, 2008 (original Oct, 2007)

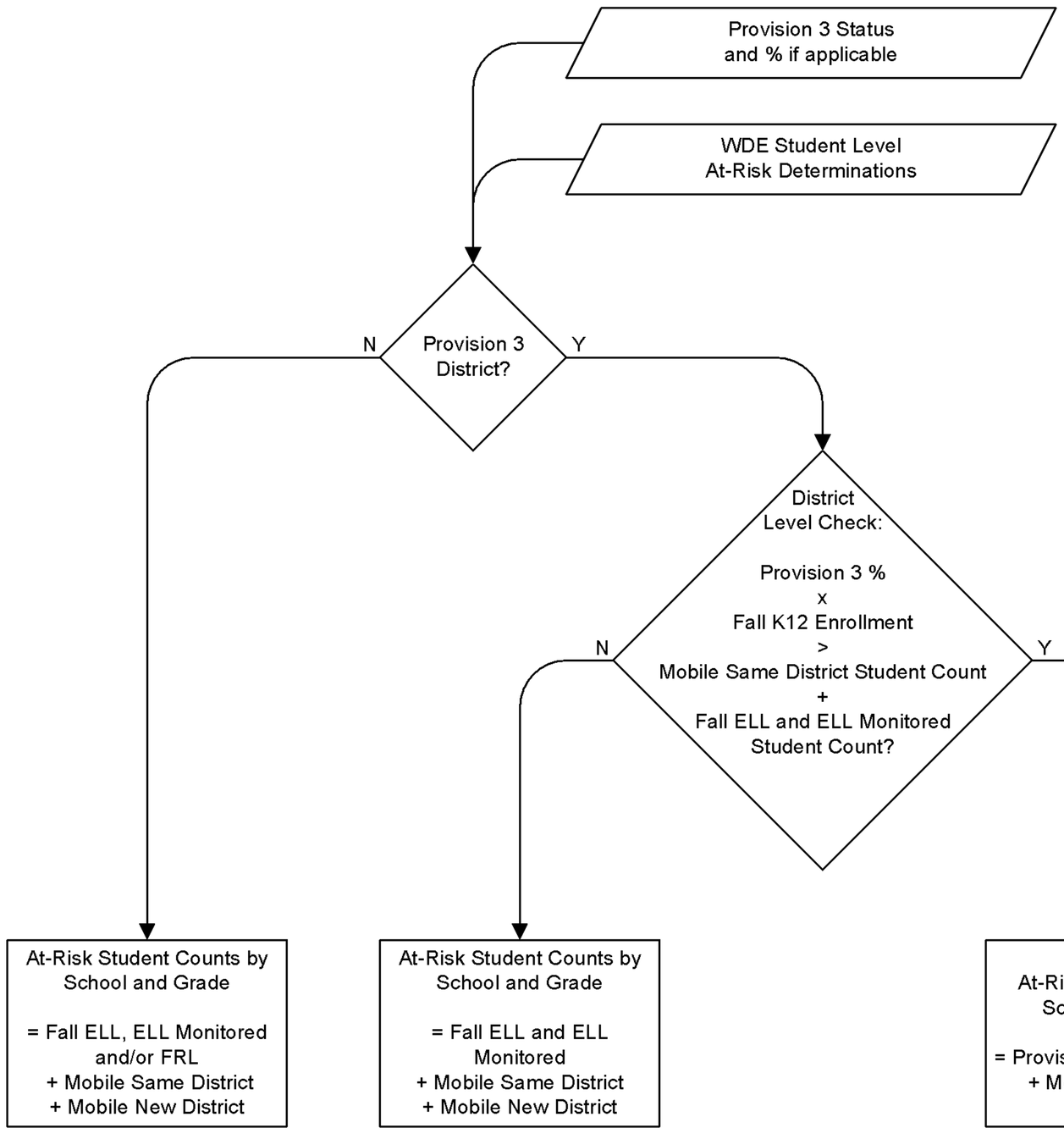


Wyoming Department of Education

At-Risk Determinations for the Wyoming Funding Model

Modified Nov, 2008 (original Oct, 2007)

WDE District and School Level At-Risk Determinations



Nov, 2008 content revision: Added ELL Monitored Students per Updated WDE Rules and Regs

At-Risk Student Data Set for the Wyoming Funding Model

Column	Column Name	Column Description	Source
1	SCHOOL_YEAR	School Year	Collection Date
2	DISTRICT_ID	WDE District ID (for this At-Risk determination record for the student at this district.	District
3	DISTRICT_NAME	District Name (for this At-Risk determination record for the student at this district	District
4	WISER_ID	WISER ID	District
5	FIRST_NAME	First Name	District
6	MIDDLE_NAME	Middle Name	District
7	LAST_NAME	Last Name	District
8	FALL_SNAPSHOT	Fall Snapshot Date (October 1st of each year)	Collection Date
9	FALL_DISTRICT_ID	Fall District ID	District
10	FALL_DISTRICT_NAME	Fall District Name	District
11	FALL_SCHOOL_ID	Fall School ID	District
12	FALL_SCHOOL_NAME	Fall School Name	District
13	FALL_SCHOOL_ENROLLED	Fall School Enrolled Date (first day enrolled at the school for the most recent entry into the school: newly enrolled, or returning to the school after having dropped out or transferred to another school and then returned)	District
14	FALL_GRADE	Fall Grade Level	District
15	FALL_ELL_OR_MONITORED	Fall ELL or Former ELL Year 1 or 2 Monitored? (T/F) [monitored status valid beginning 2007-08]	District
16	FALL_ELL_TYPE_CODE	T,1,2 (exists where FALL_ELL_OR_MONITORED = T) [monitored status values of 1 and 2 valid beginning 2007-08]	District
17	FALL_ELL_TYPE	T = ELL Student 1 = Year 1 Monitored Former ELL Student 2 = Year 2 Monitored Former ELL Student [monitored status valid beginning 2007-08]	Definition
18	FALL_LUNCH_ELIGIBLE	Fall Free or Reduced Lunch Eligibe status? (T/F)	District
19	FALL_LUNCH_ELIGIBLE_TYPE_CODE	F, R, N, S, X	District
20	FALL_LUNCH_ELIGIBLE_TYPE	F = Free Lunch Eligible R = Reduced Price Lunch Eligible N = Not Eligible for free or reduced lunch S = School provides all students free lunch (USDA Provision 3) X = School does not participate in the School Lunch Program	Definition
21	SPRING_SNAPSHOT	Spring Snapshot Date (first day of PAWS testing window per Wyoming rules and regulations)	Collection Date
22	SPRING_DISTRICT_ID	Spring District ID	District
23	SPRING_DISTRICT_NAME	Spring District Name	District
24	SPRING_SCHOOL_ID	Spring School ID	District
25	SPRING_SCHOOL_NAME	Spring School Name	District
26	SPRING_SCHOOL_ENROLLED	Spring School Enrolled Date (first day enrolled at the school for the most recent entry into the school: newly enrolled, or returning to the school after having dropped out or transferred to another school and then returned)	District
27	SPRING_GRADE	Spring Grade Level	District
28	MOBILE_6_TO_12_NEW_DISTRICT	Is the student enrolled in 6th grade or higher in a district on the spring snapshot date having transferred in from another district or out of state sometime after the fall snapshot date? (T/F) (See attached flowchart for additional determination detail.	WDE based on District Data
29	MOBILE_6_TO_12_SAME_DISTRICT	Is the student enrolled in 6th grade or higher in a district on the spring snapshot date having also been enrolled in the district on October 1st and changed schools within the district or dropped out or transferred to another school but then re-enrolled in the same school after Oct. 1st? (T/F) (See attached flowchart for additional determination detail.)	WDE based on District Data
30	PROVISION_3_DISTRICT	Does the District have USDA Provision 3 status? (T/F)	WDE
31	STUDENT_AT_RISK_IN_DISTRICT	(T/F/?) ? Indicates that the district participates in the USDA Provision 3 program and additional analysis is utilized to determine At-Risk counts. (See attached flowchart for additional determination detail.)	WDE based on District Data
32	AT_RISK_SCHOOL_ID	If the student is to be counted as At-Risk in the Wyoming Funding Model at this district, the applicable WDE School ID is listed. (See attached flowchart for additional determination detail.)	WDE based on District Data
33	AT_RISK_GRADE	If the student is to be counted as At-Risk in the Wyoming Funding Model at this district, the applicable grade level is listed. (See attached flowchart for additional determination detail.)	WDE based on District Data

Additional Examples of Wyoming STEM Activities

Additional examples of Wyoming's commitment to development and promotion of the STEM disciplines.

Wyoming State Science Fair

UW Engineering Summer Program (ESP)

UW Astronomy Camp

Teton Science School

UW Summer Math Institute

UW Math Science Initiative Project

Wyoming Ag in the Classroom (WAIC)

Rocky Mountain Math Research and Career Experiences

NCAR-Wyoming Supercomputing Center

Wyoming Geographic Alliance

UW Summer Research Apprenticeship Program (SRAP)

UW Summer high School Institute

Wyoming Geographic Information Science Center (WyGISC)

Wyoming NASA Space Grant Consortium

Wyoming School-University Partnership

UW Science & Math Teaching Center (SMTC)

High School Teachers Engineering Program (HISTEP)

UW School of Natural Resources (SER) Energy Summer Institute

PBS Instruction Center Module

Appendix for Section VIII: Budget

BUDGET PART I: BUDGET SUMMARY NARRATIVE

The budget for the State of Wyoming's Race to the Top grant application includes requested funds to meet the State Success Factor activities by creating and staffing a Race to the Top Unit and to fund the staffing and operations necessary to meet the four selection criteria described in this grant. The selection criteria that the state proposes to accomplish are in the areas of standards and assessments (Transition to Enhanced Standards and High-quality Assessments), data systems to support instruction (Next-Generation Enterprise Education Information System), developing great teachers and leaders (Great Teachers and Leaders) and turning around the lowest achieving schools (Turning Around the Lowest-Achieving Schools).

The program will be located within the WDE's Race to the Top Unit. The director of the Race to the Top unit in collaboration with the Deputy Superintendent of Public Instruction, Joe Simpson, will be responsible for approval and oversight of program activities.

The successful implementation of the activities supported by the grant will be guided by the principles and best practice processes exemplified by the Quality Project Management (QPM) system developed by ESP Solutions Group (*Quality Project Management*, Copyright 2007 by ESP Solutions Group). These processes are grounded in the wealth of resources from NCES and other national standards groups (e.g., State Automation Site Visits, Decision Support System Best Practice Project, PBDMI state documentation visits, the publications from the Forum on Education Statistics, and others). The methodology for managing the program will always focus on the WDE's mission and goals. Our choice of the QPM methodology is our assurance that these projects will be managed for success within the precise context of Wyoming's schools, districts, and state-level constraints and resources.

The funds will be managed from the RTTT Unit working in collaboration with WDE units that have been responsible for and have already planned parts of the proposed reform initiatives (Selection Criteria B-E) that are detailed in this grant. The details of the

Budget Summary Narrative

RTTT budget has been described in section VIII and supported by evidence under A(2)(i)(d). The WDE has a proven experience and a highly effective and efficient operation for managing federal funds as was described in A(2)(i)(d). Furthermore this grant requests funds for a senior accounting analyst whose main responsibility is to manage the RTTT funds in a timely and a judicious manner consistent with this grant's requirement and the state of Wyoming rules and regulations. The accounting analyst will also ensure that the participating LEAs are spending their subgrants in accordance with the State's plan and the scope of work described in their agreements with the state.

The Wyoming Department of Education will leverage any funds it receives from other federal, State and local sources and its own human resources to carry out some of the activities and to further meet the goals outlined in this grant application. As the reforms are developed and implemented the Wyoming legislature will be kept informed and updated so they can provide the funds to continue the reforms after the RTTT funds sunset.

Budget Categories	Section A (Oversight)	Section B (Transition)	Section C (Systems)	Section D (Teachers)	Section E (Turning)	Total
1. Personnel	743,166	0	0	0	0	**743,166**
2. Fringe Benefits	222,951	0	0	0	0	**222,951**
3. Travel	162,400	5,303,200	0	483,000	210,000	**6,158,600**
4. Equipment	12,300	27,100	0	22,100	0	**61,500**
5. Supplies	36,000	996,000	0	996,000	215,000	**2,243,000**
6. Contractual	407,904	32,590,800	11,568,000	7,670,720	6,680,000	**58,917,424**
7. Training Stipends	0	0	0	2,208,000	1,920,000	**4,128,000**
8. Other	0	0	0	500,000	0	**500,000**
9. Total Direct Costs (lines 1-8)	**1,584,721**	**38,917,100**	**11,568,000**	**11,879,820**	**9,025,000**	**72,974,641**
10. Indirect Costs*	115,685	2,840,948	844,464	867,227	658,825	**5,327,149**
11.Funding for Involved LEAs	0	0	0	0	0	**0**
12. Supplemental Funding for Participating LEAs	0	518,400	0	518,400	518,400	**1,555,200**
13. Total Costs (lines 9-12)	**1,700,405**	**42,276,448**	**12,412,464**	**13,265,447**	**10,202,225**	**79,856,989**
14. Funding Subgranted to Participating LEAs (50% of Total Grant)	1,700,405	42,276,448	12,412,464	13,265,447	10,202,225	**79,856,989**
15. Total Budget (lines 13-14)	**3,400,810**	**84,552,897**	**24,824,928**	**26,530,894**	**20,404,450**	**159,713,979**