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.

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
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)

Achievement by Subgroup — Trends at the Elementary Level

Note: The tables in this profile of subgroup achievement and gap trends begin with table 7. Tables 1 through 6 can be found in the companion state profile of general achievement trends.

Table WY-7. Percentages of Grade 4 Students by Racial or Ethnic Subgroup Scoring at the Advanced, Proficient and Above, and Basic and Above Levels in Reading

Subgroup	Reporting Year							Average Yearly Percentage Point Gain[1]
	2002	2003	2004	2005	2006	2007	2008	
All tested students								
Advanced					15%	23%	22%	3.6
Proficient and Above					64%	77%	73%	4.6
Basic and Above					90%	95%	96%	3.0
White								
Advanced					17%	22%	24%	3.9
Proficient and Above					67%	79%	76%	4.5
Basic and Above					91%	96%	97%	2.5
African American[2]								
Advanced					7%	13%	16%	4.5
Proficient and Above					59%	70%	65%	3.2
Basic and Above					86%	97%	96%	5.1
Latino								
Advanced					10%	13%	12%	1.4
Proficient and Above					50%	65%	62%	6.2
Basic and Above					86%	93%	95%	4.6
Asian[2]								
Advanced					16%	34%	28%	6.0
Proficient and Above					74%	87%	78%	2.3
Basic and Above					94%	100%	100%	2.8
Native American[2]								
Advanced					5%	7%	6%	0.7
Proficient and Above					38%	50%	47%	4.4
Basic and Above					78%	86%	91%	6.2

Table reads: The percentage of white 4th graders who scored at the advanced level on the state reading test increased from 17% in 2006 to 24% in 2008. During this period, the average yearly gain in the percentage advanced in reading for white 4th graders was 3.9 percentage points per year.

[1]Averages 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.

Table WY-8. Percentage of Grade 4 Students by Demographic Subgroup Scoring at the Advanced, Proficient and Above, and Basic and Above Levels in Reading

Subgroup	Reporting Year 2002	2003	2004	2005	2006	2007	2008	Average Yearly Percentage Point Gain[1]
All tested students								
Advanced					15%	23%	22%	3.6
Proficient and Above					64%	77%	73%	4.6
Basic and Above					90%	95%	96%	3.0
Low-income students								
Advanced					10%	14%	15%	2.4
Proficient and Above					52%	68%	63%	5.3
Basic and Above					85%	93%	94%	4.2
Students with disabilities[3]								
Advanced					4%	8%	8%	1.7
Proficient and Above					28%	44%	40%	5.8
Basic and Above					64%	81%	85%	10.3
English language learners[2,3]								
Advanced					3%	5%	1%	-1.4
Proficient and Above					30%	47%	27%	-1.7
Basic and Above					71%	85%	87%	8.0
Female								
Advanced					16%	23%	25%	4.3
Proficient and Above					68%	79%	76%	4.1
Basic and Above					92%	97%	97%	2.6
Male								
Advanced					14%	18%	20%	2.9
Proficient and Above					61%	74%	71%	5.0
Basic and Above					89%	94%	96%	3.3

Table reads: The percentage of low-income 4th graders who scored at the advanced level on the state reading test increased from 10% in 2006 to 15% in 2008. During this period, the average yearly gain in the percentage advanced in reading for low-income 4th graders was 2.4 percentage points per year.

[1]Averages 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]Gap 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. Average yearly percentage point gains are based on 2006-2008 results.

Table WY-9. Percentages of Grade 4 Students by Racial or Ethnic Subgroup Scoring at the Advanced, Proficient and Above, and Basic and Above Levels in Mathematics

Subgroup	Reporting Year 2002	2003	2004	2005	2006	2007	2008	Average Yearly Percentage Point Gain[1]
All tested students								
Advanced					17%	29%	25%	4.1
Proficient and Above					73%	87%	77%	1.8
Basic and Above					91%	96%	91%	0.4
White								
Advanced					19%	31%	27%	4.3
Proficient and Above					76%	88%	79%	1.5
Basic and Above					92%	97%	92%	0.2
African American[2]								
Advanced					6%	19%	9%	1.7
Proficient and Above					63%	81%	70%	3.4
Basic and Above					88%	94%	89%	0.5
Latino								
Advanced					9%	19%	16%	3.8
Proficient and Above					61%	79%	68%	3.8
Basic and Above					85%	94%	87%	1.3
Asian[2]								
Advanced					20%	NA	42%	10.7
Proficient and Above					84%	95%	83%	-0.6
Basic and Above					97%	NA	95%	-0.7
Native American[2]								
Advanced					6%	12%	8%	1.4
Proficient and Above					47%	70%	54%	3.4
Basic and Above					74%	89%	77%	1.5

Table reads: The percentage of white 4th graders who scored at the advanced level on the state math test increased from 19% in 2006 to 27% in 2008. During this period, the average yearly gain in the percentage advanced in math for white 4th graders was 4.3 percentage points per year.

[1]Averages 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.

Table WY-10. Percentage of Grade 4 Students by Demographic Subgroup Scoring at the Advanced, Proficient and Above, and Basic and Above Levels in Mathematics

Subgroup	Reporting Year							Average Yearly Percentage Point Gain[1]
	2002	2003	2004	2005	2006	2007	2008	
All tested students								
Advanced					17%	29%	25%	4.1
Proficient and Above					73%	87%	77%	1.8
Basic and Above					91%	96%	91%	0.4
Low-income students								
Advanced					10%	22%	18%	3.7
Proficient and Above					64%	81%	67%	1.9
Basic and Above					85%	94%	86%	0.4
Students with disabilities[3]								
Advanced					6%	13%	9%	1.2
Proficient and Above					44%	65%	53%	4.6
Basic and Above					71%	87%	75%	2.0
English language learners[2,3]								
Advanced					3%	17%	4%	0.4
Proficient and Above					44%	73%	39%	-2.7
Basic and Above					72%	90%	71%	-0.3
Female								
Advanced					16%	27%	26%	5.1
Proficient and Above					74%	86%	76%	1.0
Basic and Above					91%	96%	91%	0.2
Male								
Advanced					19%	31%	25%	3.3
Proficient and Above					73%	87%	78%	2.7
Basic and Above					90%	96%	91%	0.6

Table reads: The percentage of low-income 4th graders who scored at the advanced level on the state math test increased from 10% in 2006 to 18% in 2008. During this period, the average yearly gain in the percentage advanced in math for low-income 4th graders was 3.7 percentage points per year.

[1]Averages 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]Gap 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. Average yearly percentage point gains are based on 2006-2008 results.

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
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.

[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.

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
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 subgroups.

Achievement by Subgroup — Gap Trends (Mean Scale Scores)

Table WY-13. Achievement Gap Trends in Reading by Mean Scale Scores

NOTE: L = Larger gain than comparison group. S = Smaller gain than comparison group. E = Equal gain to comparison group.
If the average gain for the subgroup of interest, such as African American students, is larger than the average 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	Statistic	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) [1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) [1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) [1]	Gain Larger or Smaller than Comparison Group
All tested students	Mean SS	06-08	637.5	663.7	13.1		06-08	680.8	698.6	8.9		06-08	153.4	156.3	1.4	
	SD	06-08	71.3	49.8			06-08	71.8	47.6			06-08	31.5	16.4		
White	Mean SS	06-08	641.5	667.4	13.0		06-08	685.5	702.1	8.3		06-08	155.0	157.3	1.2	
	SD	06-08	69.7	49.2			06-08	70.3	47.0			06-08	30.7	16.4		
African American	Mean SS	06-08	631.0	649.6	9.3[2]	S	06-08	660.7	698.8	19.0[2]	L	06-08	137.5	148.0	5.2[2]	L
	SD	06-08	59.5	50.7			06-08	51.9	44.8			06-08	36.6	14.9		
Latino	Mean SS	06-08	613.5	648.0	17.2	L	06-08	652.7	677.7	12.5	L	06-08	142.1	149.7	3.8[2]	L
	SD	06-08	82.0	47.5			06-08	74.9	45.4			06-08	35.1	14.9		
Asian	Mean SS	06-08	648.6	677.6	14.5[2]	L	06-08	710.1	707.1	-1.5[2]	S	06-08	154.7	152.9	-0.9[2]	S
	SD	06-08	73.7	48.7			06-08	74.0	42.1			06-08	29.6	15.8		
Native American	Mean SS	06-08	611.8	630.8	9.5[2]	S	06-08	646.8	670.1	11.6[2]	L	06-08	139.6	154.4	7.4[2]	L
	SD	06-08	64.5	47.1			06-08	75.8	48.0			06-08	36.5	13.1		
Not Low-income	Mean SS	06-08	650.1	672.1	11.0		06-08	694.0	705.1	5.5		06-08	158.7	157.7	-0.5	
	SD	06-08	63.0	47.3			06-08	61.3	45.4			06-08	24.9	16.2		
Low-income	Mean SS	06-08	624.0	648.7	12.4	L	06-08	662.9	682.8	10.0	L	06-08	147.4	151.5	2.0	L
	SD	06-08	68.4	50.7			06-08	69.6	49.2			06-08	31.7	16.0		
Not disabled	Mean SS	06-08	652.3	671.3	9.5		06-08	694.3	705.6	5.7		06-08	159.7	158.7	-0.5	
	SD	06-08	53.8	45.4			06-08	57.9	43.9			06-08	24.1	15.6		
Students with disabilities[3]	Mean SS	06-08	577.1	621.9	22.4	L	06-08	614.9	651.1	18.1	L	06-08	130.5	141.7	5.6	L
	SD	06-08	85.9	52.3			06-08	73.4	45.1			06-08	32.7	13.5		
Not ELLs	Mean SS	06-08	642.2	665.2	11.5		06-08	685.6	700.0	7.2		06-08	156.8	156.6	-0.1	
	SD	06-08	64.9	49.2			06-08	64.8	46.9			06-08	26.6	16.3		
English language learners[3]	Mean SS	06-08	588.1	609.0	10.4[2]	S	06-08	627.2	641.1	6.9[2]	S	06-08	140.0	141.8	0.9[2]	L
	SD	06-08	78.1	38.9			06-08	74.3	40.3			06-08	26.1	12.9		
Female	Mean SS	06-08	644.2	668.5	12.2		06-08	691.8	705.4	6.8		06-08	156.8	160.1	1.7	
	SD	06-08	66.4	49.3			06-08	71.4	46.9			06-08	31.3	16.0		

		Grade 4					Grade 8					Grade 11				
Subgroup	Statistic	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) [1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) [1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) [1]	Gain Larger or Smaller than Comparison Group
Male	Mean SS	06-08	631.3	659.0	13.9	L	06-08	670.6	692.4	10.9	L	06-08	150.4	153.2	1.4	S
	SD	06-08	75.2	49.8			06-08	70.6	47.5			06-08	31.4	16.1		

Table reads: In 2006, the mean scale score on the state 4th grade reading test was 641.5 for white students and 631.0 for African American students. In 2008, the mean scale score in 4th grade reading was 667.4 for white students and 649.6 for African American students. Between 2006 and 2008, the mean scale score improved at an average yearly rate of 13.0 points for white students and 9.3 points for African American students, indicating a widening of the achievement gap for African Americans.

Note: The PAWS is scored on a scale of 300-975 for grades 3-8 and 50-250 for grade 11.

[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]Gap 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.

Table WY-14. Subgroup Achievement Trends in Mathematics by Mean Scale Scores

NOTE: L = Larger gain than comparison group. S = Smaller gain than comparison group. E = Equal gain to comparison group.
If the average gain for the subgroup of interest, such as African American students, is larger than the average 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	Statistic	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score)[1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score)[1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score)[1]	Gain Larger or Smaller than Comparison Group
All tested students	Mean SS	06-08	649.6	660.6	5.5		06-08	714.1	730.7	8.3		06-08	152.6	148.1	-2.3	
	SD	06-08	50.7	57.7			06-08	53.6	55.5			06-08	18.9	16.7		
White	Mean SS	06-08	653.3	664.6	5.7		06-08	718.3	735.9	8.8		06-08	153.7	149.1	-2.3	
	SD	06-08	50.3	57.3			06-08	52.9	54.3			06-08	18.8	16.9		
African American	Mean SS	06-08	629.7	641.7	6.0[2]	L	06-08	683.0	707.8	12.4[2]	L	06-08	140.6	140.3	-0.2[2]	L
	SD	06-08	41.6	49.0			06-08	46.0	56.2			06-08	16.9	12.5		
Latino	Mean SS	06-08	633.0	644.0	5.5	S	06-08	691.0	703.9	6.5	S	06-08	143.6	142.0	-0.8[2]	L
	SD	06-08	45.6	55.3			06-08	50.0	51.3			06-08	15.6	14.2		
Asian	Mean SS	06-08	667.7	681.4	6.9[2]	L	06-08	754.4	750.0	-2.2[2]	S	06-08	158.6	151.1	-3.8[2]	S
	SD	06-08	54.1	61.3			06-08	67.4	58.5			06-08	21.9	15.5		
Native American	Mean SS	06-08	616.7	625.2	4.3[2]	S	06-08	680.3	694.5	7.1[2]	S	06-08	138.5	142.6	2.1[2]	L
	SD	06-08	49.1	51.1			06-08	42.0	59.6			06-08	16.6	14.6		
Not Low-income	Mean SS	06-08	658.8	669.3	5.3		06-08	723.1	738.6	7.7		06-08	154.5	149.5	-2.5	
	SD	06-08	49.7	56.4			06-08	52.8	54.0			06-08	18.7	16.5		
Low-income	Mean SS	06-08	636.0	645.3	4.7	S	06-08	696.4	711.6	7.6	S	06-08	145.1	143.1	-1.0	L
	SD	06-08	48.9	56.9			06-08	50.4	54.5			06-08	17.5	16.3		
Not disabled	Mean SS	06-08	656.5	667.5	5.5		06-08	722.1	738.1	8.0		06-08	154.9	150.1	-2.4	
	SD	06-08	47.7	55.2			06-08	50.7	52.7			06-08	18.2	16.2		
Students with disabilities[3]	Mean SS	06-08	614.0	622.8	4.4	S	06-08	661.5	680.4	9.5	L	06-08	132.5	134.6	1.1	L
	SD	06-08	50.8	56.3			06-08	41.3	47.6			06-08	12.0	13.3		
Not ELLs	Mean SS	06-08	651.5	662.1	5.3		06-08	715.6	732.2	8.3		06-08	153.1	148.3	-2.4	
	SD	06-08	50.3	57.4			06-08	53.2	55.0			06-08	18.8	16.7		
English language learners[3]	Mean SS	06-08	614.1	608.9	-2.6[2]	S	06-08	676.4	669.8	-3.3[2]	S	06-08	134.8	137.4	1.3[2]	L
	SD	06-08	44.7	45.5			06-08	50.4	42.6			06-08	14.8	13.0		
Female	Mean SS	06-08	648.9	659.6	5.4		06-08	714.9	729.8	7.5		06-08	152.6	148.3	-2.2	

		Grade 4					Grade 8					Grade 11				
Subgroup	Statistic	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) [1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) [1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) [1]	Gain Larger or Smaller than Comparison Group
	SD	06-08	49.2	57.6			06-08	51.6	53.6			06-08	17.8	17.0		
Male	Mean SS	06-08	650.3	661.5	5.6	L	06-08	713.3	731.6	9.2	L	06-08	152.5	147.9	-2.3	S
	SD	06-08	52.0	57.9			06-08	55.4	57.3			06-08	19.9	16.4		

Table reads: In 2006, the mean scale score on the state 4th grade math test was 653.3 for white students and 629.7 for African American students. In 2008, the mean scale score in 4th grade math was 664.6 for white students and 641.7 for African American students. Between 2006 and 2008, the mean scale score improved at an average yearly rate of 5.7 points for white students and 6.0 points for African American students, indicating a narrowing of the achievement gap for African Americans.

Note: The PAWS is scored on a scale of 300-975 for grades 3-8 and 50-250 for grade 11.

[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]Gap 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.

Table WY-15. Numbers of Test-Takers

Subgroup	Subject	Grade 4					Grade 8					Grade 11				
		Year Span	# of Test-Takers Start Year	# of Test-Takers End Year	Change in # of Test-Takers Over Time	% of Test-Takers in Subgroup in End Year	Year Span	# of Test-Takers Start Year	# of Test-Takers End Year	Change in # of Test-Takers Over Time	% of Test-Takers in Subgroup in End Year	Year Span	# of Test-Takers Start Year	# of Test-Takers End Year	Change in # of Test-Takers Over Time	% of Test-Takers in Subgroup in End Year
All tested students	Reading	06-08	6,193	6,430	3.8%	100.0%	06-08	6,765	6,531	-3.5%	100.0%	06-08	5,988	3,653	-39.0%	100.0%
	Math	06-08	6,207	6,438	3.7%	100.0%	06-08	6,769	6,531	-3.5%	100.0%	06-08	6,013	4,061	-32.5%	100.0%
White	Reading	06-08	5,162	5,326	3.2%	82.8%	06-08	5,693	5,537	-2.7%	84.8%	06-08	5,298	3,105	-41.4%	85.0%
	Math	06-08	5,163	5,329	3.2%	82.8%	06-08	5,692	5,536	-2.7%	84.8%	06-08	5,319	3,439	-35.3%	84.7%
African American	Reading	06-08	114	**107**	-6.1%	1.7%	06-08	104	**96**	-7.7%	1.5%	06-08	72	**47**	-34.7%	1.3%
	Math	06-08	114	**107**	-6.1%	1.7%	06-08	103	**96**	-6.8%	1.5%	06-08	71	**63**	-11.3%	1.6%
Latino	Reading	06-08	582	673	15.6%	10.5%	06-08	622	610	-1.9%	9.3%	06-08	390	**319**	-18.2%	8.7%
	Math	06-08	593	686	15.7%	10.7%	06-08	628	612	-2.5%	9.4%	06-08	393	**368**	-6.4%	9.1%
Asian	Reading	06-08	87	**64**	-26.4%	1.0%	06-08	68	**66**	-2.9%	1.0%	06-08	66	**42**	-36.4%	1.1%
	Math	06-08	89	**65**	-27.0%	1.0%	06-08	69	**67**	-2.9%	1.0%	06-08	66	**45**	-31.8%	1.1%
Native American	Reading	06-08	248	**243**	-2.0%	3.8%	06-08	278	**210**	-24.5%	3.2%	06-08	162	**134**	-17.3%	3.7%
	Math	06-08	248	**234**	-5.6%	3.6%	06-08	277	**210**	-24.2%	3.2%	06-08	164	**139**	-15.2%	3.4%
Low-income	Reading	06-08	2,359	2,333	-1.1%	36.3%	06-08	2,114	1,906	-9.8%	29.2%	06-08	1,073	826	-23.0%	22.6%
	Math	06-08	2,367	2,335	-1.4%	36.3%	06-08	2,123	1,904	-10.3%	29.2%	06-08	1,080	894	-17.2%	22.0%
Students w/ disabilities	Reading	06-08	951	997	4.8%	15.5%	06-08	817	834	2.1%	12.8%	06-08	572	500	-12.6%	13.7%
	Math	06-08	949	1,001	5.5%	15.5%	06-08	820	835	1.8%	12.8%	06-08	573	526	-8.2%	13.0%
English language learners	Reading	06-08	244	**182**	-25.4%	2.8%	06-08	174	**151**	-13.2%	2.3%	06-08	88	**72**	-18.2%	2.0%
	Math	06-08	255	**183**	-28.2%	2.8%	06-08	177	**154**	-13.0%	2.4%	06-08	90	**77**	-14.4%	1.9%
Female	Reading	06-08	3,034	3,129	3.1%	48.7%	06-08	3,271	3,120	-4.6%	47.8%	06-08	2,848	1,666	-41.5%	45.6%
	Math	06-08	3,043	3,135	3.0%	48.7%	06-08	3,268	3,120	-4.5%	47.8%	06-08	2,854	2,092	-26.7%	51.5%
Male	Reading	06-08	3,159	3,301	4.5%	51.3%	06-08	3,494	3,411	-2.4%	52.2%	06-08	3,140	1,987	-36.7%	54.4%
	Math	06-08	3,164	3,303	4.4%	51.3%	06-08	3,501	3,411	-2.6%	52.2%	06-08	3,159	1,969	-37.7%	48.5%

Table reads: In 2006, 5,162 students in the white subgroup took the state 4th grade reading test. By 2008, the number of white test-takers had risen to 5,326 students, an increase of 3.2%. In 2008, the white subgroup made up 82.8% of the 6,430 4th graders taking the reading test that year.

Note: **Bold** type indicates that 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.

Key Terms

Percentage proficient (and above) — The percentage of students in a group who score at and above the cut score for "proficient" performance on the state test used to determine progress under NCLB. The Act requires states to report student test performance in terms of at least three achievement levels: basic, proficient, and advanced. Adequate yearly progress determinations are based on the percentage of students scoring at the proficient level and above.

Percentage basic (and above) — The percentage of students in a group who score at and above the cut score for "basic" performance on the state test used to determine progress under NCLB.

Percentage advanced — The percentage of students in a group who reach or exceed the cut score for "advanced" performance on the state test used to determine progress under NCLB.

Moderate-to-large gain — For the percentage basic, proficient, or advanced, an average gain of 1 or more percentage points per year. For effect size, an average gain of 0.02 or greater per year.

Slight gain — For the percentage basic, proficient, or advanced, an average gain of less than 1 percentage point per year. For effect size, an average gain of less than 0.02 per year.

Moderate-to-large decline — For the percentage basic, proficient, or advanced, an average decline of 1 or more percentage points per year. For effect size, an average decline of 0.02 or greater per year.

Slight decline — For the percentage basic, proficient, or advanced, an average decline of less than 1 percentage points per year. For effect size, an average decline of less than 0.02 per year.

Effect size — A statistical tool that conveys the amount of difference between test results using a common unit of measurement which does not depend on the scoring scale for a particular test.

Accumulated annual effect size — The cumulative gain in effect size over a range of years.

Mean scale score — The arithmetical average of a group of test scores, expressed on a common scale for a particular state's test. The mean is calculated by adding the scores and dividing the sum by the number of scores.

Standard deviation — A measure of how much test scores tend to deviate from the mean—in other words, how spread out or bunched together test scores are. If students' scores are bunched together, with many scores close to the mean, then the standard deviation will be small. If scores are spread out, with many students scoring at the high or low ends of the scale, then the standard deviation will be large.

Cautions and Explanations

Different labels for achievement levels — For consistency, all of the state profiles developed for this report use a common set of labels (basic, proficient, and advanced) for the main achievement levels required by NCLB. In practice, however, some states may use different labels, such as "meets standard" instead of proficient, and some states have established additional achievement levels beyond those required by NCLB.

Different names for subgroups — For the sake of consistency and ease of data tabulation, all of the state profiles developed for this report use a common set of names for the major student subgroups. In practice, however, states use various names for subgroups that may differ from those used here (such as using "Hispanic" instead of "Latino," or "special education students" instead of "students with disabilities"). Moreover, a few states separately track the performance of subgroups not included in the analyses for this report.

Special caution for students with disabilities and English language learners — Trends for students with disabilities and English language learners should be interpreted with caution because changes in federal guidance and state accountability plans may have altered which students in these subgroups are tested for accountability purposes, how they are tested, and when their test scores are counted as proficient under NCLB. These factors could affect the year-to-year comparability of test results.

Inclusion of former English language learners — In many states, the subgroup of English language learners (also known as limited English proficient students) includes students who were formerly English language learners but who have achieved English language proficiency or fluency in the last two years. Federal NCLB regulations permit states to include these formerly ELL students (sometimes referred to as "redesignated fluent English proficient" students) in the ELL subgroup for up to two years for purposes of NCLB accountability.

Limitations of percentage proficient measure — The percentage proficient, the main gauge of student performance under NCLB, can be easily understood and gives a snapshot of how many students have met their state's performance expectations. But it also has several limitations as a measure of student achievement. Users of percentage proficient data should keep in mind these limitations, particularly the following:

* "Proficient" means different things across different states. States vary widely in curriculum, learning expectations, and tests, and state tests differ considerably in their difficulty and cut scores for proficient performance.
* Although this study has taken steps to avoid comparing test data where there have been "breaks" in comparability resulting from new tests, changes in content standards, revised cut scores, or other major changes in testing programs, the year-to-year comparability of test results in the same state may still be affected by less obvious policy and demographic changes.
* Changes in student performance may occur that are not reflected in percentage proficient data, such as an increase in the number of students reaching performance levels below and above proficient (such as the basic or advanced levels).
* The size of the achievement gaps between various subgroups depends in part on where a state sets its cut score for proficiency. For example, if a proficiency cut score is set so high that almost nobody reaches it or so low that almost everyone reaches it, there will be little apparent achievement gap. By contrast, if the cut score is closer to the mean test score, the gaps between subgroups will be more apparent.

Difficulty of attributing causes — Although the tables above show trends in test scores since the enactment of NCLB, one cannot assume that these trends have occurred *because* of NCLB. It is always difficult to determine a cause-and-effect relationship between test score trends and any specific education policy or program due to the many federal, state, and local reforms undertaken in recent years and due to the lack of an appropriate "control" group of students not affected by NCLB.