Subgroup Achievement and Gap Trends — Alaska

K-12 enrollment — 129,350

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.

Overall, achievement trends in Alaska were in an upward direction. There was a mixed picture on achievement gaps.

Subgroup trends by achievement level at grade 4

- Main trend: Most subgroups made gains in reading and math at three achievement levels—basic-and-above, proficient-and-above, and advanced. For nearly all subgroups, gains were largest at the advanced level.

- Notable exceptions: Performance for Native American students declined at all three achievement levels in reading and math.

Gap trends at three grade levels

- Main trend: There was a mixed picture in reading in terms of progress on gaps in the percentages of students scoring at the proficient level between the Latino, Asian, and Native American subgroup and the white subgroup, and between low-income and non-low-income students, at grades 4 and 8 and at the high school grade tested. There was a better overall result for math. There was a difference between the lower and higher grades; there were more instances of gaps widening at the high school level.

Data notes

- Limited data: Trends are limited to 2005–2008 for grades 4 and 8 and 2006–2008 for high school. Data were not available to calculate mean scale scores.

- Subgroups analyzed: Trends were analyzed for white, Latino, Native American, Asian American, and low-income students. The African American subgroup is too small in Alaska 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	2005 through 2008, grades 3 through 8 2006 through 2008, grade 10
Years of comparable mean scale score data	Mean scale score data not available disaggregated by subgroup
Disaggregated data for all subgroups and comparison groups	Mean scale score data not available disaggregated by subgroup Percentage proficient data not available until 2008 for comparison group of students who are *not* English language learners, so the ELL subgroup is compared with all tested students in the state
Numbers of test-takers by subgroup	Not available until 2006 for the American Indian/Alaska Native subgroup

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	Alaska Standards Based Assessment (ASBA) Grade 10 Standards Based Assessment (SBA) Alaska Alternate Assessment
Grades tested for NCLB accountability	3–10
State labels for achievement levels	AK uses four achievement levels: Far Below Proficient, Below Proficient, Proficient, and Advanced. For our analyses we treated Below Proficient as Basic, Proficient as Proficient, and Advanced as Advanced.

High school NCLB test also used as an exit exam?	Although the Grade 10 Standards-Based Assessment—High School Graduation Qualifying Exam is packaged and administered as a single test, students receive separate scores for the SBA segment of the exam, which is used for NCLB accountability, and for the HSGQE segment, which is used as an exit exam.
First year test used	2005, grades 3–9 2006, grade 10
Time of test administration	Spring
Major changes in testing system (2002–present)	2005: Switched from using the Alaska Benchmark Exams (ABE) to the ASBA and expanded testing to all of the grades 3–9 2006: Switched to ASBA in grade 10

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 AK-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				25%	28%	36%	36%	3.7
Proficient and Above				78%	79%	82%	81%	1.0
Basic and Above				91%	92%	92%	92%	0.3
White								
Advanced				34%	38%	48%	49%	4.8
Proficient and Above				87%	89%	90%	90%	0.8
Basic and Above				96%	96%	96%	96%	0.0
African American[2]								
Advanced				15%	18%	25%	24%	3.0
Proficient and Above				74%	74%	78%	77%	0.8
Basic and Above				90%	91%	90%	90%	-0.1
Latino								
Advanced				19%	21%	23%	33%	4.8
Proficient and Above				77%	77%	79%	82%	1.5
Basic and Above				91%	94%	92%	91%	0.1
Asian								
Advanced				18%	24%	35%	28%	3.5
Proficient and Above				78%	77%	84%	79%	0.3
Basic and Above				93%	91%	94%	93%	-0.1
Native American								
Advanced				18%	11%	15%	14%	-1.4
Proficient and Above				75%	59%	64%	62%	-4.4
Basic and Above				89%	83%	84%	83%	-2.0

Table reads: The percentage of white 4th graders who scored at the advanced level on the state reading test increased from 34% in 2005 to 49% in 2008. During this period, the average yearly gain in the percentage advanced in reading for white 4th graders was 4.8 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 AK-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							Average Yearly Percentage Point Gain[1]
	2002	2003	2004	2005	2006	2007	2008	
All tested students								
Advanced				25%	28%	36%	36%	3.7
Proficient and Above				78%	79%	82%	81%	1.0
Basic and Above				91%	92%	92%	92%	0.3
Low-income students								
Advanced				13%	15%	22%	22%	3.1
Proficient and Above				65%	67%	72%	70%	1.8
Basic and Above				85%	87%	87%	87%	0.7
Students with disabilities[3]								
Advanced				7%	8%	11%	11%	1.2
Proficient and Above				45%	49%	49%	49%	0.1
Basic and Above				72%	73%	72%	73%	-0.1
English language learners[3]								
Advanced				5%	7%	12%	3%	-2.0
Proficient and Above				50%	54%	60%	43%	-5.6
Basic and Above				78%	81%	83%	74%	-3.2
Female								
Advanced				28%	31%	39%	39%	3.6
Proficient and Above				81%	82%	86%	84%	0.9
Basic and Above				93%	94%	94%	94%	0.2
Male								
Advanced				22%	25%	33%	34%	3.8
Proficient and Above				75%	77%	78%	78%	1.0
Basic and Above				90%	90%	90%	90%	0.1

Table reads: The percentage of low-income 4th graders who scored at the advanced level on the state reading test increased from 13% in 2005 to 22% in 2008. During this period, the average yearly gain in the percentage advanced in reading for low-income 4th graders was 3.1 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 AK-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							Average Yearly Percentage Point Gain[1]
	2002	2003	2004	2005	2006	2007	2008	
All tested students								
Advanced				27%	32%	36%	34%	2.4
Proficient and Above				69%	73%	76%	74%	1.8
Basic and Above				84%	87%	88%	87%	1.3
White								
Advanced				35%	41%	46%	44%	3.0
Proficient and Above				78%	82%	84%	83%	1.8
Basic and Above				90%	91%	93%	93%	0.9
African American[2]								
Advanced				15%	17%	22%	22%	2.3
Proficient and Above				57%	65%	68%	66%	2.9
Basic and Above				76%	81%	82%	82%	1.9
Latino								
Advanced				15%	27%	25%	32%	5.5
Proficient and Above				62%	70%	73%	73%	3.8
Basic and Above				80%	86%	87%	87%	2.2
Asian								
Advanced				26%	32%	40%	33%	2.2
Proficient and Above				70%	75%	80%	74%	1.2
Basic and Above				85%	87%	92%	87%	0.8
Native American								
Advanced				22%	16%	18%	16%	-2.1
Proficient and Above				69%	56%	58%	56%	-4.4
Basic and Above				82%	76%	78%	77%	-1.7

Table reads: The percentage of white 4th graders who scored at the advanced level on the state math test increased from 35% in 2005 to 44% in 2008. During this period, the average yearly gain in the percentage advanced in math for white 4th graders was 3.0 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 AK-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				27%	32%	36%	34%	2.4
Proficient and Above				69%	73%	76%	74%	1.8
Basic and Above				84%	87%	88%	87%	1.3
Low-income students								
Advanced				16%	20%	23%	21%	1.8
Proficient and Above				56%	61%	65%	63%	2.5
Basic and Above				74%	80%	82%	81%	2.3
Students with disabilities[3]								
Advanced				9%	13%	13%	11%	-1.3
Proficient and Above				38%	45%	45%	43%	-0.8
Basic and Above				61%	65%	65%	64%	-0.3
English language learners[3]								
Advanced				9%	14%	16%	6%	-4.0
Proficient and Above				45%	53%	55%	40%	-6.4
Basic and Above				66%	74%	76%	66%	-4.1
Female								
Advanced				26%	32%	36%	34%	2.8
Proficient and Above				70%	73%	77%	75%	1.9
Basic and Above				85%	86%	90%	88%	1.1
Male								
Advanced				28%	33%	36%	34%	2.0
Proficient and Above				68%	73%	74%	73%	1.8
Basic and Above				83%	87%	87%	87%	1.2

Table reads: The percentage of low-income 4th graders who scored at the advanced level on the state math test increased from 16% in 2005 to 21% in 2008. During this period, the average yearly gain in the percentage advanced in math for low-income 4th graders was 1.8 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 AK-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 10				
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	05-08	78%	81%	1.0		05-08	80%	85%	1.7		06-08	81%	80%	-0.5	
White	05-08	87%	90%	0.8		05-08	90%	92%	0.7		06-08	91%	90%	-0.4	
African American	05-08	74%	77%	0.8[2]	E	05-08	69%	82%	4.4[2]	L	06-08	69%	72%	1.5[2]	L
Latino	05-08	77%	82%	1.5	L	05-08	76%	87%	3.7	L	06-08	77%	74%	-1.3[2]	S
Asian	05-08	78%	79%	0.3	S	05-08	76%	83%	2.1	L	06-08	73%	71%	-0.9	S
Native American	05-08	75%	62%	-4.4	S	05-08	80%	71%	-2.9	S	06-08	62%	61%	-0.6	S
Not low-income	05-08	87%	90%	0.9		05-08	87%	92%	1.4		06-08	88%	88%	-0.1	
Low-income	05-08	65%	70%	1.8	L	05-08	66%	75%	3.1	L	06-08	66%	65%	-0.6	S
Not disabled	06-08	85%	87%	1.1		06-08	87%	90%	1.6		06-08	86%	85%	-0.5	
Students with disabilities[3]	06-08	49%	49%	0.1	S	06-08	44%	47%	1.5	S	06-08	41%	39%	-1.1	S
All tested students	06-08	79%	81%	1.0		06-08	82%	85%	1.7		06-08	81%	80%	-0.5	
English language learners[3]	06-08	54%	43%	-5.6	S	06-08	58%	55%	-1.3	S	06-08	49%	37%	-6.0	S
Female	05-08	81%	84%	0.9		05-08	85%	89%	1.5		06-08	83%	83%	0.0	
Male	05-08	75%	78%	1.0	L	05-08	76%	82%	1.9	L	06-08	68%	78%	5.1	L

Table reads: In 2005, 87% of white 4th graders and 74% of African American 4th graders scored at the proficient level on the state reading test. In 2008, 90% of white 4th graders and 77% of African American 4th graders scored at the proficient level in reading. Between 2005 and 2008, the percentage proficient improved at

an average rate of 0.8 percentage point per year for white students and 0.8 percentage points per year for African American students, indicating an equal rate of gain and no change in 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]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 AK-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 10				
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	05-08	69%	74%	1.8		05-08	62%	68%	2.1		06-08	62%	61%	-0.5	
White	05-08	78%	83%	1.8		05-08	72%	77%	1.7		06-08	72%	71%	-0.6	
African American	05-08	57%	66%	2.9[2]	L	05-08	40%	53%	4.6[2]	L	06-08	38%	37%	-0.7[2]	S
Latino	05-08	62%	73%	3.8	L	05-08	54%	64%	3.3	L	06-08	54%	52%	-1.5[2]	S
Asian	05-08	70%	74%	1.2	S	05-08	62%	68%	1.9	L	06-08	61%	60%	-0.5	L
Native American	05-08	69%	56%	-4.4	S	05-08	59%	51%	-2.4	S	06-08	42%	43%	0.3	L
Not low-income	05-08	77%	83%	1.9		05-08	71%	76%	1.7		06-08	69%	69%	-0.2	
Low-income	05-08	56%	63%	2.5	L	05-08	44%	56%	3.8	L	06-08	45%	44%	-0.3	S
												0%	100%		
Not disabled	06-08	78%	80%	0.9		06-08	70%	74%	1.8		06-08	67%	65%	-0.8	
Students with disabilities[3]	06-08	45%	43%	-0.8	S	06-08	20%	26%	3.2	L	06-08	16%	19%	1.8	L
All tested students	06-08	73%	74%	1.8		06-08	65%	68%	2.1		06-08	62%	61%	-0.5	
English language learners[3]	06-08	53%	40%	-6.4	S	06-08	40%	36%	-1.9	S	06-08	33%	22%	-5.5	S
Female	05-08	70%	75%	1.9		05-08	63%	69%	1.9		06-08	62%	59%	-1.4	
Male	05-08	68%	73%	1.8	S	05-08	61%	68%	2.3	L	06-08	62%	63%	0.4	L

Table reads: In 2005, 78% of white 4th graders and 57% of African American 4th graders scored at the proficient level on the state math test. In 2008, 83% of white 4th graders and 66% of African American 4th graders scored at the proficient level in math. Between 2005 and 2008, the percentage proficient improved at an average rate of 1.8 percentage point per year for white students and 2.9 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]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 AK-13. Numbers of Test-Takers

Subgroup	Subject	Grade 4					Grade 8					Grade 10				
		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	05-08	9,342	9,144	-2.1%	100.0%	05-08	10,272	9,547	-7.1%	100.0%	06-08	9,626	9,400	-2.3%	100.0%
	Math	05-08	9,378	9,163	-2.3%	100.0%	05-08	10,316	9,522	-7.7%	100.0%	06-08	9,596	9,370	-2.4%	100.0%
White	Reading	05-08	5,442	4,771	-12.3%	52.2%	05-08	6,057	5,318	-12.2%	55.7%	06-08	5,735	5,286	-7.8%	56.2%
	Math	05-08	5,446	4,775	-12.3%	52.1%	05-08	6,083	5,294	-13.0%	55.6%	06-08	5,731	5,281	-7.9%	56.4%
African American	Reading	05-08	477	**335**	-29.8%	3.7%	05-08	483	**330**	-31.7%	3.5%	06-08	409	**312**	-23.7%	3.3%
	Math	05-08	481	**337**	-29.9%	3.7%	05-08	485	**326**	-32.8%	3.4%	06-08	414	**315**	-23.9%	3.4%
Latino	Reading	05-08	407	566	39.1%	6.2%	05-08	373	507	35.9%	5.3%	06-08	364	484	33.0%	5.1%
	Math	05-08	410	571	39.3%	6.2%	05-08	379	506	33.5%	5.3%	06-08	365	481	31.8%	5.1%
Asian	Reading	05-08	655	630	-3.8%	6.9%	05-08	683	689	0.9%	7.2%	06-08	700	679	-3.0%	7.2%
	Math	05-08	671	640	-4.6%	7.0%	05-08	689	696	1.0%	7.3%	06-08	693	676	-2.5%	7.2%
Native American	Reading	06-08	2,401	2,189	-8.8%	23.9%	06-08	2,626	2,142	-18.4%	22.4%	06-08	2,244	2,135	-4.9%	22.7%
	Math	06-08	2,398	2,187	-8.8%	23.9%	06-08	2,627	2,140	-18.5%	22.5%	06-08	2,215	2,123	-4.2%	22.7%
Low-income	Reading	05-08	3,732	4,052	8.6%	44.3%	05-08	3,418	3,589	5.0%	37.6%	06-08	2,823	2,671	-5.4%	28.4%
	Math	05-08	3,752	4,066	8.4%	44.4%	05-08	3,427	3,579	4.4%	37.6%	06-08	2,800	2,640	-5.7%	28.2%
Students w/ disabilities	Reading	06-08	1,382	1,379	-0.2%	15.1%	06-08	1,150	1,098	-4.5%	11.5%	06-08	954	809	-15.2%	8.6%
	Math	06-08	1,381	1,387	0.4%	15.1%	06-08	1,151	1,099	-4.5%	11.5%	06-08	961	799	-16.9%	8.5%
English language learners	Reading	06-08	1,558	1,170	-24.9%	12.8%	06-08	1,551	1,148	-26.0%	12.0%	06-08	1,164	1,287	10.6%	13.7%
	Math	06-08	1,573	1,181	-24.9%	12.9%	06-08	1,563	1,152	-26.3%	12.1%	06-08	1,150	1,278	11.1%	13.6%
Female	Reading	05-08	4,610	4,505	-2.3%	49.3%	05-08	4,949	4,651	-6.0%	48.7%	06-08	4,708	4,665	-0.9%	49.6%
	Math	05-08	4,637	4,499	-3.0%	49.1%	05-08	4,960	4,647	-6.3%	48.8%	06-08	4,678	4,637	-0.9%	49.5%
Male	Reading	05-08	4,732	4,639	-2.0%	50.7%	05-08	5,323	4,896	-8.0%	51.3%	06-08	4,918	4,735	-3.7%	50.4%
	Math	05-08	4,741	4,662	-1.7%	50.9%	05-08	5,356	4,875	-9.0%	51.2%	06-08	4,918	4,733	-3.8%	50.5%

Table reads: In 2005, 5,442 students in the white subgroup took the state 4th grade reading test. By 2008, the number of white test-takers had fallen to 4,771 students, a decrease of 12.3%. In 2008, the white subgroup made up 52.2% of the 9,144 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.