Subgroup Achievement and Gap Trends — Ohio

K-12 enrollment — 1,751,511

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.

The major student groups in Ohio showed a clear trend of gains in grade 4 reading at the basic and proficient levels but mostly declines at the advanced level. In grade 4 math, achievement declined across the board for all subgroups at all achievement levels. A clear trend of narrowing gaps was apparent for all major subgroups at most grade levels.

Subgroup trends by achievement level at grade 4

- General: In reading at grade 4, all five subgroups studied (white, African American, Latino, Asian American, and low-income students) made gains at the basic-and-above and proficient-and-above levels, but performance declined for most of the subgroups at the advanced level. In math, achievement declined across the board for all subgroups at all achievement levels.

Gap trends at three grade levels

- General: In all but a few instances, gaps in the percentages of students scoring at the proficient level narrowed between African American, or Latino and white students, and between low-income and non-low-income students, at grades 4, 8, and 10.

- Notable progress: African American, Latino, and low-income students made notable improvements in narrowing gaps in grade 10 reading and math.

Data notes

- Limited data: Trends are limited to 2005–2008 for grades 4 and 8 and 2004–2008 for high school. Data were not available to analyze achievement gaps using average (mean) test scores.
- Subgroups analyzed: Trends were analyzed for white, African American, Latino, Asian, and low-income students. The Native American subgroup is too small in Ohio 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 grades 4, 8, and 10.

Data Limitations

Years of comparable percentage proficient data	New tests were phased in so years of comparable data vary by grade: Grade 3: 2004–2008 for reading, 2005–2008 for math Grades 4 and 5: 2005–2008 for reading, 2006–2008 for math Grade 6: 2006–2008 for reading and math Grade 7: 2006–2008 for reading, 2005–2008 for math Grade 8: 2005–2008 for reading and math High school: 2004–2008
Years of comparable mean scale scores	Mean scale scores were unavailable.
Disaggregated data for all subgroups and comparison groups	Percentage proficient data available for 2004 through 2008 for high school; 2005 through 2008 for grade 4 reading and grade 8 reading and math; and 2006 through 2008 for grade 4 math Mean scale score data not available for student subgroups

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	Ohio Achievement Test (OAT) Ohio Graduation Test (OGT) Ohio Alternate Assessment

Grades tested for NCLB accountability	3-8, 10
State labels for achievement levels	OH uses five achievement levels: Limited/Below basic, Basic, Proficient, Accelerated, and Advanced. For our analyses we treated Basic as Basic, Proficient as Proficient, and Accelerated + Advanced as Advanced.
High school NCLB test also used as an exit exam?	Yes
First year test used	2003-04: OAT administered in grade 3 reading for first time March 2004: Current form of OGTs in reading and math administered for first time but without graduation consequences 2005: All five subject OGTs administered as a graduation requirement for the class of 2007 2005: OATs added in reading grades 4, 5, and 8; writing grade 4; and math grades 3, 7, and 8 2006: OATs added in reading grades 6 and 7; and math grades 4, 5, and 6 2007: OATs added in science grades 5 and 8; social studies grades 5 and 8; and writing grade 7
Time of test administration	Spring (OAT in grade 3 reading also administered in fall; OGTs administered more than once per year for graduation purposes)
Major changes in testing system (2002–present)	2004: Ohio Achievement Tests implemented as replacement for state Proficiency Tests by 2006 2004: OAT cut scores established in reading and mathematics 2005: OAT cut scores established in science, social studies, and writing Spring 2005: Final administration of Proficiency Tests 2005-06: All the grades 3-8 and 10 tested and included in AYP for the first time. Previously, testing had included reading at grades 3-6, 8, and 10 and math at grades 3, 4, 6-8, and 10; and AYP was based on reading in grades 3, 6, and 10 and math in grades 4, 6, and 10. 2005: OGTs administered as exit exam for class of 2007

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 OH-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				36%	32%	43%	34%	-0.8
Proficient and Above				77%	77%	80%	81%	1.5
Basic and Above				89%	89%	90%	92%	0.9
White								
Advanced				40%	36%	48%	38%	-0.7
Proficient and Above				82%	82%	85%	86%	1.6
Basic and Above				92%	93%	94%	95%	0.9
African American								
Advanced				17%	15%	20%	15%	-0.7
Proficient and Above				55%	54%	57%	59%	1.4
Basic and Above				75%	73%	75%	78%	1.2
Latino								
Advanced				22%	20%	29%	20%	-0.7
Proficient and Above				63%	62%	68%	69%	2.1
Basic and Above				80%	79%	83%	85%	1.6
Asian								
Advanced				53%	52%	63%	55%	0.4
Proficient and Above				86%	87%	89%	90%	1.3
Basic and Above				94%	95%	95%	96%	0.5
Native American[2]								
Advanced				27%	28%	32%	31%	1.1
Proficient and Above				72%	78%	79%	77%	1.8
Basic and Above				84%	91%	89%	91%	2.3

Table reads: The percentage of white 4th graders who scored at the advanced level on the state reading declined from 40% in 2005 to 38% in 2008. During this period, the average yearly decline in the percentage advanced in reading for white 4th graders was 0.7 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.

Table OH-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				36%	32%	43%	34%	-0.8
Proficient and Above				77%	77%	80%	81%	1.5
Basic and Above				89%	89%	90%	92%	0.9
Low-income students								
Advanced				21%	18%	27%	20%	-0.3
Proficient and Above				62%	63%	67%	69%	2.3
Basic and Above				80%	80%	83%	85%	1.7
Students with disabilities[3]								
Advanced				18%	18%	24%	19%	0.9
Proficient and Above				50%	51%	57%	59%	3.9
Basic and Above				69%	71%	76%	78%	3.5
English language learners[3]								
Advanced				17%	17%	27%	21%	2.2
Proficient and Above				54%	55%	64%	66%	5.2
Basic and Above				73%	72%	79%	81%	4.6
Female								
Advanced				39%	35%	44%	35%	-1.0
Proficient and Above				80%	79%	82%	83%	1.0
Basic and Above				91%	90%	92%	93%	0.6
Male								
Advanced				33%	29%	41%	32%	-0.4
Proficient and Above				74%	75%	78%	80%	2.0
Basic and Above				87%	87%	89%	91%	1.3

Table reads: The percentage of low-income 4th graders who scored at the advanced level on the state reading test increased from 21% in 2005 to 20% in 2008. During this period, the average yearly decline in the percentage advanced in reading for low-income 4th graders was 0.3 percentage point 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 OH-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					40%	38%	38%	-1.4
Proficient and Above					77%	76%	75%	-1.1
Basic and Above					92%	91%	89%	-1.3
White								
Advanced					46%	43%	43%	-1.5
Proficient and Above					83%	82%	81%	-1.1
Basic and Above					95%	94%	93%	-1.0
African American								
Advanced					17%	16%	15%	-0.8
Proficient and Above					51%	50%	49%	-0.8
Basic and Above					78%	76%	73%	-2.8
Latino								
Advanced					25%	23%	21%	-1.8
Proficient and Above					62%	61%	59%	-1.3
Basic and Above					85%	84%	80%	-2.5
Asian								
Advanced					65%	61%	63%	-0.8
Proficient and Above					91%	88%	88%	-1.3
Basic and Above					97%	96%	95%	-1.0
Native American[2]								
Advanced					37%	32%	33%	-1.8
Proficient and Above					77%	74%	73%	-1.7
Basic and Above					92%	91%	88%	-2.0

Table reads: The percentage of white 4th graders who scored at the advanced level on the state math test decreased from 46% in 2006 to 43% in 2008. During this period, the average yearly decline in the percentage advanced in math for white 4th graders was 1.5 percentage point 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 OH-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					40%	38%	38%	-1.4
Proficient and Above					77%	76%	75%	-1.1
Basic and Above					92%	91%	89%	-1.3
Low-income students								
Advanced					24%	23%	22%	-0.9
Proficient and Above					62%	62%	61%	-0.8
Basic and Above					85%	84%	82%	-1.9
Students with disabilities[3]								
Advanced					23%	23%	21%	-0.8
Proficient and Above					52%	53%	49%	-1.7
Basic and Above					77%	76%	71%	-3.0
English language learners[3]								
Advanced					24%	26%	25%	0.6
Proficient and Above					59%	61%	61%	0.9
Basic and Above					81%	82%	79%	-0.6
Female								
Advanced					39%	38%	36%	-1.6
Proficient and Above					77%	77%	75%	-1.2
Basic and Above					92%	92%	90%	-1.2
Male								
Advanced					41%	38%	39%	-1.2
Proficient and Above					77%	75%	75%	-1.1
Basic and Above					91%	90%	89%	-1.5

Table reads: The percentage of low-income 4th graders who scored at the advanced level on the state math test decreased from 24% in 2006 to 22% in 2008. During this period, the average yearly decline in the percentage advanced in math for low-income 4th graders was 0.9 percentage point 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 OH-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	77%	81%	1.5		05-08	79%	79%	0.2		04-08	79%	85%	1.7	
White	05-08	82%	86%	1.6		05-08	84%	84%	0.2		04-08	82%	89%	1.7	
African American	05-08	55%	59%	1.4	S	05-08	57%	58%	0.5	L	04-08	58%	69%	2.7	L
Latino	05-08	63%	69%	2.1	L	05-08	63%	66%	1.1	L	04-08	63%	75%	3.2	L
Asian	05-08	86%	90%	1.3	S	05-08	87%	90%	1.2	L	04-08	84%	91%	1.7	E
Native American	05-08	72%	77%	1.8[2]	L	05-08	77%	71%	-1.8[2]	S	04-08	71%	83%	3.0[2]	L
Not low-income	05-08	86%	90%	1.4		05-08	86%	88%	0.4		04-08	83%	90%	1.9	
Low-income	05-08	62%	69%	2.3	L	05-08	63%	66%	1.1	L	04-08	61%	74%	3.4	L
Not disabled	06-08	82%	85%	1.9		06-08	84%	86%	0.9		06-08	95%	91%	-1.7	
Students with disabilities[3]	06-08	51%	59%	3.9	L	06-08	40%	45%	2.7	L	06-08	57%	50%	-3.5	S
Not ELL	06-08	77%	82%	2.2		06-08	77%	80%	1.2		06-08	90%	86%	-2.1	
English language learners[3]	06-08	55%	66%	5.2	L	06-08	51%	56%	2.7	L	06-08	62%	56%	-3.1	S
Female	05-08	80%	83%	1.0		05-08	83%	83%	0.2		04-08	85%	88%	0.9	
Male	05-08	74%	80%	2.0	L	05-08	75%	76%	0.2	E	04-08	72%	82%	2.5	L

Table reads: In 2005, 82% of white 4th graders and 55% of African American 4th graders scored at the proficient level on the state reading test. In 2008, 86% of white 4th graders and 59% 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 1.6 percentage points per year for white students and 1.4 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]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 OH-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	06-08	77%	75%	-1.1		05-08	60%	73%	4.2		04-08	68%	79%	2.7	
White	06-08	83%	81%	-1.1		05-08	67%	79%	4.0		04-08	73%	85%	2.8	
African American	06-08	51%	49%	-0.8	L	05-08	28%	46%	5.9	L	04-08	39%	54%	3.8	L
Latino	06-08	62%	59%	-1.3	S	05-08	40%	58%	6.1	L	04-08	49%	67%	4.4	L
Asian	06-08	91%	88%	-1.3	S	05-08	82%	90%	2.6	S	04-08	83%	92%	2.1	S
Native American	06-08	77%	73%	-1.7[2]	S	05-08	51%	68%	5.7[2]	L	04-08	66%	77%	2.7[2]	S
Not low-income	06-08	87%	85%	-0.9		05-08	71%	82%	3.9		04-08	74%	86%	2.9	
Low-income	06-08	62%	61%	-0.8	L	05-08	37%	57%	6.5	L	04-08	45%	65%	4.9	L
Not disabled	06-08	81%	79%	-1.1		06-08	75%	79%	2.0		06-08	89%	86%	-1.7	
Students with disabilities[3]	06-08	52%	49%	-1.7	S	06-08	31%	38%	3.2	L	06-08	45%	42%	-1.8	S
Not ELL	06-08	77%	75%	-1.1		06-08	69%	73%	2.2		06-08	83%	79%	-1.8	
English language learners[3]	06-08	59%	61%	0.9	L	06-08	48%	55%	3.6	L	06-08	60%	55%	-2.8	S
Female	06-08	77%	75%	-1.2		05-08	60%	74%	4.5		04-08	70%	79%	2.2	
Male	06-08	77%	75%	-1.1	L	05-08	60%	72%	4.0	S	04-08	67%	79%	3.1	L

Table reads: In 2006, 83% of white 4th graders and 51% of African American 4th graders scored at the proficient level on the state math test. In 2008, 81% of white 4th graders and 49% of African American 4th graders scored at the proficient level in math. Between 2006 and 2008, the percentage proficient declined at an average rate of 1.1 percentage points per year for white students and 0.8 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 OH-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	133,793	132,253	-1.2%	100.0%	05-08	143,962	138,459	-3.8%	100.0%	04-08	129,640	143,028	10.3%	100.0%
	Math	06-08	131,868	132,363	0.4%	100.0%	05-08	143,757	138,377	-3.7%	100.0%	04-08	130,130	143,140	10.0%	100.0%
White	Reading	05-08	102,568	99,507	-3.0%	75.2%	05-08	112,887	105,609	-6.4%	76.3%	04-08	106,337	111,493	4.8%	78.0%
	Math	06-08	100,424	99,504	-0.9%	75.2%	05-08	112,772	105,495	-6.5%	76.2%	04-08	106,421	111,504	4.8%	77.9%
African American	Reading	05-08	22,385	21,421	-4.3%	16.2%	05-08	23,751	23,523	-1.0%	17.0%	04-08	17,850	23,376	31.0%	16.3%
	Math	06-08	21,695	21,432	-1.2%	16.2%	05-08	23,623	23,542	-0.3%	17.0%	04-08	18,212	23,429	28.6%	16.4%
Latino	Reading	05-08	3,053	3,727	22.1%	2.8%	05-08	2,745	3,305	20.4%	2.4%	04-08	2,222	3,059	37.7%	2.1%
	Math	06-08	3,344	3,776	12.9%	2.9%	05-08	2,776	3,341	20.4%	2.4%	04-08	2,250	3,086	37.2%	2.2%
Asian	Reading	05-08	1,789	2,107	17.8%	1.6%	05-08	1,757	1,855	5.6%	1.3%	04-08	1,629	1,696	4.1%	1.2%
	Math	06-08	1,933	2,161	11.8%	1.6%	05-08	1,771	1,834	3.6%	1.3%	04-08	1,629	1,707	4.8%	1.2%
Native American	Reading	05-08	188	**203**	8.0%	0.2%	05-08	204	**214**	4.9%	0.2%	04-08	157	**195**	24.2%	0.1%
	Math	06-08	180	**203**	12.8%	0.2%	05-08	203	**215**	5.9%	0.2%	04-08	155	**197**	27.1%	0.1%
Low-income	Reading	05-08	51,689	55,429	7.2%	41.9%	05-08	45,700	51,855	13.5%	37.5%	04-08	25,568	45,709	78.8%	32.0%
	Math	06-08	52,931	55,490	4.8%	41.9%	05-08	45,545	51,904	14.0%	37.5%	04-08	25,480	45,768	79.6%	32.0%
Students w/ disabilities	Reading	06-08	20,190	20,439	1.2%	15.5%	06-08	21,569	21,100	-2.2%	15.2%	06-08	19,647	21,032	7.0%	14.7%
	Math	06-08	20,186	20,441	1.3%	15.4%	06-08	21,538	21,080	-2.1%	15.2%	06-08	19,615	21,036	7.2%	14.7%
English language learners	Reading	06-08	2,463	3,044	23.6%	2.3%	06-08	1,593	1,987	24.7%	1.4%	06-08	1,379	1,628	18.1%	1.1%
	Math	06-08	2,521	3,053	21.1%	2.3%	06-08	1,625	1,995	22.8%	1.4%	06-08	1,393	1,632	17.2%	1.1%
Female	Reading	05-08	65,390	64,618	-1.2%	48.9%	05-08	70,390	67,224	-4.5%	48.6%	04-08	64,936	70,100	8.0%	49.0%
	Math	06-08	64,211	64,683	0.7%	48.9%	05-08	70,290	67,199	-4.4%	48.6%	04-08	65,289	70,149	7.4%	49.0%
Male	Reading	05-08	68,403	67,635	-1.1%	51.1%	05-08	73,572	71,235	-3.2%	51.4%	04-08	64,704	72,928	12.7%	51.0%
	Math	06-08	67,657	67,680	0.0%	51.1%	05-08	73,467	71,178	-3.1%	51.4%	04-08	64,841	72,991	12.6%	51.0%

Table reads: In 2005, 102,568 students in the white subgroup took the state 4th grade reading test. By 2008, the number of white test-takers had fallen to 99,507 students, a decrease of 3.0%. In 2008, the white subgroup made up 75.2% of the 132,253 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.