Subgroup Achievement and Gap Trends — Ohio

K-12 enrollment — 1,738,772

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 labeled State Testing Data. In the list of results that appears, look for the most recent report on student achievement since 2002. Below the name of the report, click on the link for State Profiles and Worksheets. Scroll down the page until you reach the list of states. Click on the Worksheet link for proficiency data or scale score data for a particular state.

Subgroup Achievement Trends and Gap Trends — Key Findings

Summary. In grade 8 math (the only grade in which subgroup trends were analyzed by achievement level), Ohio showed a clear trend of gains for all major subgroups at the *basic-and-above, proficient-and-above,* and *advanced* levels, with one exception. In grade 8 reading, however, declines outnumbered gains. Achievement gaps generally narrowed at grades 4, 8, and 10, although some gaps widened in reading. The periods with comparable data varied by subject and grade level, with trends extending from 2004, 2005, or 2006 through 2009. Ohio did not make available the data needed to calculate gains based on average test scores.

- ***Exception to gains in grade 8 math.*** In grade 8 math, all major subgroups made gains at the three achievement levels, except for Asian students, who showed no net change at the basic-and-above level.

- ***Subgroup trends in grade 8 reading.*** At the *proficient-and-above* and *advanced* levels, Ohio showed declines for all major racial/ethnic subgroups and for boys and girls. At the *basic-and-above* level, most subgroups made gains, although white students showed no net change and boys showed a decline.

- ***Gap trends.*** In math, gaps narrowed at grades 4, 8, and 10 for all major subgroups, including African American, Latino, and low-income students. In reading, gaps for these groups narrowed, except at grade 8, where gaps for African American and low-income students widened.

- ***Reading gap for boys.*** Boys, who performed lower than girls in reading, made progress in narrowing the gap at grades 4 and 10, but this male-female reading gap widened at grade 8.

Data Limitations

Years of comparable percentage proficient data	New tests were phased in so years of comparable data vary by grade: Grade 3: 2004–2009 for reading, 2005–2009 for math Grades 4 and 5: 2005–2009 for reading, 2006–2009 for math Grade 6: 2006–2009 for reading and math Grade 7: 2006–2009 for reading, 2005–2009 for math Grade 8: 2005–2009 for reading and math High school: 2004–2009
Years of comparable mean scale score data	Data needed to compute effect sizes were unavailable. Ohio recommended against reporting scale score data because it represents a different population than the proficiency data.

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 Middle School Level

Note: The tables in this profile of subgroup achievement and gap trends begin with table 7. Tables 1 through 4 can be found in the companion state profile of general achievement trends.

Table OH-7. Percentages of grade 8 students by racial or ethnic subgroup scoring at the advanced, proficient-and-above, and basic-and-above levels in reading

	Reporting year								Average yearly percentage point gain[1]
Subgroup	2002	2003	2004	2005	2006	2007	2008	2009	
All tested students									
Advanced				44%	46%	43%	49%	36%	-1.9
Proficient-and-above				79%	77%	80%	79%	72%	-1.7
Basic-and-above				92%	90%	93%	93%	92%	0.0
White									
Advanced				49%	52%	49%	55%	41%	-2.1
Proficient-and-above				84%	83%	85%	84%	78%	-1.5
Basic-and-above				94%	93%	95%	95%	94%	0.0
African American									
Advanced				18%	19%	18%	24%	15%	-0.8
Proficient-and-above				57%	52%	60%	58%	49%	-2.0
Basic-and-above				81%	77%	84%	84%	82%	0.3
Latino									
Advanced				25%	29%	26%	31%	23%	-0.5
Proficient-and-above				63%	63%	65%	66%	59%	-0.9
Basic-and-above				83%	80%	86%	88%	86%	0.6
Asian									
Advanced				58%	63%	59%	69%	55%	-0.9
Proficient-and-above				87%	87%	88%	90%	83%	-0.8
Basic-and-above				95%	96%	96%	97%	96%	0.2
Native American[2]									
Advanced				37%	39%	33%	38%	35%	-0.5
Proficient-and-above				77%	72%	76%	71%	71%	-1.4
Basic-and-above				90%	90%	94%	94%	92%	0.4

Table reads: The percentage of white 8th graders who scored at the advanced level on the state reading test decreased from 49% in 2005 to 41% in 2009. During this period, the average yearly decline in the percentage advanced in reading for white 8th graders was 2.1 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 2009 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

Table OH-8. Percentage of grade 8 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	2009	
All tested students									
Advanced				44%	46%	43%	49%	36%	-1.9
Proficient-and-above				79%	77%	80%	79%	72%	-1.7
Basic-and-above				92%	90%	93%	93%	92%	0.0
Low-income students									
Advanced				23%	26%	24%	31%	20%	-0.9
Proficient-and-above				63%	61%	66%	66%	56%	-1.6
Basic-and-above				84%	82%	87%	88%	86%	0.4
Students with disabilities[3]									
Advanced				12%	16%	17%	20%	12%	-1.2
Proficient-and-above				40%	40%	46%	45%	34%	-2.0
Basic-and-above				67%	65%	73%	76%	72%	2.2
English language learners[3]									
Advanced				17%	20%	19%	26%	17%	-0.9
Proficient-and-above				49%	51%	52%	56%	50%	-0.2
Basic-and-above				73%	73%	77%	82%	81%	2.8
Female									
Advanced				48%	50%	46%	54%	42%	-1.4
Proficient-and-above				83%	81%	84%	83%	78%	-1.2
Basic-and-above				94%	93%	95%	96%	95%	0.1
Male									
Advanced				40%	43%	40%	45%	31%	-2.3
Proficient-and-above				75%	74%	77%	76%	67%	-2.0
Basic-and-above				90%	88%	91%	91%	89%	-0.1

Table reads: The percentage of low-income 8th graders who scored at the advanced level on the state reading test decreased from 23% in 2005 to 20% in 2009. During this period, the average yearly decline in the percentage advanced in reading for low-income 8th graders was 0.9 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 2009 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 2006-2009 results.

Table OH-9. Percentages of grade 8 students by racial or ethnic subgroup scoring at the advanced, proficient-and-above, and basic-and-above levels in mathematics

	Reporting year								Average yearly percentage point gain[1]
Subgroup	2002	2003	2004	2005	2006	2007	2008	2009	
All tested students									
Advanced				24%	25%	24%	35%	31%	1.8
Proficient-and-above				60%	69%	72%	73%	71%	2.6
Basic-and-above				86%	90%	93%	92%	89%	0.8
White									
Advanced				28%	29%	27%	41%	36%	2.1
Proficient-and-above				67%	75%	78%	79%	77%	2.5
Basic-and-above				90%	93%	95%	95%	92%	0.6
African American									
Advanced				6%	7%	7%	12%	9%	0.8
Proficient-and-above				28%	39%	45%	46%	41%	3.3
Basic-and-above				67%	78%	85%	80%	73%	1.5
Latino									
Advanced				11%	11%	13%	20%	17%	1.7
Proficient-and-above				40%	49%	56%	58%	55%	3.8
Basic-and-above				76%	82%	90%	88%	80%	1.1
Asian									
Advanced				52%	53%	51%	66%	57%	1.1
Proficient-and-above				82%	87%	88%	90%	85%	0.7
Basic-and-above				95%	97%	98%	98%	95%	0.0
Native American[2]									
Advanced				16%	13%	15%	27%	34%	4.3
Proficient-and-above				51%	62%	60%	68%	69%	4.5
Basic-and-above				84%	87%	94%	91%	84%	0.0

Table reads: The percentage of white 8th graders who scored at the advanced level on the state math test increased from 28% in 2005 to 36% in 2009. During this period, the average yearly gain in the percentage advanced in math for white 8th graders was 2.1 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 2009 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

Table OH-10. Percentage of grade 8 students by demographic subgroup scoring at the advanced, proficient-and-above, and basic-and-above levels in mathematics

	Reporting year								Average yearly percentage point gain[1]
Subgroup	2002	2003	2004	2005	2006	2007	2008	2009	
All tested students									
Advanced				24%	25%	24%	35%	31%	1.8
Proficient-and-above				60%	69%	72%	73%	71%	2.6
Basic-and-above				86%	90%	93%	92%	89%	0.8
Low-income students									
Advanced				9%	11%	11%	19%	15%	1.5
Proficient-and-above				37%	49%	54%	57%	53%	3.8
Basic-and-above				74%	82%	88%	86%	80%	1.5
Students with disabilities[3]									
Advanced				8%	10%	12%	16%	11%	0.3
Proficient-and-above				23%	31%	36%	38%	32%	0.2
Basic-and-above				57%	69%	78%	74%	65%	-1.2
English language learners[3]									
Advanced				16%	16%	15%	24%	19%	0.9
Proficient-and-above				41%	48%	53%	55%	52%	1.5
Basic-and-above				73%	80%	88%	85%	79%	-0.6
Female									
Advanced				23%	24%	22%	34%	31%	2.0
Proficient-and-above				60%	70%	72%	74%	72%	2.8
Basic-and-above				86%	91%	94%	93%	90%	0.8
Male									
Advanced				25%	26%	25%	36%	31%	1.6
Proficient-and-above				60%	68%	71%	72%	70%	2.4
Basic-and-above				85%	89%	93%	92%	88%	0.7

Table reads: The percentage of low-income 8th graders who scored at the advanced level on the state math test increased from 9% in 2005 to 15% in 2009. During this period, the average yearly gain in the percentage advanced in math for low-income 8th graders was 1.5 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 2009 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 2006-2009 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					OGT				
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	05-09	77%	82%	1.4		05-09	79%	72%	-1.7		04-09	79%	85%	1.2	
White	05-09	82%	87%	1.3		05-09	84%	78%	-1.5		04-09	82%	88%	1.2	
African American	05-09	55%	61%	1.6	L	05-09	57%	49%	-2.0	S	04-09	58%	69%	2.1	L
Latino	05-09	63%	69%	1.7	L	05-09	63%	59%	-0.9	L	04-09	63%	73%	2.1	L
Asian	05-09	86%	89%	0.7	S	05-09	87%	83%	-0.8	L	04-09	84%	89%	1.0	S
Native American	05-09	72%	77%	1.4[2]	L	05-09	77%	71%	-1.4[2]	L	04-09	71%	84%	2.5[2]	L
Not low-income	05-09	86%	91%	1.4		05-09	86%	83%	-1.0		04-09	83%	91%	1.5	
Low-income	05-09	62%	71%	2.1	L	05-09	63%	56%	-1.6	S	04-09	61%	73%	2.4	L
Not disabled	06-09	82%	87%	1.8		06-09	84%	79%	-1.5		06-09	95%	91%	-1.2	
Students with disabilities[3]	06-09	51%	56%	1.7	S	06-09	40%	34%	-2.0	S	06-09	57%	46%	-3.6	S
Not ELLs	06-09	77%	82%	1.7		06-09	77%	73%	-1.5		06-09	90%	85%	-1.6	
English language learners[3]	06-09	55%	68%	4.1	L	06-09	51%	50%	-0.2	L	06-09	62%	60%	-0.8	L
Female	05-09	80%	84%	1.2		05-09	83%	78%	-1.2		04-09	85%	87%	0.4	
Male	05-09	74%	80%	1.6	L	05-09	75%	67%	-2.0	S	04-09	72%	82%	2.0	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 2009, 87% of white 4th graders and 61% of African American 4th graders scored at the proficient level in reading. Between 2005 and 2009, the percentage proficient improved at an average rate of 1.3 percentage points per year for white students and 1.6 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 2009 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					OGT				
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	06-09	77%	78%	0.5		05-09	60%	71%	2.6		04-09	68%	81%	2.6	
White	06-09	83%	84%	0.5		05-09	67%	77%	2.5		04-09	73%	86%	2.6	
African American	06-09	51%	53%	0.7	L	05-09	28%	41%	3.3	L	04-09	39%	59%	4.1	L
Latino	06-09	62%	65%	0.9	L	05-09	40%	55%	3.8	L	04-09	49%	70%	4.1	L
Asian	06-09	91%	89%	-0.8	S	05-09	82%	85%	0.7	S	04-09	83%	93%	1.8	S
Native American	06-09	77%	75%	-0.5[2]	S	05-09	51%	69%	4.5[2]	L	04-09	66%	76%	2.0[2]	S
Not low-income	06-09	87%	89%	0.7		05-09	71%	82%	2.8		04-09	74%	89%	2.9	
Low-income	06-09	62%	66%	1.1	L	05-09	37%	53%	3.8	L	04-09	45%	67%	4.5	L
Not disabled	06-09	81%	84%	0.8		06-09	75%	78%	0.8		06-09	89%	89%	-0.1	
Students with disabilities[3]	06-09	52%	50%	-0.7	S	06-09	31%	32%	0.2	S	06-09	45%	41%	-1.4	S
Not ELLS	06-09	77%	79%	0.5		06-09	69%	71%	0.7		06-09	83%	82%	-0.4	
English language learners[3]	06-09	59%	66%	2.3	L	06-09	48%	52%	1.5	L	06-09	60%	61%	0.4	L
Female	06-09	77%	79%	0.7		05-09	60%	72%	2.8		04-09	70%	82%	2.3	
Male	06-09	77%	78%	0.3	S	05-09	60%	70%	2.4	S	04-09	67%	81%	2.9	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 2009, 84% of white 4th graders and 53% of African American 4th graders scored at the proficient level in math. Between 2006 and 2009, the percentage proficient improved at an average rate of 0.5 percentage points per year for white students and 0.7 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 2009 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-15. Numbers of test-takers

		Grade 4					Grade 8					HS OGT				
Subgroup	Subject	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	05-09	133,793	132,137	-1.2%	100.0%	05-09	143,962	136,603	-5.1%	100.0%	04-09	129,640	142,420	9.9%	100.0%
	Math	06-09	131,868	132,219	0.3%	100.0%	05-09	143,757	136,522	-5.0%	100.0%	04-09	130,130	142,378	9.4%	100.0%
White	Reading	05-09	102,568	99,169	-3.3%	75.1%	05-09	112,887	104,660	-7.3%	76.6%	04-09	106,337	109,635	3.1%	77.0%
	Math	06-09	100,424	99,155	-1.3%	75.0%	05-09	112,772	104,573	-7.3%	76.6%	04-09	106,421	109,595	3.0%	77.0%
African American	Reading	05-09	22,385	21,113	-5.7%	16.0%	05-09	23,751	21,903	-7.8%	16.0%	04-09	17,850	23,821	33.5%	16.7%
	Math	06-09	21,695	21,131	-2.6%	16.0%	05-09	23,623	21,876	-7.4%	16.0%	04-09	18,212	23,808	30.7%	16.7%
Latino	Reading	05-09	3,053	3,748	22.8%	2.8%	05-09	2,745	3,383	23.2%	2.5%	04-09	2,222	3,176	42.9%	2.2%
	Math	06-09	3,344	3,777	12.9%	2.9%	05-09	2,776	3,394	22.3%	2.5%	04-09	2,250	3,180	41.3%	2.2%
Asian	Reading	05-09	1,789	2,179	21.8%	1.6%	05-09	1,757	2,023	15.1%	1.5%	04-09	1,629	1,937	18.9%	1.4%
	Math	06-09	1,933	2,229	15.3%	1.7%	05-09	1,771	2,045	15.5%	1.5%	04-09	1,629	1,948	19.6%	1.4%
Native American	Reading	05-09	188	211	12.2%	0.2%	05-09	204	179	-12.3%	0.1%	04-09	157	210	33.8%	0.1%
	Math	06-09	180	211	17.2%	0.2%	05-09	203	179	-11.8%	0.1%	04-09	155	212	36.8%	0.1%
Low-income	Reading	05-09	51,689	58,403	13.0%	44.2%	05-09	45,700	52,691	15.3%	38.6%	04-09	25,568	48,718	90.5%	34.2%
	Math	06-09	52,931	58,470	10.5%	44.2%	05-09	45,545	52,685	15.7%	38.6%	04-09	25,480	48,686	91.1%	34.2%
Students w/ disabilities	Reading	06-09	20,190	20,399	1.0%	15.4%	06-09	21,569	20,886	-3.2%	15.3%	06-09	19,647	21,398	8.9%	15.0%
	Math	06-09	20,186	20,401	1.1%	15.4%	06-09	21,538	20,861	-3.1%	15.3%	06-09	19,615	21,398	9.1%	15.0%
English language learners	Reading	06-09	2,463	3,176	28.9%	2.4%	06-09	1,593	2,148	34.8%	1.6%	06-09	1,379	1,829	32.6%	1.3%
	Math	06-09	2,521	3,181	26.2%	2.4%	06-09	1,625	2,154	32.6%	1.6%	06-09	1,393	1,830	31.4%	1.3%
Female	Reading	05-09	65,390	64,472	-1.4%	48.8%	05-09	70,390	66,509	-5.5%	48.7%	04-09	64,936	69,642	7.2%	48.9%
	Math	06-09	64,211	64,506	0.5%	48.8%	05-09	70,290	66,472	-5.4%	48.7%	04-09	65,289	69,593	6.6%	48.9%
Male	Reading	05-09	68,403	67,665	-1.1%	51.2%	05-09	73,572	70,094	-4.7%	51.3%	04-09	64,704	72,778	12.5%	51.1%
	Math	06-09	67,657	67,713	0.1%	51.2%	05-09	73,467	70,050	-4.7%	51.3%	04-09	64,841	72,785	12.3%	51.1%

Table reads: In 2005, 102,568 students in the white subgroup took the state 4th grade reading test. By 2009, the number of white test-takers had fallen to 99,169 students, a decrease of 3.3%. In 2009, the white subgroup made up 75.1% of the 132,137 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 2009 or the most recent year with available data.

Key Terms

Percentage proficient (and above) — The percentage of students in a group who score at or 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 or 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 point 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 end 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 in this profile 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.