Subgroup Achievement and Gap Trends — North Carolina

K-12 enrollment — 1,452,405

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), North Carolina made gains across the board for all major subgroups at the *basic-and-above, proficient-and-above,* and *advanced* levels. Progress in narrowing achievement gaps in math was mixed at grades 4 and 8, depending on whether one looked at percentages proficient or average (mean) scores. Comparable data were available in math for 2006-2009. Recent trends could not be determined in reading because the state changed its reading test in 2008. High school trends could not be determined because none of North Carolina's various end-of-course exams is administered to all students.

- ***Grade 8 subgroup trends in math by achievement level.*** All major racial/ethnic subgroups in North Carolina (white, African American, Latino, Asian, and Native American) made gains in math at all three achievement levels. Low-income students, boys, and girls also made gains in math at all three achievement levels.

- ***Different gap trends using different indicators.*** According to the percentages of students scoring proficient, gaps in math narrowed for all major subgroups at grades 4 and 8. Average scores showed some exceptions to this narrowing, however. According to average scores, gaps in math widened for *Native American* students in grades 4 and 8 and showed no net improvement for *African American* and *low-income* students in grade 4.

Data Limitations

Years of comparable percentage proficient data	2008 through 2009 for reading, grades 3–8 2006 through 2009 for math, grades 3–8 High school data not available (state administers high school end-of-course exams in several subjects but none is administered to all high school students)
Years of comparable mean scale score data	2008 through 2009 for reading, grades 3–8 2006 through 2009 for math, grades 3–8 High school data not available
Disaggregated data for all subgroups and comparison groups	High school data not available

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	End-of-Grade Tests (EOGs), grades 3–8 At high school level, state administers End-of-Course (EOC) exams in several subjects, but none is administered to all students; state uses formula combining results from multiple tests to determine high school adequate yearly progress (AYP) North Carolina Alternate Assessment Program
Grades tested for NCLB accountability	3–8, 10, and various grades for EOCs
State labels for achievement levels	NC uses four achievement levels: Level 1, Level 2, Level 3, and Level 4. For our analyses we treated Level 2 as Basic, Level 3 as Proficient, and Level 4 as Advanced.
High school NCLB test also used as an exit exam?	Yes. High school EOCs are being administered but the requirement to pass these tests for graduation will first take effect for the Class of 2010.
First year test used	2006 for math; 2008 for reading
Time of test administration	Spring
Major changes in testing system (2002–present)	2002–03: Modified EOG reading score scale 2005–06: Administered new EOG math assessments; in math, set new annual measurable objectives, aligned to new standards, for

AYP purposes under NCLB
2005–06: Modified AYP calculation to include growth model
2007-08: Administered new test editions for EOG Reading (grades 3-8). Established new cut scores and set new baseline for annual measurable objectives to align to more rigorous standards.
2008-09: Began using the higher of the original or retest scores for calculating state ABCs Performance Composite and AYP results for Reading Comprehension and Math in grades 3-8 and Science in grades 5 & 8. The same policy will apply to high school tests beginning in 2009-10. Data included in this profile exclude retests.

Comments

Prior to 2009, data for overall percentages proficient and above came from NC's Web site, while data broken down by achievement levels were provided by NC from another source. Due to different rules for suppressing small cells, and other factors, discrepancies exist. Specifically, the sum of the discrete percentages of students at Level 3 (proficient) and Level 4 (advanced) differs slightly from the percentage of students performing at or above Level 3 reported for NCLB purposes.

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 6 can be found in the companion state profile of general achievement trends.

Table NC-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							11%	12%	NA
Proficient-and-above							55%	57%	NA
Basic-and-above							83%	85%	NA
White									
Advanced							16%	17%	NA
Proficient-and-above							69%	71%	NA
Basic-and-above							91%	92%	NA
African American									
Advanced							0%	3%	NA
Proficient-and-above							33%	37%	NA
Basic-and-above							68%	75%	NA
Latino									
Advanced							0%	4%	NA
Proficient-and-above							37%	41%	NA
Basic-and-above							66%	75%	NA
Asian									
Advanced							17%	22%	NA
Proficient-and-above							65%	67%	NA
Basic-and-above							87%	88%	NA
Native American									
Advanced							0%	≤5%	NA
Proficient-and-above							38%	39%	NA
Basic-and-above							69%	73%	NA

Table reads: The percentage of white 8th graders who scored at the advanced level on the state reading test increased from 16% in 2008 to 17% in 2009. Average yearly gains have not been calculated because fewer than three consecutive years of data are available, too short a period to constitute a trend.

[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 NC-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							11%	12%	NA
Proficient-and-above							55%	57%	NA
Basic-and-above							83%	85%	NA
Low-income students									
Advanced							0%	≤5%	NA
Proficient-and-above							37%	41%	NA
Basic-and-above							69%	76%	NA
Students with disabilities[3]									
Advanced							0%	4%	NA
Proficient-and-above							22%	30%	NA
Basic-and-above							56%	65%	NA
English language learners[3]									
Advanced							0%	≤5%	NA
Proficient-and-above							17%	23%	NA
Basic-and-above							53%	62%	NA
Female									
Advanced							12%	13%	NA
Proficient-and-above							57%	60%	NA
Basic-and-above							85%	87%	NA
Male									
Advanced							10%	10%	NA
Proficient-and-above							53%	55%	NA
Basic-and-above							81%	83%	NA

Table reads: The percentage of low-income 8th graders who scored at the advanced level on the state reading test increased from 0% in 2008 to ≤5% in 2009. Average yearly gains have not been calculated because fewer than three consecutive years of data are available, too short a period to constitute a trend.

[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 NC-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

Subgroup	Reporting year								Average yearly percentage point gain[1]
	2002	2003	2004	2005	2006	2007	2008	2009	
All tested students									
Advanced					19%	23%	24%	26%	2.1
Proficient-and-above					61%	66%	69%	72%	3.6
Basic-and-above					86%	89%	91%	92%	2.1
White									
Advanced					27%	31%	33%	35%	2.6
Proficient-and-above					73%	77%	80%	82%	2.9
Basic-and-above					92%	94%	95%	96%	1.4
African American									
Advanced					6%	7%	8%	10%	1.3
Proficient-and-above					40%	45%	50%	55%	4.8
Basic-and-above					76%	80%	83%	87%	3.6
Latino									
Advanced					10%	12%	14%	16%	2.1
Proficient-and-above					51%	55%	59%	65%	4.6
Basic-and-above					81%	84%	86%	90%	3.1
Asian									
Advanced					41%	47%	51%	53%	4.0
Proficient-and-above					82%	86%	87%	88%	2.1
Basic-and-above					95%	96%	96%	97%	0.8
Native American									
Advanced					8%	11%	11%	14%	2.0
Proficient-and-above					46%	52%	54%	57%	3.7
Basic-and-above					79%	84%	85%	86%	2.4

Table reads: The percentage of white 8th graders who scored at the advanced level on the state math test increased from 27% in 2006 to 35% in 2009. During this period, the average yearly gain in the percentage advanced in math for white 8th graders was 2.6 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 NC-10. Percentage of grade 8 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	2009	
All tested students									
Advanced					19%	23%	24%	26%	2.1
Proficient-and-above					61%	66%	69%	72%	3.6
Basic-and-above					86%	89%	91%	92%	2.1
Low-income students									
Advanced					7%	9%	10%	12%	1.7
Proficient-and-above					44%	50%	55%	59%	5.0
Basic-and-above					78%	82%	85%	88%	3.5
Students with disabilities[3]									
Advanced					6%	6%	6%	8%	0.8
Proficient-and-above					28%	33%	36%	45%	5.6
Basic-and-above					64%	68%	75%	80%	5.2
English language learners[3]									
Advanced					4%	6%	8%	10%	1.8
Proficient-and-above					36%	40%	47%	55%	6.3
Basic-and-above					73%	75%	81%	86%	4.4
Female									
Advanced					20%	22%	24%	26%	2.3
Proficient-and-above					63%	67%	71%	74%	3.7
Basic-and-above					88%	90%	92%	94%	1.9
Male									
Advanced					19%	23%	24%	25%	2.0
Proficient-and-above					59%	65%	68%	70%	3.5
Basic-and-above					84%	88%	89%	91%	2.4

Table reads: The percentage of low-income 8th graders who scored at the advanced level on the state math test increased from 7% in 2006 to 12% in 2009. During this period, the average yearly gain in the percentage advanced in math for low-income 8th graders was 1.7 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 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 NC-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	08-09	61%	61%	NA		08-09	55%	57%	NA		NA-NA	NA	NA	NA	
White	08-09	73%	74%	NA		08-09	69%	71%	NA		NA-NA	NA	NA	NA	
African American	08-09	41%	42%	NA	NA	08-09	33%	37%	NA	NA	NA-NA	NA	NA	NA	NA
Latino	08-09	43%	44%	NA	NA	08-09	37%	41%	NA	NA	NA-NA	NA	NA	NA	NA
Asian	08-09	71%	72%	NA	NA	08-09	65%	67%	NA	NA	NA-NA	NA	NA	NA	NA
Native American	08-09	47%	46%	NA	NA	08-09	38%	39%	NA	NA	NA-NA	NA	NA	NA	NA
Not low-income	08-09	75%	76%	NA		08-09	69%	71%	NA		NA-NA	NA	NA	NA	NA
Low-income	08-09	45%	46%	NA	NA	08-09	37%	41%	NA	NA	NA-NA	NA	NA	NA	NA
Not disabled	08-09	64%	66%	NA		08-09	58%	62%	NA		NA-NA	NA	NA	NA	NA
Students with disabilities[3]	08-09	32%	37%	NA	NA	08-09	22%	30%	NA	NA	NA-NA	NA	NA	NA	NA
Not ELLs	08-09	63%	63%	NA		08-09	57%	59%	NA		NA-NA	NA	NA	NA	NA
English language learners[3]	08-09	27%	28%	NA	NA	08-09	17%	23%	NA	NA	NA-NA	NA	NA	NA	NA
Female	08-09	63%	64%	NA		08-09	57%	60%	NA		NA-NA	NA	NA	NA	NA
Male	08-09	58%	58%	NA	NA	08-09	53%	55%	NA	NA	NA-NA	NA	NA	NA	NA

Table reads: In 2008, 73% of white 4th graders and 41% of African American 4th graders scored at the proficient level on the state reading test. In 2009, 74% of white 4th graders and 42% of African American 4th graders scored at the proficient level in reading. The average annual gains were not calculated because there were fewer than three years of comparable data, too few years to constitute a trend.

[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 NC-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	06-09	66%	74%	2.8		06-09	61%	72%	3.6		NA-NA	NA	NA	NA	
White	06-09	77%	84%	2.3		06-09	73%	82%	2.9		NA-NA	NA	NA	NA	
African American	06-09	45%	56%	3.7	L	06-09	40%	55%	4.8	L	NA-NA	NA	NA	NA	NA
Latino	06-09	57%	68%	3.9	L	06-09	51%	65%	4.6	L	NA-NA	NA	NA	NA	NA
Asian	06-09	84%	87%	1.1	S	06-09	82%	88%	2.1	S	NA-NA	NA	NA	NA	NA
Native American	06-09	55%	65%	3.3	L	06-09	46%	57%	3.7	L	NA-NA	NA	NA	NA	NA
Not low-income	06-09	79%	86%	2.4		06-09	74%	83%	2.7		NA-NA	NA	NA	NA	NA
Low-income	06-09	52%	63%	3.7	L	06-09	44%	59%	5.0	L	NA-NA	NA	NA	NA	NA
Not disabled	06-09	69%	79%	3.2		06-09	65%	76%	3.7		NA-NA	NA	NA	NA	NA
Students with disabilities[3]	06-09	42%	53%	3.8	L	06-09	28%	45%	5.6	L	NA-NA	NA	NA	NA	NA
Not ELLS	06-09	67%	75%	2.7		06-09	62%	73%	3.6		NA-NA	NA	NA	NA	NA
English language learners[3]	06-09	45%	59%	4.6	L	06-09	36%	55%	6.3	L	NA-NA	NA	NA	NA	NA
Female	06-09	66%	75%	3.0		06-09	63%	74%	3.7		NA-NA	NA	NA	NA	NA
Male	06-09	66%	74%	2.5	S	06-09	59%	70%	3.5	S	NA-NA	NA	NA	NA	NA

Table reads: In 2006, 77% of white 4th graders and 45% of African American 4th graders scored at the proficient level on the state math test. In 2009, 84% of white 4th graders and 56% 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 2.3 percentage points per year for white students and 3.7 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.

Achievement by Subgroup — Gap Trends (Mean Scale Scores)

Table NC-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. MSS = mean scale score. SD = standard deviation. 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 10				
Subgroup	Statistic	Year span	Start year	End year	Avg. gain MSS[1]	Gain larger or smaller than comp. group	Year span	Start year	End year	Avg. gain MSS[1]	Gain larger or smaller than comp. group	Year span	Start year	End year	Avg. gain MSS[1]	Gain larger or smaller than comp. group
All tested students	MSS	08-09	345.3	345.6	NA		08-09	358.5	359.0	NA		NA-NA	NA	NA	NA	
	SD	08-09	10.1	10.2			08-09	8.8	8.6			NA-NA	NA	NA		
White	MSS	08-09	348.3	348.7	NA		08-09	361.1	361.7	NA		NA-NA	NA	NA	NA	
	SD	08-09	9.5	9.5			08-09	8.2	8.0			NA-NA	NA	NA		
African American	MSS	08-09	340.4	340.9	NA	NA	08-09	354.1	354.8	NA	NA	NA-NA	NA	NA	NA	NA
	SD	08-09	9.1	9.2			08-09	7.8	7.7			NA-NA	NA	NA		
Latino	MSS	08-09	340.9	341.3	NA	NA	08-09	354.3	355.4	NA	NA	NA-NA	NA	NA	NA	NA
	SD	08-09	9.4	9.4			08-09	8.6	8.4			NA-NA	NA	NA		
Asian	MSS	08-09	348.3	349.2	NA	NA	08-09	360.7	361.5	NA	NA	NA-NA	NA	NA	NA	NA
	SD	08-09	10.2	10.2			08-09	9.1	9.4			NA-NA	NA	NA		
Native American	MSS	08-09	341.8	341.8	NA	NA	08-09	354.9	354.9	NA	NA	NA-NA	NA	NA	NA	NA
	SD	08-09	9.5	9.7			08-09	8.2	8.6			NA-NA	NA	NA		
Not low-income	MSS	08-09	348.9	349.3	NA		08-09	361.3	361.8	NA		NA-NA	NA	NA	NA	
	SD	08-09	9.4	9.4			08-09	8.2	8.0			NA-NA	NA	NA		
Low-income	MSS	08-09	341.3	341.7	NA	NA	08-09	354.6	355.5	NA	NA	NA-NA	NA	NA	NA	NA
	SD	08-09	9.4	9.5			08-09	8.1	8.1			NA-NA	NA	NA		
Not disabled	MSS	08-09	346.1	346.5	NA		08-09	359.1	359.8	NA		NA-NA	NA	NA	NA	
	SD	08-09	9.7	9.8			08-09	8.5	8.3			NA-NA	NA	NA		
Students with disabilities[3]	MSS	08-09	338.1	340.0	NA	NA	08-09	350.8	352.3	NA	NA	NA-NA	NA	NA	NA	NA
	SD	08-09	10.3	10.7			08-09	8.6	8.6			NA-NA	NA	NA		
Not ELLs	MSS	08-09	345.8	346.2	NA		08-09	358.8	359.4	NA		NA-NA	NA	NA	NA	
	SD	08-09	10.0	10.0			08-09	8.6	8.5			NA-NA	NA	NA		
English language learners[3]	MSS	08-09	337.3	337.7	NA	NA	08-09	350.1	351.7	NA	NA	NA-NA	NA	NA	NA	NA
	SD	08-09	8.4	8.5			08-09	7.5	7.5			NA-NA	NA	NA		
Female	MSS	08-09	345.8	346.2	NA		08-09	358.9	359.6	NA		NA-NA	NA	NA	NA	
	SD	08-09	9.8	9.9			08-09	8.6	8.4			NA-NA	NA	NA		
Male	MSS	08-09	344.7	345.0	NA	NA	08-09	357.8	358.4	NA	NA	NA-NA	NA	NA	NA	NA
	SD	08-09	10.4	10.4			08-09	8.9	8.7			NA-NA	NA	NA		

Table reads: In 2008, the mean scale score on the state 4th grade reading test was 348.3 for white students and 340.4 for African American students. In 2009, the mean scale score in 4th grade reading was 348.7 for white students and 340.9 for African American students. The average annual gains were not calculated because there were fewer than three years of comparable data, too few years to constitute a trend.

Note: The End-of-Grade Reading Tests (grades 3-8) are scored on separate scales by test level; grade 4 scale scores range from ≤334 to ≥354 and grade 8 scale scores range from ≤349 to ≥370.

[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 NC-14. Achievement gap 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. MSS = mean scale score. SD = standard deviation.
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 10				
Subgroup	Statistic	Year span	Start year	End year	Avg. gain MSS[1]	Gain larger or smaller than comp. group	Year span	Start year	End year	Avg. gain MSS[1]	Gain larger or smaller than comp. group	Year span	Start year	End year	Avg. gain MSS[1]	Gain larger or smaller than comp. group
All tested students	MSS	06-09	348.9	351.2	0.8		06-09	359.2	361.9	0.9		NA-NA	NA	NA	NA	
	SD	06-09	9.5	9.4			06-09	9.2	8.8			NA-NA	NA	NA		
White	MSS	06-09	351.6	353.9	0.8		06-09	361.8	364.4	0.9		NA-NA	NA	NA	NA	
	SD	06-09	9.0	8.8			06-09	8.9	8.3			NA-NA	NA	NA		
African American	MSS	06-09	344.0	346.3	0.8	E	06-09	354.5	357.6	1.0	L	NA-NA	NA	NA	NA	NA
	SD	06-09	8.3	8.5			06-09	7.8	7.7			NA-NA	NA	NA		
Latino	MSS	06-09	346.2	348.8	0.9	L	06-09	356.4	359.7	1.1	L	NA-NA	NA	NA	NA	NA
	SD	06-09	8.6	8.5			06-09	8.5	8.1			NA-NA	NA	NA		
Asian	MSS	06-09	354.4	356.7	0.8	E	06-09	364.9	368.3	1.1	L	NA-NA	NA	NA	NA	NA
	SD	06-09	9.6	9.4			06-09	9.4	9.3			NA-NA	NA	NA		
Native American	MSS	06-09	345.9	348.1	0.7	S	06-09	355.7	358.2	0.8	S	NA-NA	NA	NA	NA	NA
	SD	06-09	8.5	8.8			06-09	8.0	8.4			NA-NA	NA	NA		
Not low-income	MSS	06-09	352.1	354.5	0.8		06-09	362.1	364.7	0.9		NA-NA	NA	NA	NA	
	SD	06-09	9.1	8.7			06-09	8.9	8.4			NA-NA	NA	NA		
Low-income	MSS	06-09	345.3	347.8	0.8	E	06-09	355.3	358.5	1.1	L	NA-NA	NA	NA	NA	NA
	SD	06-09	8.5	8.7			06-09	8.0	7.9			NA-NA	NA	NA		
Not disabled	MSS	06-09	349.8	352.0	0.7		06-09	360.1	362.7	0.9		NA-NA	NA	NA	NA	
	SD	06-09	9.2	9.0			06-09	8.9	8.5			NA-NA	NA	NA		
Students with disabilities[3]	MSS	06-09	343.8	346.6	0.9	L	06-09	352.7	355.5	0.9	E	NA-NA	NA	NA	NA	NA
	SD	06-09	9.2	9.8			06-09	8.3	8.2			NA-NA	NA	NA		
Not ELLs	MSS	06-09	352.1	351.5	-0.2		06-09	359.4	362.2	0.9		NA-NA	NA	NA	NA	
	SD	06-09	9.1	9.3			06-09	9.2	8.7			NA-NA	NA	NA		
English language learners[3]	MSS	06-09	343.7	346.4	0.9	L	06-09	353.4	357.5	1.4	L	NA-NA	NA	NA	NA	NA
	SD	06-09	8.1	8.2			06-09	7.7	7.8			NA-NA	NA	NA		
Female	MSS	06-09	348.8	351.1	0.8		06-09	359.6	362.3	0.9		NA-NA	NA	NA	NA	
	SD	06-09	9.2	9.1			06-09	8.9	8.5			NA-NA	NA	NA		
Male	MSS	06-09	349.1	351.3	0.7	S	06-09	358.8	361.6	0.9	E	NA-NA	NA	NA	NA	NA
	SD	06-09	9.7	9.6			06-09	9.5	9.0			NA-NA	NA	NA		

Table reads: In 2006, the mean scale score on the state 4th grade math test was 351.6 for white students and 344.0 for African American students. In 2009, the mean scale score in 4th grade math was 353.9 for white students and 346.3 for African American students. Between 2006 and 2009, the mean scale score

improved at an average yearly rate of 0.8 points for white students and for African American students, indicating no change in the achievement gap for African Americans.

Note: The End-of-Grade Reading Tests (grades 3-8) are scored on separate scales by test level; grade 4 scale scores range from ≤334 to ≥354 and grade 8 scale scores range from ≤349 to ≥370.

[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 NC-15. 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	08-09	105,291	109,488	4.0%	100.0%	08-09	104,103	104,858	0.7%	100.0%	NA	NA	NA	NA	NA
	Math	06-09	102,306	110,102	7.6%	100.0%	06-09	106,866	105,028	-1.7%	100.0%	NA	NA	NA	NA	NA
White	Reading	08-09	59,386	59,543	0.3%	54.4%	08-09	59,590	58,648	-1.6%	55.9%	NA	NA	NA	NA	NA
	Math	06-09	57,916	59,847	3.3%	54.4%	06-09	61,551	58,710	-4.6%	55.9%	NA	NA	NA	NA	NA
African American	Reading	08-09	28,136	28,986	3.0%	26.5%	08-09	30,940	29,379	-5.0%	28.0%	NA	NA	NA	NA	NA
	Math	06-09	27,862	29,140	4.6%	26.5%	06-09	32,020	29,428	-8.1%	28.0%	NA	NA	NA	NA	NA
Latino	Reading	08-09	11,349	12,046	6.1%	11.0%	08-09	8,970	9,549	6.5%	9.1%	NA	NA	NA	NA	NA
	Math	06-09	9,413	12,155	29.1%	11.0%	06-09	7,184	9,593	33.5%	9.1%	NA	NA	NA	NA	NA
Asian	Reading	08-09	2,553	2,548	-0.2%	2.3%	08-09	2,411	2,410	0.0%	2.3%	NA	NA	NA	NA	NA
	Math	06-09	2,270	2,559	12.7%	2.3%	06-09	2,153	2,422	12.5%	2.3%	NA	NA	NA	NA	NA
Native American	Reading	08-09	1,566	1,598	2.0%	1.5%	08-09	1,517	1,467	-3.3%	1.4%	NA	NA	NA	NA	NA
	Math	06-09	1,485	1,609	8.4%	1.5%	06-09	1,553	1,469	-5.4%	1.4%	NA	NA	NA	NA	NA
Low-income	Reading	08-09	51,295	53,642	4.6%	49.0%	08-09	46,592	46,339	-0.5%	44.2%	NA	NA	NA	NA	NA
	Math	06-09	47,716	54,089	13.4%	49.1%	06-09	45,939	46,465	1.1%	44.2%	NA	NA	NA	NA	NA
Students w/ disabilities	Reading	08-09	11,204	15,265	36.2%	13.9%	08-09	9,531	10,985	15.3%	10.5%	NA	NA	NA	NA	NA
	Math	06-09	14,792	15,868	7.3%	14.4%	06-09	13,738	11,145	-18.9%	10.6%	NA	NA	NA	NA	NA
English language learners	Reading	08-09	6,583	7,171	8.9%	6.5%	08-09	4,935	5,804	17.6%	5.5%	NA	NA	NA	NA	NA
	Math	06-09	5,894	7,277	23.5%	6.6%	06-09	3,576	5,846	63.5%	5.6%	NA	NA	NA	NA	NA
Female	Reading	08-09	53,139	54,405	2.4%	49.7%	08-09	52,679	51,722	-1.8%	49.3%	NA	NA	NA	NA	NA
	Math	06-09	50,443	54,543	8.1%	49.5%	06-09	52,894	51,739	-2.2%	49.3%	NA	NA	NA	NA	NA
Male	Reading	08-09	54,124	55,083	1.8%	50.3%	08-09	53,811	53,136	-1.3%	50.7%	NA	NA	NA	NA	NA
	Math	06-09	51,863	55,559	7.1%	50.5%	06-09	53,972	53,289	-1.3%	50.7%	NA	NA	NA	NA	NA

Table reads: In 2008, 59,386 students in the white subgroup took the state 4th grade reading test. By 2009, the number of white test-takers had risen to 59,543 students, an increase of 0.3%. In 2009, the white subgroup made up 54.4% of the 109,488 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.