Subgroup Achievement and Gap Trends — North Carolina

K-12 enrollment — 1,461,740

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.

All major student groups showed a clear trend of gains in grade 4 math at three achievement levels. A clear trend of narrowing gaps at the proficient level was also evident in math at grades 4 and 8 for all major subgroups. (Because of test changes and high school testing policies, data were not available to determine trends in reading or at the high school level.)

Subgroup trends by achievement level at grade 4

- General: In math, all six subgroups (white, African American, Latino, Asian, Native American, and low-income students) made gains in reading and math across the board at three achievement levels—basic-and-above, proficient-and-above, and advanced. These gains were moderate-to-large except at the basic-and-above level, where gains for white students and low-income students were slight.

- Notable progress: The greatest improvements in math were made by African American, Latino, Native American, and low-income students at the proficient-and-above levels.

Gap trends at two grade levels

- General: In math, gaps in percentages proficient narrowed at grades 4 and 8 for the four main subgroups analyzed (African American, Latino, Native American, and low-income students).

Data notes

- Limited data: In math, trends for grades 4 and 8 are limited to 2006–2008. In reading, trends for grades 4 and 8 were not analyzed for this report because North Carolina began administering a new test in 2007-08. High school trends were not analyzed in either subject because none of North Carolina's high school end-of-course exams are administered to all high school students.

- Subgroups analyzed: Trends were analyzed for white, African American, Latino, Native American, Asian American, and low-income students. 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 and 8.

Data Limitations

Years of comparable percentage proficient data	2003 through 2007 for reading, grades 3–8 (new reading test editions administered in 2007-08) 2006 through 2008 for math, grades 3–8 (new math assessment was administered in 2005-06) 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	2006 through 2007 for grades 3–8 in reading 2006 through 2008 for grades 3–8 in math High school data not available
Disaggregated data for all subgroups and comparison groups	Percentage proficient data available 2003 through 2007 for reading, grades 4 and 8; 2006 through 2008 for math, grades 4 and 8 Mean scale score data available 2006 through 2007 for reading, grades 4 and 8; 2006 through 2008 for math, grades 4 and 8 High school data not available
Numbers of test-takers by subgroup	Not available for high school

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
First year test used	2003 for reading 2006 for math
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 modified to include growth model 2007-08: Administered new test editions for EOG Reading (Grades 3-8). Established new cut scores and new baseline for annual measurable objectives to align to more rigorous standards.
Comments	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 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 NC-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

	Reporting Year							Average Yearly
Subgroup	2002	2003	2004	2005	2006	2007	2008	Percentage Point Gain[1]
All tested students								
Advanced		42%	42%	42%	45%	48%		NA
Proficient and Above		84%	84%	84%	85%	87%		NA
Basic and Above		96%	96%	96%	96%	97%		NA
White								
Advanced		53%	53%	53%	57%	61%		NA
Proficient and Above		90%	90%	90%	92%	93%		NA
Basic and Above		97%	97%	97%	97%	99%		NA
African American								
Advanced		22%	22%	22%	24%	27%		NA
Proficient and Above		73%	73%	73%	75%	78%		NA
Basic and Above		91%	93%	93%	93%	95%		NA
Latino								
Advanced		22%	24%	24%	27%	31%		NA
Proficient and Above		73%	74%	75%	77%	80%		NA
Basic and Above		83%	91%	92%	92%	95%		NA
Asian								
Advanced		44%	50%	50%	58%	61%		NA
Proficient and Above		88%	90%	89%	93%	94%		NA
Basic and Above		95%	98%	97%	98%	99%		NA
Native American								
Advanced		27%	26%	25%	29%	31%		NA
Proficient and Above		77%	75%	73%	78%	81%		NA
Basic and Above		92%	92%	94%	93%	96%		NA

Table reads: The percentage of white 4th graders who scored at the advanced level on the state reading test increased from 53% in 2003 to 61% in 2007. The average yearly percentage point gain was not calculated because the trend line ended before 2008.

[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 NC-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		42%	42%	42%	45%	48%		NA
Proficient and Above		84%	84%	84%	85%	87%		NA
Basic and Above		96%	96%	96%	96%	97%		NA
Low-income students								
Advanced		23%	24%	24%	28%	30%		NA
Proficient and Above		74%	74%	74%	77%	80%		NA
Basic and Above		90%	92%	93%	93%	95%		NA
Students with disabilities[3]								
Advanced		13%	14%	15%	18%	23%		NA
Proficient and Above		56%	54%	55%	62%	67%		NA
Basic and Above		77%	81%	83%	82%	90%		NA
English language learners[3]								
Advanced		9%	13%	8%	12%	18%		NA
Proficient and Above		61%	64%	59%	66%	74%		NA
Basic and Above		75%	87%	87%	88%	93%		NA
Female								
Advanced		44%	44%	45%	48%	50%		NA
Proficient and Above		87%	86%	86%	88%	90%		NA
Basic and Above		96%	97%	97%	97%	98%		NA
Male								
Advanced		37%	38%	38%	41%	45%		NA
Proficient and Above		81%	81%	81%	83%	85%		NA
Basic and Above		93%	94%	94%	94%	97%		NA

Table reads: The percentage of low-income 4th graders who scored at the advanced level on the state reading test increased from 23% in 2003 to 30% in 2007. The average yearly percentage point gain was not calculated because the trend line ended before 2008.

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

Subgroup	Reporting Year 2002	2003	2004	2005	2006	2007	2008	Average Yearly Percentage Point Gain[1]
All tested students								
Advanced					19%	22%	25%	2.7
Proficient and Above					66%	69%	74%	4.1
Basic and Above					91%	82%	93%	1.2
White								
Advanced					27%	31%	34%	3.5
Proficient and Above					77%	80%	84%	3.5
Basic and Above					95%	96%	97%	0.6
African American								
Advanced					6%	7%	9%	1.3
Proficient and Above					45%	49%	55%	5.1
Basic and Above					83%	84%	87%	2.0
Latino								
Advanced					10%	12%	14%	2.2
Proficient and Above					57%	60%	67%	5.4
Basic and Above					88%	89%	92%	1.9
Asian								
Advanced					41%	44%	46%	2.6
Proficient and Above					84%	86%	88%	2.3
Basic and Above					96%	97%	97%	0.4
Native American								
Advanced					9%	11%	13%	2.2
Proficient and Above					55%	55%	66%	5.6
Basic and Above					88%	88%	91%	1.3

Table reads: The percentage of white 4th graders who scored at the advanced level on the state math test increased from 27% in 2006 to 34% in 2008. During this period, the average yearly gain in the percentage advanced in math for white 4th graders was 3.5 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 2008 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

Table NC-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 2002	2003	2004	2005	2006	2007	2008	Average Yearly Percentage Point Gain[1]
All tested students								
Advanced					19%	22%	25%	2.7
Proficient and Above					66%	69%	74%	4.1
Basic and Above					91%	82%	93%	1.2
Low-income students								
Advanced					8%	10%	12%	1.9
Proficient and Above					52%	55%	62%	5.2
Basic and Above					86%	87%	90%	1.8
Students with disabilities[3]								
Advanced					8%	9%	9%	0.6
Proficient and Above					42%	46%	50%	4.1
Basic and Above					77%	79%	80%	1.6
English language learners[3]								
Advanced					4%	7%	8%	2.0
Proficient and Above					45%	52%	57%	6.0
Basic and Above					84%	86%	88%	2.0
Female								
Advanced					19%	21%	24%	2.6
Proficient and Above					66%	69%	74%	4.3
Basic and Above					92%	92%	94%	1.2
Male								
Advanced					20%	23%	26%	2.7
Proficient and Above					66%	69%	74%	3.9
Basic and Above					91%	92%	93%	1.1

Table reads: The percentage of low-income 4th graders who scored at the advanced level on the state math test increased from 8% in 2006 to 12% in 2008. During this period, the average yearly gain in the percentage advanced in math for low-income 4th graders was 1.9 percentage points per year.

[1]Averages are subject to rounding error.

[2]The number of students tested in this subgroup at this grade level was fewer than 500 in 2008 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

[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 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	03-07	84%	87%	NA		03-07	88%	90%	NA		NA	NA	NA	NA	
White	03-07	90%	93%	NA		03-07	93%	95%	NA					NA	
African American	03-07	73%	78%	NA	NA	03-07	78%	82%	NA	NA	NA	NA	NA	NA	NA
Latino	03-07	73%	80%	NA	NA	03-07	74%	79%	NA	NA	NA	NA	NA	NA	NA
Asian	03-07	88%	94%	NA	NA	03-07	91%	93%	NA	NA	NA	NA	NA	NA	NA
Native American	03-07	77%	81%	NA	NA	03-07	82%	85%	NA	NA	NA	NA	NA	NA	NA
Not low-income	03-07	92%	94%	NA		03-07	94%	95%	NA		NA	NA	NA	NA	
Low-income	03-07	74%	80%	NA	NA	03-07	78%	82%	NA	NA	NA	NA	NA	NA	NA
Not disabled	06-07	88%	90%	NA		06-07	92%	92%	NA		NA	NA	NA	NA	
Students with disabilities[3]	06-07	62%	67%	NA	NA	06-07	64%	66%	NA	NA	NA	NA	NA	NA	NA
Not ELL	06-07	87%	88%	NA		06-07	89%	91%	NA		NA	NA	NA	NA	
English language learners[3]	06-07	66%	74%	NA	NA	06-07	62%	64%	NA	NA	NA	NA	NA	NA	NA
Female	03-07	87%	90%	NA		03-07	90%	91%	NA		NA	NA	NA	NA	
Male	03-07	81%	85%	NA	NA	03-07	85%	88%	NA	NA	NA	NA	NA	NA	NA

Table reads: In 2003, 90% of white 4th graders and 73% of African American 4th graders scored at the proficient level on the state reading test. In 2007, 93% of white 4th graders and 78% of African American 4th graders scored at the proficient level in reading. Average annual percentage point gains were not calculated because the trend lines ended before 2008.

[1]Numbers in these columns are subject to rounding error.

[2]The number of students tested in this subgroup at this grade level was fewer than 500 in 2008 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

[3]Trends for students with disabilities and English language learners should be interpreted with caution because state and federal policy changes may have affected the year-to-year comparability of test results for these subgroups.

Table 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	06-08	66%	74%	4.1		06-08	61%	69%	3.9		NA	NA	NA	NA	
White	06-08	77%	84%	3.5		06-08	73%	80%	3.4					NA	
African American	06-08	45%	55%	5.1	L	06-08	40%	50%	5.0	L	NA	NA	NA	NA	NA
Latino	06-08	57%	67%	5.4	L	06-08	51%	59%	4.3	L	NA	NA	NA	NA	NA
Asian	06-08	84%	88%	2.3	S	06-08	82%	87%	2.5	S	NA	NA	NA	NA	NA
Native American	06-08	55%	66%	5.6	L	06-08	46%	54%	4.4	L	NA	NA	NA	NA	NA
Not low-income	06-08	79%	85%	3.4		06-08	74%	80%	3.1		NA	NA	NA	NA	
Low-income	06-08	52%	62%	5.2	L	06-08	44%	55%	5.1	L	NA	NA	NA	NA	NA
Not disabled	06-08	69%	77%	4.0		06-08	65%	72%	3.6		NA	NA	NA	NA	
Students with disabilities[3]	06-08	42%	50%	4.1	L	06-08	28%	36%	3.7	L	NA	NA	NA	NA	NA
Not ELL	06-08	67%	75%	4.1		06-08	62%	70%	4.0		NA	NA	NA	NA	
English language learners[3]	06-08	45%	57%	6.0	L	06-08	36%	47%	5.3	L	NA	NA	NA	NA	NA
Female	06-08	66%	74%	4.3		06-08	63%	71%	3.7		NA	NA	NA	NA	
Male	06-08	66%	74%	3.9	S	06-08	59%	68%	4.1	L	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 2008, 84% of white 4th graders and 55% of African American 4th graders scored at the proficient level in math. Between 2006 and 2008, the percentage proficient improved at an average rate of 3.5 percentage points per year for white students and 5.1 percentage points per year for African American students, indicating a larger rate of gain and a narrowing of the achievement gap for African American 4th graders.

[1]Numbers in these columns are subject to rounding error.

[2]The number of students tested in this subgroup at this grade level was fewer than 500 in 2008 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

[3]Trends for students with disabilities and English language learners should be interpreted with caution because state and federal policy changes may have affected the year-to-year comparability of test results for these subgroups.

Achievement by Subgroup — Gap Trends (Mean Scale Scores)

Table 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.
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	Starting Year	Ending Year	Average Gain (Mean Scale Score)[1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score)[1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score)[1]	Gain Larger or Smaller than Comparison Group
All tested students	Mean SS	06-07	253.1	253.5	NA		06-07	263.9	264.2	NA		NA	NA	NA	NA	
	SD	06-07	8.6	8.3			06-07	8.6	8.5			NA	NA	NA		
White	Mean SS	06-07	255.5	255.9	NA		06-07	266.4	266.8	NA		NA	NA	NA	NA	
	SD	06-07	8.1	NA			06-07	7.9	NA			NA	NA	NA		
African American	Mean SS	06-07	249.1	249.6	NA	NA	06-07	259.7	260.1	NA	NA	NA	NA	NA	NA	NA
	SD	06-07	8.0	NA			06-07	7.9	NA			NA	NA	NA		
Latino	Mean SS	06-07	249.6	250.3	NA	NA	06-07	260.0	260.2	NA	NA	NA	NA	NA	NA	NA
	SD	06-07	8.2	NA			06-07	8.8	NA			NA	NA	NA		
Asian	Mean SS	06-07	255.9	256.3	NA	NA	06-07	266.2	266.6	NA	NA	NA	NA	NA	NA	NA
	SD	06-07	8.1	NA			06-07	8.6	NA			NA	NA	NA		
Native American	Mean SS	06-07	250.1	250.5	NA	NA	06-07	260.7	261.2	NA	NA	NA	NA	NA	NA	NA
	SD	06-07	8.4	NA			06-07	8.5	NA			NA	NA	NA		
Not Low-income	Mean SS	06-07	256.0	256.3	NA		06-07	266.6	266.8	NA		NA	NA	NA	NA	
	SD	06-07	8.0	NA			06-07	7.9	NA			NA	NA	NA		
Low-income	Mean SS	06-07	249.7	250.3	NA	NA	06-07	260.2	260.6	NA	NA	NA	NA	NA	NA	NA
	SD	06-07	8.2	NA			06-07	8.1	NA			NA	NA	NA		
Not disabled	Mean SS	06-07	254.0	254.2	NA		06-07	264.8	264.9	NA		NA	NA	NA	NA	
	SD	06-07	8.2	NA			06-07	8.1	NA			NA	NA	NA		
Students with disabilities[3]	Mean SS	06-07	247.4	247.7	NA	NA	06-07	257.4	257.0	NA	NA	NA	NA	NA	NA	NA
	SD	06-07	9.0	NA			06-07	9.1	NA			NA	NA	NA		
Not ELLs	Mean SS	06-07	253.5	253.9	NA		06-07	264.1	264.5	NA		NA	NA	NA	NA	
	SD	06-07	8.6	NA			06-07	8.5	NA			NA	NA	NA		
English language learners[3]	Mean SS	06-07	246.4	248.0	NA	NA	06-07	255.1	255.6	NA	NA	NA	NA	NA	NA	NA
	SD	06-07	7.4	NA			06-07	8.0	NA			NA	NA	NA		
Female	Mean SS	06-07	253.8	254.1	NA		06-07	264.6	264.7	NA		NA	NA	NA	NA	
	SD	06-07	8.4	NA			06-07	8.3	NA			NA	NA	NA		

		Grade 4					Grade 8					Grade 10*				
Subgroup	Statistic	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score)[1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score)[1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score)[1]	Gain Larger or Smaller than Comparison Group
Male	Mean SS	06-07	252.4	252.9	NA	NA	06-07	263.1	263.6	NA	NA	NA	NA	NA	NA	NA
	SD	06-07	8.9	NA			06-07	8.8	NA			NA	NA	NA		

Table reads: In 2006, the mean scale score on the state 4th grade reading test was 255.5 for white students and 249.1 for African American students. In 2007, the mean scale score in 4th grade reading was 255.9 for white students and 249.6 for African American students. Average annual percentage point gains were not calculated because the trend lines ended before 2008.

Note: The End-of-Grade Reading Tests (grades 3-8) are scored on separate scales by test level; grade 4 scale scores range from ≤235 to≥255 and grade 8 scale scores range from ≤243 to≥266.

[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 NC-14. Achievement Gap Trends in Math by Mean Scale Scores

NOTE: L = Larger gain than comparison group. S = Smaller gain than comparison group. E = Equal gain to comparison group.
If the average gain for the subgroup of interest, such as African American students, is larger than the average gain for the comparison group, such as white students, this indicates that the achievement gap has narrowed. If the average gain for the subgroup of interest is smaller, this means the gap has widened.

		Grade 4					Grade 8					Grade 10*				
Subgroup	Statistic	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score)[1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score)[1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score)[1]	Gain Larger or Smaller than Comparison Group
All tested students	Mean SS	06-08	348.9	350.9	1.0		06-08	359.2	361.4	1.1		NA	NA	NA	NA	
	SD	06-08	9.5	9.3			06-08	9.2	8.9			NA	NA	NA		
White	Mean SS	06-08	351.6	353.5	1.0		06-08	361.8	363.8	1.0		NA	NA	NA	NA	
	SD	06-08	9.0	NA			06-08	8.9	NA			NA	NA	NA		
African American	Mean SS	06-08	344.0	345.9	1.0	E	06-08	354.5	356.6	1.1	L	NA	NA	NA	NA	NA
	SD	06-08	8.3	NA			06-08	7.8	NA			NA	NA	NA		
Latino	Mean SS	06-08	346.2	348.4	1.1	L	06-08	356.4	358.6	1.1	L	NA	NA	NA	NA	NA
	SD	06-08	8.6	NA			06-08	8.5	NA			NA	NA	NA		
Asian	Mean SS	06-08	354.4	355.9	0.8	S	06-08	364.9	367.5	1.3	L	NA	NA	NA	NA	NA
	SD	06-08	9.6	NA			06-08	9.4	NA			NA	NA	NA		
Native American	Mean SS	06-08	345.9	347.9	1.0	E	06-08	355.7	357.5	0.9	S	NA	NA	NA	NA	NA
	SD	06-08	8.5	NA			06-08	8.0	NA			NA	NA	NA		
Not Low-income	Mean SS	06-08	352.1	354.0	1.0		06-08	362.1	364.1	1.0		NA	NA	NA	NA	
	SD	06-08	9.1	NA			06-08	8.9	NA			NA	NA	NA		
Low-income	Mean SS	06-08	345.3	347.3	1.0	E	06-08	355.3	357.5	1.1	L	NA	NA	NA	NA	NA
	SD	06-08	8.5	NA			06-08	8.0	NA			NA	NA	NA		
Not disabled	Mean SS	06-08	349.8	351.5	0.9		06-08	360.1	361.9	0.9		NA	NA	NA	NA	
	SD	06-08	9.2	NA			06-08	8.9	NA			NA	NA	NA		
Students with disabilities[3]	Mean SS	06-08	343.8	344.9	0.6	S	06-08	352.7	353.9	0.6	S	NA	NA	NA	NA	NA
	SD	06-08	9.2	NA			06-08	8.3	NA			NA	NA	NA		
Not ELLs	Mean SS	06-08	352.1	351.1	-0.5		06-08	359.4	361.4	1.0		NA	NA	NA	NA	
	SD	06-08	9.1	NA			06-08	9.2	NA			NA	NA	NA		
English language learners[3]	Mean SS	06-08	343.7	346.0	1.2	L	06-08	353.4	356.2	1.4	L	NA	NA	NA	NA	NA
	SD	06-08	8.1	NA			06-08	7.7	NA			NA	NA	NA		
Female	Mean SS	06-08	348.8	350.7	1.0		06-08	359.6	361.4	0.9		NA	NA	NA	NA	

		Grade 4					Grade 8					Grade 10*				
Subgroup	Statistic	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score)[1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score)[1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score)[1]	Gain Larger or Smaller than Comparison Group
	SD	06-08	9.2	NA			06-08	8.9	NA			NA	NA	NA		
Male	Mean SS	06-08	349.1	350.9	0.9	S	06-08	358.8	361.0	1.1	L	NA	NA	NA	NA	NA
	SD	06-08	9.7	NA			06-08	9.5	NA			NA	NA	NA		

Table reads: In 2006, the mean scale score on the state 4th grade reading test was 351.6 for white students and 344.0 for African American students. In 2008, the mean scale score in 4th grade reading was 353.5 for white students and 345.9 for African American students. Between 2006 and 2008, the percentage proficient improved at an average rate of 1.0 percentage point per year for white students and for African American students, indicating no change in the achievement gap for African American 4th graders.

Note: The End-of-Grade Reading Tests (grades 3-8) are scored on separate scales by test level; grade 4 scale scores range from ≤235 to ≥255 and grade 8 scale scores range from ≤243 to ≥266.

[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 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	03-07	100,351	104,355	4.0%	100.0%	03-07	101,948	105,855	3.8%	100.0%	NA	NA	NA	NA	NA
	Math	06-08	102,306	105,815	3.4%	100.0%	06-08	106,866	104,252	-2.4%	100.0%	NA	NA	NA	NA	NA
White	Reading	03-07	58,705	58,175	-0.9%	55.7%	03-07	62,455	60,244	-3.5%	56.9%	NA	NA	NA	NA	NA
	Math	06-08	57,916	59,624	2.9%	56.3%	06-08	61,551	59,596	-3.2%	57.2%	NA	NA	NA	NA	NA
African American	Reading	03-07	30,258	28,227	-6.7%	27.0%	03-07	30,203	31,393	3.9%	29.7%	NA	NA	NA	NA	NA
	Math	06-08	27,862	28,234	1.3%	26.7%	06-08	32,020	30,971	-3.3%	29.7%	NA	NA	NA	NA	NA
Latino	Reading	03-07	5,722	10,155	77.5%	9.7%	03-07	4,541	7,844	72.7%	7.4%	NA	NA	NA	NA	NA
	Math	06-08	9,413	11,446	21.6%	10.8%	06-08	7,184	9,014	25.5%	8.6%	NA	NA	NA	NA	NA
Asian	Reading	03-07	1,939	2,492	28.5%	2.4%	03-07	1,932	2,187	13.2%	2.1%	NA	NA	NA	NA	NA
	Math	06-08	2,270	2,563	12.9%	2.4%	06-08	2,153	2,418	12.3%	2.3%	NA	NA	NA	NA	NA
Native American	Reading	03-07	1,445	1,441	-0.3%	1.4%	03-07	1,384	1,475	6.6%	1.4%	NA	NA	NA	NA	NA
	Math	06-08	1,485	1,582	6.5%	1.5%	06-08	1,553	1,522	-2.0%	1.5%	NA	NA	NA	NA	NA
Low-income	Reading	03-07	46,327	48,588	4.9%	46.6%	03-07	39,833	45,165	13.4%	42.7%	NA	NA	NA	NA	NA
	Math	06-08	47,716	51,628	8.2%	48.8%	06-08	45,939	46,692	1.6%	44.8%	NA	NA	NA	NA	NA
Students w/ disabilities	Reading	06-07	14,306	10,907	-23.8%	10.5%	06-07	13,598	10,012	-26.4%	9.5%	NA	NA	NA	NA	NA
	Math	06-08	14,792	11,652	-21.2%	11.0%	06-08	13,738	9,596	-30.1%	9.2%	NA	NA	NA	NA	NA
English language learners	Reading	06-07	5,659	7,162	26.6%	6.9%	06-07	3,418	4,055	18.6%	3.8%	NA	NA	NA	NA	NA
	Math	06-08	5,894	6,679	13.3%	6.3%	06-08	3,576	4,979	39.2%	4.8%	NA	NA	NA	NA	NA
Female	Reading	03-07	49,338	51,774	4.9%	49.6%	03-07	50,768	52,431	3.3%	49.5%	NA	NA	NA	NA	NA
	Math	06-08	50,443	53,223	5.5%	50.3%	06-08	52,894	52,700	-0.4%	50.6%	NA	NA	NA	NA	NA
Male	Reading	03-07	50,957	52,581	3.2%	50.4%	03-07	51,218	53,424	4.3%	50.5%	NA	NA	NA	NA	NA
	Math	06-08	51,863	54,518	5.1%	51.5%	06-08	53,972	53,886	-0.2%	51.7%	NA	NA	NA	NA	NA

Table reads: In 2003, 58,705 students in the white subgroup took the state 4th grade reading test. By 2007, the number of white test-takers had fallen to 58,175 students, a decrease of 0.9%. In 2007, the white subgroup made up 55.7% of the 104,355 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.