Subgroup Achievement and Gap Trends — North Dakota

K-12 enrollment — 94,057

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.

Trends at three achievement levels for white, Native American, and low-income students were mixed in grade 4 reading and showed a clear pattern of declines in grade 4 math. Trends in achievement gaps for the Native American and low-income subgroups showed a mixed picture and varied somewhat depending on which indicator of achievement was used. (Other subgroups were too small to yield reliable trends in North Dakota.)

Subgroup trends by achievement level at grade 4

- Reading: Trends were analyzed for white, Native American, and low-income students across three achievement levels—basic-and-above, proficient-and-above, and advanced. Five of the nine trend lines analyzed in grade 4 reading showed gains, while four trend lines showed slight declines. Gains were more common at the proficient-and-above and advanced levels, while declines predominated at the basic-and-above level.

- Math: In grade 4 math, performance declined across the three achievement levels for white, Native American, and low-income students; most of these declines were slight. The only exception to the pattern of declines was at the basic-and-above level for white students, who showed a slight gain.

Gap trends at three grade levels

- General: Gaps between Native American and white students, and between low-income and non-low-income students, narrowed more often than they widened according to the percentage of students scoring at the proficient level. Trends measured by average (mean) test scores showed a somewhat less positive picture. Gains were more prevalent in reading than in math.

- Reading: According to percentages proficient, gaps in reading for the Native American and low-income subgroups narrowed in grades 4, 8, and 11, except for low-income students in grade 4, where the gap widened. According to average test scores, gaps in reading narrowed at grades 8 and 11 but widened at grade 4 for both subgroups.

- Math: According percentages proficient, there were slightly more instances of gaps narrowing than widening for Native American and low-income students. According to the average test scores, the reverse was true—slightly more instances of gaps widening than narrowing. (The Native American subgroup was too small in grade 11 math to discern a trend.)

Data notes

- Limited data: Trends are limited to 2005–2008.

- Subgroups analyzed: Only three subgroups (white, Native American, and low-income students) were large enough in North Dakota to yield reliable trend data. The African American, Latino, and Asian subgroups were too small to determine trends. In addition, the Native American subgroup was too small to discern a trend in grade 11 math. Trends for students with disabilities, English language learners, and male and female students have not been summarized because they will be discussed in separate reports.

- Grades analyzed: Analyses of subgroup trends by three achievement levels are limited to one elementary grade because of the massive amounts of data involved and because this is the pilot year of a process that CEP hopes to extend to the middle and high school levels in future years. Analyses of achievement gap trends cover three grade levels: 4, 8, and 11.

Data Limitations

Years of comparable percentage proficient data	2005 through 2008
Years of comparable mean scale score data	2005 through 2008

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	North Dakota State Assessment (NDSA)

	North Dakota Alternate Assessment (NDAA)
Grades tested for NCLB accountability	3–8, 11
State labels for achievement levels	ND uses four achievement levels: Novice, Partially Proficient, Proficient, and Advanced. For our analyses we treated Partially Proficient as Basic, Proficient as Proficient, and Advanced as Advanced.
High school NCLB test also used as an exit exam?	No
First year test used	2001–02
Time of test administration	Fall
Major changes in testing system (2002–present)	2001–02: The NDSA replaced the TerraNova as the state assessment, with the goal of eventually assessing grades 3–8 and 11. From 2001–02 through 2003–04, grades 4, 8, and 12 were tested. 2004–05: Tests administered in grades 3–8 and 11. Spring 2005: New standards set, new cut scores established

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 ND-7. Percentages of Grade 4 Students by Racial or Ethnic Subgroup Scoring at the Advanced, Proficient and Above, and Basic and Above Levels in Reading

Subgroup	Reporting Year							Average Yearly Percentage Point Gain[1]
	2002	2003	2004	2005	2006	2007	2008	
All tested students								
Advanced				18%	21%	22%	23%	1.6
Proficient and Above				76%	77%	81%	76%	0.1
Basic and Above				94%	95%	95%	93%	-0.2
White								
Advanced				20%	22%	24%	25%	1.8
Proficient and Above				79%	80%	84%	80%	0.4
Basic and Above				95%	96%	97%	95%	-0.1
African American[2]								
Advanced				12%	13%	10%	15%	0.8
Proficient and Above				64%	72%	74%	59%	-1.6
Basic and Above				87%	89%	94%	86%	-0.3
Latino[2]								
Advanced				14%	17%	13%	12%	-0.6
Proficient and Above				66%	61%	72%	53%	-4.3
Basic and Above				91%	87%	90%	87%	-1.3
Asian[2]								
Advanced				23%	33%	22%	36%	4.3
Proficient and Above				77%	80%	81%	69%	-2.6
Basic and Above				94%	96%	95%	92%	-0.5
Native American								
Advanced				7%	9%	8%	7%	0.2
Proficient and Above				50%	58%	57%	52%	0.6
Basic and Above				81%	85%	85%	80%	-0.4

Table reads: The percentage of white 4th graders who scored at the advanced level on the state reading test increased from 20% in 2005 to 25% in 2008. During this period, the average yearly gain in the percentage advanced in reading for white 4th graders was 1.8 percentage points per year.

[1]Averages are subject to rounding error.

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

Table ND-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				18%	21%	22%	23%	1.6
Proficient and Above				76%	77%	81%	76%	0.1
Basic and Above				94%	95%	95%	93%	-0.2
Low-income students								
Advanced				11%	14%	13%	16%	1.6
Proficient and Above				65%	68%	70%	64%	-0.1
Basic and Above				89%	91%	91%	89%	-0.1
Students with disabilities[3]								
Advanced				10%	10%	17%	13%	1.4
Proficient and Above				57%	61%	71%	62%	0.1
Basic and Above				87%	89%	92%	85%	-2.2
English language learners[2,3]								
Advanced				4%	3%	10%	8%	2.4
Proficient and Above				33%	48%	50%	44%	-2.2
Basic and Above				67%	80%	76%	78%	-1.0
Female								
Advanced				21%	23%	24%	25%	1.4
Proficient and Above				78%	80%	83%	79%	0.0
Basic and Above				95%	96%	97%	94%	-0.4
Male								
Advanced				16%	18%	20%	21%	1.7
Proficient and Above				73%	75%	79%	73%	0.2
Basic and Above				93%	94%	94%	93%	0.0

Table reads: The percentage of low-income 4th graders who scored at the advanced level on the state reading test increased from 11% in 2005 to 16% in 2008. During this period, the average yearly gain in the percentage advanced in reading for low-income 4th graders was 1.6 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 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 ND-9. Percentages of Grade 4 Students by Racial or Ethnic Subgroup Scoring at the Advanced, Proficient and Above, and Basic and Above Levels in Mathematics

Subgroup	Reporting Year							Average Yearly Percentage Point Gain[1]
	2002	2003	2004	2005	2006	2007	2008	
All tested students								
Advanced				19%	22%	23%	18%	-0.4
Proficient and Above				79%	80%	80%	78%	-0.5
Basic and Above				95%	96%	95%	95%	-0.2
White								
Advanced				20%	23%	25%	19%	-0.3
Proficient and Above				82%	82%	84%	81%	-0.3
Basic and Above				96%	97%	96%	96%	0.1
African American[2]								
Advanced				15%	12%	15%	9%	-1.8
Proficient and Above				55%	66%	67%	56%	0.3
Basic and Above				81%	87%	88%	80%	-0.1
Latino[2]								
Advanced				12%	7%	14%	11%	-0.5
Proficient and Above				69%	69%	71%	71%	0.7
Basic and Above				91%	94%	92%	93%	0.6
Asian[2]								
Advanced				25%	31%	38%	27%	0.8
Proficient and Above				82%	86%	74%	80%	-0.8
Basic and Above				97%	97%	97%	95%	-0.7
Native American								
Advanced				9%	10%	7%	5%	-1.4
Proficient and Above				57%	60%	51%	54%	-0.9
Basic and Above				87%	89%	81%	82%	-1.4

Table reads: The percentage of white 4th graders who scored at the advanced level on the state math test decreased from 20% in 2005 to 19% in 2008. During this period, the average yearly decline in the percentage advanced in math for white 4th graders was 0.3 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 ND-10. Percentage of Grade 4 Students by Demographic Subgroup Scoring at the Advanced, Proficient and Above, and Basic and Above Levels in Mathematics

Subgroup	Reporting Year							Average Yearly Percentage Point Gain[1]
	2002	2003	2004	2005	2006	2007	2008	
All tested students								
Advanced				19%	22%	23%	18%	-0.4
Proficient and Above				79%	80%	80%	78%	-0.5
Basic and Above				95%	96%	95%	95%	-0.2
Low-income students								
Advanced				12%	14%	14%	12%	-0.1
Proficient and Above				70%	71%	69%	67%	-0.8
Basic and Above				92%	93%	90%	90%	-0.5
Students with disabilities[3]								
Advanced				12%	10%	15%	13%	1.6
Proficient and Above				61%	63%	69%	65%	0.8
Basic and Above				88%	90%	89%	88%	-0.6
English language learners[2,3]								
Advanced				4%	5%	12%	10%	2.3
Proficient and Above				41%	53%	52%	55%	1.1
Basic and Above				76%	85%	77%	78%	-3.7
Female								
Advanced				18%	20%	21%	17%	-0.4
Proficient and Above				79%	79%	79%	76%	-1.0
Basic and Above				95%	96%	95%	94%	-0.3
Male								
Advanced				20%	23%	24%	18%	-0.5
Proficient and Above				80%	81%	81%	80%	0.0
Basic and Above				95%	96%	94%	95%	0.0

Table reads: The percentage of low-income 4th graders who scored at the advanced level on the state math test was 12% in 2002 and in 2008. During this period, the average yearly decline in the percentage advanced in math for low-income 4th graders was 0.1 percentage points per year.

[1]Averages are subject to rounding error.

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

[3]Gap trends for students with disabilities and English language learners should be interpreted with caution because state and federal policy changes may have affected the year-to-year comparability of test results for these subgroups. Average yearly percentage point gains are based on 2006-2008 results.

Achievement by Subgroup — Gap Trends (Percentages Proficient)

Table ND-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 11				
Subgroup	Year Span	Starting PP	Ending PP	Average Annual Gain[1]	Gain Larger or Smaller Than Comparison Group	Year Span	Starting PP	Ending PP	Average Annual Gain[1]	Gain Larger or Smaller Than Comparison Group	Year Span	Starting PP	Ending PP	Average Annual Gain[1]	Gain Larger or Smaller Than Comparison Group
All tested students	05-08	76%	76%	0.1		05-08	72%	74%	0.7		05-08	70%	65%	-1.7	
White	05-08	79%	80%	0.4		05-08	75%	77%	0.5		05-08	73%	67%	-1.9	
African American	05-08	64%	59%	-1.6[2]	S	05-08	59%	48%	-3.6[2]	S	05-08	52%	45%	-2.5[2]	S
Latino	05-08	66%	53%	-4.3[2]	S	05-08	55%	66%	3.4[2]	L	05-08	54%	53%	-0.4[2]	L
Asian	05-08	77%	69%	-2.6[2]	S	05-08	67%	82%	5.0[2]	L	05-08	65%	66%	0.4[2]	L
Native American	05-08	50%	52%	0.6	L	05-08	44%	52%	2.7	L	05-08	37%	42%	1.8	L
Not low-income	05-08	81%	82%	0.5		05-08	78%	79%	0.3		05-08	75%	69%	-1.8	
Low-income	05-08	65%	64%	-0.1	S	05-08	58%	63%	1.8	L	05-08	55%	52%	-1.0	L
Not disabled	06-08	80%	79%	-0.9		06-08	76%	78%	0.9		06-08	76%	68%	-4.1	
Students with disabilities[3]	06-08	61%	62%	0.1	L	06-08	48%	49%	0.5	S	06-08	45%	41%	-2.5	L
Not ELL	06-08	79%	77%	-0.8		06-08	74%	75%	0.8		06-08	74%	66%	-4.0	
English language learners[3]	06-08	48%	44%	-2.2[2]	S	06-08	40%	41%	0.4[2]	S	06-08	30%	26%	-1.8[2]	L
Female	05-08	78%	79%	0.0		05-08	77%	77%	0.0		05-08	75%	70%	-1.7	
Male	05-08	73%	73%	0.2	L	05-08	67%	71%	1.4	L	05-08	66%	60%	-1.9	S

Table reads: In 2005, 79% of white 4th graders and 64% of African American 4th graders scored at the proficient level on the state reading test. In 2008, 80% of white 4th graders and 59% of African American 4th graders scored at the proficient level in reading. Between 2005 and 2008, the percentage proficient improved at an average rate of 0.4 percentage point per year for white students and declined at an average rate of 1.6 percentage points per year for African American

students, indicating a smaller rate of gain and a widening of the achievement gap for African American 4th graders.

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

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

[3]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 ND-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 11				
Subgroup	Year Span	Starting PP	Ending PP	Average Annual Gain[1]	Gain Larger or Smaller Than Comparison Group	Year Span	Starting PP	Ending PP	Average Annual Gain[1]	Gain Larger or Smaller Than Comparison Group	Year Span	Starting PP	Ending PP	Average Annual Gain[1]	Gain Larger or Smaller Than Comparison Group
All tested students	05-08	79%	78%	-0.5		05-08	65%	70%	1.7		05-08	55%	56%	0.2	
White	05-08	82%	81%	-0.3		05-08	69%	74%	1.5		05-08	58%	58%	0.2	
African American	05-08	55%	56%	0.3[2]	L	05-08	38%	39%	0.1[2]	S	05-08	31%	29%	-1.0[2]	S
Latino	05-08	69%	71%	0.7[2]	L	05-08	49%	52%	0.9[2]	S	05-08	31%	37%	2.2[2]	L
Asian	05-08	82%	80%	-0.8[2]	S	05-08	56%	89%	11.0[2]	L	05-08	64%	53%	-3.6[2]	S
Native American	05-08	57%	54%	-0.9	S	05-08	35%	45%	3.5	L	05-08	21%	30%	2.9[2]	L
Not low-income	05-08	84%	84%	-0.1		05-08	72%	76%	1.5		05-08	60%	60%	0.1	
Low-income	05-08	70%	67%	-0.8	S	05-08	51%	57%	2.3	L	05-08	37%	41%	1.4	L
Not disabled	06-08	83%	80%	-1.3		06-08	72%	75%	1.5		06-08	60%	59%	-0.6	
Students with disabilities[3]	06-08	63%	65%	0.8	L	06-08	40%	44%	2.3	L	06-08	30%	32%	0.7	L
Not ELL	06-08	81%	79%	-1.2		06-08	69%	72%	1.2		06-08	58%	56%	-0.7	
English language learners[3]	06-08	53%	55%	1.1[2]	L	06-08	31%	42%	5.3[2]	L	06-08	18%	21%	1.5[2]	L
Female	05-08	79%	76%	-1.0		05-08	65%	71%	2.0		05-08	52%	54%	0.6	
Male	05-08	80%	80%	0.0	L	05-08	66%	70%	1.5	S	05-08	57%	57%	-0.1	S

Table reads: In 2005, 82% of white 4th graders and 55% of African American 4th graders scored at the proficient level on the state math test. In 2008, 81% of white 4th graders and 56% of African American 4th graders scored at the proficient level in math. Between 2005 and 2008, the percentage proficient declined at an average rate of 0.3 percentage point per year for white students and improved at an average rate of 0.3 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 ND-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 11				
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	05-08	647.9	647.9	0.0		05-08	685.3	685.7	0.1		05-08	712.8	707.7	-1.7	
	SD	05-08	27.8	29.4			05-08	28.6	31.0			05-08	28.5	28.4		
White	Mean SS	05-08	650.1	650.9	0.3		05-08	687.5	688.0	0.2		05-08	714.7	709.6	-1.7	
	SD	05-08	26.9	28.0			05-08	27.7	29.4			05-08	27.7	27.0		
African American	Mean SS	05-08	639.1	634.3	-1.6[2]	S	05-08	676.7	661.0	-5.2[2]	S	05-08	696.2	684.5	-3.9[2]	S
	SD	05-08	28.2	36.1			05-08	28.2	50.0			05-08	33.1	41.4		
Latino	Mean SS	05-08	638.6	634.2	-1.5[2]	S	05-08	676.4	674.0	-0.8[2]	S	05-08	703.7	699.4	-1.4[2]	L
	SD	05-08	26.7	29.7			05-08	25.1	28.8			05-08	25.2	30.8		
Asian	Mean SS	05-08	649.1	648.5	-0.2[2]	S	05-08	685.6	695.4	3.3[2]	L	05-08	711.6	703.0	-2.9[2]	S
	SD	05-08	30.6	33.2			05-08	33.4	31.2			05-08	26.1	47.9		
Native American	Mean SS	05-08	629.1	627.5	-0.5	S	05-08	665.1	668.1	1.0	L	05-08	690.5	692.6	0.7	L
	SD	05-08	28.4	29.3			05-08	29.1	34.9			05-08	28.9	29.8		
Not Low-income	Mean SS	05-08	652.3	652.9	0.2		05-08	689.7	689.8	0.1		05-08	715.7	710.6	-1.7	
	SD	05-08	26.8	27.6			05-08	27.2	29.5			05-08	27.5	27.3		
Low-income	Mean SS	05-08	638.7	638.9	0.1	S	05-08	675.1	676.2	0.4	L	05-08	702.3	698.2	-1.4	L
	SD	05-08	27.5	30.3			05-08	29.0	32.0			05-08	28.9	29.8		
Not disabled	Mean SS	06-08	651.6	650.2	-0.7		06-08	687.4	688.9	0.8		06-08	715.0	710.3	-2.4	
	SD	06-08	28.6	28.6			06-08	27.4	29.3			06-08	24.2	26.8		
Students with disabilities[3]	Mean SS	06-08	637.1	631.8	-2.6	S	06-08	664.3	659.6	-2.3	S	06-08	690.7	680.7	-5.0	S
	SD	06-08	30.4	29.8			06-08	26.4	31.9			06-08	24.7	30.6		
Not ELLs	Mean SS	06-08	650.7	648.8	-0.9		06-08	685.7	686.7	0.5		06-08	713.5	708.5	-2.5	
	SD	06-08	28.8	28.9			06-08	27.7	30.3			06-08	24.7	27.8		
English language learners[3]	Mean SS	06-08	625.0	625.0	0.0[2]	L	06-08	661.1	660.6	-0.3[2]	S	06-08	683.8	674.0	-4.9[2]	S
	SD	06-08	28.3	31.3			06-08	31.6	36.2			06-08	30.3	34.3		
Female	Mean SS	05-08	650.7	650.1	-0.2		05-08	689.2	688.4	-0.3		05-08	715.6	711.7	-1.3	
	SD	05-08	27.5	29.0			05-08	27.3	30.1			05-08	26.3	27.0		

		Grade 4					Grade 8					Grade 11				
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	05-08	645.2	645.8	0.2	L	05-08	681.6	683.2	0.5	L	05-08	710.3	703.9	-2.1	S
	SD	05-08	27.8	29.6			05-08	29.3	31.6			05-08	29.9	29.2		

Table reads: In 2005, the mean scale score on the state 4th grade reading test was 650.1 for white students and 639.1 for African American students. In 2008, the mean scale score in 4th grade reading was 650.9 for white students and 634.3 for African American students. Between 2005 and 2008, the mean scale score improved at an average yearly rate of 0.3 points for white students and declined at an average yearly rate of 1.6 points for African American students, indicating a widening of the achievement gap for African Americans.

Note: The scoring scale varies for different grade levels within a range of 470-870.

[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 ND-14. Subgroup Achievement 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.
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 11				
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	05-08	633.4	629.5	-1.3		05-08	697.7	702.6	1.6		05-08	740.7	740.9	0.1	
	SD	05-08	31.5	30.5			05-08	34.0	36.6			05-08	40.3	38.6		
White	Mean SS	05-08	635.7	632.4	-1.1		05-08	700.8	705.8	1.7		05-08	744.1	744.0	-0.1	
	SD	05-08	30.5	29.3			05-08	32.7	34.4			05-08	38.0	36.7		
African American	Mean SS	05-08	611.3	610.0	-0.4[2]	L	05-08	675.7	664.9	-3.6[2]	S	05-08	710.3	700.2	-3.4[2]	S
	SD	05-08	49.7	35.6			05-08	35.9	50.0			05-08	46.5	54.0		
Latino	Mean SS	05-08	623.4	619.8	-1.2[2]	S	05-08	685.0	681.2	-1.3[2]	S	05-08	718.6	726.0	2.5[2]	L
	SD	05-08	29.7	32.1			05-08	25.3	30.3			05-08	41.4	36.8		
Asian	Mean SS	05-08	639.5	633.1	-2.1[2]	S	05-08	693.1	715.8	7.6[2]	L	05-08	748.7	737.9	-3.6[2]	S
	SD	05-08	33.7	36.0			05-08	45.3	49.0			05-08	42.1	59.0		
Native American	Mean SS	05-08	615.5	609.4	-2.0	S	05-08	671.6	679.8	2.7	L	05-08	701.5	714.5	4.3[2]	L
	SD	05-08	30.0	29.5			05-08	34.3	40.8			05-08	44.8	39.3		
Not Low-income	Mean SS	05-08	638.1	634.7	-1.1		05-08	702.8	708.5	1.9		05-08	745.7	745.6	0.0	
	SD	05-08	30.6	29.2			05-08	32.3	33.8			05-08	37.9	36.5		
Low-income	Mean SS	05-08	623.6	620.2	-1.2	S	05-08	685.8	689.1	1.1	S	05-08	722.2	725.2	1.0	L
	SD	05-08	31.0	30.6			05-08	34.8	39.1			05-08	43.1	41.4		
Not disabled	Mean SS	06-08	636.6	631.5	-2.5		06-08	702.4	706.6	2.1		06-08	747.8	744.7	-1.5	
	SD	06-08	30.4	30.1			06-08	32.3	34.9			06-08	37.5	36.4		
Students with disabilities[3]	Mean SS	06-08	619.6	616.1	-1.8	L	06-08	670.1	669.1	-0.5	S	06-08	702.6	701.1	-0.8	L
	SD	06-08	30.0	30.1			06-08	34.2	33.3			06-08	38.4	38.5		
Not ELLs	Mean SS	06-08	635.3	630.2	-2.5		06-08	700.0	703.7	1.9		06-08	744.9	742.1	-1.4	
	SD	06-08	30.5	30.1			06-08	33.4	35.6			06-08	39.1	37.6		
English language learners[3]	Mean SS	06-08	610.9	610.4	-0.2[2]	L	06-08	668.8	674.5	2.9[2]	L	06-08	700.6	692.1	-4.3[2]	S
	SD	06-08	28.7	36.1			06-08	35.0	48.5			06-08	41.8	49.3		
Female	Mean SS	05-08	632.9	629.0	-1.3		05-08	697.4	702.5	1.7		05-08	738.6	739.7	0.4	

		Grade 4					Grade 8					Grade 11				
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	05-08	30.8	30.8			05-08	32.5	35.5			05-08	38.3	36.3		
Male	Mean SS	05-08	633.8	630.0	-1.3	E	05-08	698.1	702.8	1.6	S	05-08	742.7	742.2	-0.2	S
	SD	05-08	32.1	30.3			05-08	35.4	37.6			05-08	41.9	40.7		

Table reads: In 2005, the mean scale score on the state 4th grade math test was 635.7 for white students and 611.3 for African American students. In 2008, the mean scale score in 4th grade math was 632.4 for white students and 610.0 for African American students. Between 2005 and 2008, the mean scale score declined at an average yearly rate of 1.1 points for white students and 0.4 points for African American students, indicating a narrowing of the achievement gap for African Americans.

Note: The scoring scale varies for different grade levels within a range of 470-870.

[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 ND-15. Numbers of Test-Takers

Subgroup	Subject	Grade 4					Grade 8					Grade 11				
		Year Span	# of Test-Takers Start Year	# of Test-Takers End Year	Change in # of Test-Takers Over Time	% of Test-Takers in Subgroup in End Year	Year Span	# of Test-Takers Start Year	# of Test-Takers End Year	Change in # of Test-Takers Over Time	% of Test-Takers in Subgroup in End Year	Year Span	# of Test-Takers Start Year	# of Test-Takers End Year	Change in # of Test-Takers Over Time	% of Test-Takers in Subgroup in End Year
All tested students	Reading	05-08	6,933	6,671	-3.8%	100.0%	05-08	7,858	7,119	-9.4%	100.0%	05-08	7,700	7,247	-5.9%	100.0%
	Math	05-08	6,947	6,715	-3.3%	100.0%	05-08	7,839	7,109	-9.3%	100.0%	05-08	7,687	7,230	-5.9%	100.0%
White	Reading	05-08	6,059	5,677	-6.3%	85.1%	05-08	6,912	6,232	-9.8%	87.5%	05-08	6,937	6,460	-6.9%	89.1%
	Math	05-08	6,064	5,721	-5.7%	85.2%	05-08	6,893	6,216	-9.8%	87.4%	05-08	6,924	6,457	-6.7%	89.3%
African American	Reading	05-08	92	**159**	72.8%	2.4%	05-08	93	**98**	5.4%	1.4%	05-08	63	**117**	85.7%	1.6%
	Math	05-08	98	**162**	65.3%	2.4%	05-08	98	**103**	5.1%	1.4%	05-08	67	**118**	76.1%	1.6%
Latino	Reading	05-08	96	**126**	31.3%	1.9%	05-08	100	**103**	3.0%	1.4%	05-08	97	**79**	-18.6%	1.1%
	Math	05-08	98	**120**	22.4%	1.8%	05-08	99	**105**	6.1%	1.5%	05-08	98	**78**	-20.4%	1.1%
Asian	Reading	05-08	60	**78**	30.0%	1.2%	05-08	68	**53**	-22.1%	0.7%	05-08	76	**58**	-23.7%	0.8%
	Math	05-08	60	**77**	28.3%	1.1%	05-08	72	**55**	-23.6%	0.8%	05-08	77	**58**	-24.7%	0.8%
Native American	Reading	05-08	611	613	0.3%	9.2%	05-08	659	600	-9.0%	8.4%	05-08	473	508	7.4%	7.0%
	Math	05-08	610	617	1.1%	9.2%	05-08	651	601	-7.7%	8.5%	05-08	469	498	6.2%	6.9%
Low-income	Reading	05-08	2,255	2,383	5.7%	35.7%	05-08	2,333	2,152	-7.8%	30.2%	05-08	1,509	1,670	10.7%	23.0%
	Math	05-08	2,267	2,406	6.1%	35.8%	05-08	2,326	2,159	-7.2%	30.4%	05-08	1,508	1,664	10.3%	23.0%
Students w/ disabilities	Reading	06-08	985	830	-15.7%	12.4%	06-08	898	770	-14.3%	10.8%	06-08	658	625	-5.0%	8.6%
	Math	06-08	986	881	-10.6%	13.1%	06-08	871	758	-13.0%	10.7%	06-08	641	625	-2.5%	8.6%
English language learners	Reading	06-08	312	**247**	-20.8%	3.7%	06-08	310	**261**	-15.8%	3.7%	06-08	154	**172**	11.7%	2.4%
	Math	06-08	319	**247**	-22.6%	3.7%	06-08	321	**268**	-16.5%	3.8%	06-08	162	**173**	6.8%	2.4%
Female	Reading	05-08	3,377	3,232	-4.3%	48.4%	05-08	3,858	3,466	-10.2%	48.7%	05-08	3,702	3,568	-3.6%	49.2%
	Math	05-08	3,383	3,239	-4.3%	48.2%	05-08	3,851	3,465	-10.0%	48.7%	05-08	3,696	3,555	-3.8%	49.2%
Male	Reading	05-08	3,548	3,437	-3.1%	51.5%	05-08	3,981	3,649	-8.3%	51.3%	05-08	3,991	3,673	-8.0%	50.7%
	Math	05-08	3,556	3,474	-2.3%	51.7%	05-08	3,969	3,640	-8.3%	51.2%	05-08	3,984	3,669	-7.9%	50.7%

Table reads: In 2005, 6,059 students in the white subgroup took the state 4th grade reading test. By 2008, the number of white test-takers had fallen to 5,677 students, a decrease of 6.3%. In 2008, the white subgroup made up 85.1% of the 6,671 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.