

## Subgroup Achievement and Gap Trends — South Dakota

*K-12 enrollment — 112,139*

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](http://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.

Overall, student achievement has gone in an upward direction in South Dakota. Most achievement gaps between groups of students are narrowing.

#### **Subgroup trends by achievement level at grade 4**

- **Main trend:** Most subgroups made gains in reading and math at three achievement levels—basic-and-above, proficient-and-above, and advanced. In both reading and math, 100% of South Dakota students had reached or exceeded the basic level of achievement in 2008.

#### **Gap trends at three grade levels**

- **Main trend:** In most instances, gaps in the percentages of students scoring at the proficient level narrowed between Native American students and white students and between low-income and all tested students, at grades 4 and 8 and at the high school grade tested. Specifically, 4 of the 6 trend lines analyzed in reading showed evidence of gaps narrowing, as did 4 of 6 trend lines in math. The gaps widened between low-income and all tested students at the 8 grade and high school levels in both reading and math.

#### **Data notes**

- **Limited data:** Trends are limited to 2005–2008 for reading and 2006–2008 for math. Mean scale score data are not available.

- Subgroups analyzed: Trends were analyzed for white, Native American, and low-income students. The African American and Latino subgroups are too small in South Dakota to yield reliable trend data and sufficient data are not available to compute trends for Asian 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 three grade levels: grade 4, grade 8, and the high school grade tested for NCLB.

## Data Limitations

Years of comparable percentage proficient data	2005 through 2008 for reading 2006 through 2008 for math
Years of comparable means scale score data	2007 through 2008
Disaggregated data for all subgroups and comparison groups	Percentage proficient data available 2005 through 2008 for reading, 2006 through 2008 for math Mean scale score data available for 2007 through 2008 Percentage proficient data are not available until 2007 for the comparison group of students who are <i>not</i> low-income so the subgroup of low-income students is compared with all students in the state Percentage proficient data not available for grade 11 until 2006 for Latino students and 2007 for African American students Sufficient mean scale score or percentage proficient data are not available to compute trends for Asian students
Numbers of test-takers by subgroup	Not available until 2007 for the low-income subgroup Data not available for some subgroups for some years due to small numbers of test-takers in those groups

## 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	State Test of Educational Progress (Dakota STEP) Statewide Team-led Alternate Assessment and Reporting System
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	(STAARS)
Grades tested for NCLB accountability	3–8 and 11
State labels for achievement levels	SD uses four achievement levels: Below Basic, Basic, Proficient, and Advanced. For our analyses we treated Basic as Basic, Proficient as Proficient, and Advanced as Advanced.
High school NCLB test also used as an exit exam?	No
First year test used	2005 reading and 2006 math
Time of test administration	Spring
Major changes in testing system (2002–present)	2002–03: Switched from a norm-referenced test (Stanford Achievement Test, 10 <sup>th</sup> Edition) to the Dakota STEP 2004–05: Developed new reading and math standards and new reading assessment 2005–06: Developed new math assessment

## 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 SD-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 <sup>1</sup>			
	2002	2003	2004	2005				
<b>All tested students</b>								
Advanced				30%	32%	26%	29%	-0.5
Proficient and Above				86%	87%	88%	89%	1.1
Basic and Above				100%	100%	100%	100%	0.0
<b>White</b>								
Advanced				31%	37%	30%	33%	0.4
Proficient and Above				87%	92%	92%	93%	1.9
Basic and Above				100%	100%	100%	100%	0.0
<b>African American<sup>2</sup></b>								
Advanced				9%	16%	12%	17%	2.4
Proficient and Above				79%	75%	78%	82%	1.3
Basic and Above				100%	100%	100%	100%	-0.2
<b>Latino<sup>2</sup></b>								
Advanced				17%	18%	10%	17%	0.1
Proficient and Above				72%	81%	75%	82%	3.4
Basic and Above				100%	100%	100%	100%	0.0
<b>Asian</b>								
Advanced				NA	NA	NA	NA	NA
Proficient and Above				NA	NA	NA	NA	NA
Basic and Above				NA	NA	NA	NA	NA
<b>Native American</b>								
Advanced				3%	9%	6%	7%	1.1
Proficient and Above				54%	63%	69%	71%	5.6
Basic and Above				100%	100%	100%	100%	0.0

Table reads: The percentage of white 4<sup>th</sup> graders who scored at the advanced level on the state reading test increased from 31% in 2005 to 33% in 2008. During this period, the average yearly gain in the percentage advanced in reading for white 4<sup>th</sup> graders was 0.4 percentage points per year.

<sup>1</sup>Averages are subject to rounding error.

<sup>2</sup>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 SD-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 <sup>1</sup>
	2002	2003	2004	2005	2006	2007	2008	
<b>All tested students</b>								
Advanced				30%	32%	26%	29%	-0.5
Proficient and Above				86%	87%	88%	89%	1.1
Basic and Above				100%	100%	100%	100%	0.0
<b>Low-income students</b>								
Advanced				18%	21%	14%	16%	-0.6
Proficient and Above				77%	79%	82%	83%	1.9
Basic and Above				98%	100%	100%	100%	0.6
<b>Students with disabilities<sup>3</sup></b>								
Advanced				14%	8%	11%	14%	3.0
Proficient and Above				60%	57%	68%	74%	8.2
Basic and Above				100%	100%	100%	100%	0.0
<b>English language learners<sup>3</sup></b>								
Advanced				NA	5%	3%	6%	0.4
Proficient and Above				NA	60%	63%	73%	6.1
Basic and Above				NA	100%	100%	100%	-0.1
<b>Female</b>								
Advanced				33%	34%	28%	31%	-0.7
Proficient and Above				88%	89%	91%	92%	1.2
Basic and Above				100%	100%	100%	100%	0.0
<b>Male</b>								
Advanced				28%	30%	24%	27%	-0.4
Proficient and Above				84%	85%	86%	87%	1.0
Basic and Above				100%	100%	100%	100%	0.0

Table reads: The percentage of low-income 4<sup>th</sup> graders who scored at the advanced level on the state reading test decreased from 18% in 2005 to 16% in 2008. During this period, the average yearly loss in the percentage advanced in reading for low-income 4<sup>th</sup> graders was 0.6 percentage points per year.

<sup>1</sup>Averages are subject to rounding error.

<sup>2</sup>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.

<sup>3</sup>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 SD-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 <sup>1</sup>
	2002	2003	2004	2005	2006	2007	2008	
All tested students								
Advanced					17%	16%	18%	0.4
Proficient and Above					78%	78%	79%	0.6
Basic and Above					100%	100%	100%	0.0
White								
Advanced					20%	18%	21%	0.3
Proficient and Above					85%	83%	85%	-0.2
Basic and Above					100%	100%	100%	0.0
African American <sup>2</sup>								
Advanced					4%	4%	5%	0.4
Proficient and Above					58%	58%	59%	0.4
Basic and Above					99%	99%	98%	-0.5
Latino <sup>2</sup>								
Advanced					8%	3%	8%	0.2
Proficient and Above					64%	57%	64%	0.0
Basic and Above					100%	99%	100%	0.0
Asian								
Advanced					NA	NA	NA	NA
Proficient and Above					NA	NA	NA	NA
Basic and Above					NA	NA	NA	NA
Native American								
Advanced					3%	3%	3%	0.3
Proficient and Above					44%	50%	49%	2.5
Basic and Above					100%	100%	100%	0.0

Table reads: The percentage of white 4<sup>th</sup> graders who scored at the advanced level on the state math test increased from 20% in 2006 to 21% in 2008. During this period, the average yearly gain in the percentage advanced in math for white 4<sup>th</sup> graders was 0.3 percentage points per year.

<sup>1</sup>Averages are subject to rounding error.

<sup>2</sup>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 SD-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 <sup>1</sup>
	2002	2003	2004	2005	2006	2007	2008	
All tested students								
Advanced					17%	16%	18%	0.4
Proficient and Above					78%	78%	79%	0.6
Basic and Above					100%	100%	100%	0.0
Low-income students								
Advanced					8%	8%	9%	0.7
Proficient and Above					65%	66%	67%	1.1
Basic and Above					99%	100%	100%	0.4
Students with disabilities <sup>3</sup>								
Advanced					4%	5%	8%	1.8
Proficient and Above					45%	48%	58%	6.6
Basic and Above					100%	100%	100%	0.1
English language learners <sup>3</sup>								
Advanced					1%	2%	3%	1.4
Proficient and Above					38%	46%	50%	6.1
Basic and Above					99%	99%	99%	0.1
Female								
Advanced					15%	14%	16%	0.4
Proficient and Above					78%	79%	80%	0.9
Basic and Above					100%	100%	100%	0.0
Male								
Advanced					18%	17%	19%	0.5
Proficient and Above					78%	77%	78%	0.2
Basic and Above					100%	100%	100%	0.0

Table reads: The percentage of low-income 4<sup>th</sup> graders who scored at the advanced level on the state math test increased from 8% in 2006 to 9% in 2008. During this period, the average yearly gain in the percentage advanced in math for low-income 4<sup>th</sup> graders was 0.7 percentage points per year.

<sup>1</sup>Averages are subject to rounding error.

<sup>2</sup>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.

<sup>3</sup>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 SD-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.

Subgroup	Grade 4					Grade 8					Grade 11				
	Year Span	Starting PP	Ending PP	Average Annual Gain <sup>1</sup>	Gain Larger or Smaller Than Comparison Group	Year Span	Starting PP	Ending PP	Average Annual Gain <sup>1</sup>	Gain Larger or Smaller Than Comparison Group	Year Span	Starting PP	Ending PP	Average Annual Gain <sup>1</sup>	Gain Larger or Smaller Than Comparison Group
All tested students	05-08	86%	89%	1.1		05-08	76%	80%	1.1		05-08	71%	68%	-1.1	
White	05-08	87%	93%	1.9		05-08	79%	84%	1.7		05-08	73%	71%	-0.7	
African American	05-08	79%	82%	1.3 <sup>2</sup>	S	05-08	64%	66%	0.7 <sup>2</sup>	S	05-08	NA	54%	NA	NA
Latino	05-08	72%	82%	3.4 <sup>2</sup>	L	05-08	51%	68%	5.6 <sup>2</sup>	L	06-08	47	49%	1.2 <sup>2</sup>	L
Asian	05-08	NA	NA	NA	NA	05-08	NA	71%	NA	NA	05-08	NA	NA	NA	NA
Native American	05-08	54%	71%	5.6	L	05-08	39%	50%	3.7	L	05-08	32%	42%	3.3	L
All tested students	05-08	86%	89%	1.1		05-08	76%	80%	1.1		05-08	71%	68%	-1.1	
Low-income	05-08	77%	83%	1.9	L	05-08	66%	68%	0.7	S	05-08	59%	55%	-1.4	S
Not disabled	06-08	91%	92%	0.7		06-08	82%	83%	0.6		06-08	75%	73%	-1.2	
Students with disabilities <sup>3</sup>	06-08	57%	74%	8.2	L	06-08	32%	46%	6.7	L	06-08	16%	19%	1.3	L
Not ELLs	06-08	88%	90%	1.3		06-08	78%	81%	1.4		06-08	72%	69%	-1.7	
English language learners <sup>3</sup>	06-08	60%	73%	6.1	L	06-08	31%	50%	9.6 <sup>2</sup>	L	06-08	14%	30%	7.7 <sup>2</sup>	L
Female	05-08	88%	92%	1.2		05-08	81%	83%	0.5		05-08	75%	72%	-1.0	
Male	05-08	84%	87%	1.0	S	05-08	72%	77%	1.6	L	05-08	68%	64%	-1.3	S

Table reads: In 2005, 87% of white 4<sup>th</sup> graders and 79% of African American 4<sup>th</sup> graders scored at the proficient level on the state reading test. In 2008, 93% of white 4<sup>th</sup> graders and 82% of African American 4<sup>th</sup> graders scored at the proficient level in reading. Between 2005 and 2008, the percentage proficient improved at an average rate of 1.9 percentage point per year for white students and 1.3 percentage points per year for African American students, indicating a smaller rate of

gain and a widening of the achievement gap for African American 4<sup>th</sup> graders.

<sup>1</sup>Numbers in these columns are subject to rounding error.

<sup>2</sup>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.

<sup>3</sup>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 SD-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.

Subgroup	Grade 4					Grade 8					Grade 11				
	Year Span	Starting PP	Ending PP	Average Annual Gain <sup>1</sup>	Gain Larger or Smaller Than Comparison Group	Year Span	Starting PP	Ending PP	Average Annual Gain <sup>1</sup>	Gain Larger or Smaller Than Comparison Group	Year Span	Starting PP	Ending PP	Average Annual Gain <sup>1</sup>	Gain Larger or Smaller Than Comparison Group
All tested students	06-08	78%	79%	0.6		06-08	68%	75%	3.7		06-08	63%	66%	1.6	
White	06-08	85%	85%	-0.2		06-08	77%	81%	2.4		06-08	68%	70%	0.9	
African American	06-08	58%	59%	0.4 <sup>2</sup>	L	06-08	56%	55%	-0.3 <sup>2</sup>	S	07-08	32%	63%	NA	NA
Latino	06-08	64%	64%	0.0 <sup>2</sup>	L	06-08	48%	57%	4.1 <sup>2</sup>	L	06-08	45%	45%	0.0 <sup>2</sup>	S
Asian	06-08	NA	NA	NA	NA	06-08	NA	70%	NA	NA	06-08	72%	NA	NA	NA
Native American	06-08	44%	49%	2.5	L	06-08	26%	38%	6.0	L	06-08	21%	31%	5.1	L
All tested students	06-08	78%	79%	0.6		06-08	68%	75%	3.7		06-08	63%	66%	1.6	
Low-income	06-08	65%	67%	1.1	L	06-08	54%	61%	3.6	S	06-08	48%	48%	0.2	S
Not disabled	06-08	82%	82%	0.3		06-08	73%	79%	3.3		06-08	66%	71%	2.1	
Students with disabilities <sup>3</sup>	06-08	45%	58%	6.6	L	06-08	20%	38%	9.0	L	06-08	9%	18%	4.3	L
Not ELLs	06-08	79%	81%	0.8		06-08	69%	77%	4.0		06-08	63%	67%	1.7	
English language learners <sup>3</sup>	06-08	38%	50%	6.1	L	06-08	24%	48%	12.0 <sup>2</sup>	L	06-08	15%	26%	5.6 <sup>2</sup>	L
Female	06-08	78%	80%	0.9		06-08	67%	77%	4.6		06-08	63%	67%	2.0	
Male	06-08	78%	78%	0.2	S	06-08	68%	74%	2.9	S	06-08	63%	65%	1.3	S

Table reads: In 2006, 85% of white 4<sup>th</sup> graders and 58% of African American 4<sup>th</sup> graders scored at the proficient level on the state math test. In 2008, 85% of white 4<sup>th</sup> graders and 59% of African American 4<sup>th</sup> graders scored at the proficient level in math. Between 2006 and 2008, the percentage proficient declined at an average rate of 0.2 percentage point per year for white students and improved at an average rate of 0.4 percentage points per year for African American students, indicating a larger rate of gain and a narrowing of the achievement gap for African American 4<sup>th</sup> graders.

<sup>1</sup>Numbers in these columns are subject to rounding error.

<sup>2</sup>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.

<sup>3</sup>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 SD-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.

Subgroup	Statistic	Grade 4					Grade 8					Grade 11				
		Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) <sup>1</sup>	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) <sup>1</sup>	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) <sup>1</sup>	Gain Larger or Smaller than Comparison Group
All tested students	Mean SS	07-08	646.6	649.2	NA		07-08	692.3	693.7	NA		07-08	734.8	733.7	NA	
	SD	07-08	34.6	34.5			07-08	30.7	29.8			07-08	37.6	37.3		
White	Mean SS	07-08	651.2	654.0	NA		07-08	696.0	697.5	NA		07-08	737.2	736.1	NA	
	SD	07-08	33.4	33.2			07-08	29.6	28.5			07-08	37.1	36.4		
African American	Mean SS	07-08	630.4	635.9	NA	NA	07-08	677.3	682.8	NA	NA	07-08	712.9	718.0	NA	NA
	SD	07-08	31.9	33.1			07-08	29.9	34.1			07-08	38.4	39.1		
Latino	Mean SS	07-08	627.3	636.4	NA	NA	07-08	676.2	680.7	NA	NA	07-08	720.1	719.3	NA	NA
	SD	07-08	34.4	32.6			07-08	30.0	25.6			07-08	34.8	38.7		
Asian	Mean SS	07-08	NA	NA	NA	NA	07-08	NA	694.1	NA	NA	07-08	NA	NA	NA	NA
	SD	07-08	NA	NA			07-08	NA	30.6			07-08	NA	NA		
Native American	Mean SS	07-08	621.3	624.2	NA	NA	07-08	669.5	669.8	NA	NA	07-08	710.9	712.2	NA	NA
	SD	07-08	29.4	30.3			07-08	26.9	27.1			07-08	34.4	36.7		
Not Low-income	Mean SS	07-08	652.8	655.3	NA		07-08	697.1	698.3	NA		07-08	738.5	736.8	NA	
	SD	07-08	34.0	33.5			07-08	30.1	29.0			07-08	37.1	36.9		
Low-income	Mean SS	07-08	634.5	637.2	NA	NA	07-08	681.6	682.7	NA	NA	07-08	720.3	721.0	NA	NA
	SD	07-08	32.3	33.1			07-08	29.1	29.0			07-08	35.9	36.4		
Not disabled	Mean SS	07-08	650.4	652.7	NA		07-08	696.1	696.5	NA		07-08	738.7	737.5	NA	
	SD	07-08	33.1	33.3			07-08	28.9	28.9			07-08	35.6	35.5		
Students with disabilities <sup>3</sup>	Mean SS	07-08	623.0	629.3	NA	NA	07-08	659.6	668.1	NA	NA	07-08	689.3	693.8	NA	NA
	SD	07-08	34.2	34.5			07-08	25.5	25.8			07-08	29.9	32.7		
Not ELLs	Mean SS	07-08	648.6	650.9	NA		07-08	693.4	694.8	NA		07-08	735.4	734.4	NA	
	SD	07-08	34.0	34.1			07-08	30.4	29.5			07-08	37.3	37.0		
English language learners <sup>3</sup>	Mean SS	07-08	616.2	623.1	NA	NA	07-08	665.0	670.3	NA	NA	07-08	697.5	699.3	NA	NA
	SD	07-08	28.8	29.5			07-08	24.7	27.1			07-08	34.4	37.4		
Female	Mean SS	07-08	649.5	652.2	NA		07-08	695.0	695.5	NA		07-08	737.7	736.9	NA	
	SD	07-08	34.1	33.5			07-08	29.3	28.9			07-08	36.0	36.1		

Subgroup	Statistic	Grade 4					Grade 8					Grade 11				
		Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) <sup>1</sup>	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) <sup>1</sup>	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) <sup>1</sup>	Gain Larger or Smaller than Comparison Group
Male	Mean SS	07-08	643.8	646.3	NA	NA	07-08	689.7	692.0	NA	NA	07-08	731.9	730.6	NA	NA
	SD	07-08	34.8	35.1			07-08	31.6	30.6			07-08	38.9	38.2		

Table reads: In 2007, the mean scale score on the state 4<sup>th</sup> grade reading test was 651.2 for white students and 630.4 for African American students. In 2008, the mean scale score in 4<sup>th</sup> grade reading was 654.0 for white students and 635.9 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 Dakota STEP is scored on a linear transformation scale, such that scale scores (SS) =  $35(\theta) + 600$ .

<sup>1</sup>Numbers in these columns are subject to rounding error.

<sup>2</sup>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.

<sup>3</sup>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 SD-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.

Subgroup	Statistic	Grade 4					Grade 8					Grade 11				
		Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) <sup>1</sup>	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) <sup>1</sup>	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) <sup>1</sup>	Gain Larger or Smaller than Comparison Group
All tested students	Mean SS	07-08	646.4	650.0	NA		07-08	710.1	715.1	NA		07-08	730.5	732.9	NA	
	SD	07-08	36.0	38.4			07-08	36.9	40.7			07-08	38.0	40.5		
White	Mean SS	07-08	651.4	655.9	NA		07-08	714.7	720.4	NA		07-08	733.5	736.2	NA	
	SD	07-08	34.7	36.8			07-08	36.0	39.3			07-08	37.3	39.6		
African American	Mean SS	07-08	626.9	626.9	NA	NA	07-08	690.6	695.2	NA	NA	07-08	703.2	706.6	NA	NA
	SD	07-08	33.5	41.6			07-08	33.4	38.5			07-08	33.3	36.3		
Latino	Mean SS	07-08	624.4	632.2	NA	NA	07-08	689.4	693.8	NA	NA	07-08	710.1	713.3	NA	NA
	SD	07-08	31.8	35.4			07-08	29.4	35.7			07-08	32.6	33.3		
Asian	Mean SS	07-08	NA	NA	NA	NA	07-08	NA	729.6	NA	NA	07-08	736.4	NA	NA	NA
	SD	07-08	NA	NA			07-08	NA	49.8			07-08	41.7	NA		
Native American	Mean SS	07-08	619.5	620.5	NA	NA	07-08	681.3	682.3	NA	NA	07-08	700.0	701.7	NA	NA
	SD	07-08	30.9	31.6			07-08	27.7	32.5			07-08	31.8	34.0		
Not Low-income	Mean SS	07-08	653.0	656.7	NA		07-08	716.6	721.6	NA		07-08	734.5	736.7	NA	
	SD	07-08	35.2	37.4			07-08	37.1	40.5			07-08	37.4	40.4		
Low-income	Mean SS	07-08	633.6	636.6	NA	NA	07-08	695.9	699.7	NA	NA	07-08	715.3	716.6	NA	NA
	SD	07-08	34.1	36.8			07-08	32.2	36.8			07-08	36.4	36.9		
Not disabled	Mean SS	07-08	650.3	653.6	NA		07-08	714.4	718.9	NA		07-08	734.3	736.9	NA	
	SD	07-08	34.7	37.6			07-08	35.6	39.9			07-08	36.7	38.9		
Students with disabilities <sup>3</sup>	Mean SS	07-08	621.8	629.1	NA	NA	07-08	673.7	681.0	NA	NA	07-08	686.9	689.8	NA	NA
	SD	07-08	34.3	36.5			07-08	25.9	30.6			07-08	22.5	31.6		
Not ELLs	Mean SS	07-08	648.5	651.9	NA		07-08	711.3	716.3	NA		07-08	731.2	733.5	NA	
	SD	07-08	35.3	37.9			07-08	36.6	40.4			07-08	37.7	40.4		
English language learners <sup>3</sup>	Mean SS	07-08	614.5	620.7	NA	NA	07-08	680.9	690.0	NA	NA	07-08	693.3	700.3	NA	NA
	SD	07-08	31.3	33.5			07-08	31.1	40.0			07-08	36.5	33.7		
Female	Mean SS	07-08	645.8	649.1	NA		07-08	709.3	714.8	NA		07-08	729.9	732.2	NA	

Subgroup	Statistic	Grade 4					Grade 8					Grade 11				
		Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) <sup>1</sup>	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) <sup>1</sup>	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) <sup>1</sup>	Gain Larger or Smaller than Comparison Group
	SD	07-08	34.5	36.2			07-08	34.5	38.2			07-08	35.8	38.4		
Male	Mean SS	07-08	646.9	650.9	NA	NA	07-08	710.9	715.4	NA	NA	07-08	731.2	733.6	NA	NA
	SD	07-08	37.4	40.5			07-08	39.0	42.9			07-08	40.1	42.5		

Table reads: In 2007, the mean scale score on the state 4<sup>th</sup> grade math test was 651.4 for white students and 626.9 for African American students. In 2008, the mean scale score in 4<sup>th</sup> grade math was 655.9 for white students and 626.9 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 Dakota STEP is scored on a linear transformation scale, such that scale scores (SS) = 35( $\theta$ ) + 600.

<sup>1</sup>Numbers in these columns are subject to rounding error.

<sup>2</sup>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.

<sup>3</sup>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 SD-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	07-08	8,924	8,882	-0.5%	100.0%	07-08	9,592	9,305	-3.0%	100.0%	07-08	8,646	8,313	-3.9%	100.0%
	Math	07-08	8,942	8,896	-0.5%	100.0%	07-08	9,593	9,325	-2.8%	100.0%	07-08	8,668	8,309	-4.1%	100.0%
White	Reading	07-08	7,351	7,192	-2.2%	81.0%	07-08	8,058	7,743	-3.9%	83.2%	07-08	7,728	7,326	-5.2%	88.1%
	Math	07-08	7,359	7,195	-2.2%	80.9%	07-08	8,056	7,744	-3.9%	83.0%	07-08	7,740	7,324	-5.4%	88.1%
African American	Reading	07-08	178	<b>211</b>	18.5%	2.4%	07-08	152	<b>183</b>	20.4%	2.0%	07-08	112	<b>129</b>	15.2%	1.6%
	Math	07-08	182	<b>218</b>	19.8%	2.5%	07-08	155	<b>194</b>	25.2%	2.1%	07-08	117	<b>130</b>	11.1%	1.6%
Latino	Reading	07-08	218	<b>237</b>	8.7%	2.7%	07-08	176	<b>215</b>	22.2%	2.3%	07-08	121	<b>144</b>	19.0%	1.7%
	Math	07-08	223	<b>239</b>	7.2%	2.7%	07-08	178	<b>223</b>	25.3%	2.4%	07-08	121	<b>146</b>	20.7%	1.8%
Asian	Reading	07-08	NA	NA	NA	NA	07-08	NA	<b>123</b>	NA	1.3%	07-08	NA	NA	NA	NA
	Math	07-08	NA	NA	NA	NA	07-08	NA	<b>126</b>	NA	1.4%	07-08	100	NA	NA	NA
Native American	Reading	07-08	1,078	1,146	6.3%	12.9%	07-08	1,117	1,034	-7.4%	11.1%	07-08	586	612	4.4%	7.4%
	Math	07-08	1,079	1,146	6.2%	12.9%	07-08	1,113	1,031	-7.4%	11.1%	07-08	590	607	2.9%	7.3%
Low-income	Reading	07-08	3,037	2,975	-2.0%	33.5%	07-08	3,001	2,730	-9.0%	29.3%	07-08	1,771	1,593	-10.1%	19.2%
	Math	07-08	3,052	2,978	-2.4%	33.5%	07-08	3,003	2,736	-8.9%	29.3%	07-08	1,778	1,592	-10.5%	19.2%
Students w/ disabilities	Reading	07-08	1,235	1,317	6.6%	14.8%	07-08	1,001	923	-7.8%	9.9%	07-08	686	714	4.1%	8.6%
	Math	07-08	1,237	1,317	6.5%	14.8%	07-08	1,003	924	-7.9%	9.9%	07-08	693	712	2.7%	8.6%
English language learners	Reading	07-08	544	540	-0.7%	6.1%	07-08	370	<b>418</b>	13.0%	4.5%	07-08	141	<b>149</b>	5.7%	1.8%
	Math	07-08	553	542	-2.0%	6.1%	07-08	374	<b>427</b>	14.2%	4.6%	07-08	147	<b>147</b>	0.0%	1.8%
Female	Reading	07-08	4,340	4,376	0.8%	49.3%	07-08	4,625	4,487	-3.0%	48.2%	07-08	4,305	4,109	-4.6%	49.4%
	Math	07-08	4,347	4,380	0.8%	49.2%	07-08	4,627	4,493	-2.9%	48.2%	07-08	4,317	4,107	-4.9%	49.4%
Male	Reading	07-08	4,584	4,506	-1.7%	50.7%	07-08	4,967	4,818	-3.0%	51.8%	07-08	4,341	4,204	-3.2%	50.6%
	Math	07-08	4,595	4,516	-1.7%	50.8%	07-08	4,966	4,832	-2.7%	51.8%	07-08	4,351	4,202	-3.4%	50.6%

Table reads: In 2007, 7,351 students in the white subgroup took the state 4<sup>th</sup> grade reading test. By 2008, the number of white test-takers had fallen to 7,192 students, a decrease of 2.2%. In 2008, the white subgroup made up 81.0% of the 8,882 4<sup>th</sup> 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.