

## Subgroup Achievement and Gap Trends — West Virginia

*K-12 enrollment — 269,513*

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.

West Virginia had positive trends in student achievement, and progress was made in closing achievement gaps for African American and low income students.

#### ***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. Specifically, all 9 of the trend lines analyzed across the three achievement levels in both reading and math showed gains (white, African American and low income students).

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

- **Main trend**: In most instances, gaps in the percentages of students scoring at the proficient level narrowed between African American students and white students, and between low-income and non-low-income students, at grades 4 and 8 and at the high school grade tested. Specifically, 5 of the 6 trend lines analyzed in reading showed evidence of gaps narrowing, as did 5 of 6 trend lines in math. In the remaining instances, gaps widened or were equal to the comparison group.

#### ***Data notes***

- **Limited data**: Trends are limited to 2004–2008 for grades 4, 8 and 10.

- Subgroups analyzed: Trends were analyzed for white, African American, and low-income students. The Latino, Asian American, and Native American subgroups are too small in West Virginia to yield reliable trend data. 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	2004 through 2008
Years of comparable mean scale score data	2004 through 2008
Disaggregated data for all subgroups and comparison groups	Available 2004 through 2008 Percentages proficient are not available for 2007 or 2008 for comparison group of students who are <i>not</i> English language learners, so the ELL subgroup is compared with all tested students in the state for percentages proficient analyses Mean scale score data not available for comparison groups of students who are <i>not</i> low-income, disabled, or English language learners (ELLs), so the subgroup of low-income students, students with disabilities, and ELLs are compared with all tested students in the state for mean scale score analyses

## 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	West Virginia Educational Standards Tests (WESTEST) West Virginia Alternate Performance Task Assessment (APTA)
Grades tested for NCLB accountability	3–8, 10
State labels for achievement levels	WV uses five achievement levels: Novice, Partial Mastery, Mastery, Above Mastery, and Distinguished. For our analyses we treated Partial Mastery as Basic, Mastery as Proficient, and Above Mastery + Distinguished as Advanced.
High school NCLB test also used as an exit exam?	No

First year test used

2004

Time of test administration

Spring

Major changes in testing system (2002–present)

2003–04: Switched to WESTEST assessment from Stanford Achievement Test-9<sup>th</sup> Edition (SAT-9)

2008-2009: Administered new WESTEST 2 assessment, which is aligned to recently adopted content standards and replaces the original WESTEST.

## 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 WV-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	2006	2007		2008
<b>All tested students</b>								
Advanced			29%	32%	32%	33%	32%	0.8
Proficient and Above			73%	81%	82%	83%	82%	2.3
Basic and Above			94%	94%	96%	95%	95%	0.3
<b>White</b>								
Advanced			30%	33%	33%	34%	33%	0.8
Proficient and Above			74%	83%	82%	83%	83%	2.3
Basic and Above			94%	95%	95%	96%	96%	0.5
<b>African American</b>								
Advanced			13%	17%	19%	21%	20%	1.8
Proficient and Above			58%	73%	75%	77%	76%	4.5
Basic and Above			90%	93%	95%	94%	95%	1.3
<b>Latino<sup>2</sup></b>								
Advanced			20%	25%	22%	21%	21%	0.3
Proficient and Above			63%	73%	77%	74%	83%	5.0
Basic and Above			89%	94%	93%	94%	96%	1.8
<b>Asian<sup>2</sup></b>								
Advanced			44%	55%	56%	57%	55%	<b>2.8</b>
Proficient and Above			82%	90%	89%	90%	94%	<b>3.0</b>
Basic and Above			98%	97%	99%	98%	99%	<b>0.3</b>
<b>Native American<sup>2</sup></b>								
Advanced			16%	33%	19%	31%	44%	7.0
Proficient and Above			53%	83%	63%	84%	84%	7.8
Basic and Above			85%	87%	100%	89%	94%	2.3

Table reads: The percentage of white 4<sup>th</sup> graders who scored at the advanced level on the state reading test increased from 30% in 2004 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 0.8 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 WV-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			29%	32%	32%	33%	32%	0.8
Proficient and Above			73%	81%	82%	83%	82%	2.3
Basic and Above			94%	94%	96%	95%	95%	0.3
<b>Low-income students</b>								
Advanced			19%	23%	23%	24%	22%	0.8
Proficient and Above			65%	74%	75%	76%	76%	2.8
Basic and Above			90%	93%	94%	94%	94%	1.0
<b>Students with disabilities<sup>3</sup></b>								
Advanced			7%	9%	11%	13%	10%	-0.5
Proficient and Above			34%	43%	47%	50%	47%	0.0
Basic and Above			70%	73%	78%	80%	78%	0.0
<b>English language learners<sup>2,3</sup></b>								
Advanced			34%	41%	20%	17%	21%	0.5
Proficient and Above			68%	79%	68%	67%	78%	5.0
Basic and Above			92%	94%	91%	87%	91%	0.0
<b>Female</b>								
Advanced			32%	36%	36%	38%	36%	1.0
Proficient and Above			78%	86%	86%	86%	86%	2.0
Basic and Above			92%	93%	94%	95%	94%	0.5
<b>Male</b>								
Advanced			26%	28%	27%	30%	28%	0.5
Proficient and Above			69%	77%	77%	79%	79%	2.5
Basic and Above			95%	97%	97%	98%	97%	0.5

Table reads: The percentage of low-income 4<sup>th</sup> graders who scored at the advanced level on the state reading test was 19% in 2004 and 22% in 2008. During this period, the average yearly gain in the percentage advanced in reading for low-income 4<sup>th</sup> graders was 0.8 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 WV-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
<b>All tested students</b>								
Advanced			24%	33%	35%	39%	34%	2.5
Proficient and Above			69%	75%	77%	79%	76%	1.8
Basic and Above			94%	95%	96%	98%	95%	0.3
<b>White</b>								
Advanced			26%	34%	36%	39%	35%	2.3
Proficient and Above			70%	75%	78%	79%	77%	1.8
Basic and Above			95%	96%	97%	97%	97%	0.5
<b>African American</b>								
Advanced			11%	23%	22%	28%	26%	3.8
Proficient and Above			54%	66%	66%	70%	67%	3.3
Basic and Above			90%	94%	94%	96%	95%	1.3
<b>Latino<sup>2</sup></b>								
Advanced			21%	31%	29%	35%	24%	0.8
Proficient and Above			68%	73%	77%	74%	71%	0.8
Basic and Above			91%	95%	98%	95%	99%	2.0
<b>Asian<sup>2</sup></b>								
Advanced			44%	64%	72%	65%	67%	5.8
Proficient and Above			87%	85%	92%	92%	90%	0.8
Basic and Above			98%	99%	98%	100%	99%	0.3
<b>Native American<sup>2</sup></b>								
Advanced			16%	42%	32%	32%	41%	6.3
Proficient and Above			53%	75%	44%	84%	75%	5.5
Basic and Above			90%	96%	100%	90%	94%	1.0

Table reads: The percentage of white 4<sup>th</sup> graders who scored at the advanced level on the state math test increased from 26% in 2004 to 35% in 2008. During this period, the average yearly gain in the percentage advanced in math for white 4<sup>th</sup> graders was 2.3 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 WV-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
<b>All tested students</b>								
Advanced			24%	33%	35%	39%	34%	2.5
Proficient and Above			69%	75%	77%	79%	76%	1.8
Basic and Above			94%	95%	96%	98%	95%	0.3
<b>Low-income students</b>								
Advanced			16%	25%	26%	30%	26%	2.5
Proficient and Above			61%	67%	70%	73%	68%	1.8
Basic and Above			92%	95%	95%	96%	95%	0.8
<b>Students with disabilities<sup>3</sup></b>								
Advanced			8%	12%	16%	17%	16%	0.0
Proficient and Above			36%	45%	50%	53%	48%	-1.0
Basic and Above			77%	82%	86%	86%	85%	-0.5
<b>English language learners<sup>2,3</sup></b>								
Advanced			38%	47%	40%	32%	32%	-4.0
Proficient and Above			71%	82%	75%	76%	76%	0.5
Basic and Above			96%	98%	96%	93%	94%	-1.0
<b>Female</b>								
Advanced			24%	33%	35%	38%	34%	2.5
Proficient and Above			69%	76%	79%	79%	76%	1.8
Basic and Above			94%	95%	96%	97%	96%	0.5
<b>Male</b>								
Advanced			25%	33%	35%	39%	35%	2.5
Proficient and Above			70%	75%	76%	78%	76%	1.5
Basic and Above			95%	96%	96%	98%	97%	0.5

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 16% in 2004 to 26% in 2008. During this period, the average yearly gain in the percentage advanced in math for low-income 4<sup>th</sup> graders was 2.5 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 WV-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 10				
	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	04-08	73%	82%	2.3		04-08	80%	81%	0.3		04-08	77%	74%	-0.8	
White	04-08	74%	83%	2.3		04-08	81%	81%	0.0		04-08	77%	74%	-0.8	
African American	04-08	58%	76%	4.5	L	04-08	73%	72%	-0.3	S	04-08	61%	63%	0.5	L
Latino	04-08	63%	83%	5.0 <sup>2</sup>	L	04-08	75%	85%	2.5 <sup>2</sup>	L	04-08	80%	62%	-4.5 <sup>2</sup>	S
Asian	04-08	82%	94%	3.0 <sup>2</sup>	L	04-08	90%	92%	0.5 <sup>2</sup>	L	04-08	90%	84%	-1.5 <sup>2</sup>	S
Native American	04-08	53%	84%	7.8 <sup>2</sup>	L	04-08	95%	71%	-6.0 <sup>2</sup>	S	04-08	77%	52%	-6.3 <sup>2</sup>	S
Not low-income	04-08	90%	90%	-0.1		04-08	89%	88%	-0.3		04-08	85%	81%	-0.9	
Low-income	04-08	65%	76%	2.8	L	04-08	72%	73%	0.3	L	04-08	65%	63%	-0.5	L
Not disabled	06-08	89%	89%	0.1		06-08	90%	88%	-0.9		06-08	85%	82%	-1.3	
Students with disabilities <sup>3</sup>	06-08	47%	47%	0.0	S	06-08	34%	33%	-0.5	L	06-08	24%	22%	-1.0	L
All tested students	06-08	82%	82%	0.0		06-08	81%	81%	0.0		06-08	76%	74%	-1.0	
English language learners <sup>3</sup>	06-08	68%	78%	5.0 <sup>2</sup>	L	06-08	68%	72%	2.0 <sup>2</sup>	L	06-08	56%	52%	-2.0 <sup>2</sup>	S
Female	04-08	78%	86%	2.0		04-08	88%	87%	-0.3		04-08	83%	81%	-0.5	
Male	04-08	69%	79%	2.5	L	04-08	73%	74%	0.3	L	04-08	70%	67%	-0.8	S

Table reads: In 2004, 74% 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 reading test. In 2008, 83% of white 4<sup>th</sup> graders and 76% of African American 4<sup>th</sup> graders scored at the proficient level in reading. Between 2004 and 2008, the percentage proficient improved at

an average rate of 2.3 percentage points per year for white students and 4.5 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.

**Table WV-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 10				
	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	04-08	69%	76%	1.8		04-08	69%	73%	1.0		04-08	64%	68%	1.0	
White	04-08	70%	77%	1.8		04-08	70%	73%	0.8		04-08	64%	69%	1.3	
African American	04-08	54%	67%	3.3	L	04-08	50%	59%	2.3	L	04-08	44%	49%	1.3	E
Latino	04-08	68%	71%	0.8 <sup>2</sup>	S	04-08	63%	71%	2.0 <sup>2</sup>	L	04-08	66%	52%	-3.5 <sup>2</sup>	S
Asian	04-08	87%	90%	0.8 <sup>2</sup>	S	04-08	86%	90%	1.0 <sup>2</sup>	L	04-08	88%	85%	-0.8 <sup>2</sup>	S
Native American	04-08	53%	75%	5.5 <sup>2</sup>	L	04-08	74%	79%	1.3 <sup>2</sup>	L	04-08	64%	56%	-2.0 <sup>2</sup>	S
Not low-income	04-08	81%	86%	1.3		04-08	80%	82%	0.4		04-08	73%	76%	0.7	
Low-income	04-08	61%	68%	1.8	L	04-08	58%	63%	1.3	L	04-08	49%	57%	2.0	L
Not disabled	06-08	83%	82%	-0.5		06-08	81%	80%	-0.6		06-08	77%	75%	-0.9	
Students with disabilities <sup>3</sup>	06-08	50%	48%	-1.0	S	06-08	25%	27%	1.0	L	06-08	19%	18%	-0.5	L
All tested students	06-08	77%	76%	-0.5		06-08	73%	73%	0.0		06-08	69%	68%	-0.5	
English language learners <sup>3</sup>	06-08	75%	76%	0.5 <sup>2</sup>	L	06-08	53%	64%	5.5 <sup>2</sup>	L	06-08	76%	48%	-14.0 <sup>2</sup>	S
Female	04-08	69%	76%	1.8		04-08	70%	72%	0.5		04-08	65%	70%	1.3	
Male	04-08	70%	76%	1.5	S	04-08	68%	73%	1.3	L	04-08	62%	66%	1.0	S

Table reads: In 2004, 70% of white 4<sup>th</sup> graders and 54% of African American 4<sup>th</sup> graders scored at the proficient level on the state math test. In 2008, 77% of white 4<sup>th</sup> graders and 67% of African American 4<sup>th</sup> graders scored at the proficient level in math. Between 2004 and 2008, the percentage proficient improved at an average rate of 1.8 percentage points per year for white students and 3.3 percentage points per year for African American students, indicating a larger rate of gain and a narrowing of the achievement gap for African American 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 WV-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 10				
		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	04-08	644.7	649	1.1		04-08	681.8	683	0.3		04-08	694.8	692	-0.7	
	SD	04-08	36.1	33.2			04-08	36.1	34.2			04-08	41.9	42.8		
White	Mean SS	04-08	644.9	649	1.0		04-08	682.3	683	0.2		04-08	695.5	693	-0.6	
	SD	04-08	36.0	33.3			04-08	35.9	34.1			04-08	41.6	42.4		
African American	Mean SS	04-08	630.7	641	2.6	L	04-08	669.9	673	0.8	L	04-08	676.0	677	0.3	L
	SD	04-08	35.2	30.7			04-08	36.5	33.6			04-08	43.9	43.5		
Latino	Mean SS	04-08	634.0	642	2.0 <sup>2</sup>	L	04-08	677.0	682	1.3 <sup>2</sup>	L	04-08	698.0	676	-5.5 <sup>2</sup>	S
	SD	04-08	NA	NA			04-08	NA	NA			04-08	NA	NA		
Asian	Mean SS	04-08	656.0	666	2.5 <sup>2</sup>	L	04-08	706.0	703	-0.8 <sup>2</sup>	S	04-08	718.0	711	-1.8 <sup>2</sup>	S
	SD	04-08	NA	NA			04-08	NA	NA			04-08	NA	NA		
Native American	Mean SS	04-08	633.0	655	5.5 <sup>2</sup>	L	04-08	685.0	664	-5.3 <sup>2</sup>	S	04-08	696.0	677	-4.8 <sup>2</sup>	S
	SD	04-08	NA	NA			04-08	NA	NA			04-08	NA	NA		
All tested students	Mean SS	04-08	644.7	649	1.1		04-08	681.8	683	0.3		04-08	694.8	692	-0.7	
	SD	04-08	36.1	33.2			04-08	36.1	34.2			04-08	41.9	42.8		
Low-income	Mean SS	04-08	635.0	641	1.5	L	04-08	671.0	673	0.5	L	04-08	68NA	679	-0.3	L
	SD	04-08	NA	NA			04-08	NA	NA			04-08	NA	NA		
All tested students	Mean SS	06-08	648.0	649	0.5		06-08	684.0	683	-0.5		06-08	694.0	692	-1.0	
	SD	06-08	33.5	33.2			06-08	34.3	34.2			06-08	40.3	42.8		
Students with disabilities <sup>3</sup>	Mean SS	06-08	615.0	616	0.5	E	06-08	641.0	641	0.0	L	06-08	642.0	639	-1.5	S
	SD	06-08	NA	NA			06-08	NA	NA			06-08	NA	NA		
All tested students	Mean SS	06-08	648.0	649	0.5		06-08	684.0	683	-0.5		06-08	694.0	692	-1.0	
	SD	06-08	33.5	33.2			06-08	34.3	34.2			06-08	40.3	42.8		
English language learners <sup>3</sup>	Mean SS	06-08	636.0	638	1.0 <sup>2</sup>	L	06-08	668.0	672	2.0 <sup>2</sup>	L	06-08	674.0	666	-4.0 <sup>2</sup>	S
	SD	06-08	NA	NA			06-08	NA	NA			06-08	NA	NA		
Female	Mean SS	04-08	649.0	653	1.0		04-08	689.7	690	0.1		04-08	702.5	700	-0.6	
	SD	04-08	33.3	30.8			04-08	31.1	30.5			04-08	35.5	35.6		

Subgroup	Statistic	Grade 4					Grade 8					Grade 10				
		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	04-08	639.7	644	1.1	L	04-08	674.3	677	0.7	L	04-08	687.4	684	-0.9	S
	SD	04-08	38.0	34.8			04-08	38.7	36.3			04-08	46.1	47.3		

Table reads: In 2004, the mean scale score on the state 4<sup>th</sup> grade reading test was 644.9 for white students and 630.7 for African American students. In 2008, the mean scale score in 4<sup>th</sup> grade reading was 649 for white students and 641 for African American students. Between 2004 and 2008, the mean scale score improved at an average yearly rate of 1.0 points for white students and 2.6 points for African American students, indicating a narrowing of the achievement gap for African Americans.

Note: The WESTEST is scored on a scale of 400-900.

<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.



Subgroup	Statistic	Grade 4					Grade 8					Grade 10				
		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	04-08	30.1	31.1			04-08	41.1	39.8			04-08	41.7	41.3		
Male	Mean SS	04-08	642.8	651	2.1	L	04-08	693.1	700	1.7	L	04-08	719.1	719	0.0	S
	SD	04-08	33.0	33.8			04-08	44.7	43.1			04-08	48.9	47.8		

Table reads: In 2004, the mean scale score on the state 4<sup>th</sup> grade math test was 643.8 for white students and 630.6 for African American students. In 2008, the mean scale score in 4<sup>th</sup> grade math was 651 for white students and 643 for African American students. Between 2004 and 2008, the mean scale score improved at an average yearly rate of 1.8 points for white students and 3.1 points for African American students, indicating a narrowing of the achievement gap for African Americans.

Note: The WESTEST is scored on a scale of 400-900.

<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 WV-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	04-08	20,408	19,848	-2.7%	100.0%	04-08	21,532	20,654	-4.1%	100.0%	04-08	18,839	19,259	2.2%	100.0%
	Math	04-08	20,418	19,854	-2.8%	100.0%	04-08	21,532	20,647	-4.1%	100.0%	04-08	18,851	19,286	2.3%	100.0%
White	Reading	04-08	19,122	18,385	-3.9%	92.6%	04-08	20,276	19,259	-5.0%	93.2%	04-08	17,747	18,003	1.4%	93.5%
	Math	04-08	19,130	18,391	-3.9%	92.6%	04-08	20,278	19,251	-5.1%	93.2%	04-08	17,756	18,020	1.5%	93.4%
African American	Reading	04-08	990	1,097	10.8%	5.5%	04-08	894	1,073	20.0%	5.2%	04-08	771	933	21.0%	4.8%
	Math	04-08	992	1,097	10.6%	5.5%	04-08	892	1,074	20.4%	5.2%	04-08	773	943	22.0%	4.9%
Latino	Reading	04-08	111	<b>185</b>	66.7%	0.9%	04-08	120	<b>182</b>	51.7%	0.9%	04-08	116	<b>162</b>	39.7%	0.8%
	Math	04-08	111	<b>185</b>	66.7%	0.9%	04-08	118	<b>182</b>	54.2%	0.9%	04-08	116	<b>162</b>	39.7%	0.8%
Asian	Reading	04-08	108	<b>149</b>	38.0%	0.8%	04-08	133	<b>125</b>	-6.0%	0.6%	04-08	136	<b>136</b>	0.0%	0.7%
	Math	04-08	108	<b>149</b>	38.0%	0.8%	04-08	133	<b>125</b>	-6.0%	0.6%	04-08	136	<b>136</b>	0.0%	0.7%
Native American	Reading	04-08	19	<b>32</b>	68.4%	0.2%	04-08	19	<b>14</b>	-26.3%	0.1%	04-08	27	<b>25</b>	-7.4%	0.1%
	Math	04-08	19	<b>32</b>	68.4%	0.2%	04-08	19	<b>14</b>	-26.3%	0.1%	04-08	28	<b>25</b>	-10.7%	0.1%
Low-income	Reading	04-08	11,193	10,907	-2.6%	55.0%	04-08	10,308	10,262	-0.4%	49.7%	04-08	7,263	8,141	12.1%	42.3%
	Math	04-08	11,196	10,911	-2.5%	55.0%	04-08	10,310	10,252	-0.6%	49.7%	04-08	7,277	8,163	12.2%	42.3%
Students w/ disabilities	Reading	06-08	3,275	3,122	-4.7%	15.7%	06-08	3,301	2,821	-14.5%	13.7%	06-08	2,670	2,516	-5.8%	13.1%
	Math	06-08	3,283	3,124	-4.8%	15.7%	06-08	3,303	2,821	-14.6%	13.7%	06-08	2,669	2,518	-5.7%	13.1%
English language learners	Reading	06-08	103	<b>115</b>	11.7%	0.6%	06-08	88	<b>99</b>	12.5%	0.5%	06-08	72	<b>65</b>	-9.7%	0.3%
	Math	06-08	103	<b>115</b>	11.7%	0.6%	06-08	88	<b>99</b>	12.5%	0.5%	06-08	71	<b>65</b>	-8.5%	0.3%
Female	Reading	04-08	9,771	9,752	-0.2%	49.1%	04-08	10,544	9,955	-5.6%	48.2%	04-08	9,253	9,503	2.7%	49.3%
	Math	04-08	9,780	9,752	-0.3%	49.1%	04-08	10,535	9,944	-5.6%	48.2%	04-08	9,264	9,513	2.7%	49.3%
Male	Reading	04-08	10,605	10,096	-4.8%	50.9%	04-08	10,935	10,698	-2.2%	51.8%	04-08	9,567	9,756	2.0%	50.7%
	Math	04-08	10,606	10,102	-4.8%	50.9%	04-08	10,942	10,702	-2.2%	51.8%	04-08	9,568	9,773	2.1%	50.7%

Table reads: In 2004, 19,122 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 18,385 students, a decrease of 3.9%. In 2008, the white subgroup made up 92.6% of the 19,848 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.