

## Subgroup Achievement and Gap Trends — Wisconsin

*K-12 enrollment — 836,860*

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.

Wisconsin had a mixed picture of student achievement. Percentage proficient trends were better for math than reading. Similarly, there was a somewhat more positive picture of achievement gaps narrowing in math than in reading.

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

- **Main trend:** All subgroups made gains in math at three achievement levels—basic-and-above, proficient-and-above, and advanced, however achievement was mixed in reading. Specifically, all 18 trend lines analyzed across the three achievement levels in math showed gains, but only 7 of 18 trend lines showed gains in reading. Nine of the remaining trend lines showed declines and 2 showed no changed in reading achievement.

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

- **Main trend:** In many instances, gaps in the percentages of students scoring at the proficient level widened between African American, Latino, or Native 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, 8 of the 12 trend lines analyzed in reading showed evidence of gaps widening, as did 5 of 12 trend lines in math. In the remaining instances, gaps narrowed.

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

- Limited data: Wisconsin has made some changes to its testing program in recent years. As a result, only three years of comparable test data (2006-2008) are available, the minimum span needed to discern a trend.
- Subgroups analyzed: Trends were analyzed for white, African American, Latino, Asian American, Native American, and low-income students. Trends for students with disabilities, English language learners, and male and female students have not been summarized because they will be discussed in separate reports.
- Grades analyzed: Analyses of subgroup trends by three achievement levels are limited to one elementary grade because of the massive amounts of data involved and because this is the pilot year of a process that CEP hopes to extend to the middle and high school levels in future years. Analyses of achievement gap trends cover three grade levels: grade 4, grade 8, and the high school grade tested for NCLB.

### Data Limitations

Years of comparable percentage proficient data	2006 through 2008
Years of comparable mean scale score data	2006 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	Wisconsin Knowledge and Concepts Examinations—Criterion-Referenced Tests (WKCE-CRT) Wisconsin Alternate Assessment for Students with Disabilities (WAA—SwD)
Grades tested for NCLB accountability	3–8, 10
State labels for achievement levels	WI uses four achievement levels: Minimal, 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	2005–06
Time of test administration	Fall

## Major changes in testing system (2002–present)

2002–03: Test window changed to November from February  
Fall 2005: Switched to WKCE-CRT (from a state-augmented version of the off-the-shelf TerraNova test); grades 3–8 and 10 assessed (previously only grades 4, 8, and 10 were assessed)  
Fall 2005: Scale scores rescaled to reflect move to completely customized tests in reading and math

## 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 WI-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
All tested students								
Advanced					42%	41%	42%	-0.2
Proficient and Above					82%	82%	81%	-0.4
Basic and Above					95%	95%	95%	-0.1
White								
Advanced					49%	48%	49%	-0.3
Proficient and Above					88%	87%	87%	-0.4
Basic and Above					97%	97%	97%	0.0
African American								
Advanced					15%	16%	16%	0.9
Proficient and Above					59%	61%	57%	-0.8
Basic and Above					87%	88%	86%	-0.3
Latino								
Advanced					19%	19%	20%	0.4
Proficient and Above					67%	64%	66%	-0.7
Basic and Above					90%	85%	88%	-0.9
Asian								
Advanced					32%	32%	32%	0.1
Proficient and Above					72%	73%	74%	1.3
Basic and Above					91%	90%	93%	0.8
Native American								
Advanced					26%	26%	27%	0.7
Proficient and Above					75%	76%	73%	-0.9
Basic and Above					93%	95%	93%	0.0

Table reads: The percentage of white 4<sup>th</sup> graders who scored at the advanced level on the state reading test was 49% in 2006 and in 2008. During this period, the average yearly loss in the percentage advanced in reading 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 WI-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	
All tested students								
Advanced					42%	41%	42%	-0.2
Proficient and Above					82%	82%	81%	-0.4
Basic and Above					95%	95%	95%	-0.1
Low-income students								
Advanced					22%	22%	23%	0.5
Proficient and Above					68%	68%	68%	-0.2
Basic and Above					90%	90%	90%	-0.1
Students with disabilities <sup>3</sup>								
Advanced					16%	15%	18%	0.8
Proficient and Above					53%	52%	50%	-1.4
Basic and Above					81%	81%	79%	-0.8
English language learners <sup>3</sup>								
Advanced					11%	12%	11%	-0.2
Proficient and Above					56%	55%	57%	0.6
Basic and Above					86%	79%	84%	-0.8
Female								
Advanced					43%	43%	44%	0.5
Proficient and Above					84%	84%	84%	-0.2
Basic and Above					95%	95%	96%	0.5
Male								
Advanced					39%	39%	40%	0.5
Proficient and Above					81%	80%	79%	-0.8
Basic and Above					91%	92%	93%	0.9

Table reads: The percentage of low-income 4<sup>th</sup> graders who scored at the advanced level on the state reading test increased from 22% in 2006 to 23% in 2008. During this period, the average yearly gain in the percentage advanced in reading for low-income 4<sup>th</sup> graders was 0.5 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.

**Table WI-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					32%	35%	35%	1.3
Proficient and Above					73%	77%	77%	2.0
Basic and Above					83%	87%	86%	1.5
White								
Advanced					38%	41%	40%	1.2
Proficient and Above					80%	84%	83%	1.7
Basic and Above					89%	91%	91%	1.2
African American								
Advanced					9%	11%	13%	2.1
Proficient and Above					40%	46%	47%	3.6
Basic and Above					55%	61%	62%	3.5
Latino								
Advanced					14%	16%	18%	1.8
Proficient and Above					55%	62%	61%	3.1
Basic and Above					72%	77%	76%	1.7
Asian								
Advanced					28%	32%	35%	3.3
Proficient and Above					68%	76%	76%	3.8
Basic and Above					81%	86%	87%	2.6
Native American								
Advanced					15%	20%	19%	1.9
Proficient and Above					59%	71%	65%	2.9
Basic and Above					75%	82%	79%	2.4

Table reads: The percentage of white 4<sup>th</sup> graders who scored at the advanced level on the state math test increased from 38% in 2006 to 40% in 2008. During this period, the average yearly gain in the percentage advanced in math for white 4<sup>th</sup> graders was 1.2 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 WI-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					32%	35%	35%	1.3
Proficient and Above					73%	77%	77%	2.0
Basic and Above					83%	87%	86%	1.5
Low-income students								
Advanced					16%	18%	19%	1.7
Proficient and Above					55%	62%	61%	3.3
Basic and Above					70%	75%	75%	2.8
Students with disabilities <sup>3</sup>								
Advanced					15%	16%	18%	1.6
Proficient and Above					48%	53%	52%	1.8
Basic and Above					63%	67%	65%	0.9
English language learners <sup>3</sup>								
Advanced					12%	15%	14%	1.2
Proficient and Above					52%	60%	58%	3.4
Basic and Above					71%	76%	74%	1.8
Female								
Advanced					33%	33%	38%	2.5
Proficient and Above					71%	76%	76%	2.2
Basic and Above					86%	85%	89%	1.5
Male								
Advanced					36%	35%	37%	0.5
Proficient and Above					74%	79%	78%	1.8
Basic and Above					85%	85%	88%	1.5

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 2006 to 19% in 2008. During this period, the average yearly gain in the percentage advanced in math for low-income 4<sup>th</sup> graders was 1.7 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 WI-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	06-08	82%	81%	-0.4		06-08	85%	84%	-0.1		06-08	75%	75%	-0.2	
White	06-08	88%	87%	-0.4		06-08	90%	90%	-0.1		06-08	81%	82%	0.1	
African American	06-08	59%	57%	-0.8	S	06-08	56%	59%	1.3	L	06-08	39%	38%	-0.5	S
Latino	06-08	67%	66%	-0.7	S	06-08	68%	68%	-0.2	S	06-08	52%	49%	-1.4	S
Asian	06-08	72%	74%	1.3	L	06-08	77%	76%	-0.6	S	06-08	61%	62%	0.4	L
Native American	06-08	75%	73%	-0.9	S	06-08	75%	75%	0.0	L	06-08	61%	61%	0.2	L
Not low-income	06-08	90%	89%	-0.1		06-08	91%	91%	0.1		06-08	82%	82%	0.4	
Low-income	06-08	68%	68%	-0.2	S	06-08	70%	70%	0.2	L	06-08	54%	53%	-0.5	S
Not disabled	06-08	87%	87%	-0.3		06-08	91%	91%	0.1		06-08	82%	81%	-0.1	
Students with disabilities <sup>3</sup>	06-08	53%	50%	-1.4	S	06-08	49%	47%	-1.1	S	06-08	32%	32%	-0.2	S
Not ELL	06-08	84%	83%	-0.4		06-08	86%	86%	0.0		06-08	76%	76%	-0.1	
English language learners <sup>3</sup>	06-08	56%	57%	0.6	L	06-08	56%	58%	0.6	L	06-08	34%	31%	-1.6	S
Female	06-08	84%	84%	-0.2		06-08	87%	87%	0.3		06-08	79%	78%	-0.4	
Male	06-08	81%	79%	-0.8	S	06-08	83%	82%	-0.5	S	06-08	71%	71%	0.0	L

Table reads: In 2006, 88% of white 4<sup>th</sup> graders and 59% of African American 4<sup>th</sup> graders scored at the proficient level on the state reading test. In 2008, 87% of



white 4<sup>th</sup> graders and 57% of African American 4<sup>th</sup> graders scored at the proficient level in reading. Between 2006 and 2008, the percentage proficient declined at an average rate of 0.4 percentage point per year for white students and 0.8 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 WI-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	06-08	73%	77%	2.0		06-08	74%	75%	0.6		06-08	72%	69%	-1.1	
White	06-08	80%	83%	1.7		06-08	81%	83%	0.6		06-08	79%	77%	-0.8	
African American	06-08	40%	47%	3.6	L	06-08	37%	37%	0.1	S	06-08	28%	25%	-1.5	S
Latino	06-08	55%	61%	3.1	L	06-08	54%	55%	0.8	L	06-08	46%	41%	-2.4	S
Asian	06-08	68%	76%	3.8	L	06-08	73%	73%	0.5	S	06-08	65%	62%	-1.4	S
Native American	06-08	59%	65%	2.9	L	06-08	56%	64%	3.8	L	06-08	51%	50%	-0.7	L
Not low-income	06-08	82%	85%	1.8		06-08	83%	85%	1.0		06-08	79%	78%	-0.6	
Low-income	06-08	55%	61%	3.3	L	06-08	55%	55%	0.3	S	06-08	48%	46%	-1.1	S
Not disabled	06-08	77%	81%	2.1		06-08	81%	82%	0.6		06-08	78%	76%	-1.1	
Students with disabilities <sup>3</sup>	06-08	48%	52%	1.8	S	06-08	35%	37%	0.9	L	06-08	28%	26%	-1.3	S
Not ELL	06-08	74%	78%	2.0		06-08	75%	77%	0.7		06-08	73%	71%	-1.0	
English language learners <sup>3</sup>	06-08	52%	58%	3.4	L	06-08	52%	52%	-0.2	S	06-08	39%	32%	-3.5	S
Female	06-08	71%	76%	2.2		06-08	75%	75%	-0.1		06-08	72%	69%	-1.8	
Male	06-08	74%	78%	1.8	S	06-08	74%	76%	1.2	L	06-08	71%	70%	-0.5	L

Table reads: In 2006, 80% of white 4<sup>th</sup> graders and 40% of African American 4<sup>th</sup> graders scored at the proficient level on the state math test. In 2008, 83% of white 4<sup>th</sup> graders and 47% of African American 4<sup>th</sup> graders scored at the proficient level in math. Between 2006 and 2008, the percentage proficient improved at an average rate of 1.7 percentage point per year for white students and 3.6 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 WI-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	06-08	476.8	476.2	-0.3		06-08	525.8	527.6	0.9		06-08	540.1	538.6	-0.8	
	SD	06-08	46.1	47.2			06-08	50.1	52.0			06-08	63.2	60.0		
White	Mean SS	06-08	484.0	484.1	0.1		06-08	534.7	536.6	1.0		06-08	549.3	548.3	-0.5	
	SD	06-08	42.9	43.3			06-08	45.2	47.1			06-08	58.4	55.0		
African American	Mean SS	06-08	442.5	441.1	-0.7	S	06-08	480.7	484.7	2.0	L	06-08	479.9	483.9	2.0	L
	SD	06-08	49.6	52.4			06-08	54.1	56.0			06-08	67.5	61.4		
Latino	Mean SS	06-08	455.6	454.1	-0.8	S	06-08	498.6	499.2	0.3	S	06-08	505.1	500.6	-2.3	S
	SD	06-08	44.0	45.8			06-08	50.7	52.9			06-08	62.0	61.3		
Asian	Mean SS	06-08	470.5	468.9	-0.8	S	06-08	514.2	514.7	0.3	S	06-08	526.4	518.3	-4.1	S
	SD	06-08	46.5	48.4			06-08	48.2	53.6			06-08	59.1	61.5		
Native American	Mean SS	06-08	462.7	461.7	-0.5	S	06-08	504.6	509.4	2.4	L	06-08	516.5	515.0	-0.8	S
	SD	06-08	41.8	45.8			06-08	48.4	49.9			06-08	61.6	58.1		
Not Low-income	Mean SS	06-08	487.5	488.2	0.4		06-08	537.1	539.9	1.4		06-08	550.5	550.3	-0.1	
	SD	06-08	41.1	41.4			06-08	44.6	46.0			06-08	58.9	55.0		
Low-income	Mean SS	06-08	454.7	454.5	-0.1	S	06-08	498.7	500.6	1.0	S	06-08	505.0	504.6	-0.2	S
	SD	06-08	48.2	49.3			06-08	52.2	54.1			06-08	64.4	61.0		
Not disabled	Mean SS	06-08	482.8	482.7	-0.1		06-08	534.4	536.6	1.1		06-08	550.3	547.9	-1.2	
	SD	06-08	40.9	41.5			06-08	42.6	44.5			06-08	55.9	53.8		
Students with disabilities <sup>3</sup>	Mean SS	06-08	434.7	432.4	-1.2	S	06-08	469.0	468.3	-0.4	S	06-08	466.8	471.9	2.6	L
	SD	06-08	57.8	59.0			06-08	58.3	58.3			06-08	64.1	60.4		
Not ELLs	Mean SS	06-08	478.5	478.4	-0.1		06-08	527.2	529.6	1.2		06-08	541.5	540.8	-0.4	
	SD	06-08	45.7	46.7			06-08	49.6	51.1			06-08	62.7	59.0		
English language learners <sup>3</sup>	Mean SS	06-08	445.7	443.6	-1.1	S	06-08	485.7	484.2	-0.8	S	06-08	484.3	473.8	-5.3	S
	SD	06-08	42.7	43.7			06-08	48.0	50.7			06-08	54.8	54.9		
Female	Mean SS	06-08	479.1	479.9	0.4		06-08	529.9	533.1	1.6		06-08	547.9	544.1	-1.9	
	SD	06-08	44.2	44.7			06-08	47.5	49.5			06-08	59.7	57.4		

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	06-08	474.6	472.6	-1.0	S	06-08	522.0	522.2	0.1	S	06-08	532.4	533.2	0.4	L
	SD	06-08	47.8	49.3			06-08	52.1	53.7			06-08	65.5	62.0		

Table reads: In 2006, the mean scale score on the state 4<sup>th</sup> grade reading test was 484.0 for white students and 442.5 for African American students. In 2008, the mean scale score in 4<sup>th</sup> grade reading was 484.1 for white students and 441.1 for African American students. Between 2006 and 2008, the mean scale score improved at an average yearly rate of 0.1 points for white students and declined at an average yearly rate of 0.7 points for African American students, indicating a widening of the achievement gap for African Americans.

Note: The WKCE is scored on a scale of 270-820; grade 4 scale scores range from 280-650, grade 8: 330-650, and grade 10: 350-820.

<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	06-08	44.7	44.6			06-08	47.0	48.2			06-08	47.1	46.8		
Male	Mean SS	06-08	464.8	467.9	1.6	S	06-08	539.7	543.1	1.7	L	06-08	563.6	562.8	-0.4	L
	SD	06-08	46.3	46.2			06-08	50.7	51.4			06-08	52.9	50.3		

Table reads: In 2006, the mean scale score on the state 4<sup>th</sup> grade math test was 470.5 for white students and 423.1 for African American students. In 2008, the mean scale score in 4<sup>th</sup> grade math was 474.0 for white students and 429.6 for African American students. Between 2006 and 2008, the mean scale score improved at an average yearly rate of 1.8 points for white students and 3.3 points for African American students, indicating a narrowing of the achievement gap for African Americans.

Note: The WKCE is scored on a scale of 220-750; grade 4 scale scores range from 240-650, grade 8: 350-730, and grade 10: 410-750.

<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 WI-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	06-08	58,343	58,727	0.7%	100.0%	06-08	65,335	62,782	-3.9%	100.0%	06-08	70,434	68,161	-3.2%	100.0%
	Math	06-08	58,492	59,116	1.1%	100.0%	06-08	65,302	62,914	-3.7%	100.0%	06-08	70,395	68,330	-2.9%	100.0%
White	Reading	06-08	45,157	44,723	-1.0%	76.2%	06-08	51,639	48,976	-5.2%	78.0%	06-08	57,886	55,153	-4.7%	80.9%
	Math	06-08	45,292	44,824	-1.0%	75.8%	06-08	51,657	48,985	-5.2%	77.9%	06-08	57,904	55,172	-4.7%	80.7%
African American	Reading	06-08	6,302	6,346	0.7%	10.8%	06-08	6,956	6,637	-4.6%	10.6%	06-08	6,138	5,989	-2.4%	8.8%
	Math	06-08	6,349	6,380	0.5%	10.8%	06-08	6,948	6,608	-4.9%	10.5%	06-08	6,105	5,990	-1.9%	8.8%
Latino	Reading	06-08	3,972	4,778	20.3%	8.1%	06-08	3,591	4,036	12.4%	6.4%	06-08	3,097	3,725	20.3%	5.5%
	Math	06-08	3,934	4,986	26.7%	8.4%	06-08	3,556	4,152	16.8%	6.6%	06-08	3,080	3,835	24.5%	5.6%
Asian	Reading	06-08	2,071	2,032	-1.9%	3.5%	06-08	2,151	2,200	2.3%	3.5%	06-08	2,328	2,292	-1.5%	3.4%
	Math	06-08	2,066	2,074	0.4%	3.5%	06-08	2,141	2,235	4.4%	3.6%	06-08	2,321	2,329	0.3%	3.4%
Native American	Reading	06-08	840	848	1.0%	1.4%	06-08	997	931	-6.6%	1.5%	06-08	979	994	1.5%	1.5%
	Math	06-08	850	852	0.2%	1.4%	06-08	998	932	-6.6%	1.5%	06-08	979	996	1.7%	1.5%
Low-income	Reading	06-08	19,001	20,939	10.2%	35.7%	06-08	19,187	19,713	2.7%	31.4%	06-08	16,171	17,552	8.5%	25.8%
	Math	06-08	19,065	21,232	11.4%	35.9%	06-08	19,150	19,818	3.5%	31.5%	06-08	16,141	17,670	9.5%	25.9%
Students w/ disabilities	Reading	06-08	7,229	7,565	4.6%	12.9%	06-08	8,569	8,271	-3.5%	13.2%	06-08	8,609	8,367	-2.8%	12.3%
	Math	06-08	7,447	7,744	4.0%	13.1%	06-08	8,573	8,272	-3.5%	13.1%	06-08	8,596	8,378	-2.5%	12.3%
English language learners	Reading	06-08	2,957	3,673	24.2%	6.3%	06-08	2,127	2,883	35.5%	4.6%	06-08	1,757	2,262	28.7%	3.3%
	Math	06-08	2,904	3,922	35.1%	6.6%	06-08	2,073	3,032	46.3%	4.8%	06-08	1,726	2,422	40.3%	3.5%
Female	Reading	06-08	28,475	28,764	1.0%	49.0%	06-08	31,747	30,840	-2.9%	49.1%	06-08	34,770	33,371	-4.0%	49.0%
	Math	06-08	28,495	28,917	1.5%	48.9%	06-08	31,722	30,896	-2.6%	49.1%	06-08	34,761	33,446	-3.8%	48.9%
Male	Reading	06-08	29,868	29,963	0.3%	51.0%	06-08	33,587	31,942	-4.9%	50.9%	06-08	35,661	34,790	-2.4%	51.0%
	Math	06-08	29,997	30,199	0.7%	51.1%	06-08	33,578	32,018	-4.6%	50.9%	06-08	35,631	34,884	-2.1%	51.1%

Table reads: In 2006, 45,157 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 44,723 students, a decrease of 1.0%. In 2008, the white subgroup made up 76.2% of the 58,727 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.