

## Subgroup Achievement and Gap Trends — Kansas

*K-12 enrollment — 452,908*

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, there has been a clear upward trend in student achievement in Kansas. Achievement gaps between subgroups of students have tended to narrow.

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

- **Main trend:** All subgroups showed gains in the percentage of students scoring at basic and above, proficient-and-above, and advanced achievement levels in both reading and math.

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

- **Main trend:** In reading, there was overall improvement in the closing of gaps in the percentages of students scoring at the proficient level between the African American and Latino subgroups and the white subgroup, and between low-income and non-low-income students, at grades 4, 8 and the high school grade analyzed. In math, gaps tended to narrow, except at the middle school level, where achievement gaps widened.

#### **Data notes**

- **Limited data:** Trends are limited to 2006 to 2008. Data were not available to calculate mean scale scores at the high school level.

- Subgroups analyzed: Trends were analyzed for white, African American, Latino, Asian American and low-income students. The Native American subgroup is too small in Kansas 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 two 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	3-8, 2006 through 2008 Mean scale score data not available for high school
Disaggregated data for all subgroups and comparison groups	2006 through 2008 Mean scale score data not available for high school

## Test Characteristics

The characteristics highlighted below are for the state reading and mathematics tests used for accountability under the No Child Left Behind Act (NCLB).

Test(s) used for NCLB accountability	Kansas Computerized Assessments (KCA) Kansas Assessment with Multiple Measures (KAMM) and Kansas Alternate Assessment (KAA) for special education students
Grades tested for NCLB accountability	3-8, high school
State labels for achievement levels	KS uses five achievement levels: Academic Warning, Approaching Standard, Met Standard, Exceeded Standard, and Exemplary. For our analyses we treated Approaching Standard as Basic, Met Standard as Proficient, and Exceeded Standard + Exemplary as Advanced.
High school NCLB test also used as an exit exam?	No
First year test used	2006
Time of test administration	Spring

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

2004: State revised standards

2005–06: State expanded reading assessment to grade 2 (local choice of instrument), grades 3–8, and high school grades 9, 10, or 11 (at end of opportunity-to-learn, district-level decision); expanded math assessment to grades 3–8 and one grade in high school

2005–06: Kansas Assessment with Multiple Measures replaced the Kansas Assessment Program (math) and the Kansas Computerized Assessments (reading)

2006: State developed new cut scores and AYP targets

Spring 2007: State implemented flexible “opportunity-to-learn (OTL)” testing procedures for high school reading and math; schools have the flexibility to schedule these tests after students have had an opportunity to learn the content being tested

## 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 KS-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					51%	56%	60%	4.4
Proficient and Above					80%	84%	86%	3.0
Basic and Above					91%	92%	94%	1.5
White								
Advanced					27%	31%	36%	4.6
Proficient and Above					86%	89%	91%	2.5
Basic and Above					94%	95%	97%	1.1
African American								
Advanced					11%	11%	14%	1.7
Proficient and Above					63%	66%	71%	4.1
Basic and Above					80%	82%	84%	1.9
Latino								
Advanced					9%	13%	14%	2.7
Proficient and Above					61%	68%	73%	6.4
Basic and Above					78%	84%	86%	4.2
Asian								
Advanced					27%	31%	36%	4.4
Proficient and Above					79%	84%	87%	4.2
Basic and Above					90%	92%	94%	1.9
Native American <sup>2</sup>								
Advanced					12%	23%	22%	4.7
Proficient and Above					77%	82%	81%	1.6
Basic and Above					89%	91%	91%	0.9

Table reads: The percentage of white 4<sup>th</sup> graders who scored at the advanced level on the state reading test increased from 27% in 2006 to 36% in 2008. During this period, the average yearly gain in the percentage advanced in reading for white 4<sup>th</sup> graders was 4.6 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.

**Table KS-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					51%	56%	60%	4.4
Proficient and Above					80%	84%	86%	3.0
Basic and Above					91%	92%	94%	1.5
Low-income students								
Advanced					13%	16%	19%	2.9
Proficient and Above					69%	75%	78%	4.4
Basic and Above					84%	88%	90%	2.5
Students with disabilities <sup>3</sup>								
Advanced					14%	15%	18%	2.4
Proficient and Above					67%	73%	76%	4.5
Basic and Above					84%	87%	89%	2.5
English language learners <sup>3</sup>								
Advanced					6%	9%	10%	1.9
Proficient and Above					53%	62%	67%	7.0
Basic and Above					72%	79%	83%	5.2
Female								
Advanced					24%	28%	32%	3.9
Proficient and Above					82%	85%	88%	2.9
Basic and Above					92%	93%	95%	1.3
Male								
Advanced					22%	26%	30%	3.9
Proficient and Above					79%	82%	85%	3.1
Basic and Above					90%	91%	93%	1.7

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 13% in 2006 to 19% in 2008. During this period, the average yearly gain in the percentage advanced in reading for low-income 4<sup>th</sup> graders was 2.9 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 KS-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					49%	55%	57%	4.0
Proficient and Above					82%	85%	86%	2.2
Basic and Above					90%	92%	94%	1.7
White								
Advanced					28%	35%	36%	3.8
Proficient and Above					86%	89%	90%	1.8
Basic and Above					94%	95%	96%	1.2
African American								
Advanced					10%	12%	14%	2.2
Proficient and Above					62%	69%	71%	4.5
Basic and Above					77%	82%	83%	3.3
Latino								
Advanced					12%	16%	17%	2.8
Proficient and Above					68%	74%	77%	4.5
Basic and Above					81%	86%	89%	3.9
Asian								
Advanced					33%	39%	42%	4.8
Proficient and Above					84%	87%	92%	3.7
Basic and Above					91%	92%	96%	2.5
Native American <sup>2</sup>								
Advanced					15%	25%	19%	2.2
Proficient and Above					75%	80%	78%	1.4
Basic and Above					88%	90%	89%	0.8

Table reads: The percentage of white 4<sup>th</sup> graders who scored at the advanced level on the state math test increased from 28% in 2006 to 36% in 2008. During this period, the average yearly gain in the percentage advanced in math for white 4<sup>th</sup> graders was 3.8 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 KS-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					49%	55%	57%	4.0
Proficient and Above					82%	85%	86%	2.2
Basic and Above					90%	92%	94%	1.7
Low-income students								
Advanced					14%	19%	19%	2.6
Proficient and Above					72%	78%	78%	3.4
Basic and Above					84%	88%	90%	2.7
Students with disabilities <sup>3</sup>								
Advanced					13%	14%	15%	1.1
Proficient and Above					71%	73%	75%	2.2
Basic and Above					83%	87%	89%	2.6
English language learners <sup>3</sup>								
Advanced					10%	14%	15%	2.6
Proficient and Above					64%	70%	73%	4.7
Basic and Above					78%	82%	86%	4.2
Female								
Advanced					23%	29%	30%	3.4
Proficient and Above					81%	84%	86%	2.4
Basic and Above					90%	92%	94%	1.8
Male								
Advanced					25%	31%	32%	3.4
Proficient and Above					82%	85%	86%	2.1
Basic and Above					91%	92%	94%	1.6

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 14% 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 2.6 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.

**Achievement by Subgroup — Gap Trends (Percentages Proficient)****Table KS-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					High School				
	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	80%	86%	3.0		06-08	78%	82%	2.0		06-08	79%	82%	1.6	
White	06-08	86%	91%	2.5		06-08	84%	88%	2.1		06-08	84%	86%	1.4	
African American	06-08	63%	71%	4.1	L	06-08	59%	63%	2.0	S	06-08	59%	62%	1.6	L
Latino	06-08	61%	73%	6.4	L	06-08	57%	63%	2.9	L	06-08	56%	62%	3.4	L
Asian	06-08	79%	87%	4.2	L	06-08	77%	83%	3.1	L	06-08	67%	78%	5.1	L
Native American	06-08	77%	81%	1.6 <sup>2</sup>	S	06-08	73%	74%	0.4 <sup>2</sup>	S	06-08	70%	82%	6.0 <sup>2</sup>	L
Not low-income	06-08	88%	93%	2.3		06-08	87%	90%	1.6		06-08	84%	87%	1.6	
Low-income	06-08	69%	78%	4.4	L	06-08	65%	70%	2.7	L	06-08	64%	68%	2.5	L
Not disabled	06-08	84%	90%	3.0		06-08	82%	87%	2.2		06-08	82%	86%	1.8	
Students with disabilities <sup>3</sup>	06-08	67%	76%	4.5	L	06-08	56%	63%	3.5	L	06-08	52%	60%	3.9	L
Not ELL	06-08	83%	88%	2.7		06-08	80%	84%	2.0		06-08	80%	83%	1.6	
English language learners <sup>3</sup>	06-08	53%	67%	7.0	L	06-08	39%	46%	3.8	L	06-08	31%	35%	2.0	L
Female	06-08	82%	88%	2.9		06-08	81%	84%	1.7		06-08	81%	83%	1.2	
Male	06-08	79%	85%	3.1	L	06-08	76%	80%	2.3	L	06-08	76%	80%	2.0	L

Table reads: In 2006, 86% of white 4<sup>th</sup> graders and 63% of African American 4<sup>th</sup> graders scored at the proficient level on the state reading test. In 2008, 91% of white 4<sup>th</sup> graders and 71% of African American 4<sup>th</sup> graders scored at the proficient level in reading. Between 2006 and 2008, the percentage proficient improved at an average rate of 2.5 percentage point per year for white students and 4.1 percentage points per year for African American students, indicating a larger rate of



gain and a narrowing of the achievement gap for African American 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 KS-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					High School				
	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%	86%	2.2		06-08	68%	74%	3.2		06-08	60%	76%	8.3	
White	06-08	86%	90%	1.8		06-08	73%	80%	3.6		06-08	66%	81%	7.8	
African American	06-08	62%	71%	4.5	L	06-08	43%	50%	3.2	S	06-08	32%	50%	8.7	L
Latino	06-08	68%	77%	4.5	L	06-08	48%	54%	3.1	S	06-08	35%	58%	11.4	L
Asian	06-08	84%	92%	3.7	L	06-08	80%	82%	1.3	S	06-08	70%	81%	5.5	S
Native American	06-08	75%	78%	1.4 <sup>2</sup>	S	06-08	58%	63%	2.6 <sup>2</sup>	S	06-08	46%	66%	10.0 <sup>2</sup>	L
Not low-income	06-08	89%	92%	1.7		06-08	77%	83%	3.2		06-08	68%	83%	7.2	
Low-income	06-08	72%	78%	3.4	L	06-08	52%	59%	3.2	E	06-08	41%	61%	10.2	L
Not disabled	06-08	84%	90%	2.6		06-08	71%	78%	3.8		06-08	62%	80%	8.7	
Students with disabilities <sup>3</sup>	06-08	71%	75%	2.2	S	06-08	44%	51%	3.8	E	06-08	33%	52%	9.7	L
Not ELL	06-08	83%	87%	2.1		06-08	69%	76%	3.3		06-08	61%	77%	8.2	
English language learners <sup>3</sup>	06-08	64%	73%	4.7	L	06-08	38%	42%	2.1	S	06-08	26%	46%	10.2	L
Female	06-08	81%	86%	2.4		06-08	68%	75%	3.5		06-08	59%	76%	8.4	
Male	06-08	82%	86%	2.1	S	06-08	67%	73%	2.9	S	06-08	60%	77%	8.3	S

Table reads: In 2006, 86% of white 4<sup>th</sup> graders and 62% of African American 4<sup>th</sup> graders scored at the proficient level on the state math test. In 2008, 90% of white 4<sup>th</sup> graders and 71% 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 1.8 percentage point 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.

**Achievement by Subgroup — Gap Trends (Mean Scale Scores)**

**Table KS-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	77.7	81.1	1.7		06-08	75.5	78.1	1.3		NA-NA	NA	NA	NA	
	SD	06-08	14.1	12.5			06-08	16.6	15.7			NA-NA	NA	NA		
White	Mean SS	06-08	80.1	83.3	1.6		06-08	78.2	81.0	1.4		NA-NA	NA	NA	NA	
	SD	06-08	12.4	10.8			06-08	15.1	13.7			NA-NA	NA	NA		
African American	Mean SS	06-08	69.4	73.6	2.1	L	06-08	65.2	67.5	1.1	S	NA-NA	NA	NA	NA	NA
	SD	06-08	16.6	15.6			06-08	17.8	17.9			NA-NA	NA	NA		
Latino	Mean SS	06-08	69.2	74.4	2.7	L	06-08	65.0	68.0	1.5	L	NA-NA	NA	NA	NA	NA
	SD	06-08	16.6	14.8			06-08	18.5	17.7			NA-NA	NA	NA		
Asian	Mean SS	06-08	78.7	82.6	1.9	L	06-08	75.7	78.4	1.4	S	NA-NA	NA	NA	NA	NA
	SD	06-08	14.1	12.1			06-08	17.5	15.2			NA-NA	NA	NA		
Native American	Mean SS	06-08	74.9	78.0	1.6 <sup>2</sup>	S	06-08	72.2	74.7	1.2 <sup>2</sup>	S	NA-NA	NA	NA	NA	NA
	SD	06-08	13.7	14.0			06-08	17.1	16.4			NA-NA	NA	NA		
Not Low-income	Mean SS	06-08	81.3	84.5	1.6		06-08	79.8	82.3	1.2		NA-NA	NA	NA	NA	
	SD	06-08	11.7	10.0			06-08	14.1	13.0			NA-NA	NA	NA		
Low-income	Mean SS	06-08	72.5	76.7	2.1	L	06-08	68.2	71.0	1.4	L	NA-NA	NA	NA	NA	NA
	SD	06-08	15.6	14.1			06-08	18.0	17.2			NA-NA	NA	NA		
Not disabled	Mean SS	06-08	78.4	81.8	1.7		06-08	76.7	79.5	1.4		NA-NA	NA	NA	NA	
	SD	06-08	13.7	12.0			06-08	15.9	14.7			NA-NA	NA	NA		
Students with disabilities <sup>3</sup>	Mean SS	06-08	69.7	74.6	2.4	L	06-08	60.3	63.3	1.5	L	NA-NA	NA	NA	NA	NA
	SD	06-08	16.4	15.1			06-08	17.9	17.3			NA-NA	NA	NA		
Not ELLs	Mean SS	06-08	78.7	82.0	1.7		06-08	76.4	79.0	1.3		NA-NA	NA	NA	NA	
	SD	06-08	13.4	11.8			06-08	16.0	15.0			NA-NA	NA	NA		
English language learners <sup>3</sup>	Mean SS	06-08	66.5	72.2	2.8	L	06-08	56.6	60.0	1.7	L	NA-NA	NA	NA	NA	NA
	SD	06-08	16.9	15.2			06-08	18.7	17.8			NA-NA	NA	NA		
Female	Mean SS	06-08	78.4	81.6	1.6		06-08	76.8	79.2	1.2		NA-NA	NA	NA	NA	
	SD	06-08	13.6	12.1			06-08	15.8	14.9			NA-NA	NA	NA		

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	77.0	80.6	1.8	L	06-08	74.3	77.1	1.4	L	NA-NA	NA	NA	NA	NA
	SD	06-08	14.6	13.0			06-08	17.3	16.4			NA-NA	NA	NA	NA	NA

Table reads: In 2006, the mean scale score on the state 4<sup>th</sup> grade reading test was 80.1 for white students and 69.4 for African American students. In 2008, the mean scale score in 4<sup>th</sup> grade reading was 83.3 for white students and 73.6 for African American students. Between 2006 and 2008, the mean scale score improved at an average yearly rate of 1.6 points for white students and 2.1 points for African American students, indicating a narrowing of the achievement gap for African Americans.

Note: The Kansas Computerized Assessments are scored on a scale of 0-100.

<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 KS-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 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	76.5	79.3	1.4		06-08	66.2	69.7	1.7		NA-NA	NA	NA	NA	
	SD	06-08	15.3	14.2			06-08	18.4	18.2			NA-NA	NA	NA		
White	Mean SS	06-08	78.8	81.3	1.3		06-08	68.8	72.7	1.9		NA-NA	NA	NA	NA	
	SD	06-08	13.9	13.0			06-08	17.6	16.8			NA-NA	NA	NA		
African American	Mean SS	06-08	66.7	70.7	2.0	L	06-08	54.5	57.7	1.6	S	NA-NA	NA	NA	NA	NA
	SD	06-08	17.3	16.3			06-08	17.7	18.4			NA-NA	NA	NA		
Latino	Mean SS	06-08	69.2	73.8	2.3	L	06-08	56.4	59.6	1.6	S	NA-NA	NA	NA	NA	NA
	SD	06-08	16.5	15.1			06-08	18.1	18.5			NA-NA	NA	NA		
Asian	Mean SS	06-08	78.9	83.2	2.1	L	06-08	72.9	75.0	1.1	S	NA-NA	NA	NA	NA	NA
	SD	06-08	15.4	13.1			06-08	18.1	17.7			NA-NA	NA	NA		
Native American	Mean SS	06-08	72.8	74.3	0.7 <sup>2</sup>	S	06-08	61.5	64.2	1.4 <sup>2</sup>	S	NA-NA	NA	NA	NA	NA
	SD	06-08	14.9	15.5			06-08	18.6	18.3			NA-NA	NA	NA		
Not Low-income	Mean SS	06-08	80.2	82.9	1.3		06-08	70.8	74.3	1.8		NA-NA	NA	NA	NA	
	SD	06-08	13.3	12.2			06-08	16.9	16.2			NA-NA	NA	NA		
Low-income	Mean SS	06-08	71.2	74.7	1.8	L	06-08	58.4	61.7	1.7	S	NA-NA	NA	NA	NA	NA
	SD	06-08	16.3	15.1			06-08	18.3	18.5			NA-NA	NA	NA		
Not disabled	Mean SS	06-08	77.1	80.2	1.5		06-08	67.4	71.2	1.9		NA-NA	NA	NA	NA	
	SD	06-08	15.0	13.7			06-08	17.9	17.5			NA-NA	NA	NA		
Students with disabilities <sup>3</sup>	Mean SS	06-08	69.3	72.0	1.4	S	06-08	50.5	54.0	1.7	S	NA-NA	NA	NA	NA	NA
	SD	06-08	16.7	16.0			06-08	17.5	18.0			NA-NA	NA	NA		
Not ELLs	Mean SS	06-08	77.3	80.0	1.3		06-08	66.9	70.5	1.8		NA-NA	NA	NA	NA	
	SD	06-08	14.8	13.8			06-08	18.2	17.8			NA-NA	NA	NA		
English language learners <sup>3</sup>	Mean SS	06-08	67.4	72.4	2.5	L	06-08	51.9	54.0	1.1	S	NA-NA	NA	NA	NA	NA
	SD	06-08	16.8	15.8			06-08	17.9	18.1			NA-NA	NA	NA		
Female	Mean SS	06-08	76.1	78.9	1.4		06-08	66.3	70.0	1.8		NA-NA	NA	NA	NA	

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	15.3	14.2			06-08	17.9	17.6			NA-NA	NA	NA		
Male	Mean SS	06-08	76.8	79.6	1.4	L	06-08	66.1	69.4	1.6	S	NA-NA	NA	NA	NA	NA
	SD	06-08	15.3	14.2			06-08	18.9	18.6			NA-NA	NA	NA	NA	

Table reads: In 2006, the mean scale score on the state 4<sup>th</sup> grade math test was 78.8 for white students and 66.7 for African American students. In 2008, the mean scale score in 4<sup>th</sup> grade math was 81.3 for white students and 70.7 for African American students. Between 2006 and 2008, the mean scale score improved at an average yearly rate of 1.3 points for white students and 2.0 points for African American students, indicating a narrowing of the achievement gap for African Americans.

Note: The Kansas Computerized Assessments are scored on a scale of 0-100.

<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 KS-15. Numbers of Test-Takers

Subgroup	Subject	Grade 4					Grade 8					Grade 11 Reading/Grade 10 Math				
		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	31,354	32,415	3.4%	100.0%	06-08	33,734	32,902	-2.5%	100.0%	06-08	30,822	31,630	2.6%	100.0%
	Math	06-08	31,647	32,727	3.4%	100.0%	06-08	33,748	32,951	-2.4%	100.0%	06-08	33,719	31,572	-6.4%	100.0%
White	Reading	06-08	22,883	22,725	-0.7%	70.1%	06-08	25,529	24,083	-5.7%	73.2%	06-08	24,494	24,354	-0.6%	77.0%
	Math	06-08	23,019	22,885	-0.6%	69.9%	06-08	25,482	24,045	-5.6%	73.0%	06-08	26,178	24,336	-7.0%	77.1%
African American	Reading	06-08	2,443	2,555	4.6%	7.9%	06-08	2,711	2,717	0.2%	8.3%	06-08	2,208	2,414	9.3%	7.6%
	Math	06-08	2,464	2,581	4.7%	7.9%	06-08	2,703	2,712	0.3%	8.2%	06-08	2,573	2,359	-8.3%	7.5%
Latino	Reading	06-08	3,801	4,378	15.2%	13.5%	06-08	3,624	3,741	3.2%	11.4%	06-08	2,410	2,897	20.2%	9.2%
	Math	06-08	3,909	4,467	14.3%	13.6%	06-08	3,687	3,816	3.5%	11.6%	06-08	3,128	2,847	-9.0%	9.0%
Asian	Reading	06-08	797	811	1.8%	2.5%	06-08	720	748	3.9%	2.3%	06-08	763	763	0.0%	2.4%
	Math	06-08	816	837	2.6%	2.6%	06-08	729	764	4.8%	2.3%	06-08	739	817	10.6%	2.6%
Native American	Reading	06-08	431	<b>426</b>	-1.2%	1.3%	06-08	472	<b>464</b>	-1.7%	1.4%	06-08	399	<b>435</b>	9.0%	1.4%
	Math	06-08	432	<b>430</b>	-0.5%	1.3%	06-08	468	<b>462</b>	-1.3%	1.4%	06-08	480	<b>431</b>	-10.2%	1.4%
Low-income	Reading	06-08	12,985	14,105	8.6%	43.5%	06-08	12,471	12,187	-2.3%	37.0%	06-08	7,942	9,033	13.7%	28.6%
	Math	06-08	13,193	14,320	8.5%	43.8%	06-08	12,522	12,266	-2.0%	37.2%	06-08	10,151	9,069	-10.7%	28.7%
Students w/ disabilities	Reading	06-08	2,559	3,294	28.7%	10.2%	06-08	2,482	2,935	18.3%	8.9%	06-08	2,001	2,551	27.5%	8.1%
	Math	06-08	2,664	3,540	32.9%	10.8%	06-08	2,438	2,942	20.7%	8.9%	06-08	2,336	2,475	6.0%	7.8%
English language learners	Reading	06-08	2,695	3,147	16.8%	9.7%	06-08	1,502	1,575	4.9%	4.8%	06-08	802	861	7.4%	2.7%
	Math	06-08	2,829	3,266	15.4%	10.0%	06-08	1,579	1,676	6.1%	5.1%	06-08	1,113	952	-14.5%	3.0%
Female	Reading	06-08	15,447	16,012	3.7%	49.4%	06-08	16,556	15,963	-3.6%	48.5%	06-08	15,199	15,594	2.6%	49.3%
	Math	06-08	15,530	16,070	3.5%	49.1%	06-08	16,534	15,945	-3.6%	48.4%	06-08	16,595	15,582	-6.1%	49.4%
Male	Reading	06-08	15,907	16,403	3.1%	50.6%	06-08	17,178	16,939	-1.4%	51.5%	06-08	15,623	16,036	2.6%	50.7%
	Math	06-08	16,117	16,657	3.4%	50.9%	06-08	17,214	17,006	-1.2%	51.6%	06-08	17,124	15,990	-6.6%	50.6%

Table reads: In 2006, 22,883 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 22,725 students, a decrease of 0.7%. In 2008, the white subgroup made up 70.1% of the 32,415 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.