

## Subgroup Achievement and Gap Trends — Maine

*K-12 enrollment — 187,450*

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.

For Maine, trends were analyzed for white and low income students. Both groups showed a clear upward trend at the basic and proficient achievement levels in reading. In math, there was more of a mixed picture; there was a slight decline for the low income subgroup at the proficient level. Achievement gaps between these two subgroups tended to widen.

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

- **Main trend:** In reading, both the white and low-income subgroups showed gains in the percentage of students scoring at basic-and-above and proficient-and-above levels. In math, the white subgroup showed gains in the percentage of students scoring at basic-and-above and proficient-and-above levels, and the low income subgroup posted a slight decline at the proficient level, and a gain at the basic level.

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

- **Main trend:** In grades 4 and 8, gaps between low-income and non-low-income students in the percentages scoring at the proficient level tended to widen.

#### **Data notes**

- **Limited data:** Trends are limited to 2006 to 2008. Data was unavailable to determine trends at the advanced achievement level, and to determine trends in achievement gaps at the high school level in math, using percent proficient. Data was unavailable to determine trends at the high school level using mean scale scores.

- Subgroups analyzed: Trends were analyzed for white and low-income students. The African American, Latino, Asian American, and Native American subgroups are too small in Maine 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, grades 3 through 8 and grade 11 reading 2007 through 2008, grade 11 mathematics
Years of comparable mean scale score data	2006 through 2008, grades 3 through 8 2007 through 2008, grade 11
Disaggregated data for all subgroups and comparison groups	2006 through 2008, grades 3 through 8 2007 through 2008, grade 11 Percentage proficient data not available until 2007 for comparison groups of students who are <i>not</i> English language learners (ELLs), so the ELL subgroup is compared with all tested students in the state in proficiency analyses Percentage of advanced students not available for disaggregated groups until 2007.

## 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	Maine Educational Assessment (MEA) Maine's Personalized Alternate Assessment Portfolio (PAAP) Maine High School Assessment (MHSA)
Grades tested for NCLB accountability	3–8, 11
State labels for achievement levels	ME uses four achievement levels: Not Meeting Standards, Partially Meeting Standards, Meeting Standards, and Exceeding Standards. For our analyses we treated Partially Meeting Standards as Basic,

Meeting Standards as Proficient, and Exceeding Standards as Advanced.

High school NCLB test also used as an exit exam?

No

First year test used

2005–06 for MEA and new version of MHSA  
2006–07 for rescaled MHSA

Time of test administration

Spring

Major changes in testing system (2002–present)

2005–06: Began testing grades 3, 5–7 to meet NCLB requirements  
2005–06: Began basing assessments on revised standards; made online testing available  
2005–06: Replaced high school assessment with the SAT  
2006–07: Augmented the SAT mathematics test with state-specific items  
2006–07: Rescaled the MHSA tests in both reading and math to use an 80-point scale

## 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 ME-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					4%	4%	4%	0.0
Proficient and Above					61%	67%	63%	1.0
Basic and Above					90%	92%	91%	0.5
White								
Advanced					NA	4%	4%	NA
Proficient and Above					62%	68%	64%	1.0
Basic and Above					90%	93%	92%	1.0
African American <sup>2</sup>								
Advanced					NA	0%	1%	NA
Proficient and Above					42%	44%	37%	-2.5
Basic and Above					78%	75%	72%	-3.0
Latino <sup>2</sup>								
Advanced					NA	0%	0%	NA
Proficient and Above					41%	51%	45%	2.0
Basic and Above					83%	88%	83%	0.0
Asian <sup>2</sup>								
Advanced					NA	4%	6%	NA
Proficient and Above					62%	70%	67%	2.5
Basic and Above					89%	92%	89%	0.0
Native American <sup>2</sup>								
Advanced					NA	1%	1%	NA
Proficient and Above					46%	50%	47%	0.5
Basic and Above					76%	84%	91%	7.5

Table reads: The percentage of white 4<sup>th</sup> graders who scored at the advanced level on the state reading test was 4% in 2007 and in 2008. Average yearly gains have not been calculated because fewer than three consecutive years of data are available, too short a period to constitute a trend

<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 ME-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					4%	4%	4%	0.0
Proficient and Above					61%	67%	63%	1.0
Basic and Above					90%	92%	91%	0.5
Low-income students								
Advanced					NA	1%	1%	NA
Proficient and Above					47%	53%	48%	0.5
Basic and Above					84%	86%	85%	0.5
Students with disabilities <sup>3</sup>								
Advanced					NA	1%	0%	NA
Proficient and Above					31%	35%	29%	-1.0
Basic and Above					70%	76%	73%	1.5
English language learners <sup>2,3</sup>								
Advanced					NA	0%	1%	NA
Proficient and Above					32%	31%	33%	0.5
Basic and Above					69%	67%	68%	-0.5
Female								
Advanced					NA	5%	5%	NA
Proficient and Above					66%	70%	66%	0.0
Basic and Above					92%	93%	92%	0.0
Male								
Advanced					NA	3%	3%	NA
Proficient and Above					57%	64%	60%	1.5
Basic and Above					88%	91%	90%	1.0

Table reads: The percentage of low-income 4<sup>th</sup> graders who scored at the advanced level on the state reading test was 1% in 2007 and in 2008. Average yearly gains have not been calculated because fewer than three consecutive years of data are available, too short a period to constitute a trend

<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 ME-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					9%	8%	9%	0.0
Proficient and Above					59%	61%	60%	0.5
Basic and Above					86%	88%	88%	1.0
White								
Advanced					NA	8%	10%	NA
Proficient and Above					60%	62%	61%	0.5
Basic and Above					87%	89%	89%	1.0
African American <sup>2</sup>								
Advanced					NA	2%	4%	NA
Proficient and Above					37%	35%	30%	-3.5
Basic and Above					66%	66%	64%	-1.0
Latino <sup>2</sup>								
Advanced					NA	2%	4%	NA
Proficient and Above					46%	46%	45%	-0.5
Basic and Above					80%	83%	79%	-0.5
Asian <sup>2</sup>								
Advanced					NA	9%	14%	NA
Proficient and Above					66%	66%	65%	-0.5
Basic and Above					89%	88%	88%	-0.5
Native American <sup>2</sup>								
Advanced					NA	1%	3%	NA
Proficient and Above					41%	59%	49%	4.0
Basic and Above					79%	89%	90%	5.5

Table reads: The percentage of white 4<sup>th</sup> graders who scored at the advanced level on the state math test increased from 8% in 2007 to 10% in 2008. Average yearly gains have not been calculated because fewer than three consecutive years of data are available, too short a period to constitute a trend

<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 ME-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					9%	8%	9%	0.0
Proficient and Above					59%	61%	60%	0.5
Basic and Above					86%	88%	88%	1.0
Low-income students								
Advanced					NA	3%	5%	NA
Proficient and Above					47%	47%	46%	-0.5
Basic and Above					80%	81%	81%	0.5
Students with disabilities <sup>3</sup>								
Advanced					NA	2%	3%	NA
Proficient and Above					35%	36%	34%	-0.5
Basic and Above					69%	70%	70%	0.5
English language learners <sup>2,3</sup>								
Advanced					NA	2%	4%	NA
Proficient and Above					40%	36%	37%	-1.5
Basic and Above					60%	65%	65%	2.5
Female								
Advanced					NA	7%	9%	NA
Proficient and Above					58%	60%	59%	0.5
Basic and Above					86%	87%	88%	1.0
Male								
Advanced					NA	8%	10%	NA
Proficient and Above					61%	62%	61%	0.0
Basic and Above					88%	88%	88%	0.0

Table reads: The percentage of low-income 4<sup>th</sup> graders who scored at the advanced level on the state math test increased from 3% in 2007 to 5% in 2008. Average yearly gains have not been calculated because fewer than three consecutive years of data are available, too short a period to constitute a trend

<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 ME-11. Subgroup Achievement Trends in Reading by Percentages Proficient**

NOTE: L = Larger gain than comparison group. S = Smaller gain than comparison group. E = Equal gain to comparison group.

If the average annual gain for the subgroup of interest, such as African American students, is larger than the average annual gain for the comparison group, such as white students, this indicates that the achievement gap has narrowed. If the average gain for the subgroup of interest is smaller, this means the gap has widened.

Subgroup	Grade 4					Grade 8					Grade 11				
	Year Span	Starting PP	Ending PP	Average Annual Gain <sup>1</sup>	Gain Larger or Smaller Than Comparison Group	Year Span	Starting PP	Ending PP	Average Annual Gain <sup>1</sup>	Gain Larger or Smaller Than Comparison Group	Year Span	Starting PP	Ending PP	Average Annual Gain <sup>1</sup>	Gain Larger or Smaller Than Comparison Group
All tested students	06-08	61%	63%	1.0		06-08	59%	71%	6.0		06-08	45%	48%	1.5	
White	06-08	62%	64%	1.0		06-08	59%	72%	6.5		06-08	45%	49%	2.0	
African American	06-08	42%	37%	-2.5 <sup>2</sup>	S	06-08	42%	49%	3.5 <sup>2</sup>	S	06-08	28%	25%	-1.5 <sup>2</sup>	S
Latino	06-08	41%	45%	2.0 <sup>2</sup>	L	06-08	47%	56%	4.5 <sup>2</sup>	S	06-08	37%	37%	0.0 <sup>2</sup>	S
Asian	06-08	62%	67%	2.5 <sup>2</sup>	L	06-08	65%	71%	3.0 <sup>2</sup>	S	06-08	37%	39%	1.0 <sup>2</sup>	S
Native American	06-08	46%	47%	0.5 <sup>2</sup>	S	06-08	38%	52%	7.0 <sup>2</sup>	L	06-08	36%	32%	-2.0 <sup>2</sup>	S
Not low-income	06-08	70%	72%	1.0		06-08	66%	79%	6.5		06-08	49%	54%	2.5	
Low-income	06-08	47%	48%	0.5	S	06-08	43%	56%	6.5	E	06-08	30%	31%	0.5	S
Not disabled	06-08	67%	70%	1.5		06-08	66%	79%	6.5		06-08	49%	54%	2.5	
Students with disabilities <sup>3</sup>	06-08	31%	29%	-1.0	S	06-08	16%	27%	5.5	S	06-08	11%	10%	-0.5	S
All tested students	06-08	61%	63%	1.0		06-08	59%	71%	6.0		06-08	45%	48%	1.5	
English language learners <sup>3</sup>	06-08	32%	33%	0.5 <sup>2</sup>	S	06-08	26%	38%	6.0 <sup>2</sup>	E	06-08	6%	25%	9.5 <sup>2</sup>	L
Female	06-08	66%	66%	0.0		06-08	66%	78%	6.0		06-08	47%	50%	1.5	
Male	06-08	57%	60%	1.5	L	06-08	52%	66%	7.0	L	06-08	43%	46%	1.5	E

Table reads: In 2006, 62% of white 4<sup>th</sup> graders and 42% of African American 4<sup>th</sup> graders scored at the proficient level on the state reading test. In 2008, 64% of white 4<sup>th</sup> graders and 37% 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 1.0 percentage point per year for white students and declined at a rate of 2.5 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 ME-12. Subgroup Achievement Trends in Mathematics by Percentages Proficient**

NOTE: L = Larger gain than comparison group. S = Smaller gain than comparison group. E = Equal gain to comparison group.

If the average annual gain for the subgroup of interest, such as African American students, is larger than the average annual gain for the comparison group, such as white students, this indicates that the achievement gap has narrowed. If the average gain for the subgroup of interest is smaller, this means the gap has widened.

Subgroup	Grade 4					Grade 8					Grade 11				
	Year Span	Starting PP	Ending PP	Average Annual Gain <sup>1</sup>	Gain Larger or Smaller Than Comparison Group	Year Span	Starting PP	Ending PP	Average Annual Gain <sup>1</sup>	Gain Larger or Smaller Than Comparison Group	Year Span	Starting PP	Ending PP	Average Annual Gain <sup>1</sup>	Gain Larger or Smaller Than Comparison Group
All tested students	06-08	59%	60%	0.5		06-08	45%	51%	3.0		07-08	40%	41%	NA	
White	06-08	60%	61%	0.5		06-08	45%	52%	3.5		07-08	40%	42%	NA	
African American	06-08	37%	30%	-3.5 <sup>2</sup>	S	06-08	24%	25%	0.5 <sup>2</sup>	S	07-08	14%	13%	NA	NA
Latino	06-08	46%	45%	-0.5 <sup>2</sup>	S	06-08	38%	41%	1.5 <sup>2</sup>	S	07-08	32%	26%	NA	NA
Asian	06-08	66%	65%	-0.5 <sup>2</sup>	S	06-08	60%	66%	3.0 <sup>2</sup>	S	07-08	46%	45%	NA	NA
Native American	06-08	41%	49%	4.0 <sup>2</sup>	L	06-08	30%	27%	-1.5 <sup>2</sup>	S	07-08	18%	26%	NA	NA
Not low-income	06-08	67%	69%	1.0		06-08	52%	60%	4.0		07-08	45%	47%	NA	
Low-income	06-08	47%	46%	-0.5	S	06-08	30%	35%	2.5	S	07-08	21%	23%	NA	NA
Not disabled	06-08	64%	65%	0.5		06-08	50%	58%	4.0		07-08	44%	46%	NA	
Students with disabilities <sup>3</sup>	06-08	35%	34%	-0.5	S	06-08	12%	15%	1.5	S	07-08	6%	8%	NA	NA
All tested students	06-08	59%	60%	0.5		06-08	45%	51%	3.0		07-08	40%	41%	NA	
English language learners <sup>3</sup>	06-08	40%	37%	-1.5 <sup>2</sup>	S	06-08	20%	29%	4.5 <sup>2</sup>	L	07-08	16%	19%	NA	NA
Female	06-08	58%	59%	0.5		06-08	45%	51%	3.0		07-08	38%	39%	NA	
Male	06-08	61%	61%	0.0	S	06-08	44%	51%	3.5	L	07-08	41%	43%	NA	NA

Table reads: In 2006, 60% of white 4<sup>th</sup> graders and 37% of African American 4<sup>th</sup> graders scored at the proficient level on the state math test. In 2008, 61% of white 4<sup>th</sup> graders and 30% 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 0.5 percentage point per year for white students and declined at an average rate of 3.5 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.

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

**Table ME-13. Achievement Gap Trends in Reading by Mean Scale Scores**

NOTE: L = Larger gain than comparison group. S = Smaller gain than comparison group. E = Equal gain to comparison group.

If the average gain for the subgroup of interest, such as African American students, is larger than the average gain for the comparison group, such as white students, this indicates that the achievement gap has narrowed. If the average gain for the subgroup of interest is smaller, this means the gap has widened.

Subgroup	Statistic	Grade 4					Grade 8					Grade 11				
		Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) <sup>1</sup>	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) <sup>1</sup>	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) <sup>1</sup>	Gain Larger or Smaller than Comparison Group
All tested students	Mean SS	06-08	444	445	0.5		06-08	845	849	2.0		07-08	1141	1141	NA	
	SD	06-08	10.2	10.3			06-08	17.4	15.4			07-08	14.3	14.7		
White	Mean SS	06-08	444	445	0.5		06-08	845	850	2.5		07-08	1141	1141	NA	
	SD	06-08	10.1	10.2			06-08	17.4	15.2			07-08	14.2	14.6		
African American	Mean SS	06-08	439	438	-0.5 <sup>2</sup>	S	06-08	836	840	2.0 <sup>2</sup>	S	07-08	1131	1132	NA	NA
	SD	06-08	11.1	11.4			06-08	17.5	17.0			07-08	13.8	14.2		
Latino	Mean SS	06-08	441	440	-0.5 <sup>2</sup>	S	06-08	839	846	3.5 <sup>2</sup>	L	07-08	1137	1136	NA	NA
	SD	06-08	10.8	11.2			06-08	18.6	17.1			07-08	14.4	14.7		
Asian	Mean SS	06-08	445	445	0.0 <sup>2</sup>	S	06-08	847	852	2.5 <sup>2</sup>	E	07-08	1139	1138	NA	NA
	SD	06-08	11.1	11.6			06-08	18.1	17.3			07-08	14.0	13.4		
Native American	Mean SS	06-08	440	442	1.0 <sup>2</sup>	L	06-08	836	842	3.0 <sup>2</sup>	L	07-08	1135	1134	NA	NA
	SD	06-08	9.7	7.6			06-08	16.4	16.1			07-08	13.8	14.7		
Not Low-income	Mean SS	06-08	446	447	0.5		06-08	848	853	2.5		07-08	1142	1143	NA	
	SD	06-08	9.9	9.8			06-08	16.7	14.5			07-08	14.0	14.4		
Low-income	Mean SS	06-08	441	441	0.0	S	06-08	838	843	2.5	E	07-08	1134	1134	NA	NA
	SD	06-08	9.7	10.2			06-08	17.1	15.1			07-08	13.5	13.8		
Not disabled	Mean SS	06-08	449	446	-1.5		06-08	848	852	2.0		07-08	1142	1143	NA	
	SD	06-08	9.6	9.7			06-08	15.8	13.7			07-08	13.6	13.9		
Students with disabilities <sup>3</sup>	Mean SS	06-08	437	437	0.0	L	06-08	827	833	3.0	L	07-08	1127	1126	NA	NA
	SD	06-08	10.1	10.0			06-08	15.1	13.8			07-08	11.8	12.1		
Not ELLs	Mean SS	06-08	444	445	0.5		06-08	845	850	2.5		07-08	1141	1141	NA	
	SD	06-08	10.1	10.2			06-08	17.3	15.3			07-08	14.2	14.6		
English language learners <sup>3</sup>	Mean SS	06-08	436	436	0.0 <sup>2</sup>	S	06-08	828.0	837	4.5 <sup>2</sup>	L	07-08	1127	1132	NA	NA
	SD	06-08	11.1	12.2			06-08	17.7	17.2			07-08	11.6	14.4		
Female	Mean SS	06-08	446	446	0.0		06-08	848	853	2.5		07-08	1142	1142	NA	
	SD	06-08	10.2	10.5			06-08	16.8	15.1			07-08	13.5	13.9		

Subgroup	Statistic	Grade 4					Grade 8					Grade 11				
		Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) <sup>1</sup>	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) <sup>1</sup>	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) <sup>1</sup>	Gain Larger or Smaller than Comparison Group
Male	Mean SS	06-08	443	444	0.5	L	06-08	842	847	2.5	E	07-08	1140	1140	NA	NA
	SD	06-08	10.0	10.1			06-08	17.4	15.2			07-08	14.9	15.3		

Table reads: In 2006, the mean scale score on the state 4<sup>th</sup> grade reading test was 444 for white students and 439 for African American students. In 2008, the mean scale score in 4<sup>th</sup> grade reading was 445 for white students and 438 for African American students. Between 2006 and 2008, the mean scale score improved at an average yearly rate of 0.5 points for white students and declined at an average yearly rate of 0.5 points for African American students, indicating a widening of the achievement gap for African Americans.

Note: The Maine Educational Assessment (grades 3-8) and Maine High School Assessment (grade 11) are scored on a scale of 00-80, expressed as a 3-digit number with 1<sup>st</sup> digit representing grade level at grades 3-8 (e.g., a score of 33 in 4<sup>th</sup> grade = 433) and as a 4-digit number with the first two digits representing grade level for high school (e.g., a score of 33 in high school = 1133).

<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 11				
		Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) <sup>1</sup>	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) <sup>1</sup>	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) <sup>1</sup>	Gain Larger or Smaller than Comparison Group
	SD	06-08	13.8	13.6			06-08	16.8	17.3			07-08	9.7	10.2		
Male	Mean SS	06-08	445	446	0.5	E	06-08	839	841	1.0	L	07-08	1141	1141	NA	NA
	SD	06-08	14.0	13.8			06-08	18.3	17.8			07-08	11.1	11.9		

Table reads: In 2006, the mean scale score on the state 4<sup>th</sup> grade math test was 445 for white students and 436 for African American students. In 2008, the mean scale score in 4<sup>th</sup> grade math was 446 for white students and 434 for African American students. Between 2006 and 2008, the mean scale score improved at an average yearly rate of 0.5 points for white students and declined at an average yearly rate of 1.0 points for African American students, indicating a widening of the achievement gap for African Americans.

Note: The Maine Educational Assessment (grades 3-8) and Maine High School Assessment (grade 11) are scored on a scale of 00-80, expressed as a 3-digit number with 1<sup>st</sup> digit representing grade level at grades 3-8 (e.g., a score of 33 in 4<sup>th</sup> grade = 433) and as a 4-digit number with the first two digits representing grade level for high school (e.g., a score of 33 in high school = 1133).

<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 ME-15. Numbers of Test-Takers

Subgroup	Subject	Grade 4					Grade 8					Grade 11				
		Year Span	# of Test-Takers Start Year	# of Test-Takers End Year	Change in # of Test-Takers Over Time	% of Test-Takers in Subgroup in End Year	Year Span	# of Test-Takers Start Year	# of Test-Takers End Year	Change in # of Test-Takers Over Time	% of Test-Takers in Subgroup in End Year	Year Span	# of Test-Takers Start Year	# of Test-Takers End Year	Change in # of Test-Takers Over Time	% of Test-Takers in Subgroup in End Year
All tested students	Reading	06-08	13,946	14,053	0.8%	100.0%	06-08	16,254	14,924	-8.2%	100.0%	07-08	15,054	14,579	-3.2%	100.0%
	Math	06-08	14,016	13,997	-0.1%	100.0%	06-08	16,247	14,921	-8.2%	100.0%	07-08	15,420	14,870	-3.6%	100.0%
White	Reading	06-08	13,127	13,144	0.1%	93.5%	06-08	15,515	14,149	-8.8%	94.8%	07-08	14,370	13,930	-3.1%	95.5%
	Math	06-08	13,174	13,085	-0.7%	93.5%	06-08	15,508	14,140	-8.8%	94.8%	07-08	14,702	14,180	-3.6%	95.4%
African American	Reading	06-08	327	<b>384</b>	17.4%	2.7%	06-08	284	<b>348</b>	22.5%	2.3%	07-08	290	<b>248</b>	-14.5%	1.7%
	Math	06-08	337	<b>386</b>	14.5%	2.8%	06-08	284	<b>352</b>	23.9%	2.4%	07-08	304	<b>274</b>	-9.9%	1.8%
Latino	Reading	06-08	139	<b>164</b>	18.0%	1.2%	06-08	133	<b>131</b>	-1.5%	0.9%	07-08	123	<b>115</b>	-6.5%	0.8%
	Math	06-08	142	<b>162</b>	14.1%	1.2%	06-08	134	<b>131</b>	-2.2%	0.9%	07-08	129	<b>120</b>	-7.0%	0.8%
Asian	Reading	06-08	245	<b>259</b>	5.7%	1.8%	06-08	208	<b>179</b>	-13.9%	1.2%	07-08	193	<b>192</b>	-0.5%	1.3%
	Math	06-08	254	<b>262</b>	3.1%	1.9%	06-08	209	<b>181</b>	-13.4%	1.2%	07-08	204	<b>200</b>	-2.0%	1.3%
Native American	Reading	06-08	96	<b>101</b>	5.2%	0.7%	06-08	101	<b>117</b>	15.8%	0.8%	07-08	78	<b>94</b>	20.5%	0.6%
	Math	06-08	97	<b>101</b>	4.1%	0.7%	06-08	100	<b>117</b>	17.0%	0.8%	07-08	81	<b>96</b>	18.5%	0.6%
Low-income	Reading	06-08	5,159	5,502	6.6%	39.2%	06-08	5,428	5,222	-3.8%	35.0%	07-08	3,464	3,545	2.3%	24.3%
	Math	06-08	5,205	5,472	5.1%	39.1%	06-08	5,423	5,217	-3.8%	35.0%	07-08	3,606	3,695	2.5%	24.8%
Students w/ disabilities	Reading	06-08	2,259	2,388	5.7%	17.0%	06-08	2,447	2,269	-7.3%	15.2%	07-08	1,870	1,823	-2.5%	12.5%
	Math	06-08	2,303	2,372	3.0%	16.9%	06-08	2,437	2,265	-7.1%	15.2%	07-08	1,991	1,896	-4.8%	12.8%
English language learners	Reading	06-08	227	<b>373</b>	64.3%	2.7%	06-08	221	<b>308</b>	39.4%	2.1%	07-08	233	<b>488</b>	109.4%	3.3%
	Math	06-08	301	<b>381</b>	26.6%	2.7%	06-08	228	<b>315</b>	38.2%	2.1%	07-08	250	545	118.0%	3.7%
Female	Reading	06-08	6,919	6,959	0.6%	49.5%	06-08	7,815	7,198	-7.9%	48.2%	07-08	7,401	7,237	-2.2%	49.6%
	Math	06-08	6,935	6,933	0.0%	49.5%	06-08	7,813	7,199	-7.9%	48.2%	07-08	7,566	7,362	-2.7%	49.5%
Male	Reading	06-08	7,015	7,093	1.1%	50.5%	06-08	8,426	7,726	-8.3%	51.8%	07-08	7,653	7,342	-4.1%	50.4%
	Math	06-08	7,069	7,063	-0.1%	50.5%	06-08	8,422	7,722	-8.3%	51.8%	07-08	7,854	7,508	-4.4%	50.5%

Table reads: In 2006, 13,127 students in the white subgroup took the state 4<sup>th</sup> grade reading test. By 2008, the number of white test-takers had risen to 13,144 students, an increase of 0.1%. In 2008, the white subgroup made up 93.5% of the 14,053 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.