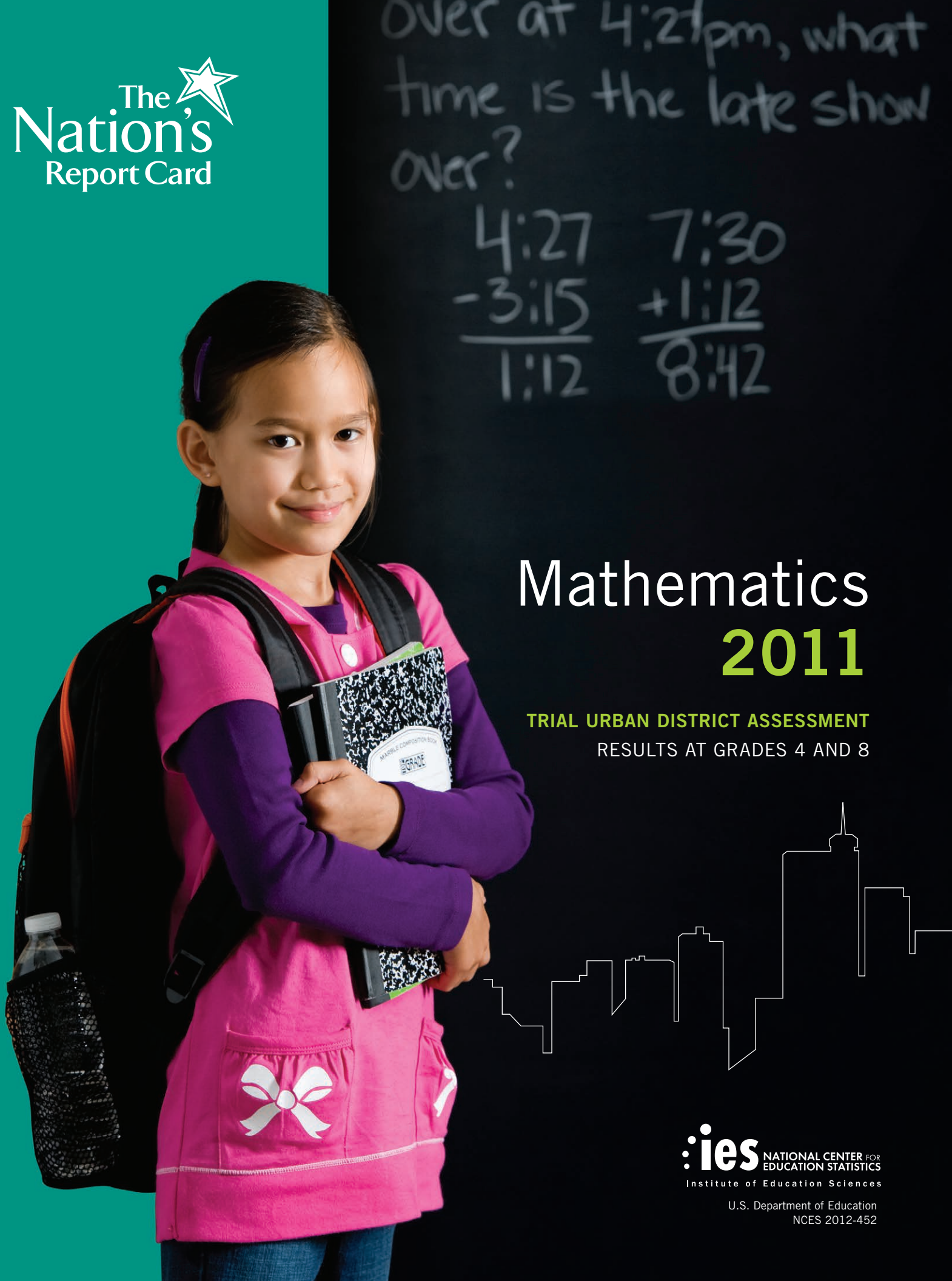
The Nation's Report Card



Mathematics 2011

TRIAL URBAN DISTRICT ASSESSMENT

RESULTS AT GRADES 4 AND 8

ies NATIONAL CENTER FOR EDUCATION STATISTICS
Institute of Education Sciences

U.S. Department of Education
NCES 2012-452

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What Is The Nation's Report Card™?

The Nation's Report Card™ informs the public about the academic achievement of elementary and secondary students in the United States. Report cards communicate the findings of the National Assessment of Educational Progress (NAEP), a continuing and nationally representative measure of achievement in various subjects over time.

Since 1969, NAEP assessments have been conducted periodically in reading, mathematics, science, writing, U.S. history, civics, geography, and other subjects. NAEP collects and reports information on student performance at the national, state, and local levels, making the assessment an integral part of our nation's evaluation of the condition and progress of education. Only academic achievement data and related background information are collected. The privacy of individual students and their families is protected.

NAEP is a congressionally authorized project of the National Center for Education Statistics (NCES) within the Institute of Education Sciences of the U.S. Department of Education. The Commissioner of Education Statistics is responsible for carrying out the NAEP project. The National Assessment Governing Board oversees and sets policy for NAEP.

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Executive Summary

Representative samples of fourth- and eighth-grade public school students from 21 urban districts participated in the 2011 National Assessment of Educational Progress (NAEP) in mathematics. Eighteen of the districts participating in the 2011 NAEP Trial Urban District Assessment (TUDA) participated in earlier assessment years, while three districts participated for the first time in 2011. Between 1,000 and 2,700 students in each district were assessed at grades 4 and 8.

Scores higher than in 2009 for four districts at grade 4 and six districts at grade 8

At grade 4, average mathematics scores were higher in 2011 than in 2009 for public school students in the nation, large cities, and 4 of the 18 urban districts that participated in both years (**figure A**). In comparison to 2003, scores were higher in 2011 for 9 of the 10 districts that participated in both years, as well as for large cities and the nation.

At grade 8, average mathematics scores were higher in 2011 than in 2009 for public school students in the nation, large cities, and 6 of the 18 urban districts that participated in both years. In comparison to 2003, scores were higher in 2011 for 9 of the 10 districts that participated in both years, as well as for large cities and the nation.

▲ Higher in 2011.
◆ Not significantly different from 2011.
— District did not participate.
Rounds to zero.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. The score-point differences appear within each symbol and are based on the differences between unrounded average scores. A score-point difference preceded by a minus sign (-) indicates that the score was numerically lower in 2011. DCPS = District of Columbia Public Schools.

Figure A. Changes in 2011 NAEP mathematics average scores from 2003 and 2009 for fourth- and eighth-grade public school students, by jurisdiction

	Grade 4		Grade 8	
Jurisdiction	From 2003	From 2009	From 2003	From 2009
Nation	▲ 6	▲ 1	▲ 7	▲ 1
Large city[1]	▲ 9	▲ 2	▲ 12	▲ 3
Atlanta	▲ 12	▲ 3	▲ 22	▲ 6
Austin	—	▲ 5	—	◆ #
Baltimore City	—	▲ 3	—	◆ 4
Boston	▲ 17	◆ 1	▲ 20	◆ 2
Charlotte	▲ 5	◆ 2	▲ 7	▲ 3
Chicago	▲ 10	◆ 2	▲ 16	▲ 7
Cleveland	◆ 1	◆ 2	◆ 3	◆ #
Detroit	—	◆ 3	—	▲ 8
District of Columbia (DCPS)	▲ 17	◆ 2	▲ 12	▲ 4
Fresno	—	◆ -1	—	◆ -2
Houston	▲ 10	◆ 1	▲ 15	◆ 2
Jefferson County (KY)	—	◆ 2	—	▲ 3
Los Angeles	▲ 7	◆ 1	▲ 16	◆ 2
Miami-Dade	—	◆ -1	—	◆ -1
Milwaukee	—	◆ #	—	◆ 3
New York City	▲ 8	◆ -3	▲ 6	◆ -1
Philadelphia	—	▲ 4	—	◆ #
San Diego	▲ 13	◆ 3	▲ 14	◆ -2

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2009, and 2011 Mathematics Assessments.

Both fourth- and eighth-graders in six districts score higher than the average for large cities in 2011

Among the 21 urban districts that participated in the 2011 mathematics assessment, scores for both fourth- and eighth-graders in 6 districts were higher than the scores for public school students attending schools in large cities (i.e., cities with populations of 250,000 or more) overall. Fourth- and eighth-graders in 10 districts scored lower than their peers in large cities.

Differences in average mathematics scores for public school students in the districts compared to the scores for large cities in 2011

	At both grades		At grade 4 only
Higher than large cities	Austin Boston Charlotte	Hillsborough County (FL) Houston San Diego	Jefferson County (KY) Miami-Dade
Lower than large cities	Atlanta Baltimore City Chicago Cleveland Detroit	District of Columbia (DCPS) Fresno Los Angeles Milwaukee Philadelphia	
Scores for fourth- and eighth-graders in Albuquerque, Dallas, and New York City were not significantly different from the scores for students in large cities.			

NOTE: DCPS = District of Columbia Public Schools.

Compared to large cities, scores for lower-income students are higher in eight districts at grade 4 and five districts at grade 8

When comparing the results for urban districts to results for the nation and large cities, it is important to consider how the demographics of the jurisdictions are different. For example, large cities and participating urban districts differ from the nation in the proportion of students eligible for the National School Lunch Program (an indicator of lower family income). The percentages of students eligible for free/reduced-price school lunch (lower-income students) in the nation in 2011 were 52 percent at grade 4 and 48 percent at grade 8; the percentages of lower-income students in the districts ranged from 52 percent to 100 percent across the two grades.

At grade 4, average scores for both higher- and lower-income students in Austin, Charlotte, and Hillsborough County were higher than the scores for their peers in large cities (**figure B**). Scores for lower-income students in Boston, Dallas, Houston, Miami-Dade, and New York City were also higher than the score for lower-income students in large cities, although scores for higher-income students in those districts were not significantly different from large cities. But not all of the districts where scores for lower-income students were higher than the score for large cities had a smaller score gap between the two groups. The score gap between higher- and lower-income students in Boston was smaller than the score gap for large cities, while the gaps in the other districts were either larger than or not significantly different from the gap for large cities.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

At grade 8, average scores for both higher- and lower-income students in Austin and Boston were higher than the scores for their peers in large cities. Scores for lower-income students in Dallas, Houston, and New York City were also higher than the score for lower-income students in large cities, although the scores for higher-income students in those districts were not significantly different from large cities. Among those districts where scores for lower-income students were higher than the score for large cities, the score gaps between higher- and lower-income students in Dallas and Houston were smaller than the score gap for large cities, and gaps in the other districts were either larger than or not significantly different from the gap for large cities.

Figure B. Comparison of district and large city NAEP mathematics average scores and score gaps for fourth- and eighth-grade public school students, by family income and jurisdiction: 2011

	Grade 4			Grade 8		
Jurisdiction	Higher income	Lower income	Score gap	Higher income	Lower income	Score gap
Nation	252	229	23	295	269	26
Large city[1]	250	227	23	293	266	27
Albuquerque	◆	◆	◆	◆	◆	◆
Atlanta	▲	▼	Larger	◆	▼	◆
Austin	▲	▲	Larger	▲	▲	Larger
Baltimore City	▼	▼	◆	▼	▼	◆
Boston	◆	▲	Smaller	▲	▲	◆
Charlotte	▲	▲	◆	▲	◆	Larger
Chicago	◆	▼	◆	◆	◆	◆
Cleveland	‡	▼	‡	‡	▼	‡
Dallas	◆	▲	◆	◆	▲	Smaller
Detroit	▼	▼	†	▼	▼	Smaller
District of Columbia (DCPS)	◆	▼	Larger	▼	▼	◆
Fresno	◆	▼	Larger	◆	▼	Larger
Hillsborough County (FL)	▲	▲	◆	◆	◆	◆
Houston	◆	▲	◆	◆	▲	Smaller
Jefferson County (KY)	◆	◆	◆	◆	▼	Larger
Los Angeles	▼	▼	◆	◆	▼	◆
Miami-Dade	◆	▲	◆	▼	◆	Smaller
Milwaukee	▼	▼	◆	▼	▼	◆
New York City	◆	▲	◆	◆	▲	◆
Philadelphia	◆	▼	◆	◆	▼	◆
San Diego	▲	◆	Larger	▲	◆	Larger

▲ Higher average score than large city.
▼ Lower average score than large city.
◆ No significant difference between the district and large city.
† Not applicable. The difference in average scores for higher- and lower-income students in Detroit was not statistically significant.
‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP. Score gaps are calculated based on differences between unrounded average scores. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Three districts participated in the NAEP Trial Urban District Assessment for the first time in 2011

- Albuquerque Public Schools,
- Dallas Independent School District, and
- Hillsborough County (FL) Public Schools.

Introduction

As part of the National Assessment of Educational Progress (NAEP) in mathematics, results are reported for urban school districts participating in the Trial Urban District Assessment (TUDA). The primary goal of TUDA is to focus attention on urban education and measure educational progress within large urban districts. Twenty-one districts participated in the 2011 mathematics assessment, three of them for the first time.

The Mathematics Framework

The National Assessment Governing Board oversees the development of NAEP frameworks that describe the specific knowledge and skills to be assessed in each subject. Frameworks incorporate ideas and input from subject area experts, school administrators, policymakers, teachers, parents, and others. NAEP frameworks also describe the types of questions to be included and how they should be designed and scored.

Mathematics content areas

To ensure an appropriate balance of content and allow for a variety of ways of knowing and doing mathematics, the *Mathematics Framework for the 2011 National Assessment of Educational Progress* specifies that each question in the assessment measure one of five mathematical content areas. Although the names of the content areas, as well as some of the topics in those areas, have

changed over the years, there has been a consistent focus across frameworks on collecting information on students' performance in the following five areas:

Number properties and operations measures students' understanding of ways to represent, calculate, and estimate with numbers.

At grade 4, number properties and operations questions focus on computation with or understanding of whole numbers and common fractions and decimals. At grade 8, questions measure computation with rational and common irrational numbers, as well as students' ability to solve problems using proportional reasoning and apply properties to select number systems.

Measurement assesses students' knowledge of units of measurement for such attributes as capacity, length, area, volume, time, angles, and rates.

At grade 4, measurement questions focus on customary units such as inch, quart, pound, and hour, and common metric units such as centimeter, liter, and gram, as well as the geometric attribute of length. At grade 8, questions concentrate on the use of square units for measuring area and surface area, cubic units for measuring volume, degrees for measuring angles, and rates.

Geometry measures students' knowledge and understanding of shapes in two and three dimensions, and relationships between shapes such as symmetry and transformations.

At grade 4, geometry questions focus on simple figures and their attributes, including plane figures such as triangles and circles and solid figures such as cubes and spheres. At grade 8, questions address the properties of plane figures, especially parallel and perpendicular lines, angle relationships in polygons, cross sections of solids, and the Pythagorean theorem.

Data analysis, statistics, and probability measures students' understanding of data representation, characteristics of data sets, experiments and samples, and probability.

At grade 4, data analysis, statistics, and probability questions focus on students' understanding of how data are collected and organized, how to read and interpret various representations of data, and basic concepts of probability. At grade 8, questions address organizing and summarizing data (including tables, charts, and graphs), analyzing statistical claims, and probability.

Algebra measures students' understanding of patterns, using variables, algebraic representation, and functions.

At grade 4, algebra questions measure students' understanding of algebraic representation, patterns, and rules; graphing points on a line or a grid; and using symbols to represent unknown quantities. At grade 8, questions measure students' understanding of patterns and functions; algebraic expressions, equations, and inequalities; and algebraic representations, including graphs.

Levels of mathematical complexity

The framework describes three levels of mathematical complexity that reflect the cognitive demands that questions make on students' thinking.

Low complexity questions typically specify what a student is to do, which is often to carry out a routine mathematical procedure.

Moderate complexity questions involve more flexibility of thinking and often require a response with multiple steps.

High complexity questions make heavier demands on students' thinking and often require abstract reasoning or analysis in a novel situation.

Mathematical complexity involves *what* a question asks students to do and *not how* they might undertake it. The complexity of a question is not directly related to its format, and therefore it is possible for some multiple-choice questions to assess complex mathematics and for some constructed-response (i.e., open-ended) questions to assess routine mathematical ideas.

Mathematics Framework for the 2011 National Assessment of Educational Progress

The complete mathematics framework for the 2011 assessment is available at http://www.nagb.org/publications/frameworks/math-2011-framework.pdf and contains detailed information on the mathematical content areas, levels of complexity, format of assessment questions, and assessment design.

Updates to the framework over the years have provided more detail regarding the assessment design for grades 4 and 8 but have not changed the content, allowing for the comparison of students' performance in 2011 to previous assessment years.

Assessment Design

Because the 2011 mathematics assessment covered a breadth of content and included more questions than any one student could answer, each student took just a portion of the assessment. The 158 questions that made up the entire fourth-grade assessment were divided into 10 sections, each containing between 15 and 19 questions, depending on the balance between multiple-choice and constructed-response questions. The eighth-grade assessment contained 155 questions that were divided into 10 sections of between 14 and 17 questions. At both grades, each student responded to questions in two 25-minute sections.

Some questions incorporated the use of rulers (at grade 4) or ruler/protractors (at grade 8), and some questions incorporated the use of geometric shapes or other manipulatives that were provided for students. Twenty percent of the fourth-grade assessment allowed for the use of a four-function calculator that was provided to students. Thirty percent of the eighth-grade assessment allowed for the use of a scientific or graphing calculator; students could either use their own calculator or one provided by NAEP.

The proportion of assessment questions devoted to each of the five content areas varied by grade to reflect the differences in emphasis in each area specified in the framework (**table 1**). The largest portion of the fourth-grade assessment focused on number properties and operations (40 percent), and the largest portion of the eighth-grade assessment focused on algebra (30 percent).

Table 1. Target percentage distribution of NAEP mathematics questions, by grade and content area: 2011

Content area	Grade 4	Grade 8
Number properties and operations	40	20
Measurement	20	15
Geometry	15	20
Data analysis, statistics, and probability	10	15
Algebra	15	30

SOURCE: U.S. Department of Education, National Assessment Governing Board, Mathematics Framework for the 2011 National Assessment of Educational Progress (NAEP), 2010.

Reporting NAEP Results

The urban school districts participating in the TUDA assessment all have a population of 250,000 or more and a majority of students who are Black, or Hispanic, or eligible for participation in the National School Lunch Program (or other appropriate indicator of poverty). Additional information about district eligibility requirements and selection procedures can be found on the Governing Board's website at http://www.nagb.org/policies/PoliciesPDFs/Program%20Administration/Trial%20Urban%20District%20Assessment%20Policy.pdf.

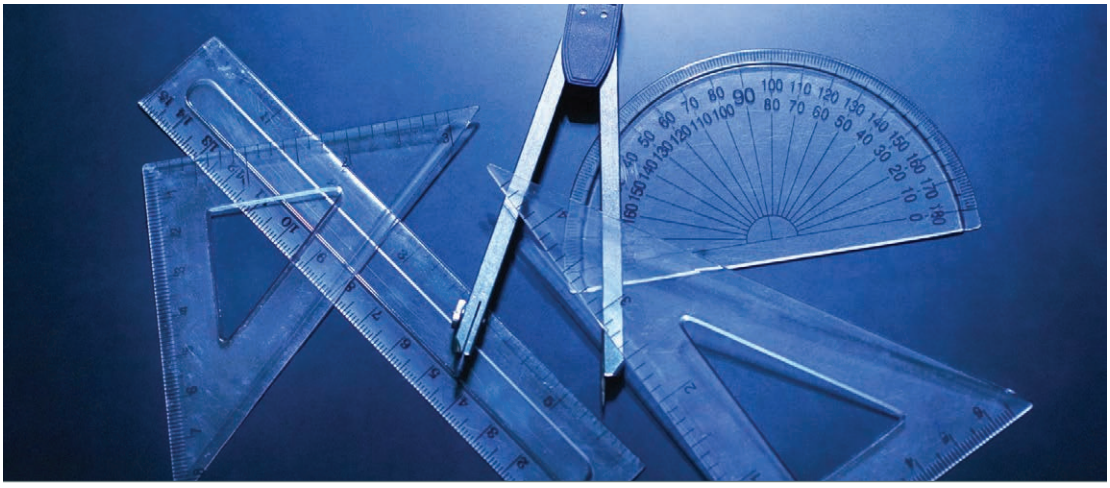
The 2011 mathematics assessment results are reported for public school students in 21 districts. The following 18 districts participated in 2011, as well as in at least one of four earlier assessment years:

Atlanta Public Schools
Austin Independent School District
Baltimore City Public Schools
Boston Public Schools
Charlotte-Mecklenburg Schools
Chicago Public Schools
Cleveland Metropolitan School District
Detroit Public Schools
District of Columbia Public Schools
Fresno Unified School District
Houston Independent School District
Jefferson County Public Schools (Louisville, KY)
Los Angeles Unified School District
Miami-Dade County Public Schools
Milwaukee Public Schools
New York City Department of Education
San Diego Unified School District
School District of Philadelphia

The following three districts participated for the first time in 2011:

Albuquerque Public Schools
Dallas Independent School District
Hillsborough County (FL) Public Schools

Representative samples of between 1,100 and 2,700 fourth-graders and between 1,000 and 2,500 eighth-graders were assessed in each district. (See appendix **table A-1** for the number of participating schools and the number of students assessed in each district.) Some charter schools that operate within the geographic boundaries of a school district are independent of the district and are not included in the district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education under the Elementary and Secondary Education Act. Beginning in 2009, charter schools of this type are no longer included in the results for TUDA districts as they had been in past NAEP assessments.



Explore Additional Results

Not all of the results from the NAEP mathematics assessment are presented in this report. Additional results (including average scores in each of the five mathematical content areas) can be found on the Nation's Report Card website at http://nationsreportcard.gov/math_2011/ and in the NAEP Data Explorer at http://nces.ed.gov/nationsreportcard/naepdata/.

Scale scores

NAEP mathematics results for grades 4 and 8 are reported as average scores on a 0–500 scale. Because NAEP scales are developed independently for each subject, scores cannot be compared across subjects.

In addition to reporting an overall mathematics score for each grade, scores are reported at five percentiles to show trends in results for students performing at lower (10th and 25th percentiles), middle (50th percentile), and higher (75th and 90th percentiles) levels (see appendix **table A-9**).

Achievement levels

Based on recommendations from policymakers, educators, and members of the general public, the Governing Board sets specific achievement levels for each subject area and grade. Achievement levels are performance standards showing what students should know and be able to do. NAEP results are reported as percentages of students performing at or above the *Basic* and *Proficient* levels and at the *Advanced* level.

Basic denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade.

Proficient represents solid academic performance. Students reaching this level have demonstrated competency over challenging subject matter.

Advanced represents superior performance.

As provided by law, the National Center for Education Statistics (NCES), upon review of congressionally mandated evaluations of NAEP, has determined that achievement levels are to be used on a trial basis and should be interpreted with caution. The NAEP achievement levels have been widely used by national and state officials.

Interpreting the Results

Differences in performance over time and between student groups

The performance of students in each urban district is compared to the performance of public school students in the nation and in large cities (i.e., cities with populations of 250,000 or more). The comparison to the nation's large cities is made because students in these cities represent a peer group with characteristics that are most similar to the characteristics of students in the 21 TUDA districts. Comparisons in performance over time are made for those districts that participated in earlier assessment years.

NAEP reports results using widely accepted statistical standards; findings are reported based on a statistical significance level set at .05 with appropriate adjustments for multiple comparisons, as well as adjustments for the part-whole relationship when individual districts are compared to results for large cities or the nation (see the Technical Notes for more information). An asterisk (*) is used in tables and figures to indicate that the scores or percentages being compared are significantly different. Only those differences that are found to be statistically significant are discussed as higher or lower.

A score that is significantly higher or lower in comparison to an earlier assessment year is reliable evidence that student performance has changed. However, NAEP is not designed to identify the causes of these changes. Although comparisons are made in students' performance based on demographic characteristics, the results cannot be used to establish a cause-and-effect relationship between student characteristics and achievement. Many factors may influence student achievement, including, but not limited to, educational policies and practices, available resources, student mobility, and the demographic characteristics of the student body. These factors may change over time and vary among student groups.

Accommodations and exclusions in NAEP

It is important to assess all selected students from the population, including students with disabilities (SD) and English language learners (ELL). To accomplish this goal, many of the same accommodations that students use on other tests (e.g., extra testing time or individual rather than group administration) are provided for SD and ELL students participating in NAEP. Even with the availability of accommodations, some students may still be excluded. Differences in student populations and in state policies and practices for identifying and including SD and ELL students should be considered when comparing variations in exclusion and accommodation rates. Districts also vary in their proportions of special-needs students (especially ELL students).

The National Assessment Governing Board has been exploring ways to reduce variation in exclusion rates for SD and ELL students across states and districts. See the section in this report on NAEP Inclusion for more information about the Governing Board's new policy on inclusion.

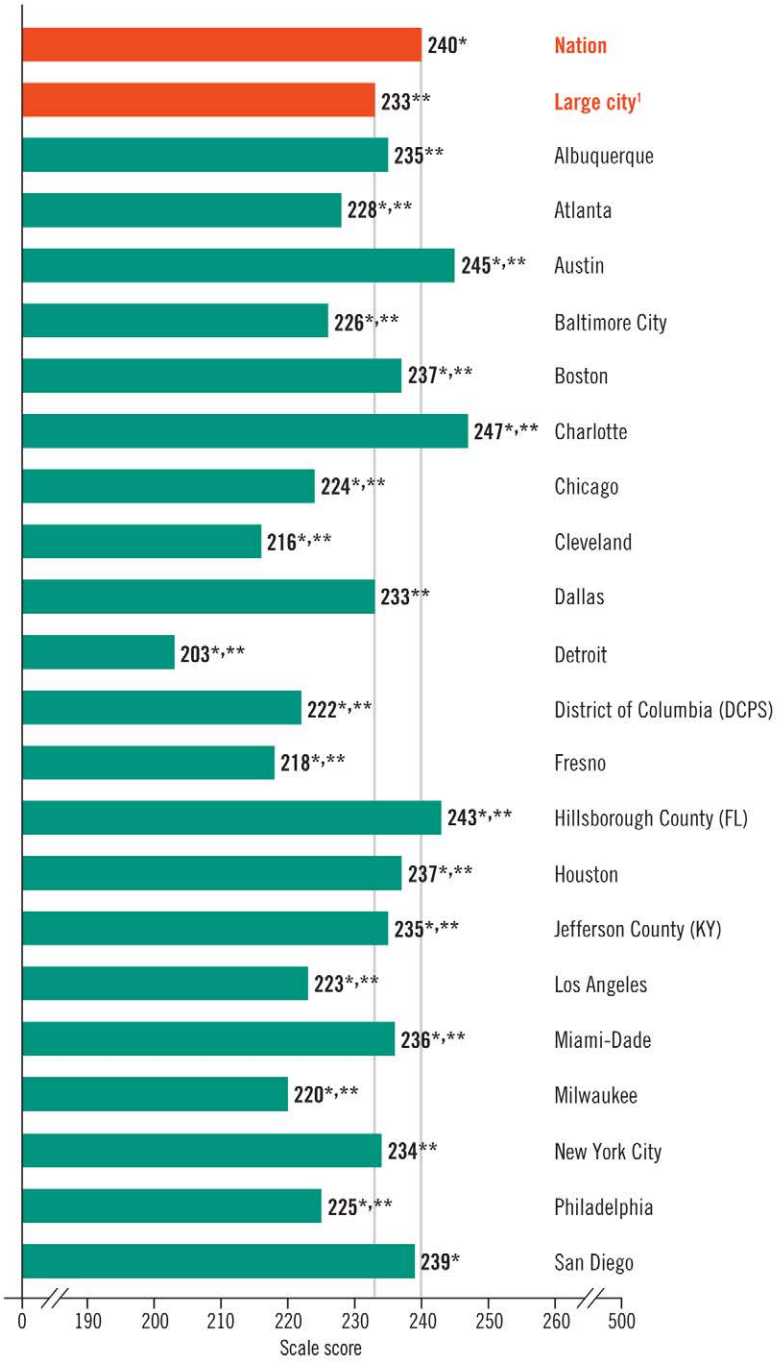
GRADE
4

Three districts score higher than both the national average and large cities overall

In 2011, the average mathematics score for fourth-graders attending public schools in large cities was 7 points lower than the score for public school students in the nation (**figure 1**). Scores for 3 of the 21 participating districts were higher than the scores for both the nation and large cities overall, and scores for 10 districts were lower than both the nation and large cities.

- Scores for Austin, Charlotte, and Hillsborough County were higher than the scores for both the nation and large cities.
- The score for San Diego was not significantly different from the score for the nation but was higher than the score for large cities.
- Scores for Boston, Houston, Jefferson County, and Miami-Dade were lower than the national average but higher than the score for large cities.
- Scores for Albuquerque, Dallas, and New York City were lower than the nation but not significantly different from large cities.
- Scores were lower than both the nation and large cities in Atlanta, Baltimore City, Chicago, Cleveland, Detroit, the District of Columbia, Fresno, Los Angeles, Milwaukee, and Philadelphia.

Figure 1. Average scores in NAEP mathematics for fourth-grade public school students, by jurisdiction: 2011



* Significantly different ($p < .05$) from large city.
** Significantly different ($p < .05$) from the nation.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Nine districts score higher than in 2003, and four score higher than in 2009

Eighteen of the 21 districts that participated in the 2011 mathematics assessment participated in 2009, and 10 participated in the first TUDA assessment in 2003. The results from earlier assessments make it possible to examine how the performance for students overall and for student groups in those districts has changed over time. Some of the results summarized here are provided in more detail in the profiles for each district presented later in this report.

In comparison to 2003, average mathematics scores were higher in 2011 for fourth-graders in the nation and in large cities (**figure 2**). Scores were also higher in 2011 than in 2003 for the districts that participated both years with one exception—there was no significant change in the score for Cleveland.

In comparison to 2009, scores were higher in 2011 for Atlanta, Austin, Baltimore City, and Philadelphia and did not change significantly in the other 14 districts that participated in both years.

Figure 2. Changes in 2011 NAEP mathematics average scores from 2003 and 2009 for fourth-grade public school students, by jurisdiction

Jurisdiction	Change in average score	
	From 2003	From 2009
Nation	▲	▲
Large city[1]	▲	▲
Atlanta	▲	▲
Austin	—	▲
Baltimore City	—	▲
Boston	▲	♦
Charlotte	▲	♦
Chicago	▲	♦
Cleveland	♦	♦
Detroit	—	♦
District of Columbia (DCPS)	▲	♦
Fresno	—	♦
Houston	▲	♦
Jefferson County (KY)	—	♦
Los Angeles	▲	♦
Miami-Dade	—	♦
Milwaukee	—	♦
New York City	▲	♦
Philadelphia	—	▲
San Diego	▲	♦

▲ Higher in 2011.
♦ Not significantly different from 2011.
— District did not participate.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. DCPS = District of Columbia Public Schools.

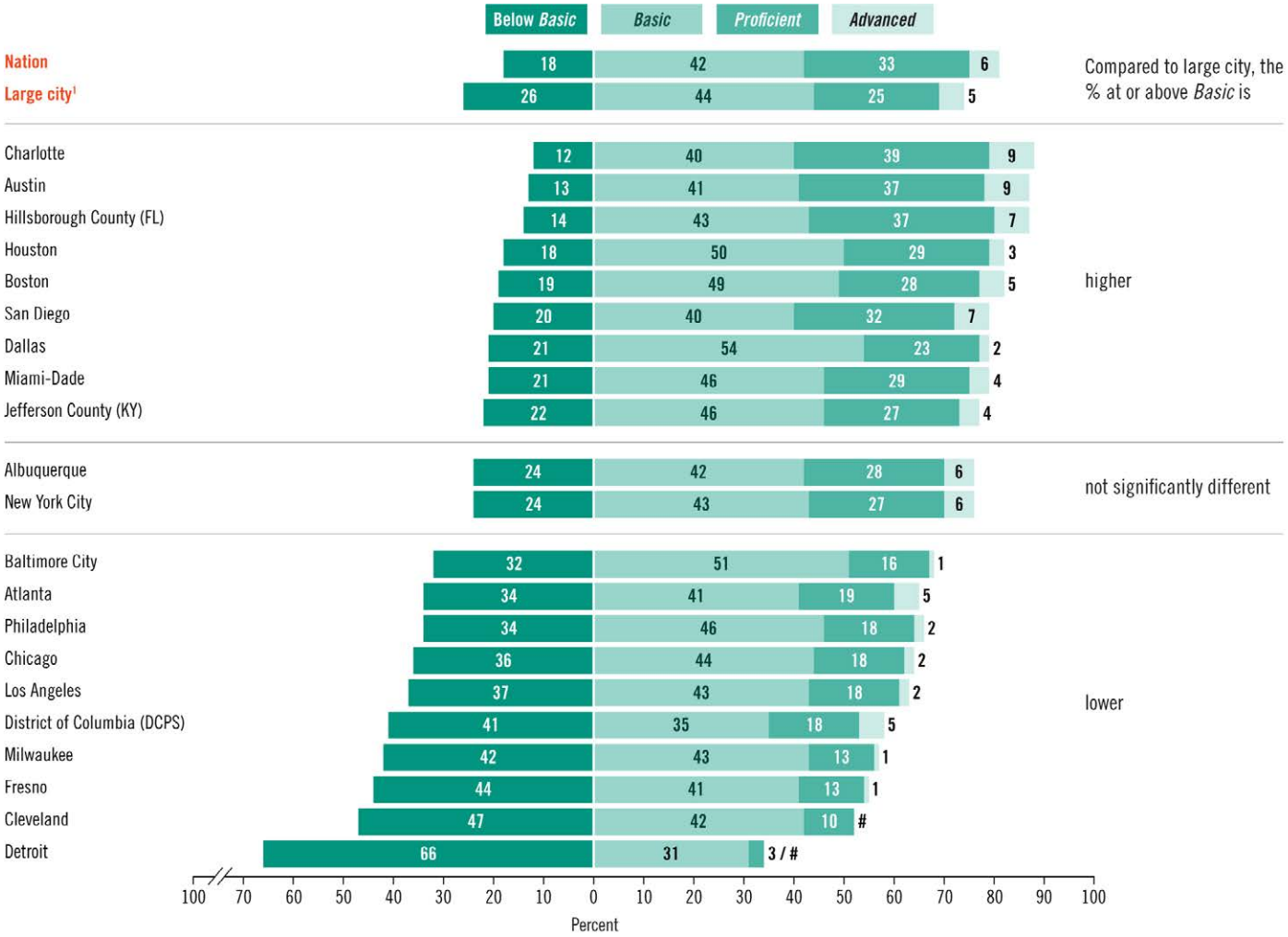
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2009, and 2011 Mathematics Assessments.

Districts show range of knowledge and skills

Among the 21 districts that participated in the 2011 assessment, the percentages of students performing at or above the *Basic* level ranged from 34 percent in Detroit to 88 percent in Charlotte (**figure 3**). All of the districts had some students performing at or above the *Proficient* level in 2011.

Nine districts had higher percentages of students at or above *Basic* than large cities. Eight of the districts also had higher average scores than large cities, while the overall average score for Dallas was not significantly different from large cities. The same 10 districts that scored lower than large cities also had lower percentages of students at or above *Basic*. The percentages of students at or above *Basic* in Albuquerque and New York City were not significantly different from the percentage for large cities.

Figure 3. Achievement-level results in NAEP mathematics for fourth-grade public school students, by jurisdiction: 2011



Rounds to zero.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Percentages of students at both *Proficient* and *Advanced* higher than in 2003 for seven districts

In comparison to 2003, the percentages of students performing below the *Basic* level were lower in 2011 for all but 1 of the 10 districts that participated in both years (there was no significant change in the percentage below *Basic* in Cleveland). Seven districts had higher percentages of students at *Proficient* and at *Advanced* (**figure 4**).

In comparison to 2009, the percentages of students performing below the *Basic* level were lower in 2011 for Jefferson County and Philadelphia, and higher in New York City. The percentages of students at *Proficient* were higher in Austin, Baltimore City, and the District of Columbia. Austin was the only one of the participating districts to have a higher percentage of students at *Advanced*.

Figure 4. Changes in 2011 NAEP mathematics achievement-level percentages from 2003 and 2009 for fourth-grade public school students, by jurisdiction

	Change in achievement-level percentages							
	From 2003				From 2009			
Jurisdiction	Below *Basic*	At *Basic*	At *Proficient*	At *Advanced*	Below *Basic*	At *Basic*	At *Proficient*	At *Advanced*
Nation	▼ 6	▼ 3	▲ 6	▲ 3	▼ 1	◆ -1	◆ 1	▲ 1
Large city[1]	▼ 12	▲ 2	▲ 7	▲ 2	▼ 2	◆ 1	◆ 1	◆ #
Atlanta	▼ 16	▲ 4	▲ 8	▲ 3	◆ -2	◆ -1	◆ 2	◆ 1
Austin	—	—	—	—	◆ -4	◆ -4	▲ 5	▲ 3
Baltimore City	—	—	—	—	◆ -4	◆	▲ 4	◆ 1
Boston	▼ 23	◆ 2	▲ 16	▲ 4	◆ -1	◆ -1	◆ 1	◆ 1
Charlotte	▼ 4	◆ -3	◆ 4	▲ 3	◆ -2	◆ -1	◆ 4	◆ #
Chicago	▼ 14	◆ 3	▲ 9	▲ 1	◆ -2	◆ #	◆ 2	◆ #
Cleveland	◆ -2	◆ 1	◆ 1	◆ #	◆ -2	◆ #	◆ 2	◆ #
Detroit	—	—	—	—	◆ -3	◆ 3	◆ #	‡
District of Columbia (DCPS)	▼ 22	▲ 6	▲ 12	▲ 4	◆ -2	◆ -3	▲ 4	◆ 1
Fresno	—	—	—	—	◆ 2	◆ -2	◆ #	◆ #
Houston	▼ 13	◆ -1	▲ 12	▲ 2	◆ #	◆ -2	◆ 1	◆ 1
Jefferson County (KY)	—	—	—	—	▼ 5	▲ 5	◆ 2	◆ -1
Los Angeles	▼ 11	▲ 4	▲ 6	◆ 1	◆ -2	◆ 1	◆ 1	◆ #
Miami-Dade	—	—	—	—	◆ 2	◆ -2	◆ -1	◆ #
Milwaukee	—	—	—	—	◆ 1	◆ #	◆ -1	◆ #
New York City	▼ 8	◆ -2	▲ 8	▲ 3	▲ 4	◆ #	◆ -3	◆ #
Philadelphia	—	—	—	—	▼ 5	◆ 1	◆ 3	◆ 1
San Diego	▼ 13	▼ 6	▲ 14	▲ 5	◆ -2	◆ -1	◆ 2	◆ 1

▲ Higher in 2011.
▼ Lower in 2011.
◆ Not significantly different from 2011.
— District did not participate.
‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

Rounds to zero.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. The percentage differences appear within each symbol and are based on the differences between unrounded percentages. A percentage difference preceded by a minus sign (-) indicates that the percentage was numerically lower in 2011.
DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2009, and 2011 Mathematics Assessments.

Districts vary in demographic makeup

When comparing the results for urban districts to results for the nation and large cities, it is important to consider differences in demographic makeup. In the nation, the percentage of White fourth-graders was higher than the combined percentage of Black and Hispanic students in 2011. However, the opposite was true for large cities overall and for all but one of the 21 participating districts (**table 2**). Jefferson County was the only district where the percentage of White students was higher than the combined percentage of Black and Hispanic students.

Large cities and districts also differed from the nation in the proportion of students eligible for the National School Lunch Program (NSLP), an indicator of lower family income (see the Technical Notes for more information on eligibility criteria). Fifty-two percent of fourth-graders were eligible for free/reduced-price school lunch nationally compared to 74 percent in large cities. Charlotte was the only participating district where the percentage of eligible students was not significantly different from the percentage for the nation. The percentages of eligible students in the other districts were all higher than the nation—ranging from 58 percent in Hillsborough County to 100 percent in Cleveland, where all students were categorized as eligible.

Table 2. Selected characteristics of fourth-grade public school students in NAEP mathematics, by jurisdiction: 2011

			Percentage of students						
Jurisdiction	Number of fourth-graders	Number of students assessed	White	Black	Hispanic	Asian	Eligible for free/ reduced-price school lunch	Students with disabilities	English language learners
Nation	3,614,000	198,900	52	16	24	5	52	12	11
Large city[1]	604,000	50,600	20	27	43	7	74	11	22
Albuquerque	7,000	1,700	23	2	65	3	66	13	17
Atlanta	4,000	1,900	15	76	6	1	75	8	2
Austin	7,000	1,800	26	8	61	3	64	12	33
Baltimore City	6,000	1,300	9	87	3	1	88	9	3
Boston	4,000	1,700	12	34	44	8	81	19	35
Charlotte	11,000	1,700	35	38	18	5	52	10	10
Chicago	29,000	2,400	8	41	44	5	88	13	17
Cleveland	3,000	1,300	15	67	14	1	100[2]	18	6
Dallas	13,000	1,700	5	23	71	#	92	6	50
Detroit	5,000	1,100	3	84	12	#	87	10	12
District of Columbia (DCPS)	3,000	1,400	11	72	14	2	72	11	8
Fresno	6,000	1,900	12	9	66	12	93	9	30
Hillsborough County (FL)	15,000	1,600	37	20	35	3	58	16	16
Houston	16,000	2,700	8	24	64	3	81	6	38
Jefferson County (KY)	8,000	1,900	53	35	6	3	62	13	3
Los Angeles	44,000	2,300	9	10	75	5	83	10	34
Miami-Dade	24,000	2,600	7	25	66	1	74	10	16
Milwaukee	5,000	1,300	15	51	26	7	83	18	15
New York City	71,000	2,500	15	29	37	19	90	16	16
Philadelphia	12,000	1,500	12	58	22	6	90	13	7
San Diego	9,000	1,700	23	12	44	15	65	9	36

Rounds to zero.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

[2] In Cleveland, all students were categorized as eligible for the National School Lunch Program.

NOTE: The number of fourth-graders is rounded to the nearest 1,000. The number of students assessed is rounded to the nearest 100. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin. The race/ethnicity categories listed may not sum to 100 percent because results are not shown for all racial/ethnic groups. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Large cities, in general, and some of the participating districts had higher percentages of English language learners (ELL) than the nation. The percentage of ELL students in large cities was 22 percent compared to 11 percent in the nation overall. The percentages of ELL students in Austin, Boston, Dallas, Fresno, Houston, Los Angeles, and San Diego were higher than the percentages in both the nation and large cities.

Although the data are not shown here, the proportions of students in these groups have also changed over time in some districts (see appendix **tables A-2, A-4,** and **A-8**). For example, among the districts that participated in 2003, Atlanta, Boston, Charlotte, Chicago, Cleveland, the District of Columbia, and Houston had smaller percentages of Black students in 2011 and larger percentages of Hispanic students. The percentages of students eligible for NSLP in 2011 were larger than in 2003 in Charlotte and Chicago. The percentages of ELL students were larger in 2011 than in 2003 in Boston, Charlotte, Cleveland, the District of Columbia, and New York City, and smaller in Los Angeles.

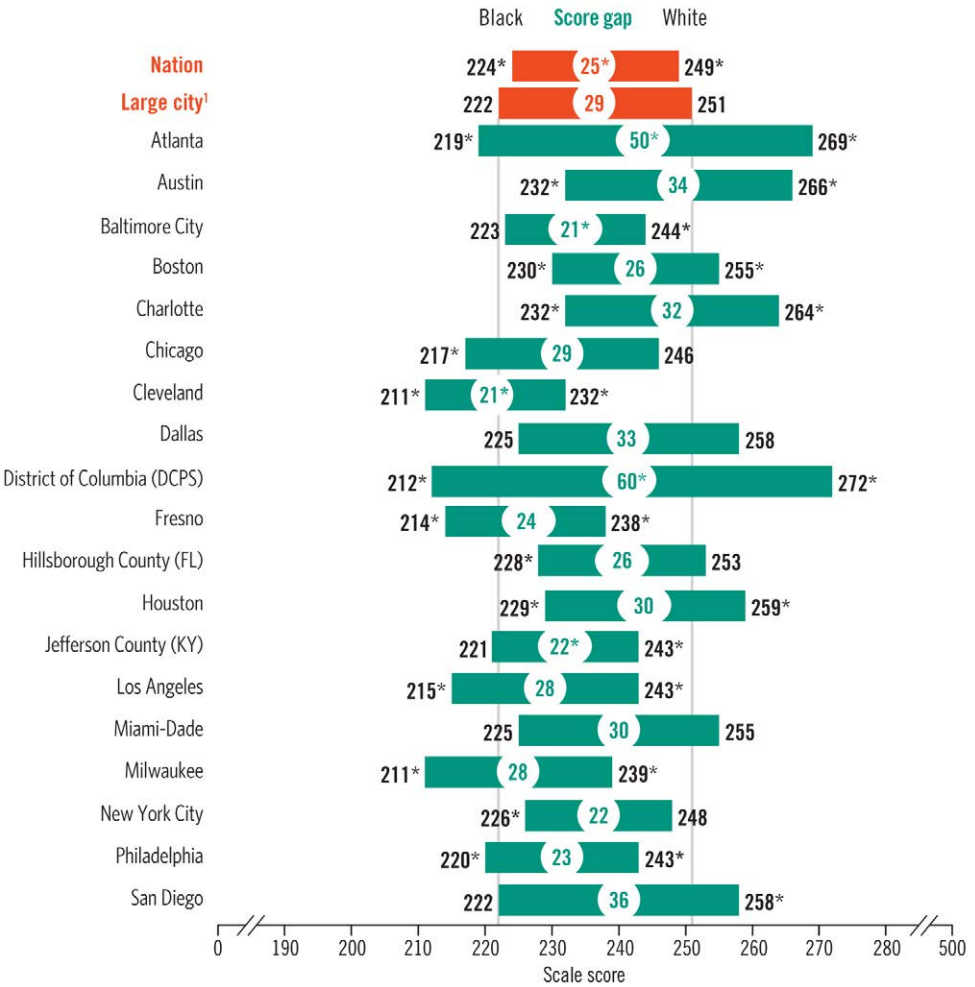
Compared to large cities overall, White – Black score gaps smaller in three districts and larger in two districts

Additional insight into the overall performance of participating districts can be obtained by examining how differences in the performance of student groups in the districts compare to differences in performance for those groups in large cities. In 2011, the 29-point score gap between White and Black fourth-graders in large cities was larger than the 25-point White – Black score gap for the nation (**figure 5**). The White – Black score gaps in the districts ranged from 21 points in Baltimore City and Cleveland to 60 points in the District of Columbia. (Note that sample sizes were too small to report results for Black students in Albuquerque or White students in Detroit.)

White – Black score gaps in Baltimore City, Cleveland, and Jefferson County were smaller than the score gap for large cities. In each of these districts, the score for White students was lower than the score for White students in large cities, and the score for Black students was either lower than or not significantly different from large cities.

White – Black score gaps in Atlanta and the District of Columbia were larger than the score gap for large cities. In both districts, scores for White students were higher than the score for White students in large cities, and scores for Black students were lower than the score for Black students in large cities.

Figure 5. Average scores and score gaps in NAEP mathematics for White and Black fourth-grade public school students, by jurisdiction: 2011



* Significantly different ($p < .05$) from large city.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: Black includes African American. Race categories exclude Hispanic origin. Score gaps are calculated based on differences between unrounded average scores. Sample sizes were insufficient to permit reliable estimates for Black students in Albuquerque and for White students in Detroit, so results are not shown for these two districts.
DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

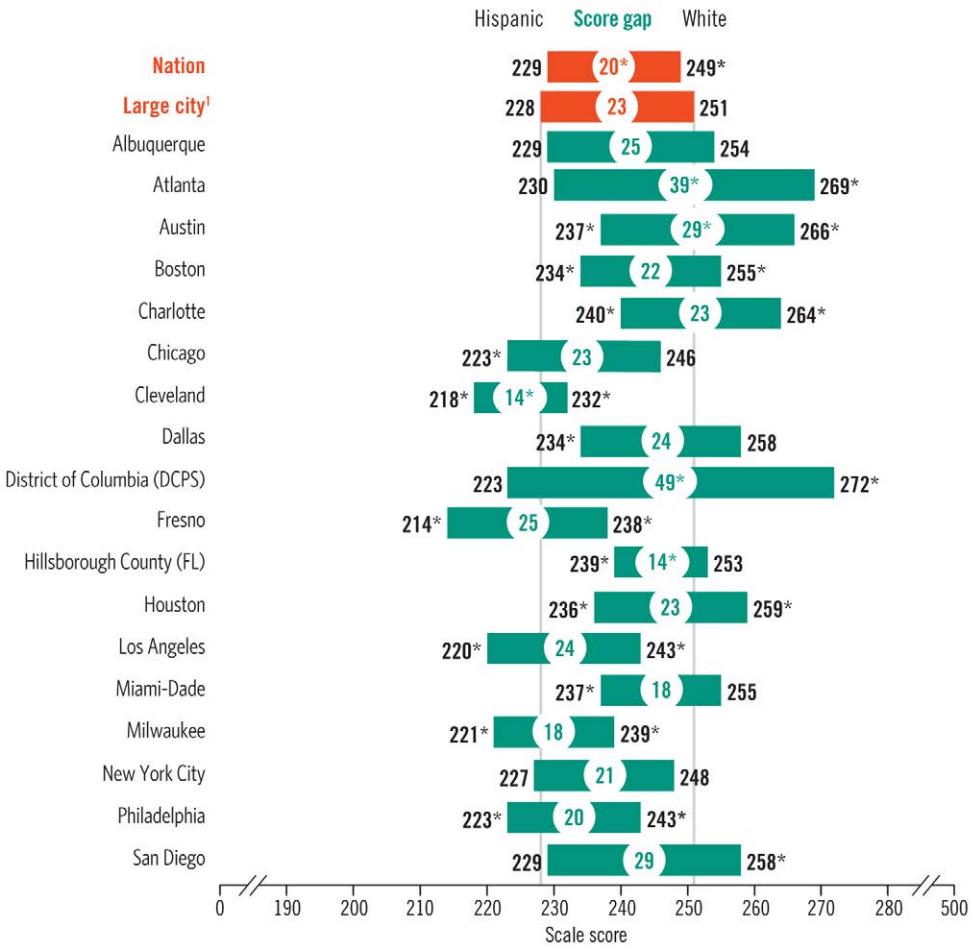
In comparison to large cities, White – Hispanic score gaps smaller in two districts and larger in three districts

White fourth-graders in large cities scored 23 points higher on average than Hispanic fourth-graders, which was larger than the 20-point White – Hispanic score gap for the nation. The White – Hispanic score gaps in the districts ranged from 14 points in Cleveland and Hillsborough County to 49 points in the District of Columbia (**figure 6**). The score-point difference between White and Hispanic students in Jefferson County was not found to be statistically significant. (Note that sample sizes were too small to report results for Hispanic students in Baltimore City or White students in Detroit.)

White – Hispanic score gaps in Cleveland and Hillsborough County were smaller than the score gap for large cities. In Hillsborough County, the score for Hispanic students was higher in comparison to the score for Hispanic students in large cities, while the score for White students was not significantly different from the score for White students in large cities. In Cleveland, scores for both White and Hispanic students were lower than the score for large cities.

White – Hispanic score gaps in Atlanta, Austin, and the District of Columbia were larger than the score gap for large cities, but not necessarily because Hispanic students in those districts were scoring significantly lower than their peers in large cities. In all three of the districts, scores for White students were higher than the score for White students in large cities. The score for Hispanic students in Austin was higher than the score for Hispanic students in large cities, and scores for Hispanic students in Atlanta and the District of Columbia were not significantly different from large cities.

Figure 6. Average scores and score gaps in NAEP mathematics for White and Hispanic fourth-grade public school students, by jurisdiction: 2011



* Significantly different ($p < .05$) from large city.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: White excludes students of Hispanic origin. Hispanic includes Latino. Score gaps are calculated based on differences between unrounded average scores. Sample sizes were insufficient to permit reliable estimates for Hispanic students in Baltimore City and for White students in Detroit, so results are not shown for these two districts. Results are also not shown for Jefferson County (KY) because the apparent score difference between White (243) and Hispanic (238) students was not statistically significant. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

White, Black, and Hispanic students in four districts score higher than in 2003

Scores for White, Black, and Hispanic fourth-graders in the nation were higher in 2011 than in 2003, and both the White – Black and White – Hispanic score gaps narrowed in comparison to 2003 (**figure 7**). Although scores for all three racial/ethnic groups in large cities were also higher in 2011 than in 2003, there were no significant changes in the score gaps.

Scores were higher in 2011 than in 2003 for White, Black, and Hispanic students in Boston, Chicago, the District of Columbia, and San Diego. Scores were higher in 2011 for two of the groups in Charlotte, Houston, and New York City, and one group in Atlanta and Los Angeles. Even with higher scores for some racial/ethnic groups, neither the White – Black nor White – Hispanic score gap narrowed in any of the districts. The White – Black score gap widened from 2003 to 2011 in San Diego where the gain for White students was larger than for Black students.

Although not shown in the figure, Jefferson County was the only one of the districts participating in 2009 to have higher scores in 2011 for Black and Hispanic students. In addition, the White – Hispanic gap in Jefferson County narrowed in comparison to 2009 (see the district profile for Jefferson County presented later in this report).

Figure 7. Changes between 2003 and 2011 NAEP mathematics average scores and score gaps for fourth-grade public school students, by selected racial/ethnic groups and jurisdiction

		Race/ethnicity			Score gap	
Jurisdiction	All students	White	Black	Hispanic	White – Black	White – Hispanic
Nation	▲	▲	▲	▲	Narrowed	Narrowed
Large city[1]	▲	▲	▲	▲	◆	◆
Atlanta	▲	◆	▲	‡	◆	‡
Boston	▲	▲	▲	▲	◆	◆
Charlotte	▲	▲	◆	▲	◆	◆
Chicago	▲	▲	▲	▲	◆	◆
Cleveland	◆	◆	◆	◆	◆	◆
District of Columbia (DCPS)	▲	▲	▲	▲	◆	◆
Houston	▲	◆	▲	▲	◆	◆
Los Angeles	▲	◆	◆	▲	◆	◆
New York City	▲	◆	▲	▲	◆	◆
San Diego	▲	▲	▲	▲	Widened	◆

▲ Higher in 2011.

◆ Not significantly different from 2011.

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. Included in the overall results but not shown separately are students whose race/ethnicity was Asian/Pacific Islander, American Indian/Alaska Native, unclassified, or two or more races. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003 and 2011 Mathematics Assessments.

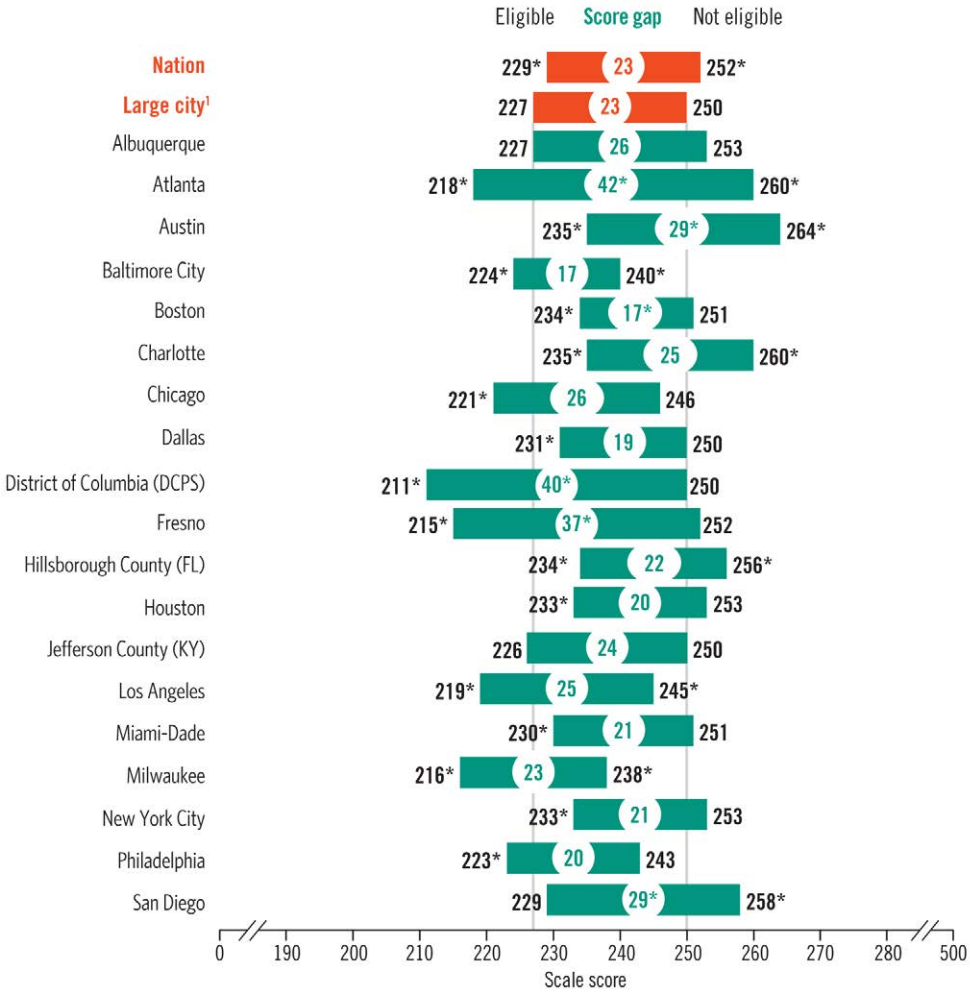
In comparison to large cities, score gaps between higher- and lower-income students are smaller in one district and larger in five districts

In 2011, the average score for students who were eligible for NSLP (lower-income students) was 23 points lower than the score for students who were not eligible (higher-income students) in both the nation and large cities (**figure 8**). The score gaps between higher- and lower-income students in the districts ranged from 17 points in Baltimore City and Boston to 42 points in Atlanta. The six-point score difference between the two groups in Detroit was not found to be statistically significant.

Boston was the only one of the 21 districts participating in 2011 to have a smaller score gap between higher- and lower-income students in comparison to the score gap for large cities overall. The score for lower-income students in Boston was higher than the score for large cities, and the score for higher-income students in the district was not significantly different from large cities.

The score gaps between higher- and lower-income students in Atlanta, Austin, the District of Columbia, Fresno, and San Diego were larger than the score gap for large cities overall. In Atlanta, the District of Columbia, and Fresno, the scores for lower-income students were lower than the score for large cities, and the scores for higher-income students were either higher than or not significantly different from large cities. But not all of the larger gaps were associated with lower scores for lower-income students. In Austin, the scores for higher- and lower-income students were both higher than the scores for their peers in large cities. In San Diego, the score for lower-income students was not significantly different from the score for large cities, and the score for higher-income students was higher than the score for large cities.

Figure 8. Average scores and score gaps in NAEP mathematics for fourth-grade public school students eligible and not eligible for free/reduced-price school lunch, by jurisdiction: 2011



* Significantly different ($p < .05$) from large city.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: Score gaps are calculated based on differences between unrounded average scores. In Cleveland, all students were categorized as eligible for the National School Lunch Program (NSLP). Therefore, a score gap comparison between students eligible and not eligible for NSLP could not be shown for this district. Results are also not shown for Detroit because the apparent score difference between not eligible (208) and eligible (203) students was not statistically significant.
DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Both higher- and lower-income students in seven districts score higher than in 2003

Scores for higher- and lower-income students in the nation and large cities were higher in 2011 than in 2003; however, there were no significant changes in the score gaps (**figure 9**).

Scores were higher in 2011 than in 2003 for both higher-income and lower-income students in seven of the nine districts where results could be reported for both groups. Even with higher scores for lower-income students in most of the participating districts, none of the districts had a smaller score gap between higher- and lower-income students in 2011 than in 2003, and the gaps widened in the District of Columbia and San Diego.

Although not shown here, the score gap between higher- and lower-income students in Fresno widened from 2009 to 2011, even though the average score did not change significantly from 2009 for either group.

Figure 9. Changes between 2003 and 2011 NAEP mathematics average scores and score gaps for fourth-grade public school students, by eligibility for free/reduced-price school lunch and jurisdiction

		Eligibility for free/ reduced-price school lunch		Score gap
Jurisdiction	All students	Not eligible	Eligible	Not eligible – Eligible
Nation	▲	▲	▲	◆
Large city[1]	▲	▲	▲	◆
Atlanta	▲	◆	▲	◆
Boston	▲	▲	▲	◆
Charlotte	▲	▲	▲	◆
Chicago	▲	▲	▲	◆
Cleveland	◆	‡	◆	‡
District of Columbia (DCPS)	▲	▲	▲	Widened
Houston	▲	▲	▲	◆
Los Angeles	▲	▲	▲	◆
New York City	▲	◆	▲	◆
San Diego	▲	▲	▲	Widened

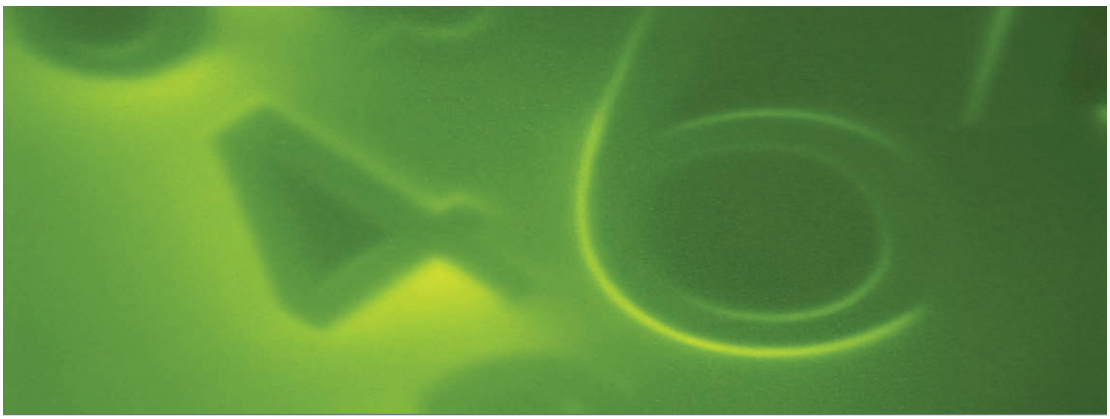
▲ Higher in 2011.

◆ Not significantly different from 2011.

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. Included in the overall results but not shown separately are students whose eligibility status for the National School Lunch Program was not available. DCPS = District of Columbia Public Schools.



SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003 and 2011 Mathematics Assessments.

Teacher education and experience vary across the 21 participating urban districts

As part of the 2011 fourth-grade NAEP assessment, questionnaires were completed by the teachers of participating students. Teachers were asked questions about their background, education, and training, and about classroom organization and instruction. Teachers' responses to these questions help provide some additional context for interpreting district results. Although the information was provided by the teachers, the results are reported as the percentages of students whose teachers provided a particular response.

Seven percent of fourth-grade public school students in the nation had teachers who reported having a major, minor, or special emphasis in mathematics as part of their undergraduate coursework, which was not significantly different from the percentage for large cities (**table 3**). Among the 21 participating districts, the percentages of students whose teachers had a major or minor in mathematics ranged from 3 percent in Fresno, Hillsborough County, and San Diego to 26 percent in Detroit.

Forty-eight percent of students in both the nation and large cities had teachers who reported the highest academic degree they held was a master's. The percentages of students in the districts whose teachers had a master's degree ranged from 25 percent in Fresno to 84 percent in New York City.

Although there was no significant difference in the percentages of students in the nation and large cities who were taught by teachers with four or less years of experience as an elementary or secondary school teacher, the percentages in the participating districts ranged from 2 percent in Cleveland to 37 percent in Baltimore City. A higher percentage of students in the nation than in large cities had teachers with 20 or more years of teaching experience, with the percentages in the districts ranging from 13 percent in Baltimore City and Hillsborough County to 46 percent in Cleveland.

Table 3. Percentage of fourth-grade public school students assessed in NAEP mathematics, by teachers' educational background, years of teaching experience, and jurisdiction: 2011

	Educational background		Years of teaching experience	
Jurisdiction	Undergraduate emphasis in mathematics[1]	Master's degree	4 or less years	20 or more years
Nation	7	48	16	24
Large city[2]	8	48	18	19
Albuquerque	8	37	17	15
Atlanta	10	53	18	16
Austin	9	28	25	17
Baltimore City	10	48	37	13
Boston	13	75	18	20
Charlotte	7	39	31	17
Chicago	15	61	16	21
Cleveland	8	75	2	46
Dallas	19	43	18	21
Detroit	26	67	6	32
District of Columbia (DCPS)	12	52	30	24
Fresno	3	25	4	28
Hillsborough County (FL)	3	32	27	13
Houston	16	28	24	17
Jefferson County (KY)	7	56	28	24
Los Angeles	6	39	4	19
Miami-Dade	5	48	12	20
Milwaukee	10	55	11	27
New York City	9	84	15	15
Philadelphia	7	59	18	21
San Diego	3	73	3	22

[1] Teachers reported having a major, minor, or special emphasis as part of their undergraduate coursework.
[2] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: Results are not shown for the other levels of educational background and years of experience reported by teachers. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Explore Additional Results

Results for other background questions from the fourth-grade student, teacher, and school questionnaires are available in the NAEP Data Explorer at http://nces.ed.gov/nationsreportcard/naepdata/.

Assessment Content at Grade 4

Additional insight into students' performance on the NAEP mathematics assessment can be obtained by examining what fourth-graders are expected to know and be able to do and how they performed on some of the assessment questions designed to measure their knowledge and skills.

Mathematics Achievement-Level Descriptions for Grade 4

NAEP mathematics achievement-level descriptions outline expectations of student performance at each grade. The specific descriptions of what fourth-graders should know and be able to do at the *Basic*, *Proficient*, and *Advanced* mathematics achievement levels are presented below. (Note that the shaded text is a short, general summary to describe performance at each achievement level.)

NAEP achievement levels are cumulative; therefore, students performing at the *Proficient* level also display the competencies associated with the *Basic* level, and students at the *Advanced* level also demonstrate the skills and knowledge associated with both the *Basic* and the *Proficient* levels. The cut score indicating the lower end of the score range for each level is noted in parentheses.

Basic (214)

Fourth-grade students performing at the *Basic* level should show some evidence of understanding the mathematical concepts and procedures in the five NAEP content areas.

Fourth-graders performing at the *Basic* level should be able to estimate and use basic facts to perform simple computations with whole numbers; show some understanding of fractions and decimals; and solve some simple real-world problems in all NAEP content areas. Students at this level should be able to use—although not always accurately—four-function calculators, rulers, and geometric shapes. Their written responses are often minimal and presented without supporting information.

Proficient (249)

Fourth-grade students performing at the *Proficient* level should consistently apply integrated procedural knowledge and conceptual understanding to problem solving in the five NAEP content areas.

Fourth-graders performing at the *Proficient* level should be able to use whole numbers to estimate, compute, and determine whether results are reasonable. They should have a conceptual understanding of fractions and decimals; be able to solve real-world problems in all NAEP content areas; and use four-function calculators, rulers, and geometric shapes appropriately. Students performing at the *Proficient* level should employ problem-solving strategies such as identifying and using appropriate information. Their written solutions should be organized and presented both with supporting information and explanations of how they were achieved.

Advanced (282)

Fourth-grade students performing at the *Advanced* level should apply integrated procedural knowledge and conceptual understanding to complex and nonroutine real-world problem solving in the five NAEP content areas.

Fourth-graders performing at the *Advanced* level should be able to solve complex nonroutine real-world problems in all NAEP content areas. They should display mastery in the use of four-function calculators, rulers, and geometric shapes. These students are expected to draw logical conclusions and justify answers and solution processes by explaining why, as well as how, they were achieved. They should go beyond the obvious in their interpretations and be able to communicate their thoughts clearly and concisely.

What Fourth-Graders Know and Can Do in Mathematics

The item map below is useful for understanding performance at different levels on the NAEP scale. The scale scores on the left represent the scores for students who were likely to get the items correct or complete. The cut score at the lower end of the range for each achievement level is boxed. The descriptions of selected assessment questions indicating what students need to do to answer the question correctly, along with the corresponding mathematics content areas, are listed on the right.

For example, the map on this page shows that fourth-graders performing at the *Basic* level with a score of 216 were likely to be able to determine the measurements needed for computing area. Students performing at the *Proficient* level with a score of 279 were likely to be able to recognize and extend an algebraic pattern. Students performing at the *Advanced* level with a score of 290 were likely to be able to compare two sets of data presented graphically.

GRADE 4 NAEP MATHEMATICS ITEM MAP

	Scale score	Content area	Question description
	500		
	//		
Advanced	330	**Number properties and operations**	Compose numbers using place value to determine winners of a game
	317	**Geometry**	Divide a square into various shapes
	293	**Measurement**	Solve a story problem involving time (calculator available) (**shown on pages 26 and 27**)
	291	**Algebra**	*Identify the growth relationship from a table* (calculator available)
	290	**Data analysis, statistics, and probability**	*Compare two sets of data using graphs*
	282		
Proficient	279	**Algebra**	*Recognize and extend a growing pattern*
	278	**Number properties and operations**	Order fractions with unlike denominators
	276	**Measurement**	Draw a line segment of a given length
	275	**Number properties and operations**	Use place value to determine the total amount
	269	**Geometry**	*Compare simple figures to identify a common property* (**shown on page 25**)
	261	**Number properties and operations**	Identify and use factors to solve a problem in context (calculator available)
	259	**Number properties and operations**	*Use place value to find a sum*
	254	**Data analysis, statistics, and probability**	Create a pictograph of a set of data (calculator available)
	250	**Measurement**	*Find areas of a scale drawing on a grid*
	249		
Basic	243	**Algebra**	Label sections on a grid from a list of coordinates
	240	**Number properties and operations**	*Determine the sum of numbers represented on a number line* (calculator available)
	239	**Number properties and operations**	Explain a property of divisibility
	232	**Number properties and operations**	*Compute the difference of two 4-digit numbers* (**shown on page 24**)
	230	**Number properties and operations**	*Solve a story problem involving division* (calculator available)
	226	**Data analysis, statistics, and probability**	*Identify the most likely outcome from a given spinner* (calculator available)
	221	**Geometry**	*Describe a real-world object in terms of a geometric solid*
	216	**Measurement**	*Identify measurements needed to determine area*
	214		
	211	**Number properties and operations**	*Compute the difference of fractions with like denominators*
	195	**Algebra**	*Determine numerical value of an unknown quantity in a whole number sentence*
	180	**Geometry**	*Identify a figure that is not symmetric* (calculator available)
	175	**Measurement**	*Identify the appropriate measuring device for a given attribute*
	//		
	0		

NOTE: Regular type denotes a constructed-response question. *Italic* type denotes a multiple-choice question. The position of a question on the scale represents the scale score attained by students who had a 65 percent probability of successfully answering a constructed-response question, or a 74 percent probability of correctly answering a four-option multiple-choice question. For constructed-response questions, the question description represents students' performance rated as completely correct. Scale score ranges for mathematics achievement levels are referenced on the map.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Mathematics Content Area: Number Properties and Operations

Subtract:

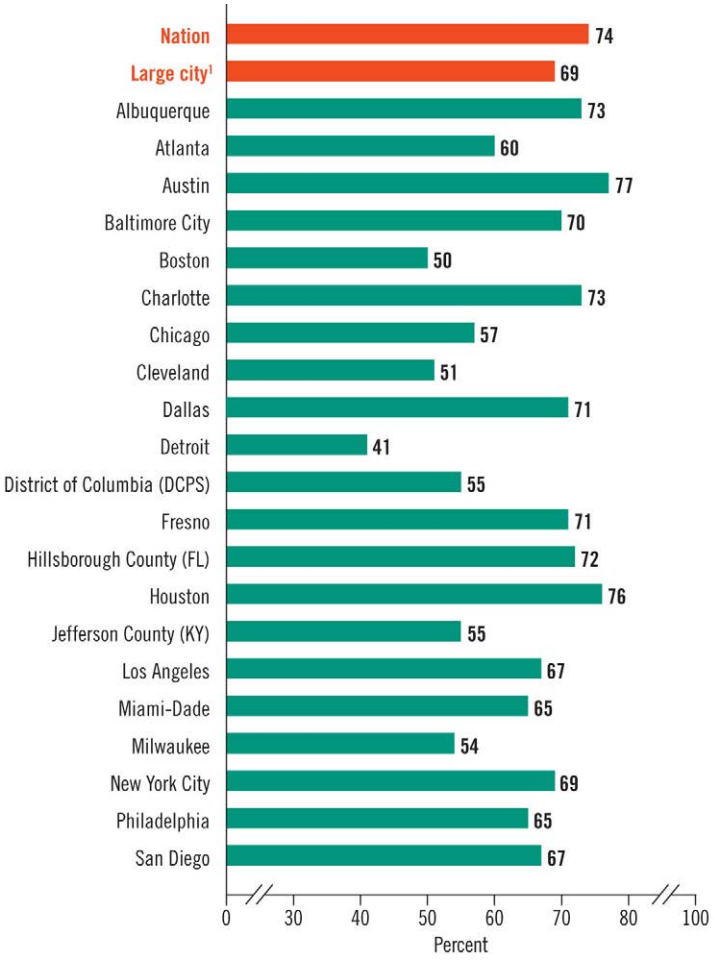
$$\begin{array}{r} 6{,}090 \\ -\ 4{,}843 \\ \hline \end{array}$$

Ⓐ 1,147
Ⓑ 1,247
Ⓒ 2,257
Ⓓ 2,853

This multiple-choice question from the 2011 mathematics assessment asks students to answer a subtraction problem involving two 4-digit numbers. The problem requires students to regroup twice to obtain the correct answer of 1,247 (Choice B). Students were not permitted to use a calculator to answer this question.

Seventy-four percent of fourth-grade public school students in the nation selected the correct answer to this question. The percentage of correct responses in each of the TUDA districts ranged from 41 percent in Detroit to 77 percent in Austin.

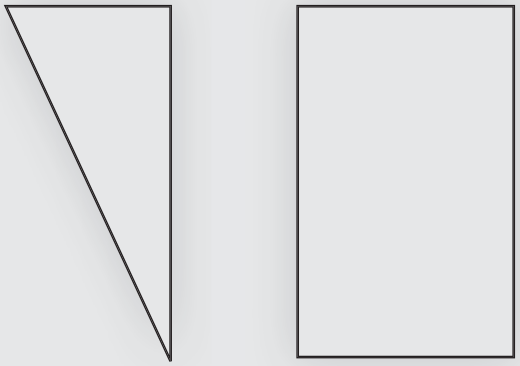
Percentage correct for fourth-grade public school students, by jurisdiction: 2011



[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Mathematics Content Area: Geometry



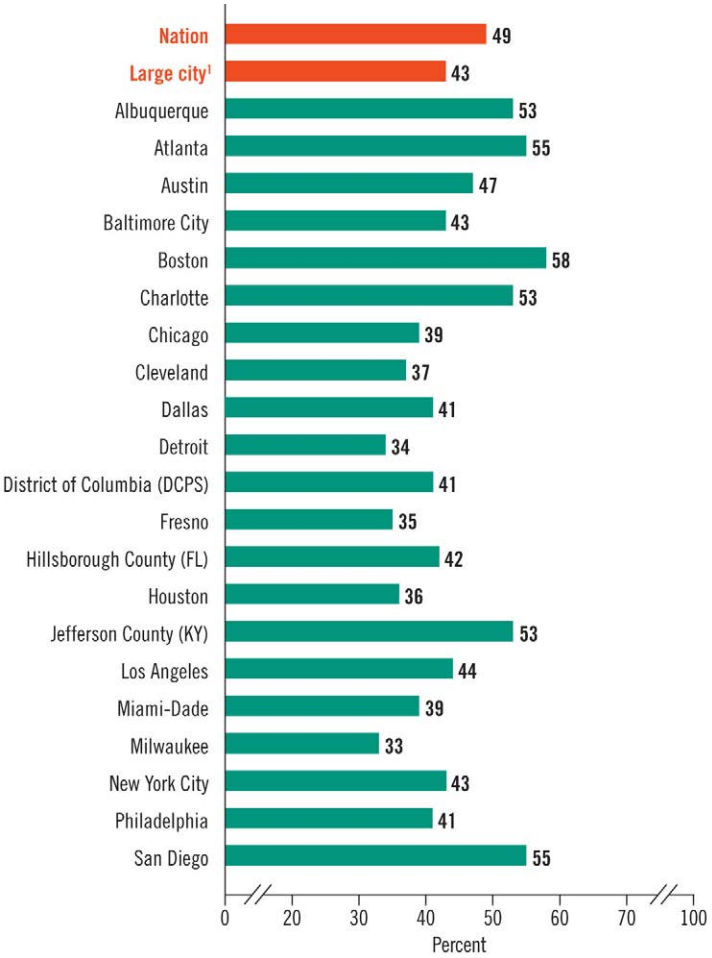
How are the right triangle and the rectangle alike?

- (A) Each figure has at least one right angle.
- (B) Each figure has parallel sides.
- (C) Each figure has at least one line of symmetry.
- (D) Each figure has at least two sides that are the same length.

This multiple-choice question measures student performance in the geometry content area. The question asks students to compare two geometric figures—a right triangle and a rectangle—and identify a property common to both figures. The correct answer is that each figure has at least one right angle (Choice A). Students were not permitted to use a calculator on this question.

Forty-nine percent of fourth-grade public school students in the nation selected the correct answer to this question. The percentage of correct responses in each of the TUDA districts ranged from 33 percent in Milwaukee to 58 percent in Boston.

Percentage correct for fourth-grade public school students, by jurisdiction: 2011



[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Mathematics Content Area: Measurement

MOVIE TIMES	
Early Show	3:15
Late Show	7:30

The early show and the late show for a movie last the same amount of time. The early show begins at 3:15 P.M. and ends at 4:27 P.M. The late show begins at 7:30 P.M. At what time does the late show end?

Show your work.

This short constructed-response question measures fourth-graders' ability to perform computations using units of time. The first step requires students to determine the length of the movie from the starting and ending times of the early show. The second step requires that they add that length of time to the starting time of the late show. Students were permitted to use a calculator to solve this question. Responses were rated using three scoring levels.

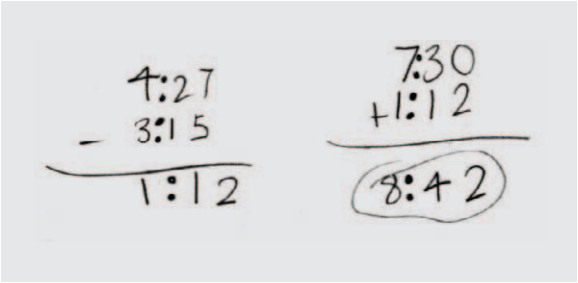
Correct responses gave an answer of 8:42 for the ending time of the late show and provided supporting work, which included either showing a computation for determining the length of the movie from the times of the early show (4:27 - 3:15 = 1:12, "1 hour and 12 minutes"), or showing the addition of 1:12 to 7:30.

Partial responses did one of the following:

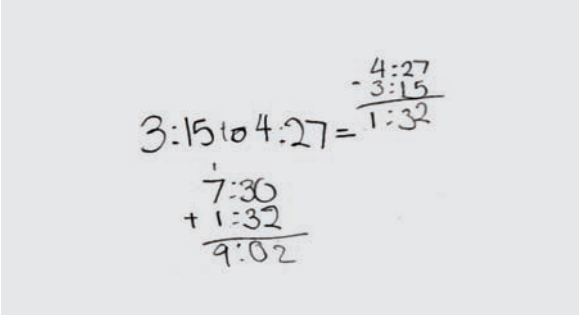
- Gave an answer of 8:42 with no work or incorrect work,
- Determined the length of the movie (1 hour and 12 minutes) but did not answer 8:42, or
- Incorrectly determined the length of the movie but correctly used that time to determine the ending time of the late show.

Incorrect responses gave an incorrect end time for the late show.

The student response shown below was rated as "Correct" because it provided the correct answer with supporting work. Thirty-one percent of fourth-grade public school students in the nation gave responses to this question that received a rating of "Correct."

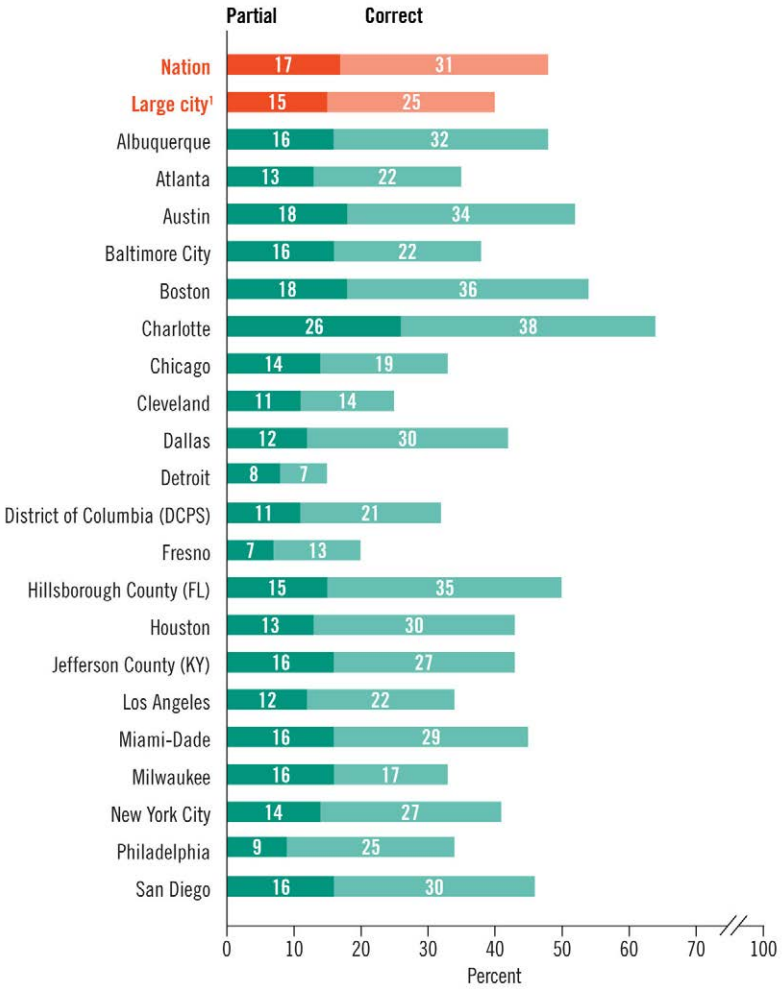


The student response shown below was rated as "Partial" because the ending time of the late show was correctly determined based on an incorrect time for the length of the movie. Seventeen percent of fourth-grade public school students gave responses to this question that received a rating of "Partial" for one of the reasons described on the previous page.



The percentages of student responses rated "Correct" and "Partial" are presented below for large city and participating TUDA districts.

Percentage of answers rated as "Partial" and "Correct" for fourth-grade public school students, by jurisdiction: 2011



[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: DCPS = District of Columbia Public Schools.

Explore Additional Sample Questions and Data

Additional sample questions from the NAEP mathematics assessment can be found in the NAEP Questions Tool (NQT) at http://nces.ed.gov/nationsreportcard/itmrlsx/landing.aspx.

The NQT makes it possible to search for questions by subject, grade, difficulty, and other characteristics. You can view questions, scoring guides, sample student responses, and performance data, as well as create customized reports.

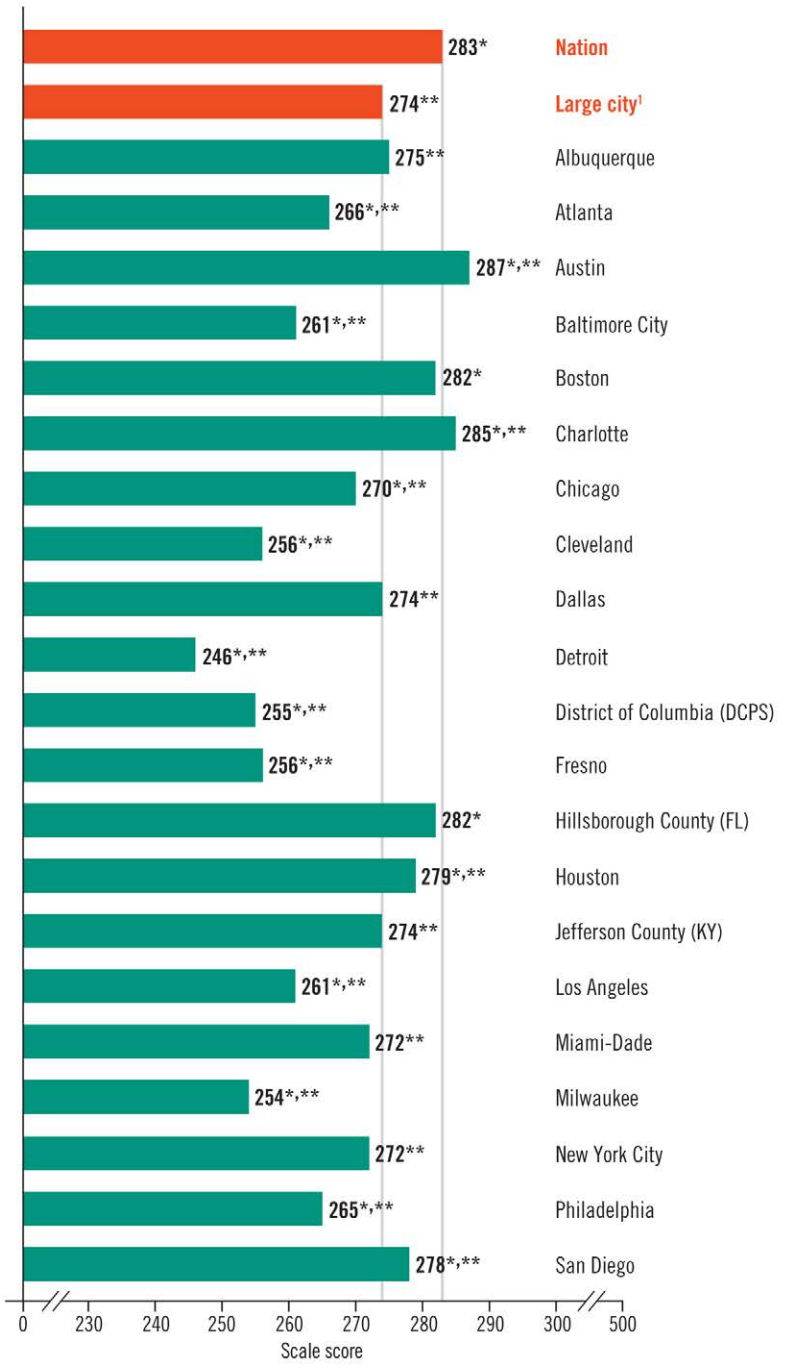
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Two districts score higher than both the national average and large cities overall

In 2011, the average mathematics score for eighth-graders attending public schools in large cities was 9 points lower than the score for public school students in the nation (**figure 10**). Scores for 2 of the 21 participating districts were higher than the scores for both the nation and large cities overall, and scores for 10 districts were lower than both the nation and large cities.

- Scores for Austin and Charlotte were higher than the scores for both the nation and large cities.
- The scores for Boston and Hillsborough County were not significantly different from the score for the nation but were higher than the score for large cities.
- Scores for Houston and San Diego were lower than the national average but higher than the score for large cities.
- Scores for Albuquerque, Dallas, Jefferson County, Miami-Dade, and New York City were lower than the nation but not significantly different from large cities.
- Scores were lower than both the nation and large cities in Atlanta, Baltimore City, Chicago, Cleveland, Detroit, the District of Columbia, Fresno, Los Angeles, Milwaukee, and Philadelphia.

Figure 10. Average scores in NAEP mathematics for eighth-grade public school students, by jurisdiction: 2011



* Significantly different ($p < .05$) from large city.
** Significantly different ($p < .05$) from the nation.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Nine districts score higher than in 2003, and six score higher than in 2009

Of the 21 districts that participated in the 2011 mathematics assessment, 18 participated in 2009, and 10 participated in the first TUDA assessment in 2003. The results from earlier assessments make it possible to examine how the performance for students overall and for student groups in those districts has changed over time. Some of the results summarized here are provided in more detail in the profiles for each district presented later in this report.

In comparison to 2003, average mathematics scores were higher in 2011 for eighth-graders in the nation and in large cities (**figure 11**). Scores were also higher in 2011 than in 2003 for all of the districts that participated both years with one exception—there was no significant change in the score for Cleveland.

In comparison to 2009, scores were higher in 2011 for Atlanta, Charlotte, Chicago, Detroit, the District of Columbia, and Jefferson County and did not change significantly in the other 12 districts that participated in both years.

Figure 11. Changes in 2011 NAEP mathematics average scores from 2003 and 2009 for eighth-grade public school students, by jurisdiction

Jurisdiction	Change in average score	
	From 2003	From 2009
Nation	▲	▲
Large city[1]	▲	▲
Atlanta	▲	▲
Austin	—	♦
Baltimore City	—	♦
Boston	▲	♦
Charlotte	▲	▲
Chicago	▲	▲
Cleveland	♦	♦
Detroit	—	▲
District of Columbia (DCPS)	▲	▲
Fresno	—	♦
Houston	▲	♦
Jefferson County (KY)	—	▲
Los Angeles	▲	♦
Miami-Dade	—	♦
Milwaukee	—	♦
New York City	▲	♦
Philadelphia	—	♦
San Diego	▲	♦

▲ Higher in 2011.
♦ Not significantly different from 2011.
— District did not participate.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2009 and 2011 Mathematics Assessments.

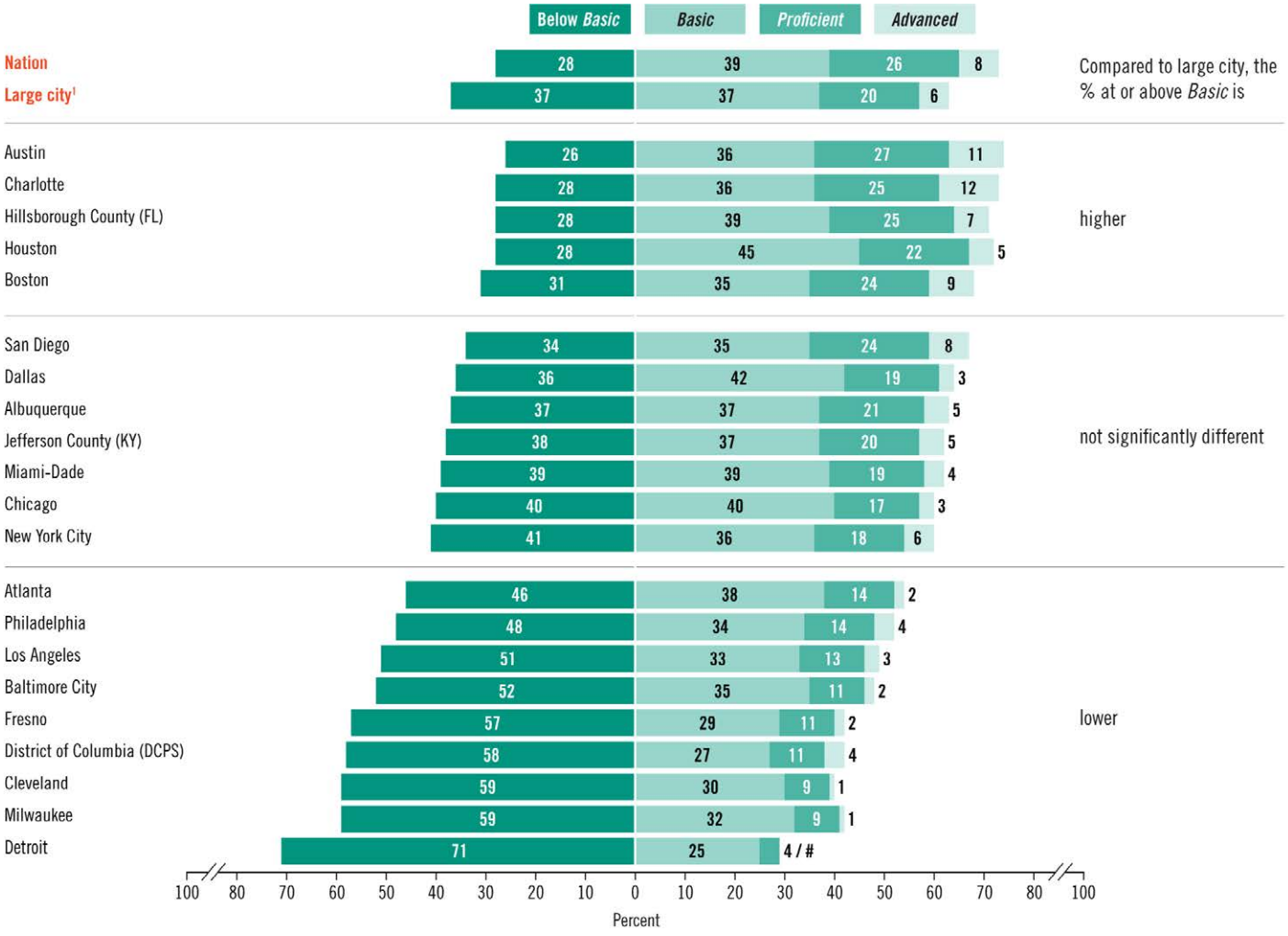
Districts show range of knowledge and skills

Among the 21 districts that participated in the 2011 assessment, the percentages of students performing at or above the *Basic* level ranged from 29 percent in Detroit to 74 percent in Austin (**figure 12**). All of the districts had some students performing at or above the *Proficient* level in 2011.

Among the six districts where average scores were higher than the score for large cities overall, five also had higher percentages of students at or above *Basic*. Although the average score in San Diego was higher than the score for large cities, the percentage of students at or above *Basic* in San Diego was not found to be statistically different from the percentage for large cities.

Among the 10 districts that scored lower than large cities overall, 9 had lower percentages of students at or above *Basic*. The percentage of students at or above *Basic* in Chicago was not significantly different from the percentage for large cities.

Figure 12. Achievement-level results in NAEP mathematics for eighth-grade public school students, by jurisdiction: 2011



Rounds to zero.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Percentages of students at both *Proficient* and *Advanced* higher than in 2003 for six districts

In comparison to 2003, the percentages of students performing below the *Basic* level were lower in 2011 for all but 1 of the 10 districts that participated in both years (there was no significant change in the percentage below *Basic* in Cleveland). Six districts had higher percentages of students at *Proficient* and at *Advanced* (**figure 13**).

In comparison to 2009, the percentages of students in Atlanta and Chicago performing below the *Basic* level were lower in 2011, and the percentages at *Proficient* were higher. Charlotte was the only one of the participating districts to have a higher percentage of students at *Advanced*.

Figure 13. Changes in 2011 NAEP mathematics achievement-level percentages from 2003 and 2009 for eighth-grade public school students, by jurisdiction

	Change in achievement-level percentages							
	From 2003				From 2009			
Jurisdiction	Below *Basic*	At *Basic*	At *Proficient*	At *Advanced*	Below *Basic*	At *Basic*	At *Proficient*	At *Advanced*
Nation	▼ 6	◆ -1	▲ 3	▲ 3	▼ 1	◆ #	◆ 1	◆ #
Large city[1]	▼ 13	▲ 3	▲ 7	▲ 3	▼ 3	◆ 1	▲ 2	◆ #
Atlanta	▼ 24	▲ 14	▲ 9	◆ 1	▼ 8	◆ 3	▲ 4	◆ 1
Austin	—	—	—	—	◆ 1	◆ #	◆ -1	◆ #
Baltimore City	—	—	—	—	◆ -5	◆ 2	◆ 2	◆ 1
Boston	▼ 21	▲ 5	▲ 11	▲ 6	◆ -2	◆ -1	◆ 2	◆ 1
Charlotte	▼ 5	◆ #	◆ #	▲ 5	◆ -1	◆ -3	◆ #	▲ 4
Chicago	▼ 18	▲ 7	▲ 9	▲ 2	▼ 8	◆ 4	▲ 3	◆ 1
Cleveland	◆ -3	◆ -1	▲ 3	‡	◆ 2	◆ -4	◆ 2	◆ #
Detroit	—	—	—	—	◆ -6	▲ 7	◆ #	‡
District of Columbia (DCPS)	▼ 13	◆ 3	▲ 6	▲ 3	◆ -3	◆ #	◆ 2	◆ 1
Fresno	—	—	—	—	◆ 3	◆ -2	◆ -1	◆ #
Houston	▼ 20	▲ 6	▲ 12	▲ 3	◆ -3	◆ #	◆ 3	◆ #
Jefferson County (KY)	—	—	—	—	◆ -3	◆ #	◆ 2	◆ 1
Los Angeles	▼ 16	▲ 7	▲ 7	▲ 2	◆ -3	◆ #	◆ 2	◆ 1
Miami-Dade	—	—	—	—	◆ 2	◆ -2	◆ #	◆ #
Milwaukee	—	—	—	—	◆ -5	◆ 2	◆ 3	◆ #
New York City	▼ 6	◆ 2	◆ 1	◆ 2	◆ 1	◆ 1	◆ -1	◆ -1
Philadelphia	—	—	—	—	◆ #	◆ -1	◆ 1	◆ #
San Diego	▼ 13	◆ #	▲ 8	▲ 6	◆ 3	◆ -2	◆ -2	◆ 1

▲ Higher in 2011.
▼ Lower in 2011.
◆ Not significantly different from 2011.
— District did not participate.
‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

Rounds to zero.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. The percentage differences appear within each symbol and are based on the differences between unrounded percentages. A percentage difference preceded by a minus sign (-) indicates that the percentage was numerically lower in 2011. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2009, and 2011 Mathematics Assessments.

Districts vary in demographic makeup

When comparing the results for urban districts to results for the nation and large cities, it is important to consider differences in demographic makeup. In the nation, the percentage of White eighth-graders was higher than the combined percentage of Black and Hispanic students in 2011. However, the opposite was true for large cities overall and for all but one of the 21 participating districts (**table 4**). Jefferson County was the only district where the percentage of White students was higher than the combined percentage of Black and Hispanic students.

Large cities and districts also differed from the nation in the proportion of students eligible for the National School Lunch Program (NSLP), an indicator of lower family income. Forty-eight percent of eighth-graders were eligible for NSLP nationally compared to 70 percent in large cities. The percentage of eligible students in every one of the participating districts was higher than the percentage for the nation—ranging from 52 percent in Charlotte to 100 percent in Cleveland, where all students were categorized as eligible.

Table 4. Selected characteristics of eighth-grade public school students in NAEP mathematics, by jurisdiction: 2011

			Percentage of students						
Jurisdiction	Number of eighth-graders	Number of students assessed	White	Black	Hispanic	Asian	Eligible for free/ reduced-price school lunch	Students with disabilities	English language learners
Nation	3,508,000	164,400	54	16	23	5	48	11	6
Large city[1]	562,000	41,500	20	26	43	8	70	11	11
Albuquerque	6,000	1,200	25	1	66	2	60	13	11
Atlanta	3,000	1,300	8	86	5	#	82	9	2
Austin	5,000	1,500	27	9	59	3	59	10	14
Baltimore City	4,000	1,000	11	84	3	1	85	8	2
Boston	4,000	1,200	15	37	36	11	76	16	20
Charlotte	9,000	1,500	33	44	15	5	52	10	7
Chicago	27,000	2,000	9	43	41	5	84	16	6
Cleveland	3,000	1,000	17	66	13	1	100[2]	21	7
Dallas	10,000	1,400	5	26	68	1	85	5	23
Detroit	4,000	1,400	2	87	10	1	79	10	10
District of Columbia (DCPS)	2,000	1,300	6	78	12	2	70	16	6
Fresno	5,000	1,300	12	11	61	14	88	8	19
Hillsborough County (FL)	14,000	1,400	43	19	31	3	54	15	9
Houston	12,000	2,000	7	27	62	3	76	7	13
Jefferson County (KY)	7,000	1,400	54	37	5	3	60	9	3
Los Angeles	41,000	2,100	9	9	74	7	82	11	19
Miami-Dade	25,000	2,500	9	22	67	1	72	10	9
Milwaukee	5,000	1,200	12	57	23	7	81	17	14
New York City	74,000	2,200	14	30	41	15	87	16	12
Philadelphia	10,000	1,200	13	56	21	9	88	12	9
San Diego	8,000	1,200	24	11	42	19	60	11	16

Rounds to zero.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

[2] In Cleveland, all students were categorized as eligible for the National School Lunch Program.

NOTE: The number of eighth-graders is rounded to the nearest 1,000. The number of students assessed is rounded to the nearest 100. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin. The race/ethnicity categories listed may not sum to 100 percent because results are not shown for all racial/ethnic groups. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Large cities, in general, and some of the participating districts had higher percentages of English language learners (ELL) than the nation. The percentage of ELL students in large cities was 11 percent compared to 6 percent in the nation overall. The percentages of ELL students in Austin, Boston, Dallas, Fresno, and Los Angeles were higher than the percentages in both the nation and large cities.

Although the data are not shown here, the proportions of students in these groups have also changed over time in some districts (see appendix **tables A-2, A-4,** and **A-8**). For example, among the 10 districts that participated in 2003, Atlanta, Boston, Cleveland, the District of Columbia, Houston, and San Diego had smaller percentages of Black students in 2011. Atlanta, Boston, Charlotte, the District of Columbia, and Houston had larger percentages of Hispanic students in 2011 than in 2003. The percentages of students eligible for NSLP were larger in 2011 than in 2003 in Atlanta, Boston, Charlotte, the District of Columbia, Houston, Los Angeles, and San Diego. The percentages of ELL students were larger in 2011 than in 2003 in Boston, Cleveland, and the District of Columbia, and smaller in Los Angeles and San Diego.

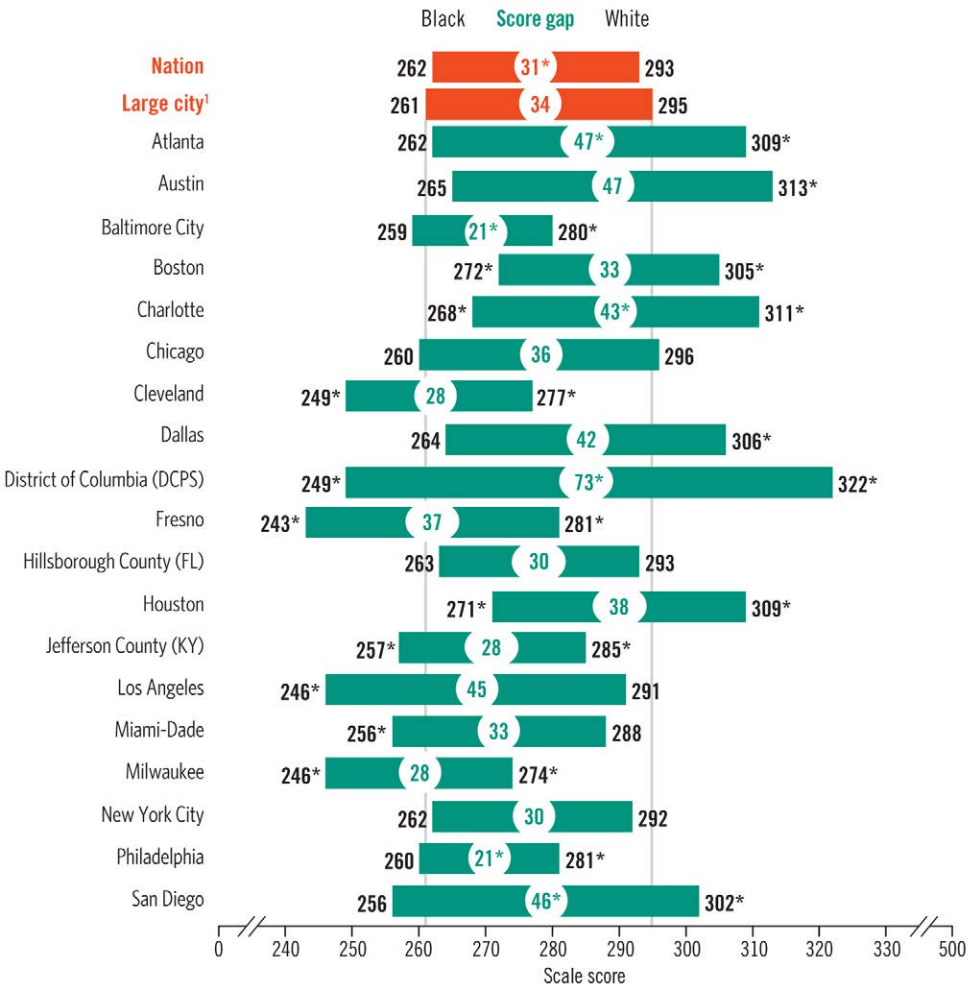
Compared to large cities overall, White – Black score gaps smaller in two districts and larger in four districts

Examining how student groups in the districts performed in comparison to their peers in large cities provides some additional context for the overall district results. In 2011, the 34-point score gap between White and Black eighth-graders in large cities was larger than the 31-point White – Black score gap for the nation (**figure 14**). The White – Black score gaps in the districts ranged from 21 points in Baltimore City and Philadelphia to 73 points in the District of Columbia. (Note that sample sizes were too small to report results for Black students in Albuquerque or White students in Detroit.)

White – Black score gaps in Baltimore City and Philadelphia were smaller than the score gap for large cities. In each of these districts, the score for White students was lower than the score for White students in large cities, and the score for Black students was not significantly different from large cities.

White – Black score gaps in Atlanta, Charlotte, the District of Columbia, and San Diego were larger than the score gap for large cities. In the District of Columbia, the score for White students was higher than the score for White students in large cities, and the score for Black students was lower than the score for Black students in large cities. But not all of the districts with a larger White – Black score gap than large cities had a lower score for Black students. In Atlanta, Charlotte, and San Diego, the average scores for White students were higher than the score for White students in large cities, and the scores for Black students were either higher than or not significantly different from large cities.

Figure 14. Average scores and score gaps in NAEP mathematics for White and Black eighth-grade public school students, by jurisdiction: 2011



* Significantly different ($p < .05$) from large city.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: Black includes African American. Race categories exclude Hispanic origin. Score gaps are calculated based on differences between unrounded average scores. Sample sizes were insufficient to permit reliable estimates for Black students in Albuquerque and for White students in Detroit, so results are not shown for these two districts. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

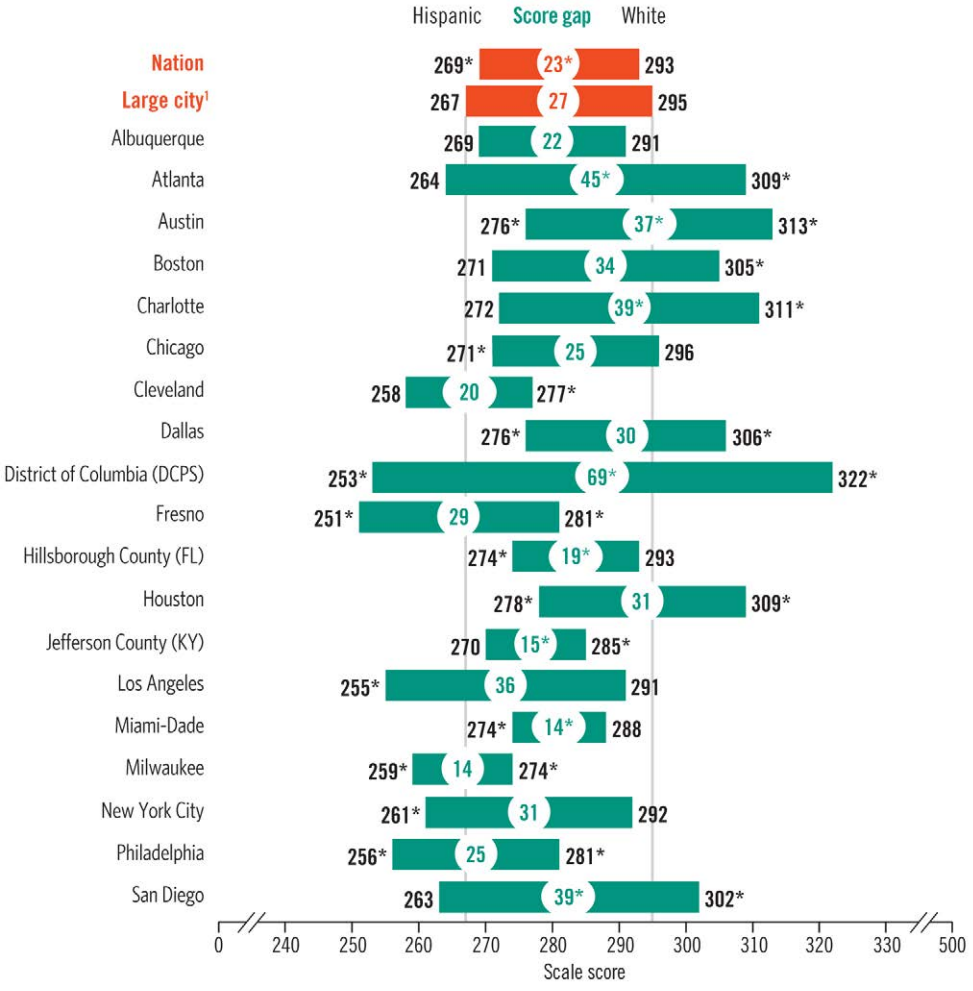
In comparison to large cities, White – Hispanic score gaps smaller in three districts and larger in five districts

In 2011, the 27-point score gap between White and Hispanic eighth-graders in large cities was larger than the 23-point White – Hispanic score gap for the nation (**figure 15**). The White – Hispanic score gaps in the districts ranged from 14 points in Miami-Dade and Milwaukee to 69 points in the District of Columbia. (Note that sample sizes were not large enough to report results for Hispanic students in Baltimore City or White students in Detroit.)

White – Hispanic score gaps in Hillsborough County, Jefferson County, and Miami-Dade were smaller than the score gap for large cities. In Hillsborough County and Miami-Dade, scores for Hispanic students were higher than the score for Hispanic students in large cities, and the scores for White students in the districts were not significantly different from the score for White students in large cities. In Jefferson County, the score for White students was lower than the score for White students in large cities, and the score for Hispanic students was not significantly different from the score for large cities.

White – Hispanic score gaps in Atlanta, Austin, Charlotte, the District of Columbia, and San Diego were larger than the score gap for large cities. In Atlanta, Charlotte, the District of Columbia, and San Diego, scores for White students were higher than the score for White students in large cities, and scores for Hispanic students were either lower than or not significantly different from the score for large cities. In Austin, scores for both White and Hispanic students were higher than the scores for their peers in large cities.

Figure 15. Average scores and score gaps in NAEP mathematics for White and Hispanic eighth-grade public school students, by jurisdiction: 2011



* Significantly different ($p < .05$) from large city.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: White excludes students of Hispanic origin. Hispanic includes Latino. Score gaps are calculated based on differences between unrounded average scores. Sample sizes were insufficient to permit reliable estimates for Hispanic students in Baltimore City and for White students in Detroit, so results are not shown for these two districts. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

White, Black, and Hispanic students in four districts score higher than in 2003

Scores for White, Black, and Hispanic eighth-graders in the nation were higher in 2011 than in 2003, and both the White – Black and White – Hispanic score gaps narrowed in comparison to 2003 (**figure 16**). Although scores for all three racial/ethnic groups in large cities were also higher in 2011 than in 2003, only the White – Black gap was smaller than in 2003.

Scores were higher in 2011 than in 2003 for White, Black, and Hispanic students in Boston, Chicago, Houston, and Los Angeles. Among the remaining districts that participated in both years, scores were higher in 2011 for two of the groups in Charlotte and San Diego, and one group in Atlanta, the District of Columbia, and New York City. Even with higher scores for some racial/ethnic groups, neither the White – Black nor White – Hispanic score gap narrowed in any of the districts. The White – Black score gap widened from 2003 to 2011 in San Diego, where the score for White students was higher than in 2003, but there was no significant change in the score for Black students.

Although not shown in the figure, there were some changes from 2009 to 2011 in the White – Black score gap for some districts. The White – Black score gap widened from 2009 to 2011 in Charlotte, where the score for White students was higher than in 2009, but the score for Black students did not change significantly. The White – Black score gap in Boston narrowed from 2009 to 2011 although the score for each group by itself did not change significantly. There were no significant changes in the White – Hispanic score gaps from 2009 to 2011 in any of the participating districts (see the district profiles presented later in this report).

Figure 16. Changes between 2003 and 2011 NAEP mathematics average scores and score gaps for eighth-grade public school students, by selected racial/ethnic groups and jurisdiction

		Race/ethnicity			Score gap	
Jurisdiction	All students	White	Black	Hispanic	White – Black	White – Hispanic
Nation	▲	▲	▲	▲	Narrowed	Narrowed
Large city[1]	▲	▲	▲	▲	Narrowed	◆
Atlanta	▲	◆	▲	‡	◆	‡
Boston	▲	▲	▲	▲	◆	◆
Charlotte	▲	▲	▲	◆	◆	◆
Chicago	▲	▲	▲	▲	◆	◆
Cleveland	◆	◆	◆	◆	◆	◆
District of Columbia (DCPS)	▲	‡	▲	◆	‡	‡
Houston	▲	▲	▲	▲	◆	◆
Los Angeles	▲	▲	▲	▲	◆	◆
New York City	▲	◆	▲	◆	◆	◆
San Diego	▲	▲	◆	▲	Widened	◆

▲ Higher in 2011.

◆ Not significantly different from 2011.

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. Included in the overall results but not shown separately are students whose race/ethnicity was Asian/Pacific Islander, American Indian/Alaska Native, unclassified, or two or more races. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin. DCPS = District of Columbia Public Schools.

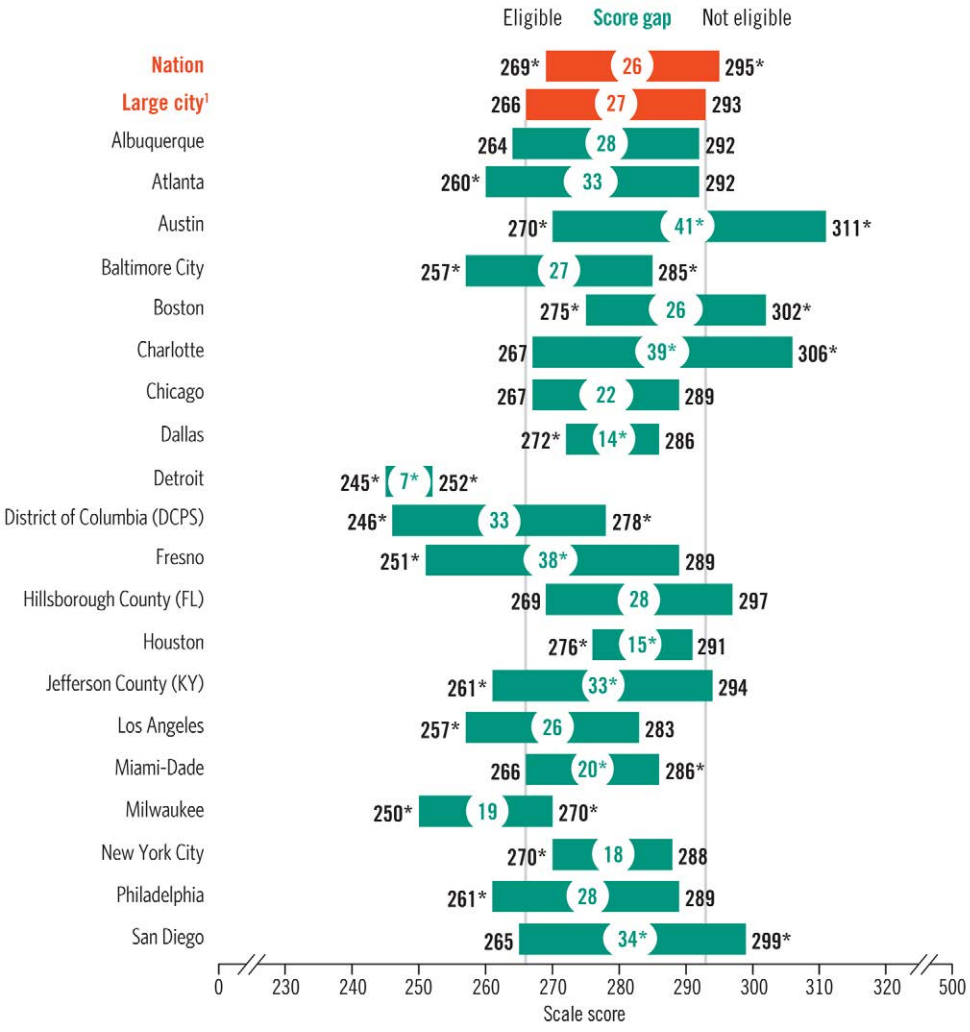
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003 and 2011 Mathematics Assessments.

In comparison to large cities, score gaps between higher- and lower-income students are smaller in four districts and larger in five districts

In 2011, the 27-point score gap between eighth-graders in large cities who were not eligible for NSLP (higher-income students) and those who were eligible (lower-income students) was not significantly different from the 26-point score gap for students in the nation (**figure 17**). The score gaps between higher- and lower-income students in the districts ranged from 7 points in Detroit to 41 points in Austin.

The score gaps between higher- and lower-income students in four districts were smaller than the score gap for large cities overall. In Dallas and Houston, the scores for lower-income students were higher than the score for their peers in large cities, and the scores for higher-income students in those districts were not significantly different from large cities. However, not all of the districts with gaps smaller than the gap for large cities also had higher scores for lower-income students. In Miami-Dade, the score for lower-income students was not significantly different from the score for their peers in large cities, and the score for higher-income students was lower than the score for large cities. In Detroit, scores for both higher- and lower-income students were lower than the scores for large cities.

Figure 17. Average scores and score gaps in NAEP mathematics for eighth-grade public school students eligible and not eligible for free/reduced-price school lunch, by jurisdiction: 2011



* Significantly different ($p < .05$) from large city.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: Score gaps are calculated based on differences between unrounded average scores. In Cleveland, all students were categorized as eligible for the National School Lunch Program (NSLP). Therefore, a score gap comparison between students eligible and not eligible for NSLP could not be shown for this district. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Score gaps between higher- and lower-income students in five districts were larger in comparison to the score gap in 2011 for large cities overall. In Fresno and Jefferson County, the scores for higher-income students were not significantly different from the score for large cities, and the scores for lower-income students were lower. However, not all of the districts with gaps larger than large cities also had lower scores for lower-income students. In Charlotte and San Diego, scores for higher-income students were higher than the score for higher-income students in large cities, and the scores for lower-income students were not significantly different from the score for large cities. In Austin, the scores for both higher- and lower-income students were higher in comparison to the scores for their peers in large cities.

Both higher- and lower-income students in seven districts score higher than in 2003

Scores for students who were not eligible for NSLP (higher-income students) and those who were eligible (lower-income students) were higher in 2011 than in 2003 in the nation and large cities (**figure 18**). However, of these two, only the score gap for the nation narrowed.

Scores were higher in 2011 than in 2003 for both higher-income and lower-income students in seven of the nine districts where results could be reported for both groups. Even with higher scores for lower-income students in most of the participating districts, only the score gap in New York City narrowed in comparison to 2003, and score gaps widened in the District of Columbia, Los Angeles, and San Diego.

Although not shown in the figure, there were changes from 2009 to 2011 in the score gap between higher- and lower-income students in some districts. The gap narrowed from 2009 to 2011 in Houston, where the score for lower-income students was higher than in 2009, but the score for higher-income students did not change significantly. Score gaps widened from 2009 to 2011 in Baltimore City and Charlotte, where scores for higher-income students were higher in 2011 than in 2009, but scores for lower-income students did not change significantly (see the district profiles presented later in this report).

Figure 18. Changes between 2003 and 2011 NAEP mathematics average scores and score gaps for eighth-grade public school students, by eligibility for free/reduced-price school lunch and jurisdiction

Jurisdiction	All students	Eligibility for free/reduced-price school lunch: Not eligible	Eligibility for free/reduced-price school lunch: Eligible	Score gap: Not eligible – Eligible
Nation	▲	▲	▲	Narrowed
Large city[1]	▲	▲	▲	◆
Atlanta	▲	▲	▲	◆
Boston	▲	▲	▲	◆
Charlotte	▲	▲	▲	◆
Chicago	▲	◆	▲	◆
Cleveland	◆	‡	◆	‡
District of Columbia (DCPS)	▲	▲	▲	Widened
Houston	▲	▲	▲	◆
Los Angeles	▲	▲	▲	Widened
New York City	▲	◆	▲	Narrowed
San Diego	▲	▲	▲	Widened

▲ Higher in 2011.

◆ Not significantly different from 2011.

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. Included in the overall results but not shown separately are students whose eligibility status for the National School Lunch Program was not available. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003 and 2011 Mathematics Assessments.

Explore Additional Results

Results for other background questions from the eighth-grade student, teacher, and school questionnaires are available in the NAEP Data Explorer at http://nces.ed.gov/nationsreportcard/naepdata/.

Coursetaking patterns vary across the 21 participating districts

Eighth-graders participating in the 2011 NAEP mathematics assessment were asked what math class they were taking that year. Students selected one course from the following list:

- Geometry
- Algebra II
- Algebra I (one-year course)
- First year of a two-year Algebra I course
- Second year of a two-year Algebra I course
- Introduction to algebra or pre-algebra
- Basic or general eighth-grade math
- Integrated or sequential math
- Other math class

In 2011, the majority of eighth-grade students in the nation reported taking one of three mathematics classes: 33 percent in algebra I, 22 percent in introduction to algebra or pre-algebra, and 26 percent in basic or general eighth-grade math (**table 5**). The percentages of eighth-graders in large cities who reported taking algebra I or basic math were not significantly different from the percentages of students in the nation. The percentage of students in large cities taking introduction to algebra or pre-algebra was smaller than the percentage for the nation.

The percentages of students taking each of the three classes varied across the districts. The percentages of students taking algebra I ranged from 11 percent in Atlanta to 77 percent in Hillsborough County. The percentages of students taking introduction to algebra I or pre-algebra ranged from 4 percent in Hillsborough County to 29 percent in Miami-Dade. The percentages of students taking basic math ranged from 3 percent in Hillsborough County and Los Angeles to 54 percent in Austin.

Table 5. Percentage of eighth-grade public school students assessed in NAEP mathematics, by the type of mathematics class taken during the school year and jurisdiction: 2011

Jurisdiction	Basic or general eighth-grade math	Introduction to algebra or pre-algebra	Algebra I (one-year course)
Nation	26	22	33
Large city[1]	27	16	34
Albuquerque	35	16	30
Atlanta	50	10	11
Austin	54	9	21
Baltimore City	27	17	34
Boston	14	14	54
Charlotte	38	17	31
Chicago	41	14	24
Cleveland	46	10	20
Dallas	52	8	26
Detroit	45	14	12
District of Columbia (DCPS)	9	26	40
Fresno	14	15	44
Hillsborough County (FL)	3	4	77
Houston	46	15	24
Jefferson County (KY)	28	17	31
Los Angeles	3	19	55
Miami-Dade	22	29	30
Milwaukee	36	13	14
New York City	43	6	15
Philadelphia	34	17	20
San Diego	5	12	54

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: Results are not shown for the other types of mathematics classes taken by students. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Assessment Content at Grade 8

Additional insight into students' performance on the NAEP mathematics assessment can be obtained by examining what eighth-graders are expected to know and be able to do and how they performed on some of the assessment questions designed to measure their knowledge and skills.

Mathematics Achievement-Level Descriptions for Grade 8

NAEP mathematics achievement-level descriptions outline expectations of student performance at each grade. The specific descriptions of what eighth-graders should know and be able to do at the *Basic*, *Proficient*, and *Advanced* mathematics achievement levels are presented below. (Note that the shaded text is a short, general summary to describe performance at each achievement level.)

NAEP achievement levels are cumulative; therefore, students performing at the *Proficient* level also display the competencies associated with the *Basic* level, and students at the *Advanced* level also demonstrate the skills and knowledge associated with both the *Basic* and the *Proficient* levels. The cut score indicating the lower end of the score range for each level is noted in parentheses.

Basic (262)

Eighth-grade students performing at the *Basic* level should exhibit evidence of conceptual and procedural understanding in the five NAEP content areas. This level of performance signifies an understanding of arithmetic operations—including estimation—on whole numbers, decimals, fractions, and percents.

Eighth-graders performing at the *Basic* level should complete problems correctly with the help of structural prompts such as diagrams, charts, and graphs. They should be able to solve problems in all NAEP content areas through the appropriate selection and use of strategies and technological tools—including calculators, computers, and geometric shapes. Students at this level also should be able to use fundamental algebraic and informal geometric concepts in problem solving.

As they approach the *Proficient* level, students at the *Basic* level should be able to determine which of the available data are necessary and sufficient for correct solutions and use them in problem solving. However, these eighth-graders show limited skill in communicating mathematically.

Proficient (299)

Eighth-grade students performing at the *Proficient* level should apply mathematical concepts and procedures consistently to complex problems in the five NAEP content areas.

Eighth-graders performing at the *Proficient* level should be able to conjecture, defend their ideas, and give supporting examples. They should understand the connections among fractions, percents, decimals, and other mathematical topics such as algebra and functions. Students at this level are expected to have a thorough understanding of *Basic* level arithmetic operations—an understanding sufficient for problem solving in practical situations.

Quantity and spatial relationships in problem solving and reasoning should be familiar to them, and they should be able to convey underlying reasoning skills beyond the level of arithmetic. They should be able to compare and contrast mathematical ideas and generate their own examples. These students should make inferences from data and graphs; apply properties of informal geometry; and accurately use the tools of technology. Students at this level should understand the process of gathering and organizing data and be able to calculate, evaluate, and communicate results within the domain of statistics and probability.

Advanced (333)

Eighth-grade students performing at the *Advanced* level should be able to reach beyond the recognition, identification, and application of mathematical rules in order to generalize and synthesize concepts and principles in the five NAEP content areas.

Eighth-graders performing at the *Advanced* level should be able to probe examples and counterexamples in order to shape generalizations from which they can develop models. Eighth-graders performing at the *Advanced* level should use number sense and geometric awareness to consider the reasonableness of an answer. They are expected to use abstract thinking to create unique problem-solving techniques and explain the reasoning processes underlying their conclusions.

What Eighth-Graders Know and Can Do in Mathematics

The item map below is useful for understanding performance at different levels on the NAEP scale. The scale scores on the left represent the scores for students who were likely to get the items correct or complete. The cut score at the lower end of the range for each achievement level is boxed. The descriptions of selected assessment questions indicating what students need to do to answer the question correctly, along with the corresponding mathematics content areas, are listed on the right.

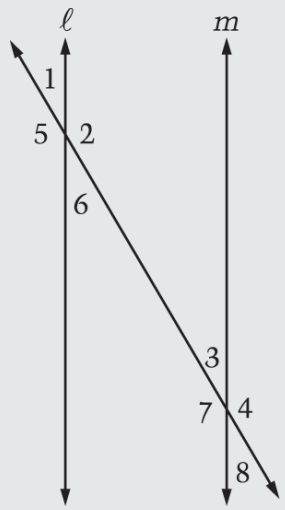
For example, the map on this page shows that eighth-graders performing at the *Basic* level with a score of 290 were likely to solve a story problem that involves computing with money. Students performing at the *Proficient* level with a score of 317 were likely to be able to use an algebraic model to estimate height. Students performing at the *Advanced* level with a score of 346 were likely to be able to use number properties to determine the parity of an unknown number.

GRADE 8 NAEP MATHEMATICS ITEM MAP

	Scale score	Content area	Question description
	500		
	//		
Advanced	394	**Algebra**	Solve problems based on a linear graph (calculator available)
	355	**Data analysis, statistics, and probability**	Make a prediction using a line of best fit
	346	**Number properties and operations**	Use number properties to determine the parity of an unknown number
	334	**Algebra**	*Determine equation of a line given a point and the slope* (**shown on page 46**)
	333	**Measurement**	*Recognize a unit of volume*
	333	**Geometry**	*Compare similar parallelograms* (calculator available)
	333		
Proficient	332	**Algebra**	Set up and solve an algebraic equation
	331	**Algebra**	Compute the slope and *y*-intercept given an equation of a line
	330	**Number properties and operations**	*Solve a story problem using ratios*
	325	**Measurement**	Solve a problem involving unit conversions (calculator available)
	317	**Algebra**	*Use an algebraic model to estimate height*
	315	**Geometry**	Draw lines of symmetry (calculator available)
	306	**Geometry**	*Determine radius of a circle inscribed in a square* (calculator available)
	302	**Data analysis, statistics, and probability**	Label a spinner for a given probability (calculator available) (**shown on pages 44 and 45**)
	299		
Basic	294	**Algebra**	*Choose an equation that describes the relationship in a table*
	294	**Data analysis, statistics, and probability**	*Use the average (mean) to solve a problem*
	290	**Number properties and operations**	Solve a story problem that involves computing with money (calculator available)
	285	**Algebra**	*Identify a graph that shows how speed changed* (calculator available)
	280	**Geometry**	*Identify congruent angles in a figure* (**shown on page 43**)
	272	**Measurement**	*Find the angle with a specified degree measure*
	265	**Algebra**	Read information from the graph of a function
	264	**Number properties and operations**	*Use measuring cups to describe a fraction* (calculator available)
	262		
	260	**Data analysis, statistics, and probability**	*Recognize misrepresented data*
	258	**Measurement**	*Solve a story problem involving rates* (calculator available)
	254	**Geometry**	*Identify a result of combining two shapes*
	250	**Number properties and operations**	*Use order of operations*
	//		
	0		

NOTE: Regular type denotes a constructed-response question. *Italic* type denotes a multiple-choice question. The position of a question on the scale represents the scale score attained by students who had a 65 percent probability of successfully answering a constructed-response question, or a 72 percent probability of correctly answering a five-option multiple-choice question. For constructed-response questions, the question description represents students' performance rated as completely correct. Scale score ranges for mathematics achievement levels are referenced on the map.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Mathematics Content Area: Geometry



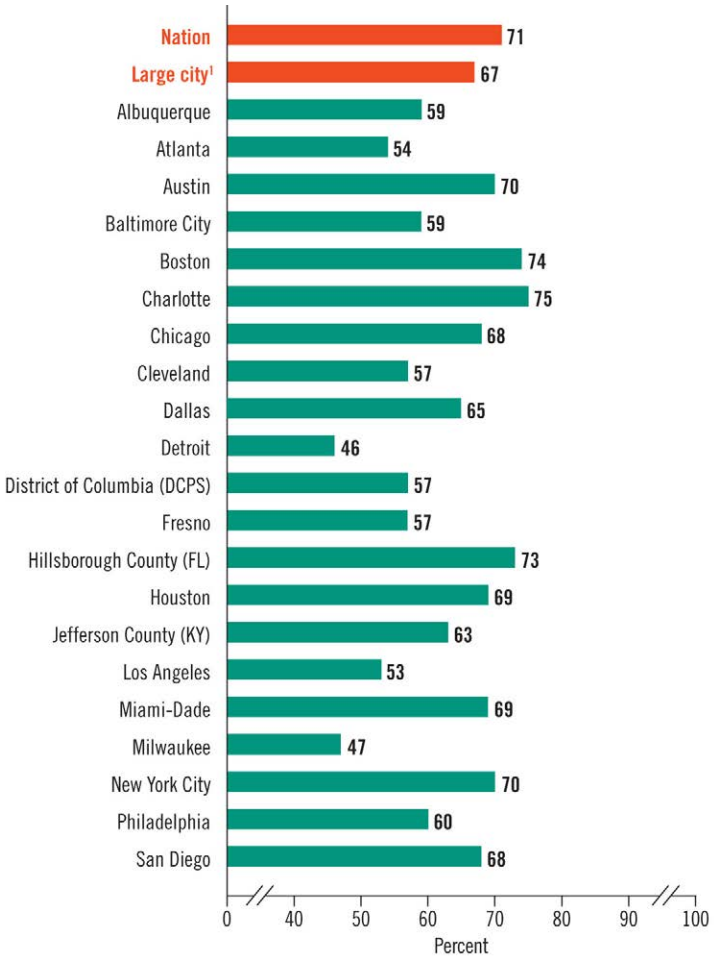
In this figure, line ℓ is parallel to line m. Which of the following pairs of angles must have the same measure?

- (A) Angles 1 and 2
- (B) Angles 1 and 5
- (C) Angles 2 and 3
- (D) Angles 4 and 5
- (E) Angles 4 and 8

In this multiple-choice question from the grade 8 mathematics assessment, students are presented with a set of parallel lines cut by a nonperpendicular transversal and are asked to identify a pair of angles that must have the same measure. This question requires students to use properties of parallel lines and transversals in order to recognize that angles 4 and 5 (Choice D) must have the same measure. The other answer choices represent different pairs of supplementary angles. Students were not permitted to use a calculator to answer this question.

Seventy-one percent of eighth-grade public school students in the nation selected the correct answer to this question. The percentage of correct responses in each of the TUDA districts ranged from 46 percent in Detroit to 75 percent in Charlotte.

Percentage correct for eighth-grade public school students, by jurisdiction: 2011

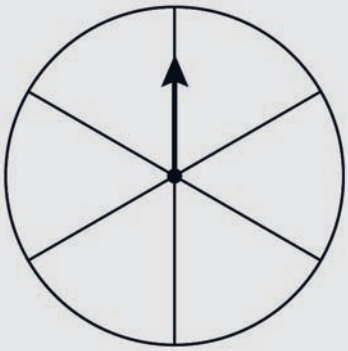


[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Mathematics Content Area: Data Analysis, Statistics, and Probability

The circular spinner shown below is divided into 6 congruent sectors. The sectors are yellow or blue.



Label each of the sectors either yellow (Y) or blue (B) so that the probability of spinning the arrow once and landing on yellow is $\frac{1}{3}$.

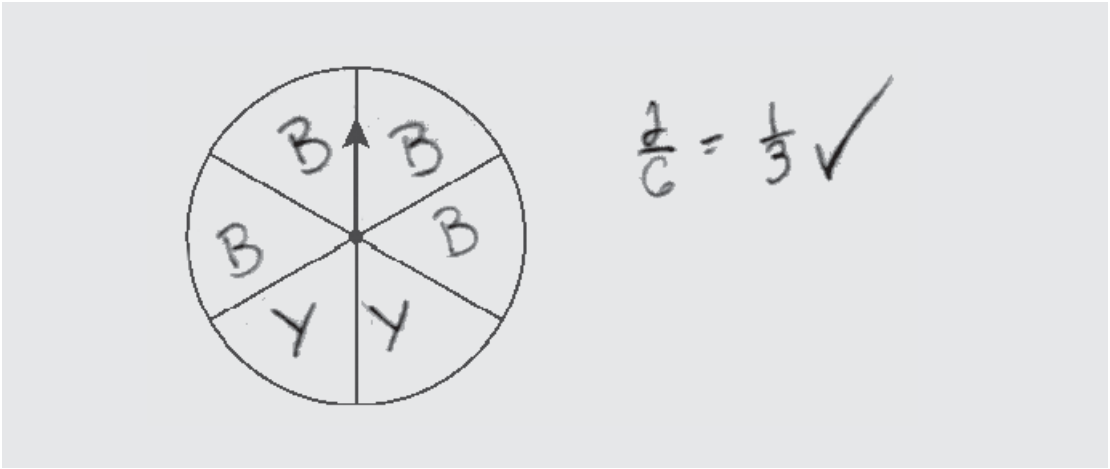
This short constructed-response question asks students to label (either yellow or blue) the sectors of a spinner that has been divided into 6 congruent sectors to match a given probability. To answer this question correctly, students must determine how many of the sectors need to be labeled yellow and how many sectors need to be labeled blue, so that the probability of spinning the arrow one time and landing on a sector labeled yellow is $\frac{1}{3}$. Students who correctly answered this question recognized that the given probability, $\frac{1}{3}$, needed to be converted to sixths to correspond to the 6 sectors on the spinner. Since $\frac{1}{3}$ is equivalent to $\frac{2}{6}$, a total of 2 sectors need to be labeled yellow, and the remaining 4 sectors need to be labeled blue. Students were permitted to use a calculator to solve this question.

Responses were rated using two scoring levels.

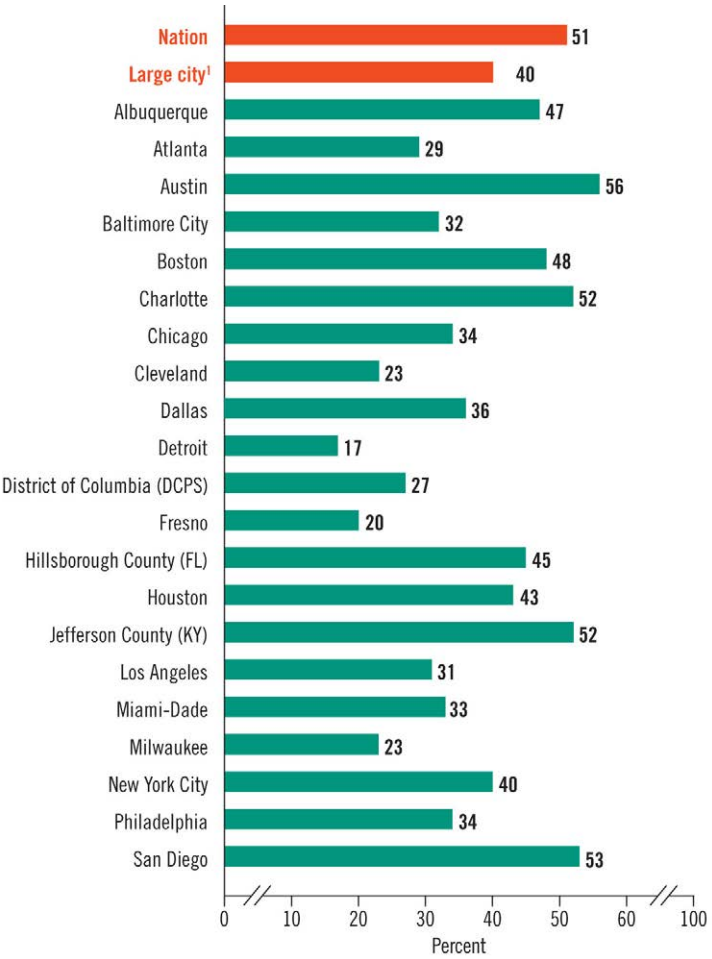
Correct responses labeled the spinner so that 2 sectors were labeled yellow and 4 sectors were labeled blue. (Part of the requirement for a rating of "Correct" was to label each sector of the spinner, including the correct number of blue sectors.)

Incorrect responses did not have the correct number of sectors labeled yellow or blue.

The student response shown below was rated as "Correct" because 2 sectors are labeled "Y" for yellow and 4 sectors are labeled "B" for blue. Fifty-one percent of eighth-grade public school students in the nation provided responses to this question that received a rating of "Correct." The percentage of correct responses in each TUDA district ranged from 17 percent in Detroit to 56 percent in Austin.



Percentage correct for eighth-grade public school students, by jurisdiction: 2011



[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Explore More NAEP Mathematics Questions

See how well you perform on NAEP sample questions and how your answers relate to student performance in our Test Yourself tool at: http://nationsreportcard.gov/math_2011/sample_quest.asp.

Mathematics Content Area: Algebra

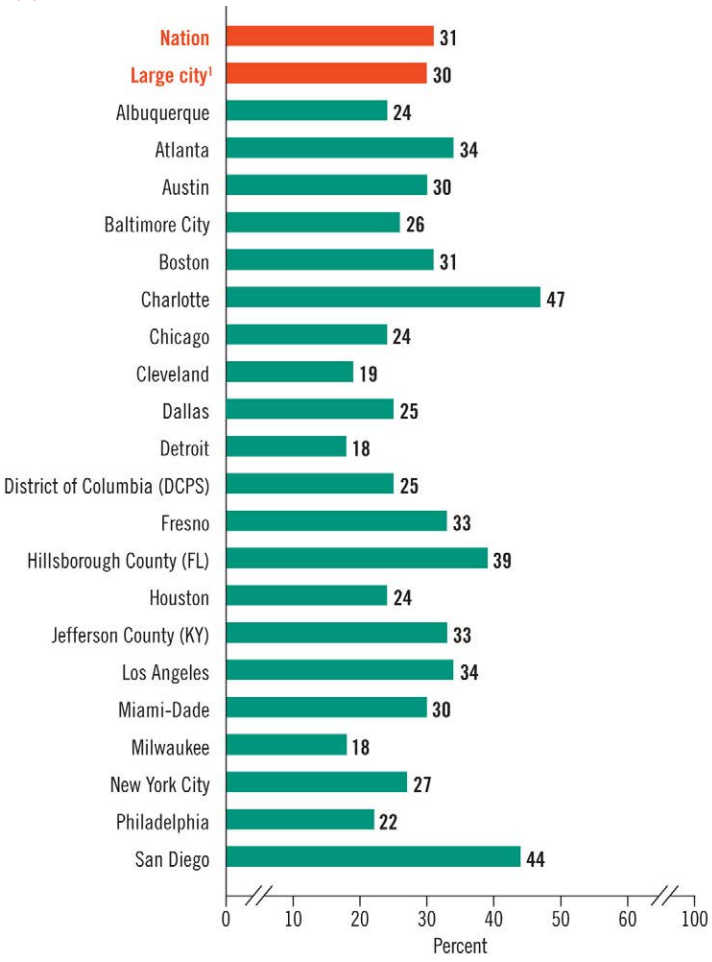
Which of the following is an equation of a line that passes through the point (0, 5) and has a negative slope?

(A) $y = 5x$
(B) $y = 5x - 5$
(C) $y = 5x + 5$
(D) $y = -5x - 5$
(E) $y = -5x + 5$

This question asks students to identify an equation of a line that satisfies two conditions: the graph of the line passes through a given point, and it has a negative slope. The given point is the *y*-intercept of the graph of the line, and all answer choices were presented in slope-intercept form. Students were not permitted to use a calculator to answer this question.

The correct answer (Choice E) was selected by 31 percent of eighth-grade public school students in the nation. Students who correctly answered this question were able to recognize properties of a line written in slope-intercept form. The percentage of correct responses in each of the TUDA districts ranged from 18 percent in Detroit and Milwaukee to 47 percent in Charlotte.

Percentage correct for eighth-grade public school students by jurisdiction: 2011



[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

District Profiles

Individual district profiles provide a closer look at some key findings for the districts, including how districts' scores compare with scores in their home states, how the performance of higher- and lower-income students in the districts compares, how racial/ethnic groups within the districts compare, and how the performance of students has changed in those districts that participated in earlier assessment years. Web-generated profiles or "snapshots" of district results are available for each participating district at http://nces.ed.gov/nationsreportcard/pubs/dst2011/2012453.asp.

GRADE 4

Albuquerque

For Albuquerque fourth-graders in 2011,

- the overall average score was 235.
- the average score of 235 was at the 42nd percentile for the nation.

The district-to-state comparison showed

- a higher overall score than for New Mexico.

Results for higher- and lower-income students showed

- a 26-point score gap between higher- and lower-income students.

Results for racial/ethnic groups showed

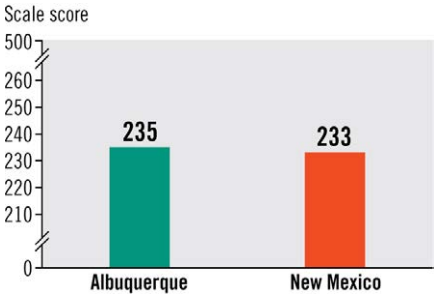
- a White – Hispanic score gap of 25 points.
- a White – American Indian/Alaska Native score gap of 26 points.[1]

Achievement-level results showed

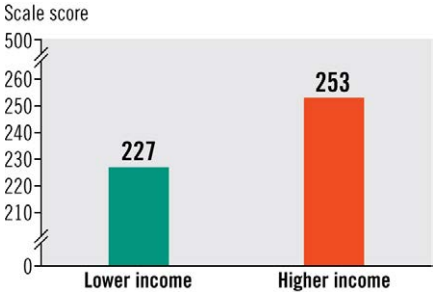
- no significant difference in the percentage at or above *Basic* compared to large cities.
- no significant difference in the percentage at or above *Proficient* compared to large cities.

[1] The score-point difference is based on the difference between the unrounded scores as opposed to the rounded scores shown in the figure.

Average scores in NAEP mathematics for fourth-graders in Albuquerque and New Mexico: 2011

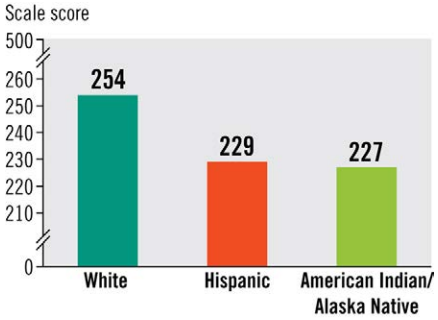


Average scores in NAEP mathematics for fourth-graders in Albuquerque, by family income: 2011



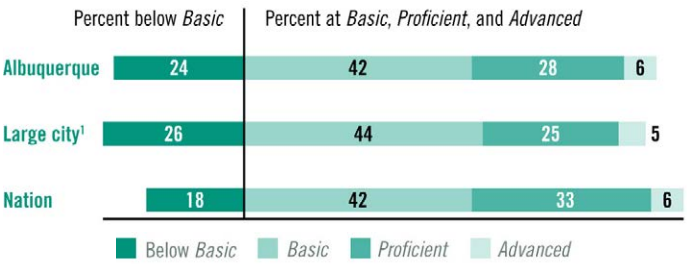
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Average scores in NAEP mathematics for fourth-graders in Albuquerque, by race/ethnicity: 2011



NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Hispanic includes Latino. Race categories exclude Hispanic origin.

Achievement-level results in NAEP mathematics for fourth-graders in Albuquerque: 2011



[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

GRADE 8

Albuquerque

For Albuquerque eighth-graders in 2011,

- the overall average score was 275.
- the average score of 275 was at the 40th percentile for the nation.

The district-to-state comparison showed

- no significant difference from the overall score for New Mexico.

Results for higher- and lower-income students showed

- a 28-point score gap between higher- and lower-income students.

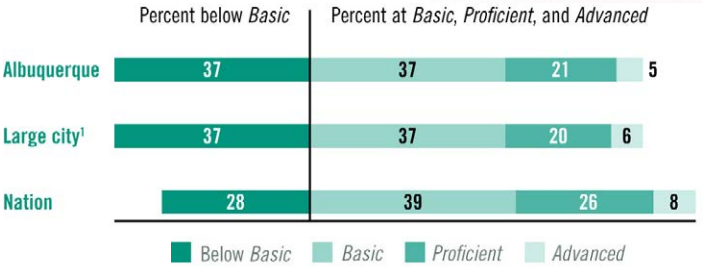
Results for racial/ethnic groups showed

- a White – Hispanic score gap of 22 points.

Achievement-level results showed

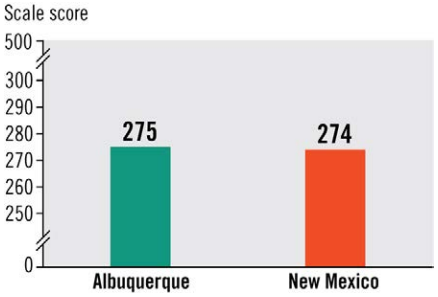
- no significant difference in the percentage at or above *Basic* compared to large cities.
- no significant difference in the percentage at or above *Proficient* compared to large cities.

Achievement-level results in NAEP mathematics for eighth-graders in Albuquerque: 2011

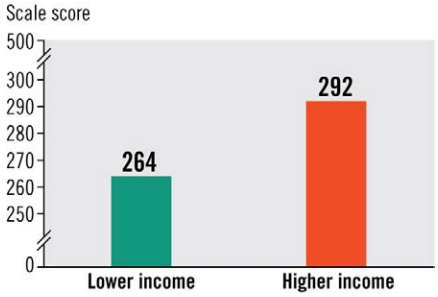


[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

Average scores in NAEP mathematics for eighth-graders in Albuquerque and New Mexico: 2011

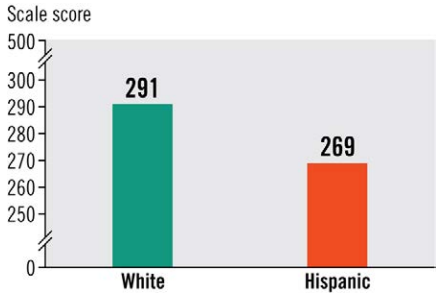


Average scores in NAEP mathematics for eighth-graders in Albuquerque, by family income: 2011



NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Average scores in NAEP mathematics for eighth-graders in Albuquerque, by race/ethnicity: 2011



NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Hispanic includes Latino. White excludes students of Hispanic origin.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

GRADE 4

Atlanta

For Atlanta fourth-graders in 2011,

- the overall score was higher than in 2003 and 2009.
- the average score of 228 was at the 32nd percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Georgia.
- a narrowing of the gap compared to 2003 but no significant change from 2009.

Results for higher- and lower-income students showed

- no significant change in the average score for higher-income students compared to 2003 but a higher average score compared to 2009.
- a higher average score for lower-income students compared to 2003 and 2009.

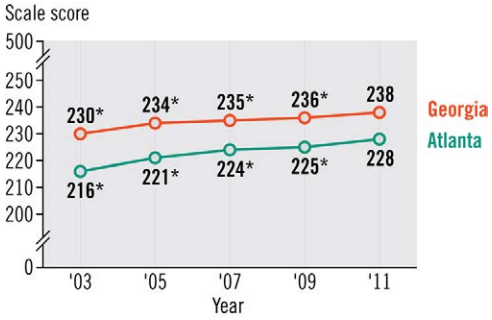
Results for racial/ethnic groups showed

- a higher average score for Black students compared to 2003 but no significant change from 2009.
- no significant change in the average score for White students compared to 2003 or 2009, or for Hispanic students compared to 2009.

Achievement-level results showed

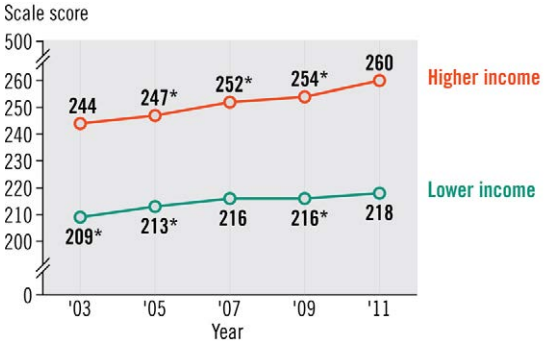
- a higher percentage at or above *Basic* compared to 2003 but no significant change from 2009.
- a higher percentage at or above *Proficient* compared to 2003 and 2009.

Trend in NAEP mathematics average scores for fourth-graders in Atlanta and Georgia



* Significantly different ($p < .05$) from 2011.

Trend in NAEP mathematics average scores for fourth-graders in Atlanta, by family income

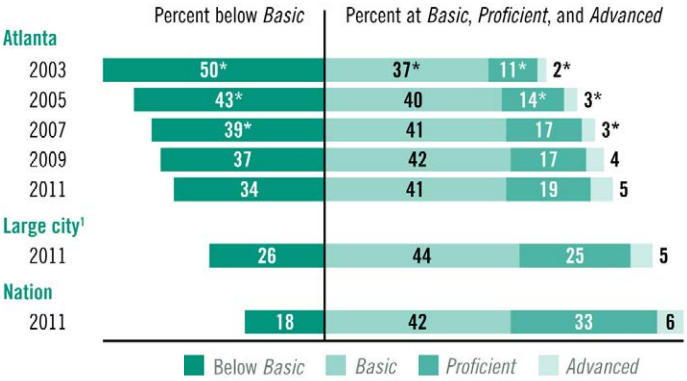


* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Trend in NAEP mathematics average scores for fourth-graders in Atlanta, by race/ethnicity

* Significantly different ($p < .05$) from 2011.
[1] Sample sizes insufficient to permit reliable estimates for Hispanic students in 2003 and 2005.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin.

Trend in NAEP mathematics achievement-level results for fourth-graders in Atlanta



* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.

Atlanta

For Atlanta eighth-graders in 2011,

- the overall score was higher than in 2003 and 2009.
- the average score of 266 was at the 31st percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Georgia.
- a narrowing of the gap compared to 2003 and 2009.

Results for higher- and lower-income students showed

- higher average scores for higher- and lower-income students compared to 2003 and 2009.

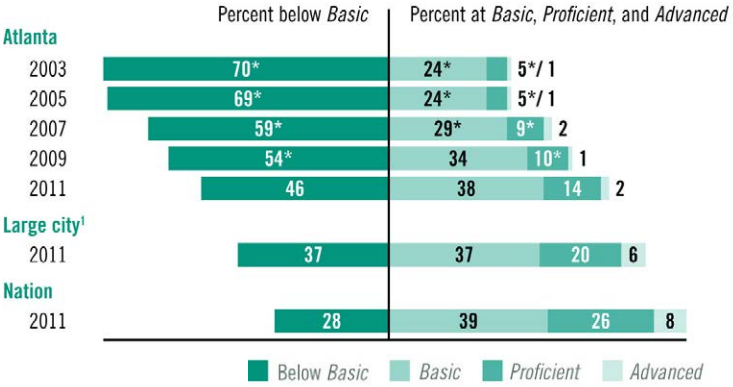
Results for racial/ethnic groups showed

- a higher average score for Black students compared to 2003 and 2009.
- no significant change in the average score for White students compared to 2003.

Achievement-level results showed

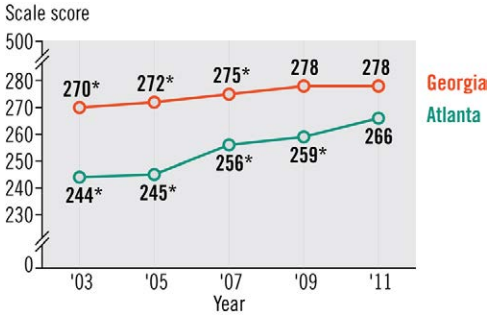
- a higher percentage at or above *Basic* compared to 2003 and 2009.
- a higher percentage at or above *Proficient* compared to 2003 and 2009.

Trend in NAEP mathematics achievement-level results for eighth-graders in Atlanta



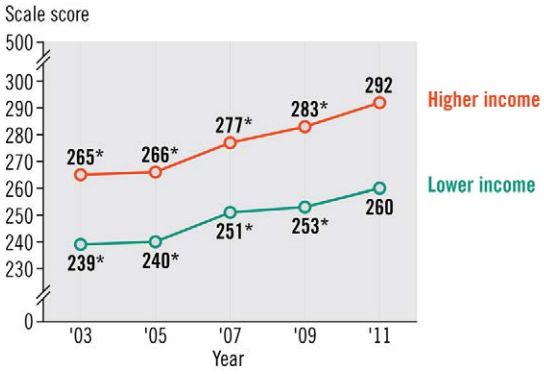
* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

Trend in NAEP mathematics average scores for eighth-graders in Atlanta and Georgia



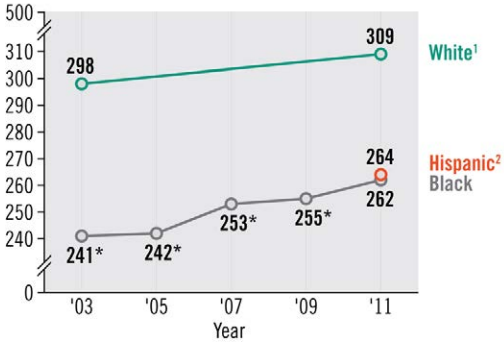
* Significantly different ($p < .05$) from 2011.

Trend in NAEP mathematics average scores for eighth-graders in Atlanta, by family income



* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Trend in NAEP mathematics average scores for eighth-graders in Atlanta, by race/ethnicity

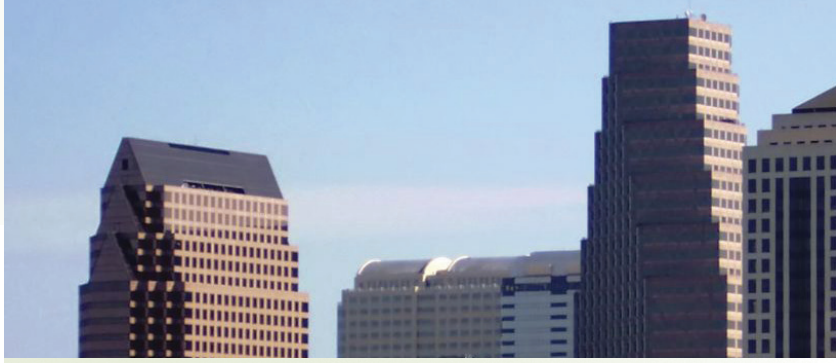


* Significantly different ($p < .05$) from 2011.
[1] Sample sizes insufficient to permit reliable estimates for White students in 2005, 2007, and 2009.
[2] Sample sizes insufficient to permit reliable estimates for Hispanic students in 2003, 2005, 2007, and 2009.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.

GRADE 4

Austin



For Austin fourth-graders in 2011,

- the overall score was higher than in 2005 and 2009.
- the average score of 245 was at the 55th percentile for the nation.

The district-to-state comparison showed

- a higher overall score than for Texas.
- a larger score-point difference compared to 2005 and 2009.

Results for higher- and lower-income students showed

- no significant change in average scores for higher- or lower-income students compared to 2005 but higher average scores compared to 2009.

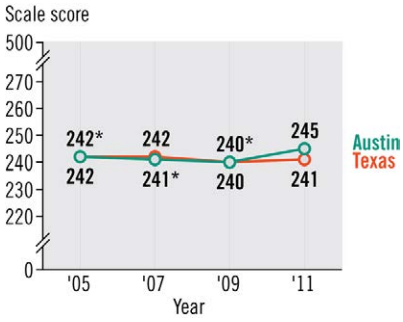
Results for racial/ethnic groups showed

- no significant change in average scores for White, Black, or Hispanic students compared to 2005 or 2009.

Achievement-level results showed

- no significant change in the percentage at or above *Basic* compared to 2005 or 2009.
- a higher percentage at or above *Proficient* compared to 2005 and 2009.

Trend in NAEP mathematics average scores for fourth-graders in Austin and Texas

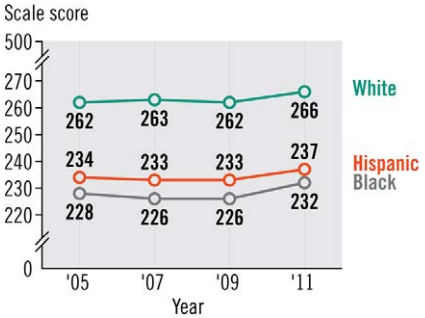


* Significantly different ($p < .05$) from 2011.

Trend in NAEP mathematics average scores for fourth-graders in Austin, by family income

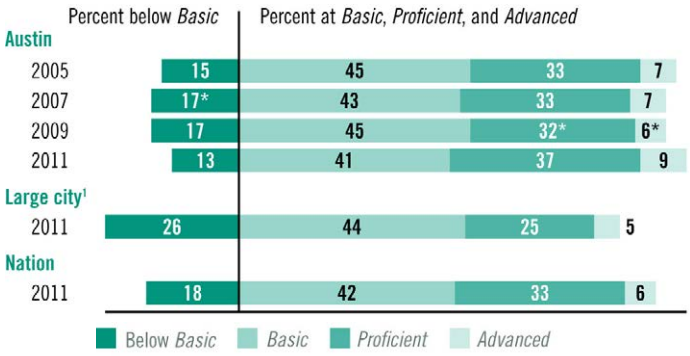
* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Trend in NAEP mathematics average scores for fourth-graders in Austin, by race/ethnicity



NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin.

Trend in NAEP mathematics achievement-level results for fourth-graders in Austin



* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2005-11 Mathematics Assessments.

GRADE 8

Austin

For Austin eighth-graders in 2011,

- the overall score was higher than in 2005 but not significantly different from 2009.
- the average score of 287 was at the 54th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Texas.
- no significant change in the score-point difference compared to 2005 or 2009.

Results for higher- and lower-income students showed

- higher average scores for higher- and lower-income students compared to 2005 but no significant change from 2009.

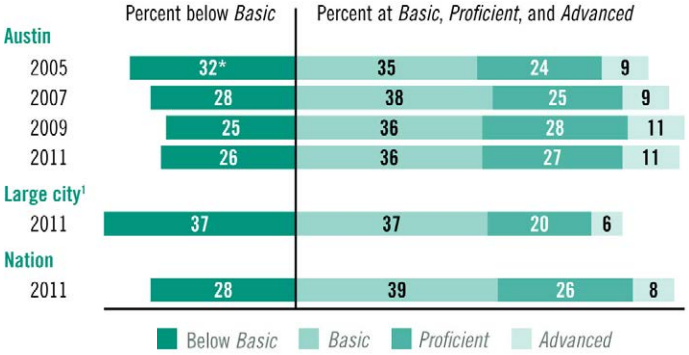
Results for racial/ethnic groups showed

- higher average scores for White and Hispanic students compared to 2005 but no significant change from 2009.
- no significant change in the average score for Black students compared to 2005 or 2009.

Achievement-level results showed

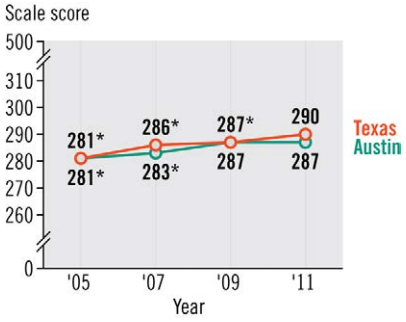
- a higher percentage at or above *Basic* compared to 2005 but no significant change from 2009.
- a higher percentage at or above *Proficient* compared to 2005 but no significant change from 2009.

Trend in NAEP mathematics achievement-level results for eighth-graders in Austin



* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

Trend in NAEP mathematics average scores for eighth-graders in Austin and Texas

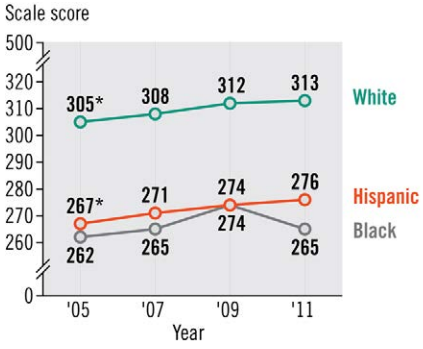


* Significantly different ($p < .05$) from 2011.

Trend in NAEP mathematics average scores for eighth-graders in Austin, by family income

* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Trend in NAEP mathematics average scores for eighth-graders in Austin, by race/ethnicity



* Significantly different ($p < .05$) from 2011.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2005-11 Mathematics Assessments.

GRADE 4

Baltimore City

For Baltimore City fourth-graders in 2011,

- the overall score was higher than in 2009.
- the average score of 226 was at the 29th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Maryland.
- no significant change in the gap compared to 2009.

Results for higher- and lower-income students showed

- higher average scores for higher- and lower-income students compared to 2009.

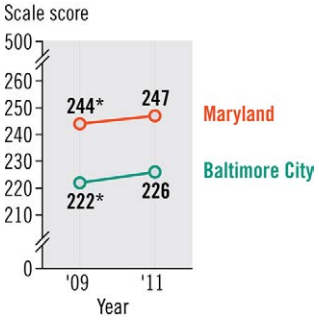
Results for racial/ethnic groups showed

- no significant change in average scores for White or Black students compared to 2009.

Achievement-level results showed

- no significant change in the percentage at or above *Basic* compared to 2009.
- a higher percentage at or above *Proficient* compared to 2009.

Average scores in NAEP mathematics for fourth-graders in Baltimore City and Maryland: 2009 and 2011

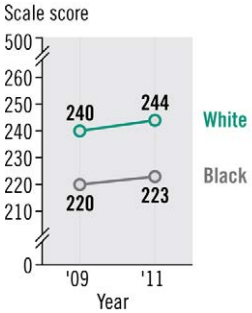


* Significantly different ($p < .05$) from 2011.

Average scores in NAEP mathematics for fourth-graders in Baltimore City, by family income: 2009 and 2011

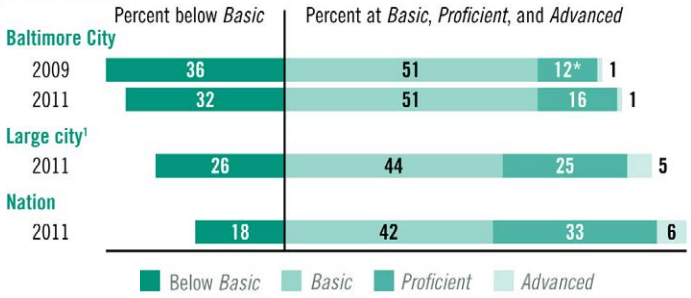
* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Average scores in NAEP mathematics for fourth-graders in Baltimore City, by race/ethnicity: 2009 and 2011



NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American. Race categories exclude Hispanic origin.

Achievement-level results in NAEP mathematics for fourth-graders in Baltimore City: 2009 and 2011



* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 and 2011 Mathematics Assessments.

GRADE 8

Baltimore City

For Baltimore City eighth-graders in 2011,

- the overall score was not significantly different from 2009.
- the average score of 261 was at the 27th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Maryland.
- no significant change in the gap compared to 2009.

Results for higher- and lower-income students showed

- a higher average score for higher-income students compared to 2009.
- no significant change in the average score for lower-income students compared to 2009.

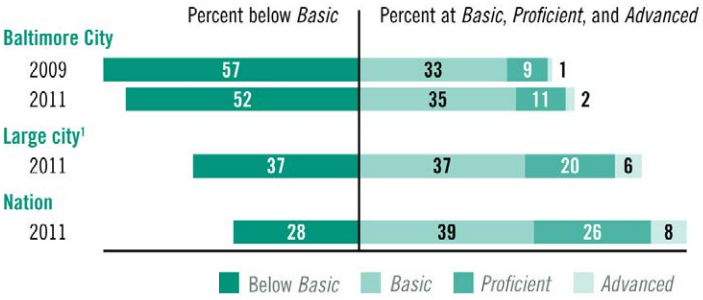
Results for racial/ethnic groups showed

- no significant change in the average score for Black students compared to 2009.

Achievement-level results showed

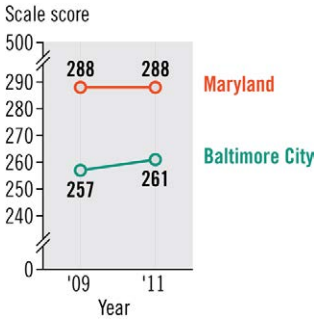
- no significant change in the percentage at or above *Basic* compared to 2009.
- no significant change in the percentage at or above *Proficient* compared to 2009.

Achievement-level results in NAEP mathematics for eighth-graders in Baltimore City: 2009 and 2011

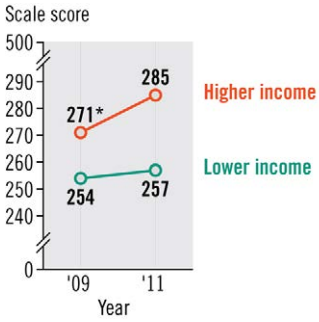


[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

Average scores in NAEP mathematics for eighth-graders in Baltimore City and Maryland: 2009 and 2011

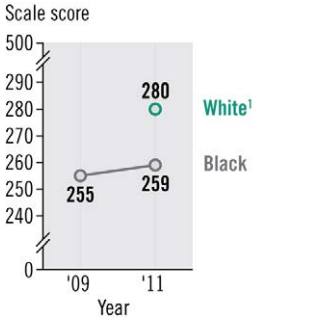


Average scores in NAEP mathematics for eighth-graders in Baltimore City, by family income: 2009 and 2011



* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Average scores in NAEP mathematics for eighth-graders in Baltimore City, by race/ethnicity: 2009 and 2011



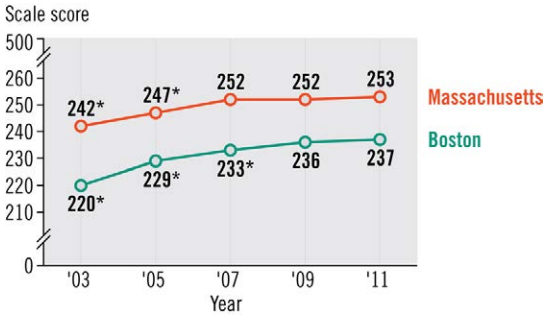
[1] Sample size insufficient to permit a reliable estimate for White students in 2009.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American. Race categories exclude Hispanic origin.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 and 2011 Mathematics Assessments.

GRADE 4

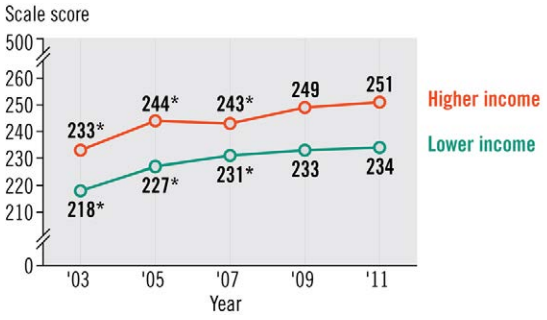
Boston

Trend in NAEP mathematics average scores for fourth-graders in Boston and Massachusetts



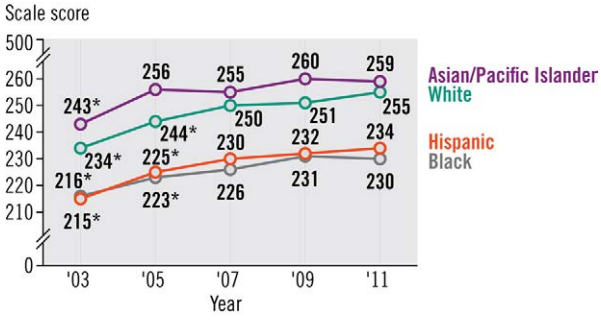
* Significantly different ($p < .05$) from 2011.

Trend in NAEP mathematics average scores for fourth-graders in Boston, by family income



* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Trend in NAEP mathematics average scores for fourth-graders in Boston, by race/ethnicity



* Significantly different ($p < .05$) from 2011.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

For Boston fourth-graders in 2011,

- the overall score was higher than in 2003 but not significantly different from 2009.
- the average score of 237 was at the 44th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Massachusetts.
- a narrowing of the gap compared to 2003 but no significant change from 2009.

Results for higher- and lower-income students showed

- higher average scores for higher- and lower-income students compared to 2003 but no significant change from 2009.

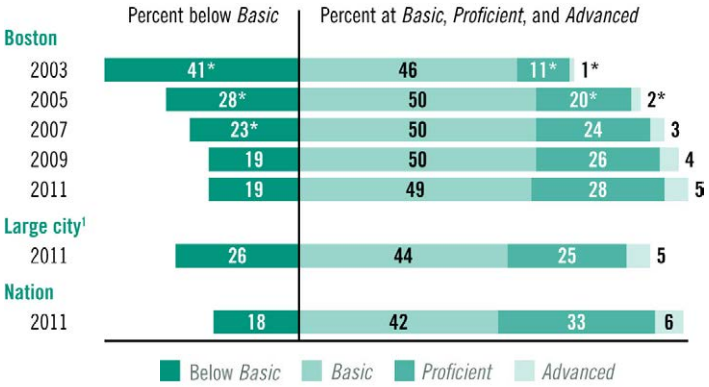
Results for racial/ethnic groups showed

- higher average scores for White, Black, Hispanic, and Asian/Pacific Islander students compared to 2003 but no significant change from 2009.

Achievement-level results showed

- a higher percentage at or above *Basic* compared to 2003 but no significant change from 2009.
- a higher percentage at or above *Proficient* compared to 2003 but no significant change from 2009.

Trend in NAEP mathematics achievement-level results for fourth-graders in Boston



* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.

GRADE 8

Boston

For Boston eighth-graders in 2011,

- the overall score was higher than in 2003 but not significantly different from 2009.
- the average score of 282 was at the 48th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Massachusetts.
- a narrowing of the gap compared to 2003 but no significant change from 2009.

Results for higher- and lower-income students showed

- higher average scores for higher- and lower-income students compared to 2003 but no significant change from 2009.

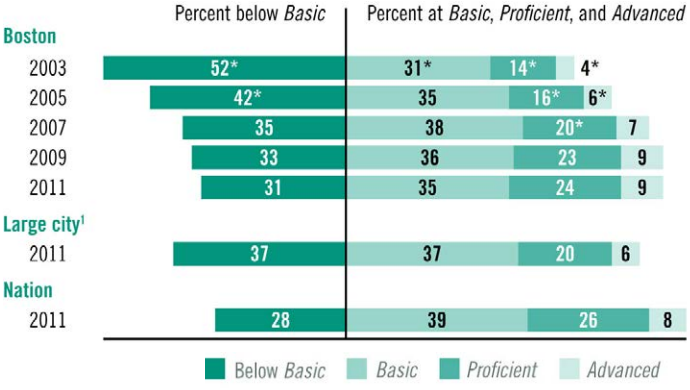
Results for racial/ethnic groups showed

- higher average scores for White, Black, Hispanic, and Asian/Pacific Islander students compared to 2003 but no significant change from 2009.

Achievement-level results showed

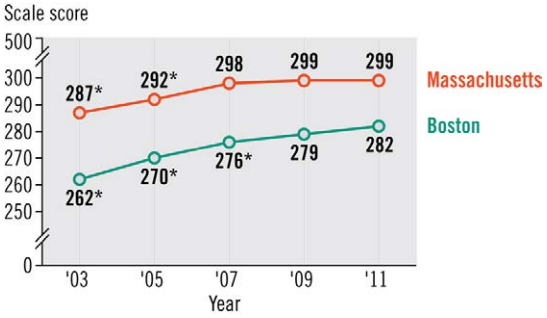
- a higher percentage at or above *Basic* compared to 2003 but no significant change from 2009.
- a higher percentage at or above *Proficient* compared to 2003 but no significant change from 2009.

Trend in NAEP mathematics achievement-level results for eighth-graders in Boston



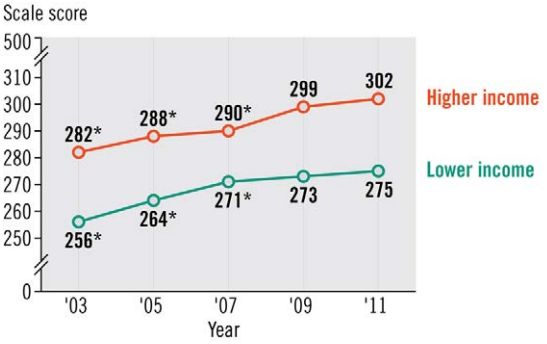
* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

Trend in NAEP mathematics average scores for eighth-graders in Boston and Massachusetts



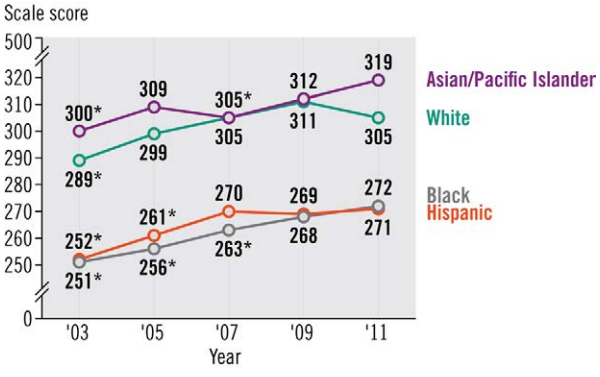
* Significantly different ($p < .05$) from 2011.

Trend in NAEP mathematics average scores for eighth-graders in Boston, by family income



* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Trend in NAEP mathematics average scores for eighth-graders in Boston, by race/ethnicity



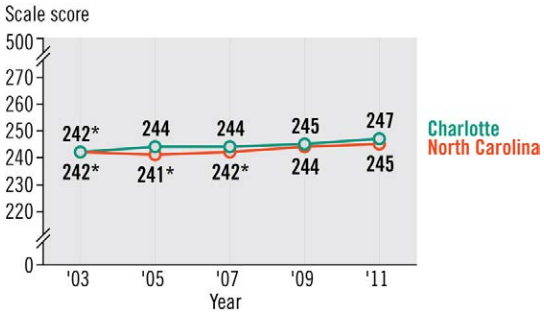
* Significantly different ($p < .05$) from 2011.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.

GRADE 4

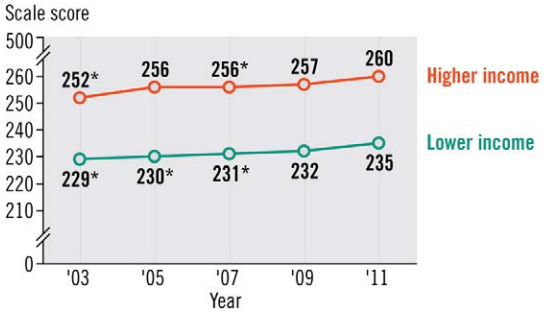
Charlotte

Trend in NAEP mathematics average scores for fourth-graders in Charlotte and North Carolina



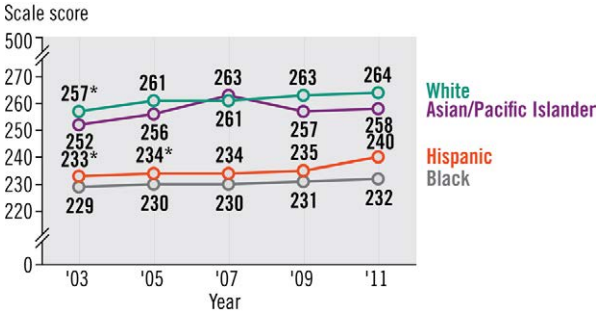
* Significantly different ($p < .05$) from 2011.

Trend in NAEP mathematics average scores for fourth-graders in Charlotte, by family income



* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Trend in NAEP mathematics average scores for fourth-graders in Charlotte, by race/ethnicity



* Significantly different ($p < .05$) from 2011.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

For Charlotte fourth-graders in 2011,

- the overall score was higher than in 2003 but not significantly different from 2009.
- the average score of 247 was at the 57th percentile for the nation.

The district-to-state comparison showed

- no significant difference from the overall score for North Carolina.
- no significant change in the score-point difference compared to 2003 or 2009.

Results for higher- and lower-income students showed

- higher average scores for higher- and lower-income students compared to 2003 but no significant change from 2009.

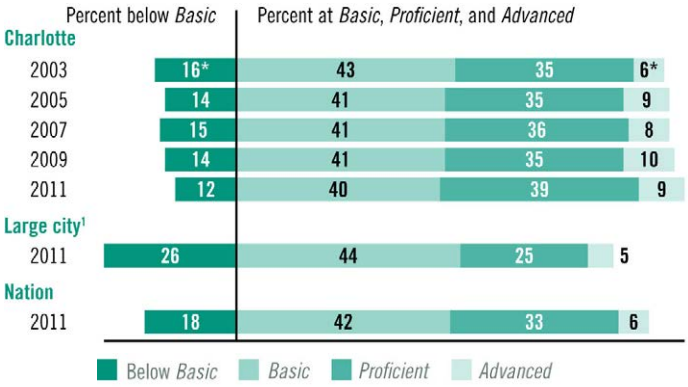
Results for racial/ethnic groups showed

- higher average scores for White and Hispanic students compared to 2003 but no significant change from 2009.
- no significant change in average scores for Black or Asian/Pacific Islander students compared to 2003 or 2009.

Achievement-level results showed

- a higher percentage at or above *Basic* compared to 2003 but no significant change from 2009.
- a higher percentage at or above *Proficient* compared to 2003 but no significant change from 2009.

Trend in NAEP mathematics achievement-level results for fourth-graders in Charlotte



* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.

GRADE 8

Charlotte

For Charlotte eighth-graders in 2011,

- the overall score was higher than in 2003 and 2009.
- the average score of 285 was at the 52nd percentile for the nation.

The district-to-state comparison showed

- no significant difference from the overall score for North Carolina.
- no significant change in the score-point difference compared to 2003 or 2009.

Results for higher- and lower-income students showed

- a higher average score for higher-income students compared to 2003 and 2009.
- a higher average score for lower-income students compared to 2003 but no significant change from 2009.

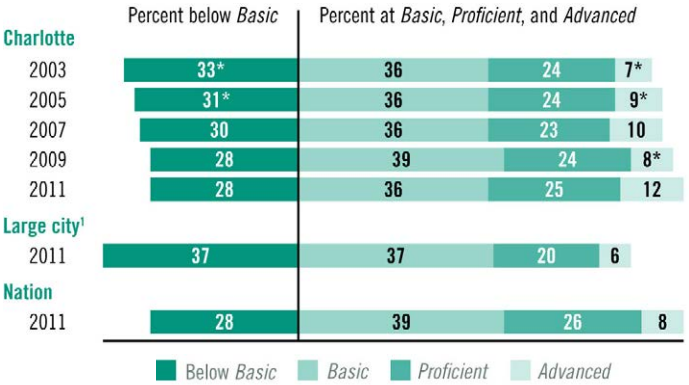
Results for racial/ethnic groups showed

- a higher average score for White students compared to 2003 and 2009.
- a higher average score for Black students compared to 2003 but no significant change from 2009.
- no significant change in average scores for Hispanic or Asian/Pacific Islander students compared to 2003, or for Hispanic students from 2009.

Achievement-level results showed

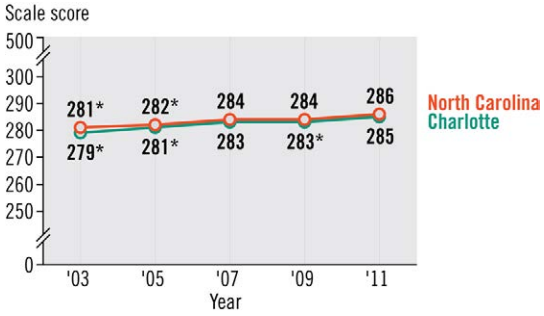
- a higher percentage at or above *Basic* compared to 2003 but no significant change from 2009.
- a higher percentage at or above *Proficient* compared to 2003 and 2009.

Trend in NAEP mathematics achievement-level results for eighth-graders in Charlotte



* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

Trend in NAEP mathematics average scores for eighth-graders in Charlotte and North Carolina

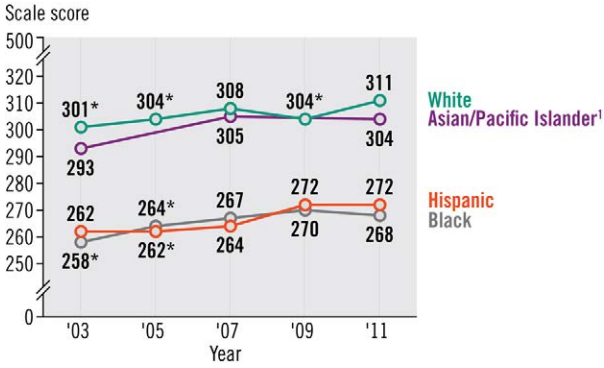


* Significantly different ($p < .05$) from 2011.

Trend in NAEP mathematics average scores for eighth-graders in Charlotte, by family income

* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Trend in NAEP mathematics average scores for eighth-graders in Charlotte, by race/ethnicity



* Significantly different ($p < .05$) from 2011.
[1] Sample sizes insufficient to permit reliable estimates for Asian/Pacific Islander students in 2005 and 2009.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.

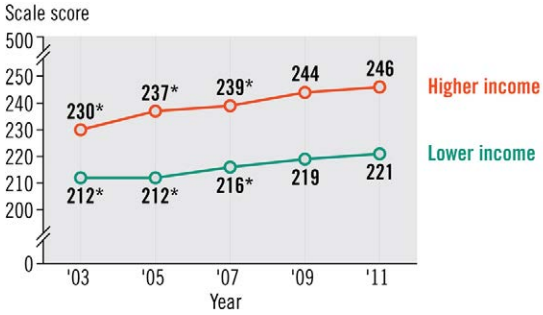
GRADE 4

Chicago

Trend in NAEP mathematics average scores for fourth-graders in Chicago and Illinois

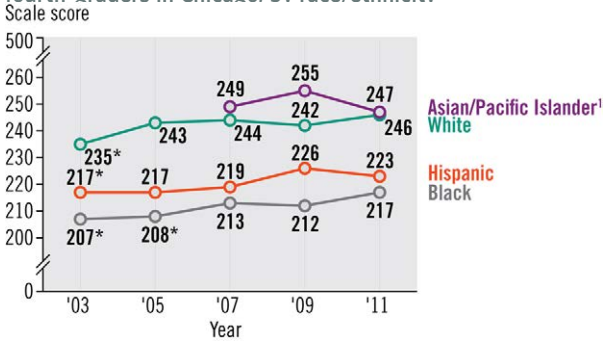
* Significantly different ($p < .05$) from 2011.

Trend in NAEP mathematics average scores for fourth-graders in Chicago, by family income



* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Trend in NAEP mathematics average scores for fourth-graders in Chicago, by race/ethnicity



* Significantly different ($p < .05$) from 2011.
[1] Sample sizes insufficient to permit reliable estimates for Asian/Pacific Islander students in 2003 and 2005.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

For Chicago fourth-graders in 2011,

- the overall score was higher than in 2003 but not significantly different from 2009.
- the average score of 224 was at the 27th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Illinois.
- a narrowing of the gap compared to 2003 but no significant change from 2009.

Results for higher- and lower-income students showed

- higher average scores for higher- and lower-income students compared to 2003 but no significant change from 2009.

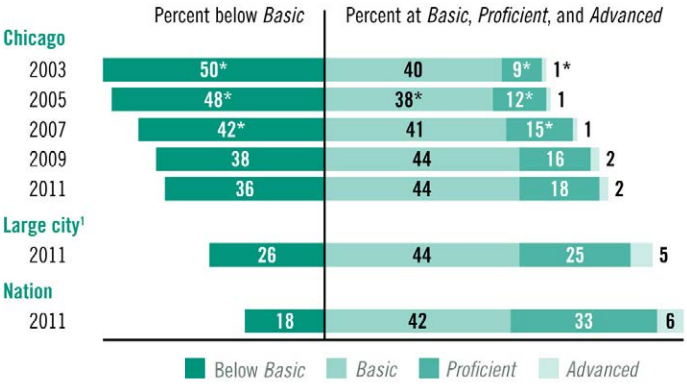
Results for racial/ethnic groups showed

- higher average scores for White, Black, and Hispanic students compared to 2003 but no significant change from 2009.
- no significant change in the average score for Asian/Pacific Islander students compared to 2009.

Achievement-level results showed

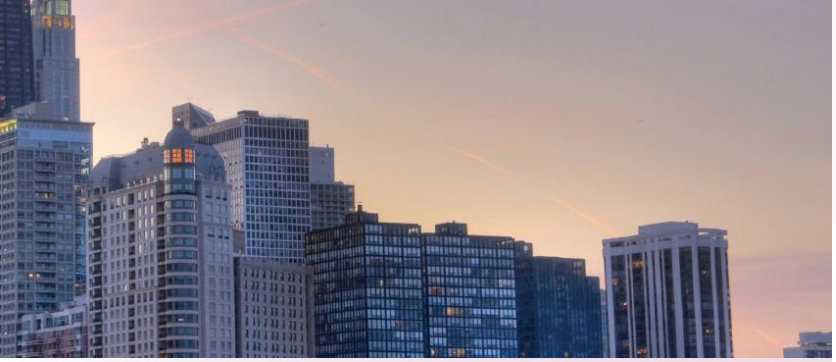
- a higher percentage at or above *Basic* compared to 2003 but no significant change from 2009.
- a higher percentage at or above *Proficient* compared to 2003 but no significant change from 2009.

Trend in NAEP mathematics achievement-level results for fourth-graders in Chicago



* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.



GRADE 8

Chicago

For Chicago eighth-graders in 2011,

- the overall score was higher than in 2003 and 2009.
- the average score of 270 was at the 36th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Illinois.
- a narrowing of the gap compared to 2003 and 2009.

Results for higher- and lower-income students showed

- no significant change in the average score for higher-income students compared to 2003 or 2009.
- a higher average score for lower-income students compared to 2003 and 2009.

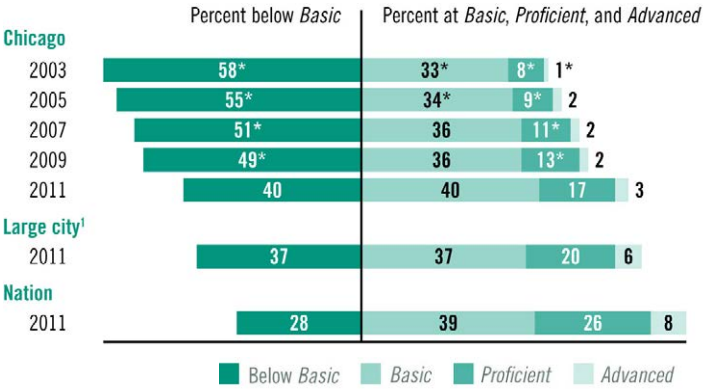
Results for racial/ethnic groups showed

- a higher average score for Black students compared to 2003 and 2009.
- higher average scores for White and Hispanic students compared to 2003 but no significant change from 2009.
- no significant change in the average score for Asian/Pacific Islander students compared to 2003 or 2009.

Achievement-level results showed

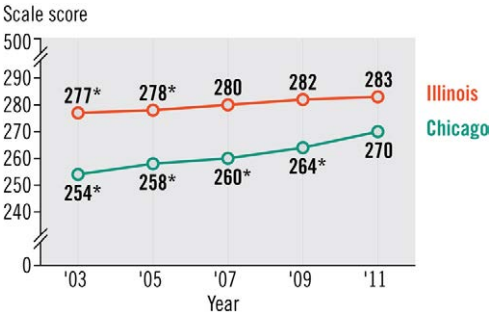
- a higher percentage at or above *Basic* compared to 2003 and 2009.
- a higher percentage at or above *Proficient* compared to 2003 and 2009.

Trend in NAEP mathematics achievement-level results for eighth-graders in Chicago



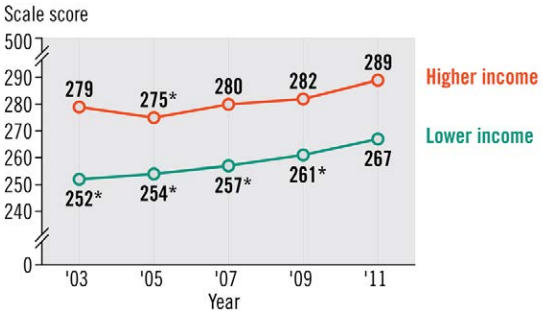
* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

Trend in NAEP mathematics average scores for eighth-graders in Chicago and Illinois



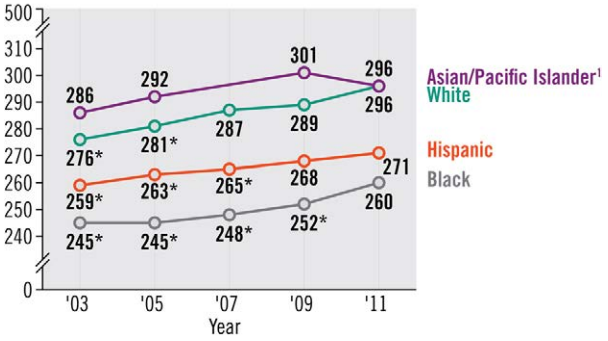
* Significantly different ($p < .05$) from 2011.

Trend in NAEP mathematics average scores for eighth-graders in Chicago, by family income



* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Trend in NAEP mathematics average scores for eighth-graders in Chicago, by race/ethnicity



* Significantly different ($p < .05$) from 2011.
[1] Sample size insufficient to permit a reliable estimate for Asian/Pacific Islander students in 2007.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.

GRADE 4

Cleveland

For Cleveland fourth-graders in 2011,

- the overall score was not significantly different from 2003 or 2009.
- the average score of 216 was at the 20th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Ohio.
- a widening of the gap compared to 2003 but no significant change from 2009.

Results for higher- and lower-income students showed

- no significant change in the average score for lower-income students compared to 2003 or 2009.

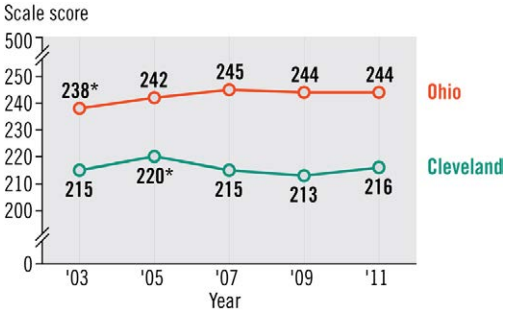
Results for racial/ethnic groups showed

- no significant change in average scores for White, Black, or Hispanic students compared to 2003 or 2009.

Achievement-level results showed

- no significant change in the percentage at or above *Basic* compared to 2003 or 2009.
- no significant change in the percentage at or above *Proficient* compared to 2003 or 2009.

Trend in NAEP mathematics average scores for fourth-graders in Cleveland and Ohio

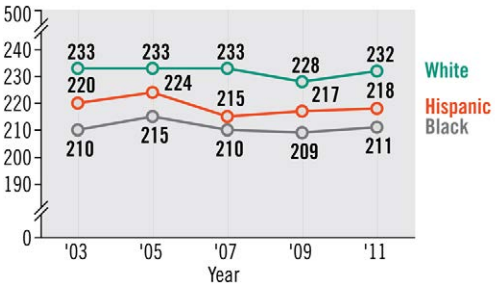


* Significantly different ($p < .05$) from 2011.

Trend in NAEP mathematics average scores for fourth-graders in Cleveland, by family income

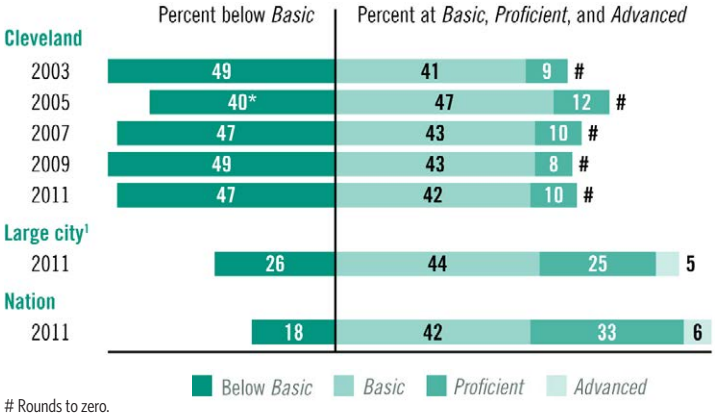
* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). In Cleveland, all students were categorized as eligible for NSLP.

Trend in NAEP mathematics average scores for fourth-graders in Cleveland, by race/ethnicity



NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin.

Trend in NAEP mathematics achievement-level results for fourth-graders in Cleveland



\# Rounds to zero.
* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.

GRADE 8

Cleveland

For Cleveland eighth-graders in 2011,

- the overall score was not significantly different from 2003 or 2009.
- the average score of 256 was at the 23rd percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Ohio.
- no significant change in the gap compared to 2003 or 2009.

Results for higher- and lower-income students showed

- no significant change in the average score for lower-income students compared to 2003 or 2009.

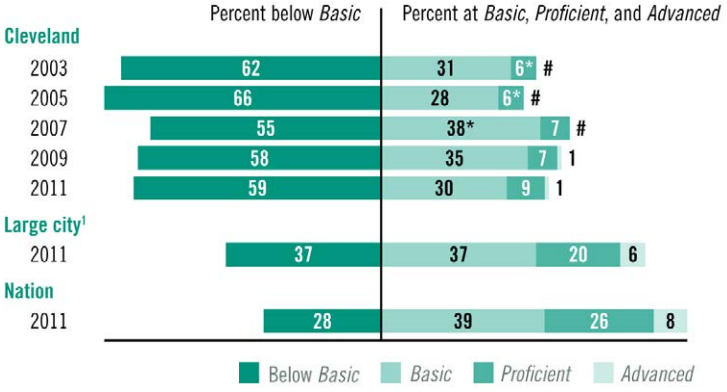
Results for racial/ethnic groups showed

- no significant change in average scores for White, Black, or Hispanic students compared to 2003 or 2009.

Achievement-level results showed

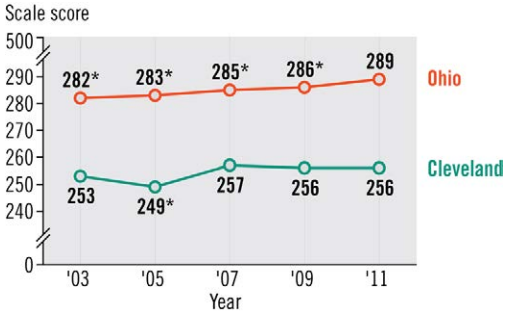
- no significant change in the percentage at or above *Basic* compared to 2003 or 2009.
- a higher percentage at or above *Proficient* compared to 2003 but no significant change from 2009.

Trend in NAEP mathematics achievement-level results for eighth-graders in Cleveland



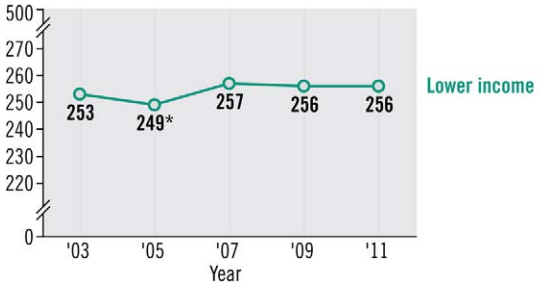
Rounds to zero.
* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

Trend in NAEP mathematics average scores for eighth-graders in Cleveland and Ohio



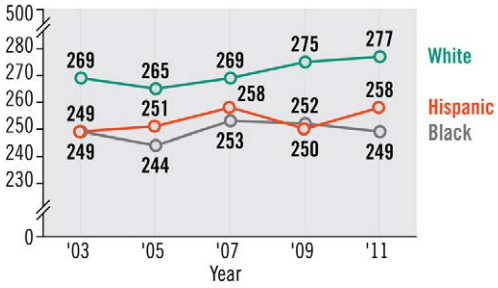
* Significantly different ($p < .05$) from 2011.

Trend in NAEP mathematics average scores for eighth-graders in Cleveland, by family income



* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). In Cleveland, all students were categorized as eligible for NSLP.

Trend in NAEP mathematics average scores for eighth-graders in Cleveland, by race/ethnicity



NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.

GRADE 4

Dallas

For Dallas fourth-graders in 2011,

- the overall average score was 233.
- the average score of 233 was at the 38th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Texas.

Results for higher- and lower-income students showed

- a 19-point score gap between higher- and lower-income students.

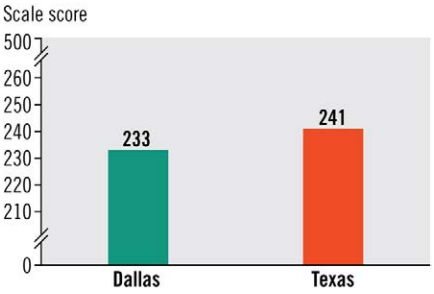
Results for racial/ethnic groups showed

- a White – Black score gap of 33 points.
- a White – Hispanic score gap of 24 points.

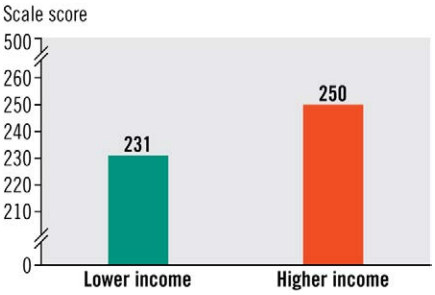
Achievement-level results showed

- a higher percentage at or above *Basic* compared to large cities.
- no significant difference in the percentage at or above *Proficient* compared to large cities.

Average scores in NAEP mathematics for fourth-graders in Dallas and Texas: 2011

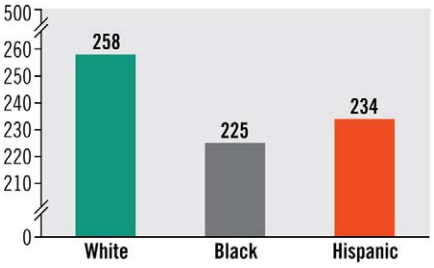


Average scores in NAEP mathematics for fourth-graders in Dallas, by family income: 2011



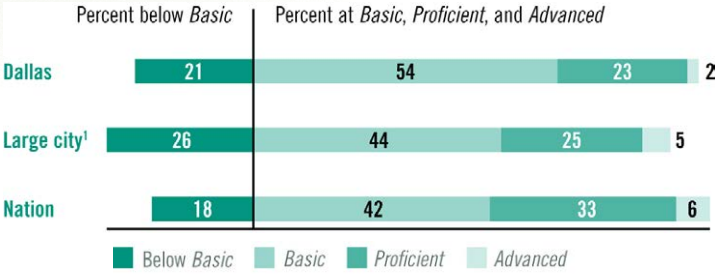
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Average scores in NAEP mathematics for fourth-graders in Dallas, by race/ethnicity: 2011



NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin.

Achievement-level results in NAEP mathematics for fourth-graders in Dallas: 2011



[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

GRADE 8

Dallas

For Dallas eighth-graders in 2011,

- the overall average score was 274.
- the average score of 274 was at the 40th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Texas.

Results for higher- and lower-income students showed

- a 14-point score gap between higher- and lower-income students.

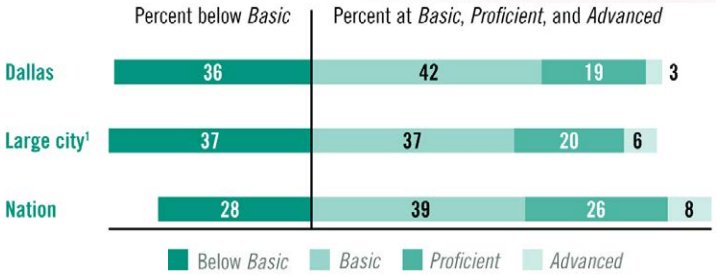
Results for racial/ethnic groups showed

- a White – Black score gap of 42 points.
- a White – Hispanic score gap of 30 points.

Achievement-level results showed

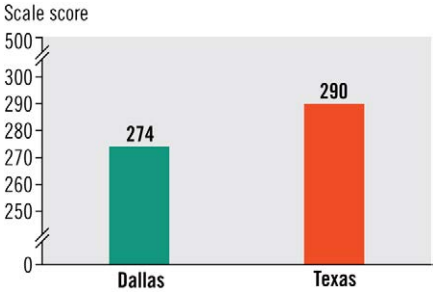
- no significant difference in the percentage at or above *Basic* compared to large cities.
- a lower percentage at or above *Proficient* compared to large cities.

Achievement-level results in NAEP mathematics for eighth-graders in Dallas: 2011

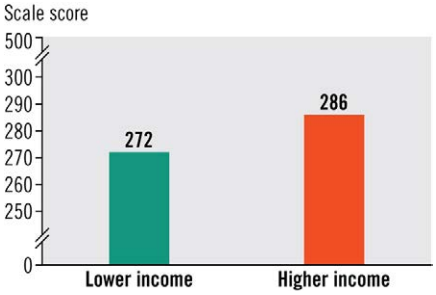


[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

Average scores in NAEP mathematics for eighth-graders in Dallas and Texas: 2011

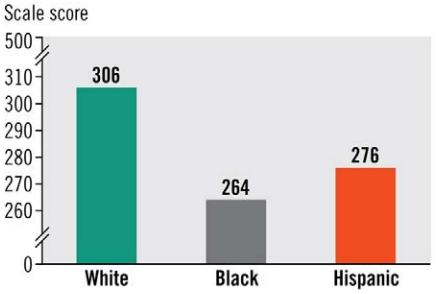


Average scores in NAEP mathematics for eighth-graders in Dallas, by family income: 2011



NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Average scores in NAEP mathematics for eighth-graders in Dallas, by race/ethnicity: 2011



NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

GRADE 4

Detroit

For Detroit fourth-graders in 2011,

- the overall score was not significantly different from 2009.
- the average score of 203 was at the 11th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Michigan.
- no significant change in the gap compared to 2009.

Results for higher- and lower-income students showed

- no significant change in average scores for higher- or lower-income students compared to 2009.

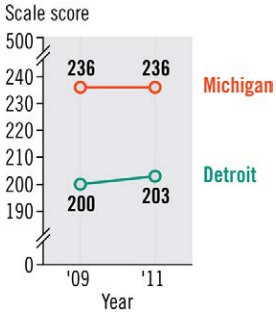
Results for racial/ethnic groups showed

- no significant change in average scores for Black or Hispanic students compared to 2009.

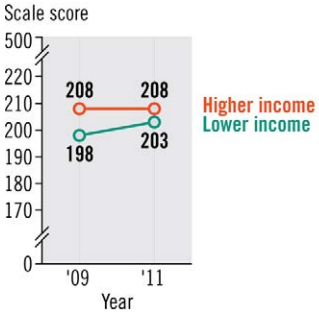
Achievement-level results showed

- no significant change in the percentage at or above *Basic* compared to 2009.
- no significant change in the percentage at or above *Proficient* compared to 2009.

Average scores in NAEP mathematics for fourth-graders in Detroit and Michigan: 2009 and 2011

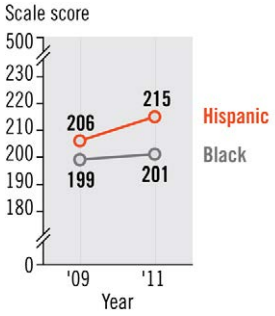


Average scores in NAEP mathematics for fourth-graders in Detroit, by family income: 2009 and 2011



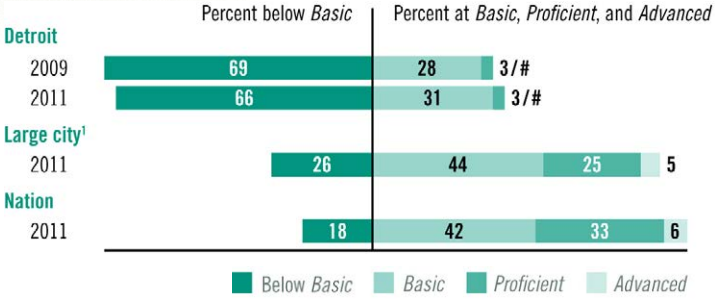
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Average scores in NAEP mathematics for fourth-graders in Detroit, by race/ethnicity: 2009 and 2011



NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American and excludes students of Hispanic origin. Hispanic includes Latino.

Achievement-level results in NAEP mathematics for fourth-graders in Detroit: 2009 and 2011



Rounds to zero.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 and 2011 Mathematics Assessments.

GRADE 8

Detroit

For Detroit eighth-graders in 2011,

- the overall score was higher than in 2009.
- the average score of 246 was at the 16th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Michigan.
- no significant change in the gap compared to 2009.

Results for higher- and lower-income students showed

- no significant change in the average score for higher-income students compared to 2009.
- a higher average score for lower-income students compared to 2009.

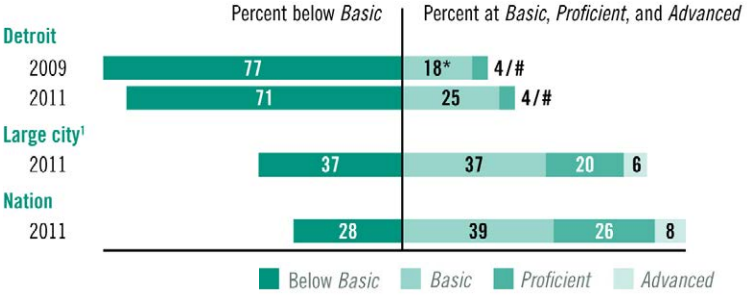
Results for racial/ethnic groups showed

- no significant change in average scores for Black or Hispanic students compared to 2009.

Achievement-level results showed

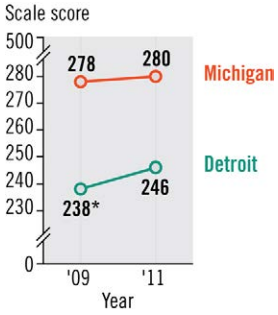
- no significant change in the percentage at or above *Basic* compared to 2009.
- no significant change in the percentage at or above *Proficient* compared to 2009.

Achievement-level results in NAEP mathematics for eighth-graders in Detroit: 2009 and 2011



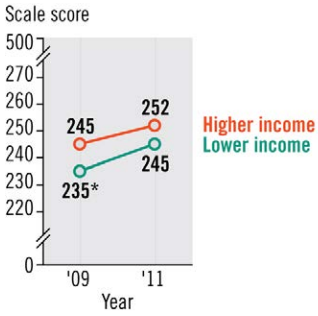
Rounds to zero.
* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

Average scores in NAEP mathematics for eighth-graders in Detroit and Michigan: 2009 and 2011



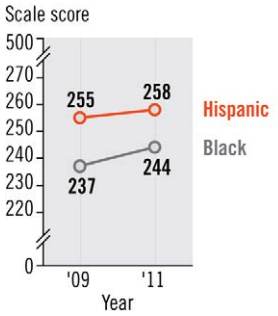
* Significantly different ($p < .05$) from 2011.

Average scores in NAEP mathematics for eighth-graders in Detroit, by family income: 2009 and 2011



* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Average scores in NAEP mathematics for eighth-graders in Detroit, by race/ethnicity: 2009 and 2011



* Significantly different ($p < .05$) from 2011.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American and excludes students of Hispanic origin. Hispanic includes Latino.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 and 2011 Mathematics Assessments.

GRADE 4

District of Columbia (DCPS)

See the note at the bottom of the page regarding student samples for the District of Columbia.

For District of Columbia (DCPS) fourth-graders in 2011,

- the overall score was higher than in 2003 but not significantly different from 2009.
- the average score of 222 was at the 25th percentile for the nation.

Results for higher- and lower-income students showed

- higher average scores for higher- and lower-income students compared to 2003 but no significant change from 2009.

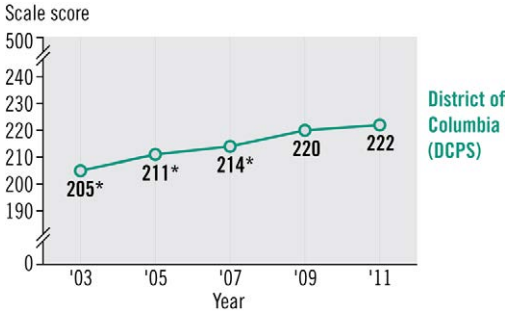
Results for racial/ethnic groups showed

- higher average scores for White, Black, and Hispanic students compared to 2003 but no significant change from 2009.

Achievement-level results showed

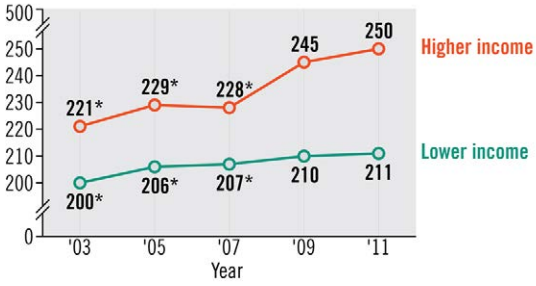
- a higher percentage at or above *Basic* compared to 2003 but no significant change from 2009.
- a higher percentage at or above *Proficient* compared to 2003 and 2009.

Trend in NAEP mathematics average scores for fourth-graders in the District of Columbia (DCPS)



* Significantly different ($p < .05$) from 2011.
NOTE: DCPS = District of Columbia Public Schools.

Trend in NAEP mathematics average scores for fourth-graders in the District of Columbia (DCPS), by family income

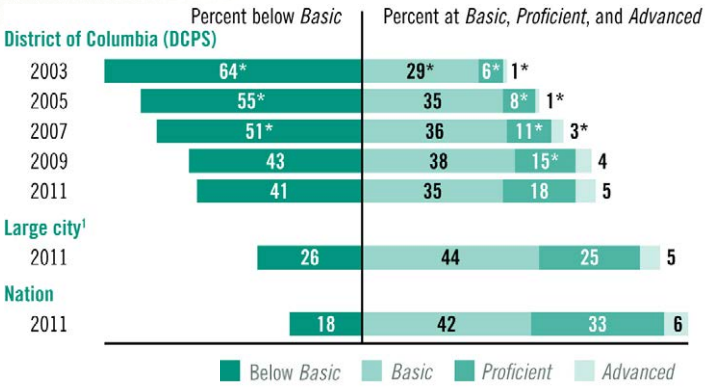


* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.
DCPS = District of Columbia Public Schools.

Trend in NAEP mathematics average scores for fourth-graders in the District of Columbia (DCPS), by race/ethnicity

* Significantly different ($p < .05$) from 2011.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin. DCPS = District of Columbia Public Schools.

Trend in NAEP mathematics achievement-level results for fourth-graders in the District of Columbia (DCPS)



* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.
DCPS = District of Columbia Public Schools.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. For the District of Columbia, beginning in 2009, TUDA results for DCPS do not include charter school results due to a change in the education governance structure for the District of Columbia.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003–11 Mathematics Assessments.

GRADE 8

District of Columbia (DCPS)

See the note at the bottom of the page regarding student samples for the District of Columbia.

For District of Columbia (DCPS) eighth-graders in 2011,

- the overall score was higher than in 2003 and 2009.
- the average score of 255 was at the 22nd percentile for the nation.

Results for higher- and lower-income students showed

- higher average scores for higher- and lower-income students compared to 2003 but no significant change from 2009.

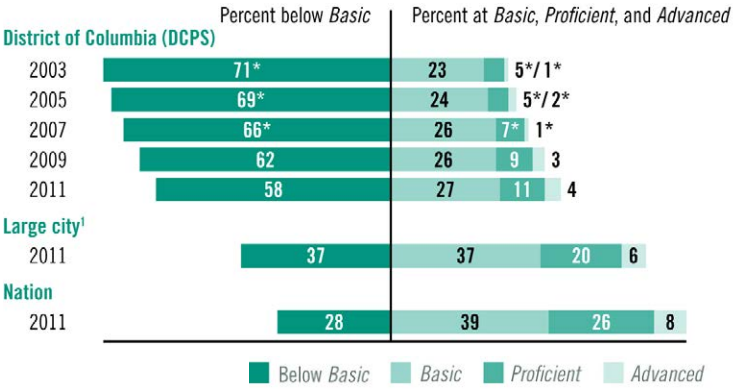
Results for racial/ethnic groups showed

- no significant change in the average score for White students compared to 2005.
- a higher average score for Black students compared to 2003 and 2009.
- no significant change in the average score for Hispanic students compared to 2003 or 2009.

Achievement-level results showed

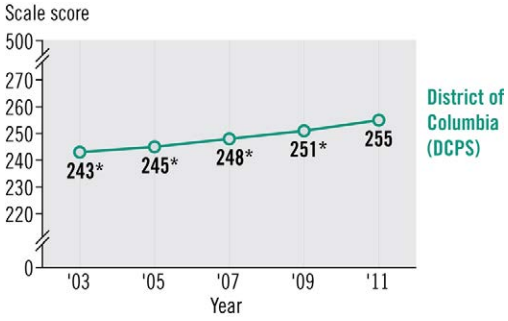
- a higher percentage at or above *Basic* compared to 2003 but no significant change from 2009.
- a higher percentage at or above *Proficient* compared to 2003 and 2009.

Trend in NAEP mathematics achievement-level results for eighth-graders in the District of Columbia (DCPS)



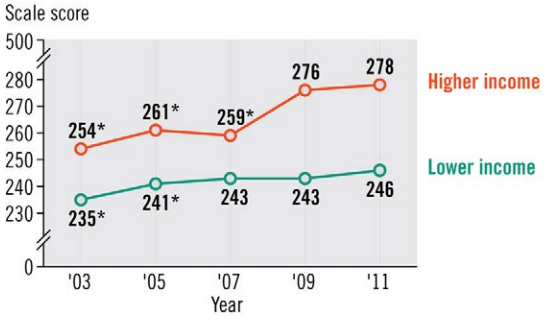
* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.
DCPS = District of Columbia Public Schools.

Trend in NAEP mathematics average scores for eighth-graders in the District of Columbia (DCPS)



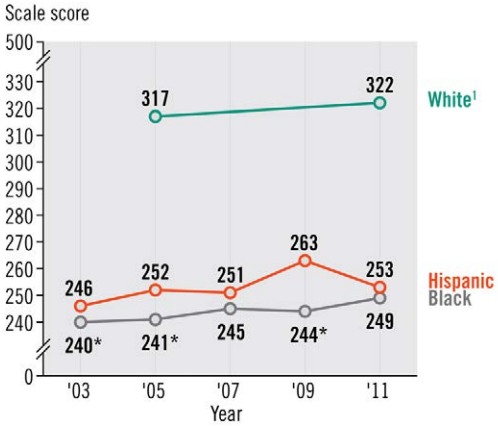
* Significantly different ($p < .05$) from 2011.
NOTE: DCPS = District of Columbia Public Schools.

Trend in NAEP mathematics average scores for eighth-graders in the District of Columbia (DCPS), by family income



* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.
DCPS = District of Columbia Public Schools.

Trend in NAEP mathematics average scores for eighth-graders in the District of Columbia (DCPS), by race/ethnicity



* Significantly different ($p < .05$) from 2011.
[1] Sample sizes insufficient to permit reliable estimates for White students in 2003, 2007, and 2009.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin. DCPS = District of Columbia Public Schools.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. For the District of Columbia, beginning in 2009, TUDA results for DCPS do not include charter school results due to a change in the education governance structure for the District of Columbia.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.

GRADE 4

Fresno

For Fresno fourth-graders in 2011,

- the overall score was not significantly different from 2009.
- the average score of 218 was at the 21st percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for California.
- no significant change in the gap compared to 2009.

Results for higher- and lower-income students showed

- no significant change in average scores for higher- or lower-income students compared to 2009.

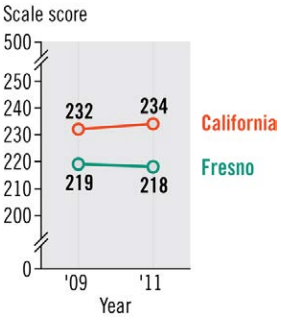
Results for racial/ethnic groups showed

- no significant change in average scores for White, Black, Hispanic, or Asian/Pacific Islander students compared to 2009.

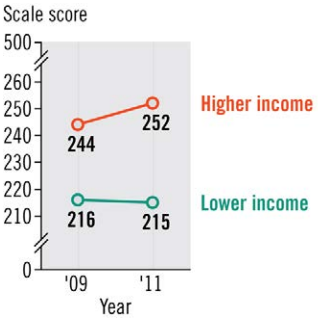
Achievement-level results showed

- no significant change in the percentage at or above *Basic* compared to 2009.
- no significant change in the percentage at or above *Proficient* compared to 2009.

Average scores in NAEP mathematics for fourth-graders in Fresno and California: 2009 and 2011

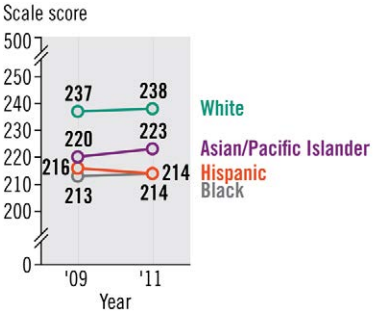


Average scores in NAEP mathematics for fourth-graders in Fresno, by family income: 2009 and 2011



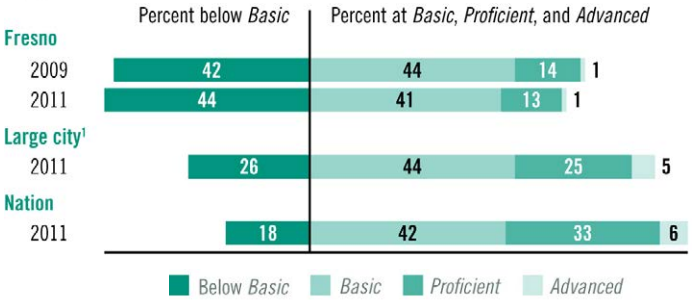
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Average scores in NAEP mathematics for fourth-graders in Fresno, by race/ethnicity: 2009 and 2011



NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

Achievement-level results in NAEP mathematics for fourth-graders in Fresno: 2009 and 2011



[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 and 2011 Mathematics Assessments.

GRADE 8

Fresno

For Fresno eighth-graders in 2011,

- the overall score was not significantly different from 2009.
- the average score of 256 was at the 23rd percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for California.
- a widening of the gap compared to 2009.

Results for higher- and lower-income students showed

- no significant change in average scores for higher- or lower-income students compared to 2009.

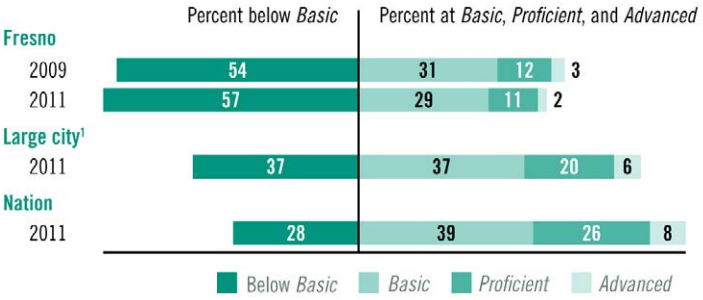
Results for racial/ethnic groups showed

- no significant change in average scores for White, Black, Hispanic, or Asian/Pacific Islander students compared to 2009.

Achievement-level results showed

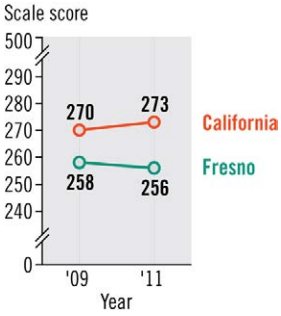
- no significant change in the percentage at or above *Basic* compared to 2009.
- no significant change in the percentage at or above *Proficient* compared to 2009.

Achievement-level results in NAEP mathematics for eighth-graders in Fresno: 2009 and 2011

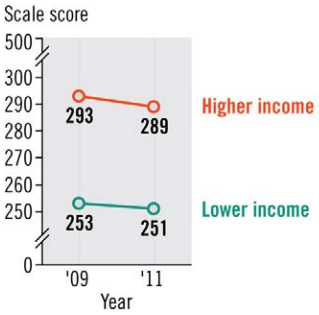


[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

Average scores in NAEP mathematics for eighth-graders in Fresno and California: 2009 and 2011

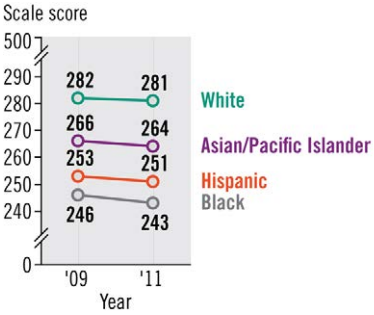


Average scores in NAEP mathematics for eighth-graders in Fresno, by family income: 2009 and 2011



NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Average scores in NAEP mathematics for eighth-graders in Fresno, by race/ethnicity: 2009 and 2011



NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 and 2011 Mathematics Assessments.

GRADE 4

Hillsborough County (FL)

For Hillsborough County (FL) fourth-graders in 2011,

- the overall average score was 243.
- the average score of 243 was at the 52nd percentile for the nation.

The district-to-state comparison showed

- a higher overall score than for Florida.

Results for higher- and lower-income students showed

- a 22-point score gap between higher- and lower-income students.

Results for racial/ethnic groups showed

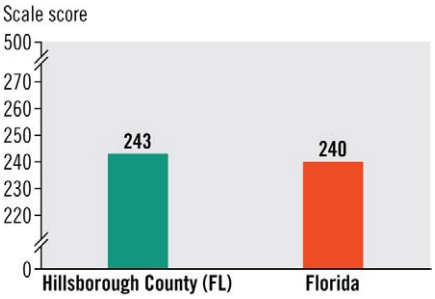
- a White – Black score gap of 26 points.[2]
- a White – Hispanic score gap of 14 points.

Achievement-level results showed

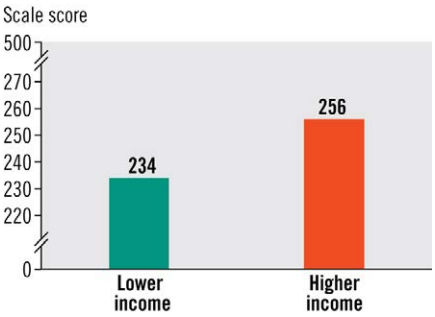
- a higher percentage at or above *Basic* compared to large cities.
- a higher percentage at or above *Proficient* compared to large cities.

[2] The score-point difference is based on the difference between the unrounded scores as opposed to the rounded scores shown in the figure.

Average scores in NAEP mathematics for fourth-graders in Hillsborough County (FL) and Florida: 2011

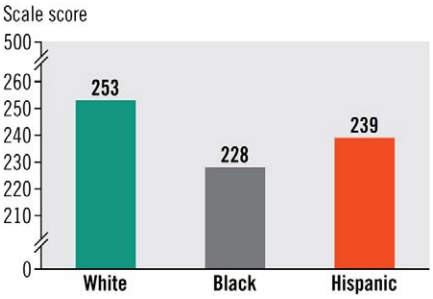


Average scores in NAEP mathematics for fourth-graders in Hillsborough County (FL), by family income: 2011



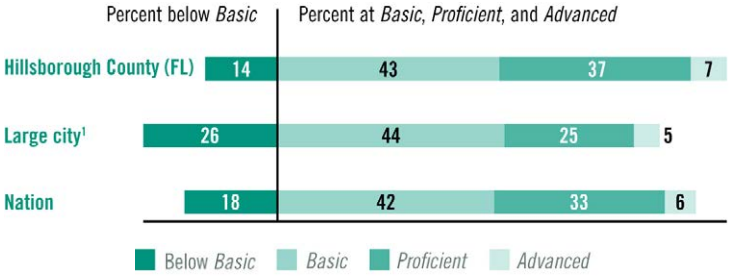
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Average scores in NAEP mathematics for fourth-graders in Hillsborough County (FL), by race/ethnicity: 2011



NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin.

Achievement-level results in NAEP mathematics for fourth-graders in Hillsborough County (FL): 2011



[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

GRADE 8

Hillsborough County (FL)

For Hillsborough County (FL) eighth-graders in 2011,

- the overall average score was 282.
- the average score of 282 was at the 48th percentile for the nation.

The district-to-state comparison showed

- a higher overall score than for Florida.

Results for higher- and lower-income students showed

- a 28-point score gap between higher- and lower-income students.

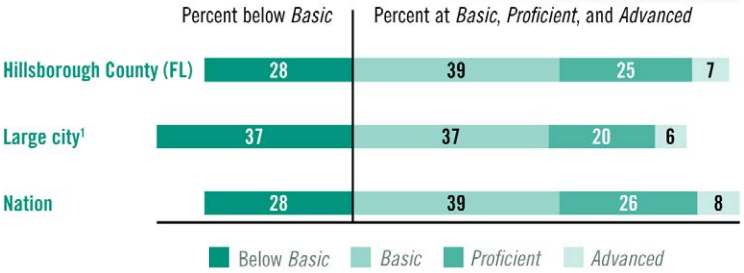
Results for racial/ethnic groups showed

- a White – Black score gap of 30 points.
- a White – Hispanic score gap of 19 points.

Achievement-level results showed

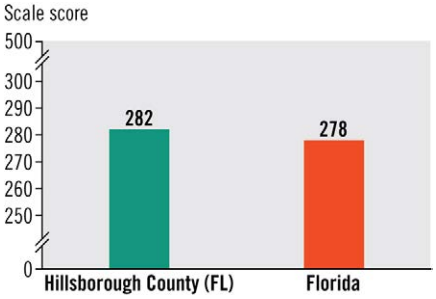
- a higher percentage at or above *Basic* compared to large cities.
- a higher percentage at or above *Proficient* compared to large cities.

Achievement-level results in NAEP mathematics for eighth-graders in Hillsborough County (FL): 2011

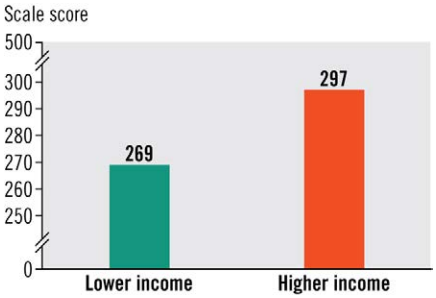


[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

Average scores in NAEP mathematics for eighth-graders in Hillsborough County (FL) and Florida: 2011

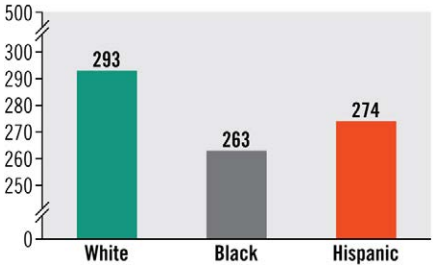


Average scores in NAEP mathematics for eighth-graders in Hillsborough County (FL), by family income: 2011



NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Average scores in NAEP mathematics for eighth-graders in Hillsborough County (FL), by race/ethnicity: 2011



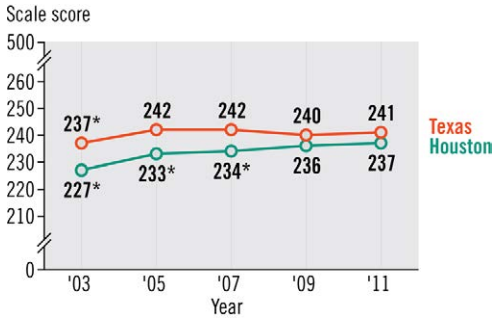
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

GRADE 4

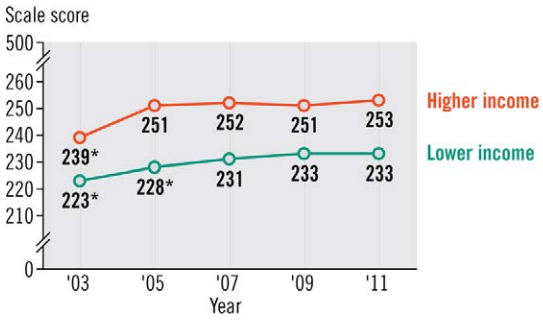
Houston

Trend in NAEP mathematics average scores for fourth-graders in Houston and Texas



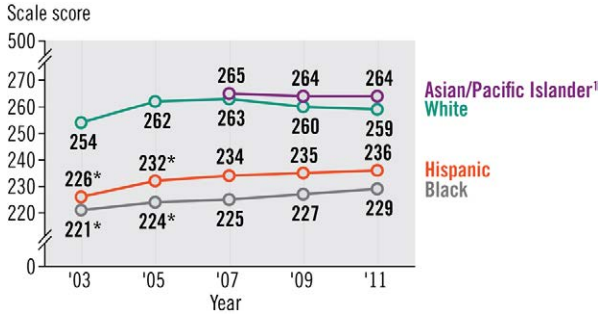
* Significantly different ($p < .05$) from 2011.

Trend in NAEP mathematics average scores for fourth-graders in Houston, by family income



* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Trend in NAEP mathematics average scores for fourth-graders in Houston, by race/ethnicity



* Significantly different ($p < .05$) from 2011.
[1] Sample sizes insufficient to permit reliable estimates for Asian/Pacific Islander students in 2003 and 2005.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

For Houston fourth-graders in 2011,

- the overall score was higher than in 2003 but not significantly different from 2009.
- the average score of 237 was at the 44th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Texas.
- a narrowing of the gap compared to 2003 but no significant change from 2009.

Results for higher- and lower-income students showed

- higher average scores for higher- and lower-income students compared to 2003 but no significant change from 2009.

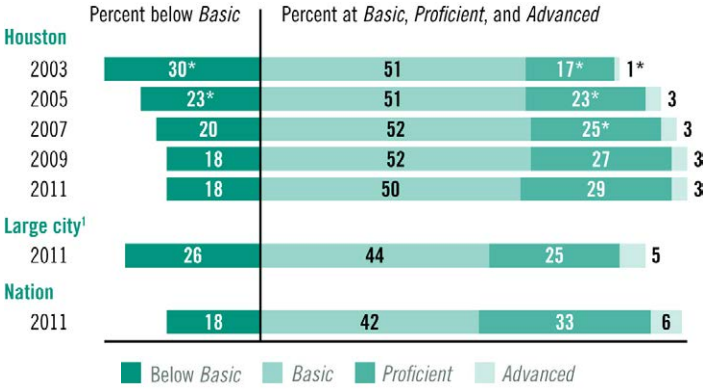
Results for racial/ethnic groups showed

- higher average scores for Black and Hispanic students compared to 2003 but no significant change from 2009.
- no significant change in the average score for White students compared to 2003 or 2009, or for Asian/Pacific Islander students compared to 2009.

Achievement-level results showed

- a higher percentage at or above *Basic* compared to 2003 but no significant change from 2009.
- a higher percentage at or above *Proficient* compared to 2003 but no significant change from 2009.

Trend in NAEP mathematics achievement-level results for fourth-graders in Houston



* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003–11 Mathematics Assessments.

GRADE 8

Houston

For Houston eighth-graders in 2011,

- the overall score was higher than in 2003 but not significantly different from 2009.
- the average score of 279 was at the 45th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Texas.
- no significant change in the gap compared to 2003 or 2009.

Results for higher- and lower-income students showed

- a higher average score for higher-income students compared to 2003 but no significant change from 2009.
- a higher average score for lower-income students compared to 2003 and 2009.

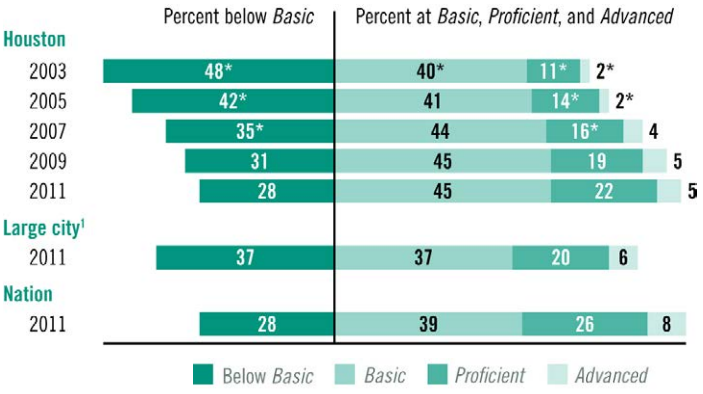
Results for racial/ethnic groups showed

- higher average scores for White, Black, and Hispanic students compared to 2003 but no significant change from 2009.

Achievement-level results showed

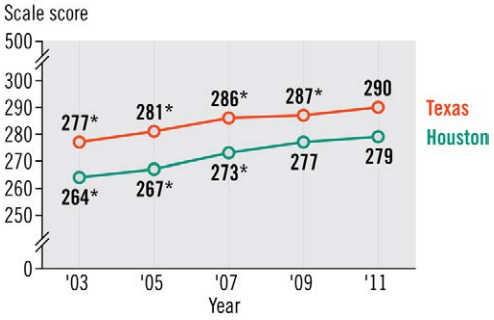
- a higher percentage at or above *Basic* compared to 2003 but no significant change from 2009.
- a higher percentage at or above *Proficient* compared to 2003 but no significant change from 2009.

Trend in NAEP mathematics achievement-level results for eighth-graders in Houston



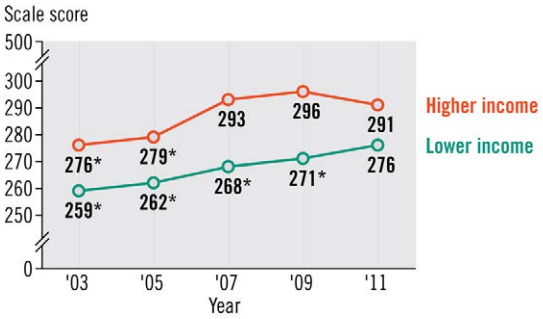
* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

Trend in NAEP mathematics average scores for eighth-graders in Houston and Texas



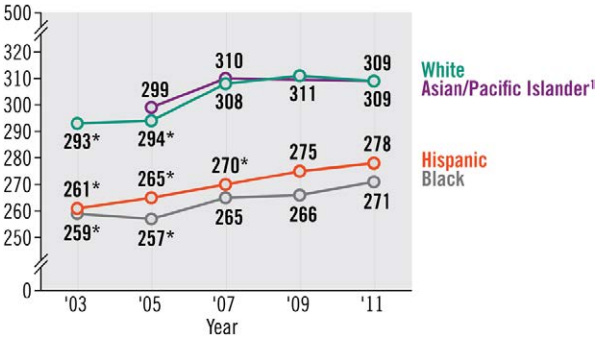
* Significantly different ($p < .05$) from 2011.

Trend in NAEP mathematics average scores for eighth-graders in Houston, by family income



* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Trend in NAEP mathematics average scores for eighth-graders in Houston, by race/ethnicity



* Significantly different ($p < .05$) from 2011.
[1] Sample sizes insufficient to permit reliable estimates for Asian/Pacific Islander students in 2003 and 2009.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.

GRADE 4

Jefferson County (KY)

For Jefferson County (KY) fourth-graders in 2011,

- the overall score was not significantly different from 2009.
- the average score of 235 was at the 41st percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Kentucky.
- no significant change in the gap compared to 2009.

Results for higher- and lower-income students showed

- no significant change in the average score for higher-income students compared to 2009.
- a higher average score for lower-income students compared to 2009.

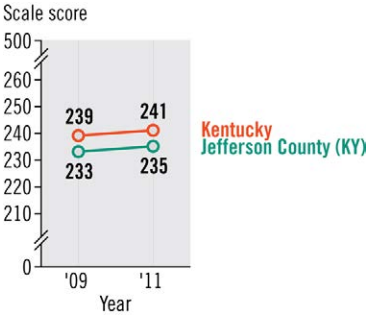
Results for racial/ethnic groups showed

- higher average scores for Black and Hispanic students compared to 2009.
- no significant change in the average score for White students compared to 2009.

Achievement-level results showed

- a higher percentage at or above *Basic* compared to 2009.
- no significant change in the percentage at or above *Proficient* compared to 2009.

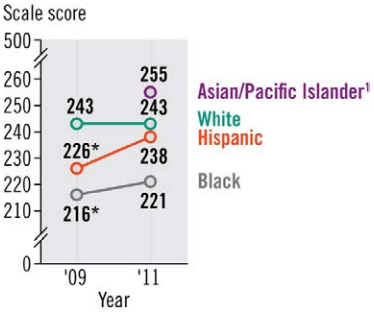
Average scores in NAEP mathematics for fourth-graders in Jefferson County (KY) and Kentucky: 2009 and 2011



Average scores in NAEP mathematics for fourth-graders in Jefferson County (KY), by family income: 2009 and 2011

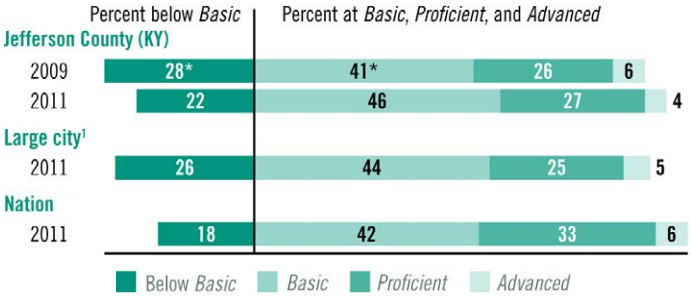
* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Average scores in NAEP mathematics for fourth-graders in Jefferson County (KY), by race/ethnicity: 2009 and 2011



* Significantly different ($p < .05$) from 2011.
[1] Sample size insufficient to permit a reliable estimate for Asian/Pacific Islander students in 2009.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

Achievement-level results in NAEP mathematics for fourth-graders in Jefferson County (KY): 2009 and 2011



* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 and 2011 Mathematics Assessments.

Jefferson County (KY)

For Jefferson County (KY) eighth-graders in 2011,

- the overall score was higher than in 2009.
- the average score of 274 was at the 40th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Kentucky.
- no significant change in the gap compared to 2009.

Results for higher- and lower-income students showed

- a higher average score for higher-income students compared to 2009.
- no significant change in the average score for lower-income students compared to 2009.

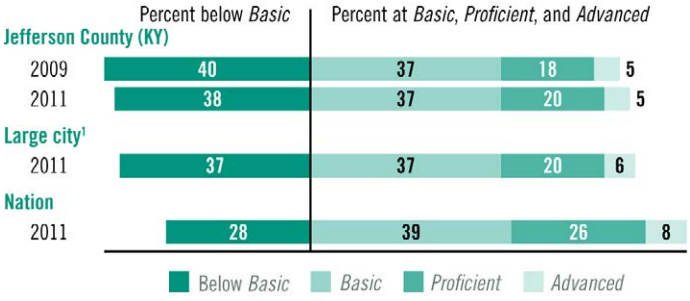
Results for racial/ethnic groups showed

- a higher average score for Black students compared to 2009.
- no significant change in the average score for White students compared to 2009.

Achievement-level results showed

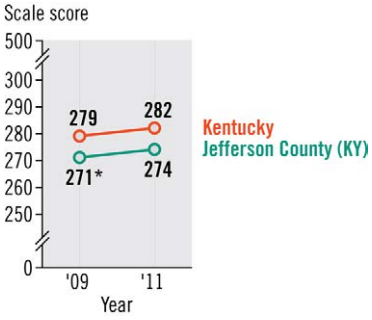
- no significant change in the percentage at or above *Basic* compared to 2009.
- no significant change in the percentage at or above *Proficient* compared to 2009.

Achievement-level results in NAEP mathematics for eighth-graders in Jefferson County (KY): 2009 and 2011



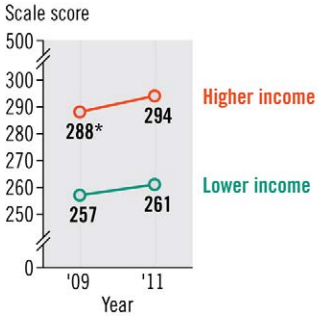
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

Average scores in NAEP mathematics for eighth-graders in Jefferson County (KY) and Kentucky: 2009 and 2011



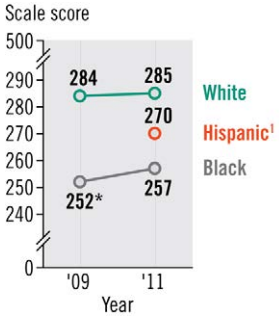
* Significantly different ($p < .05$) from 2011.

Average scores in NAEP mathematics for eighth-graders in Jefferson County (KY), by family income: 2009 and 2011



* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Average scores in NAEP mathematics for eighth-graders in Jefferson County (KY), by race/ethnicity: 2009 and 2011



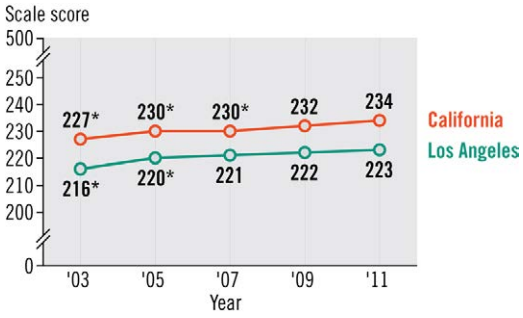
* Significantly different ($p < .05$) from 2011.
[1] Sample size insufficient to permit a reliable estimate for Hispanic students in 2009.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 and 2011 Mathematics Assessments.

GRADE 4

Los Angeles

Trend in NAEP mathematics average scores for fourth-graders in Los Angeles and California

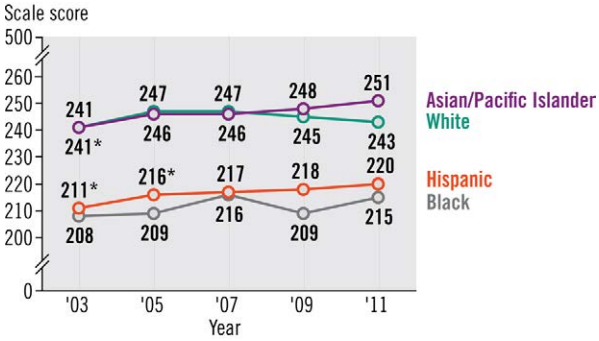


* Significantly different ($p < .05$) from 2011.

Trend in NAEP mathematics average scores for fourth-graders in Los Angeles, by family income

* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Trend in NAEP mathematics average scores for fourth-graders in Los Angeles, by race/ethnicity



* Significantly different ($p < .05$) from 2011.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

For Los Angeles fourth-graders in 2011,

- the overall score was higher than in 2003 but not significantly different from 2009.
- the average score of 223 was at the 27th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for California.
- no significant change in the gap compared to 2003 or 2009.

Results for higher- and lower-income students showed

- higher average scores for higher- and lower-income students compared to 2003 but no significant change from 2009.

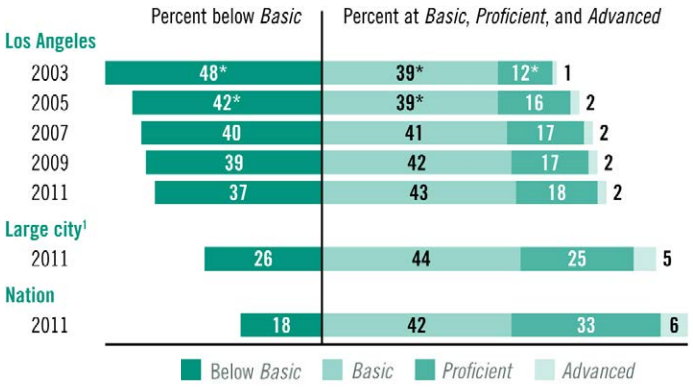
Results for racial/ethnic groups showed

- higher average scores for Hispanic and Asian/Pacific Islander students compared to 2003 but no significant change from 2009.
- no significant change in average scores for White or Black students compared to 2003 or 2009.

Achievement-level results showed

- a higher percentage at or above *Basic* compared to 2003 but no significant change from 2009.
- a higher percentage at or above *Proficient* compared to 2003 but no significant change from 2009.

Trend in NAEP mathematics achievement-level results for fourth-graders in Los Angeles



* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.

GRADE 8

Los Angeles

For Los Angeles eighth-graders in 2011,

- the overall score was higher than in 2003 but not significantly different from 2009.
- the average score of 261 was at the 27th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for California.
- a narrowing of the gap compared to 2003 but no significant change from 2009.

Results for higher- and lower-income students showed

- higher average scores for higher- and lower-income students compared to 2003 but no significant change from 2009.

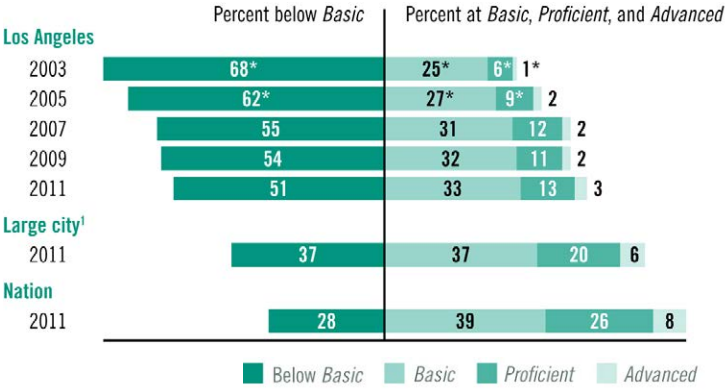
Results for racial/ethnic groups showed

- higher average scores for White, Black, Hispanic, and Asian/Pacific Islander students compared to 2003 but no significant change from 2009.

Achievement-level results showed

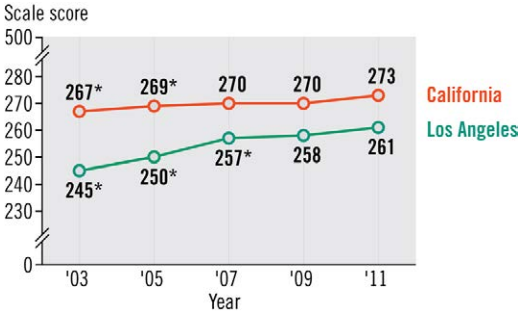
- a higher percentage at or above *Basic* compared to 2003 but no significant change from 2009.
- a higher percentage at or above *Proficient* compared to 2003 but no significant change from 2009.

Trend in NAEP mathematics achievement-level results for eighth-graders in Los Angeles



* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

Trend in NAEP mathematics average scores for eighth-graders in Los Angeles and California

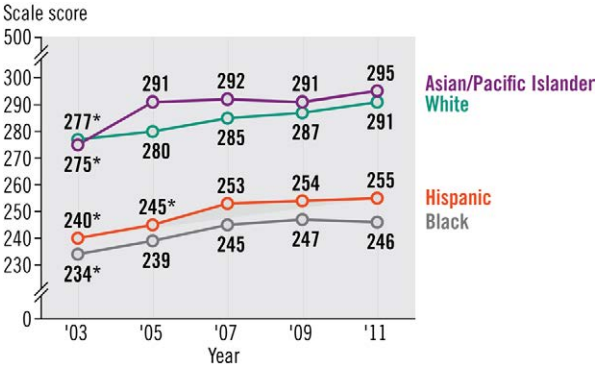


* Significantly different ($p < .05$) from 2011.

Trend in NAEP mathematics average scores for eighth-graders in Los Angeles, by family income

* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Trend in NAEP mathematics average scores for eighth-graders in Los Angeles, by race/ethnicity



* Significantly different ($p < .05$) from 2011.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.

GRADE 4

Miami-Dade

For Miami-Dade fourth-graders in 2011,

- the overall score was not significantly different from 2009.
- the average score of 236 was at the 42nd percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Florida.
- no significant change in the gap compared to 2009.

Results for higher- and lower-income students showed

- no significant change in average scores for higher- or lower-income students compared to 2009.

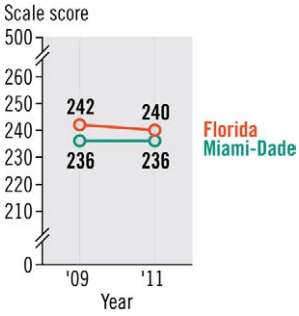
Results for racial/ethnic groups showed

- no significant change in average scores for White, Black, or Hispanic students compared to 2009.

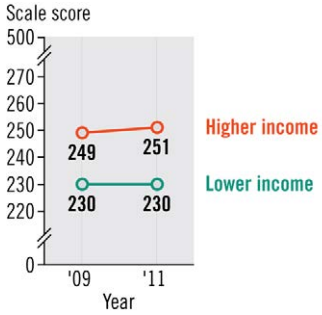
Achievement-level results showed

- no significant change in the percentage at or above *Basic* compared to 2009.
- no significant change in the percentage at or above *Proficient* compared to 2009.

Average scores in NAEP mathematics for fourth-graders in Miami-Dade and Florida: 2009 and 2011

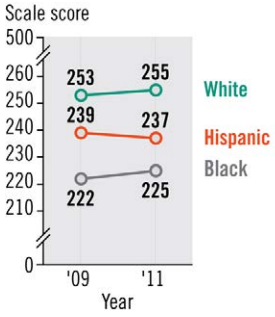


Average scores in NAEP mathematics for fourth-graders in Miami-Dade, by family income: 2009 and 2011



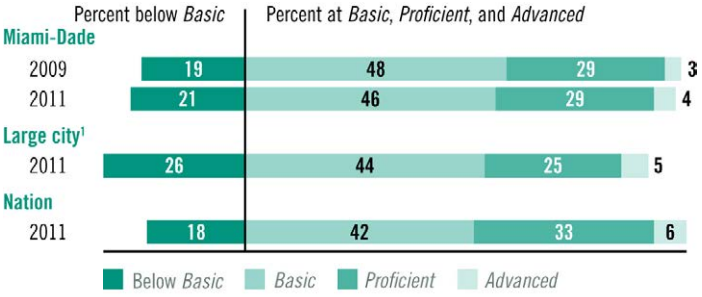
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Average scores in NAEP mathematics for fourth-graders in Miami-Dade, by race/ethnicity: 2009 and 2011



NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin.

Achievement-level results in NAEP mathematics for fourth-graders in Miami-Dade: 2009 and 2011



[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 and 2011 Mathematics Assessments.

GRADE 8

Miami-Dade

For Miami-Dade eighth-graders in 2011,

- the overall score was not significantly different from 2009.
- the average score of 272 was at the 37th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Florida.
- no significant change in the gap compared to 2009.

Results for higher- and lower-income students showed

- no significant change in average scores for higher- or lower-income students compared to 2009.

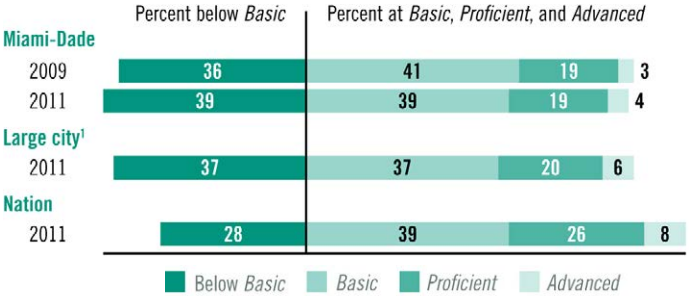
Results for racial/ethnic groups showed

- no significant change in average scores for White, Black, or Hispanic students compared to 2009.

Achievement-level results showed

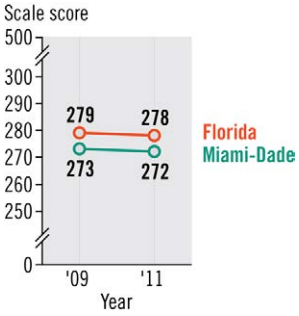
- no significant change in the percentage at or above *Basic* compared to 2009.
- no significant change in the percentage at or above *Proficient* compared to 2009.

Achievement-level results in NAEP mathematics for eighth-graders in Miami-Dade: 2009 and 2011

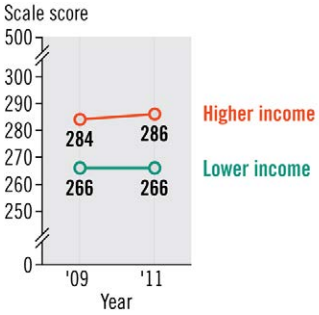


[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

Average scores in NAEP mathematics for eighth-graders in Miami-Dade and Florida: 2009 and 2011

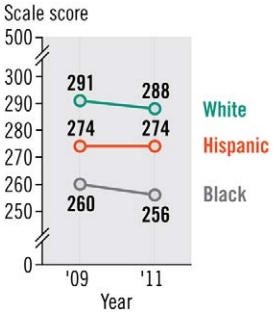


Average scores in NAEP mathematics for eighth-graders in Miami-Dade, by family income: 2009 and 2011



NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Average scores in NAEP mathematics for eighth-graders in Miami-Dade, by race/ethnicity: 2009 and 2011



NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 and 2011 Mathematics Assessments.

GRADE 4

Milwaukee

For Milwaukee fourth-graders in 2011,

- the overall score was not significantly different from 2009.
- the average score of 220 was at the 23rd percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Wisconsin.
- no significant change in the gap compared to 2009.

Results for higher- and lower-income students showed

- no significant change in average scores for higher- or lower-income students compared to 2009.

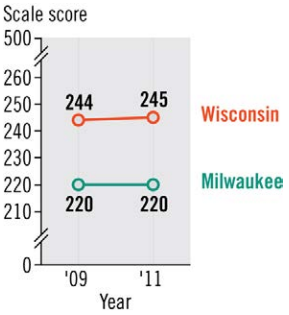
Results for racial/ethnic groups showed

- no significant change in average scores for White, Black, Hispanic, or Asian/Pacific Islander students compared to 2009.

Achievement-level results showed

- no significant change in the percentage at or above *Basic* compared to 2009.
- no significant change in the percentage at or above *Proficient* compared to 2009.

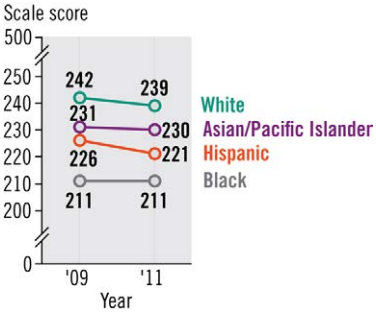
Average scores in NAEP mathematics for fourth-graders in Milwaukee and Wisconsin: 2009 and 2011



Average scores in NAEP mathematics for fourth-graders in Milwaukee, by family income: 2009 and 2011

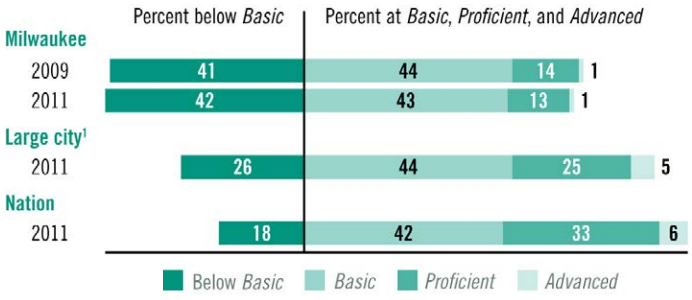
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Average scores in NAEP mathematics for fourth-graders in Milwaukee, by race/ethnicity: 2009 and 2011



NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

Achievement-level results in NAEP mathematics for fourth-graders in Milwaukee: 2009 and 2011



[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 and 2011 Mathematics Assessments.

GRADE 8

Milwaukee

For Milwaukee eighth-graders in 2011,

- the overall score was not significantly different from 2009.
- the average score of 254 was at the 21st percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Wisconsin.
- no significant change in the gap compared to 2009.

Results for higher- and lower-income students showed

- no significant change in average scores for higher- or lower-income students compared to 2009.

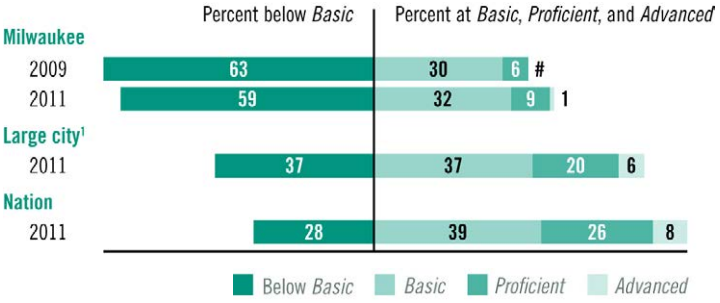
Results for racial/ethnic groups showed

- no significant change in average scores for White, Black, or Hispanic students compared to 2009.

Achievement-level results showed

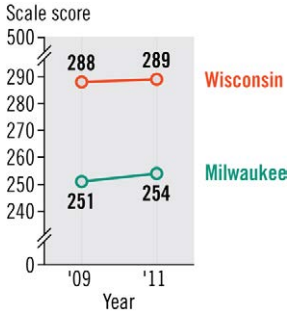
- no significant change in the percentage at or above *Basic* compared to 2009.
- no significant change in the percentage at or above *Proficient* compared to 2009.

Achievement-level results in NAEP mathematics for eighth-graders in Milwaukee: 2009 and 2011

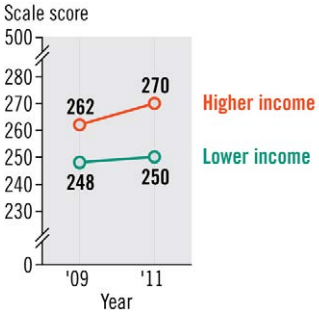


Rounds to zero.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

Average scores in NAEP mathematics for eighth-graders in Milwaukee and Wisconsin: 2009 and 2011

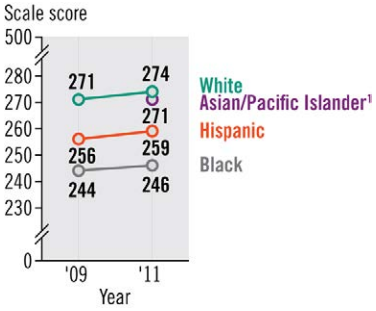


Average scores in NAEP mathematics for eighth-graders in Milwaukee, by family income: 2009 and 2011



NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Average scores in NAEP mathematics for eighth-graders in Milwaukee, by race/ethnicity: 2009 and 2011



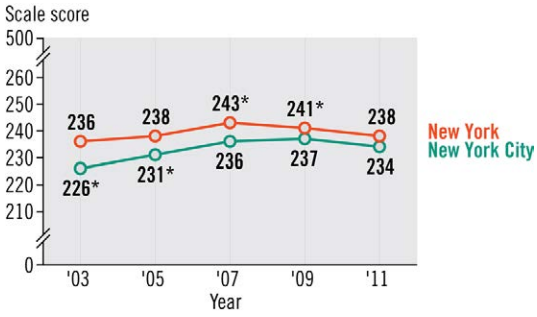
[1] Sample size insufficient to permit a reliable estimate for Asian/Pacific Islander students in 2009.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 and 2011 Mathematics Assessments.

GRADE 4

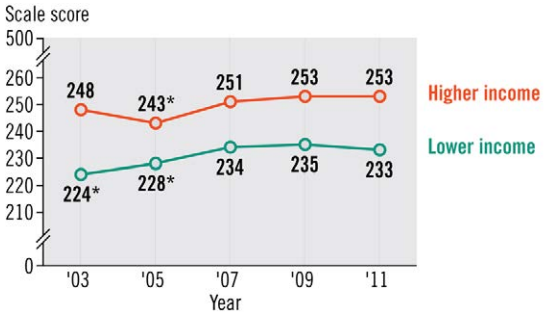
New York City

Trend in NAEP mathematics average scores for fourth-graders in New York City and New York



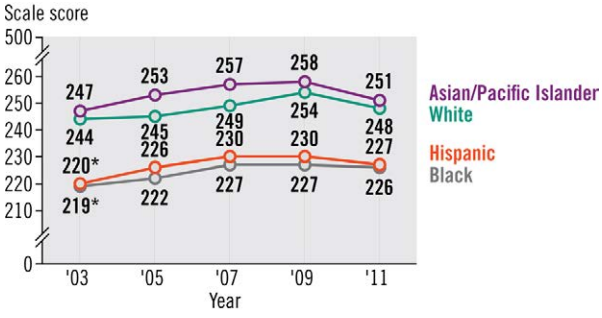
* Significantly different ($p < .05$) from 2011.

Trend in NAEP mathematics average scores for fourth-graders in New York City, by family income



* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Trend in NAEP mathematics average scores for fourth-graders in New York City, by race/ethnicity



* Significantly different ($p < .05$) from 2011.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

For New York City fourth-graders in 2011,

- the overall score was higher than in 2003 but not significantly different from 2009.
- the average score of 234 was at the 40th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for New York.
- a narrowing of the gap compared to 2003 but no significant change from 2009.

Results for higher- and lower-income students showed

- no significant change in the average score for higher-income students compared to 2003 or 2009.
- a higher average score for lower-income students compared to 2003 but no significant change from 2009.

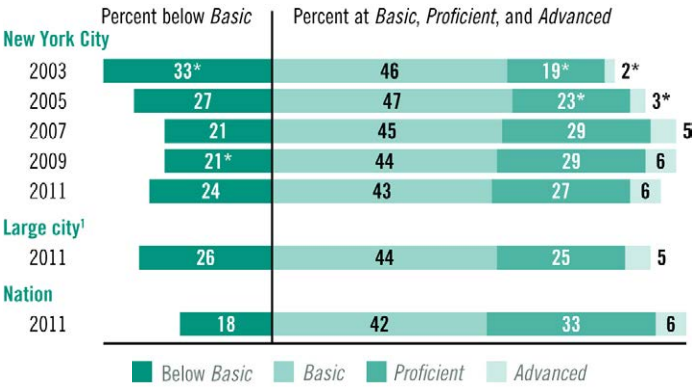
Results for racial/ethnic groups showed

- higher average scores for Black and Hispanic students compared to 2003 but no significant change from 2009.
- no significant change in average scores for White or Asian/Pacific Islander students compared to 2003 or 2009.

Achievement-level results showed

- a higher percentage at or above *Basic* compared to 2003 and a lower percentage compared to 2009.
- a higher percentage at or above *Proficient* compared to 2003 but no significant change from 2009.

Trend in NAEP mathematics achievement-level results for fourth-graders in New York City



* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003–11 Mathematics Assessments.

GRADE 8

New York City

For New York City eighth-graders in 2011,

- the overall score was higher than in 2003 but not significantly different from 2009.
- the average score of 272 was at the 37th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for New York.
- a narrowing of the gap compared to 2003 but no significant change from 2009.

Results for higher- and lower-income students showed

- no significant change in the average score for higher-income students compared to 2003 or 2009.
- a higher average score for lower-income students compared to 2003 but no significant change from 2009.

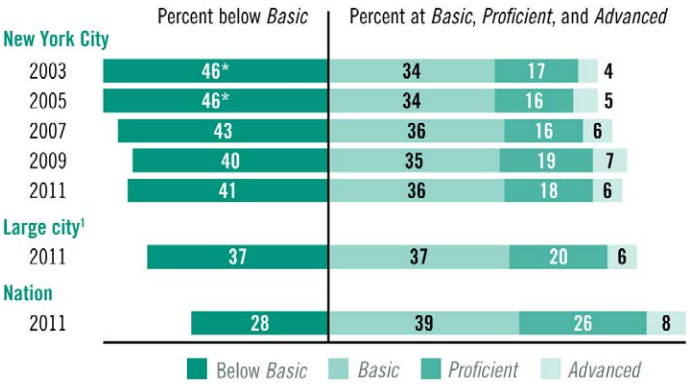
Results for racial/ethnic groups showed

- higher average scores for Black and Asian/Pacific Islander students compared to 2003 but no significant change from 2009.
- no significant change in average scores for White or Hispanic students compared to 2003 or 2009.

Achievement-level results showed

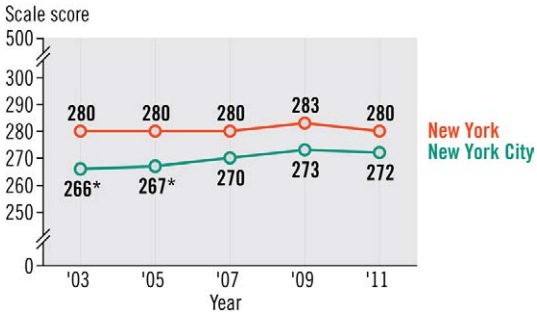
- a higher percentage at or above *Basic* compared to 2003 but no significant change from 2009.
- no significant change in the percentage at or above *Proficient* compared to 2003 or 2009.

Trend in NAEP mathematics achievement-level results for eighth-graders in New York City



* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

Trend in NAEP mathematics average scores for eighth-graders in New York City and New York

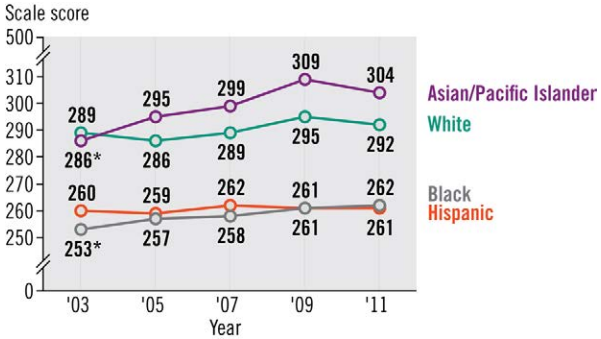


* Significantly different ($p < .05$) from 2011.

Trend in NAEP mathematics average scores for eighth-graders in New York City, by family income

* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Trend in NAEP mathematics average scores for eighth-graders in New York City, by race/ethnicity



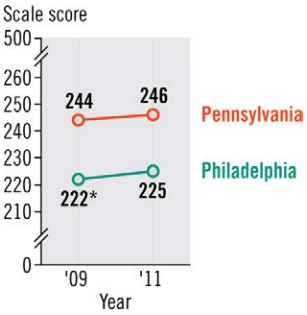
* Significantly different ($p < .05$) from 2011.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.

GRADE 4

Philadelphia

Average scores in NAEP mathematics for fourth-graders in Philadelphia and Pennsylvania: 2009 and 2011

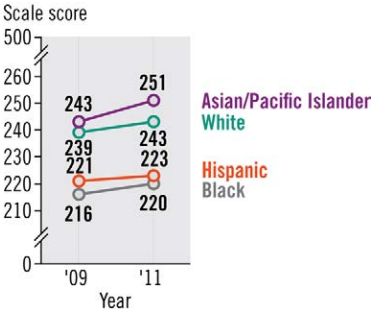


* Significantly different ($p < .05$) from 2011.

Average scores in NAEP mathematics for fourth-graders in Philadelphia, by family income: 2009 and 2011

* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Average scores in NAEP mathematics for fourth-graders in Philadelphia, by race/ethnicity: 2009 and 2011



NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

For Philadelphia fourth-graders in 2011,

- the overall score was higher than in 2009.
- the average score of 225 was at the 29th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Pennsylvania.
- no significant change in the gap compared to 2009.

Results for higher- and lower-income students showed

- no significant change in the average score for higher-income students compared to 2009.
- a higher average score for lower-income students compared to 2009.

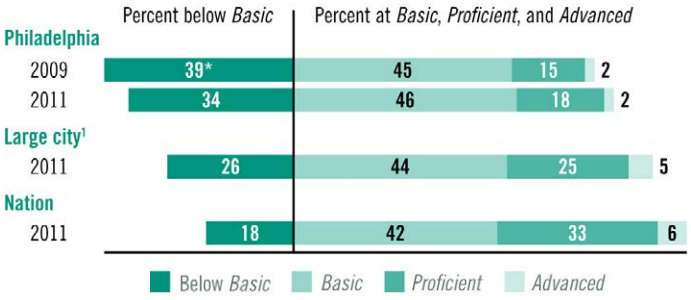
Results for racial/ethnic groups showed

- no significant change in average scores for White, Black, Hispanic, or Asian/Pacific Islander students compared to 2009.

Achievement-level results showed

- a higher percentage at or above *Basic* compared to 2009.
- no significant change in the percentage at or above *Proficient* compared to 2009.

Achievement-level results in NAEP mathematics for fourth-graders in Philadelphia: 2009 and 2011



* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 and 2011 Mathematics Assessments.

GRADE 8

Philadelphia

For Philadelphia eighth-graders in 2011,

- the overall score was not significantly different from 2009.
- the average score of 265 was at the 30th percentile for the nation.

The district-to-state comparison showed

- a lower overall score than for Pennsylvania.
- no significant change in the gap compared to 2009.

Results for higher- and lower-income students showed

- no significant change in average scores for higher- or lower-income students compared to 2009.

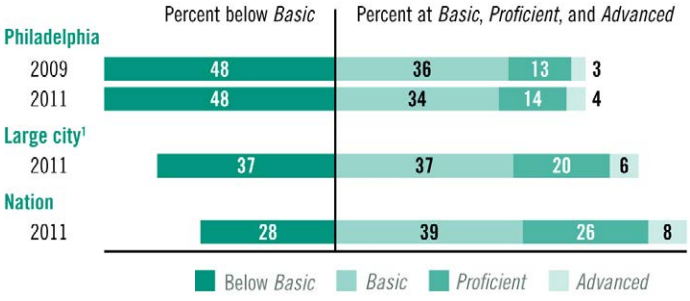
Results for racial/ethnic groups showed

- no significant change in average scores for White, Black, Hispanic, or Asian/Pacific Islander students compared to 2009.

Achievement-level results showed

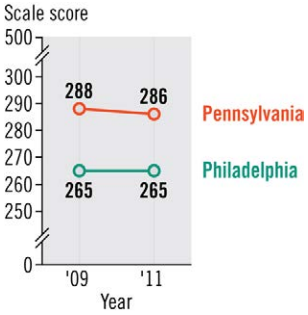
- no significant change in the percentage at or above *Basic* compared to 2009.
- no significant change in the percentage at or above *Proficient* compared to 2009.

Achievement-level results in NAEP mathematics for eighth-graders in Philadelphia: 2009 and 2011

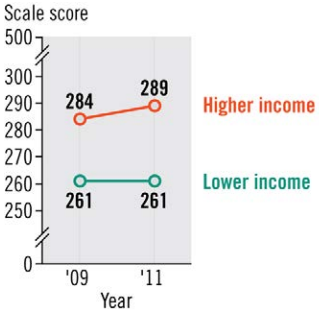


[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

Average scores in NAEP mathematics for eighth-graders in Philadelphia and Pennsylvania: 2009 and 2011

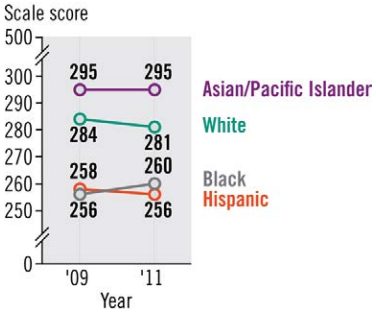


Average scores in NAEP mathematics for eighth-graders in Philadelphia, by family income: 2009 and 2011



NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Average scores in NAEP mathematics for eighth-graders in Philadelphia, by race/ethnicity: 2009 and 2011



NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 and 2011 Mathematics Assessments.

GRADE 4

San Diego

For San Diego fourth-graders in 2011,

- the overall score was higher than in 2003 but not significantly different from 2009.
- the average score of 239 was at the 46th percentile for the nation.

The district-to-state comparison showed

- a higher overall score than for California.
- a larger score-point difference compared to 2003 but no significant change from 2009.

Results for higher- and lower-income students showed

- higher average scores for higher- and lower-income students compared to 2003 but no significant change from 2009.

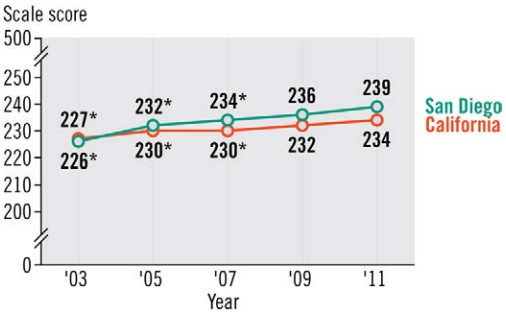
Results for racial/ethnic groups showed

- higher average scores for White, Black, Hispanic, and Asian/Pacific Islander students compared to 2003 but no significant change from 2009.

Achievement-level results showed

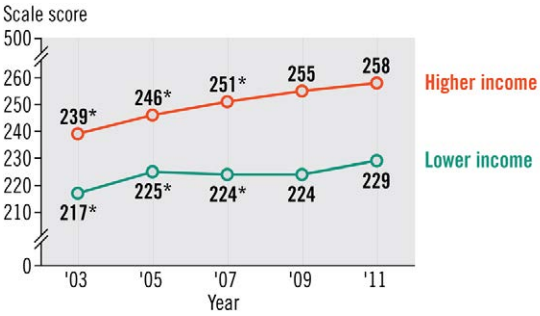
- a higher percentage at or above *Basic* compared to 2003 but no significant change from 2009.
- a higher percentage at or above *Proficient* compared to 2003 but no significant change from 2009.

Trend in NAEP mathematics average scores for fourth-graders in San Diego and California



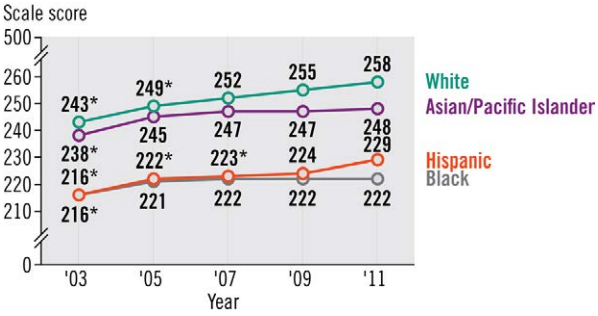
* Significantly different ($p < .05$) from 2011.

Trend in NAEP mathematics average scores for fourth-graders in San Diego, by family income



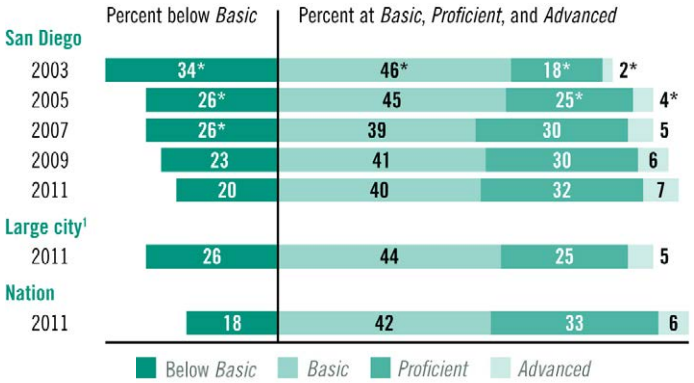
* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Trend in NAEP mathematics average scores for fourth-graders in San Diego, by race/ethnicity



* Significantly different ($p < .05$) from 2011.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

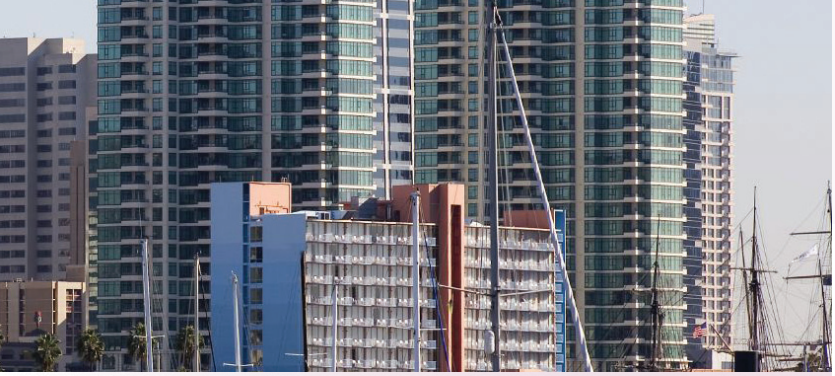
Trend in NAEP mathematics achievement-level results for fourth-graders in San Diego



* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.

San Diego



For San Diego eighth-graders in 2011,

- the overall score was higher than in 2003 but not significantly different from 2009.
- the average score of 278 was at the 44th percentile for the nation.

The district-to-state comparison showed

- a higher overall score than for California.
- a larger score-point difference compared to 2003 but no significant change from 2009.

Results for higher- and lower-income students showed

- higher average scores for higher- and lower-income students compared to 2003 but no significant change from 2009.

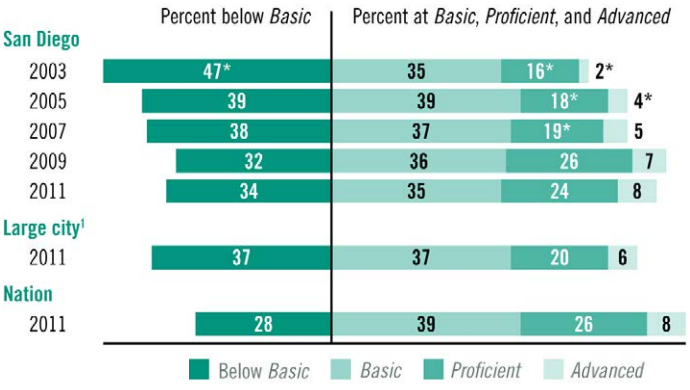
Results for racial/ethnic groups showed

- higher average scores for White, Hispanic, and Asian/Pacific Islander students compared to 2003 but no significant change from 2009.
- no significant change in the average score for Black students compared to 2003 or 2009.

Achievement-level results showed

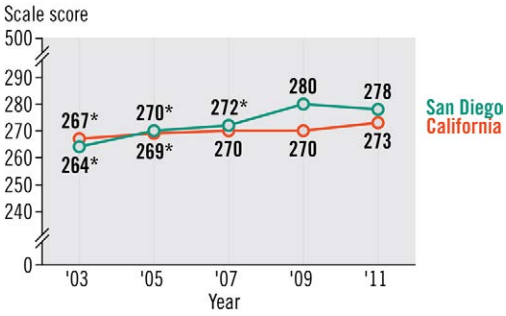
- a higher percentage at or above *Basic* compared to 2003 but no significant change from 2009.
- a higher percentage at or above *Proficient* compared to 2003 but no significant change from 2009.

Trend in NAEP mathematics achievement-level results for eighth-graders in San Diego



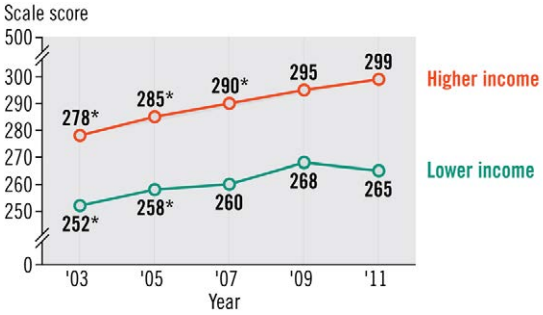
* Significantly different ($p < .05$) from 2011.
[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: The shaded bars are graphed using unrounded numbers. Detail may not sum to totals because of rounding.

Trend in NAEP mathematics average scores for eighth-graders in San Diego and California



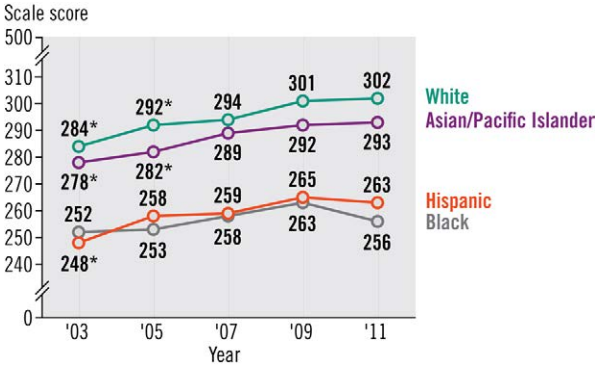
* Significantly different ($p < .05$) from 2011.

Trend in NAEP mathematics average scores for eighth-graders in San Diego, by family income



* Significantly different ($p < .05$) from 2011.
NOTE: In NAEP, lower-income students are students identified as eligible for the National School Lunch Program (NSLP). Higher-income students are not eligible for NSLP.

Trend in NAEP mathematics average scores for eighth-graders in San Diego, by race/ethnicity



* Significantly different ($p < .05$) from 2011.
NOTE: Results are not shown for all race/ethnicity categories because of insufficient sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.

NAEP Inclusion

It is important for NAEP to assess as many students selected to participate as possible. Assessing representative samples of students, including students with disabilities (SD) and English language learners (ELL), helps to ensure that NAEP results accurately reflect the educational performance of all students in the target population and can continue to serve as a meaningful measure of U.S. students' academic achievement over time.

The National Assessment Governing Board, which sets policy for NAEP, has been exploring ways to ensure that NAEP continues to appropriately include as many students as possible and to do so in a consistent manner for all jurisdictions assessed and reported. In March 2010, the Governing Board adopted a new policy, *NAEP Testing and Reporting on Students with Disabilities and English Language Learners*. This policy was the culmination of work with experts in testing and curriculum, and those who work with exceptional children and students learning to speak English. The policy aims to

- maximize participation of sampled students in NAEP,
- reduce variation in exclusion rates for SD and ELL students across states and districts,
- develop uniform national rules for including students in NAEP, and
- ensure that NAEP is fully representative of SD and ELL students.

The policy defines specific inclusion goals for NAEP samples. At the national, state, and district levels, the goal is to include 95 percent of all students selected for the NAEP samples, and 85 percent of those in the NAEP sample who are identified as SD or ELL.

Students are selected to participate in NAEP based on a sampling procedure designed to yield a sample of students that is representative of students in all schools nationwide and in public schools within each state and TUDA district. First, schools are selected, and then students are sampled from within those schools without regard to disability or English language proficiency. Once students are selected, those previously identified as SD or ELL may be offered accommodations or excluded.

Districts vary in their proportions of special-needs students and in their policies on inclusion and the use of accommodations. Among the TUDA districts participating in 2011, identification rates for SD and/or ELL students ranged from 11 percent in Atlanta to 56 percent in Dallas at grade 4, and from 12 percent in Atlanta to 36 percent in Boston at grade 8. Large cities overall had higher percentages of students identified as ELL in 2011 (22 and 12 percent at grades 4 and 8, respectively) than the nation (11 and 6 percent at grades 4 and 8, respectively), as did 13 of 21 participating districts at grade 4, and 17 districts at grade 8. Nonetheless, districts have worked to ensure that all students who can meaningfully participate in the NAEP assessments are included. Of the 18 districts that participated in both 2009 and 2011, inclusion rates remained steady or increased for 16 districts at both grades. The new NAEP inclusion policy is an effort to ensure that this trend continues.

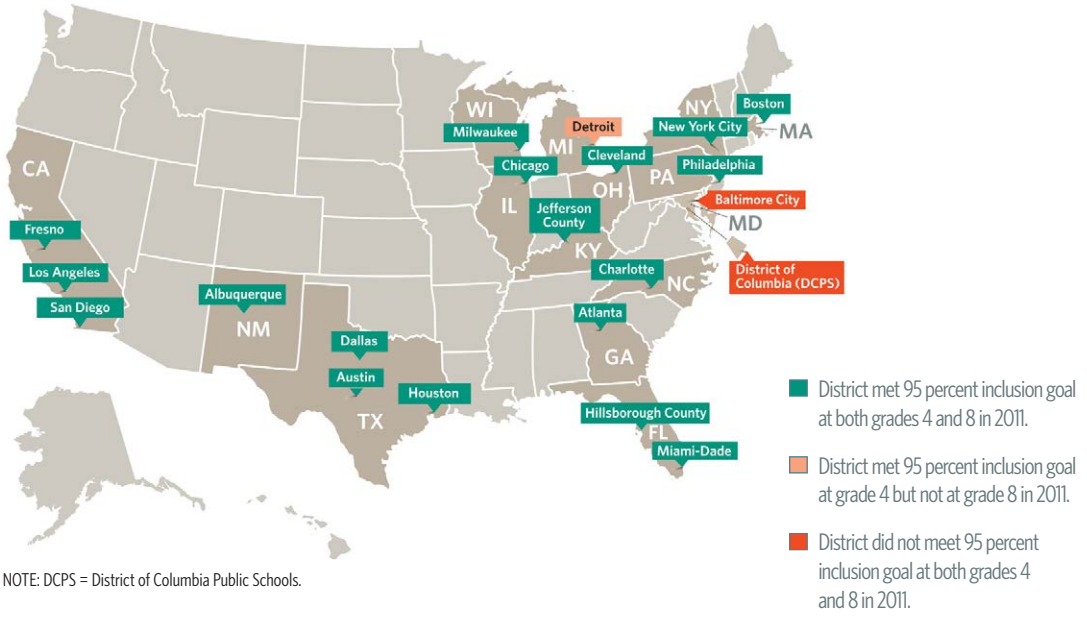
Determining whether each district has met the NAEP inclusion goals involves looking at three different inclusion rates—an overall inclusion rate, an inclusion rate for SD students, and an inclusion rate for ELL students. Each inclusion rate is calculated as the percentage of sampled students who were included in the assessment (i.e., were not excluded).

Inclusion rate percentages are estimates because they are based on representative samples of students rather than on the entire population of students. As such, the inclusion rates are associated with a margin of error. The margin of error for each district's inclusion rate was taken into

account when comparing it to the corresponding inclusion goal. For example, if the point estimate of a district's overall inclusion rate was 93 percent and had a margin of error of plus or minus 3 percentage points, the district was considered to have met the 95 percent inclusion goal because the 95 percent goal falls within the margin of error, which ranges from 90 percent to 96 percent. Refer to the Technical Notes for more details about how the margin of error was used in these calculations.

Most of the urban districts participating in the 2011 mathematics assessment met the 95 percent inclusion goal (**figure 19**). The goal was not met at grade 8 in Detroit, and at grades 4 and 8 in Baltimore City and the District of Columbia. See appendix **table A-6** for the inclusion rates as a percentage of all students selected in each district, and **table A-7** for the rates as a percentage of the SD or ELL students.

Figure 19. Districts meeting the 95 percent inclusion rate goal in NAEP mathematics at grades 4 and 8: 2011



NOTE: DCPS = District of Columbia Public Schools.

Inclusion Policy

See the National Assessment Governing Board's policy on *NAEP Testing and Reporting on Students with Disabilities and English Language Learners* at http://www.nagb.org/policies/PoliciesPDFs/Reporting%20and%20Dissemination/naep_testandreport_studentswithdisabilities.pdf.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Technical Notes

Sampling and Weighting

The sample of students in the participating TUDA school districts is an extension of the sample of students who would usually be selected by NAEP as part of state and national samples. These extended samples allow reliable reporting of student groups within these districts. Results for students in the TUDA samples are also included in state and national samples with appropriate weighting.

In the same way that schools and students participating in NAEP assessments are chosen to be nationally representative, the schools and students participating in TUDA assessments are selected to be representative of their districts. The results from the assessed students are combined to provide accurate estimates of overall district performance. Results are weighted to take into account the fact that schools and students represent different proportions of the overall district population.

Results are reported for groups of students defined by shared characteristics such as race/ethnicity and eligibility for free/reduced-price school lunch only when sufficient numbers of students and adequate school representation are present. The minimum requirement is at least 62 students in a particular subgroup from at least five primary sampling units. However, the data for all students, regardless of whether their subgroup was reported separately, were included in computing overall results.

Charter Schools in District Samples

Some charter schools that operate within the geographic boundaries of a school district are independent of the district and are not included in the district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education under the Elementary and Secondary Education Act. Beginning in 2009, charter schools of this type were no longer included in the results for TUDA districts as they had been in past NAEP assessments.

School districts vary in whether the charter schools within their boundaries are independent of the districts. Prior to 2009, charter schools were included in the TUDA district results if they were listed as part of the district's Local Education Agency in the NCES Common Core of Data. Beginning in 2009, charter schools were included in TUDA district results if they contributed to the district's AYP results as part of the Elementary and Secondary Education Act.

School and Student Participation

District participation

To ensure that reported results are based on a sample that is representative of the target population, standards established by the National Assessment Governing Board require that school participation rates for the original district samples be at least 85 percent for results to be reported. In the 2011 mathematics assessment, all participating urban districts met participation rate standards at both grades 4 and 8 (see appendix **table A-1**).

Confidence intervals for district inclusion rates

NAEP endeavors to include as many sampled students as possible in the assessment, including students with disabilities (SD) and English language learners (ELL), and has established specific inclusion goals: 95 percent of all sampled students and 85 percent of sampled students identified as SD or ELL. Inclusion rates were computed for each district participating in the 2011 assessment and compared to NAEP inclusion goals. Specifically, Wilson confidence intervals were used in order to avoid having an upper bound greater than 1.

Three inclusion percentages were computed for each district. An overall inclusion percentage represents included students as a percentage of all students sampled within the district. In addition, separate percentages were computed to report included students as a percentage of the district sample that was identified as SD or ELL.

Inclusion percentages are estimates based on a sample, and each estimate has a measure of uncertainty or margin of error. Confidence intervals quantify this uncertainty due to sampling, resulting in interval estimates of the inclusion percentages. Therefore, confidence intervals for inclusion percentages were used to determine upper and lower confidence bounds around the inclusion point estimates.

When determining whether each district met the NAEP inclusion goals, the confidence intervals were used rather than just the point estimates. This means that if the inclusion goal of either 95 percent or 85 percent fell within the corresponding confidence interval, the district was considered as having met the goal. Districts for which the upper bound of the confidence interval was less than 95 percent (or 85 percent) did not meet the inclusion goal.

Interpreting Statistical Significance

Comparisons over time or between groups are based on statistical tests that consider both the size of the differences and the standard errors of the two statistics being compared. Standard errors are margins of error, and estimates based on smaller groups are likely to have larger margins of error. The size of the standard errors may also be influenced by other factors such as how representative the assessed students are of the entire population.

When an estimate has a large standard error, a numerical difference that seems large may not be statistically significant. Differences of the same magnitude may or may not be statistically significant depending upon the size of the standard errors of the estimates. For example, a 2-point change in the average score for large cities overall at grade 4 may be statistically significant, while a 2-point change in a district may not be. Similarly, seemingly large numerical differences or changes in score gaps may not be statistically significant when the gap has a large standard error. Standard errors of score gaps depend on the margins of error associated with both estimates being compared. Therefore, if one estimate is based on a smaller group (e.g., Hispanic students) and has a larger margin of error, the standard error of the gap will be correspondingly large. Standard errors for the estimates presented in this report are available at http://nces.ed.gov/nationsreportcard/naepdata/.

To ensure that significant differences in NAEP data reflect actual differences and not mere chance, error rates need to be controlled when making multiple simultaneous comparisons. The more comparisons that are made (e.g., comparing the performance of White, Black, Hispanic, and Asian/Pacific Islander students), the higher the probability of finding significant differences by chance. In NAEP, the Benjamini-Hochberg False Discovery Rate (FDR) procedure is used to control the expected proportion of falsely rejected hypotheses relative to the number of comparisons that are conducted. A detailed explanation of this procedure can be found at http://nces.ed.gov/nationsreportcard/tdw/analysis/infer.asp.

NAEP employs a number of rules to determine the number of comparisons conducted, which in most cases is simply the number of possible statistical tests. However, when comparing multiple years, the number of years do not count toward the number of comparisons.

A part-whole relationship exists between the district samples and large city overall, state, and national samples because each district is part of the large city sample and its home state sample, as well as the national public school sample. Therefore, when individual district results are compared to results for large city, a state, or the nation, the significance tests appropriately reflect this dependency.

When estimates of percentages are close to 0 or 100, reliable standard errors cannot be estimated. As a result, significance tests are not conducted when the comparison involves an extreme percentage. Refer to http://nces.ed.gov/nationsreportcard/tdw/analysis/infer_guidelines_extreme.asp for more information about how extreme percentages are defined in NAEP.

Race/Ethnicity

Prior to 2011, student race/ethnicity was obtained from school records and reported for the six mutually exclusive categories shown on the left side of the chart below. Students identified with more than one of the other five categories were classified as "other" and were included as part of the "unclassified" category, along with students who had a background other than the ones listed or whose race/ethnicity could not be determined.

Racial/ethnic categories	
Prior to 2011	**In 2011**
1. White	1. White
2. Black	2. Black
3. Hispanic	3. Hispanic
4. Asian/Pacific Islander	4. Asian
	5. Native Hawaiian/Other Pacific Islander
5. American Indian/Alaska Native	6. American Indian/Alaska Native
6. Other or unclassified	7. Two or more races

NOTE: Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

In compliance with new standards from the U.S. Office of Management and Budget for collecting and reporting data on race/ethnicity, additional information was collected in 2011 so that results could be reported separately for Asian students, Native Hawaiian/Other Pacific Islander students, and students identifying with two or more races. Beginning in 2011, all of the students participating in NAEP were identified as one of the seven racial/ethnic categories listed on the right side of the chart.

As in earlier years, students identified as Hispanic were classified as Hispanic in 2011 even if they were also identified with another racial/ethnic group. Students identified with two or more of the other racial/ethnic groups (e.g., White and Black) would have been classified as "other" and reported as part of the "unclassified" category prior to 2011, and were classified as "two or more races" in 2011.

When comparing the results for racial/ethnic groups from 2011 to earlier assessment years in this report, the 2011 data for Asian and Native Hawaiian/Other Pacific Islander students were combined into a single Asian/Pacific Islander category.

National School Lunch Program

NAEP collects data on student eligibility for the National School Lunch Program (NSLP) as an indicator of family income. Under the guidelines of NSLP, children from families with incomes below 130 percent of the poverty level are eligible for free meals. Those from families with incomes between 130 and 185 percent of the poverty level are eligible for reduced-price meals. (For the period July 1, 2010, through June 30, 2011, for a family of four, 130 percent of the poverty level was $28,665, and 185 percent was $40,793 in most states.)

Some schools provide free meals to all students irrespective of individual eligibility, using their own funds to cover the costs of non-eligible students. Under special provisions of the National School Lunch Act intended to reduce the administrative burden of determining student eligibility every year, schools can be reimbursed based on eligibility data for a single base year. Based on these provisions, participating schools with high percentages of eligible students can report all students as eligible for free lunch. This procedure was followed in Cleveland. For more information on NSLP, visit http://www.fns.usda.gov/cnd/lunch/.

Large City

Just as the national public sample is used as a benchmark for comparing results for states, results for urban districts are compared to results from large cities nationwide. Results for large cities are for public schools located in the urbanized areas of cities with populations of 250,000 or more. Large city is not synonymous with "inner city." Schools in participating TUDA districts are also included in the results for large cities, even though some districts (Albuquerque, Atlanta, Austin, Charlotte, Cleveland, Dallas, Fresno, Hillsborough County, Houston, Jefferson County, Los Angeles, and Miami-Dade) include some schools not classified as large city schools.

Further comparisons of urban district data with large city data are available from the online Data Explorer on the NAEP website (http://nces.ed.gov/nationsreportcard/naepdata/). By selecting "Large city" as a jurisdiction in the NAEP Data Explorer, users will be able to replicate the results in this report and explore additional comparisons.

Appendix Tables

Table A-1. Public school and student participation rates for Trial Urban District Assessment in mathematics, by grade and district: 2011

Grade and district	School participation		Student participation	
	Student-weighted percent	Number of schools participating	Student-weighted percent	Number of students assessed
Grade 4				
Albuquerque	100	50	93	1,700
Atlanta	100	60	96	1,900
Austin	100	60	94	1,800
Baltimore City	100	70	93	1,300
Boston	100	80	94	1,700
Charlotte	100	60	94	1,700
Chicago	100	90	94	2,400
Cleveland	100	70	94	1,300
Dallas	100	50	97	1,700
Detroit	100	50	89	1,100
District of Columbia (DCPS)	100	80	94	1,400
Fresno	100	50	94	1,900
Hillsborough County (FL)	100	50	95	1,600
Houston	100	80	95	2,700
Jefferson County (KY)	100	50	95	1,900
Los Angeles	100	80	95	2,300
Miami-Dade	100	80	96	2,600
Milwaukee	100	60	94	1,300
New York City	100	80	94	2,500
Philadelphia	100	60	95	1,500
San Diego	100	50	95	1,700
Grade 8				
Albuquerque	100	30	89	1,200
Atlanta	100	20	93	1,300
Austin	100	20	91	1,500
Baltimore City	100	60	87	1,000
Boston	100	40	92	1,200
Charlotte	100	40	92	1,500
Chicago	100	110	96	2,000
Cleveland	100	60	91	1,000
Dallas	100	40	94	1,400
Detroit	100	50	84	1,400
District of Columbia (DCPS)	100	40	88	1,300
Fresno	100	20	92	1,300
Hillsborough County (FL)	100	50	93	1,400
Houston	100	50	93	2,000
Jefferson County (KY)	100	30	92	1,400
Los Angeles	100	70	92	2,100
Miami-Dade	100	80	93	2,500
Milwaukee	100	50	92	1,200
New York City	100	90	91	2,200
Philadelphia	100	50	91	1,200
San Diego	100	30	95	1,200

NOTE: The number of schools is rounded to the nearest ten. The number of students is rounded to the nearest hundred. DCPS = District of Columbia Public Schools.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Table A-2. Percentage of fourth-grade public school students with disabilities (SD) and/or English language learners (ELL) identified, excluded, and assessed in NAEP mathematics, as a percentage of all students, by SD/ELL category and jurisdiction: Various years, 2003–11

SD/ELL category and jurisdiction	Identified					Excluded					Assessed without accommodations					Assessed with accommodations				
	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011
SD and/or ELL																				
Nation	22	23	23	23	23	4	3	3	2	2	10	10	10	9	9	8	10	10	11	12
Large city[1]	31	32	33	31	32	5	4	4	3	3	17	17	17	14	14	9	11	12	14	15
Albuquerque	—	—	—	—	30	—	—	—	—	3	—	—	—	—	7	—	—	—	—	19
Atlanta	9	11	12	12	11	1	1	2	1	1	4	3	4	4	1	4	6	7	7	8
Austin	—	37	40	44	45	—	10	5	5	4	—	12	17	20	24	—	14	18	19	17
Baltimore City	—	—	—	19	21	—	—	—	9	11	—	—	—	1	2	—	—	—	9	8
Boston	33	33	47	35	51	5	6	5	6	5	11	11	25	13	29	17	15	17	16	17
Charlotte	21	22	22	19	20	4	3	3	2	1	5	7	7	4	7	12	12	12	13	12
Chicago	31	29	32	24	29	8	4	5	4	2	16	15	17	7	7	7	9	10	13	20
Cleveland	15	17	23	25	28	7	6	13	10	6	3	2	1	2	1	5	9	8	13	21
Dallas	—	—	—	—	56	—	—	—	—	3	—	—	—	—	45	—	—	—	—	8
Detroit	—	—	—	20	26	—	—	—	3	6	—	—	—	7	14	—	—	—	10	6
District of Columbia (DCPS)	18	20	20	21	23	4	6	6	5	6	4	4	2	3	1	10	10	13	14	15
Fresno	—	—	—	38	36	—	—	—	3	1	—	—	—	29	28	—	—	—	5	7
Hillsborough County (FL)	—	—	—	—	30	—	—	—	—	2	—	—	—	—	2	—	—	—	—	26
Houston	45	46	45	43	44	8	7	4	3	4	19	17	23	22	26	18	21	18	17	14
Jefferson County (KY)	—	—	—	19	19	—	—	—	3	5	—	—	—	5	5	—	—	—	10	9
Los Angeles	60	59	53	46	39	3	5	1	1	2	48	47	44	37	28	8	7	8	7	9
Miami-Dade	—	—	—	21	27	—	—	—	3	3	—	—	—	2	1	—	—	—	16	23
Milwaukee	—	—	—	30	33	—	—	—	7	3	—	—	—	2	3	—	—	—	20	28
New York City	22	24	29	31	30	6	4	2	2	2	4	2	2	1	1	12	17	25	28	27
Philadelphia	—	—	—	22	22	—	—	—	4	4	—	—	—	2	2	—	—	—	15	16
San Diego	41	43	46	43	43	2	4	3	3	3	34	33	36	32	32	4	6	7	7	8
SD																				
Nation	14	14	14	13	13	3	3	3	2	2	4	4	3	3	3	7	8	8	8	9
Large city[1]	13	13	13	13	13	3	3	3	2	2	4	3	3	2	2	6	7	7	9	9
Albuquerque	—	—	—	—	15	—	—	—	—	2	—	—	—	—	2	—	—	—	—	11
Atlanta	8	9	10	10	9	1	1	2	1	1	3	2	4	3	1	4	6	5	6	7
Austin	—	15	13	16	15	—	7	4	4	3	—	2	2	2	2	—	6	7	10	10
Baltimore City	—	—	—	17	19	—	—	—	8	11	—	—	—	1	1	—	—	—	8	6
Boston	20	22	22	22	21	3	5	4	5	3	4	3	3	3	2	12	14	15	15	16
Charlotte	17	13	12	12	11	3	2	2	2	1	3	3	2	2	2	10	8	8	9	8
Chicago	15	13	14	14	15	5	4	4	3	2	4	3	4	3	3	6	7	6	8	10
Cleveland	12	13	17	20	22	5	5	13	10	5	2	1	#	#	1	5	8	4	10	16
Dallas	—	—	—	—	8	—	—	—	—	2	—	—	—	—	1	—	—	—	—	5
Detroit	—	—	—	15	15	—	—	—	3	6	—	—	—	3	3	—	—	—	8	6
District of Columbia (DCPS)	13	16	14	15	16	4	5	5	4	5	2	2	1	2	#	7	8	8	9	10
Fresno	—	—	—	11	10	—	—	—	3	1	—	—	—	3	2	—	—	—	5	7
Hillsborough County (FL)	—	—	—	—	17	—	—	—	—	1	—	—	—	—	2	—	—	—	—	14
Houston	18	12	10	7	8	7	5	3	2	3	8	3	2	1	1	3	4	4	4	4
Jefferson County (KY)	—	—	—	15	15	—	—	—	3	3	—	—	—	5	4	—	—	—	8	8
Los Angeles	11	11	11	10	12	2	3	1	1	2	5	3	4	3	1	4	5	5	7	9
Miami-Dade	—	—	—	13	12	—	—	—	2	2	—	—	—	1	1	—	—	—	10	10
Milwaukee	—	—	—	19	20	—	—	—	6	3	—	—	—	1	2	—	—	—	12	16
New York City	12	14	16	19	17	1	2	1	1	1	1	1	1	1	1	10	11	14	17	15
Philadelphia	—	—	—	15	16	—	—	—	4	4	—	—	—	2	1	—	—	—	9	11
San Diego	11	11	12	13	11	1	2	2	3	2	7	4	4	4	1	3	4	5	6	7

See notes at end of table.

Table A-2. Percentage of fourth-grade public school students with disabilities (SD) and/or English language learners (ELL) identified, excluded, and assessed in NAEP mathematics, as a percentage of all students, by SD/ELL category and jurisdiction: Various years, 2003-11—Continued

SD/ELL category and jurisdiction	Identified					Excluded					Assessed without accommodations					Assessed with accommodations				
	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011
ELL																				
Nation	11	10	11	10	11	1	1	1	1	#	7	7	7	6	6	2	3	3	4	4
Large city[1]	21	21	22	20	22	3	2	1	1	1	14	14	14	12	12	4	5	6	7	9
Albuquerque	—	—	—	—	18	—	—	—	—	1	—	—	—	—	6	—	—	—	—	11
Atlanta	2	2	3	2	2	#	#	#	#	#	1	1	#	#	#	#	1	2	2	2
Austin	—	25	29	32	33	—	5	2	2	2	—	11	15	18	23	—	9	12	12	9
Baltimore City	—	—	—	2	2	—	—	—	#	#	—	—	—	#	#	—	—	—	2	2
Boston	18	15	31	18	36	3	3	2	2	3	8	9	22	11	28	7	3	6	4	6
Charlotte	8	10	11	8	10	2	1	2	1	#	2	4	5	2	6	4	4	5	5	5
Chicago	20	18	20	12	18	5	2	2	2	1	13	12	13	4	4	2	4	5	6	13
Cleveland	4	4	7	7	7	1	1	1	2	1	1	2	1	1	#	1	2	4	4	6
Dallas	—	—	—	—	50	—	—	—	—	1	—	—	—	—	44	—	—	—	—	4
Detroit	—	—	—	6	12	—	—	—	#	#	—	—	—	4	11	—	—	—	2	1
District of Columbia (DCPS)	7	5	8	8	8	1	1	2	1	1	2	1	1	1	1	3	2	5	6	6
Fresno	—	—	—	30	30	—	—	—	1	#	—	—	—	27	27	—	—	—	1	3
Hillsborough County (FL)	—	—	—	—	17	—	—	—	—	1	—	—	—	—	#	—	—	—	—	16
Houston	35	37	38	38	38	4	4	2	2	2	14	15	21	21	25	17	18	15	15	11
Jefferson County (KY)	—	—	—	4	5	—	—	—	1	3	—	—	—	1	1	—	—	—	2	1
Los Angeles	56	54	48	41	34	2	4	1	1	1	47	45	42	36	27	6	5	5	4	6
Miami-Dade	—	—	—	9	17	—	—	—	1	1	—	—	—	1	#	—	—	—	7	15
Milwaukee	—	—	—	12	15	—	—	—	2	#	—	—	—	1	1	—	—	—	9	13
New York City	13	12	17	16	17	6	3	2	1	1	3	1	1	1	1	4	8	13	14	15
Philadelphia	—	—	—	8	8	—	—	—	1	#	—	—	—	#	1	—	—	—	7	6
San Diego	34	36	40	35	36	2	3	1	1	1	30	30	34	30	31	2	3	4	4	4

— Not available. District did not participate.

Rounds to zero.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. Students identified as both SD and ELL were counted only once under the combined SD and/or ELL category, but were counted separately under the SD and ELL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.

Table A-3. Percentage of fourth-grade public school students identified as students with disabilities (SD) and/or English language learners (ELL) excluded and assessed in NAEP mathematics, as a percentage of all identified SD and/or ELL students, by jurisdiction: 2011

	Percentage of identified SD and/or ELL students											
	SD and/or ELL				SD				ELL			
		Assessed				Assessed				Assessed		
Jurisdiction	Excluded	Total	Without accom-modations	With accom-modations	Excluded	Total	Without accom-modations	With accom-modations	Excluded	Total	Without accom-modations	With accom-modations
Nation	10	90	39	52	15	85	20	65	4	96	57	39
Large city[1]	9	91	44	47	19	81	14	68	4	96	57	39
Albuquerque	9	91	25	66	15	85	10	75	7	93	34	59
Atlanta	9	91	13	78	11	89	12	77	‡	‡	‡	‡
Austin	9	91	54	37	23	77	10	68	6	94	68	26
Baltimore City	53	47	9	38	59	41	8	33	‡	‡	‡	‡
Boston	9	91	57	33	15	85	9	76	8	92	77	16
Charlotte	6	94	36	58	10	90	16	74	2	98	54	44
Chicago	8	92	23	69	14	86	21	65	5	95	22	73
Cleveland	20	80	4	75	22	78	4	74	17	83	6	77
Dallas	5	95	81	14	27	73	10	63	2	98	90	8
Detroit	22	78	53	25	38	62	22	41	1	99	92	7
District of Columbia (DCPS)	28	72	5	66	35	65	3	62	14	86	10	77
Fresno	3	97	78	19	13	87	19	69	1	99	90	8
Hillsborough County (FL)	6	94	7	87	6	94	11	83	5	95	3	93
Houston	9	91	58	33	36	64	15	50	5	95	65	30
Jefferson County (KY)	25	75	26	49	19	81	26	55	50	50	23	27
Los Angeles	5	95	71	24	15	85	11	74	3	97	80	17
Miami-Dade	11	89	4	85	15	85	6	79	8	92	2	90
Milwaukee	8	92	8	84	13	87	8	78	2	98	8	91
New York City	5	95	5	90	5	95	5	90	6	94	4	90
Philadelphia	18	82	10	73	23	77	9	69	6	94	10	84
San Diego	6	94	75	19	22	78	12	66	3	97	86	10

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: Students identified as both SD and ELL were counted only once under the combined SD and/or ELL category, but were counted separately under the SD and ELL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Table A-4. Percentage of eighth-grade public school students with disabilities (SD) and/or English language learners (ELL) identified, excluded, and assessed in NAEP mathematics, as a percentage of all students, by SD/ELL category and jurisdiction: Various years, 2003-11

SD/ELL category and jurisdiction	Identified					Excluded					Assessed without accommodations					Assessed with accommodations				
	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011
SD and/or ELL																				
Nation	19	19	18	18	18	4	4	4	3	3	8	7	6	5	5	7	8	8	10	10
Large city[1]	24	24	23	23	23	5	4	4	3	3	13	12	10	9	8	7	8	9	11	12
Albuquerque	—	—	—	—	25	—	—	—	—	3	—	—	—	—	9	—	—	—	—	12
Atlanta	11	12	11	12	12	2	1	3	1	2	4	3	2	1	1	5	8	6	9	8
Austin	—	26	29	29	26	—	10	5	7	5	—	12	16	13	13	—	4	8	9	9
Baltimore City	—	—	—	19	21	—	—	—	11	12	—	—	—	1	1	—	—	—	6	7
Boston	31	25	27	30	36	7	9	8	9	6	9	7	6	5	11	15	9	12	16	19
Charlotte	18	18	20	17	17	3	3	3	3	1	5	5	6	5	4	9	10	12	10	11
Chicago	22	21	23	21	23	7	3	6	4	3	8	5	5	3	4	7	12	12	13	16
Cleveland	21	20	24	28	31	9	9	13	11	6	2	3	2	2	1	9	9	9	15	24
Dallas	—	—	—	—	29	—	—	—	—	5	—	—	—	—	18	—	—	—	—	6
Detroit	—	—	—	23	26	—	—	—	5	8	—	—	—	7	10	—	—	—	11	8
District of Columbia (DCPS)	20	19	21	23	26	6	6	10	7	7	5	2	3	3	1	9	11	8	14	18
Fresno	—	—	—	29	24	—	—	—	2	1	—	—	—	20	16	—	—	—	7	7
Hillsborough County (FL)	—	—	—	—	24	—	—	—	—	2	—	—	—	—	1	—	—	—	—	21
Houston	26	24	22	22	23	8	6	6	5	6	16	14	10	9	12	3	4	6	8	5
Jefferson County (KY)	—	—	—	15	15	—	—	—	4	3	—	—	—	4	3	—	—	—	7	8
Los Angeles	37	39	33	29	26	2	3	2	2	1	29	30	25	19	15	6	6	6	8	9
Miami-Dade	—	—	—	20	20	—	—	—	3	2	—	—	—	1	#	—	—	—	16	18
Milwaukee	—	—	—	26	33	—	—	—	4	5	—	—	—	2	3	—	—	—	20	25
New York City	24	20	22	23	26	5	2	2	2	1	6	2	1	1	#	14	16	19	20	24
Philadelphia	—	—	—	22	26	—	—	—	6	7	—	—	—	2	1	—	—	—	14	18
San Diego	29	28	28	25	24	4	4	4	5	3	22	17	19	15	13	4	7	5	5	8
SD																				
Nation	14	13	13	13	13	3	3	4	3	2	5	3	2	2	2	6	7	6	8	9
Large city[1]	14	13	13	13	13	3	3	4	3	3	5	3	3	2	2	5	6	6	9	9
Albuquerque	—	—	—	—	15	—	—	—	—	3	—	—	—	—	3	—	—	—	—	9
Atlanta	10	11	11	11	11	1	1	3	1	2	4	3	2	1	1	5	7	5	9	7
Austin	—	14	16	17	13	—	8	4	6	4	—	5	7	3	2	—	2	5	7	8
Baltimore City	—	—	—	18	19	—	—	—	11	12	—	—	—	1	1	—	—	—	5	6
Boston	24	18	19	22	20	4	7	7	7	4	7	3	3	3	1	13	8	9	12	15
Charlotte	14	12	13	11	11	3	2	2	2	1	4	2	2	1	1	8	8	10	7	8
Chicago	17	16	17	16	18	5	2	5	3	3	6	3	3	1	2	7	11	10	11	13
Cleveland	17	18	20	23	25	9	8	13	11	5	1	3	1	1	1	6	7	6	11	19
Dallas	—	—	—	—	9	—	—	—	—	4	—	—	—	—	1	—	—	—	—	4
Detroit	—	—	—	17	18	—	—	—	4	8	—	—	—	2	2	—	—	—	10	8
District of Columbia (DCPS)	16	17	17	19	20	5	5	9	6	5	3	2	2	1	1	8	10	6	11	14
Fresno	—	—	—	11	9	—	—	—	2	1	—	—	—	2	2	—	—	—	6	6
Hillsborough County (FL)	—	—	—	—	16	—	—	—	—	2	—	—	—	—	1	—	—	—	—	14
Houston	16	11	13	12	12	7	4	5	5	5	9	5	4	2	3	#	2	4	6	4
Jefferson County (KY)	—	—	—	12	11	—	—	—	3	2	—	—	—	3	2	—	—	—	6	7
Los Angeles	12	12	10	11	12	2	2	2	2	1	5	5	3	3	2	5	5	5	7	9
Miami-Dade	—	—	—	12	11	—	—	—	2	1	—	—	—	#	#	—	—	—	10	10
Milwaukee	—	—	—	21	21	—	—	—	3	5	—	—	—	1	1	—	—	—	16	15
New York City	15	12	13	15	17	2	1	1	1	1	3	1	1	#	#	10	10	11	13	16
Philadelphia	—	—	—	17	17	—	—	—	5	6	—	—	—	1	#	—	—	—	10	11
San Diego	11	11	11	12	14	1	3	4	5	3	7	4	3	2	4	3	4	4	5	7

See notes at end of table.

Table A-4. Percentage of eighth-grade public school students with disabilities (SD) and/or English language learners (ELL) identified, excluded, and assessed in NAEP mathematics, as a percentage of all students, by SD/ELL category and jurisdiction: Various years, 2003-11—Continued

SD/ELL category and jurisdiction	Identified					Excluded					Assessed without accommodations					Assessed with accommodations				
	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011
ELL																				
Nation	6	6	7	6	6	1	1	1	#	#	4	4	4	3	3	1	1	2	2	2
Large city[1]	13	13	13	12	12	2	2	1	1	1	9	9	7	7	6	3	3	4	4	5
Albuquerque	—	—	—	—	13	—	—	—	—	2	—	—	—	—	6	—	—	—	—	5
Atlanta	2	1	1	1	2	1	#	#	#	#	1	#	#	#	#	#	1	1	#	1
Austin	—	14	16	16	16	—	4	2	2	2	—	8	10	10	11	—	2	3	4	3
Baltimore City	—	—	—	1	2	—	—	—	#	1	—	—	—	#	#	—	—	—	1	1
Boston	13	10	9	11	21	5	4	2	4	3	4	5	4	2	11	4	1	3	5	7
Charlotte	7	7	9	7	8	1	1	1	1	#	3	4	4	3	3	3	2	3	3	4
Chicago	8	6	7	7	7	3	2	2	2	1	3	2	2	2	2	2	2	3	3	4
Cleveland	5	3	5	6	8	1	1	1	1	1	1	#	1	1	1	3	2	3	4	6
Dallas	—	—	—	—	24	—	—	—	—	2	—	—	—	—	18	—	—	—	—	4
Detroit	—	—	—	6	9	—	—	—	#	#	—	—	—	5	8	—	—	—	1	1
District of Columbia (DCPS)	5	4	4	6	7	1	1	1	2	1	2	1	1	2	1	2	2	2	2	5
Fresno	—	—	—	22	19	—	—	—	1	#	—	—	—	19	16	—	—	—	2	3
Hillsborough County (FL)	—	—	—	—	9	—	—	—	—	#	—	—	—	—	#	—	—	—	—	9
Houston	16	15	12	12	14	5	3	2	2	2	9	10	7	7	10	2	3	2	3	3
Jefferson County (KY)	—	—	—	3	4	—	—	—	1	1	—	—	—	1	2	—	—	—	2	1
Los Angeles	33	34	28	23	19	2	2	1	1	1	27	28	23	18	14	4	4	4	4	5
Miami-Dade	—	—	—	8	10	—	—	—	1	1	—	—	—	#	#	—	—	—	6	9
Milwaukee	—	—	—	7	14	—	—	—	1	1	—	—	—	1	2	—	—	—	4	12
New York City	13	10	11	10	12	4	2	1	1	1	3	2	1	#	#	6	7	9	9	12
Philadelphia	—	—	—	6	10	—	—	—	#	1	—	—	—	1	#	—	—	—	5	8
San Diego	23	21	21	16	16	3	3	2	1	1	18	14	17	13	11	2	4	3	2	4

— Not available. District did not participate.

Rounds to zero.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. Students identified as both SD and ELL were counted only once under the combined SD and/or ELL category, but were counted separately under the SD and ELL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.

Table A-5. Percentage of eighth-grade public school students identified as students with disabilities (SD) and/or English language learners (ELL) excluded and assessed in NAEP mathematics, as a percentage of all identified SD and/or ELL students, by jurisdiction: 2011

	Percentage of identified SD and/or ELL students											
	SD and/or ELL				SD				ELL			
		Assessed				Assessed				Assessed		
Jurisdiction	Excluded	Total	Without accom-modations	With accom-modations	Excluded	Total	Without accom-modations	With accom-modations	Excluded	Total	Without accom-modations	With accom-modations
Nation	15	85	27	58	19	81	13	68	7	93	55	38
Large city[1]	13	87	34	54	20	80	12	68	6	94	54	40
Albuquerque	14	86	37	50	17	83	21	61	13	87	49	38
Atlanta	20	80	11	68	22	78	10	68	‡	‡	‡	‡
Austin	18	82	48	35	28	72	16	57	12	88	68	20
Baltimore City	60	40	4	36	64	36	3	33	‡	‡	‡	‡
Boston	16	84	31	53	22	78	3	75	14	86	51	35
Charlotte	8	92	26	66	10	90	14	76	5	95	39	56
Chicago	14	86	18	68	16	84	13	70	15	85	26	60
Cleveland	18	82	4	78	21	79	2	76	15	85	9	76
Dallas	17	83	62	21	45	55	7	48	10	90	75	15
Detroit	31	69	38	32	46	54	9	45	1	99	89	9
District of Columbia (DCPS)	25	75	6	69	27	73	4	69	18	82	9	73
Fresno	5	95	68	27	13	87	17	71	1	99	82	17
Hillsborough County (FL)	8	92	4	88	11	89	4	85	4	96	3	93
Houston	24	76	53	23	42	58	26	32	14	86	68	18
Jefferson County (KY)	21	79	24	55	22	78	15	63	‡	‡	‡	‡
Los Angeles	5	95	59	36	10	90	17	72	4	96	70	26
Miami-Dade	9	91	2	89	10	90	1	89	9	91	2	89
Milwaukee	15	85	8	77	22	78	5	73	6	94	12	82
New York City	4	96	2	94	3	97	2	95	5	95	2	93
Philadelphia	26	74	4	70	36	64	3	61	8	92	5	87
San Diego	12	88	56	33	20	80	27	53	5	95	72	23

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: Students identified as both SD and ELL were counted only once under the combined SD and/or ELL category, but were counted separately under the SD and ELL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Table A-6. Inclusion rate and confidence interval in NAEP mathematics for fourth- and eighth-grade public school students, as a percentage of all students, by jurisdiction: 2011

Jurisdiction	Grade 4			Grade 8		
		95% confidence interval			95% confidence interval	
	Inclusion rate	Lower	Upper	Inclusion rate	Lower	Upper
Nation	98[2]	97.6	97.9	97[2]	97.2	97.5
Large city[1]	97[2]	96.9	97.5	97[2]	96.8	97.4
Albuquerque	97[2]	96.1	98.1	97[2]	95.5	97.4
Atlanta	99[2]	98.5	99.3	98[2]	96.8	98.1
Austin	96[2]	95.1	96.8	95[2]	94.4	96.2
Baltimore City	89	87.4	90.0	88	85.5	89.3
Boston	95[2]	94.4	96.2	94[2]	92.8	95.3
Charlotte	99[2]	98.2	99.3	99[2]	98.0	99.1
Chicago	98[2]	96.7	98.3	97[2]	95.6	97.5
Cleveland	94[2]	93.4	95.3	94[2]	92.6	95.8
Dallas	97[2]	96.0	97.8	95[2]	94.0	96.0
Detroit	94[2]	92.0	95.9	92	91.0	92.7
District of Columbia (DCPS)	94	92.4	94.5	93	92.1	94.5
Fresno	99[2]	98.3	99.1	99[2]	98.1	99.2
Hillsborough County (FL)	98[2]	97.3	99.0	98[2]	97.4	98.7
Houston	96[2]	94.8	96.7	94[2]	93.3	95.3
Jefferson County (KY)	95[2]	93.4	96.4	97[2]	95.8	97.6
Los Angeles	98[2]	97.4	98.8	99[2]	98.0	99.2
Miami-Dade	97[2]	95.4	98.2	98[2]	97.4	98.7
Milwaukee	97[2]	95.9	98.1	95[2]	93.3	96.5
New York City	98[2]	97.5	98.9	99[2]	98.5	99.3
Philadelphia	96[2]	94.6	97.2	93[2]	90.8	95.1
San Diego	97[2]	95.8	98.4	97[2]	95.7	98.2

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

[2] The jurisdiction's inclusion rate is higher than or not significantly different from the National Assessment Governing Board goal of 95 percent.

NOTE: DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Table A-7. Inclusion rate and standard error in NAEP mathematics for fourth- and eighth-grade public school students with disabilities (SD) and English language learners (ELL), as a percentage of identified SD or ELL students, by jurisdiction: 2011

	Percentage of identified SD or ELL students							
	Grade 4				Grade 8			
	SD		ELL		SD		ELL	
Jurisdiction	Inclusion rate	SE	Inclusion rate	SE	Inclusion rate	SE	Inclusion rate	SE
Nation	84[2]	0.5	96[2]	0.3	80	0.6	93[2]	0.6
Large city[1]	81	1.3	96[2]	0.3	80	1.2	94[2]	0.7
Albuquerque	85[2]	2.9	93[2]	1.4	82[2]	2.6	87[2]	2.0
Atlanta	88[2]	2.2	‡	†	77	2.9	‡	†
Austin	65	3.5	94[2]	0.8	62	3.5	88[2]	2.0
Baltimore City	39	2.8	‡	†	33	4.5	‡	†
Boston	84[2]	1.7	92[2]	0.9	77	2.6	86[2]	1.8
Charlotte	89[2]	2.6	98[2]	1.0	88[2]	2.5	95[2]	2.0
Chicago	85[2]	2.5	95[2]	1.3	83[2]	2.2	85[2]	3.6
Cleveland	78	1.7	83[2]	3.1	79	2.8	85[2]	3.6
Dallas	70	4.4	98[2]	0.6	54	4.4	90[2]	1.6
Detroit	62	5.4	99[2]	0.7	54	2.3	99[2]	1.0
District of Columbia (DCPS)	64	3.2	86[2]	1.9	72	2.5	82[2]	3.3
Fresno	87[2]	2.1	99[2]	0.4	87[2]	2.9	99[2]	0.6
Hillsborough County (FL)	93[2]	2.0	95[2]	1.6	88[2]	2.2	96[2]	1.9
Houston	63	4.0	95[2]	1.0	58	3.2	86[2]	1.9
Jefferson County (KY)	81[2]	2.5	50	8.5	78	3.1	‡	†
Los Angeles	85[2]	2.7	97[2]	0.5	90[2]	2.2	96[2]	0.8
Miami-Dade	85[2]	3.5	92[2]	2.5	90[2]	2.2	91[2]	2.0
Milwaukee	87[2]	2.5	98[2]	0.8	78	3.1	94[2]	1.8
New York City	95[2]	1.5	94[2]	1.6	97[2]	0.9	95[2]	1.4
Philadelphia	77	4.0	94[2]	2.7	64	5.2	92[2]	3.2
San Diego	78[2]	5.4	97[2]	1.0	80[2]	4.1	95[2]	1.7

† Not applicable. Standard error estimate cannot be accurately determined.

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

[2] The jurisdiction's inclusion rate is higher than or not significantly different from the National Assessment Governing Board goal of 85 percent.

NOTE: SD includes students identified as having an Individualized Education Program but excludes other students protected under Section 504 of the Rehabilitation Act of 1973. SE = Standard error. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Table A-8. Percentage distribution of fourth- and eighth-grade public school students assessed in NAEP mathematics, by race/ethnicity, eligibility for free/reduced-price school lunch, grade, and jurisdiction: 2003, 2009, and 2011

	Race/ethnicity															Eligibility for free/reduced-price school lunch					
	White			Black			Hispanic			Asian/Pacific Islander			American Indian/ Alaska Native			Eligible			Not eligible		
Grade and jurisdiction	2003	2009	2011	2003	2009	2011	2003	2009	2011	2003	2009	2011	2003	2009	2011	2003	2009	2011	2003	2009	2011
Grade 4																					
Nation	58*	54*	52	17*	16	16	19*	22*	24	4*	5	5	1	1	1	44*	48*	52	52*	51*	47
Large city[1]	22	20	20	34*	29	27	36*	42	43	7	7	8	1	1	1	69*	71	74	27	27	26
Albuquerque	—	—	23	—	—	2	—	—	65	—	—	3	—	—	4	—	—	66	—	—	34
Atlanta	10*	13*	15	87*	79*	76	2*	5	6	#*	1	1	#	#	1	81	74	75	18	25	24
Austin	—	25	26	—	11	8	—	60	61	—	3	3	—	#	#	—	65	64	—	35	36
Baltimore City	—	8	9	—	87	87	—	3	3	—	1	1	—	#	#	—	84*	88	—	15*	12
Boston	12	14*	12	46*	39*	34	33*	37*	44	8	8	8	1	#	#	83	78*	81	8*	21	19
Charlotte	41	36	35	46*	39	38	7*	16	18	4	5	5	1	#	#	45*	47	52	55*	52	46
Chicago	11	9	8	52*	45	41	34*	42	44	3*	4	6	#	#	#	85*	87	88	7*	13	11
Cleveland	16	15	15	76*	68	67	6*	13	14	1	1	1	1*	#	#	100[2]	100[2]	100[2]	#	#	#
Dallas	—	—	5	—	—	23	—	—	71	—	—	1	—	—	#	—	—	92	—	—	8
Detroit	—	3	3	—	84	84	—	11	12	—	1	#	—	#	#	—	81*	87	—	19*	12
District of Columbia (DCPS)	4*	9*	11	87*	77*	72	8*	12	14	1*	2	2	#	#	#	71	72	72	24*	27	28
Fresno	—	14	12	—	10	9	—	63	66	—	12	12	—	1	1	—	89*	93	—	11*	7
Hillsborough County (FL)	—	—	37	—	—	20	—	—	35	—	—	3	—	—	#	—	—	58	—	—	42
Houston	7	7	8	35*	25	24	56*	64	64	2	4	3	#	#	#	76	83	81	21	17	19
Jefferson County (KY)	—	53	53	—	36	35	—	5	6	—	3	3	—	#	#	—	60	62	—	40	38
Los Angeles	11	9	9	10	7	10	73	77	75	6	7	6	#	#	#	83	84	83	5*	11	14
Miami-Dade	—	10	7	—	25	25	—	62	66	—	1	1	—	#	#	—	68	74	—	32	26
Milwaukee	—	13	15	—	56	51	—	22	26	—	5	7	—	1	1	—	78*	83	—	22*	17
New York City	15	15	15	35	28	29	37	40	37	12*	16	19	1	#	#	88	87	90	10	11	10
Philadelphia	—	12	12	—	61	58	—	19	22	—	6	6	—	#	#	—	87	90	—	13	10
San Diego	23	27	23	17	12	12	42	43	44	18	17	15	#	1	#	58	61	65	36	39	35

See notes at end of table.

Table A-8. Percentage distribution of fourth- and eighth-grade public school students assessed in NAEP mathematics, by race/ethnicity, eligibility for free/reduced-price school lunch, grade, and jurisdiction: 2003, 2009, and 2011— Continued

	Race/ethnicity															Eligibility for free/reduced-price school lunch					
	White			Black			Hispanic			Asian/Pacific Islander			American Indian/ Alaska Native			Eligible			Not eligible		
Grade and jurisdiction	2003	2009	2011	2003	2009	2011	2003	2009	2011	2003	2009	2011	2003	2009	2011	2003	2009	2011	2003	2009	2011
Grade 8																					
Nation	62*	56*	54	17*	16	16	15*	21*	23	4*	5	6	1*	1	1	36*	43*	48	58*	56*	52
Large city[1]	24*	21	20	35*	27	26	33*	42	43	8	8	8	1	1	1	60*	66*	70	33	32*	29
Albuquerque	—	—	25	—	—	1	—	—	66	—	—	2	—	—	3	—	—	60	—	—	39
Atlanta	5*	7	8	93*	88*	86	1*	4	5	#	#	#	#	#	#	78*	78*	82	15*	22*	18
Austin	—	31*	27	—	11*	9	—	55*	59	—	3	4	—	#	#	—	55*	59	—	44*	41
Baltimore City	—	6*	11	—	91*	84	—	2	3	—	1	1	—	#	#	—	82	85	—	18	15
Boston	16	14	15	46*	40	37	28*	33	36	9	11	11	#	#	#	71*	73	76	10*	24	23
Charlotte	42*	32	33	46	46	44	6*	15	15	5	4	5	1	#	#	36*	46*	52	63*	52*	47
Chicago	10	9	9	51	48	43	36	40	41	4	3	6	#	#	#	88	86	84	6*	14	15
Cleveland	15	15	17	72*	71*	66	11	12	13	1	1	2	#	#	#	100[2]	100[2]	100[2]	#	#	#
Dallas	—	—	5	—	—	26	—	—	68	—	—	1	—	—	#	—	—	85	—	—	14
Detroit	—	2	2	—	89	87	—	8	10	—	1	1	—	1	#	—	70*	79	—	30*	20
District of Columbia (DCPS)	3*	5*	6	87*	82*	78	9*	11	12	1*	2	2	#	#	#	57*	75*	70	31	25*	30
Fresno	—	14	12	—	11	11	—	58*	61	—	16*	14	—	#	1	—	86*	88	—	14*	12
Hillsborough County (FL)	—	—	43	—	—	19	—	—	31	—	—	3	—	—	#	—	—	54	—	—	46
Houston	8	8	7	33*	29	27	55*	60	62	3	3	3	#	#	#	69*	78	76	31*	22	24
Jefferson County (KY)	—	55	54	—	36	37	—	4	5	—	3	3	—	#	#	—	55*	60	—	45*	40
Los Angeles	10	8	9	12	10	9	71	75	74	7	7	8	#	#	#	65*	82	82	6*	11	13
Miami-Dade	—	10	9	—	22	22	—	65	67	—	1	2	—	#	#	—	63*	72	—	37*	28
Milwaukee	—	11	12	—	62	57	—	20	23	—	4	7	—	1	1	—	78	81	—	22	19
New York City	16	16	14	36	32	30	34	39	41	14	14	15	#	#	#	83	79*	87	14	18*	12
Philadelphia	—	16	13	—	57	56	—	18	21	—	8	9	—	#	#	—	85	88	—	15	12
San Diego	27	28	24	16*	12	11	38	41	42	19	18	19	#	#	#	52*	55	60	44	45	40

— Not available. District did not participate.

Rounds to zero.

* Significantly different ($p < .05$) from 2011.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

[2] In Cleveland, all students were categorized as eligible for the National School Lunch Program.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin. Results are not shown for students whose race/ethnicity was unclassified or two or more races, and for students whose eligibility status for free/reduced-price school lunch was not available.

DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2009, and 2011 Mathematics Assessments.

Table A-9. Selected percentile scores in NAEP mathematics for fourth- and eighth-grade public school students, by jurisdiction: Various years, 2003-11

Jurisdiction	Grade 4					Grade 8				
	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011
	10th percentile					**10th percentile**				
Nation	196***	199***	201***	201***	202*	228***	230***	234***	235***	236*
Large city[1]	186***	188***	189***	191***	194**	214***	216***	220***	222***	226**
Albuquerque	—	—	—	—	196**	—	—	—	—	230*,**
Atlanta	180***	185***	187	189	190**	200***	200***	215***	219	224**
Austin	—	208	204	206	210*,**	—	230***	235	239	240*
Baltimore City	—	—	—	192	193**	—	—	—	217	220**
Boston	189***	196***	198	203	202*	214***	220	230	230	230
Charlotte	207	208	208	208	211*,**	226***	230	233	237	236*
Chicago	179	178	182	184	185*,**	210***	215***	215***	219***	227**
Cleveland	182	187***	181	177***	181*,**	216	208	218	216	216*,**
Dallas	—	—	—	—	202*	—	—	—	—	234*
Detroit	—	—	—	165	171*,**	—	—	—	196***	208*,**
District of Columbia (DCPS)	168	175	172	177	174*,**	198***	200	203	198***	204*,**
Fresno	—	—	—	181	180*,**	—	—	—	210	208*,**
Hillsborough County (FL)	—	—	—	—	208*	—	—	—	—	236*
Houston	196***	200***	202	205	205*,**	227***	224***	231***	234	238*
Jefferson County (KY)	—	—	—	192	199*	—	—	—	223	226**
Los Angeles	180	180	179	182	184*,**	198***	201***	209	213	213*,**
Miami-Dade	—	—	—	202	199*	—	—	—	229	227**
Milwaukee	—	—	—	183	184*,**	—	—	—	212	211*,**
New York City	191	194	199	199	195**	215***	219***	221	223	225**
Philadelphia	—	—	—	186	189*,**	—	—	—	220	218**
San Diego	190***	194	189***	195	198	216***	221	223	232	229
	25th percentile					**25th percentile**				
Nation	215***	219***	221	221***	222*	253***	254***	257***	258***	259*
Large city[1]	204***	207***	209***	211***	213**	237***	240***	243***	246***	249**
Albuquerque	—	—	—	—	215**	—	—	—	—	250**
Atlanta	195***	200***	202	205	207*,**	220***	221***	234***	237***	243*,**
Austin	—	224	221***	222***	227*,**	—	255***	259	262	261*
Baltimore City	—	—	—	206	209**	—	—	—	236	238*,**
Boston	203***	212***	216***	219	221*	236***	243***	251	253	255*,**
Charlotte	223***	225	225	226	229*,**	252***	254***	256	258	259*
Chicago	196***	195***	200***	203	204*,**	233***	236***	238***	241***	248**
Cleveland	197	202	198	196	198*,**	233	228	237	237	234*,**
Dallas	—	—	—	—	218*,**	—	—	—	—	253**
Detroit	—	—	—	182	186*,**	—	—	—	216***	227*,**
District of Columbia (DCPS)	185***	192***	192***	197	197*,**	219***	222***	225	223	227*,**
Fresno	—	—	—	200	199*,**	—	—	—	233	230*,**
Hillsborough County (FL)	—	—	—	—	226*,**	—	—	—	—	258*
Houston	210***	216***	218	220	220*	244***	246***	252***	256	259*
Jefferson County (KY)	—	—	—	211***	217**	—	—	—	246	249**
Los Angeles	196***	198***	200	202	203*,**	219***	225***	232***	234	236*,**
Miami-Dade	—	—	—	219	218*,**	—	—	—	250	249**
Milwaukee	—	—	—	202	201*,**	—	—	—	231	231*,**
New York City	207***	212	218	218***	214**	241	241	244	246	246**
Philadelphia	—	—	—	203***	207*,**	—	—	—	241	240*,**
San Diego	207***	213***	213***	217	219*	239***	247	248	255	252**

See notes at end of table.

Table A-9. Selected percentile scores in NAEP mathematics for fourth- and eighth-grade public school students, by jurisdiction: Various years, 2003–11—Continued

Jurisdiction	Grade 4					Grade 8				
	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011
	50th percentile					**50th percentile**				
Nation	235***	239***	241	241***	242*	278***	279***	281***	283***	284*
Large city[1]	224***	228***	231***	232***	234**	262***	265***	269***	271***	274**
Albuquerque	—	—	—	—	236**	—	—	—	—	275**
Atlanta	214***	219***	222	223	225*,**	244***	245***	254***	259***	265*,**
Austin	—	242***	241***	240***	246*,**	—	281***	282***	288	287*,**
Baltimore City	—	—	—	223	226*,**	—	—	—	256	260*,**
Boston	219***	230***	233	236	238*,**	260***	270***	276***	280	282*
Charlotte	242	245	245	245	248*,**	280	282	283	282	285*
Chicago	214***	215***	220***	223	225*,**	255***	258***	261***	263***	270*,**
Cleveland	215	221***	216	215	216*,**	252	251	258	256	255*,**
Dallas	—	—	—	—	233**	—	—	—	—	274**
Detroit	—	—	—	200	203*,**	—	—	—	238***	246*,**
District of Columbia (DCPS)	204***	210***	213***	219	222*,**	243***	244***	248***	250	254*,**
Fresno	—	—	—	220	218*,**	—	—	—	258	255*,**
Hillsborough County (FL)	—	—	—	—	244*,**	—	—	—	—	282*
Houston	226***	233***	235	236	237*,**	263***	268***	274***	277	280*,**
Jefferson County (KY)	—	—	—	234	236**	—	—	—	271	274**
Los Angeles	215***	221***	222	223	224*,**	245***	250***	257	258	260*,**
Miami-Dade	—	—	—	237	237**	—	—	—	274	272**
Milwaukee	—	—	—	220	219*,**	—	—	—	251	255*,**
New York City	226***	231***	237	238	235**	266	266***	268	272	271*,**
Philadelphia	—	—	—	222	226*,**	—	—	—	264	264*,**
San Diego	226***	234***	237	238	241*	265***	272***	273	281	279
	75th percentile					**75th percentile**				
Nation	254***	257***	259***	259***	260*	301***	303***	305***	307***	308*
Large city[1]	244***	248***	252***	252	253**	287***	291***	295***	297***	300**
Albuquerque	—	—	—	—	257	—	—	—	—	300**
Atlanta	234***	240***	244***	245	249*,**	267***	268***	277***	281***	288*,**
Austin	—	260***	261	260***	265*,**	—	308	310	314	313*,**
Baltimore City	—	—	—	238***	242*,**	—	—	—	278	284*,**
Boston	236***	247***	251***	253	255**	287***	296***	301***	307	308*
Charlotte	261***	265	264***	266	267*,**	307***	308	309	307***	313*,**
Chicago	232***	236***	240***	242	244*,**	277***	281***	283***	287***	293*,**
Cleveland	232	237***	234	232	234*,**	272***	270***	277	276	278*,**
Dallas	—	—	—	—	249*,**	—	—	—	—	296*,**
Detroit	—	—	—	218	220*,**	—	—	—	260	266*,**
District of Columbia (DCPS)	224***	230***	234***	241	247*,**	267***	267***	271***	277	282*,**
Fresno	—	—	—	238	238*,**	—	—	—	284	282*,**
Hillsborough County (FL)	—	—	—	—	262*	—	—	—	—	307*
Houston	243***	250	251***	253	254**	283***	289***	294***	299	301**
Jefferson County (KY)	—	—	—	254	255**	—	—	—	296	299**
Los Angeles	235***	242	243	243	244*,**	270***	275***	282	282***	286*,**
Miami-Dade	—	—	—	255	255**	—	—	—	296	296*,**
Milwaukee	—	—	—	239	238*,**	—	—	—	273	277*,**
New York City	246***	250***	256	258	255**	293	292	295	300	297**
Philadelphia	—	—	—	240***	244*,**	—	—	—	287	289*,**
San Diego	244***	252***	258	259	261*	290***	295***	298***	307	306*

See notes at end of table.

Table A-9. Selected percentile scores in NAEP mathematics for fourth- and eighth-grade public school students, by jurisdiction: Various years, 2003–11—Continued

Jurisdiction	Grade 4					Grade 8				
	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011
	90th percentile					90th percentile				
Nation	270***	272***	274***	275***	276*	321***	323***	325***	328	329*
Large city[1]	262***	266***	269	270	271**	311***	315***	318***	321	322**
Albuquerque	—	—	—	—	274	—	—	—	—	321**
Atlanta	256***	260***	264***	266***	271**	288***	290***	302	302	309*,**
Austin	—	276	276	276***	280*,**	—	331	331	335	336*,**
Baltimore City	—	—	—	252	258*,**	—	—	—	299	305*,**
Boston	252***	263***	267	269	272**	314***	323	325***	330	331*
Charlotte	276***	281	279	282	281*,**	328***	330***	333	329***	337*,**
Chicago	248***	254***	257***	259	261*,**	297***	301***	304***	308	314*,**
Cleveland	248	252	249	247	250*,**	290***	291	294	294	299*,**
Dallas	—	—	—	—	263*,**	—	—	—	—	315*,**
Detroit	—	—	—	232	236*,**	—	—	—	281	285*,**
District of Columbia (DCPS)	243***	248***	256***	264	270**	288***	291***	294***	303***	311*,**
Fresno	—	—	—	254	255*,**	—	—	—	308	306*,**
Hillsborough County (FL)	—	—	—	—	277*	—	—	—	—	327
Houston	259***	266	265	266	269**	303***	309***	317	320	319*,**
Jefferson County (KY)	—	—	—	272	271**	—	—	—	318	321**
Los Angeles	253***	260	261	261	261*,**	292***	300***	307	305	310*,**
Miami-Dade	—	—	—	270	270**	—	—	—	316	317*,**
Milwaukee	—	—	—	256	255*,**	—	—	—	293	298*,**
New York City	262***	266***	272	275	273	316	317	320	324	322**
Philadelphia	—	—	—	257	262*,**	—	—	—	312	313*,**
San Diego	262***	269***	273	276	277*	311***	317***	321	327	328

— Not available. District did not participate.

* Significantly different ($p < .05$) from large city in 2011.

** Significantly different ($p < .05$) from the nation in 2011.

*** Significantly different ($p < .05$) from 2011.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003–11 Mathematics Assessments.

Table A-10. Achievement-level results in NAEP mathematics for fourth-grade public school students, by jurisdiction: Various years, 2003-11

	Percentage of students														
	At or above *Basic*					At or above *Proficient*					At *Advanced*				
Jurisdiction	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011
Nation	76***	79***	81	81***	82*	31***	35***	39***	38***	40*	4***	5***	5***	6***	6*
Large city[1]	63***	68***	70***	72***	74**	20***	24***	28***	29	30**	2***	3***	4	5	5**
Albuquerque	—	—	—	—	76**	—	—	—	—	34**	—	—	—	—	6
Atlanta	50***	57***	61***	63	66*,**	13***	17***	20***	21***	25*,**	2***	3***	3***	4	5**
Austin	—	85	83***	83	87*,**	—	40***	40***	38***	46*,**	—	7	7	6***	9*,**
Baltimore City	—	—	—	64	68*,**	—	—	—	13***	17*,**	—	—	—	1	1*,**
Boston	59***	72***	77***	81	81*	12***	22***	27	31	33**	1***	2***	3	4	5**
Charlotte	84***	86	85	86	88*,**	41***	44	44	45	48*,**	6***	9	8	10	9*,**
Chicago	50***	52***	58***	62	64*,**	10***	13***	16***	18	20*,**	1***	1	1	2	2*,**
Cleveland	51	60***	53	51	53*,**	10	13	10	8	11*,**	#	#	#	#	#*,**
Dallas	—	—	—	—	79*	—	—	—	—	25**	—	—	—	—	2*,**
Detroit	—	—	—	31	34*,**	—	—	—	3	3*,**	—	—	—	#	#
District of Columbia (DCPS)	36***	45***	49***	57	59*,**	7***	10***	14***	19***	23*,**	1***	1***	3***	4	5
Fresno	—	—	—	58	56*,**	—	—	—	14	15*,**	—	—	—	1	1*,**
Hillsborough County (FL)	—	—	—	—	86*,**	—	—	—	—	43*	—	—	—	—	7
Houston	70***	77***	80	82	82*	18***	26***	28***	30	32**	1***	3	3	3	3**
Jefferson County (KY)	—	—	—	72***	78*,**	—	—	—	31	32**	—	—	—	6	4**
Los Angeles	52***	58***	60	61	63*,**	13***	18	19	19	20*,**	1	2	2	2	2*,**
Miami-Dade	—	—	—	81	79*,**	—	—	—	33	33**	—	—	—	3	4**
Milwaukee	—	—	—	59	58*,**	—	—	—	15	14*,**	—	—	—	1	1*,**
New York City	67***	73	79	79***	76**	21***	26***	34	35	32**	2***	3***	5	6	6
Philadelphia	—	—	—	61***	66*,**	—	—	—	16	20*,**	—	—	—	2	2*,**
San Diego	66***	74***	74***	77	80*	20***	29***	35	36	39*	2***	4***	5	6	7*

— Not available. District did not participate.

Rounds to zero.

* Significantly different ($p < .05$) from large city in 2011.

** Significantly different ($p < .05$) from the nation in 2011.

*** Significantly different ($p < .05$) from 2011.

[1]Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.

Table A-11. Achievement-level results in NAEP mathematics for eighth-grade public school students, by jurisdiction: Various years, 2003–11

Jurisdiction	Percentage of students														
	At or above *Basic*					At or above *Proficient*					At *Advanced*				
	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011
Nation	67***	68***	70***	71***	72*	27***	28***	31***	33***	34*	5***	6***	7***	7	8*
Large city[1]	50***	53***	57***	60***	63**	16***	19***	22***	24***	26**	3***	4***	5***	5	6**
Albuquerque	—	—	—	—	63**	—	—	—	—	26**	—	—	—	—	5**
Atlanta	30***	31***	41***	46***	54*,**	6***	7***	11***	11***	16*,**	1	1	2	1	2*,**
Austin	—	68***	72	75	74*	—	33***	34***	39	38*,**	—	9	9	11	11*,**
Baltimore City	—	—	—	43	48*,**	—	—	—	10	13*,**	—	—	—	1	2*,**
Boston	48***	58***	65	67	69*,**	17***	23***	27***	31	34*	4***	6***	7	9	9*
Charlotte	67***	69***	70	72	72*	32***	33	34	33***	37*,**	7***	9***	10	8***	12*,**
Chicago	42***	45***	49***	51***	60**	9***	11***	13***	15***	20*,**	1***	2	2	2	3*,**
Cleveland	38	34	45	42	41*,**	6***	6***	7	8	10*,**	#	#	#	1	1*,**
Dallas	—	—	—	—	64**	—	—	—	—	22*,**	—	—	—	—	3*,**
Detroit	—	—	—	23	29*,**	—	—	—	4	4*,**	—	—	—	#	#*,**
District of Columbia (DCPS)	29***	31***	34***	38	42*,**	6***	7***	8***	12***	15*,**	1***	2***	1***	3	4*,**
Fresno	—	—	—	46	43*,**	—	—	—	15	13*,**	—	—	—	3	2*,**
Hillsborough County (FL)	—	—	—	—	72*	—	—	—	—	32*	—	—	—	—	7*
Houston	52***	58***	65***	69	72*	12***	16***	21***	24	27**	2***	2***	4	5	5**
Jefferson County (KY)	—	—	—	60	62**	—	—	—	22	25**	—	—	—	5	5**
Los Angeles	32***	38***	45	46	49*,**	7***	11***	14	13	16*,**	1***	2	2	2	3*,**
Miami-Dade	—	—	—	64	61**	—	—	—	22	22*,**	—	—	—	3	4*,**
Milwaukee	—	—	—	37	41*,**	—	—	—	7	10*,**	—	—	—	#	1*,**
New York City	54***	54***	57	60	59**	20	20	22	26	24**	4	5	6	7	6
Philadelphia	—	—	—	52	52*,**	—	—	—	17	18*,**	—	—	—	3	4**
San Diego	53***	61	62	68	66	18***	22***	24***	32	31*	2***	4***	5	7	8

— Not available. District did not participate.
Rounds to zero.
* Significantly different ($p < .05$) from large city in 2011.
** Significantly different ($p < .05$) from the nation in 2011.
*** Significantly different ($p < .05$) from 2011.
[1]Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.
NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. DCPS = District of Columbia Public Schools.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003–11 Mathematics Assessments.

Table A-12. Average scores and achievement-level results in NAEP mathematics for fourth-grade public school students, by selected race/ethnicity categories and jurisdiction: Various years, 2003–11

Race/ethnicity and jurisdiction	Average scale score					Percentage of students: At or above *Basic*					Percentage of students: At or above *Proficient*				
	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011
White															
Nation	243***	246***	248***	248***	249*	87***	89***	91	90	91	42***	47***	51	50***	52*
Large city[1]	243***	247***	249	250	251**	86***	88***	90	90	91	42***	50***	54	55	55**
Albuquerque	—	—	—	—	254**	—	—	—	—	92	—	—	—	—	61**
Atlanta	258	263***	266	266	269*,**	89	96	99	98	98*,**	70	72***	81	79	84*,**
Austin	—	262	263	262	266*,**	—	99	98	97	99	—	75	76	74	80*,**
Baltimore City	—	—	—	240	244*	—	—	—	84	86	—	—	—	34	44
Boston	234***	244***	250	251	255*,**	77***	88	93	92	93	32***	43***	52	52	63**
Charlotte	257***	261	261	263	264*,**	96	97	98	97	97*,**	66***	70	72	72	76*,**
Chicago	235***	243	244	242	246	82	88	84	83	86	31***	43	47	44	52
Cleveland	233	233	233	228	232*,**	80	81	80	73	76*,**	27	25	25	17	28*,**
Dallas	—	—	—	—	258	—	—	—	—	97*,**	—	—	—	—	67
Detroit	—	—	—	‡	‡	—	—	—	‡	‡	—	—	—	‡	‡
District of Columbia (DCPS)	262***	266***	262***	270	272*,**	97	99	91***	99	99*,**	71***	78	73***	81	85*,**
Fresno	—	—	—	237	238*,**	—	—	—	79	80*,**	—	—	—	36	39*,**
Hillsborough County (FL)	—	—	—	—	253**	—	—	—	—	95**	—	—	—	—	59**
Houston	254	262	263	260	259*,**	96	97	96	99	96*,**	63	73	76	71	68*,**
Jefferson County (KY)	—	—	—	243	243*,**	—	—	—	84	87*,**	—	—	—	44	41*,**
Los Angeles	241	247	247	245	243*,**	83	87	90	87	86	44	49	50	45	45*
Miami-Dade	—	—	—	253	255**	—	—	—	96	96	—	—	—	61	60
Milwaukee	—	—	—	242	239*,**	—	—	—	86	81*,**	—	—	—	42	38*,**
New York City	244	245	249	254	248	88	87	91	94	87	42	46	53	58	50
Philadelphia	—	—	—	239	243*	—	—	—	80	84	—	—	—	37	43
San Diego	243***	249***	252	255	258*,**	87***	94	90	94	95*,**	41***	50***	59	62	66*,**
Black															
Nation	216***	220***	222***	222***	224*	54***	60***	63***	63***	66*	10***	13***	15***	15***	17*
Large city[1]	212***	217***	219***	219***	222**	47***	55***	58***	59***	63**	8***	11***	13	14	16**
Albuquerque	—	—	—	—	‡	—	—	—	—	‡	—	—	—	—	‡
Atlanta	211***	215***	217	218	219*,**	45***	51***	55	57	58*,**	7***	9***	11	11	11*,**
Austin	—	228	226	226	232*,**	—	74	68	71	78*	—	18	17	13	22
Baltimore City	—	—	—	220	223	—	—	—	61	66	—	—	—	10	14
Boston	216***	223***	226	231	230*,**	55***	65***	71	78	76*,**	6***	13***	18	23	21
Charlotte	229	230	230	231	232*,**	73	74	75	75	80*,**	20	21	23	24	24*,**
Chicago	207***	208***	213	212	217*,**	39***	41***	48	48	55*,**	4***	6***	8	9	13
Cleveland	210	215	210	209	211*,**	44	52	45	44	46*,**	5	8	5	5	6*,**
Dallas	—	—	—	—	225	—	—	—	—	70	—	—	—	—	13
Detroit	—	—	—	199	201*,**	—	—	—	29	31*,**	—	—	—	3	2*,**
District of Columbia (DCPS)	202***	207***	209***	212	212*,**	33***	41***	45***	49	50*,**	4***	5***	8***	9	12*,**
Fresno	—	—	—	213	214*,**	—	—	—	46	49*,**	—	—	—	12	11
Hillsborough County (FL)	—	—	—	—	228*	—	—	—	—	70	—	—	—	—	20
Houston	221***	224***	225	227	229*,**	62***	67	69	72	75*,**	12***	14	16	17	20
Jefferson County (KY)	—	—	—	216***	221	—	—	—	54	62	—	—	—	11	13
Los Angeles	208	209	216	209	215*,**	42	42	54	41	53	6	9	13	10	11
Miami-Dade	—	—	—	222	225	—	—	—	64	67	—	—	—	12	17
Milwaukee	—	—	—	211	211*,**	—	—	—	46	47*,**	—	—	—	7	6*,**
New York City	219***	222	227	227	226*	58***	63	72	70	69*	12***	14	20	21	19
Philadelphia	—	—	—	216	220*,**	—	—	—	54	60**	—	—	—	10	12*,**
San Diego	216***	221	222	222	222	54	60	65	64	65	8	15	21	15	17

See notes at end of table.

Table A-12. Average scores and achievement-level results in NAEP mathematics for fourth-grade public school students, by selected race/ethnicity categories and jurisdiction: Various years, 2003–11—Continued

Race/ethnicity and jurisdiction	Average scale score					Percentage of students: At or above *Basic*					Percentage of students: At or above *Proficient*				
	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011
Hispanic															
Nation	221***	225***	227***	227***	229	62***	67***	69***	70	72	15***	19***	22***	21***	24
Large city[1]	219***	223***	224***	226	228	59***	64***	66***	69	71	13***	17***	21	21	23
Albuquerque	—	—	—	—	229	—	—	—	—	70	—	—	—	—	24
Atlanta	‡	‡	223	222	230	‡	‡	60	66	71	‡	‡	16	16	27
Austin	—	234	233	233	237*,**	—	80	78	79	82*,**	—	27	26	25	32*,**
Baltimore City	—	—	—	‡	‡	—	—	—	‡	‡	—	—	—	‡	‡
Boston	215***	225***	230	232	234*,**	51***	70***	76	77	80*,**	7***	14***	23	24	26
Charlotte	233***	234***	234	235	240*,**	80	81	80	82	87*,**	26	27	26	27	38*,**
Chicago	217***	217	219	226	223*,**	55***	55***	60	70	65*,**	10***	13	16	18	17*,**
Cleveland	220	224	215	217	218*,**	58	68	53	56	58*,**	14	18	10	13	11*,**
Dallas	—	—	—	—	234*,**	—	—	—	—	81*,**	—	—	—	—	26
Detroit	—	—	—	206	215*,**	—	—	—	39	53*,**	—	—	—	5	7*,**
District of Columbia (DCPS)	205***	215***	220	227	223**	39***	51***	57	69	63*,**	7***	11***	19	25	22
Fresno	—	—	—	216	214*,**	—	—	—	55	51*,**	—	—	—	10	10*,**
Hillsborough County (FL)	—	—	—	—	239*,**	—	—	—	—	85*,**	—	—	—	—	37*,**
Houston	226***	232***	234	235	236*,**	70***	78	82	83	82*,**	15***	23***	25	28	30*,**
Jefferson County (KY)	—	—	—	226***	238*,**	—	—	—	65	83*,**	—	—	—	23	36
Los Angeles	211***	216***	217	218	220*,**	46***	53***	55	58	59*,**	7***	13	14	14	15*,**
Miami-Dade	—	—	—	239	237*,**	—	—	—	84	81*,**	—	—	—	35	35*,**
Milwaukee	—	—	—	226	221*,**	—	—	—	71	60*,**	—	—	—	16	14*,**
New York City	220***	226	230	230	227	60***	70	74	74	70	13***	18	26	24	22
Philadelphia	—	—	—	221	223*,**	—	—	—	60	64	—	—	—	15	16**
San Diego	216***	222***	223***	224	229	53***	63***	64***	66	72	9***	16***	21	19	24

See notes at end of table.

Table A-12. Average scores and achievement-level results in NAEP mathematics for fourth-grade public school students, by selected race/ethnicity categories and jurisdiction: Various years, 2003–11—Continued

Race/ethnicity and jurisdiction	Average scale score					Percentage of students: At or above *Basic*					Percentage of students: At or above *Proficient*				
	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011
Asian/Pacific Islander															
Nation	246***	251***	254	255	256*	87***	89	91	91	91*	48***	54***	59	61	62*
Large city[1]	246	247	251	253	249**	86	87	89	90	86**	47	49	57	58	52**
Albuquerque	—	—	—	—	‡	—	—	—	—	‡	—	—	—	—	‡
Atlanta	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Austin	—	‡	268	‡	‡	—	‡	99	‡	‡	—	‡	83	‡	‡
Baltimore City	—	—	—	‡	‡	—	—	—	‡	‡	—	—	—	‡	‡
Boston	243***	256	255	260	259*	87***	98	91	94	95*	43***	65	61	65	69*
Charlotte	252	256	263	257	258	90	96	98	91	93	60	62	75	63	65
Chicago	‡	‡	249	255	247**	‡	‡	92	96	87	‡	‡	53	60	50
Cleveland	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Dallas	—	—	—	—	‡	—	—	—	—	‡	—	—	—	—	‡
Detroit	—	—	—	‡	‡	—	—	—	‡	‡	—	—	—	‡	‡
District of Columbia (DCPS)	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Fresno	—	—	—	220	223*,**	—	—	—	59	64*,**	—	—	—	16	16*,**
Hillsborough County (FL)	—	—	—	—	‡	—	—	—	—	‡	—	—	—	—	‡
Houston	‡	‡	265	264	264*,**	‡	‡	100	98	97	‡	‡	75	78	77*
Jefferson County (KY)	—	—	—	‡	255	—	—	—	‡	87	—	—	—	‡	67
Los Angeles	241***	246	246	248	251	86	88	92	87	90	38	45	49	50	55
Miami-Dade	—	—	—	‡	‡	—	—	—	‡	‡	—	—	—	‡	‡
Milwaukee	—	—	—	231	230*,**	—	—	—	77	71*,**	—	—	—	28	24*,**
New York City	247	253	257	258	251	89	92	93	93	88	47***	60	65	68	57
Philadelphia	—	—	—	243	251	—	—	—	87	86	—	—	—	40	58
San Diego	238***	245	247	247	248**	84	87	88	86	87	32***	46	50	50	53

— Not available. District did not participate.

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

* Significantly different ($p < .05$) from large city in 2011.

** Significantly different ($p < .05$) from the nation in 2011.

*** Significantly different ($p < .05$) from 2011.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003–11 Mathematics Assessments.

Table A-13. Average scores and achievement-level results in NAEP mathematics for eighth-grade public school students, by selected race/ethnicity categories and jurisdiction: Various years, 2003–11

Race/ethnicity and jurisdiction	Average scale score					Percentage of students: At or above *Basic*					Percentage of students: At or above *Proficient*				
	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011
White															
Nation	287***	288***	290***	292	293	79***	79***	81***	82	83	36***	37***	41***	43	43*
Large city[1]	285***	288***	292	294	295	77***	78***	81	81	83	36***	39***	44	46	48**
Albuquerque	—	—	—	—	291	—	—	—	—	79	—	—	—	—	44
Atlanta	298	‡	‡	‡	309*,**	83***	‡	‡	‡	95*,**	54	‡	‡	‡	66*,**
Austin	—	305***	308	312	313*,**	—	90	91	94	94*,**	—	61	65	70	69*,**
Baltimore City	—	—	—	‡	280*,**	—	—	—	‡	70*,**	—	—	—	‡	31*,**
Boston	289***	299	305	311	305*,**	77***	83	89	93	88	48***	54	58	67	61*,**
Charlotte	301***	304***	308	304***	311*,**	91	90	90	91	93*,**	55***	60	62	58***	66*,**
Chicago	276***	281***	287	289	296	68***	71	79	76	84	25***	33	35	39	47
Cleveland	269	265	269	275	277*,**	63	54	64	67	69*,**	14	17	12	21	25*,**
Dallas	—	—	—	—	306*,**	—	—	—	—	91	—	—	—	—	65*,**
Detroit	—	—	—	‡	‡	—	—	—	‡	‡	—	—	—	‡	‡
District of Columbia (DCPS)	‡	317	‡	‡	322*,**	‡	94	‡	‡	97*,**	‡	69	‡	‡	78*,**
Fresno	—	—	—	282	281*,**	—	—	—	70	68*,**	—	—	—	38	34*,**
Hillsborough County (FL)	—	—	—	—	293	—	—	—	—	82	—	—	—	—	44
Houston	293***	294***	308	311	309*,**	80***	85	94	94	93*,**	47***	50	63	67	66*,**
Jefferson County (KY)	—	—	—	284	285*,**	—	—	—	75	76*,**	—	—	—	33	34*,**
Los Angeles	277***	280	285	287	291	67	68	73	74	77	29***	32	40	41	44
Miami-Dade	—	—	—	291	288	—	—	—	84	78	—	—	—	40	39
Milwaukee	—	—	—	271	274*,**	—	—	—	61	63*,**	—	—	—	20	22*,**
New York City	289	286	289	295	292	79	77	77	84	80	40	38	39	47	44
Philadelphia	—	—	—	284	281*,**	—	—	—	71	70	—	—	—	35	32*,**
San Diego	284***	292***	294	301	302*,**	76***	83	85	89	89*,**	35***	42***	42***	55	58*,**
Black															
Nation	252***	254***	259***	260	262	39***	41***	47***	49	50	7***	8***	11***	12	13
Large city[1]	247***	250***	254***	256***	261	34***	36***	41***	44***	49	5***	7***	9***	10***	13
Albuquerque	—	—	—	—	‡	—	—	—	—	‡	—	—	—	—	‡
Atlanta	241***	242***	253***	255***	262	26***	28***	38***	42***	50	3***	4***	8	7***	11
Austin	—	262	265	274	265	—	52	57	62	53	—	12	14	21	17
Baltimore City	—	—	—	255	259	—	—	—	41	45	—	—	—	7	10
Boston	251***	256***	263***	268	272*,**	36***	45***	51	57	61*,**	6***	9***	12***	18	21*,**
Charlotte	258***	264***	267	270	268*,**	47***	54	58	60	58*,**	11	14	15	17	16
Chicago	245***	245***	248***	252***	260	29***	28***	35***	38	48	4***	3***	6	7	10**
Cleveland	249	244	253	252	249*,**	32	29	41	38	31*,**	5	3	5	5	6*,**
Dallas	—	—	—	—	264	—	—	—	—	52	—	—	—	—	12
Detroit	—	—	—	237	244*,**	—	—	—	21	27*,**	—	—	—	4	3*,**
District of Columbia (DCPS)	240***	241***	245	244***	249*,**	26***	27***	31	32	36*,**	3***	4***	6***	6	9*,**
Fresno	—	—	—	246	243*,**	—	—	—	32	29*,**	—	—	—	7	7*,**
Hillsborough County (FL)	—	—	—	—	263	—	—	—	—	54	—	—	—	—	10
Houston	259***	257***	265	266	271*,**	47***	47***	58	59	64*,**	7***	7***	13	13	17
Jefferson County (KY)	—	—	—	252***	257*,**	—	—	—	38	42*,**	—	—	—	7	10
Los Angeles	234***	239	245	247	246*,**	21***	29	28	34	36*,**	2	7	7	5	8
Miami-Dade	—	—	—	260	256*,**	—	—	—	48	42*,**	—	—	—	12	9
Milwaukee	—	—	—	244	246*,**	—	—	—	28	30*,**	—	—	—	3	5*,**
New York City	253***	257	258	261	262	40	44	45	49	50	9	10	10	12	12
Philadelphia	—	—	—	256	260	—	—	—	43	47	—	—	—	8	13
San Diego	252	253	258	263	256	39	40	48	50	42	7	8	11	16	8

See notes at end of table.

Table A-13. Average scores and achievement-level results in NAEP mathematics for eighth-grade public school students, by selected race/ethnicity categories and jurisdiction: Various years, 2003–11—Continued

Race/ethnicity and jurisdiction	Average scale score					Percentage of students: At or above *Basic*					Percentage of students: At or above *Proficient*				
	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011
Hispanic															
Nation	258***	261***	264***	266***	269*	47***	50***	54***	56***	60*	11***	13***	15***	17***	20
Large city[1]	256***	258***	261***	264	267**	43***	46***	50***	54	58**	10***	11***	13***	16	19
Albuquerque	—	—	—	—	269	—	—	—	—	57	—	—	—	—	19
Atlanta	‡	‡	‡	‡	264	‡	‡	‡	‡	52	‡	‡	‡	‡	16
Austin	—	267***	271	274	276*,**	—	56***	64	65	67*,**	—	17	19	22	24
Baltimore City	—	—	—	‡	‡	—	—	—	‡	‡	—	—	—	‡	‡
Boston	252***	261***	270	269	271	38***	51***	60	61	62	7***	12***	20	20	24
Charlotte	262	262***	264	272	272	46	53	50***	63	63	18	15	19	21	22
Chicago	259***	263***	265***	268	271*	48***	52***	55***	59	64*	8***	11***	12***	18	20
Cleveland	249	251	258	250	258**	35	33	44	35	44**	2***	7	6	4	11*,**
Dallas	—	—	—	—	276*,**	—	—	—	—	67*,**	—	—	—	—	22
Detroit	—	—	—	255	258*,**	—	—	—	44	41*,**	—	—	—	8	8*,**
District of Columbia (DCPS)	246	252	251	263	253*,**	33	39	38	56	40*,**	3***	9	9	17	12*,**
Fresno	—	—	—	253	251*,**	—	—	—	40	37*,**	—	—	—	10	10*,**
Hillsborough County (FL)	—	—	—	—	274*	—	—	—	—	64	—	—	—	—	23
Houston	261***	265***	270***	275	278*,**	49***	56***	62***	70	72*,**	9***	12***	15***	21	24*,**
Jefferson County (KY)	—	—	—	‡	270	—	—	—	‡	64	—	—	—	‡	20
Los Angeles	240***	245***	253	254	255*,**	26***	32***	40	41	43*,**	3***	6***	9	8	10*,**
Miami-Dade	—	—	—	274	274*,**	—	—	—	65	65*,**	—	—	—	23	24*,**
Milwaukee	—	—	—	256	259*,**	—	—	—	43	49**	—	—	—	8	11*,**
New York City	260	259	262	261	261*,**	48	47	52	50	50*,**	15	12	14	14	12*,**
Philadelphia	—	—	—	258	256*,**	—	—	—	48	42*,**	—	—	—	12	10*,**
San Diego	248***	258	259	265	263**	34***	49	48	54	52	6***	11	13	14	14*,**

See notes at end of table.

Table A-13. Average scores and achievement-level results in NAEP mathematics for eighth-grade public school students, by selected race/ethnicity categories and jurisdiction: Various years, 2003–11—Continued

Race/ethnicity and jurisdiction	Average scale score					Percentage of students: At or above *Basic*					Percentage of students: At or above *Proficient*				
	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011
Asian/Pacific Islander															
Nation	289***	294***	296***	300	302*	77***	81***	82***	84	85*	42***	46***	49***	53	55*
Large city[1]	281***	289***	291	299	296**	71***	76***	78	83	82**	33***	40***	44	52	49**
Albuquerque	—	—	—	—	‡	—	—	—	—	‡	—	—	—	—	‡
Atlanta	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Austin	—	‡	‡	‡	‡	—	‡	‡	‡	‡	—	‡	‡	‡	‡
Baltimore City	—	—	—	‡	‡	—	—	—	‡	‡	—	—	—	‡	‡
Boston	300***	309	305***	312	319*,**	87	92	91	92	93*	57	61	57	68	71*,**
Charlotte	293	‡	305	‡	304	81	‡	88	‡	83	43	‡	56	‡	61
Chicago	286	292	‡	301	296	78	83	‡	88	82	36	38	‡	54	50
Cleveland	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Dallas	—	—	—	—	‡	—	—	—	—	‡	—	—	—	—	‡
Detroit	—	—	—	‡	‡	—	—	—	‡	‡	—	—	—	‡	‡
District of Columbia (DCPS)	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Fresno	—	—	—	266	264*,**	—	—	—	54	53*,**	—	—	—	17	17*,**
Hillsborough County (FL)	—	—	—	—	‡	—	—	—	—	‡	—	—	—	—	‡
Houston	‡	299	310	‡	309*	‡	85	87	‡	87	‡	55	63	‡	66
Jefferson County (KY)	—	—	—	‡	‡	—	—	—	‡	‡	—	—	—	‡	‡
Los Angeles	275***	291	292	291	295	64***	82	82	78	80	25***	43	45	44	48
Miami-Dade	—	—	—	‡	‡	—	—	—	‡	‡	—	—	—	‡	‡
Milwaukee	—	—	—	‡	271*,**	—	—	—	‡	68	—	—	—	‡	23*,**
New York City	286***	295	299	309	304*	74	79	83	89	86	38***	50	53	64	57
Philadelphia	—	—	—	295	295	—	—	—	85	79	—	—	—	46	47
San Diego	278***	282***	289	292	293**	69	74	77	81	78	28***	31***	40	48	45**

— Not available. District did not participate.

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

* Significantly different ($p < .05$) from large city in 2011.

** Significantly different ($p < .05$) from the nation in 2011.

*** Significantly different ($p < .05$) from 2011.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.

Table A-14. Percentage of public school students, average scores, and achievement-level results in NAEP mathematics, by selected racial/ethnic groups, grade, and jurisdiction: 2011

Grade and jurisdiction	Asian				Native Hawaiian/Other Pacific Islander				Two or more races			
			Percentage of students				Percentage of students				Percentage of students	
	Percentage of students	Average scale score	At or above *Basic*	At or above *Proficient*	Percentage of students	Average scale score	At or above *Basic*	At or above *Proficient*	Percentage of students	Average scale score	At or above *Basic*	At or above *Proficient*
Grade 4												
Nation	5*	257*	92*	64*	#	235	76	33	2*	244	85	43
Large city[1]	7**	249**	86**	53**	#	238	82	36	2**	245	86	46
Albuquerque	3*,**	‡	‡	‡	#	‡	‡	‡	3*	‡	‡	‡
Atlanta	1*,**	‡	‡	‡	#	‡	‡	‡	1**	‡	‡	‡
Austin	3*,**	‡	‡	‡	#	‡	‡	‡	2*	‡	‡	‡
Baltimore City	1*,**	‡	‡	‡	#	‡	‡	‡	#	‡	‡	‡
Boston	8**	259*	95*	69*	#	‡	‡	‡	2	‡	‡	‡
Charlotte	5*	259	94	65	#	‡	‡	‡	3*,**	‡	‡	‡
Chicago	5*	246**	85	50**	1*,**	‡	‡	‡	#	‡	‡	‡
Cleveland	1*,**	‡	‡	‡	#*,**	‡	‡	‡	3*,**	‡	‡	‡
Dallas	#*,**	‡	‡	‡	#	‡	‡	‡	#	‡	‡	‡
Detroit	#*,**	‡	‡	‡	#	‡	‡	‡	#	‡	‡	‡
District of Columbia (DCPS)	2*,**	‡	‡	‡	#	‡	‡	‡	1*,**	‡	‡	‡
Fresno	12*,**	222*,**	64*,**	17*,**	#	‡	‡	‡	1*,**	‡	‡	‡
Hillsborough County (FL)	3*,**	‡	‡	‡	#	‡	‡	‡	4*,**	252	91	53
Houston	3*,**	265*	97	78*	#*,**	‡	‡	‡	1*,**	‡	‡	‡
Jefferson County (KY)	3*,**	256	87	67	#	‡	‡	‡	2	‡	‡	‡
Los Angeles	5	251	90	56	#	‡	‡	‡	#	‡	‡	‡
Miami-Dade	1*,**	‡	‡	‡	#	‡	‡	‡	#*,**	‡	‡	‡
Milwaukee	7	230*,**	71*,**	24*,**	#	‡	‡	‡	#*,**	‡	‡	‡
New York City	19*,**	252**	88	57	#	‡	‡	‡	#*,**	‡	‡	‡
Philadelphia	6	251	86	58	#	‡	‡	‡	2*	‡	‡	‡
San Diego	15*,**	248**	87	53**	1	‡	‡	‡	5*,**	249	84	57

See notes at end of table.

Table A-14. Percentage of public school students, average scores, and achievement-level results in NAEP mathematics, by selected racial/ethnic groups, grade, and jurisdiction: 2011—Continued

Grade and jurisdiction	Asian				Native Hawaiian/Other Pacific Islander				Two or more races			
			Percentage of students				Percentage of students				Percentage of students	
	Percentage of students	Average scale score	At or above *Basic*	At or above *Proficient*	Percentage of students	Average scale score	At or above *Basic*	At or above *Proficient*	Percentage of students	Average scale score	At or above *Basic*	At or above *Proficient*
Grade 8												
Nation	5*	305*	88*	58*	#	265	55	19	2*	286	76	37
Large city[1]	8**	298**	83**	51**	#	262	52	21	1**	291	78	42
Albuquerque	2*,**	‡	‡	‡	#	‡	‡	‡	3*,**	‡	‡	‡
Atlanta	#*,**	‡	‡	‡	#	‡	‡	‡	1	‡	‡	‡
Austin	3*,**	‡	‡	‡	#	‡	‡	‡	1	‡	‡	‡
Baltimore City	1*,**	‡	‡	‡	#	‡	‡	‡	#*,**	‡	‡	‡
Boston	11*,**	319*,**	93*	71*,**	#	‡	‡	‡	#*,**	‡	‡	‡
Charlotte	5*	304	83	61	#	‡	‡	‡	3*,**	‡	‡	‡
Chicago	5	296**	83	50	1*,**	‡	‡	‡	#	‡	‡	‡
Cleveland	1*,**	‡	‡	‡	#	‡	‡	‡	2	‡	‡	‡
Dallas	1*,**	‡	‡	‡	#	‡	‡	‡	#	‡	‡	‡
Detroit	1*,**	‡	‡	‡	#	‡	‡	‡	#	‡	‡	‡
District of Columbia (DCPS)	2*,**	‡	‡	‡	#	‡	‡	‡	1	‡	‡	‡
Fresno	14*,**	265*,**	54*,**	17*,**	#	‡	‡	‡	#*,**	‡	‡	‡
Hillsborough County (FL)	3*,**	‡	‡	‡	#	‡	‡	‡	3*,**	‡	‡	‡
Houston	3*,**	310	88	66	#*,**	‡	‡	‡	1*,**	‡	‡	‡
Jefferson County (KY)	3*,**	‡	‡	‡	#	‡	‡	‡	2	‡	‡	‡
Los Angeles	7**	297	82	49	#	‡	‡	‡	#	‡	‡	‡
Miami-Dade	1*,**	‡	‡	‡	#*,**	‡	‡	‡	#*,**	‡	‡	‡
Milwaukee	7	271*,**	68**	23*,**	#	‡	‡	‡	#	‡	‡	‡
New York City	15*,**	304	86	57	#	‡	‡	‡	#*,**	‡	‡	‡
Philadelphia	9	295	79	47	#	‡	‡	‡	2*	‡	‡	‡
San Diego	19*,**	293**	78	46**	1	‡	‡	‡	3*,**	‡	‡	‡

Rounds to zero.

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

* Significantly different ($p < .05$) from large city in 2011.

** Significantly different ($p < .05$) from the nation in 2011.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: Race categories exclude Hispanic origin. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Table A-15. Average score gaps in NAEP mathematics for fourth-grade public school students, by selected racial/ethnic comparison groups and jurisdiction: Various years, 2003–11

Comparison group and jurisdiction	Score gap				
	2003	2005	2007	2009	2011
White – Black					
Nation	27*	26*	26	26	25
Large city[1]	31	31	31	31	29
Albuquerque	—	—	—	—	‡
Atlanta	47	48	49	48	50
Austin	—	34	38	36	34
Baltimore City	—	—	—	20	21
Boston	19	21	24	20	26
Charlotte	28	32	30	32	32
Chicago	29	35	31	31	29
Cleveland	24	18	23	19	21
Dallas	—	—	—	—	33
Detroit	—	—	—	‡	‡
District of Columbia (DCPS)	60	58	54	58	60
Fresno	—	—	—	24	24
Hillsborough County (FL)	—	—	—	—	26
Houston	33	38*	38	32	30
Jefferson County (KY)	—	—	—	27	22
Los Angeles	33	38	32	35	28
Miami-Dade	—	—	—	32	30
Milwaukee	—	—	—	32	28
New York City	25	23	22	26	22
Philadelphia	—	—	—	23	23
San Diego	27*	29	30	33	36
White – Hispanic					
Nation	21*	21	21*	21	20
Large city[1]	24	24	25	24	23
Albuquerque	—	—	—	—	25
Atlanta	‡	‡	43	45	39
Austin	—	28	31	28	29
Baltimore City	—	—	—	‡	‡
Boston	20	19	19	19	22
Charlotte	24	28	27	28	23
Chicago	19	26	25	17	23
Cleveland	14	9	18	11	14
Dallas	—	—	—	—	24
Detroit	—	—	—	‡	‡
District of Columbia (DCPS)	57	51	42	43	49
Fresno	—	—	—	21	25
Hillsborough County (FL)	—	—	—	—	14
Houston	28	30*	29	25	23
Jefferson County (KY)	—	—	—	17*	5
Los Angeles	30	30*	31*	26	24
Miami-Dade	—	—	—	15	18
Milwaukee	—	—	—	16	18
New York City	24	18	18	23	21
Philadelphia	—	—	—	18	20
San Diego	27	27	29	31	29

— Not available. District did not participate.

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

* Significantly different ($p < .05$) from 2011.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin. Score gaps are calculated based on differences between unrounded average scores. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003–11 Mathematics Assessments.

Table A-16. Average score gaps in NAEP mathematics for eighth-grade public school students, by selected racial/ethnic comparison groups and jurisdiction: Various years, 2003–11

Comparison group and jurisdiction	Score gap				
	2003	2005	2007	2009	2011
White – Black					
Nation	35*	33*	31	32	31
Large city[1]	38*	38*	38*	37	34
Albuquerque	—	—	—	—	‡
Atlanta	57	‡	‡	‡	47
Austin	—	43	44	38	47
Baltimore City	—	—	—	‡	21
Boston	39	43*	42	43*	33
Charlotte	43	41	41	35*	43
Chicago	31	36	39	36	36
Cleveland	20	21	16*	22	28
Dallas	—	—	—	—	42
Detroit	—	—	—	‡	‡
District of Columbia (DCPS)	‡	76	‡	‡	73
Fresno	—	—	—	36	37
Hillsborough County (FL)	—	—	—	—	30
Houston	34	37	43	45	38
Jefferson County (KY)	—	—	—	32	28
Los Angeles	43	41	40	40	45
Miami-Dade	—	—	—	31	33
Milwaukee	—	—	—	27	28
New York City	36	29	30	34	30
Philadelphia	—	—	—	28	21
San Diego	33*	39	36	38	46
White – Hispanic					
Nation	28*	26*	26*	26*	23
Large city[1]	30	30	31	30	27
Albuquerque	—	—	—	—	22
Atlanta	‡	‡	‡	‡	45
Austin	—	38	37	38	37
Baltimore City	—	—	—	‡	‡
Boston	37	38	34	42	34
Charlotte	40	42	44	32	39
Chicago	17	19	22	20	25
Cleveland	20	14	11	24	20
Dallas	—	—	—	—	30
Detroit	—	—	—	‡	‡
District of Columbia (DCPS)	‡	65	‡	‡	69
Fresno	—	—	—	29	29
Hillsborough County (FL)	—	—	—	—	19
Houston	32	29	38	36	31
Jefferson County (KY)	—	—	—	‡	15
Los Angeles	37	35	32	33	36
Miami-Dade	—	—	—	17	14
Milwaukee	—	—	—	15	14
New York City	29	27	26	35	31
Philadelphia	—	—	—	27	25
San Diego	36	34	35	36	39

— Not available. District did not participate.

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

* Significantly different ($p < .05$) from 2011.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. Black includes African American, and Hispanic includes Latino. Race categories exclude Hispanic origin. Score gaps are calculated based on differences between unrounded average scores. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003–11 Mathematics Assessments.

Table A-17. Average scores and achievement-level results in NAEP mathematics for fourth-grade public school students, by eligibility for National School Lunch Program and jurisdiction: Various years, 2003-11

Eligibility status and jurisdiction	Average scale score					Percentage of students: At or above *Basic*					Percentage of students: At or above *Proficient*				
	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011
Eligible															
Nation	222***	225***	227***	228***	229*	62***	67***	70***	71***	73*	15***	19***	22***	22***	24*
Large city[1]	217***	221***	223***	225***	227**	55***	60***	64***	66***	69**	12***	15***	19***	20	22**
Albuquerque	—	—	—	—	227**	—	—	—	—	67**	—	—	—	—	22
Atlanta	209***	213***	216	216***	218*,**	43***	48***	52	54	57*,**	5***	6***	10	9	11*,**
Austin	—	232	229***	231***	235*,**	—	77	74	76	81*,**	—	23	22***	22***	29*
Baltimore City	—	—	—	220***	224*,**	—	—	—	62	66**	—	—	—	9***	14*,**
Boston	218***	227***	231***	233	234*,**	57***	71***	75***	78	80*,**	10***	19***	24	25	27*
Charlotte	229***	230***	231***	232	235*,**	74***	75	77	77	81*,**	19***	20***	23***	24	29*,**
Chicago	212***	212***	216***	219	221*,**	47***	48***	54***	59	61*,**	8***	9***	12***	14	16*,**
Cleveland	215	220***	215	213	216*,**	51	61***	53	51	53*,**	10	13	10	8	11*,**
Dallas	—	—	—	—	231*	—	—	—	—	78*,**	—	—	—	—	22
Detroit	—	—	—	198	203*,**	—	—	—	28	33*,**	—	—	—	2	3*,**
District of Columbia (DCPS)	200***	206***	207***	210	211*,**	29***	38***	43***	47	48*,**	3***	5***	7***	8	11*,**
Fresno	—	—	—	216	215*,**	—	—	—	54	53*,**	—	—	—	11	11*,**
Hillsborough County (FL)	—	—	—	—	234*,**	—	—	—	—	79*,**	—	—	—	—	28*,**
Houston	223***	228***	231	233	233*,**	66***	73***	77	80	80*,**	13***	18***	22	24	26*
Jefferson County (KY)	—	—	—	221***	226**	—	—	—	60***	69	—	—	—	16	19**
Los Angeles	212***	216***	217	218	219*,**	47***	53***	55	57	59*,**	8***	13	15	15	15*,**
Miami-Dade	—	—	—	230	230*	—	—	—	75	74*	—	—	—	23	25*
Milwaukee	—	—	—	216	216*,**	—	—	—	54	53*,**	—	—	—	11	10*,**
New York City	224***	228***	234	235	233*,**	64***	70	77	77	74*	18***	22***	31	32	30*,**
Philadelphia	—	—	—	219***	223*,**	—	—	—	58***	64*,**	—	—	—	13	17*,**
San Diego	217***	225***	224***	224	229	56***	66***	65***	66	71	10***	19***	22	19	25

See notes at end of table.

Table A-17. Average scores and achievement-level results in NAEP mathematics for fourth-grade public school students, by eligibility for National School Lunch Program and jurisdiction: Various years, 2003–11—Continued

Eligibility status and jurisdiction	Average scale score					Percentage of students: At or above *Basic*					Percentage of students: At or above *Proficient*				
	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011
Not eligible															
Nation	244***	248***	249***	250***	252*	88***	90***	91***	91***	92*	45***	50***	53***	54***	57*
Large city[1]	240***	246***	246***	248	250**	81***	86	87	87	89**	40***	47***	50	51	53**
Albuquerque	—	—	—	—	253	—	—	—	—	91	—	—	—	—	57
Atlanta	244	247***	252***	254***	260*,**	79	84***	92	92	94*	50	49***	57	59***	68*,**
Austin	—	260	259***	259***	264*,**	—	98	96	96	98*,**	—	70	69	68***	76*,**
Baltimore City	—	—	—	233***	240*,**	—	—	—	75	85	—	—	—	30	37*,**
Boston	233***	244***	243***	249	251	76***	86	86	91	90	31***	45***	43	51	56
Charlotte	252***	256	256***	257	260*,**	92	94	94	94	95*,**	59***	63	64	63	70*,**
Chicago	230***	237***	239***	244	246**	72***	78	78	84	86	24***	40	42	46	51
Cleveland	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Dallas	—	—	—	—	250	—	—	—	—	92	—	—	—	—	54
Detroit	—	—	—	208	208*,**	—	—	—	41	43*,**	—	—	—	6	6*,**
District of Columbia (DCPS)	221***	229***	228***	245	250	57***	68***	64***	83	87**	20***	27***	27***	46***	55
Fresno	—	—	—	244	252	—	—	—	88	93	—	—	—	42	57
Hillsborough County (FL)	—	—	—	—	256*,**	—	—	—	—	95*	—	—	—	—	64*,**
Houston	239***	251	252	251	253	82***	91	93	92	93	37***	55	57	58	58
Jefferson County (KY)	—	—	—	250	250	—	—	—	90	92	—	—	—	54	52
Los Angeles	229***	248	235***	245	245*,**	70***	88	76***	86	85**	25***	51	35***	48	47**
Miami-Dade	—	—	—	249	251	—	—	—	92	93	—	—	—	54	54
Milwaukee	—	—	—	234	238*,**	—	—	—	77	83	—	—	—	31	35*,**
New York City	248	243***	251	253	253	89	87	92	91	92	49	42	56	57	57
Philadelphia	—	—	—	241	243**	—	—	—	83	82**	—	—	—	38	45
San Diego	239***	246***	251***	255	258*,**	82***	89***	91	94	96*	35***	47***	57	62	65*,**

— Not available. District did not participate.

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

* Significantly different ($p < .05$) from large city in 2011.

** Significantly different ($p < .05$) from the nation in 2011.

*** Significantly different ($p < .05$) from 2011.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003–11 Mathematics Assessments.

Table A-18. Average scores and achievement-level results in NAEP mathematics for eighth-grade public school students, by eligibility for National School Lunch Program and jurisdiction: Various years, 2003–11

Eligibility status and jurisdiction	Average scale score					Percentage of students: At or above *Basic*					Percentage of students: At or above *Proficient*				
	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011
Eligible															
Nation	258***	261***	265***	266***	269*	47***	51***	55***	57***	59*	11***	13***	15***	17***	19
Large city[1]	252***	256***	260***	262***	266**	40***	43***	49***	51***	55**	9***	11***	14***	15***	18
Albuquerque	—	—	—	—	264**	—	—	—	—	52**	—	—	—	—	14**
Atlanta	239***	240***	251***	253***	260*,**	24***	26***	35***	38***	48*,**	2***	3***	7	5***	10*,**
Austin	—	261***	267	271	270*	—	49***	60	61	62*	—	13***	15	19	18
Baltimore City	—	—	—	254	257*,**	—	—	—	40	44*,**	—	—	—	8	9*,**
Boston	256***	264***	271***	273	275*,**	43***	53***	60	62	65*,**	11***	17***	21***	23	26*,**
Charlotte	256***	261***	265	268	267	44***	51	54	58	56	10***	12***	14	17	17
Chicago	252***	254***	257***	261***	267	39***	40***	45***	48***	57	7***	8***	10***	13	16
Cleveland	253	249***	257	256	256*,**	38	34	45	42	41*,**	6***	6***	7	8	10*,**
Dallas	—	—	—	—	272*,**	—	—	—	—	62*	—	—	—	—	20
Detroit	—	—	—	235***	245*,**	—	—	—	19***	27*,**	—	—	—	3	4*,**
District of Columbia (DCPS)	235***	241***	243	243	246*,**	21***	26***	28	31	32*,**	2***	4***	4***	6	6*,**
Fresno	—	—	—	253	251*,**	—	—	—	40	38*,**	—	—	—	9	9*,**
Hillsborough County (FL)	—	—	—	—	269	—	—	—	—	60	—	—	—	—	17
Houston	259***	262***	268***	271***	276*,**	46***	53***	60***	65	69*,**	7***	10***	14***	18	22*
Jefferson County (KY)	—	—	—	257	261*,**	—	—	—	44	49*,**	—	—	—	10	12*,**
Los Angeles	240***	245***	254	254	257*,**	28***	32***	41	41	44*,**	4***	6***	10	9	12*,**
Miami-Dade	—	—	—	266	266**	—	—	—	56	56**	—	—	—	16	17
Milwaukee	—	—	—	248	250*,**	—	—	—	33	37*,**	—	—	—	5	7*,**
New York City	261***	264***	267	270	270*	49***	51***	54	59	58	15***	18	19	23	21
Philadelphia	—	—	—	261	261*,**	—	—	—	49	49*,**	—	—	—	13	15**
San Diego	252***	258***	260	268	265	39***	49	49	58	53	9***	10***	13	19	16

See notes at end of table.

Table A-18. Average scores and achievement-level results in NAEP mathematics for eighth-grade public school students, by eligibility for National School Lunch Program and jurisdiction: Various years, 2003–11—Continued

Eligibility status and jurisdiction	Average scale score					Percentage of students: At or above *Basic*					Percentage of students: At or above *Proficient*				
	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011	2003	2005	2007	2009	2011
Not eligible															
Nation	287***	288***	291***	293***	295*	78***	79***	81***	83***	84*	37***	39***	42***	45***	47
Large city[1]	279***	282***	285***	289***	293**	69***	71***	74***	77***	80**	31***	34***	37***	41***	45
Albuquerque	—	—	—	—	292**	—	—	—	—	81	—	—	—	—	44
Atlanta	265***	266***	277***	283***	292	52***	52***	64***	75	81	19***	22***	28***	34	44
Austin	—	301***	302***	308	311*,**	—	88***	87***	92	93*,**	—	54***	56***	63	67*,**
Baltimore City	—	—	—	271***	285*,**	—	—	—	60	74**	—	—	—	19***	37**
Boston	282***	288***	290***	299	302*,**	68***	73***	75	81	82	35***	41***	41***	53	57*,**
Charlotte	292***	297***	300***	296***	306*,**	81***	84***	85***	85***	91*,**	44***	51***	53	47***	59*,**
Chicago	279	275***	280	282	289	70	65***	72	73	77	30	27***	29	32	40
Cleveland	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Dallas	—	—	—	—	286**	—	—	—	—	74	—	—	—	—	37
Detroit	—	—	—	245	252*,**	—	—	—	31	38*,**	—	—	—	7	6*,**
District of Columbia (DCPS)	254***	261***	259***	276	278*,**	40***	46***	45***	61	64*,**	12***	16***	15***	29	35*,**
Fresno	—	—	—	293	289**	—	—	—	79	77	—	—	—	48	42
Hillsborough County (FL)	—	—	—	—	297	—	—	—	—	86	—	—	—	—	50
Houston	276***	279***	293	296	291**	65***	69***	80	83	80	25***	30***	43	47	41
Jefferson County (KY)	—	—	—	288***	294	—	—	—	78	83	—	—	—	37***	45
Los Angeles	245***	270***	270	281	283**	33***	59***	58	70	70**	7***	25	25	34	37
Miami-Dade	—	—	—	284	286*,**	—	—	—	77	76**	—	—	—	33	37*,**
Milwaukee	—	—	—	262	270*,**	—	—	—	49	58*,**	—	—	—	12	22*,**
New York City	295	286	293	285	288	82	74	83	69	75**	49	39	41	40	41
Philadelphia	—	—	—	284	289	—	—	—	71	76	—	—	—	34	38
San Diego	278***	285***	290***	295	299*	69***	76***	80	81	85	29***	36***	41***	49	53

— Not available. District did not participate.

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

* Significantly different ($p < .05$) from large city in 2011.

** Significantly different ($p < .05$) from the nation in 2011.

*** Significantly different ($p < .05$) from 2011.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: Beginning in 2009, results for charter schools are excluded from the TUDA results if they are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003-11 Mathematics Assessments.

Table A-19. Average scores and achievement-level results in NAEP mathematics for public school students, by status as students with disabilities (SD), grade, and jurisdiction: 2011

Grade and jurisdiction	SD			Not SD		
		Percentage of students			Percentage of students	
	Average scale score	At or above *Basic*	At or above *Proficient*	Average scale score	At or above *Basic*	At or above *Proficient*
Grade 4						
Nation	218*	55*	17*	243*	85*	43*
Large city[1]	209**	44**	12**	236**	78**	32**
Albuquerque	213	46**	13	239*,**	80**	37*,**
Atlanta	203*,**	37**	9**	230*,**	68*,**	26*,**
Austin	226*,**	68*,**	21	248*,**	90*,**	49*,**
Baltimore City	212	46	7**	227*,**	70*,**	18*,**
Boston	216*	55*	8**	242*	88*	38*,**
Charlotte	223*	61*	21	249*,**	91*,**	51*,**
Chicago	203**	36**	11	227*,**	68*,**	22*,**
Cleveland	192*,**	21*,**	2	221*,**	60*,**	13*,**
Dallas	209**	41**	9	234**	82*,**	26*,**
Detroit	186*,**	15*,**	#	205*,**	36*,**	4*,**
District of Columbia (DCPS)	185*,**	20*,**	6*,**	226*,**	63*,**	26*,**
Fresno	186*,**	19*,**	4*,**	221*,**	59*,**	16*,**
Hillsborough County (FL)	226*,**	69*,**	21*	247*,**	89*,**	48*,**
Houston	212**	45	14	239*,**	84*	33**
Jefferson County (KY)	211**	46**	9**	239*,**	82*,**	35**
Los Angeles	192*,**	22*,**	5*,**	227*,**	68*,**	22*,**
Miami-Dade	212**	46**	11**	238*,**	83*,**	35**
Milwaukee	199*,**	29*,**	5*,**	224*,**	64*,**	17*,**
New York City	213**	51	11**	239*,**	80**	36*,**
Philadelphia	200*,**	31*,**	3*,**	229*,**	71*,**	22*,**
San Diego	208**	44**	12	242*	83*	42*
Grade 8						
Nation	249*	35*	9*	287*	77*	36*
Large city[1]	239**	26**	6**	278**	67**	29**
Albuquerque	240**	23**	4	280**	69**	29**
Atlanta	234**	18**	4	269*,**	57*,**	17*,**
Austin	248	37	7	291*,**	78*	41*,**
Baltimore City	‡	‡	‡	263*,**	50*,**	14*,**
Boston	250*	32	7	288*	76*	39*
Charlotte	249*	41*	10	289*,**	76*	39*,**
Chicago	243**	26**	7	276*,**	66**	22*,**
Cleveland	231*,**	13*,**	1	262*,**	48*,**	13*,**
Dallas	236**	18**	1	276**	66**	23*,**
Detroit	217*,**	6*,**	#	250*,**	32*,**	5*,**
District of Columbia (DCPS)	217*,**	8*,**	2**	263*,**	48*,**	18*,**
Fresno	212*,**	8*,**	#	260*,**	46*,**	15*,**
Hillsborough County (FL)	257*,**	45*	12	286*	76*	36*
Houston	246	31	6	282*,**	75*	28**
Jefferson County (KY)	241	26	6	278**	66**	27**
Los Angeles	221*,**	11*,**	1	266*,**	53*,**	18*,**
Miami-Dade	243	29	6	275*,**	65**	24*,**
Milwaukee	222*,**	7*,**	1*,**	261*,**	49*,**	12*,**
New York City	242**	26**	4**	278**	66**	27**
Philadelphia	225*,**	13**	1	270*,**	57*,**	20*,**
San Diego	238**	24	3	284*	71	35*

Rounds to zero.

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

* Significantly different ($p < .05$) from large city.

** Significantly different ($p < .05$) from the nation.

[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. The results for students with disabilities are based on students who were assessed and cannot be generalized to the total population of such students. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

Table A-20. Average scores and achievement-level results in NAEP mathematics for public school students, by status as English language learners (ELL), grade, and jurisdiction: 2011

Grade and jurisdiction	ELL			Not ELL		
		Percentage of students			Percentage of students	
	Average scale score	At or above *Basic*	At or above *Proficient*	Average scale score	At or above *Basic*	At or above *Proficient*
Grade 4						
Nation	219	58	14	243*	85*	43*
Large city[1]	219	58	14	237**	79**	35**
Albuquerque	211*,**	46*,**	5*,**	241*	82**	40*
Atlanta	‡	‡	‡	229*,**	66*,**	25*,**
Austin	232*,**	78*,**	23*,**	252*,**	91*,**	57*,**
Baltimore City	‡	‡	‡	226*,**	68*,**	17*,**
Boston	230*,**	77*,**	22*,**	241*,**	84*	38
Charlotte	229*,**	75*,**	21	249*,**	90*,**	51*,**
Chicago	210*,**	44*,**	8*,**	227*,**	68*,**	23*,**
Cleveland	212*,**	46*,**	8	216*,**	54*,**	11*,**
Dallas	231*,**	78*,**	21*,**	235**	81	29**
Detroit	214	51	6*,**	202*,**	32*,**	3*,**
District of Columbia (DCPS)	209*,**	46	12	223*,**	60*,**	24*,**
Fresno	202*,**	34*,**	3*,**	224*,**	65*,**	20*,**
Hillsborough County (FL)	228*,**	73*,**	19	246*,**	89*,**	48*,**
Houston	232*,**	78*,**	23*,**	240*,**	85*	38**
Jefferson County (KY)	‡	‡	‡	236**	78**	32**
Los Angeles	205*,**	36*,**	3*,**	233*,**	77**	28*,**
Miami-Dade	213*,**	50*,**	7*,**	240*,**	84*	38**
Milwaukee	216	53	8	220*,**	59*,**	16*,**
New York City	211*,**	47*,**	8	239**	81**	37**
Philadelphia	208*,**	39*,**	8	227*,**	68*,**	21*,**
San Diego	220	62	15	249*,**	89*,**	53*,**
Grade 8						
Nation	244	28	5	285*	75*	35*
Large city[1]	240	26	5	278**	67**	29**
Albuquerque	243	23	3	279**	69**	29**
Atlanta	‡	‡	‡	266*,**	54*,**	16*,**
Austin	254*,**	39*	6	292*,**	80*,**	43*,**
Baltimore City	‡	‡	‡	262*,**	49*,**	13*,**
Boston	253*,**	39*,**	11	289*,**	76*	39*,**
Charlotte	246	33	5	289*,**	76*	39*,**
Chicago	249	34	9	272*,**	61*,**	21*,**
Cleveland	244	23	3	257*,**	42*,**	11*,**
Dallas	256*,**	40*,**	6	280**	71*,**	27**
Detroit	262*,**	46*,**	13	244*,**	27*,**	3*,**
District of Columbia (DCPS)	234	18**	4	257*,**	44*,**	16*,**
Fresno	228*,**	14*,**	#	263*,**	50*,**	17*,**
Hillsborough County (FL)	250	35	4	285*	75*	35*
Houston	253*,**	41*,**	4	283*	77*	30**
Jefferson County (KY)	‡	‡	‡	276*,**	64**	26**
Los Angeles	225*,**	11*,**	#	269*,**	57*,**	20*,**
Miami-Dade	239	22	4	275*,**	65**	24*,**
Milwaukee	249	40	6	255*,**	42*,**	10*,**
New York City	237**	17**	2	277**	65**	27**
Philadelphia	243	28	4	267*,**	55*,**	19*,**
San Diego	237	18	2	286*	75*	37*

Rounds to zero.

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[1] Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: The results for English language learners are based on students who were assessed and cannot be generalized to the total population of such students. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

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