

Hillsborough County

Grades 4 and 8 Public Schools



Trial Urban District Report Mathematics 2013

This report provides selected results for Hillsborough County's public school students at grades 4 and 8 from the National Assessment of Educational Progress (NAEP) assessment in mathematics. Results are reported by average scale scores and by achievement levels (*Basic*, *Proficient*, and *Advanced*).

While state-level results in mathematics are available for ten assessment years (at grade 8 in 1990; and at both grades 4 and 8 in 1992, 1996, 2000, 2003, 2005, 2007, 2009, and 2011), district-level results in mathematics began in 2003 and are available for participating districts for 2003, 2005, 2007, 2009, 2011 and 2013. In the 2013 assessment, Hillsborough County was one of 21 urban school districts that participated and met the criteria for reporting public school results.

For more information about the assessment, visit the NAEP website at <http://nces.ed.gov/nationsreportcard/> which contains

- *The Nation's Report Card*
- The full set of national and state results in an interactive database
- Released test questions, scoring guides, and question-level performance data

NAEP is a project of the National Center for Education Statistics (NCES), reporting on the academic achievement of elementary and secondary students in the United States.

KEY FINDINGS FOR 2013

Grade 4:

- In 2013, the average mathematics score for fourth-grade students in Hillsborough County was 243. This was not significantly different from that of the nation's public schools (241) and was higher than that in public schools in large cities (235).
- The average score for students in Hillsborough County in 2013 (243) was not significantly different from that in 2011 (243).
- In 2013, the percentage of students in Hillsborough County who performed at or above *Proficient* was 43 percent. This was not significantly different from that for the nation's public schools (41 percent) and was greater than that in public schools in large cities (33 percent).
- The percentage of students in Hillsborough County who performed at or above *Proficient* in 2013 (43 percent) was not significantly different from that in 2011 (43 percent).
- In 2013, the percentage of students in Hillsborough County who performed at or above *Basic* was 85 percent. This was greater than that for the nation's public schools (82 percent) and in public schools in large cities (75 percent).
- The percentage of students in Hillsborough County who performed at or above *Basic* in 2013 (85 percent) was not significantly different from that in 2011 (86 percent).

Grade 8:

- In 2013, the average mathematics score for eighth-grade students in Hillsborough County was 284. This was not significantly different from that of the nation's public schools (284) and was higher than that in public schools in large cities (276).
- The average score for students in Hillsborough County in 2013 (284) was not significantly different from that in 2011 (282).
- In 2013, the percentage of students in Hillsborough County who performed at or above *Proficient* was 34 percent. This was not significantly different from that for the nation's public schools (34 percent) and was greater than that in public schools in large cities (27 percent).
- The percentage of students in Hillsborough County who performed at or above *Proficient* in 2013 (34 percent) was not significantly different from that in 2011 (32 percent).
- In 2013, the percentage of students in Hillsborough County who performed at or above *Basic* was 73 percent. This was not significantly different from that for the nation's public schools (73 percent) and was greater than that in public schools in large cities (65 percent).
- The percentage of students in Hillsborough County who performed at or above *Basic* in 2013 (73 percent) was not significantly different from that in 2011 (72 percent).

Introduction

What Was Assessed?

The content for each NAEP assessment is determined by the National Assessment Governing Board. The framework for each assessment documents the content and process areas to be measured, and sets guidelines for the types of questions to be used. The mathematics frameworks were developed with the guidance of the Council of Chief State School Officers (CCSSO) under the direction of the Governing Board. The current framework is available at the Governing Board's website <http://www.nagb.org/content/nagb/assets/documents/publications/frameworks/math-2013-framework.pdf>.

For grades 4 and 8, the mathematics framework for the 2013 assessment is similar to earlier versions that guided the 1990, 1992, 1996, 2000, 2003, 2005, 2007, 2009, and 2011 mathematics assessments. Although the frameworks are updated periodically, the mathematics content objectives for grades 4 and 8 have not changed substantially, allowing students' performance in 2013 to be compared with previous years.

Content Areas and Mathematical Complexity

The 2011 mathematics framework classifies assessment questions in two dimensions, *content area* and *mathematical complexity*, that are used to guide the assessment. Each question is designed to measure one of the five content areas. However, certain aspects of mathematics, such as computation, occur in all content areas. Although the names of the content areas (as well as some topics in those areas) have changed from one framework to the next, a consistent focus has remained on measuring student performance in all five content areas. The distribution of questions among each content area differs by grade to reflect the knowledge and skills appropriate for each grade level.

- **Number properties and operations** measures students' understanding of ways to represent, calculate, and estimate with numbers.
- **Measurement** measures students' knowledge of measurement attributes, such as capacity and temperature, and geometric attributes, such as length, area, and volume.
- **Geometry** measures students' knowledge and understanding of shapes in a plane and in space.
- **Data analysis, statistics, and probability** measures students' understanding of data representation, characteristics of data sets, experiments and samples, and probability.
- **Algebra** measures students' understanding of patterns, using variables, algebraic representation, and functions.

The mathematical complexity of a question refers to the level of cognitive demand it places on students. Each level of complexity includes aspects of knowing and doing mathematics, such as performing procedures, understanding concepts, or solving problems.

- **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 and often require abstract reasoning or analysis in a novel situation.

Assessment Design

Because of the breadth of the content covered in the NAEP mathematics assessment, each student took just a portion of the test, consisting of two 25-minute sections. Most student's testing time was divided evenly between multiple-choice and constructed-response questions. Short constructed-response questions asked students to provide the answer for a numerical problem or to briefly describe the solution to a problem. Longer constructed-response questions required students to write both a solution and its justification, explanation, or interpretation. Released test questions, along with student performance data by state and trial urban district, are available on the NAEP website at <http://nces.ed.gov/nationsreportcard/itmrls/>.

Some questions in the 2013 assessment incorporated the use of calculators (four-function calculators at grade 4; and scientific or graphing calculators at grade 8), rulers, protractors (at grade 8), or manipulatives such as spinners and geometric shapes. Calculator use at all grades was permitted on approximately one-third of the assessment.

Who Was Assessed?

Twenty-one districts participated in the voluntary NAEP Trial Urban District Assessment (TUDA) in mathematics in 2013. The school district names, as used in the National Center for Education Statistics (NCES) Common Core of Data (CCD), are

- Albuquerque Public Schools,
- Atlanta Public Schools,
- Austin Independent School District,
- Baltimore City Public Schools,
- Boston Public Schools,
- Charlotte-Mecklenburg Schools,
- Chicago Public Schools,
- Cleveland Metropolitan School District,
- Dallas Independent School District,
- Detroit Public Schools,
- District of Columbia Public Schools (DCPS),
- Fresno Unified School District,
- Hillsborough County Public Schools (FL),
- 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,
- School District of Philadelphia, and
- San Diego Unified School District.

The overall participation rates for schools and students must meet guidelines established by NCES and the National Assessment Governing Board for assessment results to be reported publicly. A participation rate of at least 85 percent for schools in each subject and grade was required. Participation rates for the 2013 mathematics assessment are available on the NAEP website at http://nationsreportcard.gov/math_2013/participation.aspx.

The sample of students in the participating TUDA school districts represents an augmentation of the sample of students who would usually be selected by NAEP as part of the state samples. These augmented samples allow reliable reporting of student groups within these districts. Students in the TUDA samples are also included in "higher-level" samples. For example, data from students tested in the Los Angeles sample were used to report results for Los Angeles, and also contributed to the California and the national 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 districts' 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. In 2007, 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. In 2009 and 2011, charter schools are included in TUDA district results if they contribute to the district's AYP results as part of the Elementary and Secondary Education Act.

Referred to as "large central cities" in district reports prior to 2009, results for large cities include public schools located in cities with populations of 250,000 or more. The comparisons between national, district, and large city results present the performance of public school students only. In NAEP reports, the category "nation (public)" does not include Department of Defense or Bureau of Indian Education schools.

How Is Student Mathematics Performance Reported?

The 2013 district results are compared to results from five earlier assessments (2003, 2005, 2007, 2009, and 2011).

Scale Scores: Student performance is reported as an average score based on the NAEP mathematics scale, which ranges from 0 to 500 for grades 4 and 8. Because NAEP scales are developed independently for each subject and for each content area within a subject, the scores cannot be compared across subjects or across content areas within the same subject. Results are also reported at five percentiles (10th, 25th, 50th, 75th, and 90th) to show trends in performance for lower-, middle-, and higher-performing students.

Achievement Levels: Based on recommendations from policymakers, educators, and members of the general public, the Governing Board has set specific achievement levels for each subject area and grade. Achievement levels are performance standards indicating what students should know and be able to do. They provide another perspective with which to interpret student performance.

NAEP results are reported in terms of three achievement levels—*Basic*, *Proficient*, and *Advanced*—and are expressed in terms of the percentage of students who attained each level. The three achievement levels are defined as follows:

- *Basic* denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade.
- *Proficient* represents solid academic performance for each grade assessed. Students reaching this level have demonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and appropriate analytical skills.
- *Advanced* represents superior performance.

The 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 demonstrate the competencies associated with both the *Basic* and the *Proficient* levels.

As provided by law, 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. The mathematics achievement-level descriptions are summarized in figures 1-A and 1-B.

Figure 1-A	The Nation's Report Card 2013 Trial Urban District Assessment
	Descriptions of fourth-grade achievement levels for 2013 NAEP mathematics assessment

Basic Level (214)	Fourth-grade students performing at the <i>Basic</i> level should show some evidence of understanding the mathematical concepts and procedures in the five NAEP content areas.
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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 Level (249)	Fourth-grade students performing at the <i>Proficient</i> level should consistently apply integrated procedural knowledge and conceptual understanding to problem solving in the five NAEP content areas.
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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 Level (282)	Fourth-grade students performing at the <i>Advanced</i> level should apply integrated procedural knowledge and conceptual understanding to complex and nonroutine real-world problem solving in the five NAEP content areas.
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Fourth-graders performing at the *Advanced* level should be able to solve complex and 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.

NOTE: The scores in parentheses in the shaded boxes indicate the lowest point on the 0-500 scale at which the achievement-level range begins.

SOURCE: National Assessment Governing Board. (2012). *Mathematics Framework for the 2013 National Assessment of Educational Progress*. Washington, DC.

Figure 1-B	The Nation's Report Card 2013 Trial Urban District Assessment
	Descriptions of eighth-grade achievement levels for 2013 NAEP mathematics assessment

Basic Level (262)	Eighth-grade students performing at the <i>Basic</i> 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.
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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 Level (299)	Eighth-grade students performing at the <i>Proficient</i> level should apply mathematical concepts and procedures consistently to complex problems in the five NAEP content areas.
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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 Level (333)	Eighth-grade students performing at the <i>Advanced</i> 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.
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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.

NOTE: The scores in parentheses in the shaded boxes indicate the lowest point on the 0-500 scale at which the achievement-level range begins.
 SOURCE: National Assessment Governing Board. (2012). *Mathematics Framework for the 2013 National Assessment of Educational Progress*. Washington, DC.

Assessing Students With Disabilities and/or English Language Learners

Testing accommodations, such as extra testing time or individual (rather than group) administration, are provided for students with disabilities (SD) or English language learners (ELL) who could not fairly and accurately demonstrate their abilities without modified test administration procedures. In 1996, administration procedures were introduced at the national level allowing certain accommodations for students requiring such accommodations to participate.

In state NAEP mathematics assessments prior to 2000, no testing accommodations or adaptations were permitted for SD or ELL students. In 2000, NAEP was administered using a split sample of schools—one sample in which accommodations were permitted for special-needs students who normally received them and another sample in which accommodations were not permitted. Therefore, there were two different sets of results available for 2000 and both are shown in the tables in NAEP national and state reports. Since the TUDA in mathematics began in 2003, the results for all the TUDA assessment years include students who received accommodations.

Even with the availability of accommodations, however, some students may still be excluded from the NAEP assessment. Due to differences in policies and practices regarding the identification and inclusion of SD and ELL students, variations in exclusion and accommodation rates should be considered when comparing students' performance over time and across districts. The types of accommodations used in the 2013 NAEP mathematics assessment are available on the NAEP website at http://nationsreportcard.gov/math_2013/type_accomm.aspx.

Interpreting Results

The scores and percentages in this report are estimates based on samples of students rather than on entire populations. In addition, the collection of questions used at each grade level is only a sample of the many questions that could have been asked to assess the skills and abilities described in the NAEP framework. Therefore, the results are subject to a measure of uncertainty, reflected in the standard error of the estimates—a range of up to a few points above or below the score or percentage—which takes into account potential score fluctuation due to sampling error and measurement error. Statistical tests that factor in these standard errors are used to determine whether the differences between average scores or percentages are significant. All differences were tested for statistical significance at the .05 level using unrounded numbers.

NAEP sample sizes have increased since 2002 compared to previous years, resulting in smaller standard errors. As a consequence, smaller differences are detected as statistically significant than were detected in previous assessments. In addition, estimates based on smaller groups are likely to have relatively large standard errors. Thus, some seemingly large differences may not be statistically significant. That is, it cannot be determined whether these differences are due to sampling error, or to true differences in the population of interest.

Differences between scores or between percentages are discussed in this report only when they are significant from a statistical perspective. Significant differences between 2011 and prior assessments are marked with a notation (*) in the tables. Any differences in scores within a year or across years that are mentioned in the text as "higher," "lower," "greater," or "smaller" are statistically significant.

Score or percentage differences or gaps cited in this report are calculated based on differences between unrounded numbers. Therefore, the reader may find that the score or percentage difference cited in the text or tables may not be identical to the difference obtained from subtracting the rounded values shown in the accompanying tables or figures.

The reader is cautioned against making simple causal inferences between student performance and the other variables (e.g., race/ethnicity and gender) discussed in this report. A statistically significant relationship between a variable and measures of student performance does not imply that the variable causes differences in how well students perform. The relationship may be influenced by a number of other variables not accounted for in this report, such as family income, parental involvement, or student attitudes.

NAEP 2013 Mathematics Overall Average Score and Achievement-Level Results for Public School Students

Overall mathematics results for public school students from Hillsborough County are reported in this section, as well as large city and national results.

Overall Scale Score Results

Student performance is reported as an average score based on the NAEP mathematics scale, which ranges from 0 to 500 for grades 4 and 8.

Tables 1-A and 1-B show the overall performance results of grades 4 and 8 public school students in Hillsborough County, the nation (public), and large cities (public). The first column of results presents the average score on the NAEP mathematics scale. The remaining columns show the scores at selected percentiles. Percentiles indicate the percentage of students whose scores fell at or below a particular score. For example, the 25th percentile demarks the cut point for the lowest 25 percent of students within the distribution of scale scores.

Grade 4 Scale Score Results

- In 2013, the average scale score for students in Hillsborough County was 243. This was not significantly different from that for students across the nation (241) and was higher than the score for students attending public schools in large cities (235).
- In Hillsborough County, the average scale score for students in 2013 was not significantly different from that in 2011 (243). However, the average scale score for students in public schools across the nation in 2013 was higher than that in 2011 (240).

Grade 8 Scale Score Results

- In 2013, the average scale score for students in Hillsborough County was 284. This was not significantly different from that for students across the nation (284) and was higher than the score for students attending public schools in large cities (276).
- In Hillsborough County, the average scale score for students in 2013 was not significantly different from that in 2011 (282). However, the average scale score for students in public schools across the nation in 2013 was higher than that in 2011 (283).

**Table
1-A**

Average scale scores and selected percentile scores in NAEP mathematics for fourth-grade public school students, by year and jurisdiction: 2011 and 2013

Year and jurisdiction		Average scale score	10th percentile	25th percentile	50th percentile	75th percentile	90th percentile
2011	Nation (public)	240 *	202	222	242 *	260 *	276 *
	Large city (public)	233 *	194	213	234	253 *	271 *
	Hillsborough County	243	208	226	244	262	277
2013	Nation (public)	241	202	222	243	262	278
	Large city (public)	235	195	214	236	256	274
	Hillsborough County	243	207	225	244	262	277

* Value is significantly different ($p < .05$) from the value for the same jurisdiction in 2013.

NOTE: The NAEP grade 4 mathematics scale ranges from 0 to 500. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 and 2013 Mathematics Assessments.

**Table
1-B**

Average scale scores and selected percentile scores in NAEP mathematics for eighth-grade public school students, by year and jurisdiction: 2011 and 2013

Year and jurisdiction		Average scale score	10th percentile	25th percentile	50th percentile	75th percentile	90th percentile
2011	Nation (public)	283 *	236	259	284 *	308 *	329 *
	Large city (public)	274	226	249	274	300	322
	Hillsborough County	282	236	258	282	307	327
2013	Nation (public)	284	236	260	285	309	330
	Large city (public)	276	227	251	276	301	323
	Hillsborough County	284	237	260	285	309	329

* Value is significantly different ($p < .05$) from the value for the same jurisdiction in 2013.

NOTE: The NAEP grade 8 mathematics scale ranges from 0 to 500. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 and 2013 Mathematics Assessments.

Overall Achievement-Level Results

Student results are reported as the percentage of students performing relative to performance standards set by the National Assessment Governing Board. These performance standards for what students should know and be able to do were based on the recommendations of broadly representative panels of educators and members of the public.

Tables 2-A and 2-B show the percentage of students at grades 4 and 8 who performed below *Basic*, at or above *Basic*, at or above *Proficient*, and at *Advanced*. Because the percentages are cumulative from *Basic* to *Proficient* to *Advanced*, they may sum to more than 100 percent. Only the percentage of students performing at or above *Basic* (which includes the students at *Proficient* and *Advanced*) plus the students below *Basic* will sum to 100 percent.

Grade 4 Achievement-Level Results

- In 2013, the percentage of Hillsborough County's students who performed at or above *Proficient* was 43 percent. This was not significantly different from the percentage of the nation's public school students who performed at or above *Proficient* (41 percent) and was greater than the percentage of the students attending public schools in large cities who performed at or above *Proficient* (33 percent).
- In Hillsborough County, the percentage of students who performed at or above *Proficient* in 2013 was not significantly different from the percentage in 2011 (43). However, the percentage of students who performed at or above *Proficient* in the nation in 2013 was greater than the percentage in 2011 (40).
- In 2013, the percentage of Hillsborough County's students who performed at or above *Basic* was 85 percent. This was greater than the percentage of the nation's public school students who performed at or above *Basic* (82 percent) and was greater than the percentage of the students attending public schools in large cities who performed at or above *Basic* (75 percent).
- In Hillsborough County, the percentage of students who performed at or above *Basic* in 2013 was not significantly different from the percentage in 2011 (86). Similarly, the percentage of students who performed at or above *Basic* in the nation in 2013 was not significantly different from the percentage in 2011 (82).

Grade 8 Achievement-Level Results

- In 2013, the percentage of Hillsborough County's students who performed at or above *Proficient* was 34 percent. This was not significantly different from the percentage of the nation's public school students who performed at or above *Proficient* (34 percent) and was greater than the percentage of the students attending public schools in large cities who performed at or above *Proficient* (27 percent).
- In Hillsborough County, the percentage of students who performed at or above *Proficient* in 2013 was not significantly different from the percentage in 2011 (32). However, the percentage of students who performed at or above *Proficient* in the nation in 2013 was greater than the percentage in 2011 (34).
- In 2013, the percentage of Hillsborough County's students who performed at or above *Basic* was 73 percent. This was not significantly different from the percentage of the nation's public school students who performed at or above *Basic* (73 percent) and was greater than the percentage of the students attending public schools in large cities who performed at or above *Basic* (65 percent).
- In Hillsborough County, the percentage of students who performed at or above *Basic* in 2013 was not significantly different from the percentage in 2011 (72). However, the percentage of students who performed at or above *Basic* in the nation in 2013 was greater than the percentage in 2011 (72).

**Table
2-A**

Percentage of fourth-grade public school students at or above NAEP mathematics achievement levels, by year and jurisdiction: 2011 and 2013

Year and jurisdiction		Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
2011	Nation (public)	18	82	40*	6*
	Large city (public)	26	74	30*	5*
	Hillsborough County	14	86	43	7
2013	Nation (public)	18	82	41	8
	Large city (public)	25	75	33	6
	Hillsborough County	15	85	43	7

* Value is significantly different ($p < .05$) from the value for the same jurisdiction in 2013.

NOTE: The NAEP grade 4 mathematics scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP mathematics scales: below *Basic*, 213 or lower; *Basic*, 214–248; *Proficient*, 249–281; and *Advanced*, 282 and above. At or above *Basic* includes *Basic*, *Proficient*, and *Advanced*. At or above *Proficient* includes *Proficient* and *Advanced*. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 and 2013 Mathematics Assessments.

**Table
2-B**

Percentage of eighth-grade public school students at or above NAEP mathematics achievement levels, by year and jurisdiction: 2011 and 2013

Year and jurisdiction		Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
2011	Nation (public)	28*	72*	34*	8*
	Large city (public)	37	63	26	6
	Hillsborough County	28	72	32	7
2013	Nation (public)	27	73	34	8
	Large city (public)	35	65	27	6
	Hillsborough County	27	73	34	8

* Value is significantly different ($p < .05$) from the value for the same jurisdiction in 2013.

NOTE: The NAEP grade 8 mathematics scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP mathematics scales: below *Basic*, 261 or lower; *Basic*, 262–298; *Proficient*, 299–332; and *Advanced*, 333 and above. At or above *Basic* includes *Basic*, *Proficient*, and *Advanced*. At or above *Proficient* includes *Proficient* and *Advanced*. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 and 2013 Mathematics Assessments.

Comparisons Between Hillsborough County, the Nation, Large Cities, and Other Participating Districts

Twenty-one districts participated in the mathematics assessment in 2013. These included Albuquerque, Atlanta, Austin, Baltimore City, Boston, Charlotte-Mecklenburg, Chicago, Cleveland, Dallas, Detroit, the District of Columbia (DCPS), Fresno, Hillsborough County (Tampa, FL), Houston, Jefferson County (Louisville, KY), Los Angeles, Miami-Dade County, Milwaukee, New York City, Philadelphia, and San Diego.

Comparisons by Scale Scores

Figures 2-A and 2-B compare Hillsborough County's 2013 overall mathematics scale scores at grades 4 and 8 with those in all other participating districts. The participating districts are grouped into categories reflecting whether the average scale scores of their students were found to be higher than, not significantly different from, or lower than the scores in Hillsborough County.

Grade 4 Scale Score Comparison Results

- The average score for students in Hillsborough County was higher than 17 districts, not significantly different from 2 districts, and lower than 1 district.

Grade 8 Scale Score Comparison Results

- The average score for students in Hillsborough County was higher than 16 districts, not significantly different from 3 districts, and lower than 1 district.

The Nation's Report Card 2013 Trial Urban District Assessment

Figure 2-A

Hillsborough County's average scale score in NAEP mathematics for fourth-grade public school students compared with scores for other participating districts: 2013



	Focal state/jurisdiction (Hillsborough County)
	Higher average scale score than Hillsborough County (1 jurisdiction)
	Not significantly different from Hillsborough County (2 jurisdictions)
	Lower average scale score than Hillsborough County (17 jurisdictions)

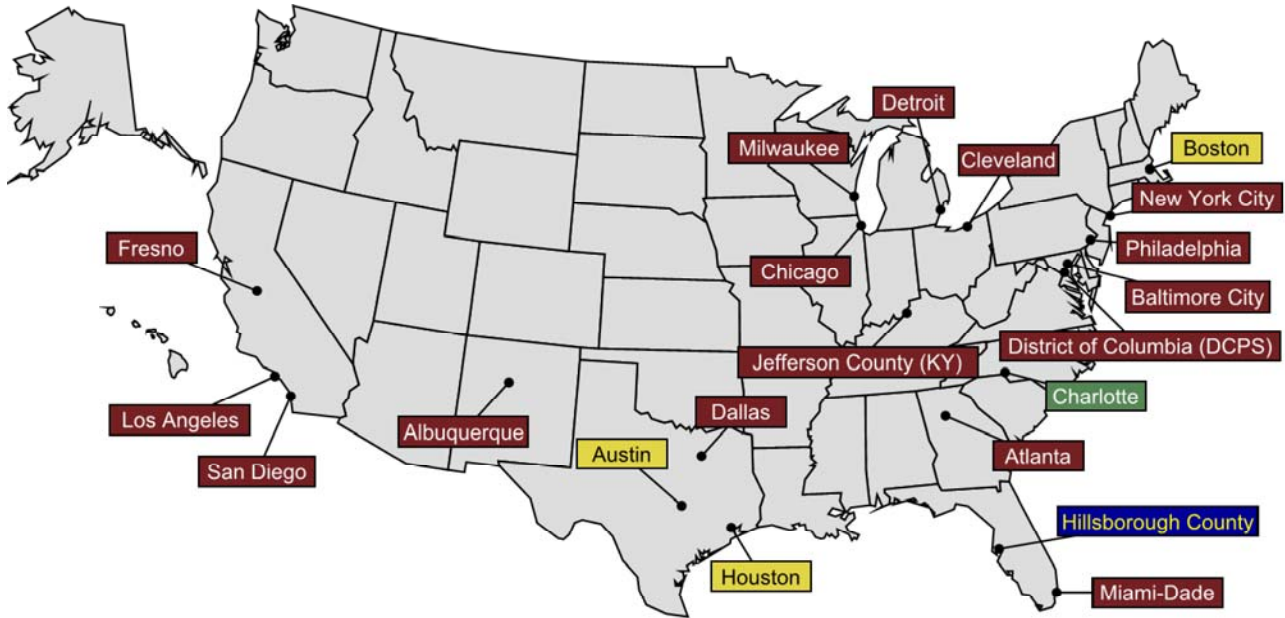
NOTE: DCPS = District of Columbia Public Schools. Significance tests used a multiple-comparison procedure based on all jurisdictions that participated.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2013 Mathematics Assessment.

The Nation's Report Card 2013 Trial Urban District Assessment

Figure 2-B

Hillsborough County's average scale score in NAEP mathematics for eighth-grade public school students compared with scores for other participating districts: 2013



	Focal state/jurisdiction (Hillsborough County)
	Higher average scale score than Hillsborough County (1 jurisdiction)
	Not significantly different from Hillsborough County (3 jurisdictions)
	Lower average scale score than Hillsborough County (16 jurisdictions)

NOTE: DCPS = District of Columbia Public Schools. Significance tests used a multiple-comparison procedure based on all jurisdictions that participated.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2013 Mathematics Assessment.

Comparisons by Achievement Levels

Figures 3-A and 3-B permit comparisons of all districts participating in the NAEP 2013 mathematics assessment in terms of percentages of grades 4 and 8 students performing at or above *Basic*. The participating districts are grouped into categories reflecting whether the percentage of their students performing at or above *Basic* (including *Basic*, *Proficient* and *Advanced*) was found to be higher than, not significantly different from, or lower than the percentage in Hillsborough County. Statistical comparisons among districts by achievement level can be calculated online by using the NAEP Data Explorer at <http://nces.ed.gov/nationsreportcard/naepdata/>.

Grade 4 Achievement-Level Comparison Results

- The percentage of students performing at or above the *Proficient* level in Hillsborough County was greater than the percentage in 17 districts, not significantly different from those in 2 districts, and smaller than those in 1 district (data not shown).
- The percentage of students performing at or above the *Basic* level in Hillsborough County was greater than the percentage in 18 districts, and not significantly different from those in 2 districts.

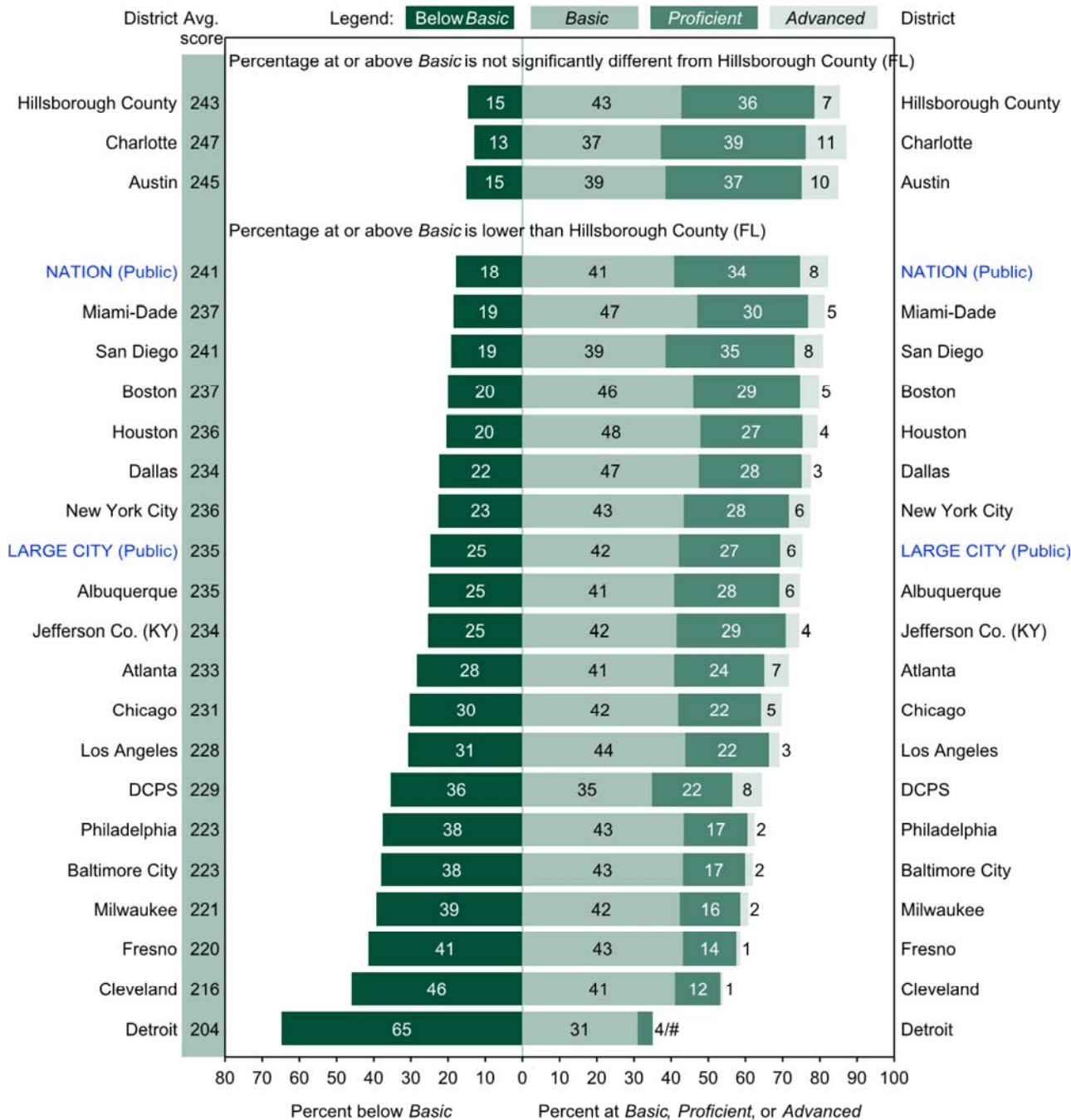
Grade 8 Achievement-Level Comparison Results

- The percentage of students performing at or above the *Proficient* level in Hillsborough County was greater than the percentage in 16 districts, not significantly different from those in 3 districts, and smaller than those in 1 district (data not shown).
- The percentage of students performing at or above the *Basic* level in Hillsborough County was greater than the percentage in 16 districts, and not significantly different from those in 4 districts.

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Figure 3-A

Average scale scores in NAEP mathematics for fourth-grade public school students, percentage within each achievement level, and Hillsborough County's percentage at or above *Basic* compared with the nation, large city, and other participating districts: 2013



Rounds to zero.

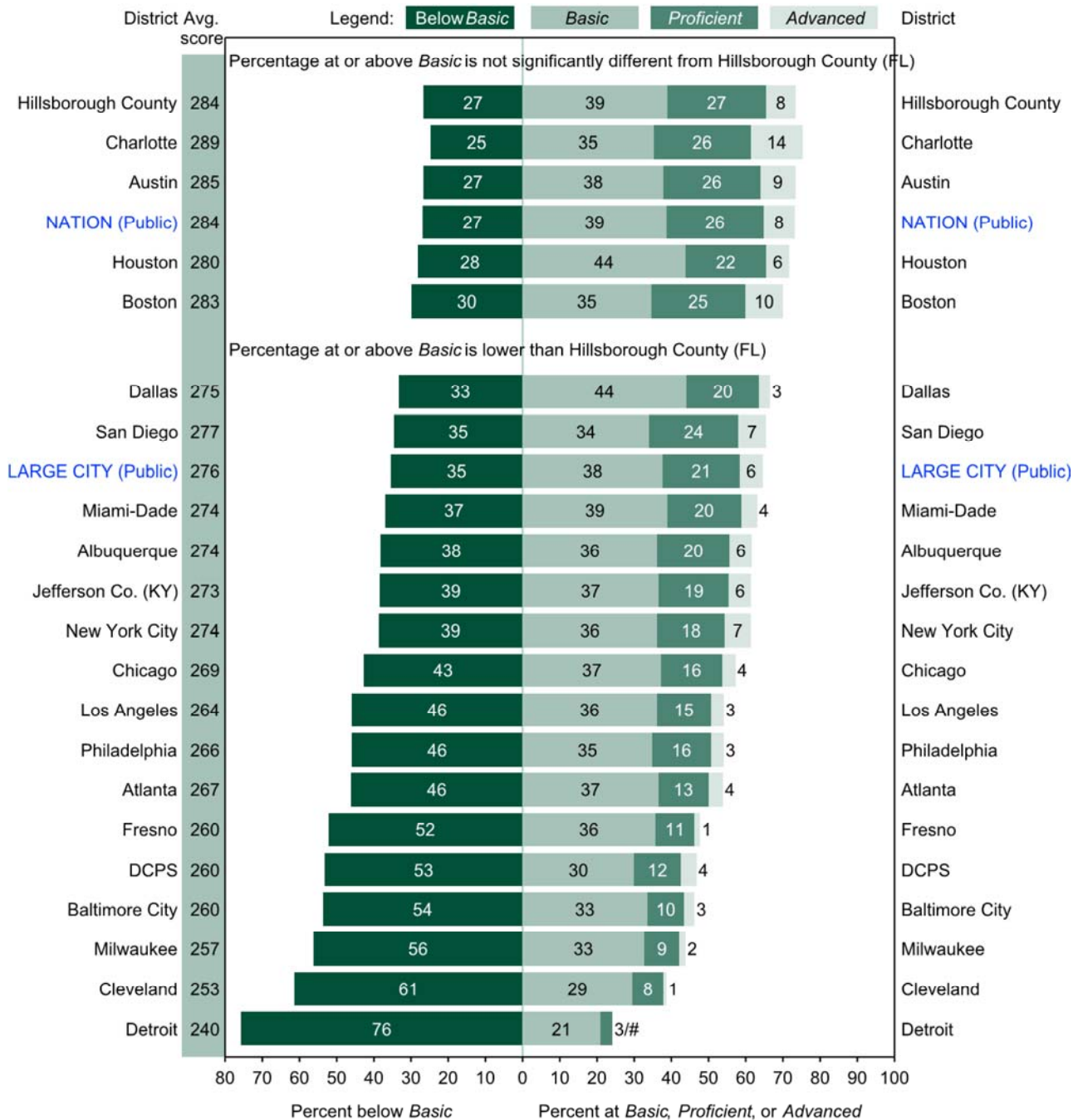
NOTE: The bars above contain percentages of students in each NAEP mathematics achievement level. Achievement levels corresponding to each population of students are aligned at the point where the *Basic* category begins, so that they may be compared at *Basic* and above. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers. The shaded bars are graphed using unrounded numbers. Significance tests used a multiple-comparison procedure based on all jurisdictions that participated. 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), 2013 Mathematics Assessment.

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Figure 3-B

Average scale scores in NAEP mathematics for eighth-grade public school students, percentage within each achievement level, and Hillsborough County's percentage at or above *Basic* compared with the nation, large city, and other participating districts: 2013



Rounds to zero.

NOTE: The bars above contain percentages of students in each NAEP mathematics achievement level. Achievement levels corresponding to each population of students are aligned at the point where the *Basic* category begins, so that they may be compared at *Basic* and above. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers. The shaded bars are graphed using unrounded numbers. Significance tests used a multiple-comparison procedure based on all jurisdictions that participated. 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), 2013 Mathematics Assessment.

Mathematics Performance of Selected Student Groups

This section of the report presents results for public school students in Hillsborough County, in the nation, and in large city public schools by demographic characteristics.

Student performance data are reported for

- race/ethnicity
- gender
- student eligibility for the National School Lunch Program
- parents' highest level of education (grade 8 only)

Results for each of the variables are reported in tables that include the percentage of students in each group in the first column, and the average scale score in the second column. The columns to the right show the percentage of students below *Basic* and at or above each achievement level.

For districts that have participated in the past, results by students' race/ethnicity and gender include statements about score point differences between student groups (e.g., between White and Black or White and Hispanic students, or between male and female students) in 2013 and in the first assessment year. Because these differences are calculated using unrounded values, they may differ slightly from what would be obtained by subtracting the rounded values that appear in the tables. Statements indicating a narrowing or widening of the gap in students' scores are only made if the change in the gap from the first assessment year to 2013 was found to be statistically significant.

The reader is cautioned against making simple causal inferences about group differences, as a complex mix of educational and socioeconomic factors may affect student performance. NAEP collects information on many additional variables, including school and home factors related to achievement. This information is in an interactive database available on the NAEP website <http://nces.ed.gov/nationsreportcard/naepdata/>.

Race/Ethnicity

Prior to 2011, student race/ethnicity was obtained from school records and reported for the six mutually exclusive categories shown below:

- White
- Black
- Hispanic
- Asian/Pacific Islander
- American Indian/Alaska Native
- Unclassified (not shown in tables)

Students who 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.

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 below:

- White
- Black or African American
- Hispanic
- Asian
- American Indian/Alaska Native
- Native Hawaiian/Other Pacific Islander
- Two or more races

As in earlier years, students identified as Hispanic were classified as Hispanic in 2011 and 2013 even if they were also identified with another racial/ethnic group. Students who 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 classified as "Two or more races" in 2011 and 2013.

When comparing the results for racial/ethnic groups from 2011 to earlier assessment years, the 2011 data for Asian and Native Hawaiian/Other Pacific Islander students were combined into a single Asian/Pacific Islander category.

Tables 3-A and 3-B show average scale scores and percentage of students by achievement-level data for public school students at grades 4 and 8 in Hillsborough County, in the nation, and in large city public schools, by race/ethnicity.

Grade 4 Scale Score Results by Race/Ethnicity

- In 2013, White students in Hillsborough County had an average scale score that was higher than the average scores of Black and Hispanic students, but lower than the average score of Asian/Pacific Islander students.
- In 2013, the average scale scores of White, Black, and Hispanic students in Hillsborough County were not significantly different from their respective score in 2011.
- In 2013, Black students in Hillsborough County had an average score that was lower than that of White students by 26 points. In 2011, the average score for Black students was lower than that of White students by 26 points.
- In 2013, Hispanic students in Hillsborough County had an average score that was lower than that of White students by 16 points. In 2011, the average score for Hispanic students was lower than that of White students by 14 points.

Grade 4 Achievement-Level Results by Race/Ethnicity

- In 2013 in Hillsborough County, the percentage of White students performing at or above *Proficient* was greater than the corresponding percentages of Black and Hispanic students, but not significantly different from the percentage of Asian/Pacific Islander students.
- In 2013, the percentages of White, Black, and Hispanic students in Hillsborough County performing at or above *Proficient* were not significantly different from the percentage in 2011.

**Table
3-A**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: 2011 and 2013

Race/ethnicity, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below Basic	At or above Basic	At or above Proficient	At Advanced	
White							
2011	Nation (public)	52*	249*	9	91	52*	9*
	Large city (public)	20	251	9	91	55	12
	Hillsborough County	37	253	5	95	59	11
2013	Nation (public)	51	250	9	91	54	10
	Large city (public)	20	254	9	91	60	15
	Hillsborough County	36	254	5	95	58	11
Black							
2011	Nation (public)	16	224	34	66	17	1
	Large city (public)	27	222	37	63	16	1
	Hillsborough County	20	228	30	70	20	1
2013	Nation (public)	16	224	34	66	18	1
	Large city (public)	26	223	36	64	17	1
	Hillsborough County	20	227	29	71	20	1

See notes at end of table.

**Table
3-A**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: 2011 and 2013—Continued

Race/ethnicity, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below Basic	At or above Basic	At or above Proficient	At Advanced	
Hispanic							
2011	Nation (public)	24*	229*	28	72	24*	2*
	Large city (public)	43	228	29	71	23	2
	Hillsborough County	35	239	15	85	37	3
2013	Nation (public)	25	230	27	73	26	2
	Large city (public)	43	229	28	72	25	2
	Hillsborough County	35	238	18	82	34	4
Asian/Pacific Islander							
2011	Nation (public)	5	256	9	91	62	20
	Large city (public)	8	249	14	86	52	15
	Hillsborough County	3	‡	‡	‡	‡	‡
2013	Nation (public)	5	258	9	91	64	23
	Large city (public)	8	256	10	90	62	21
	Hillsborough County	4	262	3	97	73	19

See notes at end of table.

**Table
3-A**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: 2011 and 2013—Continued

Race/ethnicity, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below Basic	At or above Basic	At or above Proficient	At Advanced	
American Indian/Alaska Native							
2011	Nation (public)	1	227	32	68	24	2
	Large city (public)	1	227	34	66	30	4
	Hillsborough County	#	‡	‡	‡	‡	‡
2013	Nation (public)	1	228	30	70	24	2
	Large city (public)	1	230	30	70	25	4
	Hillsborough County	#	‡	‡	‡	‡	‡

Rounds to zero.

‡ Reporting standards not met.

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2013.

NOTE: The NAEP grade 4 mathematics scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP mathematics scales: below *Basic*, 213 or lower; *Basic*, 214–248; *Proficient*, 249–281; and *Advanced*, 282 and above. At or above *Basic* includes *Basic*, *Proficient*, and *Advanced*. At or above *Proficient* includes *Proficient* and *Advanced*. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 and 2013 Mathematics Assessments.

Grade 8 Scale Score Results by Race/Ethnicity

- In 2013, White students in Hillsborough County had an average scale score that was higher than the average scores of Black and Hispanic students.
- In 2013, the average scale scores of White, Black, and Hispanic students in Hillsborough County were not significantly different from their respective score in 2011.
- In 2013, Black students in Hillsborough County had an average score that was lower than that of White students by 32 points. In 2011, the average score for Black students was lower than that of White students by 30 points.
- In 2013, Hispanic students in Hillsborough County had an average score that was lower than that of White students by 18 points. In 2011, the average score for Hispanic students was lower than that of White students by 19 points.

Grade 8 Achievement-Level Results by Race/Ethnicity

- In 2013 in Hillsborough County, the percentage of White students performing at or above *Proficient* was greater than the corresponding percentages of Black and Hispanic students.
- In 2013, the percentages of White, Black, and Hispanic students in Hillsborough County performing at or above *Proficient* were not significantly different from the percentage in 2011.

**Table
3-B**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: 2011 and 2013

Race/ethnicity, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>	
White							
2011	Nation (public)	54	293	17	83	43	10
	Large city (public)	20	295	17	83	48	13
	Hillsborough County	43	293	18	82	44	11
2013	Nation (public)	53	293	17	83	44	11
	Large city (public)	21	295	16	84	47	14
	Hillsborough County	38	296	15	85	49	13
Black							
2011	Nation (public)	16	262	50	50	13	1
	Large city (public)	26	261	51	49	13	1
	Hillsborough County	19	263	46	54	10	#
2013	Nation (public)	15	263	49	51	14	2
	Large city (public)	26	261	51	49	13	1
	Hillsborough County	21	264	46	54	13	1

See notes at end of table.

**Table
3-B**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: 2011 and 2013—Continued

Race/ethnicity, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below Basic	At or above Basic	At or above Proficient	At Advanced	
Hispanic							
2011	Nation (public)	23	269 *	40	60	20	3
	Large city (public)	43	267	42	58	19	2
	Hillsborough County	31	274	36	64	23	4
2013	Nation (public)	23	271	38	62	21	3
	Large city (public)	42	269	40	60	20	2
	Hillsborough County	34	278	31	69	28	5
Asian/Pacific Islander							
2011	Nation (public)	6	302 *	15	85	55	22
	Large city (public)	8	296	18	82	49	18
	Hillsborough County	3	‡	‡	‡	‡	‡
2013	Nation (public)	5	306	13	87	60	25
	Large city (public)	8	299	17	83	53	20
	Hillsborough County	3	‡	‡	‡	‡	‡

See notes at end of table.

**Table
3-B**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: 2011 and 2013—Continued

Race/ethnicity, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below Basic	At or above Basic	At or above Proficient	At Advanced	
American Indian/Alaska Native							
2011	Nation (public)	1	266 *	45	55	17	4
	Large city (public)	1 *	268	43	57	22	3
	Hillsborough County	#	‡	‡	‡	‡	‡
2013	Nation (public)	1	270	40	60	21	3
	Large city (public)	1	279	30	70	29	3
	Hillsborough County	#	‡	‡	‡	‡	‡

Rounds to zero.

‡ Reporting standards not met.

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2013.

NOTE: The NAEP grade 8 mathematics scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP mathematics scales: below *Basic*, 261 or lower; *Basic*, 262–298; *Proficient*, 299–332; and *Advanced*, 333 and above. At or above *Basic* includes *Basic*, *Proficient*, and *Advanced*. At or above *Proficient* includes *Proficient* and *Advanced*. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 and 2013 Mathematics Assessments.

Tables 4-A and 4-B show average scale scores and percentage of students by achievement-level data for the seven racial/ethnic categories used in 2013: White, Black, Hispanic, Asian, American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, and Two or more races at grades 4 and 8 in Hillsborough County, in the nation, and in large city public schools, by race/ethnicity.

**Table
4-A**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: 2011 and 2013

Race/ethnicity, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below Basic	At or above Basic	At or above Proficient	At Advanced	
White							
2011	Nation (public)	52*	249*	9	91	52*	9*
	Large city (public)	20	251	9	91	55	12
	Hillsborough County	37	253	5	95	59	11
2013	Nation (public)	51	250	9	91	54	10
	Large city (public)	20	254	9	91	60	15
	Hillsborough County	36	254	5	95	58	11
Black							
2011	Nation (public)	16	224	34	66	17	1
	Large city (public)	27	222	37	63	16	1
	Hillsborough County	20	228	30	70	20	1
2013	Nation (public)	16	224	34	66	18	1
	Large city (public)	26	223	36	64	17	1
	Hillsborough County	20	227	29	71	20	1
Hispanic							
2011	Nation (public)	24*	229*	28	72	24*	2
	Large city (public)	43	228	29	71	23	2
	Hillsborough County	35	239	15	85	37	3
2013	Nation (public)	25	230	27	73	26	2
	Large city (public)	43	229	28	72	25	2
	Hillsborough County	35	238	18	82	34	4
Asian							
2011	Nation (public)	5	257	8	92	64	21
	Large city (public)	7	249	14	86	53	15
	Hillsborough County	3	‡	‡	‡	‡	‡
2013	Nation (public)	5	260	7	93	67	24
	Large city (public)	7	258	9	91	64	23
	Hillsborough County	4	263	2	98	74	20
American Indian/Alaska Native							
2011	Nation (public)	1	227	32	68	24	2
	Large city (public)	1	227	34	66	30	4
	Hillsborough County	#	‡	‡	‡	‡	‡
2013	Nation (public)	1	228	30	70	24	2
	Large city (public)	1	230	30	70	25	4
	Hillsborough County	#	‡	‡	‡	‡	‡
Native Hawaiian/Other Pacific Islander							
2011	Nation (public)	#	235	24	76	33	7
	Large city (public)	#	238	18	82	36	4
	Hillsborough County	#	‡	‡	‡	‡	‡
2013	Nation (public)	#	235	23	77	32	4
	Large city (public)	#	230	25	75	24	2
	Hillsborough County	#	‡	‡	‡	‡	‡
Two or more races							
2011	Nation (public)	2*	244	15	85	43	9
	Large city (public)	2*	245	14	86	46	10

Rounds to zero.

‡ Reporting standards not met.

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2013.

NOTE: The NAEP grade 4 mathematics scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP mathematics scales: below *Basic*, 213 or lower; *Basic*, 214–248; *Proficient*, 249–281; and *Advanced*, 282 and above. At or above *Basic* includes *Basic*, *Proficient*, and *Advanced*. At or above *Proficient* includes *Proficient* and *Advanced*. Black includes African American and Hispanic includes Latino. Race categories exclude Hispanic origin. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 and 2013 Mathematics Assessments.

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below Basic	At or above Basic	At or above Proficient	At Advanced
2013	Hillsborough County	4	252	9	91	53	15
	Nation (public)	3	244	14	86	45	9
	Large city (public)	2	245	14	86	45	9
	Hillsborough County	4	‡	‡	‡	‡	‡

Rounds to zero.

‡ Reporting standards not met.

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2013.

NOTE: The NAEP grade 4 mathematics scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP mathematics scales: below *Basic*, 213 or lower; *Basic*, 214–248; *Proficient*, 249–281; and *Advanced*, 282 and above. At or above *Basic* includes *Basic*, *Proficient*, and *Advanced*. At or above *Proficient* includes *Proficient* and *Advanced*. Black includes African American and Hispanic includes Latino. Race categories exclude Hispanic origin. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 and 2013 Mathematics Assessments.

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**Table
4-B**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: 2011 and 2013

Race/ethnicity, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below Basic	At or above Basic	At or above Proficient	At Advanced	
White							
2011	Nation (public)	54	293	17	83	43	10
	Large city (public)	20	295	17	83	48	13
	Hillsborough County	43	293	18	82	44	11
2013	Nation (public)	53	293	17	83	44	11
	Large city (public)	21	295	16	84	47	14
	Hillsborough County	38	296	15	85	49	13
Black							
2011	Nation (public)	16	262	50	50	13	1
	Large city (public)	26	261	51	49	13	1
	Hillsborough County	19	263	46	54	10	#
2013	Nation (public)	15	263	49	51	14	2
	Large city (public)	26	261	51	49	13	1
	Hillsborough County	21	264	46	54	13	1
Hispanic							
2011	Nation (public)	23	269*	40	60	20	3
	Large city (public)	43	267	42	58	19	2
	Hillsborough County	31	274	36	64	23	4
2013	Nation (public)	23	271	38	62	21	3
	Large city (public)	42	269	40	60	20	2
	Hillsborough County	34	278	31	69	28	5
Asian							
2011	Nation (public)	5	305*	12	88	58	24
	Large city (public)	8	298	17	83	51	19
	Hillsborough County	3	‡	‡	‡	‡	‡
2013	Nation (public)	5	308	12	88	62	27
	Large city (public)	8	301	16	84	55	21
	Hillsborough County	3	‡	‡	‡	‡	‡
American Indian/Alaska Native							
2011	Nation (public)	1	266*	45	55	17	4
	Large city (public)	1*	268	43	57	22	3
	Hillsborough County	#	‡	‡	‡	‡	‡
2013	Nation (public)	1	270	40	60	21	3
	Large city (public)	1	279	30	70	29	3
	Hillsborough County	#	‡	‡	‡	‡	‡
Native Hawaiian/Other Pacific Islander							
2011	Nation (public)	#	265*	45	55	19	3
	Large city (public)	#	262	48	52	21	5
	Hillsborough County	#	‡	‡	‡	‡	‡
2013	Nation (public)	#	274	34	66	24	4
	Large city (public)	#	271	39	61	22	2
	Hillsborough County	#	‡	‡	‡	‡	‡
Two or more races							
2011	Nation (public)	2*	286	24	76	37	10
	Large city (public)	1*	291	22	78	42	14

Rounds to zero.

‡ Reporting standards not met.

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2013.

NOTE: The NAEP grade 8 mathematics scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP mathematics scales: below *Basic*, 261 or lower; *Basic*, 262–298; *Proficient*, 299–332; and *Advanced*, 333 and above. At or above *Basic* includes *Basic*, *Proficient*, and *Advanced*. At or above *Proficient* includes *Proficient* and *Advanced*. Black includes African American and Hispanic includes Latino. Race categories exclude Hispanic origin. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 and 2013 Mathematics Assessments.

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below Basic	At or above Basic	At or above Proficient	At Advanced
2013	Hillsborough County	3	‡	‡	‡	‡	‡
	Nation (public)	2	286	24	76	37	10
	Large city (public)	2	289	24	76	42	13
	Hillsborough County	4	‡	‡	‡	‡	‡

Rounds to zero.

‡ Reporting standards not met.

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2013.

NOTE: The NAEP grade 8 mathematics scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP mathematics scales: below *Basic*, 261 or lower; *Basic*, 262–298; *Proficient*, 299–332; and *Advanced*, 333 and above. At or above *Basic* includes *Basic*, *Proficient*, and *Advanced*. At or above *Proficient* includes *Proficient* and *Advanced*. Black includes African American and Hispanic includes Latino. Race categories exclude Hispanic origin. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 and 2013 Mathematics Assessments.

Gender

Information on student gender is reported by the student's school when rosters of the students eligible to be assessed are submitted to NAEP.

Tables 5-A and 5-B show average scale scores and percentage of students by achievement-level data for public school students at grades 4 and 8 in Hillsborough County, in the nation, and in large city public schools, by gender.

Grade 4 Scale Score Results by Gender

- In 2013, male students in Hillsborough County had an average score in mathematics (244) that was not significantly different from that of female students (241). In 2011, male students in Hillsborough County had an average score in mathematics (244) that was not significantly different from that of female students (242).
- In 2013, male students in Hillsborough County had an average scale score in mathematics (244) that was higher than that of male students in public schools across the nation (242). However, female students in Hillsborough County had an average scale score (241) that was not significantly different from that of female students across the nation (241).
- In 2013, male students in Hillsborough County had an average scale score in mathematics (244) that was higher than that of male students in public schools in large cities (235). Similarly, female students in Hillsborough County had an average scale score (241) that was higher than that of female students in public schools in large cities (235).
- In Hillsborough County, the average scale score of male students in 2013 was not significantly different from the score of male students in 2011.
- In Hillsborough County, the average scale score of female students in 2013 was not significantly different from the score of female students in 2011.

Grade 4 Achievement-Level Results by Gender

- The percentage of male students in Hillsborough County's public schools who were at or above *Proficient* in 2013 (45 percent) was not significantly different from that of male students in the nation (42 percent) and greater than that of male students in public schools in large cities (34 percent).
- The percentage of female students in Hillsborough County's public schools who were at or above *Proficient* in 2013 (40 percent) was not significantly different from that of female students in the nation (40 percent) and greater than that of female students in public schools in large cities (33 percent).
- In Hillsborough County, the percentage of male students performing at or above *Proficient* in 2013 was not significantly different from the percentage of students in 2011.
- In Hillsborough County, the percentage of female students performing at or above *Proficient* in 2013 was not significantly different from the percentage of students in 2011.

**Table
5-A**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by gender, year, and jurisdiction: 2011 and 2013

Gender, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below Basic	At or above Basic	At or above Proficient	At Advanced	
Male							
2011	Nation (public)	51	241 *	18	82	41 *	7 *
	Large city (public)	51	233	25	75	31 *	5
	Hillsborough County	50	244	14	86	45	9
2013	Nation (public)	51	242	18	82	42	8
	Large city (public)	51	235	25	75	34	7
	Hillsborough County	52	244	14	86	45	8
Female							
2011	Nation (public)	49	239 *	18	82	39 *	6 *
	Large city (public)	49	233 *	26	74	29 *	4
	Hillsborough County	50	242	14	86	42	5
2013	Nation (public)	49	241	18	82	40	7
	Large city (public)	49	235	24	76	33	5
	Hillsborough County	48	241	16	84	40	6

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2013.

NOTE: The NAEP grade 4 mathematics scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP mathematics scales: below *Basic*, 213 or lower; *Basic*, 214–248; *Proficient*, 249–281; and *Advanced*, 282 and above. At or above *Basic* includes *Basic*, *Proficient*, and *Advanced*. At or above *Proficient* includes *Proficient* and *Advanced*. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 and 2013 Mathematics Assessments.

Grade 8 Scale Score Results by Gender

- In 2013, male students in Hillsborough County had an average score in mathematics (284) that was not significantly different from that of female students (283). In 2011, male students in Hillsborough County had an average score in mathematics (281) that was not significantly different from that of female students (283).
- In 2013, male students in Hillsborough County had an average scale score in mathematics (284) that was not significantly different from that of male students in public schools across the nation (284). Similarly, female students in Hillsborough County had an average scale score (283) that was not significantly different from that of female students across the nation (283).
- In 2013, male students in Hillsborough County had an average scale score in mathematics (284) that was higher than that of male students in public schools in large cities (275). Similarly, female students in Hillsborough County had an average scale score (283) that was higher than that of female students in public schools in large cities (276).
- In Hillsborough County, the average scale score of male students in 2013 was not significantly different from the score of male students in 2011.
- In Hillsborough County, the average scale score of female students in 2013 was not significantly different from the score of female students in 2011.

Grade 8 Achievement-Level Results by Gender

- The percentage of male students in Hillsborough County's public schools who were at or above *Proficient* in 2013 (35 percent) was not significantly different from that of male students in the nation (35 percent) and greater than that of male students in public schools in large cities (27 percent).
- The percentage of female students in Hillsborough County's public schools who were at or above *Proficient* in 2013 (34 percent) was not significantly different from that of female students in the nation (34 percent) and greater than that of female students in public schools in large cities (27 percent).
- In Hillsborough County, the percentage of male students performing at or above *Proficient* in 2013 was not significantly different from the percentage of students in 2011.
- In Hillsborough County, the percentage of female students performing at or above *Proficient* in 2013 was not significantly different from the percentage of students in 2011.

**Table
5-B**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by gender, year, and jurisdiction: 2011 and 2013

Gender, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below Basic	At or above Basic	At or above Proficient	At Advanced	
Male							
2011	Nation (public)	51 *	283	28	72	34	9
	Large city (public)	50	274	38	62	26	6
	Hillsborough County	49	281	30	70	31	8
2013	Nation (public)	51	284	27	73	35	9
	Large city (public)	50	275	36	64	27	7
	Hillsborough County	50	284	27	73	35	8
Female							
2011	Nation (public)	49 *	282 *	28	72	33	7
	Large city (public)	50	274	36	64	26	5
	Hillsborough County	51	283	27	73	33	7
2013	Nation (public)	49	283	27	73	34	7
	Large city (public)	50	276	34	66	27	6
	Hillsborough County	50	283	27	73	34	7

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2013.

NOTE: The NAEP grade 8 mathematics scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP mathematics scales: below *Basic*, 261 or lower; *Basic*, 262–298; *Proficient*, 299–332; and *Advanced*, 333 and above. At or above *Basic* includes *Basic*, *Proficient*, and *Advanced*. At or above *Proficient* includes *Proficient* and *Advanced*. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 and 2013 Mathematics Assessments.

Student Eligibility for the National School Lunch Program

NAEP collects data on eligibility for the federal program providing free or reduced-price school lunches. The free/reduced-price lunch component of the National School Lunch Program (NSLP) offered through the U.S. Department of Agriculture (USDA) is designed to ensure that children near or below the poverty line receive nourishing meals. Eligibility is determined through the USDA's Income Eligibility Guidelines, and results for this category of students are included as an indicator of lower family income.

Tables 6-A and 6-B show average scale scores and percentage of students by achievement-level data for public school students at grades 4 and 8 in Hillsborough County, in the nation, and in large city public schools, by student eligibility for the NSLP.

Grade 4 Scale Score Results by Free/Reduced-Price School Lunch Eligibility

- In 2013, students in Hillsborough County eligible for free/reduced-price lunch had an average mathematics scale score of 232. This was lower than that of students in Hillsborough County not eligible for this program (257).
- In 2013, students in Hillsborough County who were eligible for free/reduced-price school lunch had an average score that was lower than that of students who were not eligible by 25 points. In 2011, the average score for students in Hillsborough County who were eligible for free/reduced-price school lunch was lower than the score of those not eligible by 22 points.
- Students in Hillsborough County eligible for free/reduced-price lunch had an average scale score (232) in 2013 that was higher than that of students in the nation who were eligible (230) and higher than that of students in public schools in large cities who were eligible (228).
- In Hillsborough County, students eligible for free/reduced-price lunch had an average mathematics scale score in 2013 that was not significantly different from that of eligible students in 2011.

Grade 4 Achievement-Level Results by Free/Reduced-Price School Lunch Eligibility

- In Hillsborough County, 26 percent of students who were eligible for free/reduced-price lunch and 65 percent of those who were not eligible for this program performed at or above *Proficient* in 2013. These percentages were significantly different from one another.
- For students in Hillsborough County in 2013 who were eligible for free/reduced-price lunch, the percentage at or above *Proficient* (26 percent) was not significantly different from the corresponding percentage for their counterparts around the nation (26 percent) and not significantly different from the corresponding percentage for their counterparts in large cities (23 percent).
- In Hillsborough County, the percentage of students eligible for free/reduced-price lunch who performed at or above *Proficient* in 2013 was not significantly different from the percentage in 2011.

**Table
6-A**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by National School Lunch Program eligibility status, year, and jurisdiction: 2011 and 2013

Eligibility status, year, and jurisdiction	Percentage of students	Average scale score	Percent			
			Below Basic	At or above Basic	At or above Proficient	At Advanced
Eligible						
2011 Nation (public)	52*	229*	27	73	24*	2*
Large city (public)	74	227	31	69	22	2
Hillsborough County	58	234	21	79	28	2
2013 Nation (public)	54	230	27	73	26	2
Large city (public)	73	228	31	69	23	2
Hillsborough County	58	232	22	78	26	2
Not eligible						
2011 Nation (public)	47*	252*	8	92	57*	12*
Large city (public)	26	250*	11*	89*	53*	12
Hillsborough County	42	256	5	95	64	14
2013 Nation (public)	46	254	7	93	60	14
Large city (public)	26	255	8	92	61	17
Hillsborough County	42	257	4	96	65	14

See notes at end of table.

**Table
6-A**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by National School Lunch Program eligibility status, year, and jurisdiction: 2011 and 2013—Continued

Eligibility status, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below Basic	At or above Basic	At or above Proficient	At Advanced	
Information not available							
2011	Nation (public)	#	247	12	88	49	10
	Large city (public)	#	234	24	76	30	6
	Hillsborough County	#	‡	‡	‡	‡	‡
2013	Nation (public)	1	255	9	91	60	18
	Large city (public)	1	243	15	85	43	6
	Hillsborough County	#	‡	‡	‡	‡	‡

Rounds to zero.

‡ Reporting standards not met.

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2013.

NOTE: The NAEP grade 4 mathematics scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP mathematics scales: below *Basic*, 213 or lower; *Basic*, 214–248; *Proficient*, 249–281; and *Advanced*, 282 and above. At or above *Basic* includes *Basic*, *Proficient*, and *Advanced*. At or above *Proficient* includes *Proficient* and *Advanced*. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 and 2013 Mathematics Assessments.

Grade 8 Scale Score Results by Free/Reduced-Price School Lunch Eligibility

- In 2013, students in Hillsborough County eligible for free/reduced-price lunch had an average mathematics scale score of 272. This was lower than that of students in Hillsborough County not eligible for this program (299).
- In 2013, students in Hillsborough County who were eligible for free/reduced-price school lunch had an average score that was lower than that of students who were not eligible by 28 points. In 2011, the average score for students in Hillsborough County who were eligible for free/reduced-price school lunch was lower than the score of those not eligible by 28 points.
- Students in Hillsborough County eligible for free/reduced-price lunch had an average scale score (272) in 2013 that was not significantly different from that of students in the nation who were eligible (270) and higher than that of students in public schools in large cities who were eligible (267).
- In Hillsborough County, students eligible for free/reduced-price lunch had an average mathematics scale score in 2013 that was not significantly different from that of eligible students in 2011.

Grade 8 Achievement-Level Results by Free/Reduced-Price School Lunch Eligibility

- In Hillsborough County, 21 percent of students who were eligible for free/reduced-price lunch and 52 percent of those who were not eligible for this program performed at or above *Proficient* in 2013. These percentages were significantly different from one another.
- For students in Hillsborough County in 2013 who were eligible for free/reduced-price lunch, the percentage at or above *Proficient* (21 percent) was not significantly different from the corresponding percentage for their counterparts around the nation (20 percent) and not significantly different from the corresponding percentage for their counterparts in large cities (18 percent).
- In Hillsborough County, the percentage of students eligible for free/reduced-price lunch who performed at or above *Proficient* in 2013 was not significantly different from the percentage in 2011.

**Table
6-B**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by National School Lunch Program eligibility status, year, and jurisdiction: 2011 and 2013

Eligibility status, year, and jurisdiction	Percentage of students	Average scale score	Percent			
			Below Basic	At or above Basic	At or above Proficient	At Advanced
Eligible						
2011 Nation (public)	48*	269*	41	59	19	2
Large city (public)	70	266	45	55	18	2
Hillsborough County	54	269	40	60	17	2
2013 Nation (public)	50	270	39	61	20	3
Large city (public)	68	267	43	57	18	3
Hillsborough County	56	272	38	62	21	3
Not eligible						
2011 Nation (public)	52*	295*	16*	84*	47*	13*
Large city (public)	29	293	20	80	45	13
Hillsborough County	46	297	14	86	50	13
2013 Nation (public)	50	297	14	86	49	14
Large city (public)	30	295	18	82	47	14
Hillsborough County	44	299	12	88	52	14

See notes at end of table.

**Table
6-B**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by National School Lunch Program eligibility status, year, and jurisdiction: 2011 and 2013—Continued

Eligibility status, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below Basic	At or above Basic	At or above Proficient	At Advanced	
Information not available							
2011	Nation (public)	#	275	37	63	26	6
	Large city (public)	1	274	37	63	25	4
	Hillsborough County	#	‡	‡	‡	‡	‡
2013	Nation (public)	1	285	29	71	39	13
	Large city (public)	1	286	26	74	40	11
	Hillsborough County	#	‡	‡	‡	‡	‡

Rounds to zero.

‡ Reporting standards not met.

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2013.

NOTE: The NAEP grade 8 mathematics scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP mathematics scales: below *Basic*, 261 or lower; *Basic*, 262–298; *Proficient*, 299–332; and *Advanced*, 333 and above. At or above *Basic* includes *Basic*, *Proficient*, and *Advanced*. At or above *Proficient* includes *Proficient* and *Advanced*. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 and 2013 Mathematics Assessments.

Parents' Highest Level of Education

Eighth-grade students who participated in the NAEP 2013 assessment were asked to indicate the highest level of education they thought their father and their mother had completed. Five response options were offered: did not finish high school, graduated from high school, some education after high school, graduated from college, and "I don't know." The highest level of education reported for either parent was used in the analysis. Fourth-graders were not asked about their parents' education level because their responses in previous NAEP assessments were not reliable, and a large percentage of them chose the "I don't know" option.

Table 7 shows average scale scores and percentage of students by achievement-level data for public school students at grade 8 in Hillsborough County, in the nation, and in large city public schools, by student reported parents' highest level of education.

Grade 8 Scale Score Results by Parents' Highest Level of Education

- In 2013, students in Hillsborough County who reported that a parent had graduated from college had an average scale score that was higher than the average scores of students with a parent in any of the following education categories: some education after high school, graduated from high school, and did not finish high school.
- In 2013, the average scale scores for students in Hillsborough County who reported that a parent had graduated from college, had some education after high school, had graduated from high school, or had not finished high school were not significantly different from the corresponding scores of students in the nation.
- In 2013, the average scale score for students in Hillsborough County who reported that a parent had graduated from college was higher than the score of students in public schools in large cities.
- In 2013, the average scale scores for students in Hillsborough County who reported that a parent had some education after high school, had graduated from high school, or had not finished high school were not significantly different from the corresponding scores of students in public schools in large cities.
- In 2013, the average scale scores for students in Hillsborough County who reported that a parent had graduated from college, had some education after high school, had graduated from high school, or had not finished high school were not significantly different from the corresponding scores of students in 2011.

Grade 8 Achievement-Level Results by Parents' Highest Level of Education

- In 2013, the percentage of students performing at or above *Proficient* in Hillsborough County who reported that a parent had graduated from college was greater than the percentage for students whose parents' highest level of education was in any of the following education categories: some education after high school, graduated from high school, and did not finish high school.
- In 2013, the percentages of students in Hillsborough County reporting that a parent had graduated from college, had some education after high school, had graduated from high school, or had not finished high school and who performed at or above *Proficient* were not significantly different from the corresponding percentages of students in the nation.
- In 2013, the percentage of students in Hillsborough County reporting that a parent had graduated from college and who performed at or above *Proficient* was greater than the percentage of students in public schools in large cities.
- In 2013, the percentages of students in Hillsborough County reporting that a parent had some education after high school, had graduated from high school, or had not finished high school and who performed at or above *Proficient* were not significantly different from the corresponding percentages of students in public schools in large cities.
- In 2013 in Hillsborough County, the respective percentages of students reporting that a parent had graduated from college, had some education after high school, had graduated from high school, or had not finished high school and who performed at or above *Proficient* were not significantly different from the corresponding percentages of students in 2011.

**Table
7**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by highest parental education level, year, and jurisdiction: 2011 and 2013

Highest parental education level, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below Basic	At or above Basic	At or above Proficient	At Advanced	
Did not finish high school							
2011	Nation (public)	8	265	44	56	15	2
	Large city (public)	12	264	47	53	16	2
	Hillsborough County	8	267	44	56	13	2
2013	Nation (public)	8	267	42	58	16	2
	Large city (public)	11	265	46	54	16	2
	Hillsborough County	8	266	42	58	15	2
Graduated from high school							
2011	Nation (public)	17	271	38	62	20	2
	Large city (public)	17	264	46	54	16	2
	Hillsborough County	17	270	38	62	18	2
2013	Nation (public)	17	270	39	61	19	2
	Large city (public)	17	266	45	55	17	2
	Hillsborough County	19	268	42	58	17	2

NOTE: The NAEP grade 8 mathematics scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP mathematics scales: below *Basic*, 261 or lower; *Basic*, 262–298; *Proficient*, 299–332; and *Advanced*, 333 and above. At or above *Basic* includes *Basic*, *Proficient*, and *Advanced*. At or above *Proficient* includes *Proficient* and *Advanced*. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 and 2013 Mathematics Assessments.

**Table
7**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by highest parental education level, year, and jurisdiction: 2011 and 2013—Continued

Highest parental education level, year, and jurisdiction	Percentage of students	Average scale score	Percent			
			Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
Some education after high school						
2011 Nation (public)	16*	285	22	78	33	5
Large city (public)	16*	279	30	70	27	4
Hillsborough County	15	284	22	78	31	5
2013 Nation (public)	15	285	22	78	33	6
Large city (public)	15	280	28	72	28	4
Hillsborough County	15	285	24	76	35	4
Graduated from college						
2011 Nation (public)	47*	294*	18	82	46	13
Large city (public)	37	286	27	73	39	11
Hillsborough County	48	293	19	81	46	12
2013 Nation (public)	49	295	17	83	47	14
Large city (public)	40	287	25	75	39	12
Hillsborough County	48	297	15	85	48	14

See notes at end of table.

**Table
7**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by highest parental education level, year, and jurisdiction: 2011 and 2013—Continued

Highest parental education level, year, and jurisdiction	Percentage of students	Average scale score	Percent			
			Below Basic	At or above Basic	At or above Proficient	At Advanced
Unknown						
2011 Nation (public)	12	265	46	54	16	2
Large city (public)	18	262	50	50	15	2
Hillsborough County	11	264	49	51	13	1
2013 Nation (public)	12	266	45	55	17	2
Large city (public)	17	263	48	52	16	3
Hillsborough County	11	269	42	58	20	3

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2013.

NOTE: The NAEP grade 8 mathematics scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP mathematics scales: below *Basic*, 261 or lower; *Basic*, 262–298; *Proficient*, 299–332; and *Advanced*, 333 and above. At or above *Basic* includes *Basic*, *Proficient*, and *Advanced*. At or above *Proficient* includes *Proficient* and *Advanced*. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 and 2013 Mathematics Assessments.

A More Inclusive NAEP: Students With Disabilities and English Language Learners

To ensure that the samples are representative, NAEP has established policies and procedures to maximize the inclusion of all students in the assessment. Every effort is made to ensure that all selected students who are capable of participating meaningfully in the assessment are assessed. While some students with disabilities (SD) and/or English language learners (ELL) can be assessed without any special procedures, others require accommodations to participate in NAEP. Still other SD and/or ELL students selected by NAEP may not be able to participate. Local school staff who are familiar with these students are asked a series of questions to help them decide whether each student should participate in the assessment and whether the student needs accommodations.

Within any assessment year, exclusion and accommodation rates may vary across jurisdictions. In addition, exclusion and accommodation rates may increase or decrease between assessment administrations, making it difficult to interpret comparisons over time within jurisdictions. Since SD and/or ELL students tend to score below average on assessments, the exclusion of students from these groups may result in a higher average score than if those students had taken the assessment. On the other hand, providing appropriate testing accommodations (e.g., providing extended time for some SD and/or ELL students to take the assessment) removes barriers that would otherwise prevent them from demonstrating their knowledge and skills.

Tables 8-A and 8-B display data for 4th and 8th grade students in Hillsborough County, the nation, and large cities who were identified as SD and/or ELL, by whether they were excluded, assessed with accommodations, or assessed without accommodations, as a percent of all 4th or 8th grade students in the district/jurisdiction.

Tables 9-A and 9-B show the percentages of students assessed in Hillsborough County, the nation, and large cities by disability status and their performance on the NAEP assessment in terms of average scores and percentages performing below *Basic*, at or above *Basic*, at or above *Proficient*, and at *Advanced* for grades 4 and 8.

Tables 10-A and 10-B present the percentages of students assessed in Hillsborough County, the nation, and large cities by ELL status, their average scores, and their performance in terms of the percentages below *Basic*, the percentages at or above *Basic*, at or above *Proficient*, and at *Advanced* for grades 4 and 8.

Tables 11-A and 11-B present the total number of grades 4 and 8 students assessed in each of the participating districts and the weighted percentage of students sampled who were excluded.

The Nation's Report Card 2013 Trial Urban District Assessment

**Table
8-A**

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, by assessment year: 2011 and 2013

Year and testing status	SD and/or ELL			SD			ELL			
	Hillsborough County	Nation (public)	Large city (public)	Hillsborough County	Nation (public)	Large city (public)	Hillsborough County	Nation (public)	Large city (public)	
2011	Identified	30	23	32	17	13	13	17	11	22
	Excluded	2	2	3	1	2	2	1	#	1
	Assessed without accommodations	2	9	14	2	3	2	#	6	12
	Assessed with accommodations	26	12	15	14	9	9	16	4	9
2013	Identified	26	23	30	19	14	13	10	11	20
	Excluded	1	2	2	1	1	1	#	#	1
	Assessed without accommodations	2	7	11	2	2	1	#	5	9
	Assessed with accommodations	23	14	18	16	10	10	10	5	10

Rounds to zero.

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. 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 and 2013 Mathematics Assessments.

The Nation's Report Card 2013 Trial Urban District Assessment

**Table
8-B**

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, by assessment year: 2011 and 2013

Year and testing status	SD and/or ELL			SD			ELL		
	Hillsborough County	Nation (public)	Large city (public)	Hillsborough County	Nation (public)	Large city (public)	Hillsborough County	Nation (public)	Large city (public)
2011 Identified	24	18	23	16	13	13	9	6	12
Excluded	2	3	3	2	2	3	#	#	1
Assessed without accommodations	1	5	8	1	2	2	#	3	6
Assessed with accommodations	21	10	12	14	9	9	9	2	5
2013 Identified	22	17	22	15	13	14	8	6	11
Excluded	1	2	2	1	1	1	#	#	1
Assessed without accommodations	#	3	5	#	1	1	#	2	4
Assessed with accommodations	20	12	15	14	10	11	8	3	6

Rounds to zero.

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. 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 and 2013 Mathematics Assessments.

**Table
9-A**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by students with disabilities (SD) status, year, and jurisdiction: 2011 and 2013

SD status, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below Basic	At or above Basic	At or above Proficient	At Advanced	
SD							
2011	Nation (public)	12 *	218	45	55	17	2
	Large city (public)	11 *	209	56	44	12	1
	Hillsborough County	16	226	31	69	21	2
2013	Nation (public)	13	218	45	55	18	2
	Large city (public)	12	211	55	45	12	2
	Hillsborough County	18	227	31	69	23	2
Not SD							
2011	Nation (public)	88 *	243 *	15	85	43 *	7 *
	Large city (public)	89 *	236 *	22	78	32 *	5
	Hillsborough County	84	247	11	89	48	8
2013	Nation (public)	87	244	14	86	45	8
	Large city (public)	88	238	20	80	36	7
	Hillsborough County	82	246	11	89	47	8

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2013.

NOTE: The NAEP grade 4 mathematics scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP mathematics scales: below *Basic*, 213 or lower; *Basic*, 214–248; *Proficient*, 249–281; and *Advanced*, 282 and above. At or above *Basic* includes *Basic*, *Proficient*, and *Advanced*. At or above *Proficient* includes *Proficient* and *Advanced*. Performance comparisons may be affected by differences in exclusion rates for students with disabilities in the NAEP samples and by differences in sample sizes. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 and 2013 Mathematics Assessments.

**Table
9-B**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by students with disabilities (SD) status, year, and jurisdiction: 2011 and 2013

SD status, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below Basic	At or above Basic	At or above Proficient	At Advanced	
SD							
2011	Nation (public)	11 *	249	65	35	9	2
	Large city (public)	11 *	239	74	26	6	1
	Hillsborough County	15	257	55	45	12	2
2013	Nation (public)	12	248	66	34	8	1
	Large city (public)	12	239	76	24	5	1
	Hillsborough County	14	258	55	45	12	2
Not SD							
2011	Nation (public)	89 *	287 *	23 *	77 *	36 *	9 *
	Large city (public)	89 *	278	33 *	67 *	29	6
	Hillsborough County	85	286	24	76	36	8
2013	Nation (public)	88	288	22	78	38	9
	Large city (public)	88	281	30	70	30	7
	Hillsborough County	86	288	22	78	38	9

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2013.

NOTE: The NAEP grade 8 mathematics scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP mathematics scales: below *Basic*, 261 or lower; *Basic*, 262–298; *Proficient*, 299–332; and *Advanced*, 333 and above. At or above *Basic* includes *Basic*, *Proficient*, and *Advanced*. At or above *Proficient* includes *Proficient* and *Advanced*. Performance comparisons may be affected by differences in exclusion rates for students with disabilities in the NAEP samples and by differences in sample sizes. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 and 2013 Mathematics Assessments.

**Table
10-A**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by English language learner (ELL) status, year, and jurisdiction: 2011 and 2013

ELL status, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below Basic	At or above Basic	At or above Proficient	At Advanced	
ELL							
2011	Nation (public)	11	219	42	58	14	1
	Large city (public)	22	219	42	58	14	1
	Hillsborough County	16*	228*	27	73	19	#
2013	Nation (public)	11	219	41	59	14	1
	Large city (public)	20	218	43	57	13	1
	Hillsborough County	10	219	39	61	11	#
Not ELL							
2011	Nation (public)	89	243*	15	85	43*	7*
	Large city (public)	78	237*	21	79	35*	6
	Hillsborough County	84*	246	11	89	48	8
2013	Nation (public)	89	244	15	85	45	8
	Large city (public)	80	239	20	80	38	7
	Hillsborough County	90	245	12	88	46	8

Rounds to zero.

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2013.

NOTE: The NAEP grade 4 mathematics scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP mathematics scales: below *Basic*, 213 or lower; *Basic*, 214–248; *Proficient*, 249–281; and *Advanced*, 282 and above. At or above *Basic* includes *Basic*, *Proficient*, and *Advanced*. At or above *Proficient* includes *Proficient* and *Advanced*. Performance comparisons may be affected by differences in exclusion rates for English language learners in the NAEP samples and by differences in sample sizes. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 and 2013 Mathematics Assessments.

**Table
10-B**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by English language learner (ELL) status, year, and jurisdiction: 2011 and 2013

ELL status, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below Basic	At or above Basic	At or above Proficient	At Advanced	
ELL							
2011	Nation (public)	6 *	244	72	28	5	1
	Large city (public)	11	240	74	26	5	#
	Hillsborough County	9	250	65	35	4	#
2013	Nation (public)	5	245	69	31	5	1
	Large city (public)	10	243	71	29	5	#
	Hillsborough County	8	251	61	39	6	#
Not ELL							
2011	Nation (public)	94 *	285	25	75	35	8
	Large city (public)	89	278	33	67	29	6
	Hillsborough County	91	285	25	75	35	8
2013	Nation (public)	95	286	25	75	36	9
	Large city (public)	90	279	31	69	29	7
	Hillsborough County	92	287	24	76	37	9

Rounds to zero.

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2013.

NOTE: The NAEP grade 8 mathematics scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP mathematics scales: below *Basic*, 261 or lower; *Basic*, 262–298; *Proficient*, 299–332; and *Advanced*, 333 and above. At or above *Basic* includes *Basic*, *Proficient*, and *Advanced*. At or above *Proficient* includes *Proficient* and *Advanced*. Performance comparisons may be affected by differences in exclusion rates for English language learners in the NAEP samples and by differences in sample sizes. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 and 2013 Mathematics Assessments.

**Table
11-A**

Number of fourth-grade public school students assessed in NAEP mathematics and weighted percentage excluded, by jurisdiction: 2013

Jurisdiction	Number assessed	Weighted percentage excluded
Nation (public)	180,200	2
Large city (public)	46,800	2
Albuquerque	1,500	1
Atlanta	1,800	1
Austin	1,500	2
Baltimore City	1,400	2
Boston	1,700	4
Charlotte	1,500	1
Chicago	2,300	1
Cleveland	1,200	4
Dallas	1,500	2
Detroit	1,100	5
District of Columbia (DCPS)	1,400	2
Fresno	1,500	1
Hillsborough County	1,600	1
Houston	2,300	2
Jefferson County (KY)	1,600	2
Los Angeles	2,200	2
Miami-Dade	2,100	2
Milwaukee	1,300	3
New York City	2,200	1
Philadelphia	1,400	3
San Diego	1,400	1

NOTE: DCPS = District of Columbia Public Schools. The number of students assessed is rounded to the nearest hundred.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2013 Mathematics Assessment.

**Table
11-B**

Number of eighth-grade public school students assessed in NAEP mathematics and weighted percentage excluded, by jurisdiction: 2013

Jurisdiction	Number assessed	Weighted percentage excluded
Nation (public)	164,600	2
Large city (public)	40,500	2
Albuquerque	1,100	2
Atlanta	1,300	1
Austin	1,400	2
Baltimore City	1,100	2
Boston	1,500	3
Charlotte	1,300	1
Chicago	2,100	1
Cleveland	1,200	3
Dallas	1,400	2
Detroit	900	4
District of Columbia (DCPS)	1,000	2
Fresno	1,200	2
Hillsborough County	1,400	1
Houston	2,000	2
Jefferson County (KY)	1,400	2
Los Angeles	2,000	2
Miami-Dade	2,000	2
Milwaukee	1,200	4
New York City	2,100	2
Philadelphia	1,200	4
San Diego	1,100	2

NOTE: DCPS = District of Columbia Public Schools. The number of students assessed is rounded to the nearest hundred.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2013 Mathematics Assessment.

Where to Find More Information

The NAEP Mathematics Assessment

The latest news about the NAEP 2013 mathematics assessment and the results can be found on the NAEP website at <http://nces.ed.gov/nationsreportcard/mathematics/>. The individual snapshot reports for each participating district are also available on the website at <http://nces.ed.gov/nationsreportcard/pubs/dst2013/2014XXX.asp>.

The *Mathematics Framework for the 2013 National Assessment of Educational Progress*, on which this assessment is based, is available at the National Assessment Governing Board website at <http://www.nagb.org/content/nagb/assets/documents/publications/frameworks/math-2013-framework.pdf>.

The NAEP Data Explorer (NDE)

The interactive database at <http://nces.ed.gov/nationsreportcard/naepdata/> includes student, teacher, and school variables for all participating districts, the nation, and public schools in large cities. Data tables are also available for districts, with all contextual questions cross-tabulated with the major demographic variables. Users can design and create tables and can perform tests of statistical significance at this website.

Technical Documentation on the Web (TDW)

Technical documentation section of the NAEP website <http://nces.ed.gov/nationsreportcard/tdw/> contains information about the technical procedures and methods of NAEP. The TDW site is organized by topic (from Item Development through Analysis and Scaling) with subtopics, including information specific to a particular assessment. The content is written for researchers and assumes knowledge of educational measurement and testing.

Publications on the inclusion of students with disabilities and English language learners

References for a variety of research publications related to the assessment of students with special needs may be found at <http://nces.ed.gov/nationsreportcard/about/inclusion.aspx#research>.

To order publications

Recent NAEP publications related to mathematics are listed on the mathematics page of the NAEP website and are available electronically. Publications can also be ordered from

Education Publications Center (ED Pubs)
U.S. Department of Education
P.O. Box 22207
Alexandria, VA 22304

Call toll free: 1-877-4ED-Pubs (1-877-433-7827)
TTY/TDD: 1-877-576-7734
FAX: 1-301-470-1244
Order online at: <http://www.edpubs.gov>.

The NAEP District Report Generator was developed for the NAEP 2013 reports by Phillip Leung, Bobby Rampey, Rick Hasney, and Ming Kuang.

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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