

North Carolina

Grades 4 and 8 Public Schools



State Mathematics 2011

This report provides selected results for North Carolina'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*).

State-level results in mathematics are available for nine assessment years (at grade 8 in 1990; and at both grades 4 and 8 in 1992, 1996, 2000, 2003, 2005, 2007, 2009, and 2011), although not all states may have participated or met the criteria for reporting in every year. All 50 states, the District of Columbia, and the Department of Defense schools participated in the 2011 mathematics assessment at grades 4 and 8.

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

- *The Nation's Report Card, Mathematics 2011*
- 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 2011

Grade 4:

- In 2011, the average mathematics score for fourth-grade students in North Carolina was 245. This was higher than that of the nation's public schools (240).
- The average score for students in North Carolina in 2011 (245) was higher than that in 1992 (213) and was not significantly different from that in 2009 (244).
- In 2011, the percentage of students in North Carolina who performed at or above *Proficient* was 44 percent. This was greater than that for the nation's public schools (40 percent).
- The percentage of students in North Carolina who performed at or above *Proficient* in 2011 (44 percent) was greater than that in 1992 (13 percent) and was not significantly different from that in 2009 (43 percent).
- In 2011, the percentage of students in North Carolina who performed at or above *Basic* was 88 percent. This was greater than that for the nation's public schools (82 percent).
- The percentage of students in North Carolina who performed at or above *Basic* in 2011 (88 percent) was greater than that in 1992 (50 percent) and was not significantly different from that in 2009 (87 percent).

Grade 8:

- In 2011, the average mathematics score for eighth-grade students in North Carolina was 286. This was higher than that of the nation's public schools (283).
- The average score for students in North Carolina in 2011 (286) was higher than that in 1990 (250) and was not significantly different from that in 2009 (284).
- In 2011, the percentage of students in North Carolina who performed at or above *Proficient* was 37 percent. This was greater than that for the nation's public schools (34 percent).
- The percentage of students in North Carolina who performed at or above *Proficient* in 2011 (37 percent) was greater than that in 1990 (9 percent) and was not significantly different from that in 2009 (36 percent).
- In 2011, the percentage of students in North Carolina who performed at or above *Basic* was 75 percent. This was greater than that for the nation's public schools (72 percent).
- The percentage of students in North Carolina who performed at or above *Basic* in 2011 (75 percent) was greater than that in 1990 (38 percent) and was not significantly different from that in 2009 (74 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) and under the direction of the Governing Board. The current framework is available at the Governing Board's website <http://www.nagb.org/publications/frameworks/math-2011-framework.pdf>.

For grades 4 and 8, the mathematics framework for the 2011 assessment is similar to earlier versions that guided the 1990, 1992, 1996, 2000, 2003, 2005, 2007, and 2009 mathematics assessments. Although the frameworks are updated periodically, the mathematics content objectives for grades 4 and 8 have not changed, allowing students' performance in 2011 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, are available on the NAEP website at <http://nces.ed.gov/nationsreportcard/itmrls/>.

Some questions in the 2011 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?

All 50 states, the District of Columbia, and the Department of Defense Schools participated in the 2011 mathematics assessment at grades 4 and 8. The overall participation rates for schools and students must meet guidelines established by the National Center for Education Statistics (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 2011 mathematics assessment are available on the NAEP website at http://nationsreportcard.gov/math_2011/participation.asp.

The schools and students participating in NAEP assessments are selected to be representative both nationally and for public schools at the state level. The comparisons between national and state results in this report 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 2011 state results are compared to results from seven earlier assessments at grade 4 and from eight earlier assessments at grade 8.

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 also 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 2011 State Assessment
	Descriptions of fourth-grade achievement levels for 2011 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. (2010). *Mathematics Framework for the 2011 National Assessment of Educational Progress*. Washington, DC: Author.

Figure 1-B	The Nation's Report Card 2011 State Assessment
	Descriptions of eighth-grade achievement levels for 2011 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. (2010). *Mathematics Framework for the 2011 National Assessment of Educational Progress*. Washington, DC: Author.

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 this report. Results for the assessment years when accommodations were not permitted in state NAEP assessments (1990, 1992, 1996) are reported in the same tables as the results when accommodations were permitted (2000, 2003, 2005, 2007, 2009, 2011).

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 states. The types of accommodations used in the 2011 NAEP mathematics assessment are available on the NAEP website at http://nationsreportcard.gov/math_2011/type_accomm.asp

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. Comparisons over time or between groups are based on statistical tests that consider both the size of the differences and the standard errors of the two statistics being compared. Standard errors are margins of error, and estimates based on smaller groups are likely to have larger margins of error. The size of the standard errors may also be influenced by other factors such as how representative the assessed students are of the entire population. 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, gender, and type of school location) 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 2011 Mathematics Overall Average Score and Achievement-Level Results for Public School Students

Overall mathematics results for public school students from North Carolina are reported in this section, as well as regional and national results. The regions defined by the U.S. Census Bureau are Northeast, South, Midwest, and West (<http://nces.ed.gov/nationsreportcard/hsts/tabulations/regions.asp>). Trend data by region are not provided for assessment years prior to 2003.

Prior to 2000, testing accommodations were not provided for students with special needs in NAEP state mathematics assessments. For 2000, results are displayed for both the sample in which accommodations were permitted and the sample in which they were not permitted. Subsequent assessment results were based on the more inclusive samples. In the text of this report, comparisons to 2000 results refer only to the sample in which accommodations were permitted.

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 North Carolina, the nation (public), and the region. Prior to 2003, the list of states that comprise a given region for NAEP differed from the list used by the U.S. Census Bureau, which has been used in NAEP from 2003 onward. Therefore, the data for the state's region are given only for 2003, 2005, 2007, 2009, and 2011. 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 percentages 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 2011, the average scale score for students in North Carolina was 245. This was higher than that of students across the nation (240).
- In North Carolina, the average scale score for students in 2011 was not significantly different from that in 2009 (244). However, the average scale score for student in public schools across the nation in 2011 was higher than that in 2009 (239).
- In North Carolina, the average scale score for students in 2011 was higher than the scores in 1992, 1996, 2000, 2003, 2005, and 2007. However, it was not significantly different from the score in 2009.

Grade 8 Scale Score Results

- In 2011, the average scale score for students in North Carolina was 286. This was higher than that of students across the nation (283).
- In North Carolina, the average scale score for students in 2011 was not significantly different from that in 2009 (284). However, the average scale score for student in public schools across the nation in 2011 was higher than that in 2009 (282).
- In North Carolina, the average scale score for students in 2011 was higher than the scores in 1990, 1992, 1996, 2000, 2003, and 2005. However, it was not significantly different from the scores in 2007 and 2009.

**Table
1-A**

Average scale scores and selected percentile scores in NAEP mathematics for fourth-grade public school students, by year and jurisdiction: Various years, 1992–2011

Year and jurisdiction		Average scale score	10th percentile	25th percentile	50th percentile	75th percentile	90th percentile
1992 ¹	Nation (public)	219 *	176 *	197 *	220 *	241 *	259 *
	North Carolina	213 *	170 *	190 *	214 *	235 *	253 *
1996 ¹	Nation (public)	222 *	180 *	201 *	224 *	244 *	261 *
	North Carolina	224 *	184 *	204 *	225 *	245 *	263 *
2000 ¹	Nation (public)	226 *	185 *	206 *	228 *	249 *	265 *
	North Carolina	232 *	198 *	215 *	233 *	251 *	267 *
2000	Nation (public)	224 *	183 *	203 *	225 *	247 *	264 *
	North Carolina	230 *	195 *	212 *	231 *	249 *	265 *
2003	Nation (public)	234 *	196 *	215 *	235 *	254 *	270 *
	South ²	233 *	197 *	215 *	234 *	253 *	268 *
	North Carolina	242 *	207 *	224 *	243 *	261	276
2005	Nation (public)	237 *	199 *	219 *	239 *	257 *	272 *
	South ²	237 *	201 *	219 *	238 *	256 *	271 *
	North Carolina	241 *	205 *	223 *	242 *	260	276
2007	Nation (public)	239 *	201 *	221	241	259 *	274 *
	South ²	239 *	203	221	240	257 *	272 *
	North Carolina	242 *	206 *	224 *	243	261	275
2009	Nation (public)	239 *	201 *	221 *	241 *	259 *	275 *
	South ²	238 *	203 *	221	239	257 *	273
	North Carolina	244	209	226	244	262	279
2011	Nation (public)	240	202	222	242	260	276
	South ²	239	204	222	240	258	274
	North Carolina	245	211	227	245	263	277

* Value is significantly different ($p < .05$) from the value for the same jurisdiction in 2011.

¹ Accommodations were not permitted for this assessment.

² Region in which jurisdiction is located. Regional data are not provided for years prior to 2003 to be consistent with the U.S. Census Bureau defined regions.

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), various years, 1992–2011 Mathematics Assessments.

NAEP 2011 Mathematics Report for North Carolina (Embargoed)

The Nation's Report Card 2011 State Assessment

**Table
1-B**

Average scale scores and selected percentile scores in NAEP mathematics for eighth-grade public school students, by year and jurisdiction: Various years, 1990–2011

Year and jurisdiction		Average scale score	10th percentile	25th percentile	50th percentile	75th percentile	90th percentile
1990 ¹	Nation (public)	262 *	214 *	237 *	263 *	288 *	307 *
	North Carolina	250 *	204 *	225 *	251 *	275 *	296 *
1992 ¹	Nation (public)	267 *	219 *	242 *	268 *	293 *	314 *
	North Carolina	258 *	213 *	235 *	259 *	283 *	303 *
1996 ¹	Nation (public)	271 *	222 *	247 *	272 *	296 *	316 *
	North Carolina	268 *	222 *	244 *	268 *	293 *	314 *
2000 ¹	Nation (public)	274 *	225 *	250 *	276 *	300 *	321 *
	North Carolina	280 *	236	257 *	281 *	304 *	323 *
2000	Nation (public)	272 *	221 *	247 *	274 *	299 *	320 *
	North Carolina	276 *	229 *	253 *	278 *	302 *	322 *
2003	Nation (public)	276 *	228 *	253 *	278 *	301 *	321 *
	South ²	274 *	228 *	251 *	275 *	298 *	318 *
	North Carolina	281 *	232 *	258 *	283	306 *	327 *
2005	Nation (public)	278 *	230 *	254 *	279 *	303 *	323 *
	South ²	276 *	230 *	253 *	277 *	300 *	321 *
	North Carolina	282 *	235	259	283 *	306 *	327 *
2007	Nation (public)	280 *	234 *	257 *	281 *	305 *	325 *
	South ²	279 *	235 *	256 *	280 *	303 *	323 *
	North Carolina	284	239	260	285	308	329
2009	Nation (public)	282 *	235 *	258 *	283 *	307 *	328
	South ²	281 *	236	257 *	281 *	305 *	325
	North Carolina	284	237	260	285	310	331
2011	Nation (public)	283	236	259	284	308	329
	South ²	282	237	259	283	306	327
	North Carolina	286	241	262	287	311	332

* Value is significantly different ($p < .05$) from the value for the same jurisdiction in 2011.

¹ Accommodations were not permitted for this assessment.

² Region in which jurisdiction is located. Regional data are not provided for years prior to 2003 to be consistent with the U.S. Census Bureau defined regions.

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), various years, 1990–2011 Mathematics Assessments.

Overall Achievement-Level Results

Student results are reported as the percentages 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 2011, the percentage of North Carolina's students who performed at or above *Proficient* was 44 percent. This was greater than the percentage of the nation's public school students who performed at or above *Proficient* (40 percent).
- In North Carolina, the percentage of students who performed at or above *Proficient* in 2011 was greater than the percentages in 1992, 1996, 2000, and 2005, but was not significantly different from the percentages in 2003, 2007, and 2009.
- In 2011, the percentage of North Carolina's students who performed at or above *Basic* was 88 percent. This was greater than the percentage of the nation's public school students who performed at or above *Basic* (82 percent).
- In North Carolina, the percentage of students who performed at or above *Basic* in 2011 was greater than the percentages in 1992, 1996, 2000, 2003, 2005, and 2007, but was not significantly different from the percentage in 2009.

Grade 8 Achievement-Level Results

- In 2011, the percentage of North Carolina's students who performed at or above *Proficient* was 37 percent. This was greater than the percentage of the nation's public school students who performed at or above *Proficient* (34 percent).
- In North Carolina, the percentage of students who performed at or above *Proficient* in 2011 was greater than the percentages in 1990, 1992, 1996, 2000, 2003, and 2005, but was not significantly different from the percentages in 2007 and 2009.
- In 2011, the percentage of North Carolina's students who performed at or above *Basic* was 75 percent. This was greater than the percentage of the nation's public school students who performed at or above *Basic* (72 percent).
- In North Carolina, the percentage of students who performed at or above *Basic* in 2011 was greater than the percentages in 1990, 1992, 1996, and 2000, but was not significantly different from the percentages in 2003, 2005, 2007, and 2009.

**Table
2-A**

Percentage of fourth-grade public school students at or above NAEP mathematics achievement levels, by year and jurisdiction: Various years, 1992–2011

Year and jurisdiction		Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
1992 ¹	Nation (public)	43 *	57 *	17 *	2 *
	North Carolina	50 *	50 *	13 *	1 *
1996 ¹	Nation (public)	38 *	62 *	20 *	2 *
	North Carolina	36 *	64 *	21 *	2 *
2000 ¹	Nation (public)	33 *	67 *	25 *	2 *
	North Carolina	24 *	76 *	28 *	3 *
2000	Nation (public)	36 *	64 *	22 *	2 *
	North Carolina	27 *	73 *	25 *	3 *
2003	Nation (public)	24 *	76 *	31 *	4 *
	South ²	24 *	76 *	29 *	3 *
	North Carolina	15 *	85 *	41	6
2005	Nation (public)	21 *	79 *	35 *	5 *
	South ²	20 *	80 *	34 *	4 *
	North Carolina	17 *	83 *	40 *	7
2007	Nation (public)	19	81	39 *	5 *
	South ²	18	82	36 *	5 *
	North Carolina	15 *	85 *	41	6
2009	Nation (public)	19 *	81 *	38 *	6 *
	South ²	18	82	36	5
	North Carolina	13	87	43	8
2011	Nation (public)	18	82	40	6
	South ²	18	82	37	5
	North Carolina	12	88	44	7

* Value is significantly different ($p < .05$) from the value for the same jurisdiction in 2011.

¹ Accommodations were not permitted for this assessment.

² Region in which jurisdiction is located. Regional data are not provided for years prior to 2003 to be consistent with the U.S. Census Bureau defined regions.

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), various years, 1992–2011 Mathematics Assessments.

**Table
2-B**

Percentage of eighth-grade public school students at or above NAEP mathematics achievement levels, by year and jurisdiction: Various years, 1990–2011

Year and jurisdiction		Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
1990 ¹	Nation (public)	49*	51*	15*	2*
	North Carolina	62*	38*	9*	1*
1992 ¹	Nation (public)	44*	56*	20*	3*
	North Carolina	53*	47*	12*	1*
1996 ¹	Nation (public)	39*	61*	23*	4*
	North Carolina	44*	56*	20*	3*
2000 ¹	Nation (public)	35*	65*	26*	5*
	North Carolina	30*	70*	30*	6*
2000	Nation (public)	38*	62*	25*	5*
	North Carolina	33*	67*	27*	5*
2003	Nation (public)	33*	67*	27*	5*
	South ²	36*	64*	24*	4*
	North Carolina	28	72	32*	7*
2005	Nation (public)	32*	68*	28*	6*
	South ²	34*	66*	26*	5*
	North Carolina	28	72	32*	7*
2007	Nation (public)	30*	70*	31*	7*
	South ²	30*	70*	29*	6*
	North Carolina	27	73	34	8
2009	Nation (public)	29*	71*	33*	7
	South ²	29*	71*	30*	7
	North Carolina	26	74	36	9
2011	Nation (public)	28	72	34	8
	South ²	28	72	32	7
	North Carolina	25	75	37	10

* Value is significantly different ($p < .05$) from the value for the same jurisdiction in 2011.

¹ Accommodations were not permitted for this assessment.

² Region in which jurisdiction is located. Regional data are not provided for years prior to 2003 to be consistent with the U.S. Census Bureau defined regions.

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), various years, 1990–2011 Mathematics Assessments.

Comparisons Between North Carolina, the Nation, and Participating States and Jurisdictions

All 50 states, the District of Columbia, and the Department of Defense Schools participated in the 2011 mathematics assessment at grades 4 and 8. References to "jurisdictions" in the results statements may include states, the District of Columbia, and Department of Defense Schools.

Comparisons by Scale Scores

Figures 2-A and 2-B compare North Carolina's 2011 overall mathematics scale scores at grades 4 and 8 with those of public schools in the nation and all other participating states and jurisdictions. The different shadings indicate whether the average score of the nation (public), a state, or a jurisdiction was found to be higher than, lower than, or not significantly different from that of North Carolina in the NAEP 2011 mathematics assessment.

Grade 4 Scale Score Comparison Results

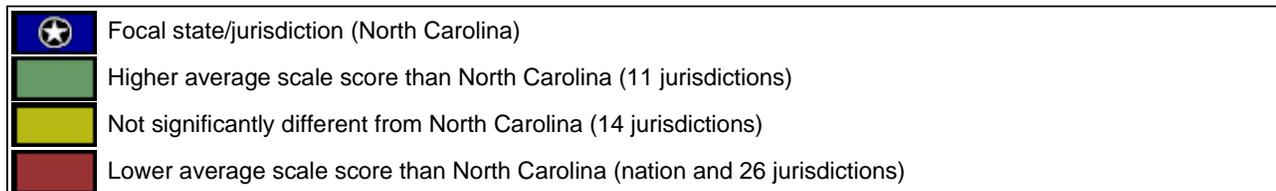
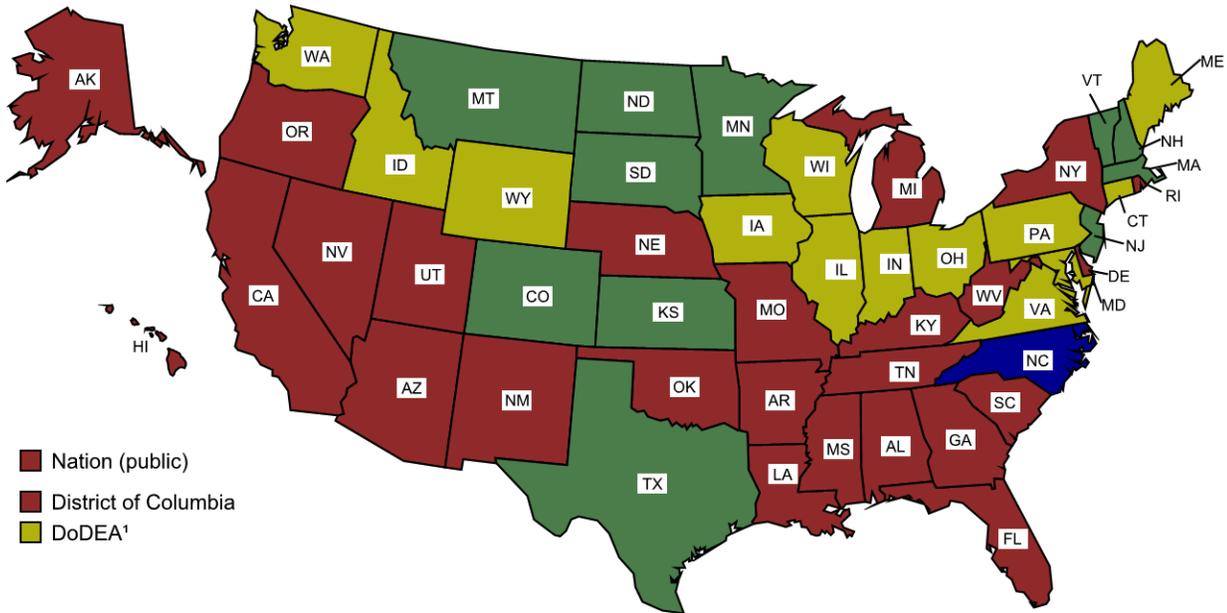
- The average score for students in North Carolina was higher than the scores in 30 jurisdictions, not significantly different from those in 15 jurisdictions, and lower than those in 6 jurisdictions.

Grade 8 Scale Score Comparison Results

- The average score for students in North Carolina was higher than the scores in 26 jurisdictions, not significantly different from those in 14 jurisdictions, and lower than those in 11 jurisdictions.

Figure 2-B

North Carolina's average scale score in NAEP mathematics for eighth-grade public school students compared with scores for the nation and other participating jurisdictions: 2011



¹ Department of Defense Education Activity (overseas and domestic schools).

NOTE: 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), 2011 Mathematics Assessment.

Comparisons by Achievement Levels

Figures 3-A and 3-B permit comparisons of all jurisdictions (and the nation) participating in the NAEP 2011 mathematics assessment in terms of percentages of grades 4 and 8 students performing at or above *Proficient*. The participating states and jurisdictions are grouped into categories reflecting whether the percentage of their students performing at or above *Proficient* (including *Advanced*) was found to be higher than, not significantly different from, or lower than the percentage in North Carolina.

Note that the selected state is listed first in its category, and the other states and jurisdictions within each category are listed alphabetically; statistical comparisons among jurisdictions in each of the three categories are not included in this report. However, statistical comparisons among states 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 North Carolina was greater than the percentage in 28 jurisdictions, not significantly different from those in 18 jurisdictions, and smaller than those in 5 jurisdictions.
- The percentage of students performing at or above the *Basic* level in North Carolina was greater than the percentage in 34 jurisdictions, not significantly different from those in 15 jurisdictions, and smaller than those in 2 jurisdictions (data not shown).

Grade 8 Achievement-Level Comparison Results

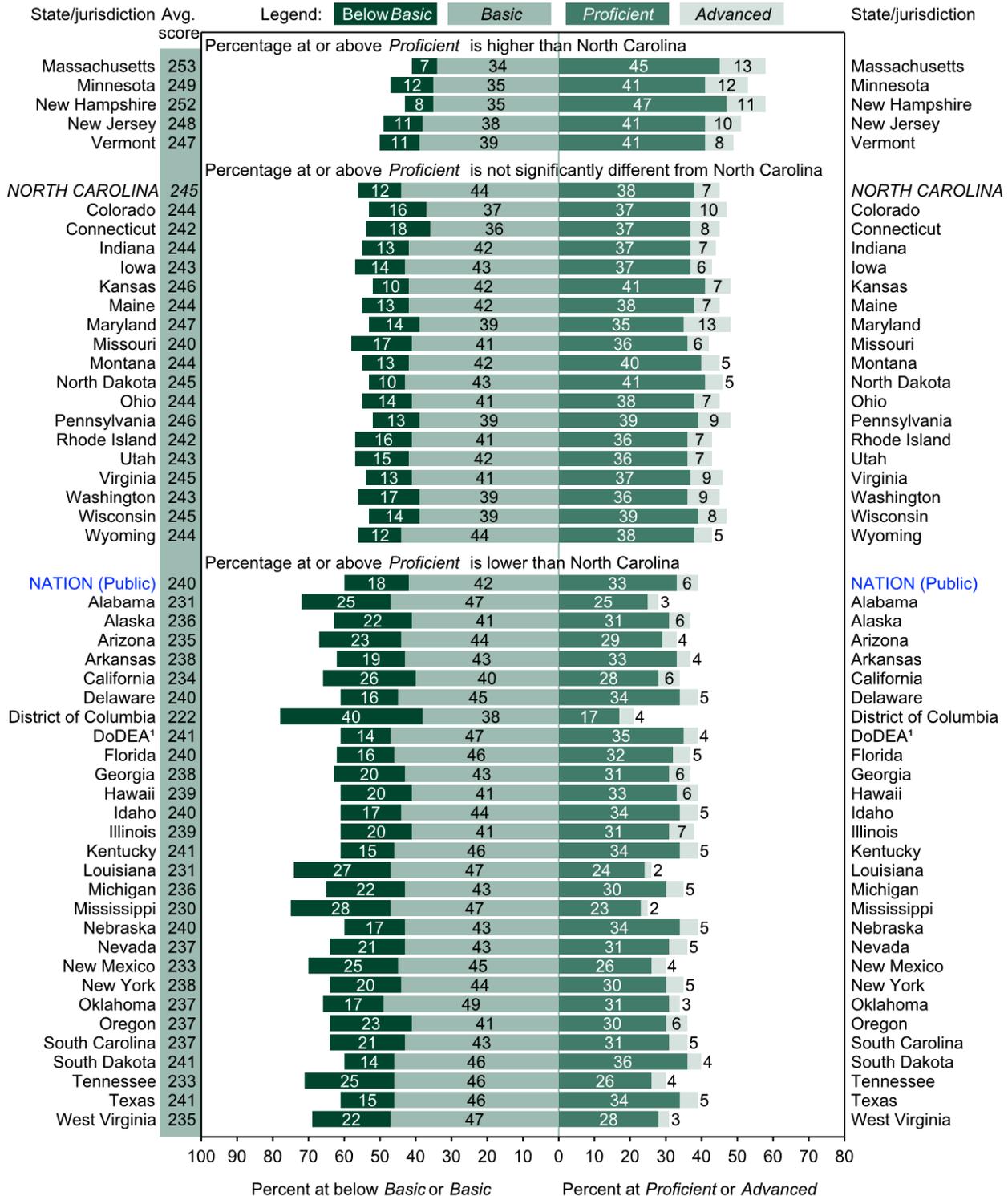
- The percentage of students performing at or above the *Proficient* level in North Carolina was greater than the percentage in 24 jurisdictions, not significantly different from those in 17 jurisdictions, and smaller than those in 10 jurisdictions.
- The percentage of students performing at or above the *Basic* level in North Carolina was greater than the percentage in 17 jurisdictions, not significantly different from those in 19 jurisdictions, and smaller than those in 15 jurisdictions (data not shown).

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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 North Carolina's percentage at or above *Proficient* compared with the nation and other participating states/jurisdictions: 2011



¹ Department of Defense Education Activity (overseas and domestic schools).

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 *Proficient* category begins, so that they may be compared at *Proficient* 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.

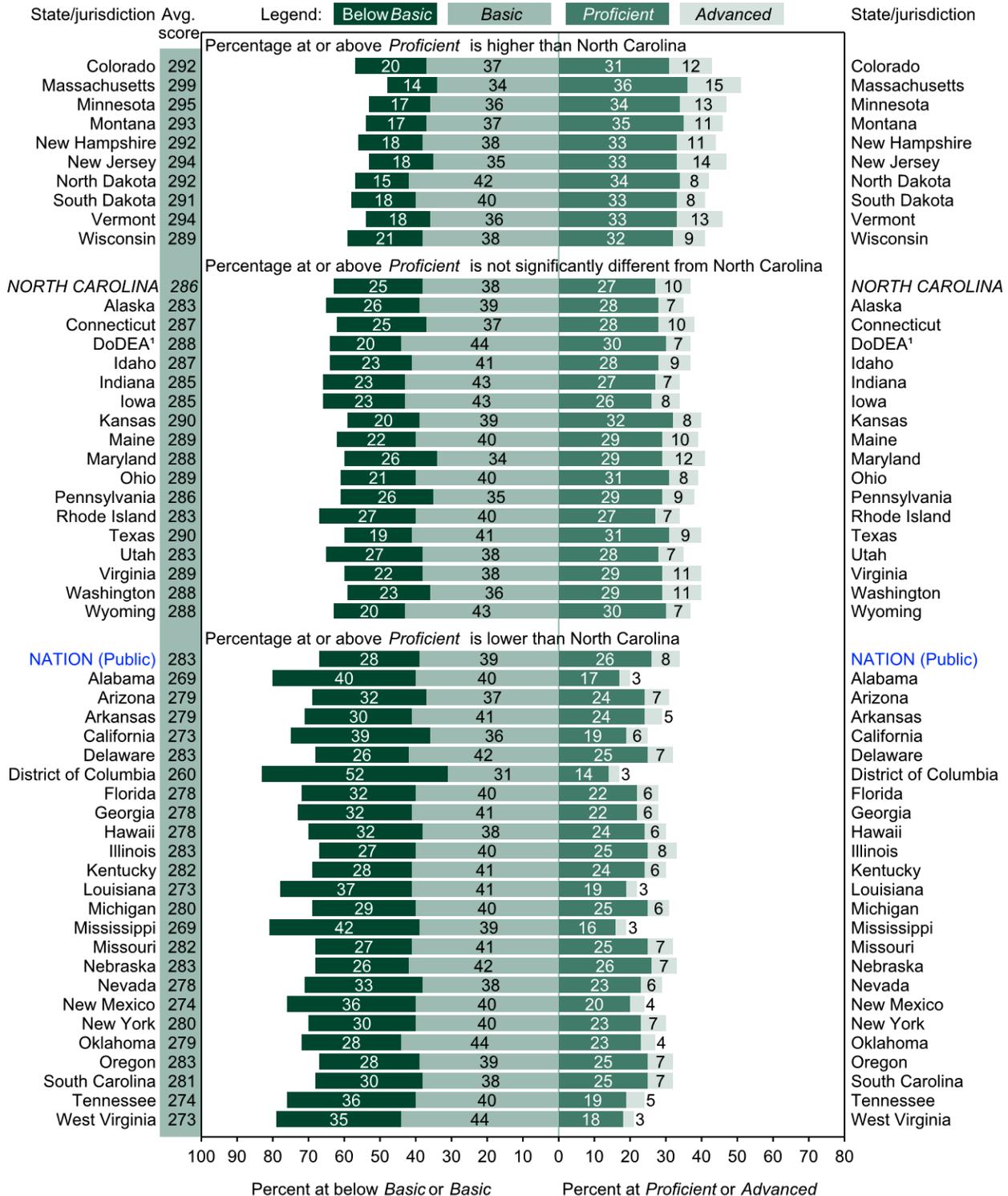
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

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Figure 3-B

Average scale scores in NAEP mathematics for eighth-grade public school students, percentage within each achievement level, and North Carolina's percentage at or above *Proficient* compared with the nation and other participating states/jurisdictions: 2011



¹ Department of Defense Education Activity (overseas and domestic schools).

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 *Proficient* category begins, so that they may be compared at *Proficient* 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.

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

Mathematics Performance of Selected Student Groups

This section of the report presents trend results for public school students in North Carolina and the nation by demographic characteristics. Student performance data are reported for

- race/ethnicity
- gender
- student eligibility for the National School Lunch Program
- type of school location (for 2007, 2009, and 2011)
- parents' highest level of education

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.

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 2011 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 2011 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
- Native Hawaiian or other Pacific Islander
- American Indian or Alaska Native
- Two or more races

As in earlier years, students identified as Hispanic were classified as Hispanic in 2011 even if they were also identified with another racial/ethnic group. Students 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.

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 North Carolina and the nation, by race/ethnicity.

Grade 4 Scale Score Results by Race/Ethnicity

- In 2011, White students in North Carolina had an average scale score that was higher than the average scores of Black, Hispanic, and American Indian/Alaska Native students, but lower than the average score of Asian/Pacific Islander students.
- In 2011, the average scale score of Hispanic students in North Carolina was higher than their respective scores in 2000 and 2005, but not significantly different from their respective scores in 2003, 2007, and 2009.
- In 2011, the average scale scores of White and Black students in North Carolina were higher than their respective scores in 1992, 1996, 2000, and 2005, but not significantly different from their respective scores in 2003, 2007, and 2009.
- In 2011, the average scale score of Asian/Pacific Islander students in North Carolina was not significantly different from their respective scores in 2003, 2005, 2007, and 2009.
- In 2011, the average scale score of American Indian/Alaska Native students in North Carolina was not significantly different from their respective scores in 2005, 2007, and 2009.
- In 2011, Black students in North Carolina had an average score that was lower than that of White students by 24 points. This performance gap was narrower than that of 1992 (30 points).
- In 2011, Hispanic students in North Carolina had an average score that was lower than that of White students by 15 points. Data are not reported for Hispanic students in 1992, because reporting standards were not met.

Grade 4 Achievement-Level Results by Race/Ethnicity

- In 2011 in North Carolina, the percentage of White students performing at or above *Proficient* was greater than the corresponding percentages of Black, Hispanic, and American Indian/Alaska Native students, but smaller than the percentage of Asian/Pacific Islander students.
- In 2011, the percentage of Hispanic students in North Carolina performing at or above *Proficient* was greater than the percentage in 2000, but not significantly different from the percentages of their respective peers in 2003, 2005, 2007, and 2009.
- In 2011, the percentage of Asian/Pacific Islander students in North Carolina performing at or above *Proficient* was not significantly different from the percentages of their respective peers in 2003, 2005, 2007, and 2009.
- In 2011, the percentage of American Indian/Alaska Native students in North Carolina performing at or above *Proficient* was not significantly different from the percentages of their respective peers in 2005, 2007, and 2009.
- In 2011, the percentages of White and Black students in North Carolina performing at or above *Proficient* were greater than the percentages of their respective peers in 1992, 1996, and 2000, but not significantly different from the percentages of their respective peers in 2003, 2005, 2007, and 2009.

**Table
3-A**

Percentage of fourth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by race/ethnicity, year, and jurisdiction: Various years, 1992–2011

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
White							
1992 ¹	Nation (public)	72 *	227 *	32 *	68 *	22 *	2 *
	North Carolina	65 *	223 *	36 *	64 *	18 *	2 *
1996 ¹	Nation (public)	71 *	230 *	27 *	73 *	25 *	3 *
	North Carolina	68 *	233 *	23 *	77 *	29 *	3 *
2000 ¹	Nation (public)	67 *	234 *	22 *	78 *	32 *	3 *
	North Carolina	62 *	240 *	14 *	86 *	37 *	4 *
2000	Nation (public)	62 *	233 *	24 *	76 *	30 *	3 *
	North Carolina	61 *	238 *	16 *	84 *	34 *	4 *
2003	Nation (public)	58 *	243 *	13 *	87 *	42 *	5 *
	North Carolina	58	251	6	94	55	9
2005	Nation (public)	57 *	246 *	11 *	89 *	47 *	7 *
	North Carolina	59 *	250 *	8	92	52	10
2007	Nation (public)	55 *	248 *	9	91	51	8 *
	North Carolina	55	251	6	94	56	9
2009	Nation (public)	54 *	248 *	10	90	50 *	8
	North Carolina	54	254	5	95	59	13
2011	Nation (public)	52	249	9	91	52	9
	North Carolina	54	253	5	95	58	10
Black							
1992 ¹	Nation (public)	18 *	192 *	78 *	22 *	2 *	#
	North Carolina	31 *	193 *	77 *	23 *	2 *	#
1996 ¹	Nation (public)	17	199 *	70 *	30 *	4 *	#
	North Carolina	28	204 *	64 *	36 *	4 *	#
2000 ¹	Nation (public)	17	204 *	64 *	36 *	5 *	#
	North Carolina	32 *	217 *	44 *	56 *	9 *	#
2000	Nation (public)	17	203 *	65 *	35 *	4 *	# *
	North Carolina	31 *	215 *	48 *	52 *	9 *	#
2003	Nation (public)	17 *	216 *	46 *	54 *	10 *	# *
	North Carolina	30	225	32	68	14	#
2005	Nation (public)	17 *	220 *	40 *	60 *	13 *	1 *
	North Carolina	27	225 *	34 *	66 *	17	1
2007	Nation (public)	17	222 *	37 *	63 *	15 *	1
	North Carolina	28	224	32	68	15	1
2009	Nation (public)	16	222 *	37 *	63 *	15 *	1
	North Carolina	27	226	29	71	18	1
2011	Nation (public)	16	224	34	66	17	1
	North Carolina	27	229	25	75	18	#

See notes at end of table.

**Table
3-A**

Percentage of fourth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by race/ethnicity, year, and jurisdiction: Various years, 1992–2011—Continued

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Hispanic							
1992 ¹	Nation (public)	7*	201*	68*	32*	5*	#
	North Carolina	1*	‡	‡	‡	‡	‡
1996 ¹	Nation (public)	9*	204*	63*	37*	7*	#
	North Carolina	1*	‡	‡	‡	‡	‡
2000 ¹	Nation (public)	11*	209*	55*	45*	8*	#
	North Carolina	3*	‡	‡	‡	‡	‡
2000	Nation (public)	16*	207*	59*	41*	7*	#*
	North Carolina	3*	220*	35*	65*	12*	#
2003	Nation (public)	19*	221*	38*	62*	15*	1*
	North Carolina	6*	235	21	79	30	2
2005	Nation (public)	20*	225*	33*	67*	19*	1*
	North Carolina	8*	234*	20	80	26	1
2007	Nation (public)	21*	227*	31*	69*	22*	1
	North Carolina	10	235	16	84	28	2
2009	Nation (public)	22*	227*	30	70	21*	1
	North Carolina	11	236	16	84	27	2
2011	Nation (public)	24	229	28	72	24	2
	North Carolina	12	238	14	86	33	2
Asian/Pacific Islander							
1992 ¹	Nation (public)	3*	231*	26*	74*	27*	4*
	North Carolina	1*	‡	‡	‡	‡	‡
1996 ¹	Nation (public)	3*	225*	35*	65*	20*	5*
	North Carolina	2*	‡	‡	‡	‡	‡
2000 ¹	Nation (public)	‡	‡	‡	‡	‡	‡
	North Carolina	1*	‡	‡	‡	‡	‡
2000	Nation (public)	‡	‡	‡	‡	‡	‡
	North Carolina	1*	‡	‡	‡	‡	‡
2003	Nation (public)	4*	246*	13*	87*	48*	10*
	North Carolina	2	255	7	93	60	13
2005	Nation (public)	4*	251*	11	89	54*	14*
	North Carolina	2	256	6	94	63	16
2007	Nation (public)	5	254	9	91	59	16
	North Carolina	2	253	9	91	60	14
2009	Nation (public)	5	255	9	91	61	18
	North Carolina	2	259	7	93	62	25
2011	Nation (public)	5	256	9	91	62	20
	North Carolina	3	263	3	97	71	26

See notes at end of table.

**Table
3-A**

Percentage of fourth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by race/ethnicity, year, and jurisdiction: Various years, 1992–2011—Continued

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
American Indian/Alaska Native							
1992 ¹	Nation (public)	1	‡	‡	‡	‡	‡
	North Carolina	2	‡	‡	‡	‡	‡
1996 ¹	Nation (public)	1*	‡	‡	‡	‡	‡
	North Carolina	1	‡	‡	‡	‡	‡
2000 ¹	Nation (public)	1	‡	‡	‡	‡	‡
	North Carolina	2	‡	‡	‡	‡	‡
2000	Nation (public)	1	207*	61*	39*	8*	#
	North Carolina	2	‡	‡	‡	‡	‡
2003	Nation (public)	1	224	35	65	18*	1
	North Carolina	1	‡	‡	‡	‡	‡
2005	Nation (public)	1	227	31	69	22	2
	North Carolina	2	221	42	58	19	1
2007	Nation (public)	1	229*	28*	72*	26	3
	North Carolina	1	229	27	73	24	3
2009	Nation (public)	1	227	32	68	23	2
	North Carolina	1	232	23	77	30	2
2011	Nation (public)	1	227	32	68	24	2
	North Carolina	1	225	36	64	20	3

Rounds to zero.

‡ Reporting standards not met.

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2011.

¹ Accommodations were not permitted for this assessment.

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), various years, 1992–2011 Mathematics Assessments.

Grade 8 Scale Score Results by Race/Ethnicity

- In 2011, White students in North Carolina had an average scale score that was higher than the average scores of Black, Hispanic, and American Indian/Alaska Native students, but lower than the average score of Asian/Pacific Islander students.
- In 2011, the average scale score of White students in North Carolina was higher than their respective scores in 1990, 1992, 1996, 2000, and 2005, but not significantly different from their respective scores in 2003, 2007, and 2009.
- In 2011, the average scale score of Black students in North Carolina was higher than their respective scores in 1990, 1992, 1996, 2000, and 2003, but not significantly different from their respective scores in 2005, 2007, and 2009.
- In 2011, the average scale score of American Indian/Alaska Native students in North Carolina was higher than their respective score in 1990, but not significantly different from their respective scores in 2003, 2007, and 2009.
- In 2011, the average scale score of Hispanic students in North Carolina was higher than their respective scores in 2003 and 2005, but not significantly different from their respective scores in 2007 and 2009.
- In 2011, the average scale score of Asian/Pacific Islander students in North Carolina was higher than their respective score in 2003, but not significantly different from their respective scores in 2005, 2007, and 2009.
- In 2011, Black students in North Carolina had an average score that was lower than that of White students by 29 points. In 1990, the average score for Black students was lower than that of White students by 30 points.
- In 2011, Hispanic students in North Carolina had an average score that was lower than that of White students by 21 points. Data are not reported for Hispanic students in 1990, because reporting standards were not met.

Grade 8 Achievement-Level Results by Race/Ethnicity

- In 2011 in North Carolina, the percentage of White students performing at or above *Proficient* was greater than the corresponding percentages of Black, Hispanic, and American Indian/Alaska Native students, but smaller than the percentage of Asian/Pacific Islander students.
- In 2011, the percentage of Hispanic students in North Carolina performing at or above *Proficient* was not significantly different from the percentages of their respective peers in 2003, 2005, 2007, and 2009.
- In 2011, the percentage of Asian/Pacific Islander students in North Carolina performing at or above *Proficient* was greater than the percentage in 2003, but not significantly different from the percentages of their respective peers in 2005, 2007, and 2009.
- In 2011, the percentage of American Indian/Alaska Native students in North Carolina performing at or above *Proficient* was not significantly different from the percentages of their respective peers in 2003, 2007, and 2009.
- In 2011, the percentages of White and Black students in North Carolina performing at or above *Proficient* were greater than the percentages of their respective peers in 1990, 1992, 1996, and 2000, but not significantly different from the percentages of their respective peers in 2003, 2005, 2007, and 2009.

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Table 3-B

Percentage of eighth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by race/ethnicity, year, and jurisdiction: Various years, 1990–2011

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
White							
1990 ¹	Nation (public)	73 *	269 *	41 *	59 *	18 *	3 *
	North Carolina	63 *	261 *	51 *	49 *	12 *	1 *
1992 ¹	Nation (public)	72 *	276 *	34 *	66 *	25 *	3 *
	North Carolina	70 *	266 *	44 *	56 *	16 *	2 *
1996 ¹	Nation (public)	70 *	280 *	28 *	72 *	29 *	5 *
	North Carolina	66 *	277 *	32 *	68 *	27 *	4 *
2000 ¹	Nation (public)	69 *	284 *	24 *	76 *	33 *	6 *
	North Carolina	65 *	290 *	18	82	40 *	8 *
2000	Nation (public)	63 *	283 *	25 *	75 *	33 *	6 *
	North Carolina	65 *	287 *	21 *	79 *	37 *	7 *
2003	Nation (public)	62 *	287 *	21 *	79 *	36 *	7 *
	North Carolina	59	294	15	85	44	10
2005	Nation (public)	60 *	288 *	21 *	79 *	37 *	7 *
	North Carolina	60 *	292 *	18	82	42	10
2007	Nation (public)	58 *	290 *	19 *	81 *	41 *	9 *
	North Carolina	56	295	15	85	46	12
2009	Nation (public)	56 *	292	18	82	43	10
	North Carolina	55	297	15	85	49	14
2011	Nation (public)	54	293	17	83	43	10
	North Carolina	55	296	15	85	48	13
Black							
1990 ¹	Nation (public)	16	236 *	79 *	21 *	5 *	#
	North Carolina	32 *	231 *	83 *	17 *	2 *	#
1992 ¹	Nation (public)	17 *	236 *	81 *	19 *	2 *	#
	North Carolina	28	238 *	77 *	23 *	3 *	# *
1996 ¹	Nation (public)	16	241 *	74 *	26 *	4 *	#
	North Carolina	29	247 *	69 *	31 *	5 *	#
2000 ¹	Nation (public)	14 *	245 *	70 *	30 *	5 *	# *
	North Carolina	28	257 *	57 *	43 *	7 *	1
2000	Nation (public)	17	243 *	70 *	30 *	5 *	# *
	North Carolina	29	252 *	60 *	40 *	7 *	#
2003	Nation (public)	17 *	252 *	61 *	39 *	7 *	# *
	North Carolina	30	260 *	51 *	49 *	11	1
2005	Nation (public)	17 *	254 *	59 *	41 *	8 *	1 *
	North Carolina	29	263	47	53	12	1
2007	Nation (public)	17 *	259 *	53 *	47 *	11 *	1 *
	North Carolina	30 *	266	47	53	14	1
2009	Nation (public)	16	260	51	49	12	1
	North Carolina	28	262	47	53	12	1
2011	Nation (public)	16	262	50	50	13	1
	North Carolina	26	267	43	57	15	2

See notes at end of table.

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Table 3-B

Percentage of eighth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by race/ethnicity, year, and jurisdiction: Various years, 1990–2011—Continued

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Hispanic							
1990 ¹	Nation (public)	7*	245*	67*	33*	7*	1*
	North Carolina	1*	‡	‡	‡	‡	‡
1992 ¹	Nation (public)	8*	247*	67*	33*	6*	#*
	North Carolina	1*	‡	‡	‡	‡	‡
1996 ¹	Nation (public)	9*	250*	62*	38*	8*	1
	North Carolina	2*	‡	‡	‡	‡	‡
2000 ¹	Nation (public)	11*	252*	60*	40*	8*	#*
	North Carolina	2*	‡	‡	‡	‡	‡
2000	Nation (public)	14*	252*	60*	40*	8*	#*
	North Carolina	2*	‡	‡	‡	‡	‡
2003	Nation (public)	15*	258*	53*	47*	11*	1*
	North Carolina	5*	263*	45	55	16	1
2005	Nation (public)	17*	261*	50*	50*	13*	1*
	North Carolina	6*	265*	41	59	16	1
2007	Nation (public)	19*	264*	46*	54*	15*	2*
	North Carolina	8*	273	39	61	23	4
2009	Nation (public)	21*	266*	44*	56*	17*	2
	North Carolina	10	274	33	67	24	2
2011	Nation (public)	23	269	40	60	20	3
	North Carolina	11	275	34	66	23	4
Asian/Pacific Islander							
1990 ¹	Nation (public)	2*	275*	36*	64*	30*	6*
	North Carolina	1*	‡	‡	‡	‡	‡
1992 ¹	Nation (public)	2*	290	25	75	43	14
	North Carolina	1*	‡	‡	‡	‡	‡
1996 ¹	Nation (public)	‡	‡	‡	‡	‡	‡
	North Carolina	2*	‡	‡	‡	‡	‡
2000 ¹	Nation (public)	4*	286*	27*	73*	40*	12*
	North Carolina	2*	‡	‡	‡	‡	‡
2000	Nation (public)	4*	287*	27*	73*	40*	12*
	North Carolina	2*	‡	‡	‡	‡	‡
2003	Nation (public)	4*	289*	23*	77*	42*	12*
	North Carolina	2	297*	13	87	48*	15*
2005	Nation (public)	5*	294*	19*	81*	46*	16*
	North Carolina	2	303	13	87	53	25
2007	Nation (public)	5*	296*	18*	82*	49*	17*
	North Carolina	3	299	15	85	50	18*
2009	Nation (public)	5	300	16	84	53	20
	North Carolina	2	311	13	87	65	36
2011	Nation (public)	6	302	15	85	55	22
	North Carolina	3	314	12	88	71	38

See notes at end of table.

**Table
3-B**

Percentage of eighth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by race/ethnicity, year, and jurisdiction: Various years, 1990–2011—Continued

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
American Indian/Alaska Native							
1990 ¹	Nation (public)	1	‡	‡	‡	‡	‡
	North Carolina	2	229*	86*	14*	2	#
1992 ¹	Nation (public)	1	‡	‡	‡	‡	‡
	North Carolina	1	‡	‡	‡	‡	‡
1996 ¹	Nation (public)	1	‡	‡	‡	‡	‡
	North Carolina	2	‡	‡	‡	‡	‡
2000 ¹	Nation (public)	1	264	47	53	14	2
	North Carolina	2	‡	‡	‡	‡	‡
2000	Nation (public)	1	263	47	53	13	3
	North Carolina	2	‡	‡	‡	‡	‡
2003	Nation (public)	1*	265	46	54	16	2
	North Carolina	2	259	52	48	13	#
2005	Nation (public)	1*	266	45	55	14	2*
	North Carolina	1	‡	‡	‡	‡	‡
2007	Nation (public)	1*	265	44	56	17	2
	North Carolina	1	261	49	51	17	1
2009	Nation (public)	1	267	43	57	20	3
	North Carolina	1	256	55	45	14	2
2011	Nation (public)	1	266	45	55	17	4
	North Carolina	1	265	46	54	22	5

Rounds to zero.

‡ Reporting standards not met.

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2011.

¹ Accommodations were not permitted for this assessment.

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), various years, 1990–2011 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 2011: White, Black, Hispanic, Asian, Native Hawaiian/Other Pacific Islander, American Indian/Alaska Native, and Two or More Races at grades 4 and 8 in North Carolina and the nation, by race/ethnicity.

**Table
4-A**

Percentage of fourth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by race/ethnicity, year, and jurisdiction: 2011

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
White							
2011	Nation (public)	52	249*	9*	91*	52*	9
	North Carolina	54	253	5	95	58	10
Black							
2011	Nation (public)	16*	224*	34*	66*	17	1*
	North Carolina	27	229	25	75	18	#
Hispanic							
2011	Nation (public)	24*	229*	28*	72*	24*	2
	North Carolina	12	238	14	86	33	2
Asian							
2011	Nation (public)	5*	257*	8*	92*	64	21
	North Carolina	3	265	2	98	72	27
American Indian/Alaska Native							
2011	Nation (public)	1	227	32	68	24	2
	North Carolina	1	225	36	64	20	3
Native Hawaiian/Other Pacific Islander							
2011	Nation (public)	#*	235	24	76	33	7
	North Carolina	#	‡	‡	‡	‡	‡
Two or more races							
2011	Nation (public)	2*	244	15*	85*	43	9
	North Carolina	3	247	7	93	48	7

Rounds to zero.

‡ Reporting standards not met.

* Value is significantly different ($p < .05$) from the value for the same group in North Carolina.

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 Mathematics Assessment.

**Table
4-B**

Percentage of eighth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by race/ethnicity, year, and jurisdiction: 2011

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
White							
2011	Nation (public)	54	293*	17	83	43*	10*
	North Carolina	55	296	15	85	48	13
Black							
2011	Nation (public)	16*	262*	50*	50*	13	1
	North Carolina	26	267	43	57	15	2
Hispanic							
2011	Nation (public)	23*	269*	40*	60*	20	3
	North Carolina	11	275	34	66	23	4
Asian							
2011	Nation (public)	5*	305*	12	88	58*	24*
	North Carolina	3	316	10	90	72	38
American Indian/Alaska Native							
2011	Nation (public)	1*	266	45	55	17	4
	North Carolina	1	265	46	54	22	5
Native Hawaiian/Other Pacific Islander							
2011	Nation (public)	#	265	45	55	19	3
	North Carolina	#	‡	‡	‡	‡	‡
Two or more races							
2011	Nation (public)	2*	286	24	76	37	10
	North Carolina	4	292	19	81	45	12

Rounds to zero.

‡ Reporting standards not met.

* Value is significantly different ($p < .05$) from the value for the same group in North Carolina.

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 Mathematics Assessment.

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 North Carolina and the nation, by gender.

Grade 4 Scale Score Results by Gender

- In 2011, male students in North Carolina had an average score in mathematics (245) that was not significantly different from that of female students (244). In 1992, male students in North Carolina had an average score in mathematics (213) that was not significantly different from that of female students (213).
- In 2011, male students in North Carolina had an average scale score in mathematics (245) that was higher than that of male students in public schools across the nation (241). Similarly, female students in North Carolina had an average scale score (244) that was higher than that of female students across the nation (239).
- In North Carolina, the average scale score of male students in 2011 was higher than the scores of male students in 1992, 1996, 2000, and 2005, but not significantly different from the scores of male students in 2003, 2007, and 2009.
- In North Carolina, the average scale score of female students in 2011 was higher than the scores of female students in 1992, 1996, 2000, 2003, 2005, and 2007, but not significantly different from the score of female students in 2009.

Grade 4 Achievement-Level Results by Gender

- In the 2011 assessment, 44 percent of male students and 44 percent of female students performed at or above *Proficient* in North Carolina. The difference between these percentages was not statistically significant.
- The percentage of male students in North Carolina's public schools who were at or above *Proficient* in 2011 (44 percent) was not significantly different from that of male students in the nation (41 percent).
- The percentage of female students in North Carolina's public schools who were at or above *Proficient* in 2011 (44 percent) was greater than that of female students in the nation (39 percent).
- In North Carolina, the percentage of male students performing at or above *Proficient* in 2011 was greater than the corresponding percentages of students in 1992, 1996, and 2000, but not significantly different from the corresponding percentages of students in 2003, 2005, 2007, and 2009.
- In North Carolina, the percentage of female students performing at or above *Proficient* in 2011 was greater than the corresponding percentages of students in 1992, 1996, 2000, and 2005, but not significantly different from the corresponding percentages of students in 2003, 2007, and 2009.

Table 5-A

Percentage of fourth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by gender, year, and jurisdiction: Various years, 1992–2011

Gender, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Male							
1992 ¹	Nation (public)	50	220*	41*	59*	19*	2*
	North Carolina	51	213*	50*	50*	13*	2*
1996 ¹	Nation (public)	51	224*	37*	63*	22*	3*
	North Carolina	50	224*	36*	64*	22*	3*
2000 ¹	Nation (public)	51	227*	32*	68*	27*	3*
	North Carolina	49	234*	24*	76*	30*	4*
2000	Nation (public)	51	225*	35*	65*	25*	3*
	North Carolina	50	230*	27*	73*	26*	3*
2003	Nation (public)	51	235*	23*	77*	34*	5*
	North Carolina	50	243	15	85	42	7
2005	Nation (public)	51	238*	20*	80*	37*	6*
	North Carolina	51	242*	17*	83*	41	7
2007	Nation (public)	51	240	18	82	41	7*
	North Carolina	50	243	16	84	43	7
2009	Nation (public)	51	240*	19	81	40	7
	North Carolina	51	244	14	86	44	8
2011	Nation (public)	51	241	18	82	41	7
	North Carolina	50	245	12	88	44	8
Female							
1992 ¹	Nation (public)	50	218*	44*	56*	16*	1*
	North Carolina	49	213*	49*	51*	12*	1*
1996 ¹	Nation (public)	49	221*	39*	61*	17*	1*
	North Carolina	50	224*	35*	65*	20*	2*
2000 ¹	Nation (public)	49	225*	34*	66*	22*	2*
	North Carolina	51	231*	25*	75*	26*	2*
2000	Nation (public)	49	223*	38*	62*	20*	1*
	North Carolina	50	230*	26*	74*	24*	2*
2003	Nation (public)	49	233*	25*	75*	29*	3*
	North Carolina	50	241*	15*	85*	40	5
2005	Nation (public)	49	236*	21*	79*	33*	4*
	North Carolina	49	241*	16*	84*	38*	6
2007	Nation (public)	49	238*	19	81	36*	4*
	North Carolina	50	241*	15	85	39	5
2009	Nation (public)	49	238*	19	81	37*	5*
	North Carolina	49	244	13	87	42	8
2011	Nation (public)	49	239	18	82	39	6
	North Carolina	50	244	12	88	44	6

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2011.

¹ Accommodations were not permitted for this assessment.

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), various years, 1992–2011 Mathematics Assessments.

Grade 8 Scale Score Results by Gender

- In 2011, male students in North Carolina had an average score in mathematics (285) that was not significantly different from that of female students (287). In 1990, male students in North Carolina had an average score in mathematics (250) that was not significantly different from that of female students (251).
- In 2011, male students in North Carolina had an average scale score in mathematics (285) that was not significantly different from that of male students in public schools across the nation (283). However, female students in North Carolina had an average scale score (287) that was higher than that of female students across the nation (282).
- In North Carolina, the average scale score of male students in 2011 was higher than the scores of male students in 1990, 1992, 1996, 2000, 2003, and 2005, but not significantly different from the scores of male students in 2007 and 2009.
- In North Carolina, the average scale score of female students in 2011 was higher than the scores of female students in 1990, 1992, 1996, 2000, 2003, 2005, and 2007, but not significantly different from the score of female students in 2009.

Grade 8 Achievement-Level Results by Gender

- In the 2011 assessment, 37 percent of male students and 37 percent of female students performed at or above *Proficient* in North Carolina. The difference between these percentages was not statistically significant.
- The percentage of male students in North Carolina's public schools who were at or above *Proficient* in 2011 (37 percent) was not significantly different from that of male students in the nation (34 percent).
- The percentage of female students in North Carolina's public schools who were at or above *Proficient* in 2011 (37 percent) was greater than that of female students in the nation (33 percent).
- In North Carolina, the percentage of male students performing at or above *Proficient* in 2011 was greater than the corresponding percentages of students in 1990, 1992, 1996, 2000, and 2005, but not significantly different from the corresponding percentages of students in 2003, 2007, and 2009.
- In North Carolina, the percentage of female students performing at or above *Proficient* in 2011 was greater than the corresponding percentages of students in 1990, 1992, 1996, 2000, and 2005, but not significantly different from the corresponding percentages of students in 2003, 2007, and 2009.

Table 5-B

Percentage of eighth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by gender, year, and jurisdiction: Various years, 1990–2011

Gender, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Male							
1990 ¹	Nation (public)	51	262*	49*	51*	17*	2*
	North Carolina	51	250*	62*	38*	9*	1*
1992 ¹	Nation (public)	52	266*	45*	55*	20*	3*
	North Carolina	50	259*	52*	48*	14*	1*
1996 ¹	Nation (public)	52	270*	40*	60*	24*	4*
	North Carolina	48*	270*	41*	59*	23*	4*
2000 ¹	Nation (public)	50	276*	34*	66*	29*	6*
	North Carolina	49	282	27	73	31*	7*
2000	Nation (public)	50	273*	38*	62*	26*	5*
	North Carolina	51	277*	32*	68*	28*	6*
2003	Nation (public)	50	277*	33*	67*	29*	6*
	North Carolina	50	281*	29	71	32	7
2005	Nation (public)	51	278*	32*	68*	30*	6*
	North Carolina	51	281*	29	71	32*	7
2007	Nation (public)	51	281*	29*	71*	33*	8*
	North Carolina	50	285	26	74	36	9
2009	Nation (public)	51	283	28	72	34	8
	North Carolina	51	284	27	73	37	9
2011	Nation (public)	51	283	28	72	34	9
	North Carolina	51	285	26	74	37	10
Female							
1990 ¹	Nation (public)	49	261*	49*	51*	14*	2*
	North Carolina	49	251*	62*	38*	8*	1*
1992 ¹	Nation (public)	48	267*	44*	56*	20*	3*
	North Carolina	50	257*	54*	46*	10*	1*
1996 ¹	Nation (public)	48	271*	39*	61*	21*	3*
	North Carolina	52*	266*	46*	54*	18*	3*
2000 ¹	Nation (public)	50	273*	36*	64*	24*	4*
	North Carolina	51	278*	32*	68*	29*	5*
2000	Nation (public)	50	271*	38*	62*	23*	4*
	North Carolina	49	275*	35*	65*	26*	4*
2003	Nation (public)	50	275*	34*	66*	26*	4*
	North Carolina	50	282*	28	72	32	7
2005	Nation (public)	49	277*	33*	67*	27*	5*
	North Carolina	49	282*	26	74	32*	7
2007	Nation (public)	49	279*	30*	70*	29*	6*
	North Carolina	50	283*	28	72	33	7
2009	Nation (public)	49	281*	29*	71*	31*	7
	North Carolina	49	284	25	75	34	9
2011	Nation (public)	49	282	28	72	33	7
	North Carolina	49	287	23	77	37	9

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2011.

¹ Accommodations were not permitted for this assessment.

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), various years, 1990–2011 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 data for this category of students are included as an indicator of lower family income. NAEP first collected information on participation in this program in 1996; therefore, cross-year comparisons to assessments prior to 1996 cannot be made.

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 North Carolina and the nation, by student eligibility for the NSLP.

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

- In 2011, students in North Carolina eligible for free/reduced-price lunch had an average mathematics scale score of 235. This was lower than that of students in North Carolina not eligible for this program (256).
- In 2011, students in North Carolina 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 21 points. In 1996, the average score for students in North Carolina who were eligible for free/reduced-price school lunch was lower than the score of those not eligible by 25 points.
- Students in North Carolina eligible for free/reduced-price lunch had an average scale score (235) in 2011 that was higher than that of students in the nation who were eligible (229).
- In North Carolina, students eligible for free/reduced-price lunch had an average mathematics scale score in 2011 that was higher than that of eligible students in 1996, 2000, 2003, 2005, 2007, and 2009.

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

- In North Carolina, 28 percent of students who were eligible for free/reduced-price lunch and 62 percent of those who were not eligible for this program performed at or above *Proficient* in 2011. These percentages were significantly different from one another.
- For students in North Carolina in 2011 who were eligible for free/reduced-price lunch, the percentage at or above *Proficient* (28 percent) was greater than the corresponding percentage for their counterparts around the nation (24 percent).
- In North Carolina, the percentage of students eligible for free/reduced-price lunch who performed at or above *Proficient* in 2011 was greater than the corresponding percentages in 1996, 2000, 2003, 2005, and 2007, but not significantly different from the percentage in 2009.

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**Table
6-A**

Percentage of fourth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by National School Lunch Program eligibility status, year, and jurisdiction: Various years, 1996–2011

Eligibility status, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Eligible							
1996 ¹	Nation (public)	34 *	207 *	59 *	41 *	8 *	# *
	North Carolina	34 *	209 *	55 *	45 *	7 *	1 *
2000 ¹	Nation (public)	35 *	210 *	54 *	46 *	9 *	# *
	North Carolina	40 *	220 *	39 *	61 *	12 *	#
2000	Nation (public)	40 *	208 *	57 *	43 *	7 *	# *
	North Carolina	42 *	218 *	41 *	59 *	11 *	# *
2003	Nation (public)	44 *	222 *	38 *	62 *	15 *	1 *
	North Carolina	42 *	229 *	27 *	73 *	21 *	1
2005	Nation (public)	46 *	225 *	33 *	67 *	19 *	1 *
	North Carolina	44 *	229 *	27 *	73 *	22 *	1
2007	Nation (public)	46 *	227 *	30 *	70 *	22 *	1 *
	North Carolina	48 *	231 *	24 *	76 *	24 *	2
2009	Nation (public)	48 *	228 *	29 *	71 *	22 *	1 *
	North Carolina	48 *	232 *	22	78	25	2
2011	Nation (public)	52	229	27	73	24	2
	North Carolina	53	235	18	82	28	2
Not eligible							
1996 ¹	Nation (public)	52	231 *	27 *	73 *	25 *	3 *
	North Carolina	58 *	234 *	23 *	77 *	30 *	4 *
2000 ¹	Nation (public)	52	236 *	21 *	79 *	33 *	4 *
	North Carolina	55 *	241 *	14 *	86 *	39 *	5 *
2000	Nation (public)	49	235 *	23 *	77 *	32 *	4 *
	North Carolina	54 *	239 *	16 *	84 *	36 *	4 *
2003	Nation (public)	52 *	244 *	12 *	88 *	45 *	6 *
	North Carolina	52	252 *	6	94	55 *	10
2005	Nation (public)	52 *	248 *	10 *	90 *	50 *	8 *
	North Carolina	54 *	251 *	8 *	92 *	54 *	11
2007	Nation (public)	53 *	249 *	9 *	91 *	53 *	9 *
	North Carolina	50	252 *	7 *	93 *	57 *	10
2009	Nation (public)	51 *	250 *	9 *	91 *	54 *	10 *
	North Carolina	51	255	6	94	60	14
2011	Nation (public)	47	252	8	92	57	12
	North Carolina	47	256	4	96	62	13

See notes at end of table.

**Table
6-A**

Percentage of fourth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by National School Lunch Program eligibility status, year, and jurisdiction: Various years, 1996–2011—Continued

Eligibility status, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Information not available							
1996 ¹	Nation (public)	13*	230*	28*	72*	28*	3*
	North Carolina	8*	217	43	57	17	1
2000 ¹	Nation (public)	13*	235*	23*	77*	35*	3*
	North Carolina	5*	237	19	81	34	3
2000	Nation (public)	11*	236*	22*	78*	35*	4*
	North Carolina	4*	234	21	79	31	4
2003	Nation (public)	4*	235*	23*	77*	34*	4*
	North Carolina	7*	247	11	89	51	7
2005	Nation (public)	2*	237*	21*	79*	36	5
	North Carolina	1	‡	‡	‡	‡	‡
2007	Nation (public)	1*	243	17	83	44	8
	North Carolina	2	238	18	82	40	2
2009	Nation (public)	1	240	22	78	42	7
	North Carolina	1	‡	‡	‡	‡	‡
2011	Nation (public)	#	247	12	88	49	10
	North Carolina	#	‡	‡	‡	‡	‡

Rounds to zero.

‡ Reporting standards not met.

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2011.

¹ Accommodations were not permitted for this assessment.

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), various years, 1996–2011 Mathematics Assessments.

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

- In 2011, students in North Carolina eligible for free/reduced-price lunch had an average mathematics scale score of 273. This was lower than that of students in North Carolina not eligible for this program (300).
- In 2011, students in North Carolina 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 26 points. In 1996, the average score for students in North Carolina who were eligible for free/reduced-price school lunch was lower than the score of those not eligible by 27 points.
- Students in North Carolina eligible for free/reduced-price lunch had an average scale score (273) in 2011 that was higher than that of students in the nation who were eligible (269).
- In North Carolina, students eligible for free/reduced-price lunch had an average mathematics scale score in 2011 that was higher than that of eligible students in 1996, 2000, 2003, 2005, 2007, and 2009.

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

- In North Carolina, 22 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 2011. These percentages were significantly different from one another.
- For students in North Carolina in 2011 who were eligible for free/reduced-price lunch, the percentage at or above *Proficient* (22 percent) was greater than the corresponding percentage for their counterparts around the nation (19 percent).
- In North Carolina, the percentage of students eligible for free/reduced-price lunch who performed at or above *Proficient* in 2011 was greater than the corresponding percentages in 1996, 2000, 2003, 2005, and 2007, but not significantly different from the percentage in 2009.

**Table
6-B**

Percentage of eighth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by National School Lunch Program eligibility status, year, and jurisdiction: Various years, 1996–2011

Eligibility status, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Eligible							
1996 ¹	Nation (public)	30 *	252 *	61 *	39 *	8 *	1 *
	North Carolina	31 *	250 *	64 *	36 *	6 *	# *
2000 ¹	Nation (public)	28 *	255 *	56 *	44 *	10 *	1 *
	North Carolina	28 *	261 *	51 *	49 *	13 *	1 *
2000	Nation (public)	31 *	253 *	59 *	41 *	10 *	1 *
	North Carolina	29 *	257 *	55 *	45 *	10 *	1 *
2003	Nation (public)	36 *	258 *	53 *	47 *	11 *	1 *
	North Carolina	37 *	263 *	47 *	53 *	14 *	2
2005	Nation (public)	39 *	261 *	49 *	51 *	13 *	1 *
	North Carolina	39 *	266 *	43 *	57 *	15 *	1 *
2007	Nation (public)	41 *	265 *	45 *	55 *	15 *	2 *
	North Carolina	44 *	268 *	42 *	58 *	17 *	2
2009	Nation (public)	43 *	266 *	43 *	57 *	17 *	2 *
	North Carolina	44 *	268 *	42 *	58 *	18	3
2011	Nation (public)	48	269	41	59	19	2
	North Carolina	50	273	36	64	22	3
Not eligible							
1996 ¹	Nation (public)	56	279 *	29 *	71 *	29 *	5 *
	North Carolina	62 *	277 *	34 *	66 *	28 *	4 *
2000 ¹	Nation (public)	55	285 *	24 *	76 *	35 *	7 *
	North Carolina	66 *	289 *	20 *	80 *	38 *	8 *
2000	Nation (public)	54	283 *	26 *	74 *	34 *	7 *
	North Carolina	64 *	286 *	23 *	77 *	36 *	7 *
2003	Nation (public)	58 *	287 *	22 *	78 *	37 *	7 *
	North Carolina	51	291 *	18 *	82 *	42 *	10 *
2005	Nation (public)	59 *	288 *	21 *	79 *	39 *	8 *
	North Carolina	60 *	293 *	17 *	83 *	43 *	11 *
2007	Nation (public)	58 *	291 *	19 *	81 *	42 *	10 *
	North Carolina	55 *	296	15	85	48	13
2009	Nation (public)	56 *	293 *	17 *	83 *	45 *	12 *
	North Carolina	54	298	14	86	50	15
2011	Nation (public)	52	295	16	84	47	13
	North Carolina	50	300	14	86	52	16

See notes at end of table.

**Table
6-B**

Percentage of eighth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by National School Lunch Program eligibility status, year, and jurisdiction: Various years, 1996–2011—Continued

Eligibility status, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Information not available							
1996 ¹	Nation (public)	14 *	278	31	69	29	5
	North Carolina	7 *	263	50	50	14	2
2000 ¹	Nation (public)	16 *	273	37	63	26	4
	North Carolina	6 *	272	39	61	21	3
2000	Nation (public)	15 *	271	38	62	24	4
	North Carolina	6 *	270	37	63	18	3
2003	Nation (public)	6 *	278	32	68	29	6
	North Carolina	12 *	293	17	83	45	12
2005	Nation (public)	3 *	277	34	66	28	6
	North Carolina	1	‡	‡	‡	‡	‡
2007	Nation (public)	1 *	274	36	64	28	6
	North Carolina	1	‡	‡	‡	‡	‡
2009	Nation (public)	1 *	284	28	72	35	10
	North Carolina	1	285	22	78	29	7
2011	Nation (public)	#	275	37	63	26	6
	North Carolina	#	‡	‡	‡	‡	‡

Rounds to zero.

‡ Reporting standards not met.

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2011.

¹ Accommodations were not permitted for this assessment.

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), various years, 1996–2011 Mathematics Assessments.

Type of Location

Schools that participated in the assessment were classified as being located in four mutually exclusive types of communities: city, suburb, town, and rural. These categories indicate the geographic locations of schools. "City" is a geographical term meaning the principal city of a U.S. Census Bureau-defined Core-Based Statistical Area and is not synonymous with "inner city." The criteria for classifying schools with respect to type of location changed for 2007; therefore, only comparisons between 2007, 2009, and 2011 are available. More detail on the changes for the classification of type of location is available at http://nces.ed.gov/ccd/Rural_Locales.asp.

Tables 7-A and 7-B show average scale scores and percentage of students by achievement-level data for public school students at grades 4 and 8 in North Carolina and the nation, by type of location (for 2007, 2009, and 2011 only).

Grade 4 Scale Score Results by Type of Location

- In 2011, the average scale score of students in North Carolina attending public schools in city locations was not significantly different from the scores of students in suburban, town, and rural schools.
- In 2011, students attending public schools in city, suburban, and town locations in North Carolina had average scale scores that were higher than the average scale scores of students in city, suburban, and town locations in the nation.
- In 2011, students attending public schools in rural locations in North Carolina had an average scale score that was not significantly different from the average scale score of students in rural locations in the nation.
- In 2011, students attending public schools in town locations in North Carolina had an average scale score that was higher than the average scale score of students in town locations in 2007 in North Carolina, but not significantly different from the average scale score of students in town locations in 2009 in North Carolina.
- In 2011, students attending public schools in city, suburban, and rural locations in North Carolina had average scale scores that were not significantly different from the average scale scores of students in city, suburban, and rural locations in 2007 and 2009 in North Carolina.

Grade 4 Achievement-Level Results by Type of Location

- In 2011, the percentage of students in North Carolina's public schools in city locations who performed at or above *Proficient* was not significantly different from the corresponding percentages of students in suburban, town, and rural schools.
- The percentage of students in North Carolina's public schools in city locations who performed at or above *Proficient* in 2011 was greater than those of students in city locations in the nation.
- The percentages of students in North Carolina's public schools in suburban, town, and rural locations who performed at or above *Proficient* in 2011 were not significantly different from those of students in suburban, town, and rural locations in the nation.
- The percentages of students in North Carolina's public schools in city, suburban, town, and rural locations who performed at or above *Proficient* in 2011 were not significantly different from those of students in city, suburban, town, and rural locations in 2007 and 2009 in North Carolina.

NAEP 2011 Mathematics Report for North Carolina (Embargoed)

The Nation's Report Card 2011 State Assessment

**Table
7-A**

Percentage of fourth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by type of location, year, and jurisdiction: 2007, 2009 and 2011

Type of location, year, and jurisdiction	Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced	
City							
2007	Nation (public)	29	233*	26	74	32	5
	North Carolina	29	240	17	83	40	6
2009	Nation (public)	30	234	25	75	32	5
	North Carolina	28	243	16	84	42	10
2011	Nation (public)	29	235	24	76	33	5
	North Carolina	28	244	14	86	43	8
Suburb							
2007	Nation (public)	37	243	15	85	44	7*
	North Carolina	18	246	12	88	47	9
2009	Nation (public)	36	243	16	84	44	7*
	North Carolina	17	249	11	89	51	12
2011	Nation (public)	36	244	15	85	45	8
	North Carolina	17	248	8	92	49	9
Town							
2007	Nation (public)	12	238	18	82	36	4
	North Carolina	12	234*	21	79	29	2
2009	Nation (public)	12	237	19	81	35	4
	North Carolina	13	241	14	86	39	6
2011	Nation (public)	13	237	19	81	35	4
	North Carolina	10	245	11	89	45	6
Rural							
2007	Nation (public)	22	240*	16	84	39*	5*
	North Carolina	41	243	13	87	43	6
2009	Nation (public)	22	240*	16	84	39*	5*
	North Carolina	42	243	13	87	42	7
2011	Nation (public)	23	243	15	85	42	6
	North Carolina	45	243	12	88	43	6

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2011.

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), 2007, 2009 and 2011 Mathematics Assessments.

Grade 8 Scale Score Results by Type of Location

- In 2011, the average scale score of students in North Carolina attending public schools in city locations was not significantly different from the scores of students in suburban, town, and rural schools.
- In 2011, students attending public schools in city locations in North Carolina had an average scale score that was higher than the average scale score of students in city locations in the nation.
- In 2011, students attending public schools in suburban, town, and rural locations in North Carolina had average scale scores that were not significantly different from the average scale scores of students in suburban, town, and rural locations in the nation.
- In 2011, students attending public schools in city, suburban, town, and rural locations in North Carolina had average scale scores that were not significantly different from the average scale scores of students in city, suburban, town, and rural locations in 2007 and 2009 in North Carolina.

Grade 8 Achievement-Level Results by Type of Location

- In 2011, the percentage of students in North Carolina's public schools in city locations who performed at or above *Proficient* was not significantly different from the corresponding percentages of students in suburban, town, and rural schools.
- The percentage of students in North Carolina's public schools in city locations who performed at or above *Proficient* in 2011 was greater than those of students in city locations in the nation.
- The percentages of students in North Carolina's public schools in suburban, town, and rural locations who performed at or above *Proficient* in 2011 were not significantly different from those of students in suburban, town, and rural locations in the nation.
- The percentages of students in North Carolina's public schools in city, suburban, town, and rural locations who performed at or above *Proficient* in 2011 were not significantly different from those of students in city, suburban, town, and rural locations in 2007 and 2009 in North Carolina.

**Table
7-B**

Percentage of eighth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by type of location, year, and jurisdiction: 2007, 2009 and 2011

Type of location, year, and jurisdiction	Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced	
City							
2007	Nation (public)	28	273*	38*	62*	25*	5*
	North Carolina	25	282	32	68	34	9
2009	Nation (public)	27	276	36	64	28	6
	North Carolina	22	279	35	65	31	11
2011	Nation (public)	29	277	34	66	29	7
	North Carolina	23	285	29	71	36	12
Suburb							
2007	Nation (public)	36	285*	26	74	36	9*
	North Carolina	16	295	16	84	46	13
2009	Nation (public)	36	286	25	75	37	10
	North Carolina	18	291	21	79	44	11
2011	Nation (public)	36	286	25	75	37	9
	North Carolina	16	291	20	80	41	12
Town							
2007	Nation (public)	13	280	29	71	29*	5*
	North Carolina	14	276	34	66	25	5
2009	Nation (public)	14	279	30	70	29	5
	North Carolina	14	282	27	73	32	8
2011	Nation (public)	13	281	28	72	31	6
	North Carolina	14	284	27	73	35	9
Rural							
2007	Nation (public)	22	282*	26*	74*	32*	6*
	North Carolina	45	284	26	74	34	7
2009	Nation (public)	23	284	25	75	33	7
	North Carolina	46	285	25	75	36	8
2011	Nation (public)	23	286	23	77	35	7
	North Carolina	47	286	24	76	37	8

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2011.

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), 2007, 2009 and 2011 Mathematics Assessments.

Parents' Highest Level of Education

Eighth-grade students who participated in the NAEP 2011 assessment were asked to indicate the highest level of education they thought their father and their mother had completed. Five response options—did not finish high school, graduated from high school, some education after high school, graduated from college, and "I don't know"—were offered. 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.

The results by highest level of parental education are shown in table 8.

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

- In 2011, students in North Carolina 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 2011, the average scale scores for students in North Carolina who reported that a parent had graduated from college or had graduated from high school were not significantly different from the corresponding scores of students in the nation.
- In 2011, the average scale scores for students in North Carolina who reported that a parent had some education after high school or had not finished high school were higher than the corresponding scores of students in the nation.
- In 2011, the average scale score for students in North Carolina who reported that a parent had some education after high school was higher than the score of students in 1990, 1992, 1996, 2000, 2003, and 2005, but not significantly different from the score of students in 2007 and 2009.
- In 2011, the average scale scores for students in North Carolina who reported that a parent had graduated from college, had graduated from high school, or had not finished high school were higher than the corresponding scores of students in 1990, 1992, 1996, and 2000, but not significantly different from the corresponding scores of students in 2003, 2005, 2007, and 2009.

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

- In 2011, the percentage of students performing at or above *Proficient* in North Carolina 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 2011, the percentage of students in North Carolina reporting that a parent had not finished high school and who performed at or above *Proficient* was greater than the percentage of students in the nation.
- In 2011, the percentages of students in North Carolina reporting that a parent had graduated from college, had some education after high school, or had graduated from high school and who performed at or above *Proficient* were not significantly different from the corresponding percentages of students in the nation.
- In 2011 in North Carolina, the respective percentages of students reporting that a parent had graduated from college, had some education after high school, or had not finished high school and who performed at or above *Proficient* were greater than the corresponding percentages of students in 1990, 1992, 1996, and 2000, but were not significantly different from the corresponding percentages of students in 2003, 2005, 2007, and 2009.
- In 2011 in North Carolina, the percentage of students reporting that a parent had graduated from high school and who performed at or above *Proficient* was greater than the percentage of students in 1990, 1992, and 1996, but was not significantly different from the percentage of students in 2000, 2003, 2005, 2007, and 2009.

**Table
8**

Percentage of eighth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by highest parental education level, year, and jurisdiction: Various years, 1990–2011

Highest parental education level, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Did not finish high school							
1990 ¹	Nation (public)	10	241 *	76 *	24 *	3 *	#
	North Carolina	11 *	235 *	80 *	20 *	2 *	#
1992 ¹	Nation (public)	8	249 *	66 *	34 *	6 *	1
	North Carolina	10 *	241 *	74 *	26 *	3 *	#
1996 ¹	Nation (public)	8	254 *	56 *	44 *	8 *	1 *
	North Carolina	7	250 *	67 *	33 *	5 *	#
2000 ¹	Nation (public)	7 *	255 *	55 *	45 *	8 *	1 *
	North Carolina	7	261 *	54	46	10 *	1
2000	Nation (public)	8	253 *	57 *	43 *	7 *	# *
	North Carolina	7	258 *	58 *	42 *	8 *	1
2003	Nation (public)	7 *	256 *	56 *	44 *	9 *	1 *
	North Carolina	7	264	45	55	14	1
2005	Nation (public)	8 *	259 *	52 *	48 *	11 *	1 *
	North Carolina	7	265	45	55	17	1
2007	Nation (public)	8	263 *	48 *	52 *	12 *	1
	North Carolina	7	268	45	55	16	3
2009	Nation (public)	8	265	45	55	14	1
	North Carolina	8	267	43	57	18	3
2011	Nation (public)	8	265	44	56	15	2
	North Carolina	7	273	37	63	22	4
Graduated from high school							
1990 ¹	Nation (public)	25 *	255 *	59 *	41 *	8 *	#
	North Carolina	32 *	242 *	73 *	27 *	4 *	# *
1992 ¹	Nation (public)	25 *	257 *	55 *	45 *	10 *	1 *
	North Carolina	27 *	247 *	67 *	33 *	5 *	#
1996 ¹	Nation (public)	23 *	260 *	50 *	50 *	12 *	1 *
	North Carolina	24 *	257 *	55 *	45 *	10 *	1 *
2000 ¹	Nation (public)	21 *	263 *	47 *	53 *	16 *	1
	North Carolina	21 *	268	42	58	18	2
2000	Nation (public)	21 *	260 *	49 *	51 *	15 *	1 *
	North Carolina	22 *	264 *	45 *	55 *	15	1
2003	Nation (public)	18 *	267 *	42 *	58 *	16 *	2 *
	North Carolina	19	270	40	60	21	2
2005	Nation (public)	18 *	267 *	42 *	58 *	17 *	2 *
	North Carolina	21 *	270	38	62	19	1
2007	Nation (public)	18 *	270	40	60	19	2
	North Carolina	19	271	38	62	20	2
2009	Nation (public)	17	270	38	62	19	2
	North Carolina	17	272	36	64	21	2
2011	Nation (public)	17	271	38	62	20	2
	North Carolina	17	272	37	63	20	3

See notes at end of table.

**Table
8**

Percentage of eighth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by highest parental education level, year, and jurisdiction: Various years, 1990–2011—Continued

Highest parental education level, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Some education after high school							
1990 ¹	Nation (public)	17	267*	43*	57*	15*	3*
	North Carolina	17	258*	52*	48*	8*	#*
1992 ¹	Nation (public)	18*	270*	40*	60*	20*	3*
	North Carolina	20*	266*	44*	56*	14*	1
1996 ¹	Nation (public)	19*	279*	29*	71*	26*	4*
	North Carolina	20*	272*	38*	62*	20*	3
2000 ¹	Nation (public)	18*	279*	28*	72*	27*	3*
	North Carolina	20*	282*	25	75	29*	4
2000	Nation (public)	18*	277*	30*	70*	26*	3*
	North Carolina	20*	279*	29*	71*	26*	4
2003	Nation (public)	18*	280*	27*	73*	28*	4*
	North Carolina	21*	283*	24	76	31	5
2005	Nation (public)	18*	280*	27*	73*	28*	4*
	North Carolina	21*	282*	26	74	29	6
2007	Nation (public)	17*	283*	24*	76*	32	5
	North Carolina	18	287	22	78	37	6
2009	Nation (public)	17	283	24	76	32	5
	North Carolina	17	284	25	75	32	7
2011	Nation (public)	16	285	22	78	33	5
	North Carolina	16	289	18	82	37	6
Graduated from college							
1990 ¹	Nation (public)	39*	274*	34*	66*	25*	4*
	North Carolina	33*	263*	46*	54*	17*	2*
1992 ¹	Nation (public)	40*	279*	30*	70*	31*	5*
	North Carolina	36*	271*	38*	62*	21*	3*
1996 ¹	Nation (public)	40*	281*	28*	72*	34*	7*
	North Carolina	40*	279*	32*	68*	32*	5*
2000 ¹	Nation (public)	43*	286*	24*	76*	39*	9*
	North Carolina	45*	291	19	81	43	10*
2000	Nation (public)	41*	285*	25*	75*	38*	9*
	North Carolina	43*	290*	21	79	41*	9*
2003	Nation (public)	45*	287*	23*	77*	39*	8*
	North Carolina	44*	291	20	80	44	12
2005	Nation (public)	45*	289*	22*	78*	41*	10*
	North Carolina	43*	294	18	82	46	12
2007	Nation (public)	46*	291*	20*	80*	43*	11*
	North Carolina	45*	295	18	82	47	13
2009	Nation (public)	46	294	18	82	46	13
	North Carolina	48	296	17	83	49	15
2011	Nation (public)	47	294	18	82	46	13
	North Carolina	51	295	18	82	48	15

See notes at end of table.

**Table
8**

Percentage of eighth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by highest parental education level, year, and jurisdiction: Various years, 1990–2011—Continued

Highest parental education level, year, and jurisdiction	Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced	
Unknown							
1990 ¹	Nation (public)	9*	240*	71*	29*	5*	#
	North Carolina	7*	230*	85*	15*	2	#
1992 ¹	Nation (public)	9*	251*	62*	38*	9*	#
	North Carolina	6*	241*	73*	27*	4*	#
1996 ¹	Nation (public)	11	253*	59*	41*	10*	1*
	North Carolina	9	254*	59*	41*	8*	#
2000 ¹	Nation (public)	11	255*	55*	45*	11*	1*
	North Carolina	7*	261*	51	49	9*	1
2000	Nation (public)	12	253*	59*	41*	9*	1*
	North Carolina	8*	251*	59*	41*	6*	1
2003	Nation (public)	11	258*	53*	47*	12*	1*
	North Carolina	9	267	40	60	19	2
2005	Nation (public)	11*	260*	51*	49*	13*	1*
	North Carolina	9	266	42	58	16	2
2007	Nation (public)	12	263*	48*	52*	15*	2
	North Carolina	11	269	41	59	16	2
2009	Nation (public)	12	264	47	53	16	2
	North Carolina	10	268	42	58	18	2
2011	Nation (public)	12	265	46	54	16	2
	North Carolina	10	271	40	60	21	5

Rounds to zero.

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2011.

¹ Accommodations were not permitted for this assessment.

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), various years, 1990–2011 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.

Prior to 2000, testing accommodations were not provided for students with special needs in NAEP state mathematics assessments. For 2000, results are displayed for both the sample in which accommodations were permitted and the sample in which they were not permitted. Subsequent assessment results were based on the more inclusive samples.

Tables 9-A and 9-B display data for 4th and 8th grade students in North Carolina who were identified as SD and/or ELL, by whether they were excluded, assessed with accommodations, or assessed under standard conditions, as a percent of all 4th or 8th grade students in the state.

Tables 10-A and 10-B show the percentages of students assessed in North Carolina 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 11-A and 11-B present the percentages of students assessed in North Carolina by ELL status, their average scores, and their performance in terms of the percentages below *Basic*, at or above *Basic*, at or above *Proficient*, and at *Advanced* for grades 4 and 8 .

Tables 12-A and 12-B present the total number of grades 4 and 8 students assessed in each of the participating states and the percentage of students sampled who were excluded.

**Table
9-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 as a percentage of all students, by assessment year and testing status: Various years, 1992–2011

Year and testing status		SD and/or ELL		SD		ELL	
		North Carolina	Nation (public)	North Carolina	Nation (public)	North Carolina	Nation (public)
1992 ¹	Identified	12	10	11	7	1	3
	Excluded	4	7	3	5	#	2
	Assessed without accommodations	8	4	8	3	#	1
1996 ¹	Identified	14	16	13	12	2	4
	Excluded	7	6	6	5	1	2
	Assessed without accommodations	7	9	6	7	1	2
2000	Identified	16	19	14	13	3	7
	Excluded	5	4	4	3	1	1
	Assessed without accommodations	3	10	3	5	1	5
	Assessed with accommodations	8	5	7	4	1	1
2003	Identified	21	22	17	14	5	11
	Excluded	4	4	4	3	1	1
	Assessed without accommodations	5	10	3	4	2	7
	Assessed with accommodations	12	8	10	7	2	2
2005	Identified	21	23	15	14	6	10
	Excluded	2	3	2	3	1	1
	Assessed without accommodations	4	10	3	4	2	7
	Assessed with accommodations	14	10	10	8	4	3
2007	Identified	21	23	15	14	7	11
	Excluded	2	3	2	3	1	1
	Assessed without accommodations	5	10	3	3	2	7
	Assessed with accommodations	14	10	10	8	4	3
2009	Identified	19	23	15	13	6	10
	Excluded	2	2	2	2	#	1
	Assessed without accommodations	4	9	3	3	2	6
	Assessed with accommodations	13	11	10	8	4	4
2011	Identified	21	23	15	13	7	11
	Excluded	2	2	2	2	#	#
	Assessed without accommodations	7	9	3	3	4	6
	Assessed with accommodations	12	12	10	9	3	4

Rounds to zero.

¹ Accommodations were not permitted for this assessment year.

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), various years, 1992–2011 Mathematics Assessments.

NAEP 2011 Mathematics Report for North Carolina (Embargoed)

The Nation's Report Card 2011 State Assessment

**Table
9-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 as a percentage of all students, by assessment year and testing status: Various years, 1990–2011

Year and testing status		SD and/or ELL		SD		ELL	
		North Carolina	Nation (public)	North Carolina	Nation (public)	North Carolina	Nation (public)
1990 ¹	Identified	9	—	9	—	#	—
	Excluded	3	—	3	—	#	—
	Assessed without accommodations	6	—	6	—	#	—
1992 ¹	Identified	12	10	12	8	#	2
	Excluded	3	6	3	5	#	2
	Assessed without accommodations	9	4	9	3	#	1
1996 ¹	Identified	9	11	8	9	1	3
	Excluded	4	5	4	4	1	1
	Assessed without accommodations	5	7	5	5	#	2
2000	Identified	16	14	14	11	2	4
	Excluded	5	4	4	3	1	1
	Assessed without accommodations	4	7	3	5	1	3
	Assessed with accommodations	7	3	7	2	#	1
2003	Identified	18	19	16	14	4	6
	Excluded	4	4	3	3	1	1
	Assessed without accommodations	3	8	2	5	1	4
	Assessed with accommodations	12	7	10	6	2	1
2005	Identified	17	19	14	13	4	6
	Excluded	3	4	2	3	1	1
	Assessed without accommodations	3	7	2	3	1	4
	Assessed with accommodations	12	8	11	7	2	1
2007	Identified	17	18	13	13	4	7
	Excluded	2	4	2	4	#	1
	Assessed without accommodations	3	6	1	2	2	4
	Assessed with accommodations	12	8	10	6	2	2
2009	Identified	17	18	12	13	5	6
	Excluded	2	3	1	3	#	#
	Assessed without accommodations	3	5	1	2	2	3
	Assessed with accommodations	13	10	10	8	3	2
2011	Identified	18	18	14	13	5	6
	Excluded	2	3	2	2	#	#
	Assessed without accommodations	3	5	1	2	2	3
	Assessed with accommodations	12	10	10	9	3	2

— Not available.

Rounds to zero.

¹ Accommodations were not permitted for this assessment year.

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), various years, 1990–2011 Mathematics Assessments.

**Table
10-A**

Percentage of fourth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by students with disabilities (SD) status, year, and jurisdiction: Various years, 2000–2011

SD status, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
SD							
2000	Nation (public)	10*	198*	71*	29*	6*	1
	North Carolina	10*	207*	53*	47*	5*	#
2003	Nation (public)	11*	214*	50*	50*	12*	1*
	North Carolina	14	230*	30	70	26*	3
2005	Nation (public)	12	218	44	56	16	2
	North Carolina	13	226	34	66	20	2
2007	Nation (public)	11*	220*	40*	60*	19*	2
	North Carolina	13	224	37	63	22	2
2009	Nation (public)	12	220*	41*	59*	19*	2
	North Carolina	13	224	36	64	23	2
2011	Nation (public)	12	218	45	55	17	2
	North Carolina	13	225	32	68	19	1
Not SD							
2000	Nation (public)	90*	227*	33*	67*	24*	3*
	North Carolina	90*	232*	24*	76*	27*	3*
2003	Nation (public)	89*	236*	21*	79*	34*	4*
	North Carolina	86	244*	13*	87*	43*	7
2005	Nation (public)	88	240*	17*	83*	38*	5*
	North Carolina	87	244*	14*	86*	43*	7
2007	Nation (public)	89*	241*	16*	84*	41*	6*
	North Carolina	87	244*	12*	88*	44	7
2009	Nation (public)	88	242*	16*	84*	41*	6*
	North Carolina	87	247	10	90	46	9
2011	Nation (public)	88	243	15	85	43	7
	North Carolina	87	248	9	91	48	8

Rounds to zero.

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2011.

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), various years, 2000–2011 Mathematics Assessments.

Table 10-B

Percentage of eighth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by students with disabilities (SD) status, year, and jurisdiction: Various years, 2000–2011

SD status, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
SD							
2000	Nation (public)	8*	229*	80*	20*	4*	#*
	North Carolina	10	244	65	35	8	1
2003	Nation (public)	11*	242*	71*	29*	6*	1*
	North Carolina	13	255	56	44	13	2
2005	Nation (public)	11	244*	69*	31*	7*	1*
	North Carolina	13	253	60	40	10	1
2007	Nation (public)	9*	246*	67	33	8	1
	North Carolina	12	257	57	43	14	2
2009	Nation (public)	10	249	64	36	9	1
	North Carolina	11	251	61	39	11	2
2011	Nation (public)	11	249	65	35	9	2
	North Carolina	12	254	58	42	9	1
Not SD							
2000	Nation (public)	92*	275*	35*	65*	26*	5*
	North Carolina	90	280*	30*	70*	30*	6*
2003	Nation (public)	89*	280*	29*	71*	30*	5*
	North Carolina	87	285*	24	76	35*	8*
2005	Nation (public)	89	281*	28*	72*	31*	6*
	North Carolina	87	286*	23	77	35*	8*
2007	Nation (public)	91*	284*	26*	74*	33*	7*
	North Carolina	88	287*	23	77	37	9
2009	Nation (public)	90	285*	24*	76*	35*	8
	North Carolina	89	288	22	78	39	10
2011	Nation (public)	89	287	23	77	36	9
	North Carolina	88	291	20	80	41	11

Rounds to zero.

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2011.

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), various years, 2000–2011 Mathematics Assessments.

**Table
11-A**

Percentage of fourth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by English language learner (ELL) status, year, and jurisdiction: Various years, 2000–2011

ELL status, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
ELL							
2000	Nation (public)	6*	199*	70*	30*	4*	#
	North Carolina	2*	‡	‡	‡	‡	‡
2003	Nation (public)	9*	214*	51*	49*	9*	#*
	North Carolina	5*	231	26	74	25	3
2005	Nation (public)	10*	216*	46*	54*	11*	1
	North Carolina	6	228	26	74	18	#
2007	Nation (public)	10*	217*	44*	56*	13	1
	North Carolina	7	229	22	78	18	1
2009	Nation (public)	10*	218	43	57	12*	1*
	North Carolina	6	229	25	75	18	1
2011	Nation (public)	11	219	42	58	14	1
	North Carolina	7	229	21	79	16	#
Not ELL							
2000	Nation (public)	94*	226*	34*	66*	24*	3*
	North Carolina	98*	230*	27*	73*	25*	3*
2003	Nation (public)	91*	236*	21*	79*	34*	4*
	North Carolina	95*	243*	15*	85*	42*	6
2005	Nation (public)	90*	239*	18*	82*	38*	5*
	North Carolina	94	242*	16*	84*	41*	7
2007	Nation (public)	90*	242*	16*	84*	42*	6*
	North Carolina	93	243*	15*	85*	43	6
2009	Nation (public)	90*	242*	16*	84*	41*	6*
	North Carolina	94	245	13	87	45	9
2011	Nation (public)	89	243	15	85	43	7
	North Carolina	93	246	11	89	46	7

Rounds to zero.

‡ Reporting standards not met.

* Value is significantly different ($p < .05$) from the value for the same jurisdiction and student group in 2011.

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), various years, 2000–2011 Mathematics Assessments.

**Table
11-B**

Percentage of eighth-grade public school students, average scale score, and percentage at or above achievement levels in NAEP mathematics, by English language learner (ELL) status, year, and jurisdiction: Various years, 2000–2011

ELL status, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
ELL							
2000	Nation (public)	3*	234*	80*	20*	2*	#
	North Carolina	1*	‡	‡	‡	‡	‡
2003	Nation (public)	5	241	74	26	5	1
	North Carolina	3*	250	62	38	7	1
2005	Nation (public)	6	244	71	29	6	1
	North Carolina	3*	252	58	42	8	1
2007	Nation (public)	6	245	70	30	6	1
	North Carolina	4	259	58	42	12	1
2009	Nation (public)	6	243	72	28	5	1
	North Carolina	5	259	49	51	11	1
2011	Nation (public)	6	244	72	28	5	1
	North Carolina	5	254	60	40	7	#
Not ELL							
2000	Nation (public)	97*	273*	37*	63*	26*	5*
	North Carolina	99*	276*	33*	67*	28*	5*
2003	Nation (public)	95	278*	31*	69*	29*	5*
	North Carolina	97*	282*	27	73	33*	7*
2005	Nation (public)	94	280*	30*	70*	30*	6*
	North Carolina	97*	283*	27	73	33*	7*
2007	Nation (public)	94	282*	27*	73*	33*	7*
	North Carolina	96	285	26	74	35	8
2009	Nation (public)	94	284*	26*	74*	34*	8
	North Carolina	95	286	25	75	37	10
2011	Nation (public)	94	285	25	75	35	8
	North Carolina	95	288	23	77	38	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 2011.

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), various years, 2000–2011 Mathematics Assessments.

NAEP 2011 Mathematics Report for North Carolina (Embargoed)

The Nation's Report Card 2011 State Assessment

**Table
12-A**

Number of fourth-grade public school students assessed in NAEP mathematics and weighted percentage excluded, by state/jurisdiction: 2011

State/jurisdiction	Number assessed	Weighted percentage excluded
Nation (public)	198,900	2
Alabama	3,000	1
Alaska	2,700	3
Arizona	3,700	1
Arkansas	3,500	1
California	9,100	2
Colorado	3,500	1
Connecticut	3,000	1
Delaware	3,400	4
Florida	7,100	2
Georgia	5,300	2
Hawaii	3,300	2
Idaho	3,600	1
Illinois	5,000	2
Indiana	3,400	2
Iowa	3,300	1
Kansas	3,100	2
Kentucky	4,800	3
Louisiana	3,300	2
Maine	3,200	2
Maryland	4,400	6
Massachusetts	5,000	3
Michigan	4,100	2
Minnesota	3,600	1
Mississippi	3,000	1
Missouri	3,400	2
Montana	3,100	2
Nebraska	3,100	2
Nevada	3,800	2
New Hampshire	3,300	2
New Jersey	3,300	3
New Mexico	4,100	3
New York	4,700	1
North Carolina	5,300	2
North Dakota	3,000	4
Ohio	4,200	2
Oklahoma	2,900	8
Oregon	3,600	3
Pennsylvania	4,600	1
Rhode Island	3,200	1
South Carolina	3,300	1
South Dakota	3,200	2
Tennessee	3,400	3
Texas	9,600	4
Utah	4,000	2
Vermont	2,700	2
Virginia	3,600	2
Washington	3,900	2
West Virginia	3,000	2
Wisconsin	4,500	2
Wyoming	2,900	2
Other jurisdictions		
District of Columbia	2,000	5
DoDEA ¹	3,100	3

¹ Department of Defense Education Activity (domestic and overseas schools).

NOTE: 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), 2011 Mathematics Assessment.

NAEP 2011 Mathematics Report for North Carolina (Embargoed)

The Nation's Report Card 2011 State Assessment

**Table
12-B**

Number of eighth-grade public school students assessed in NAEP mathematics and weighted percentage excluded, by state/jurisdiction: 2011

State/jurisdiction	Number assessed	Weighted percentage excluded
Nation (public)	164,400	3
Alabama	2,800	1
Alaska	2,400	3
Arizona	2,800	1
Arkansas	2,800	1
California	7,300	1
Colorado	2,800	1
Connecticut	2,800	1
Delaware	2,800	3
Florida	6,200	2
Georgia	4,100	3
Hawaii	2,900	2
Idaho	3,000	1
Illinois	4,200	2
Indiana	2,700	3
Iowa	2,700	1
Kansas	2,800	1
Kentucky	3,900	3
Louisiana	2,600	1
Maine	2,700	2
Maryland	3,500	6
Massachusetts	3,800	4
Michigan	4,000	4
Minnesota	3,000	2
Mississippi	2,700	1
Missouri	2,600	1
Montana	2,600	2
Nebraska	2,600	4
Nevada	2,800	3
New Hampshire	2,700	2
New Jersey	2,600	4
New Mexico	3,400	2
New York	4,200	1
North Carolina	4,400	2
North Dakota	2,300	4
Ohio	3,500	5
Oklahoma	2,400	10
Oregon	2,900	1
Pennsylvania	3,800	2
Rhode Island	2,700	1
South Carolina	2,700	4
South Dakota	3,100	2
Tennessee	2,800	4
Texas	7,500	5
Utah	2,900	3
Vermont	2,100	1
Virginia	2,700	3
Washington	3,200	2
West Virginia	2,800	2
Wisconsin	3,600	2
Wyoming	2,100	1
Other jurisdictions		
District of Columbia	2,400	4
DoDEA ¹	1,700	3

¹ Department of Defense Education Activity (domestic and overseas schools).

NOTE: 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), 2011 Mathematics Assessment.

Where to Find More Information

The NAEP Mathematics Assessment

The latest news about the NAEP 2011 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 state and other jurisdictions are also available in the state results section of the website at <http://nces.ed.gov/nationsreportcard/states/>.

The Nation's Report Card: Mathematics 2011 may be ordered or downloaded at the NAEP website.

The *Mathematics Framework for the 2011 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/publications/math-2011-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.asp#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 State Report Generator was developed for the NAEP 2011 reports by Phillip Leung, Bobby Rampey, Rebecca Moran, 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.

U.S. Department of Education

Arne Duncan

Secretary
U.S. Department
of Education

John Q. Easton

Director
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Institute of Education Sciences
U.S. Department of Education
Washington, D.C.

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Executive Director
National Assessment Governing Board
Washington, D.C.

