

South Dakota

Grades 4 and 8 Public Schools



State Mathematics 2011

This report provides selected results for South Dakota'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 South Dakota was 241. This was not significantly different from that of the nation's public schools (240).
- The average score for students in South Dakota in 2011 (241) was higher than that in 2003 (237) and was not significantly different from that in 2009 (242).
- In 2011, the percentage of students in South Dakota who performed at or above *Proficient* was 40 percent. This was not significantly different from that for the nation's public schools (40 percent).
- The percentage of students in South Dakota who performed at or above *Proficient* in 2011 (40 percent) was greater than that in 2003 (34 percent) and was not significantly different from that in 2009 (42 percent).
- In 2011, the percentage of students in South Dakota who performed at or above *Basic* was 86 percent. This was greater than that for the nation's public schools (82 percent).
- The percentage of students in South Dakota who performed at or above *Basic* in 2011 (86 percent) was greater than that in 2003 (82 percent) and was not significantly different from that in 2009 (86 percent).

Grade 8:

- In 2011, the average mathematics score for eighth-grade students in South Dakota was 291. This was higher than that of the nation's public schools (283).
- The average score for students in South Dakota in 2011 (291) was higher than that in 2003 (285) and was not significantly different from that in 2009 (291).
- In 2011, the percentage of students in South Dakota who performed at or above *Proficient* was 42 percent. This was greater than that for the nation's public schools (34 percent).
- The percentage of students in South Dakota who performed at or above *Proficient* in 2011 (42 percent) was greater than that in 2003 (35 percent) and was not significantly different from that in 2009 (42 percent).
- In 2011, the percentage of students in South Dakota who performed at or above *Basic* was 82 percent. This was greater than that for the nation's public schools (72 percent).
- The percentage of students in South Dakota who performed at or above *Basic* in 2011 (82 percent) was greater than that in 2003 (78 percent) and was not significantly different from that in 2009 (83 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 South Dakota 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 South Dakota, 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 South Dakota was 241. This was not significantly different from that of students across the nation (240).
- In South Dakota, the average scale score for students in 2011 was not significantly different from that in 2009 (242). However, the average scale score for students in public schools across the nation in 2011 was higher than that in 2009 (239).
- In South Dakota, the average scale score for students in 2011 was higher than the score in 2003. However, it was not significantly different from the scores in 2005, 2007, and 2009.

Grade 8 Scale Score Results

- In 2011, the average scale score for students in South Dakota was 291. This was higher than that of students across the nation (283).
- In South Dakota, the average scale score for students in 2011 was not significantly different from that in 2009 (291). However, the average scale score for students in public schools across the nation in 2011 was higher than that in 2009 (282).
- In South Dakota, the average scale score for students in 2011 was higher than the scores in 2003, 2005, and 2007. However, it was not significantly different from the score in 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, 2003–2011

Year and jurisdiction		Average scale score	10th percentile	25th percentile	50th percentile	75th percentile	90th percentile
2003	Nation (public)	234 *	196 *	215 *	235 *	254 *	270 *
	Midwest ¹	237 *	199 *	218 *	238 *	256 *	272 *
	South Dakota	237 *	204	221 *	239 *	255 *	269 *
2005	Nation (public)	237 *	199 *	219 *	239 *	257 *	272 *
	Midwest ¹	239 *	201 *	221 *	241 *	259 *	274 *
	South Dakota	242	208	226	243	259	272
2007	Nation (public)	239 *	201 *	221	241	259 *	274 *
	Midwest ¹	242	204	224	244	261	276
	South Dakota	241	207	226	243	259	272
2009	Nation (public)	239 *	201 *	221 *	241 *	259 *	275 *
	Midwest ¹	241	204	223	243	261	277
	South Dakota	242	208	227	244	260	274
2011	Nation (public)	240	202	222	242	260	276
	Midwest ¹	242	204	224	244	262	277
	South Dakota	241	207	225	243	259	273

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

¹ Region in which jurisdiction is located.

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, 2003–2011 Mathematics Assessments.

**Table
1-B**

Average scale scores and selected percentile scores in NAEP mathematics for eighth-grade public school students, by year and jurisdiction: Various years, 2003–2011

Year and jurisdiction		Average scale score	10th percentile	25th percentile	50th percentile	75th percentile	90th percentile
2003	Nation (public)	276 *	228 *	253 *	278 *	301 *	321 *
	Midwest ¹	281 *	235 *	259 *	283 *	305 *	324 *
	South Dakota	285 *	244	266 *	287 *	307 *	323 *
2005	Nation (public)	278 *	230 *	254 *	279 *	303 *	323 *
	Midwest ¹	281 *	235 *	259 *	283 *	306 *	325 *
	South Dakota	287 *	246	268	289 *	309 *	326 *
2007	Nation (public)	280 *	234 *	257 *	281 *	305 *	325 *
	Midwest ¹	283 *	238 *	261 *	285 *	308 *	327 *
	South Dakota	288 *	247	269	290	311	328
2009	Nation (public)	282 *	235 *	258 *	283 *	307 *	328
	Midwest ¹	285	240	262	287	309	329
	South Dakota	291	250	271	293	312	328
2011	Nation (public)	283	236	259	284	308	329
	Midwest ¹	286	241	263	287	309	329
	South Dakota	291	248	270	292	313	330

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

¹ Region in which jurisdiction is located.

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, 2003–2011 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 South Dakota's students who performed at or above *Proficient* was 40 percent. This was not significantly different from the percentage of the nation's public school students who performed at or above *Proficient* (40 percent).
- In South Dakota, the percentage of students who performed at or above *Proficient* in 2011 was greater than the percentage in 2003, but was not significantly different from the percentages in 2005, 2007, and 2009.
- In 2011, the percentage of South Dakota's students who performed at or above *Basic* was 86 percent. This was greater than the percentage of the nation's public school students who performed at or above *Basic* (82 percent).
- In South Dakota, the percentage of students who performed at or above *Basic* in 2011 was greater than the percentage in 2003, but was not significantly different from the percentages in 2005, 2007, and 2009.

Grade 8 Achievement-Level Results

- In 2011, the percentage of South Dakota's students who performed at or above *Proficient* was 42 percent. This was greater than the percentage of the nation's public school students who performed at or above *Proficient* (34 percent).
- In South Dakota, the percentage of students who performed at or above *Proficient* in 2011 was greater than the percentages in 2003 and 2005, but was not significantly different from the percentages in 2007 and 2009.
- In 2011, the percentage of South Dakota's students who performed at or above *Basic* was 82 percent. This was greater than the percentage of the nation's public school students who performed at or above *Basic* (72 percent).
- In South Dakota, the percentage of students who performed at or above *Basic* in 2011 was greater than the percentage in 2003, but was not significantly different from the percentages in 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, 2003–2011

Year and jurisdiction		Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
2003	Nation (public)	24*	76*	31*	4*
	Midwest ¹	21*	79*	35*	4*
	South Dakota	18*	82*	34*	3*
2005	Nation (public)	21*	79*	35*	5*
	Midwest ¹	19*	81*	38*	5*
	South Dakota	14	86	41	4
2007	Nation (public)	19	81	39*	5*
	Midwest ¹	16	84	42	6*
	South Dakota	14	86	41	4
2009	Nation (public)	19*	81*	38*	6*
	Midwest ¹	17	83	42	7
	South Dakota	14	86	42	5
2011	Nation (public)	18	82	40	6
	Midwest ¹	16	84	42	7
	South Dakota	14	86	40	4

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

¹ Region in which jurisdiction is located.

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, 2003–2011 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, 2003–2011

Year and jurisdiction		Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
2003	Nation (public)	33*	67*	27*	5*
	Midwest ¹	28*	72*	32*	6*
	South Dakota	22*	78*	35*	5*
2005	Nation (public)	32*	68*	28*	6*
	Midwest ¹	28*	72*	32*	6*
	South Dakota	20	80	36*	6
2007	Nation (public)	30*	70*	31*	7*
	Midwest ¹	26*	74*	34*	7*
	South Dakota	19	81	39	7
2009	Nation (public)	29*	71*	33*	7
	Midwest ¹	25	75	36	8
	South Dakota	17	83	42	7
2011	Nation (public)	28	72	34	8
	Midwest ¹	24	76	36	8
	South Dakota	18	82	42	8

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

¹ Region in which jurisdiction is located.

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, 2003–2011 Mathematics Assessments.

Comparisons Between South Dakota, 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 South Dakota'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 South Dakota in the NAEP 2011 mathematics assessment.

Grade 4 Scale Score Comparison Results

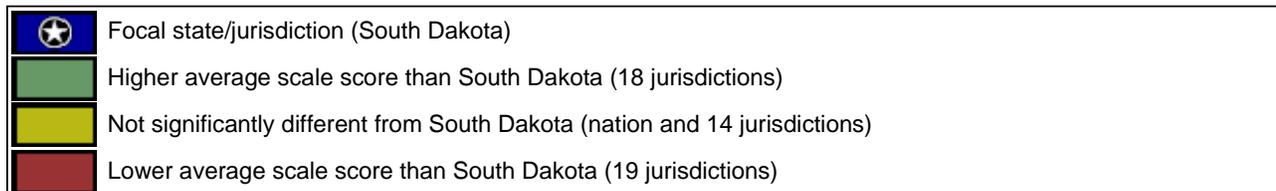
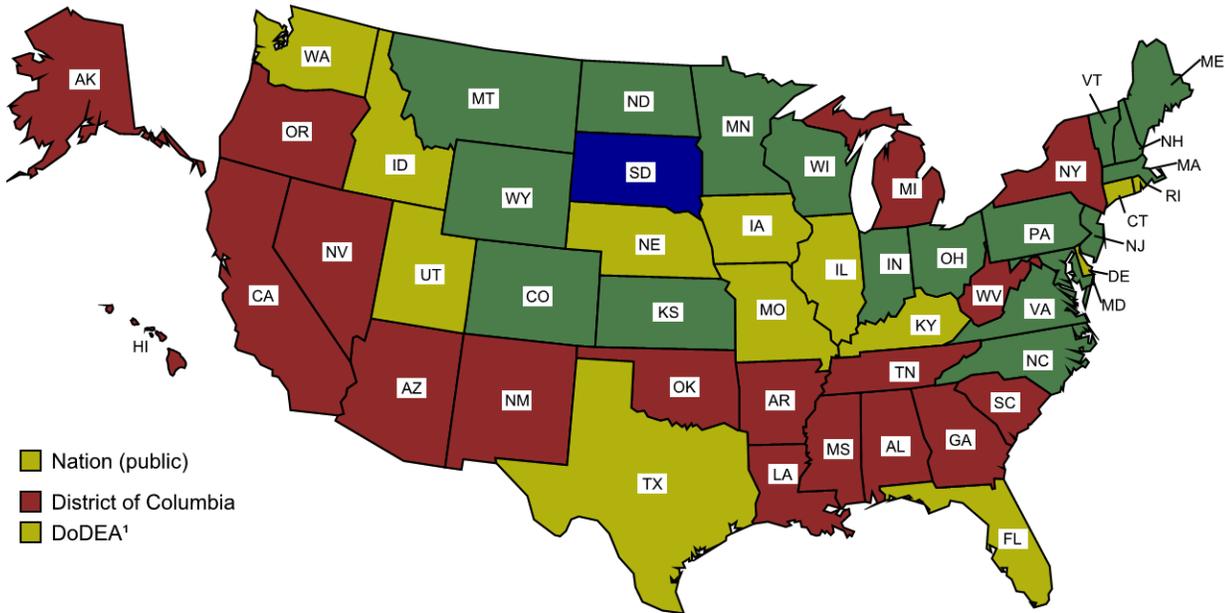
- The average score for students in South Dakota was higher than the scores in 19 jurisdictions, not significantly different from those in 14 jurisdictions, and lower than those in 18 jurisdictions.

Grade 8 Scale Score Comparison Results

- The average score for students in South Dakota was higher than the scores in 36 jurisdictions, not significantly different from those in 10 jurisdictions, and lower than those in 5 jurisdictions.

Figure 2-A

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



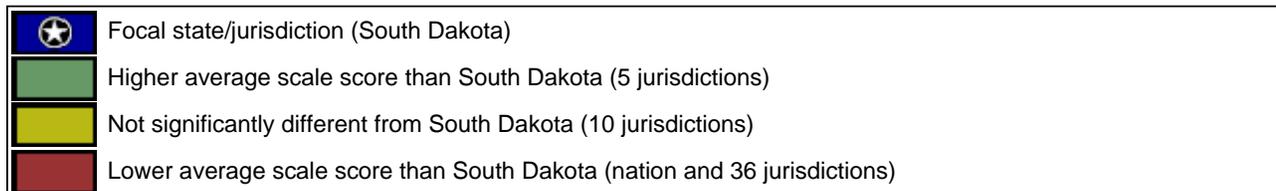
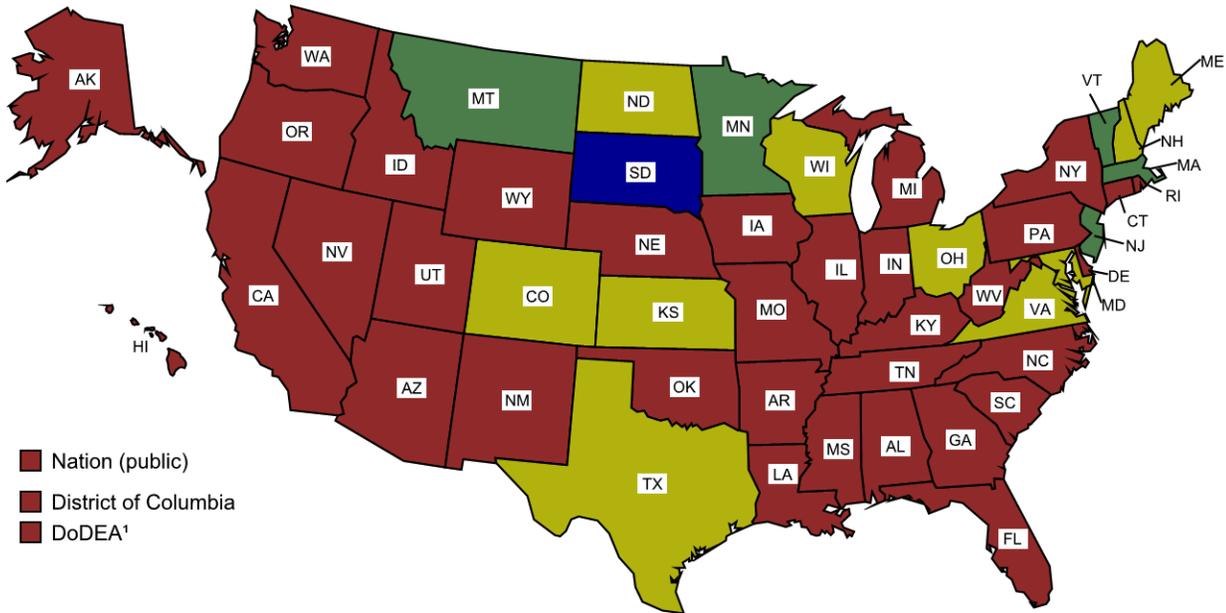
¹ Department of Defense Education Activity (overseas and domestic schools).

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.

Figure 2-B

South Dakota'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 South Dakota.

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 South Dakota was greater than the percentage in 13 jurisdictions, not significantly different from those in 19 jurisdictions, and smaller than those in 19 jurisdictions.
- The percentage of students performing at or above the *Basic* level in South Dakota was greater than the percentage in 20 jurisdictions, not significantly different from those in 24 jurisdictions, and smaller than those in 7 jurisdictions (data not shown).

Grade 8 Achievement-Level Comparison Results

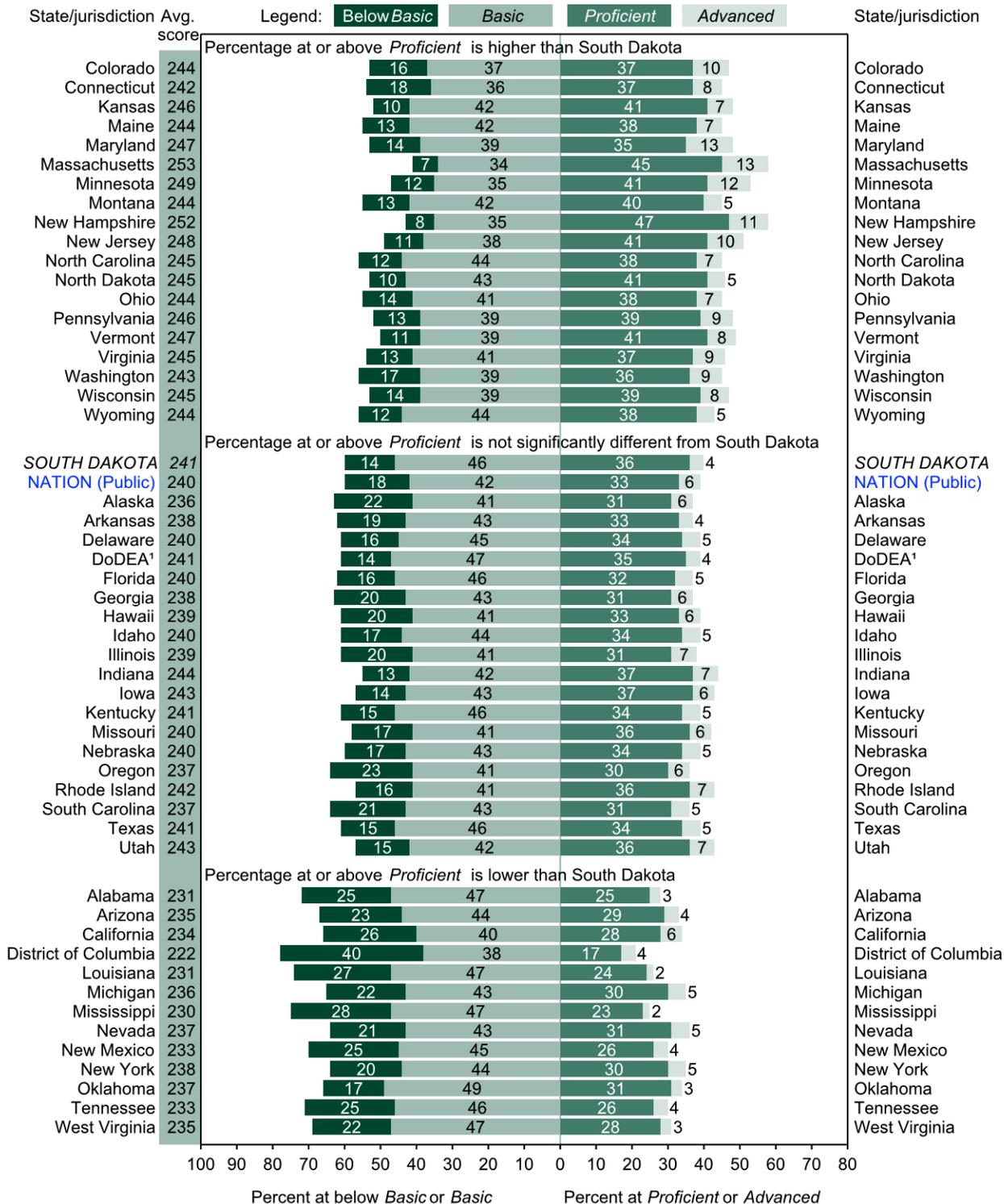
- The percentage of students performing at or above the *Proficient* level in South Dakota was greater than the percentage in 33 jurisdictions, not significantly different from those in 13 jurisdictions, and smaller than those in 5 jurisdictions.
- The percentage of students performing at or above the *Basic* level in South Dakota was greater than the percentage in 39 jurisdictions, not significantly different from those in 11 jurisdictions, and smaller than those in 1 jurisdiction (data not shown).

NAEP 2011 Mathematics Report for South Dakota

The Nation's Report Card 2011 State Assessment

Figure 3-A

Average scale scores in NAEP mathematics for fourth-grade public school students, percentage within each achievement level, and South Dakota'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.

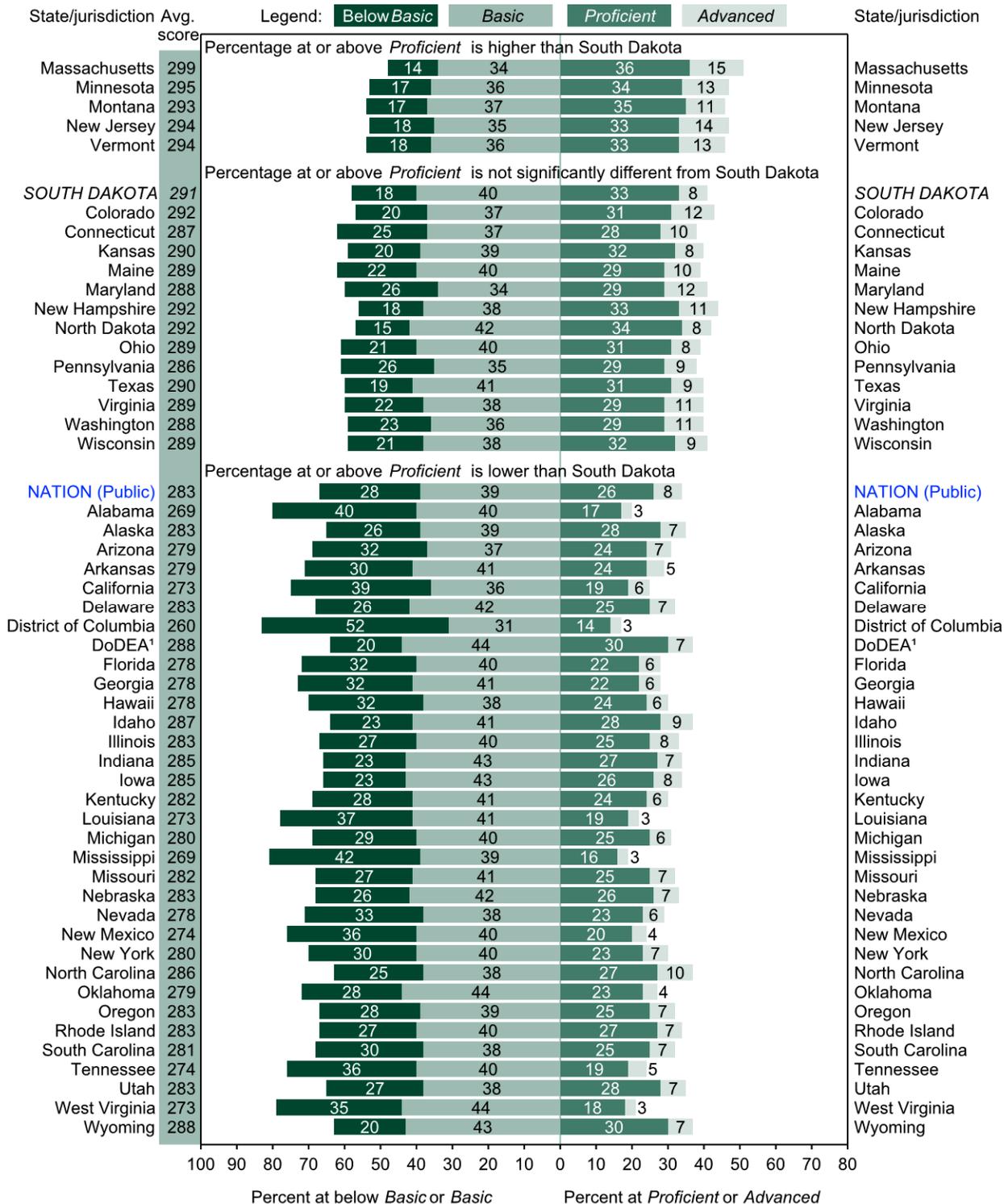
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment.

NAEP 2011 Mathematics Report for South Dakota

The Nation's Report Card 2011 State Assessment

Figure 3-B

Average scale scores in NAEP mathematics for eighth-grade public school students, percentage within each achievement level, and South Dakota'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 South Dakota 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 South Dakota and the nation, by race/ethnicity.

Grade 4 Scale Score Results by Race/Ethnicity

- In 2011, White students in South Dakota had an average scale score that was higher than the average scores of Black, Hispanic, and American Indian/Alaska Native students.
- In 2011, the average scale score of White students in South Dakota was higher than their respective score in 2003, but not significantly different from their respective scores in 2005, 2007, and 2009.
- In 2011, the average scale score of Black students in South Dakota was not significantly different from their respective scores in 2007 and 2009.
- In 2011, the average scale score of Hispanic students in South Dakota was not significantly different from their respective scores in 2003, 2007, and 2009.
- In 2011, the average scale score of American Indian/Alaska Native students in South Dakota was not significantly different from their respective scores in 2003, 2005, 2007, and 2009.
- In 2011, Black students in South Dakota had an average score that was lower than that of White students by 19 points. Data are not reported for Black students in 2003, because reporting standards were not met.
- In 2011, Hispanic students in South Dakota had an average score that was lower than that of White students by 19 points. In 2003, the average score for Hispanic students was lower than that of White students by 18 points.

Grade 4 Achievement-Level Results by Race/Ethnicity

- In 2011 in South Dakota, 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.
- In 2011, the percentages of White and American Indian/Alaska Native students in South Dakota performing at or above *Proficient* were 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 Black students in South Dakota performing at or above *Proficient* was not significantly different from the percentages of their respective peers in 2007 and 2009.
- In 2011, the percentage of Hispanic students in South Dakota performing at or above *Proficient* was not significantly different from the percentages of their respective peers in 2003, 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, 2003–2011

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
White							
2003	Nation (public)	58*	243*	13*	87*	42*	5*
	South Dakota	84*	241*	13*	87*	38*	3*
2005	Nation (public)	57*	246*	11*	89*	47*	7*
	South Dakota	84*	245	10	90	45	5
2007	Nation (public)	55*	248*	9	91	51	8*
	South Dakota	83*	245	9	91	46	4
2009	Nation (public)	54*	248*	10	90	50*	8
	South Dakota	80*	247	9	91	47	6
2011	Nation (public)	52	249	9	91	52	9
	South Dakota	77	246	9	91	46	5
Black							
2003	Nation (public)	17*	216*	46*	54*	10*	#*
	South Dakota	1*	‡	‡	‡	‡	‡
2005	Nation (public)	17*	220*	40*	60*	13*	1*
	South Dakota	2*	‡	‡	‡	‡	‡
2007	Nation (public)	17	222*	37*	63*	15*	1
	South Dakota	2	221	37	63	15	2
2009	Nation (public)	16	222*	37*	63*	15*	1
	South Dakota	2	225	35	65	17	#
2011	Nation (public)	16	224	34	66	17	1
	South Dakota	3	227	32	68	21	1

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, 2003–2011—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							
2003	Nation (public)	19*	221*	38*	62*	15*	1*
	South Dakota	2*	223	37	63	20	2
2005	Nation (public)	20*	225*	33*	67*	19*	1*
	South Dakota	2*	‡	‡	‡	‡	‡
2007	Nation (public)	21*	227*	31*	69*	22*	1
	South Dakota	2*	228	31	69	21	2
2009	Nation (public)	22*	227*	30	70	21*	1
	South Dakota	3	233	25	75	27	4
2011	Nation (public)	24	229	28	72	24	2
	South Dakota	3	226	29	71	18	2
Asian/Pacific Islander							
2003	Nation (public)	4*	246*	13*	87*	48*	10*
	South Dakota	1*	‡	‡	‡	‡	‡
2005	Nation (public)	4*	251*	11	89	54*	14*
	South Dakota	1	‡	‡	‡	‡	‡
2007	Nation (public)	5	254	9	91	59	16
	South Dakota	1	‡	‡	‡	‡	‡
2009	Nation (public)	5	255	9	91	61	18
	South Dakota	1	‡	‡	‡	‡	‡
2011	Nation (public)	5	256	9	91	62	20
	South Dakota	1	‡	‡	‡	‡	‡

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, 2003–2011—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							
2003	Nation (public)	1	224	35	65	18*	1
	South Dakota	12	217	46	54	9*	#
2005	Nation (public)	1	227	31	69	22	2
	South Dakota	11*	221	38	62	13	1
2007	Nation (public)	1	229*	28*	72*	26	3
	South Dakota	12	218	40	60	13	#
2009	Nation (public)	1	227	32	68	23	2
	South Dakota	13	220	40	60	15	#
2011	Nation (public)	1	227	32	68	24	2
	South Dakota	14	220	40	60	15	#

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*. 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, 2003–2011 Mathematics Assessments.

Grade 8 Scale Score Results by Race/Ethnicity

- In 2011, White students in South Dakota had an average scale score that was higher than the average scores of Black, Hispanic, and American Indian/Alaska Native students.
- In 2011, the average scale score of White students in South Dakota was higher than their respective scores in 2003, 2005, and 2007, but not significantly different from their respective score in 2009.
- In 2011, the average scale score of Hispanic students in South Dakota was not significantly different from their respective scores in 2007 and 2009.
- In 2011, the average scale score of American Indian/Alaska Native students in South Dakota was not significantly different from their respective scores in 2003, 2005, 2007, and 2009.
- In 2011, Black students in South Dakota had an average score that was lower than that of White students by 26 points. Data are not reported for Black students in 2003, because reporting standards were not met.
- In 2011, Hispanic students in South Dakota had an average score that was lower than that of White students by 21 points. Data are not reported for Hispanic students in 2003, because reporting standards were not met.

Grade 8 Achievement-Level Results by Race/Ethnicity

- In 2011 in South Dakota, 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.
- In 2011, the percentage of Hispanic students in South Dakota performing at or above *Proficient* was not significantly different from the percentages of their respective peers in 2007 and 2009.
- In 2011, the percentage of White students in South Dakota performing at or above *Proficient* was greater than the percentages of their respective peers in 2003 and 2005, but not significantly different from the percentages of their respective peers in 2007 and 2009.
- In 2011, the percentage of American Indian/Alaska Native students in South Dakota performing at or above *Proficient* was not significantly different from the percentages of their respective peers in 2003, 2005, 2007, and 2009.

**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, 2003–2011

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
White							
2003	Nation (public)	62 *	287 *	21 *	79 *	36 *	7 *
	South Dakota	89 *	288 *	18 *	82 *	37 *	5 *
2005	Nation (public)	60 *	288 *	21 *	79 *	37 *	7 *
	South Dakota	86 *	291 *	15	85	40 *	7 *
2007	Nation (public)	58 *	290 *	19 *	81 *	41 *	9 *
	South Dakota	86 *	292 *	15	85	43	8
2009	Nation (public)	56 *	292	18	82	43	10
	South Dakota	84 *	295	13	87	46	8
2011	Nation (public)	54	293	17	83	43	10
	South Dakota	82	295	13	87	47	10
Black							
2003	Nation (public)	17 *	252 *	61 *	39 *	7 *	# *
	South Dakota	1 *	‡	‡	‡	‡	‡
2005	Nation (public)	17 *	254 *	59 *	41 *	8 *	1 *
	South Dakota	1 *	‡	‡	‡	‡	‡
2007	Nation (public)	17 *	259 *	53 *	47 *	11 *	1 *
	South Dakota	1 *	‡	‡	‡	‡	‡
2009	Nation (public)	16	260	51	49	12	1
	South Dakota	2	‡	‡	‡	‡	‡
2011	Nation (public)	16	262	50	50	13	1
	South Dakota	2	270	40	60	21	1

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, 2003–2011—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							
2003	Nation (public)	15*	258*	53*	47*	11*	1*
	South Dakota	1*	‡	‡	‡	‡	‡
2005	Nation (public)	17*	261*	50*	50*	13*	1*
	South Dakota	2*	‡	‡	‡	‡	‡
2007	Nation (public)	19*	264*	46*	54*	15*	2*
	South Dakota	2*	269	43	57	18	5
2009	Nation (public)	21*	266*	44*	56*	17*	2
	South Dakota	2	268	38	62	13	1
2011	Nation (public)	23	269	40	60	20	3
	South Dakota	3	274	34	66	20	3
Asian/Pacific Islander							
2003	Nation (public)	4*	289*	23*	77*	42*	12*
	South Dakota	1*	‡	‡	‡	‡	‡
2005	Nation (public)	5*	294*	19*	81*	46*	16*
	South Dakota	1	‡	‡	‡	‡	‡
2007	Nation (public)	5*	296*	18*	82*	49*	17*
	South Dakota	1	‡	‡	‡	‡	‡
2009	Nation (public)	5	300	16	84	53	20
	South Dakota	1	‡	‡	‡	‡	‡
2011	Nation (public)	6	302	15	85	55	22
	South Dakota	1	‡	‡	‡	‡	‡

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, 2003–2011—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							
2003	Nation (public)	1*	265	46	54	16	2
	South Dakota	8*	255	57	43	9	1
2005	Nation (public)	1*	266	45	55	14	2*
	South Dakota	10	260	52	48	11	1
2007	Nation (public)	1*	265	44	56	17	2
	South Dakota	10	261	46	54	14	1
2009	Nation (public)	1	267	43	57	20	3
	South Dakota	11	266	45	55	17	1
2011	Nation (public)	1	266	45	55	17	4
	South Dakota	11	263	48	52	14	2

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*. 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, 2003–2011 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 South Dakota 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*
	South Dakota	77	246	9	91	46	5
Black							
2011	Nation (public)	16*	224	34	66	17	1
	South Dakota	3	227	32	68	21	1
Hispanic							
2011	Nation (public)	24*	229	28	72	24	2
	South Dakota	3	226	29	71	18	2
Asian							
2011	Nation (public)	5*	257	8	92	64	21
	South Dakota	1	‡	‡	‡	‡	‡
American Indian/Alaska Native							
2011	Nation (public)	1*	227*	32*	68*	24*	2
	South Dakota	14	220	40	60	15	#
Native Hawaiian/Other Pacific Islander							
2011	Nation (public)	#*	235	24	76	33	7
	South Dakota	#	‡	‡	‡	‡	‡
Two or more races							
2011	Nation (public)	2*	244	15	85	43	9
	South Dakota	1	‡	‡	‡	‡	‡

Rounds to zero.

‡ Reporting standards not met.

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

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
	South Dakota	82	295	13	87	47	10
Black							
2011	Nation (public)	16*	262	50	50	13	1
	South Dakota	2	270	40	60	21	1
Hispanic							
2011	Nation (public)	23*	269	40	60	20	3
	South Dakota	3	274	34	66	20	3
Asian							
2011	Nation (public)	5*	305	12	88	58	24
	South Dakota	1	‡	‡	‡	‡	‡
American Indian/Alaska Native							
2011	Nation (public)	1*	266	45	55	17	4
	South Dakota	11	263	48	52	14	2
Native Hawaiian/Other Pacific Islander							
2011	Nation (public)	#	265	45	55	19	3
	South Dakota	#	‡	‡	‡	‡	‡
Two or more races							
2011	Nation (public)	2*	286	24	76	37	10
	South Dakota	1	‡	‡	‡	‡	‡

Rounds to zero.

‡ Reporting standards not met.

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

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 South Dakota and the nation, by gender.

Grade 4 Scale Score Results by Gender

- In 2011, male students in South Dakota had an average score in mathematics (242) that was higher than that of female students (240). In 2003, male students in South Dakota had an average score in mathematics (239) that was higher than that of female students (235).
- In 2011, male students in South Dakota had an average scale score in mathematics (242) that was not significantly different from that of male students in public schools across the nation (241). Similarly, female students in South Dakota had an average scale score (240) that was not significantly different from that of female students across the nation (239).
- In South Dakota, the average scale score of male students in 2011 was higher than the score of male students in 2003, but not significantly different from the scores of male students in 2005, 2007, and 2009.
- In South Dakota, the average scale score of female students in 2011 was higher than the score of female students in 2003, but not significantly different from the scores of female students in 2005, 2007, and 2009.

Grade 4 Achievement-Level Results by Gender

- In the 2011 assessment, 42 percent of male students and 37 percent of female students performed at or above *Proficient* in South Dakota. The difference between these percentages was statistically significant.
- The percentage of male students in South Dakota's public schools who were at or above *Proficient* in 2011 (42 percent) was not significantly different from that of male students in the nation (41 percent).
- The percentage of female students in South Dakota's public schools who were at or above *Proficient* in 2011 (37 percent) was not significantly different from that of female students in the nation (39 percent).
- In South Dakota, the percentage of male students performing at or above *Proficient* in 2011 was greater than the percentage of students in 2003, but not significantly different from the corresponding percentages of students in 2005, 2007, and 2009.
- In South Dakota, the percentage of female students performing at or above *Proficient* in 2011 was greater than the percentage of students in 2003, but not significantly different from the corresponding percentages of students in 2005, 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, 2003–2011

Gender, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Male							
2003	Nation (public)	51	235*	23*	77*	34*	5*
	South Dakota	51	239*	16	84	37*	4
2005	Nation (public)	51	238*	20*	80*	37*	6*
	South Dakota	51	243	13	87	43	5
2007	Nation (public)	51	240	18	82	41	7*
	South Dakota	51	242	14	86	43	4
2009	Nation (public)	51	240*	19	81	40	7
	South Dakota	52	243	13	87	44	6
2011	Nation (public)	51	241	18	82	41	7
	South Dakota	51	242	14	86	42	5
Female							
2003	Nation (public)	49	233*	25*	75*	29*	3*
	South Dakota	49	235*	20*	80*	31*	2
2005	Nation (public)	49	236*	21*	79*	33*	4*
	South Dakota	49	240	14	86	38	3
2007	Nation (public)	49	238*	19	81	36*	4*
	South Dakota	49	240	14	86	38	3
2009	Nation (public)	49	238*	19	81	37*	5*
	South Dakota	48	241	14	86	39	3
2011	Nation (public)	49	239	18	82	39	6
	South Dakota	49	240	15	85	37	3

* 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), various years, 2003–2011 Mathematics Assessments.

Grade 8 Scale Score Results by Gender

- In 2011, male students in South Dakota had an average score in mathematics (291) that was not significantly different from that of female students (290). In 2003, male students in South Dakota had an average score in mathematics (286) that was not significantly different from that of female students (284).
- In 2011, male students in South Dakota had an average scale score in mathematics (291) that was higher than that of male students in public schools across the nation (283). Similarly, female students in South Dakota had an average scale score (290) that was higher than that of female students across the nation (282).
- In South Dakota, the average scale score of male students in 2011 was higher than the scores of male students in 2003 and 2005, but not significantly different from the scores of male students in 2007 and 2009.
- In South Dakota, the average scale score of female students in 2011 was higher than the scores of female students in 2003 and 2005, but not significantly different from the scores of female students in 2007 and 2009.

Grade 8 Achievement-Level Results by Gender

- In the 2011 assessment, 42 percent of male students and 41 percent of female students performed at or above *Proficient* in South Dakota. The difference between these percentages was not statistically significant.
- The percentage of male students in South Dakota's public schools who were at or above *Proficient* in 2011 (42 percent) was greater than that of male students in the nation (34 percent).
- The percentage of female students in South Dakota's public schools who were at or above *Proficient* in 2011 (41 percent) was greater than that of female students in the nation (33 percent).
- In South Dakota, the percentage of male students performing at or above *Proficient* in 2011 was greater than the corresponding percentages of students in 2003 and 2005, but not significantly different from the corresponding percentages of students in 2007 and 2009.
- In South Dakota, the percentage of female students performing at or above *Proficient* in 2011 was greater than the percentage of students in 2003, but not significantly different from the corresponding percentages of students in 2005, 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, 2003–2011

Gender, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Male							
2003	Nation (public)	50	277*	33*	67*	29*	6*
	South Dakota	51	286*	21	79	35*	5*
2005	Nation (public)	51	278*	32*	68*	30*	6*
	South Dakota	51	287*	20	80	36*	7
2007	Nation (public)	51	281*	29*	71*	33*	8*
	South Dakota	52	290	19	81	41	8
2009	Nation (public)	51	283	28	72	34	8
	South Dakota	51	292	17	83	44	9
2011	Nation (public)	51	283	28	72	34	9
	South Dakota	51	291	19	81	42	9
Female							
2003	Nation (public)	50	275*	34*	66*	26*	4*
	South Dakota	49	284*	23*	77*	34*	4*
2005	Nation (public)	49	277*	33*	67*	27*	5*
	South Dakota	49	287*	20	80	37	6
2007	Nation (public)	49	279*	30*	70*	29*	6*
	South Dakota	48	287	19	81	37	5
2009	Nation (public)	49	281*	29*	71*	31*	7
	South Dakota	49	289	18	82	39	5
2011	Nation (public)	49	282	28	72	33	7
	South Dakota	49	290	17	83	41	7

* 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), various years, 2003–2011 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 South Dakota 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 South Dakota eligible for free/reduced-price lunch had an average mathematics scale score of 231. This was lower than that of students in South Dakota not eligible for this program (249).
- In 2011, students in South Dakota 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 18 points. In 2003, the average score for students in South Dakota who were eligible for free/reduced-price school lunch was lower than the score of those not eligible by 16 points.
- Students in South Dakota eligible for free/reduced-price lunch had an average scale score (231) in 2011 that was not significantly different from that of students in the nation who were eligible (229).
- In South Dakota, students eligible for free/reduced-price lunch had an average mathematics scale score in 2011 that was higher than that of eligible students in 2003, but not significantly different from that of eligible students in 2005, 2007, and 2009.

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

- In South Dakota, 25 percent of students who were eligible for free/reduced-price lunch and 51 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 South Dakota in 2011 who were eligible for free/reduced-price lunch, the percentage at or above *Proficient* (25 percent) was not significantly different from the corresponding percentage for their counterparts around the nation (24 percent).
- In South Dakota, the percentage of students eligible for free/reduced-price lunch who performed at or above *Proficient* in 2011 was greater than the percentage in 2003, but not significantly different from the corresponding percentages in 2005, 2007, and 2009.

**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, 2003–2011

Eligibility status, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Eligible							
2003	Nation (public)	44 *	222 *	38 *	62 *	15 *	1 *
	South Dakota	37 *	227 *	30	70	21 *	1
2005	Nation (public)	46 *	225 *	33 *	67 *	19 *	1 *
	South Dakota	41	232	23	77	26	1
2007	Nation (public)	46 *	227 *	30 *	70 *	22 *	1 *
	South Dakota	36 *	230	25	75	25	1
2009	Nation (public)	48 *	228 *	29 *	71 *	22 *	1 *
	South Dakota	37 *	232	25	75	27	2
2011	Nation (public)	52	229	27	73	24	2
	South Dakota	43	231	25	75	25	2
Not eligible							
2003	Nation (public)	52 *	244 *	12 *	88 *	45 *	6 *
	South Dakota	62 *	244 *	10 *	90 *	42 *	4 *
2005	Nation (public)	52 *	248 *	10 *	90 *	50 *	8 *
	South Dakota	59	249	7	93	51	6
2007	Nation (public)	53 *	249 *	9 *	91 *	53 *	9 *
	South Dakota	64 *	247	8	92	49	5
2009	Nation (public)	51 *	250 *	9 *	91 *	54 *	10 *
	South Dakota	63 *	248	8	92	50	6
2011	Nation (public)	47	252	8	92	57	12
	South Dakota	57	249	7	93	51	6

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, 2003–2011—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							
2003	Nation (public)	4*	235*	23*	77*	34*	4*
	South Dakota	1*	‡	‡	‡	‡	‡
2005	Nation (public)	2*	237*	21*	79*	36	5
	South Dakota	#	‡	‡	‡	‡	‡
2007	Nation (public)	1*	243	17	83	44	8
	South Dakota	#	‡	‡	‡	‡	‡
2009	Nation (public)	1	240	22	78	42	7
	South Dakota	#	‡	‡	‡	‡	‡
2011	Nation (public)	#	247	12	88	49	10
	South Dakota	#	‡	‡	‡	‡	‡

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*. 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, 2003–2011 Mathematics Assessments.

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

- In 2011, students in South Dakota eligible for free/reduced-price lunch had an average mathematics scale score of 277. This was lower than that of students in South Dakota not eligible for this program (298).
- In 2011, students in South Dakota 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 2003, the average score for students in South Dakota who were eligible for free/reduced-price school lunch was lower than the score of those not eligible by 19 points.
- Students in South Dakota eligible for free/reduced-price lunch had an average scale score (277) in 2011 that was higher than that of students in the nation who were eligible (269).
- In South Dakota, students eligible for free/reduced-price lunch had an average mathematics scale score in 2011 that was higher than that of eligible students in 2003, but not significantly different from that of eligible students in 2005, 2007, and 2009.

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

- In South Dakota, 25 percent of students who were eligible for free/reduced-price lunch and 51 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 South Dakota in 2011 who were eligible for free/reduced-price lunch, the percentage at or above *Proficient* (25 percent) was greater than the corresponding percentage for their counterparts around the nation (19 percent).
- In South Dakota, the percentage of students eligible for free/reduced-price lunch who performed at or above *Proficient* in 2011 was not significantly different from the corresponding percentages in 2003, 2005, 2007, and 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, 2003–2011

Eligibility status, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Eligible							
2003	Nation (public)	36 *	258 *	53 *	47 *	11 *	1 *
	South Dakota	32 *	272 *	37	63	22	2
2005	Nation (public)	39 *	261 *	49 *	51 *	13 *	1 *
	South Dakota	36	276	31	69	24	2
2007	Nation (public)	41 *	265 *	45 *	55 *	15 *	2 *
	South Dakota	30 *	275	31	69	24	3
2009	Nation (public)	43 *	266 *	43 *	57 *	17 *	2 *
	South Dakota	32 *	276	31	69	24	3
2011	Nation (public)	48	269	41	59	19	2
	South Dakota	35	277	30	70	25	3
Not eligible							
2003	Nation (public)	58 *	287 *	22 *	78 *	37 *	7 *
	South Dakota	68 *	291 *	15 *	85 *	41 *	6 *
2005	Nation (public)	59 *	288 *	21 *	79 *	39 *	8 *
	South Dakota	64	294 *	13	87	44 *	9
2007	Nation (public)	58 *	291 *	19 *	81 *	42 *	10 *
	South Dakota	70 *	294 *	13	87	46 *	9 *
2009	Nation (public)	56 *	293 *	17 *	83 *	45 *	12 *
	South Dakota	68 *	297	11	89	49	9
2011	Nation (public)	52	295	16	84	47	13
	South Dakota	65	298	11	89	51	11

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, 2003–2011—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							
2003	Nation (public)	6*	278	32	68	29	6
	South Dakota	1	‡	‡	‡	‡	‡
2005	Nation (public)	3*	277	34	66	28	6
	South Dakota	#	‡	‡	‡	‡	‡
2007	Nation (public)	1*	274	36	64	28	6
	South Dakota	#	‡	‡	‡	‡	‡
2009	Nation (public)	1*	284	28	72	35	10
	South Dakota	#*	‡	‡	‡	‡	‡
2011	Nation (public)	#	275	37	63	26	6
	South Dakota	#	‡	‡	‡	‡	‡

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*. 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, 2003–2011 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 South Dakota 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 South Dakota 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 and town locations in South Dakota had average scale scores that were higher than the average scale scores of students in city and town locations in the nation.
- In 2011, students attending public schools in suburban and rural locations in South Dakota had average scale scores that were lower than the average scale scores of students in suburban and rural locations in the nation.
- In 2011, students attending public schools in suburban locations in South Dakota had an average scale score that was higher than the average scale score of students in suburban locations in 2007 in South Dakota, but not significantly different from the average scale score of students in suburban locations in 2009 in South Dakota.
- In 2011, students attending public schools in city, town, and rural locations in South Dakota had average scale scores that were not significantly different from the average scale scores of students in city, town, and rural locations in 2007 and 2009 in South Dakota.

Grade 4 Achievement-Level Results by Type of Location

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

NAEP 2011 Mathematics Report for South Dakota

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
	South Dakota	27	242	14	86	43	5
2009	Nation (public)	30	234	25	75	32	5
	South Dakota	25	242	15	85	41	5
2011	Nation (public)	29	235	24	76	33	5
	South Dakota	25	242	15	85	42	6
Suburb							
2007	Nation (public)	37	243	15	85	44	7*
	South Dakota	2	229*	23	77	20*	2
2009	Nation (public)	36	243	16	84	44	7*
	South Dakota	3	238	15	85	36	3
2011	Nation (public)	36	244	15	85	45	8
	South Dakota	4	239	14	86	35	4
Town							
2007	Nation (public)	12	238	18	82	36	4
	South Dakota	28	243	11	89	43	3
2009	Nation (public)	12	237	19	81	35	4
	South Dakota	31	243	12	88	43	6
2011	Nation (public)	13	237	19	81	35	4
	South Dakota	29	244	11	89	43	4
Rural							
2007	Nation (public)	22	240*	16	84	39*	5*
	South Dakota	42	240	15	85	38	3
2009	Nation (public)	22	240*	16	84	39*	5*
	South Dakota	42	242	15	85	42	4
2011	Nation (public)	23	243	15	85	42	6
	South Dakota	42	239	16	84	37	4

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

Grade 8 Achievement-Level Results by Type of Location

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

NAEP 2011 Mathematics Report for South Dakota

The Nation's Report Card 2011 State Assessment

**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*
	South Dakota	21*	284*	24	76	34	6
2009	Nation (public)	27	276	36	64	28	6
	South Dakota	22*	289	20	80	41	7
2011	Nation (public)	29	277	34	66	29	7
	South Dakota	26	290	19	81	41	8
Suburb							
2007	Nation (public)	36	285*	26	74	36	9*
	South Dakota	#	‡	‡	‡	‡	‡
2009	Nation (public)	36	286	25	75	37	10
	South Dakota	#	‡	‡	‡	‡	‡
2011	Nation (public)	36	286	25	75	37	9
	South Dakota	#	‡	‡	‡	‡	‡
Town							
2007	Nation (public)	13	280	29	71	29*	5*
	South Dakota	31*	292	16	84	43	8
2009	Nation (public)	14	279	30	70	29	5
	South Dakota	30*	294	14	86	46	8
2011	Nation (public)	13	281	28	72	31	6
	South Dakota	26	295	15	85	47	11
Rural							
2007	Nation (public)	22	282*	26*	74*	32*	6*
	South Dakota	48	288	19	81	39	6
2009	Nation (public)	23	284	25	75	33	7
	South Dakota	48*	289	18	82	39	6
2011	Nation (public)	23	286	23	77	35	7
	South Dakota	47	289	19	81	39	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 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 South Dakota 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 South Dakota who reported that a parent had graduated from college, had some education after high school, or had graduated from high school were higher than the corresponding scores of students in the nation.
- In 2011, the average scale score for students in South Dakota who reported that a parent had not finished high school was not significantly different from the score of students in the nation.
- In 2011, the average scale score for students in South Dakota who reported that a parent had graduated from college was higher than the score of students in 2003, 2005, and 2007, but not significantly different from the score of students in 2009.
- In 2011, the average scale score for students in South Dakota who reported that a parent had some education after high school was higher than the score of students in 2003, but not significantly different from the score of students in 2005, 2007, and 2009.
- In 2011, the average scale scores for students in South Dakota who reported that a parent had graduated from high school or had not finished high school were 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 South Dakota 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 percentages of students in South Dakota reporting that a parent had graduated from college or had some education after high school and who performed at or above *Proficient* were greater than the corresponding percentages of students in the nation.
- In 2011, the percentages of students in South Dakota reporting that a parent had graduated from high school or had not finished high school and who performed at or above *Proficient* were not significantly different from the corresponding percentages of students in the nation.
- In 2011 in South Dakota, the percentage of students reporting that a parent had graduated from college and who performed at or above *Proficient* was greater than the percentage of students in 2003 and 2005, but was not significantly different from the percentage of students in 2007 and 2009.
- In 2011 in South Dakota, the respective percentages of students reporting that a parent had some education after high school, had graduated from high school, or had not finished high school and who performed at or above *Proficient* were not significantly different from the corresponding percentages of students in 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, 2003–2011

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							
2003	Nation (public)	7*	256*	56*	44*	9*	1*
	South Dakota	4	267	42	58	16	#
2005	Nation (public)	8*	259*	52*	48*	11*	1*
	South Dakota	5	267	42	58	13	2
2007	Nation (public)	8	263*	48*	52*	12*	1
	South Dakota	4	267	40	60	12	2
2009	Nation (public)	8	265	45	55	14	1
	South Dakota	4	271	35	65	18	3
2011	Nation (public)	8	265	44	56	15	2
	South Dakota	4	269	39	61	15	1
Graduated from high school							
2003	Nation (public)	18*	267*	42*	58*	16*	2*
	South Dakota	18*	277	31	69	25	3
2005	Nation (public)	18*	267*	42*	58*	17*	2*
	South Dakota	15	276	28	72	21	2
2007	Nation (public)	18*	270	40	60	19	2
	South Dakota	16	278	28	72	25	4
2009	Nation (public)	17	270	38	62	19	2
	South Dakota	15	280	27	73	28	3
2011	Nation (public)	17	271	38	62	20	2
	South Dakota	14	275	31	69	23	2

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, 2003–2011—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							
2003	Nation (public)	18 *	280 *	27 *	73 *	28 *	4 *
	South Dakota	19 *	285 *	20	80	33	4
2005	Nation (public)	18 *	280 *	27 *	73 *	28 *	4 *
	South Dakota	19 *	287	19	81	36	5
2007	Nation (public)	17 *	283 *	24 *	76 *	32	5
	South Dakota	17	291	15	85	42	5
2009	Nation (public)	17	283	24	76	32	5
	South Dakota	15	292	14	86	41	6
2011	Nation (public)	16	285	22	78	33	5
	South Dakota	15	291	15	85	40	7
Graduated from college							
2003	Nation (public)	45 *	287 *	23 *	77 *	39 *	8 *
	South Dakota	51 *	293 *	13	87	44 *	7 *
2005	Nation (public)	45 *	289 *	22 *	78 *	41 *	10 *
	South Dakota	54 *	295 *	13	87	46 *	9
2007	Nation (public)	46 *	291 *	20 *	80 *	43 *	11 *
	South Dakota	56	295 *	13	87	47	9
2009	Nation (public)	46	294	18	82	46	13
	South Dakota	55	298	10	90	52	10
2011	Nation (public)	47	294	18	82	46	13
	South Dakota	57	298	11	89	52	12

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, 2003–2011—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							
2003	Nation (public)	11	258*	53*	47*	12*	1*
	South Dakota	9	264*	46	54	13*	1
2005	Nation (public)	11*	260*	51*	49*	13*	1*
	South Dakota	8	271	37	63	18	2
2007	Nation (public)	12	263*	48*	52*	15*	2
	South Dakota	7	266	42	58	19	2
2009	Nation (public)	12	264	47	53	16	2
	South Dakota	10	272	37	63	20	3
2011	Nation (public)	12	265	46	54	16	2
	South Dakota	8	273	35	65	23	3

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*. 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, 2003–2011 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 South Dakota 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 South Dakota 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 South Dakota 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, 2003–2011

Year and testing status		SD and/or ELL		SD		ELL	
		South Dakota	Nation (public)	South Dakota	Nation (public)	South Dakota	Nation (public)
2003	Identified	18	22	15	14	4	11
	Excluded	1	4	1	3	#	1
	Assessed without accommodations	9	10	7	4	2	7
	Assessed with accommodations	7	8	6	7	2	2
2005	Identified	19	23	16	14	4	10
	Excluded	2	3	1	3	#	1
	Assessed without accommodations	9	10	7	4	2	7
	Assessed with accommodations	8	10	7	8	2	3
2007	Identified	19	23	15	14	4	11
	Excluded	1	3	1	3	#	1
	Assessed without accommodations	9	10	7	3	3	7
	Assessed with accommodations	8	10	7	8	1	3
2009	Identified	16	23	15	13	2	10
	Excluded	2	2	2	2	#	1
	Assessed without accommodations	6	9	5	3	1	6
	Assessed with accommodations	8	11	8	8	1	4
2011	Identified	19	23	16	13	5	11
	Excluded	2	2	2	2	#	#
	Assessed without accommodations	9	9	7	3	2	6
	Assessed with accommodations	9	12	7	9	2	4

Rounds to zero.

NOTE: Students identified as both SD and ELL were counted only once under the combined SD and/or ELL category, but were counted separately under the SD and ELL categories. Detail may not sum to totals because of rounding.

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

**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, 2003–2011

Year and testing status	SD and/or ELL		SD		ELL		
	South Dakota	Nation (public)	South Dakota	Nation (public)	South Dakota	Nation (public)	
2003	Identified	13	19	11	14	3	6
	Excluded	2	4	2	3	#	1
	Assessed without accommodations	6	8	4	5	2	4
	Assessed with accommodations	6	7	5	6	1	1
2005	Identified	14	19	12	13	2	6
	Excluded	2	4	2	3	#	1
	Assessed without accommodations	4	7	3	3	1	4
	Assessed with accommodations	7	8	6	7	1	1
2007	Identified	12	18	11	13	1	7
	Excluded	2	4	2	4	#	1
	Assessed without accommodations	3	6	2	2	#	4
	Assessed with accommodations	6	8	6	6	#	2
2009	Identified	12	18	10	13	2	6
	Excluded	2	3	2	3	#	#
	Assessed without accommodations	3	5	2	2	1	3
	Assessed with accommodations	7	10	6	8	#	2
2011	Identified	13	18	11	13	2	6
	Excluded	2	3	1	2	#	#
	Assessed without accommodations	4	5	3	2	1	3
	Assessed with accommodations	7	10	7	9	1	2

Rounds to zero.

NOTE: Students identified as both SD and ELL were counted only once under the combined SD and/or ELL category, but were counted separately under the SD and ELL categories. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003–2011 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, 2003–2011

SD status, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
SD							
2003	Nation (public)	11 *	214 *	50 *	50 *	12 *	1 *
	South Dakota	13	219	44 *	56 *	15	1
2005	Nation (public)	12	218	44	56	16	2
	South Dakota	15	225	34	66	19	2
2007	Nation (public)	11 *	220 *	40 *	60 *	19 *	2
	South Dakota	14	225	34	66	22	2
2009	Nation (public)	12	220 *	41 *	59 *	19 *	2
	South Dakota	13 *	226	35	65	22	3
2011	Nation (public)	12	218	45	55	17	2
	South Dakota	15	223	36	64	17	1
Not SD							
2003	Nation (public)	89 *	236 *	21 *	79 *	34 *	4 *
	South Dakota	87	240 *	14 *	86 *	37 *	3 *
2005	Nation (public)	88	240 *	17 *	83 *	38 *	5 *
	South Dakota	85	244	10	90	44	5
2007	Nation (public)	89 *	241 *	16 *	84 *	41 *	6 *
	South Dakota	86	244	11	89	44	4
2009	Nation (public)	88	242 *	16 *	84 *	41 *	6 *
	South Dakota	87 *	245	11	89	45	5
2011	Nation (public)	88	243	15	85	43	7
	South Dakota	85	244	11	89	44	5

* 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, 2003–2011 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, 2003–2011

SD status, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
SD							
2003	Nation (public)	11 *	242 *	71 *	29 *	6 *	1 *
	South Dakota	9	246 *	69	31	5	#
2005	Nation (public)	11	244 *	69 *	31 *	7 *	1 *
	South Dakota	10	250	65	35	6	#
2007	Nation (public)	9 *	246 *	67	33	8	1
	South Dakota	9	251	62	38	8	1
2009	Nation (public)	10	249	64	36	9	1
	South Dakota	9	255	60	40	8	2
2011	Nation (public)	11	249	65	35	9	2
	South Dakota	10	255	60	40	8	1
Not SD							
2003	Nation (public)	89 *	280 *	29 *	71 *	30 *	5 *
	South Dakota	91	289 *	17 *	83 *	38 *	5 *
2005	Nation (public)	89	281 *	28 *	72 *	31 *	6 *
	South Dakota	90	291 *	15	85	40 *	7
2007	Nation (public)	91 *	284 *	26 *	74 *	33 *	7 *
	South Dakota	91	292	15	85	42	7
2009	Nation (public)	90	285 *	24 *	76 *	35 *	8
	South Dakota	91	294	13	87	45	8
2011	Nation (public)	89	287	23	77	36	9
	South Dakota	90	294	14	86	45	9

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, 2003–2011 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, 2003–2011

ELL status, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
ELL							
2003	Nation (public)	9*	214*	51*	49*	9*	#*
	South Dakota	4	206	66	34	5	1
2005	Nation (public)	10*	216*	46*	54*	11*	1
	South Dakota	4	204	63	37	2	#
2007	Nation (public)	10*	217*	44*	56*	13	1
	South Dakota	4	212	47	53	5	#
2009	Nation (public)	10*	218	43	57	12*	1*
	South Dakota	2*	‡	‡	‡	‡	‡
2011	Nation (public)	11	219	42	58	14	1
	South Dakota	4	208	56	44	6	#
Not ELL							
2003	Nation (public)	91*	236*	21*	79*	34*	4*
	South Dakota	96	238*	16*	84*	35*	3*
2005	Nation (public)	90*	239*	18*	82*	38*	5*
	South Dakota	96	243	12	88	42	4
2007	Nation (public)	90*	242*	16*	84*	42*	6*
	South Dakota	96	242	12	88	42	4
2009	Nation (public)	90*	242*	16*	84*	41*	6*
	South Dakota	98*	243	13	87	43	5
2011	Nation (public)	89	243	15	85	43	7
	South Dakota	96	242	12	88	42	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.

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, 2003–2011 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, 2003–2011

ELL status, year, and jurisdiction		Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
ELL							
2003	Nation (public)	5	241	74	26	5	1
	South Dakota	3	239	75	25	4	#
2005	Nation (public)	6	244	71	29	6	1
	South Dakota	2	‡	‡	‡	‡	‡
2007	Nation (public)	6	245	70	30	6	1
	South Dakota	1*	‡	‡	‡	‡	‡
2009	Nation (public)	6	243	72	28	5	1
	South Dakota	1	‡	‡	‡	‡	‡
2011	Nation (public)	6	244	72	28	5	1
	South Dakota	2	‡	‡	‡	‡	‡
Not ELL							
2003	Nation (public)	95	278*	31*	69*	29*	5*
	South Dakota	97	286*	20*	80*	36*	5*
2005	Nation (public)	94	280*	30*	70*	30*	6*
	South Dakota	98	288*	19	81	37*	7
2007	Nation (public)	94	282*	27*	73*	33*	7*
	South Dakota	99*	289*	18	82	39	7
2009	Nation (public)	94	284*	26*	74*	34*	8
	South Dakota	99	291	17	83	42	7
2011	Nation (public)	94	285	25	75	35	8
	South Dakota	98	292	17	83	42	8

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, 2003–2011 Mathematics Assessments.

NAEP 2011 Mathematics Report for South Dakota

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 South Dakota

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.

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