

# South Dakota

## Grade 4 and 8 Public Schools State Mathematics 2017

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 12 assessment years (at grade 8 in 1990; and at both grades 4 and 8 in 1992, 1996, 2000, 2003, 2005, 2007, 2009, 2011, 2013, 2015, and 2017), although not all states may have participated or met the criteria for reporting in every assessment year. All 50 states, the District of Columbia, Department of Defense Education Activity schools (DoDEA), and Puerto Rico participated in the 2017 mathematics assessment at grades 4 and 8.

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

- *The Nation's Report Card™, Mathematics 2017*
- 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 2017

### Grade 4:

- In 2017, the average mathematics score for fourth-grade students in South Dakota was 242. This was higher than that for the nation's public schools (239).
- The average score for students in South Dakota in 2017 (242) was higher than that in 2003 (237) and was not significantly different from that in 2015 (240).
- In 2017, the percentage of students in South Dakota who performed at or above *Proficient* was 43 percent. This was greater than that for the nation's public schools (40 percent).
- The percentage of students in South Dakota who performed at or above *Proficient* in 2017 (43 percent) was greater than that in 2003 (34 percent) and was not significantly different from that in 2015 (40 percent).
- In 2017, the percentage of students in South Dakota who performed at or above *Basic* was 83 percent. This was greater than that for the nation's public schools (79 percent).
- The percentage of students in South Dakota who performed at or above *Basic* in 2017 (83 percent) was not significantly different from that in 2003 (82 percent) and in 2015 (83 percent).

### Grade 8:

- In 2017, the average mathematics score for eighth-grade students in South Dakota was 286. This was higher than that for the nation's public schools (282).
- The average score for students in South Dakota in 2017 (286) was not significantly different from that in 2003 (285) and was not significantly different from that in 2015 (285).
- In 2017, the percentage of students in South Dakota who performed at or above *Proficient* was 38 percent. This was greater than that for the nation's public schools (33 percent).
- The percentage of students in South Dakota who performed at or above *Proficient* in 2017 (38 percent) was greater than that in 2003 (35 percent) and in 2015 (34 percent).
- In 2017, the percentage of students in South Dakota who performed at or above *Basic* was 76 percent. This was greater than that for the nation's public schools (69 percent).
- The percentage of students in South Dakota who performed at or above *Basic* in 2017 (76 percent) was not significantly different from that in 2003 (78 percent) and in 2015 (77 percent).

*The U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, and National Assessment of Educational Progress (NAEP) have provided software that generated user-selectable data, statistical significance test result statements, and technical descriptions of the NAEP assessments for this report. Content may be added or edited by states or other jurisdictions. This document, therefore, is not an official publication of the National Center for Education Statistics.*

# 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 <https://www.nagb.org/content/nagb/assets/documents/publications/frameworks/mathematics/2017-mathematics-framework.pdf>.

For grades 4 and 8, the mathematics framework for the 2017 assessment is similar to earlier versions that guided the 1990, 1992, 1996, 2000, 2003, 2005, 2007, 2009, 2011, 2013, and 2015 mathematics assessments. Although the frameworks are updated periodically, the mathematics content objectives for grades 4 and 8 have not changed substantially, allowing students' performance in 2017 to be compared with previous years.

## Content Areas and Mathematical Complexity

The 2017 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 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** assesses students' knowledge of measurement for such attributes as capacity, length, area, volume, time, angles, and rates.
- **Geometry** measures students' knowledge and understanding of shapes in two and three dimensions and relationships between shapes such as symmetry and transformations.
- **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 students' 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/itmrlsx/>.

Some questions in the 2017 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, Department of Defense Education Activity schools (DoDEA), and Puerto Rico participated in the 2017 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 to the public. A minimum of 85 percent participation is required for schools in each subject and grade combination. Participation rates for the 2017 mathematics assessment are available on the NAEP website at [http://www.nationsreportcard.gov/reading\\_math\\_2017/#mathematics/about#participation](http://www.nationsreportcard.gov/reading_math_2017/#mathematics/about#participation).

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 DoDEA or Bureau of Indian Education schools.

## How Is Student Mathematics Performance Reported?

The 2017 state results are compared to results from 10 earlier assessments at grade 4 and from 11 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:** Achievement levels are performance standards that describe what students should know and be able to do. Results are reported as percentages of students performing at or above three achievement levels (*Basic*, *Proficient*, and *Advanced*). Students performing at or above the *Proficient* level on NAEP assessments demonstrate solid academic performance and competency over challenging subject matter. It should be noted that the NAEP *Proficient* achievement level does not represent grade level proficiency as determined by other assessment standards (e.g., state or district assessments).

## Interpreting the Results

NAEP achievement-level setting is based on the collective judgments of a broadly representative panel of teachers, education specialists, and members of the general public. The authorizing legislation for the National Assessment of Educational Progress (NAEP) requires that the achievement levels be used on a trial basis until the Commissioner of the National Center for Education Statistics (NCES) determines that the achievement levels are reasonable, valid, and informative to the public (20 USC § 9622(e)(2)(C)). The NCES Commissioner's determination is to be based on a congressionally mandated, rigorous, and independent evaluation. The latest evaluation of the achievement levels was conducted by a committee convened by the National Academies of Sciences, Engineering, and Medicine in 2016. The evaluation concluded that further evidence should be gathered to determine whether the achievement levels are reasonable, valid, and informative. Accordingly, the NCES Commissioner determined that the trial status of the achievement levels should be maintained at this time. Read more about [how NAEP achievement levels are set](#).

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 analytic skills appropriate to the subject matter.
- *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 2017 State Assessment

Descriptions of fourth-grade achievement levels for 2017 NAEP mathematics assessment

**Basic Level (214)** Fourth-grade students performing at the *Basic* level should show some evidence of understanding the mathematical concepts and procedures in the five NAEP content areas.

Fourth-graders performing at the *Basic* level should be able to estimate and use basic facts to perform simple computations with whole numbers; show some understanding of fractions and decimals; and solve some simple real-world problems in 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 *Proficient* level should consistently apply integrated procedural knowledge and conceptual understanding to problem solving in the five NAEP content areas.

Fourth-graders performing at the *Proficient* level should be able to use whole numbers to estimate, compute, and determine whether results are reasonable. They should have a conceptual understanding of fractions and decimals; be able to solve real-world problems in 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 *Advanced* level should apply integrated procedural knowledge and conceptual understanding to complex and nonroutine real-world problem solving in the five NAEP content areas.

Fourth-graders performing at the *Advanced* level should be able to solve complex 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. (2016). *Mathematics Framework for the 2017 National Assessment of Educational Progress*. Washington, DC.

**Figure  
1-B**

## The Nation's Report Card 2017 State Assessment

Descriptions of eighth-grade achievement levels for 2017 NAEP mathematics assessment

**Basic Level (262)** Eighth-grade students performing at the *Basic* level should exhibit evidence of conceptual and procedural understanding in the five NAEP content areas. This level of performance signifies an understanding of arithmetic operations—including estimation—on whole numbers, decimals, fractions, and percents.

Eighth-graders performing at the *Basic* level should complete problems correctly with the help of structural prompts such as diagrams, charts, and graphs. They should be able to solve problems in 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 *Proficient* level should apply mathematical concepts and procedures consistently to complex problems in the five NAEP content areas.

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

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

**Advanced Level (333)** Eighth-grade students performing at the *Advanced* level should be able to reach beyond the recognition, identification, and application of mathematical rules in order to generalize and synthesize concepts and principles in the five NAEP content areas.

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

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. (2016). *Mathematics Framework for the 2017 National Assessment of Educational Progress*. Washington, DC.

## Assessing Students With Disabilities and/or English Language Learners

Testing accommodations, such as extra testing time or individual (rather than group) administration, are provided for students with disabilities (SD) and/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 and/or ELL students. In 2000, NAEP was administered using a split sample of schools—one sample in which accommodations were permitted for SD and/or ELL 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. Please note that bullet statements only reference the results from the 2000 assessment where accommodations were permitted. 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, 2013, 2015, and 2017).

## NAEP 2017 Digitally Based Mathematics Assessment

While 2017 marked the first year a mathematics Digitally Based Assessment (DBA) was administered, a small portion of the students sampled took a mathematics Paper Based Assessment (PBA). NAEP administered the assessment in both modes—DBA and PBA—to investigate potential differences in performance between students taking the assessment on a tablet and students taking the paper-based assessment. Each participating student, however, took the assessment in only one mode.

It is important for NAEP to assess as many students selected to participate as possible. Assessing representative samples of students, including students with disabilities (SD) and English language learners (ELL), helps to ensure that NAEP results accurately reflect the educational performance of all students in the target population, and can continue to serve as a meaningful measure of U.S. students' academic achievement over time. To ensure that all selected students from the population can be assessed, many of the same accommodations that SD and ELL students use on other tests are provided for those students participating in NAEP. Read more about [accommodations available in NAEP](#). Accommodations were first made available for the mathematics assessment in 1996. In the 2017 NAEP mathematics assessment, accommodations were provided for both DBA and PBA. In DBA, some accommodations were provided by the test delivery system (e.g., extended time) while others were available outside of the test delivery system (e.g., breaks during test). DBA also included a set of accessibility features, referred to as [universal design elements](#) that were available to all students.

## 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 percentages are discussed in this report only when they are significant from a statistical perspective. Significant differences between 2017 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 2017 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 SD and/or ELL students 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, 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, 2011, 2013, 2015, and 2017. 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 defines the cut point for the lowest 25 percent of students within the distribution of scale scores.

### ***Grade 4 Scale Score Results***

- In 2017, the average scale score for students in South Dakota was 242. This was higher than that for students across the nation (239).
- In South Dakota, the average scale score for students in 2017 was not significantly different from that in 2015 (240). Similarly, the average scale score for students in public schools across the nation in 2017 was not significantly different from that in 2015 (240).
- In South Dakota, the average scale score for students in 2017 was higher than the score in 2003. However, it was not significantly different from the scores in 2005, 2007, 2009, 2011, 2013, and 2015.

### ***Grade 8 Scale Score Results***

- In 2017, the average scale score for students in South Dakota was 286. This was higher than that for students across the nation (282).
- In South Dakota, the average scale score for students in 2017 was not significantly different from that in 2015 (285). Similarly, the average scale score for students in public schools across the nation in 2017 was not significantly different from that in 2015 (281).
- In South Dakota, the average scale score for students in 2017 was lower than the scores in 2009 and 2011. However, it was not significantly different from the scores in 2003, 2005, 2007, 2013, and 2015.

**Table  
1-A****The Nation's Report Card 2017 State Assessment**

Average scale scores and selected percentile scores in NAEP mathematics for fourth-grade public school students, by year and jurisdiction: Various years, 2003–2017

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 <sup>1</sup>	237*	199	218*	238*	256*	272*
	South Dakota	237*	204	221	239*	255*	269*
2005	Nation (public)	237*	199*	219	239*	257*	272*
	Midwest <sup>1</sup>	239*	201*	221	241*	259*	274*
	South Dakota	242	208*	226	243	259*	272*
2007	Nation (public)	239	201*	221*	241	259*	274*
	Midwest <sup>1</sup>	242	204*	224*	244	261*	276*
	South Dakota	241	207	226	243	259*	272*
2009	Nation (public)	239	201*	221*	241	259*	275*
	Midwest <sup>1</sup>	241	204*	223*	243	261*	277*
	South Dakota	242	208*	227*	244	260	274*
2011	Nation (public)	240*	202*	222*	242	260	276*
	Midwest <sup>1</sup>	242	204*	224*	244	262	277*
	South Dakota	241	207	225	243	259*	273*
2013	Nation (public)	241*	202*	222*	243*	262	278
	Midwest <sup>1</sup>	243*	203*	224*	245*	264	280
	South Dakota	241	205	224	243	260	274*
2015	Nation (public)	240	201*	221*	241	260	277*
	Midwest <sup>1</sup>	242	202*	222*	243	262	279*
	South Dakota	240	203	223	242	259*	273*
2017	Nation (public)	239	197	219	241	261	279
	Midwest <sup>1</sup>	241	199	220	243	263	281
	South Dakota	242	203	223	244	262	277

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2017.<sup>1</sup> 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, 2003–2017 Mathematics Assessments.

**Table  
1-B****The Nation's Report Card 2017 State Assessment**

Average scale scores and selected percentile scores in NAEP mathematics for eighth-grade public school students, by year and jurisdiction: Various years, 2003–2017

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 <sup>1</sup>	281*	235	259	283*	305*	324*
	South Dakota	285	244	266	287	307*	323*
2005	Nation (public)	278*	230*	254	279*	303*	323*
	Midwest <sup>1</sup>	281*	235	259	283*	306*	325*
	South Dakota	287	246*	268*	289	309	326*
2007	Nation (public)	280*	234	257*	281	305*	325*
	Midwest <sup>1</sup>	283*	238	261	285	308*	327*
	South Dakota	288	247*	269*	290	311	328*
2009	Nation (public)	282	235*	258*	283	307*	328*
	Midwest <sup>1</sup>	285	240*	262*	287	309*	329*
	South Dakota	291*	250*	271*	293*	312	328*
2011	Nation (public)	283	236*	259*	284*	308	329*
	Midwest <sup>1</sup>	286	241*	263*	287	309*	329*
	South Dakota	291*	248*	270*	292*	313	330
2013	Nation (public)	284*	236*	260*	285*	309	330*
	Midwest <sup>1</sup>	286	240*	263*	288*	311	332*
	South Dakota	287	242	267	290	311	328*
2015	Nation (public)	281	234	257*	282	307*	328*
	Midwest <sup>1</sup>	284	237	261*	286	309*	330*
	South Dakota	285	243	265	286*	307*	325*
2017	Nation (public)	282	232	255	282	309	332
	Midwest <sup>1</sup>	285	235	259	285	312	334
	South Dakota	286	239	263	289	311	331

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2017.<sup>1</sup> 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, 2003–2017 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 2017, the percentage of South Dakota's students who performed at or above *Proficient* was 43 percent. This was greater than 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 2017 was greater than the percentage in 2003, but was not significantly different from the percentages in 2005, 2007, 2009, 2011, 2013, and 2015.
- In 2017, the percentage of South Dakota's students who performed at or above *Basic* was 83 percent. This was greater than the percentage of the nation's public school students who performed at or above *Basic* (79 percent).
- In South Dakota, the percentage of students who performed at or above *Basic* in 2017 was smaller than the percentages in 2005, 2007, and 2009, but was not significantly different from the percentages in 2003, 2011, 2013, and 2015.

### Grade 8 Achievement-Level Results

- In 2017, the percentage of South Dakota's students who performed at or above *Proficient* was 38 percent. This was greater than the percentage of the nation's public school students who performed at or above *Proficient* (33 percent).
- In South Dakota, the percentage of students who performed at or above *Proficient* in 2017 was greater than the percentages in 2003 and 2015, but was smaller than the percentages in 2009 and 2011.
- In 2017, the percentage of South Dakota's students who performed at or above *Basic* was 76 percent. This was greater than the percentage of the nation's public school students who performed at or above *Basic* (69 percent).
- In South Dakota, the percentage of students who performed at or above *Basic* in 2017 was smaller than the percentages in 2005, 2007, 2009, and 2011, but was not significantly different from the percentages in 2003, 2013, and 2015.

**Table  
2-A****The Nation's Report Card 2017 State Assessment**

Percentage of fourth-grade public school students at or above NAEP mathematics achievement levels, by year and jurisdiction: Various years, 2003–2017

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 <sup>1</sup>	21	79	35*	4*
	South Dakota	18	82	34*	3*
2005	Nation (public)	21	79	35*	5*
	Midwest <sup>1</sup>	19	81	38*	5*
	South Dakota	14*	86*	41	4*
2007	Nation (public)	19*	81*	39	5*
	Midwest <sup>1</sup>	16*	84*	42	6*
	South Dakota	14*	86*	41	4*
2009	Nation (public)	19*	81*	38	6*
	Midwest <sup>1</sup>	17*	83*	42	7*
	South Dakota	14*	86*	42	5*
2011	Nation (public)	18*	82*	40	6*
	Midwest <sup>1</sup>	16*	84*	42	7*
	South Dakota	14	86	40	4*
2013	Nation (public)	18*	82*	41*	8
	Midwest <sup>1</sup>	16*	84*	45*	9
	South Dakota	16	84	40	5
2015	Nation (public)	19*	81*	39	7*
	Midwest <sup>1</sup>	18*	82*	42	8*
	South Dakota	17	83	40	4*
2017	Nation (public)	21	79	40	8
	Midwest <sup>1</sup>	20	80	42	9
	South Dakota	17	83	43	7

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2017.<sup>1</sup> 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 or 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, 2003–2017 Mathematics Assessments.

**Table  
2-B****The Nation's Report Card 2017 State Assessment**

Percentage of eighth-grade public school students at or above NAEP mathematics achievement levels, by year and jurisdiction: Various years, 2003–2017

Year and jurisdiction		<b>Below Basic</b>	<b>At or above Basic</b>	<b>At or above Proficient</b>	<b>At Advanced</b>
2003	Nation (public)	33*	67*	27*	5*
	Midwest <sup>1</sup>	28	72	32*	6*
	South Dakota	22	78	35*	5*
2005	Nation (public)	32	68	28*	6*
	Midwest <sup>1</sup>	28	72	32*	6*
	South Dakota	20*	80*	36	6*
2007	Nation (public)	30	70	31*	7*
	Midwest <sup>1</sup>	26	74	34*	7*
	South Dakota	19*	81*	39	7*
2009	Nation (public)	29*	71*	33	7*
	Midwest <sup>1</sup>	25*	75*	36	8*
	South Dakota	17*	83*	42*	7*
2011	Nation (public)	28*	72*	34	8*
	Midwest <sup>1</sup>	24*	76*	36	8*
	South Dakota	18*	82*	42*	8
2013	Nation (public)	27*	73*	34	8*
	Midwest <sup>1</sup>	24*	76*	37	9*
	South Dakota	21	79	38	7
2015	Nation (public)	30*	70*	32*	8*
	Midwest <sup>1</sup>	26*	74*	35	8*
	South Dakota	23	77	34*	6*
2017	Nation (public)	31	69	33	10
	Midwest <sup>1</sup>	28	72	36	11
	South Dakota	24	76	38	9

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2017.<sup>1</sup> 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 or 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, 2003–2017 Mathematics Assessments.

# Comparisons Between South Dakota, the Nation, and Participating States and Jurisdictions

All 50 states, the District of Columbia, Department of Defense Education Activity schools (DoDEA), and Puerto Rico participated in the 2017 mathematics assessment at grades 4 and 8. References to "jurisdictions" in the results statements may include states, the District of Columbia, and DoDEA schools.

## Comparisons by Scale Scores

Figures 2-A and 2-B compare South Dakota's 2017 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 2017 mathematics assessment.

### ***Grade 4 Scale Score Comparison Results***

- The average score for students in South Dakota was higher than 23 jurisdictions, not significantly different from 18 jurisdictions, and lower than 11 jurisdictions.

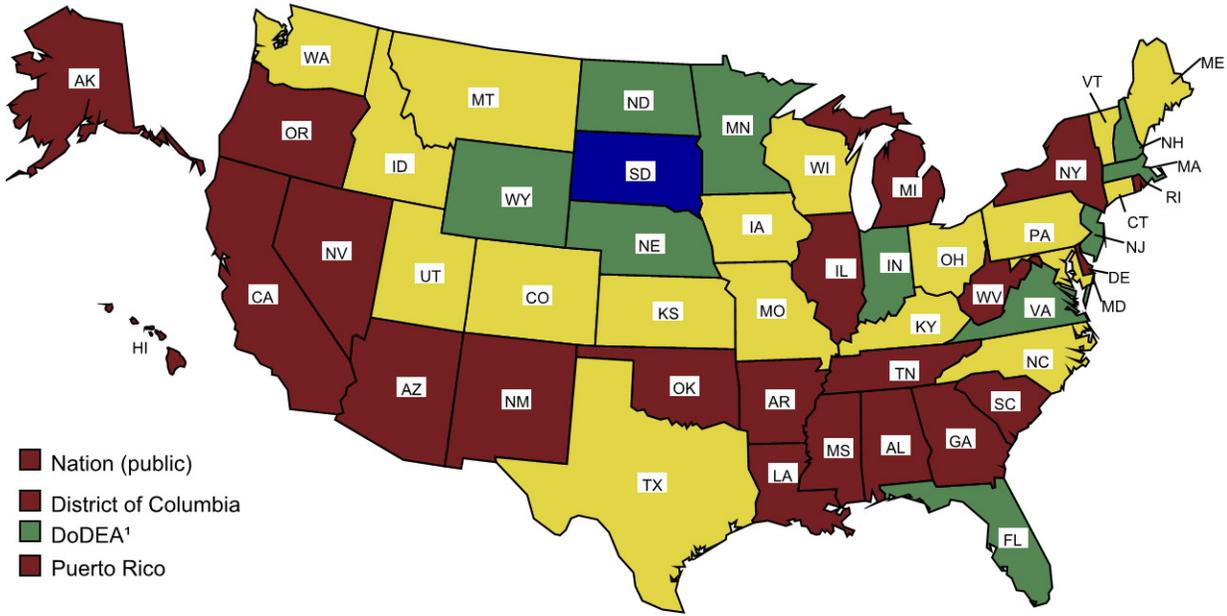
### ***Grade 8 Scale Score Comparison Results***

- The average score for students in South Dakota was higher than 29 jurisdictions, not significantly different from 16 jurisdictions, and lower than 7 jurisdictions.

**Figure 2-A**

The Nation's Report Card 2017 State Assessment

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: 2017



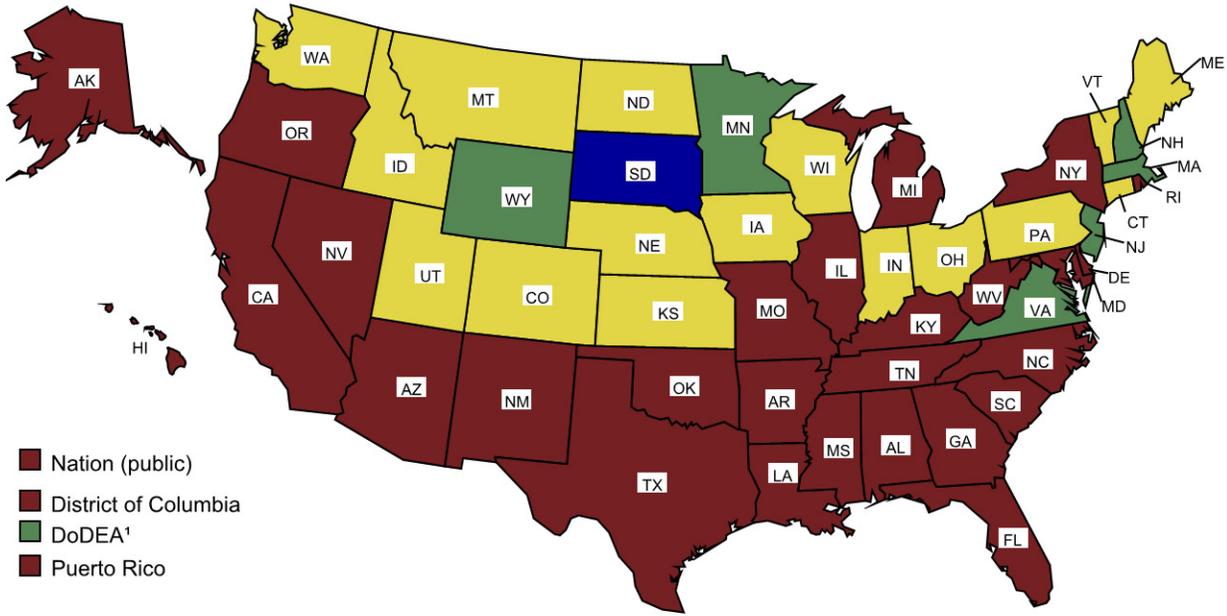
-  Focal state/jurisdiction (South Dakota)
-  Higher average scale score than South Dakota (11 jurisdictions)
-  Not significantly different from South Dakota (18 jurisdictions)
-  Lower average scale score than South Dakota (nation and 23 jurisdictions)

<sup>1</sup> 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), 2017 Mathematics Assessment.

**Figure 2-B**

**The Nation's Report Card 2017 State Assessment**

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: 2017



- ☆ Focal state/jurisdiction (South Dakota)
- Higher average scale score than South Dakota (7 jurisdictions)
- Not significantly different from South Dakota (16 jurisdictions)
- Lower average scale score than South Dakota (nation and 29 jurisdictions)

<sup>1</sup> 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), 2017 Mathematics Assessment.

## Comparisons by Achievement Levels

Figures 3-A and 3-B permit comparisons of all jurisdictions (and the nation) participating in the NAEP 2017 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 that reflect 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 conducted 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 22 jurisdictions, not significantly different from those in 20 jurisdictions, and smaller than those in 10 jurisdictions.
- The percentage of students performing at or above the *Basic* level in South Dakota was greater than the percentage in 25 jurisdictions, not significantly different from those in 21 jurisdictions, and smaller than those in 6 jurisdictions (data not shown).

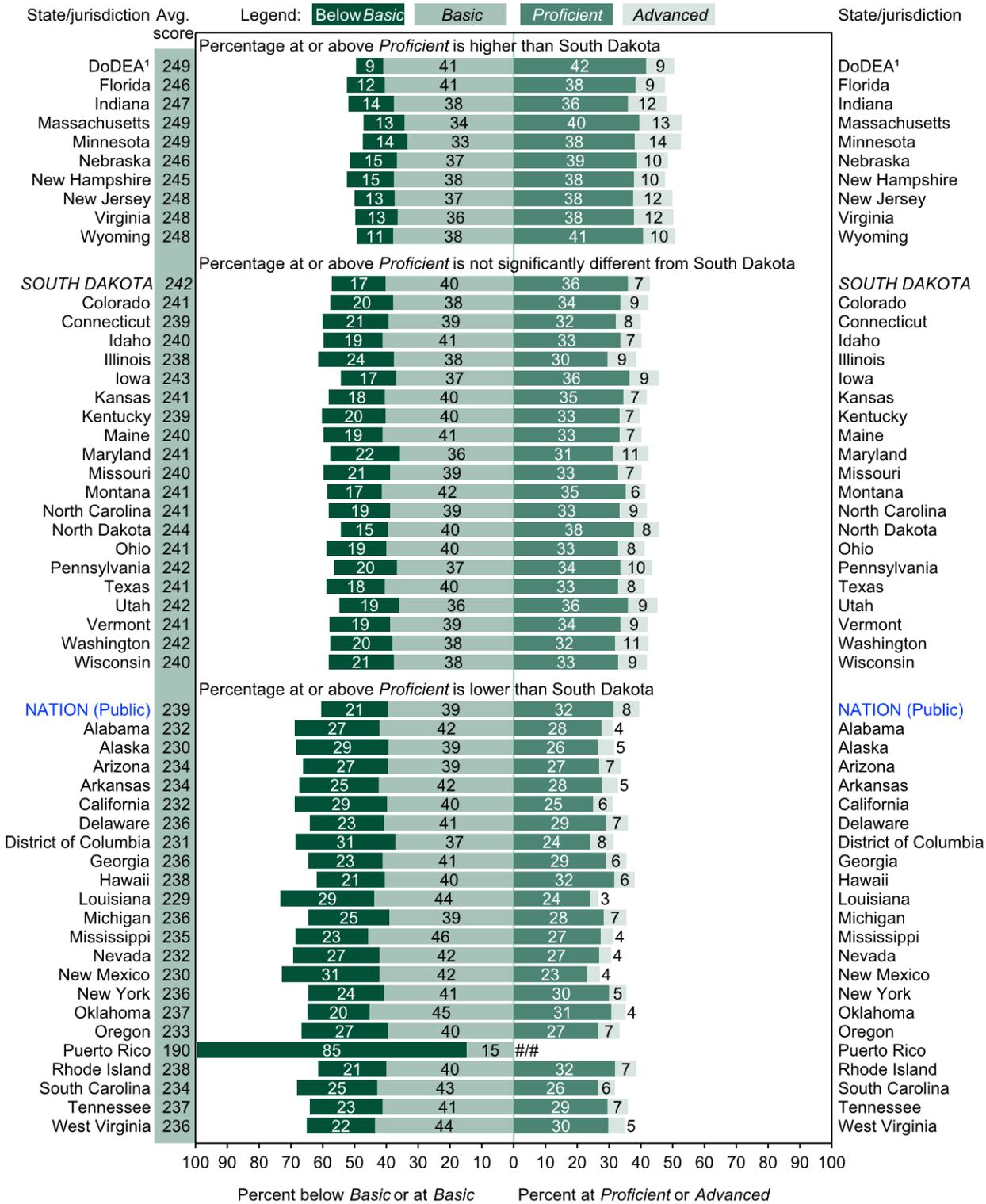
### **Grade 8 Achievement-Level Comparison Results**

- The percentage of students performing at or above the *Proficient* level in South Dakota was greater than the percentage in 28 jurisdictions, not significantly different from those in 19 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 32 jurisdictions, not significantly different from those in 15 jurisdictions, and smaller than those in 5 jurisdictions (data not shown).

**Figure 3-A**

The Nation's Report Card 2017 State Assessment

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 jurisdictions: 2017



# Rounds to zero.

<sup>1</sup> Department of Defense Education Activity (overseas and domestic schools).

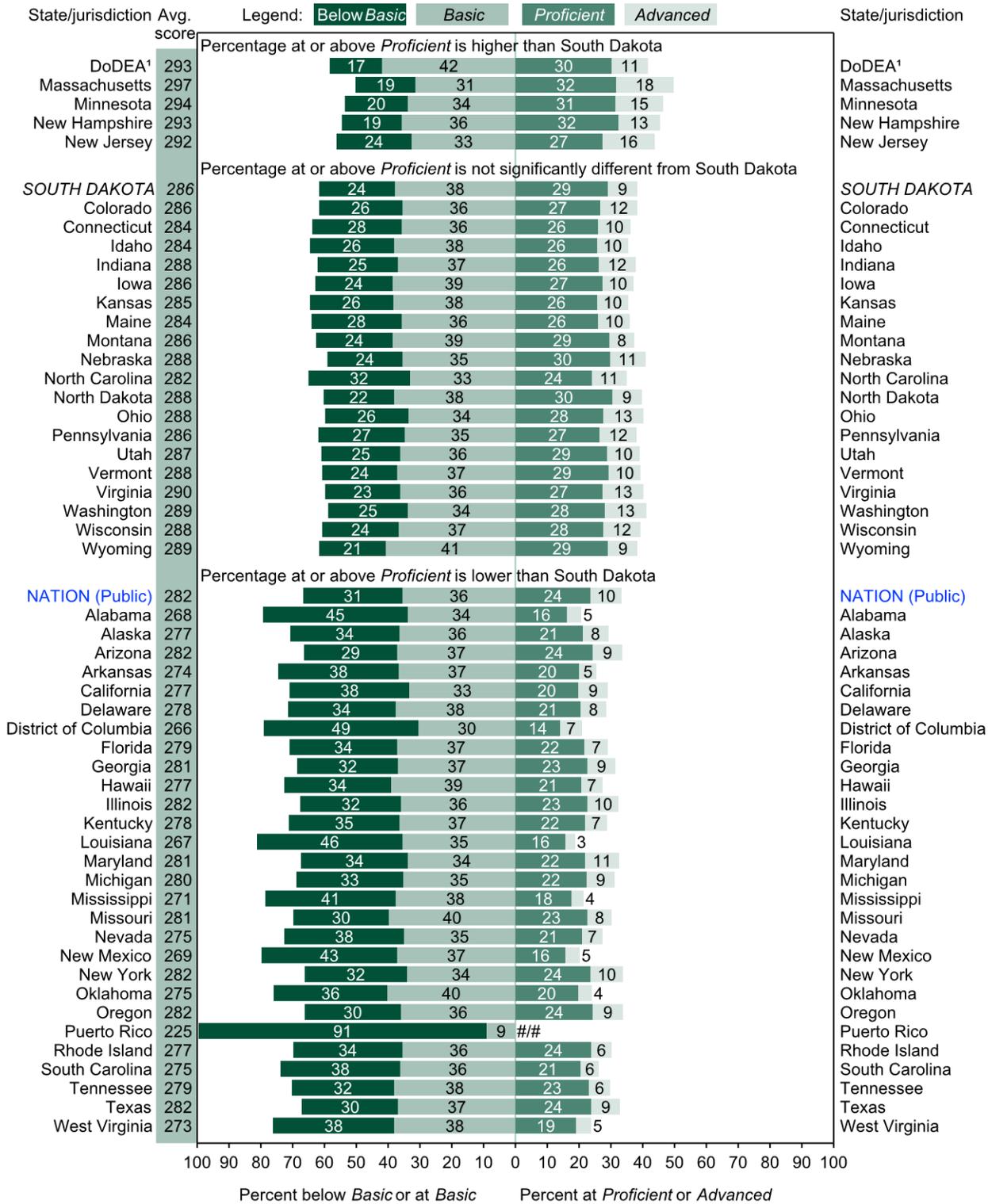
NOTE: The bars above contain percentages of students in each NAEP mathematics achievement level. Achievement levels corresponding to each population of students are aligned at the point where the *Proficient* category begins, so that they may be compared at *Proficient* and above. Detail may not sum 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), 2017 Mathematics Assessment.

**Figure 3-B**

The Nation's Report Card 2017 State Assessment

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 jurisdictions: 2017



# Rounds to zero.

<sup>1</sup> 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), 2017 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, 2011, 2013, 2015, and 2017)

NAEP collects information on race/ethnicity, gender, and student eligibility for the National School Lunch Program eligibility from school records. Type of school location is based on standard definitions established by the Federal Office of Management and Budget using population and geographic information from the U.S. Census Bureau. Schools are assigned to these categories in the NCES Common Core of Data based on their physical address. The parent's highest level of education for grade 8 is derived from student questionnaires.

Results for each of the student groups 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 2017 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 2017 was found to be statistically significant.

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

## Race/Ethnicity

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

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

Students who identified with more than one of the other five categories were classified as "Other" and were included as part of the "Unclassified" category along with students who had a background other than the ones listed or whose race/ethnicity could not be determined.

In compliance with new standards from the U.S. Office of Management and Budget for collecting and reporting data on race/ethnicity, additional information was collected in 2011 so that results could be reported separately for Asian students, Native Hawaiian/Other Pacific Islander students, and students identifying with two or more races. Beginning in 2011, all of the students participating in NAEP were identified as one of the seven racial/ethnic categories listed below:

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

As in earlier years, students identified as Hispanic were classified as Hispanic in 2011, 2013, 2015, and 2017 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 were classified as "Two or more races" in 2011, 2013, 2015, and 2017.

When comparing the results for racial/ethnic groups prior to 2011, data for Asian and Native Hawaiian/Other Pacific Islander students are 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 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 2017, 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 2017, the average scale score of White students in South Dakota was higher than their respective scores in 2003 and 2005, but not significantly different from their respective scores in 2007, 2009, 2011, 2013, and 2015.
- In 2017, the average scale score of Black students in South Dakota was not significantly different from their respective scores in 2007, 2009, 2011, 2013, and 2015.
- In 2017, the average scale score of Hispanic students in South Dakota was not significantly different from their respective scores in 2003, 2007, 2009, 2011, 2013, and 2015.
- In 2017, 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, 2009, 2011, 2013, and 2015.
- In 2017, Black students in South Dakota had an average score that was lower than that of White students by 28 points. Data are not reported for Black students in 2003, because reporting standards were not met.
- In 2017, Hispanic students in South Dakota had an average score that was lower than that of White students by 18 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 2017 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 2017, 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, 2009, 2011, 2013, and 2015.
- In 2017, 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, 2009, 2011, 2013, and 2015.
- In 2017, 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, 2009, 2011, 2013, and 2015.
- In 2017, the percentage of American Indian/Alaska Native students in South Dakota performing at or above *Proficient* was greater than the percentage in 2003, but not significantly different from the percentages of their respective peers in 2005, 2007, 2009, 2011, 2013, and 2015.

**Table  
3-A****The Nation's Report Card 2017 State Assessment**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: Various years, 2003–2017

Race/ethnicity, year, and jurisdiction	Percentage of students	Average scale score	Percent			
			Below Basic	At or above Basic	At or above Proficient	At Advanced
<b>White</b>						
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*
2013 Nation (public)	51*	250*	9*	91*	54*	10
South Dakota	75	247	9	91	48	6
2015 Nation (public)	49*	248	10*	90*	51	10
South Dakota	75	246	10	90	47	5*
2017 Nation (public)	47	248	12	88	51	11
South Dakota	73	247	10	90	50	9

See notes at end of table.

**Table  
3-A****The Nation's Report Card 2017 State Assessment**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: Various years, 2003–2017—Continued

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below Basic	At or above Basic	At or above Proficient	At Advanced
<b>Black</b>							
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
2013	Nation (public)	16	224	34*	66*	18	1
	South Dakota	3	221	37	63	14	1
2015	Nation (public)	15	224	35	65	19	1
	South Dakota	3	218	44	56	11	2
2017	Nation (public)	15	223	37	63	19	2
	South Dakota	2	219	40	60	14	#

See notes at end of table.

**Table  
3-A****The Nation's Report Card 2017 State Assessment**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: Various years, 2003–2017—Continued

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below Basic	At or above Basic	At or above Proficient	At Advanced
<b>Hispanic</b>							
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
2013	Nation (public)	25*	230	27*	73*	26	2
	South Dakota	4	226	30	70	16	1
2015	Nation (public)	26*	230	27	73	26	3
	South Dakota	5	227	32	68	21	3
2017	Nation (public)	27	229	30	70	26	3
	South Dakota	5	229	31	69	28	2

See notes at end of table.

**Table  
3-A****The Nation's Report Card 2017 State Assessment**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: Various years, 2003–2017—Continued

Race/ethnicity, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below Basic	At or above Basic	At or above Proficient	At Advanced	
<b>Asian/Pacific Islander</b>							
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	‡	‡	‡	‡	‡
2013	Nation (public)	5	258	9	91	64	23
	South Dakota	2	‡	‡	‡	‡	‡
2015	Nation (public)	5	256	10	90	61	22
	South Dakota	2	‡	‡	‡	‡	‡
2017	Nation (public)	6	258	10	90	64	24
	South Dakota	1	‡	‡	‡	‡	‡

See notes at end of table.

**Table  
3-A****The Nation's Report Card 2017 State Assessment**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: Various years, 2003–2017—Continued

Race/ethnicity, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>	
<b>American Indian/Alaska Native</b>							
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	#
2013	Nation (public)	1	228	30	70	24	2
	South Dakota	14	217	45	55	12	#
2015	Nation (public)	1	228	30	70	24	2
	South Dakota	13	216	45	55	14	1
2017	Nation (public)	1	228	31	69	25	3
	South Dakota	14	220	41	59	17	1

# Rounds to zero.

‡ Reporting standards not met.

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction and student group in 2017.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 or 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, 2003–2017 Mathematics Assessments.

**Grade 8 Scale Score Results by Race/Ethnicity**

- In 2017, 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 2017, the average scale score of White students in South Dakota was higher than their respective scores in 2003 and 2015, but not significantly different from their respective scores in 2005, 2007, 2009, 2011, and 2013.
- In 2017, the average scale score of Black students in South Dakota was not significantly different from their respective scores in 2011 and 2013.
- In 2017, the average scale score of Hispanic students in South Dakota was not significantly different from their respective scores in 2007, 2009, 2011, 2013, and 2015.
- In 2017, the average scale score of American Indian/Alaska Native students in South Dakota was lower than their respective scores in 2009 and 2011, but not significantly different from their respective scores in 2003, 2005, 2007, 2013, and 2015.
- In 2017, Black students in South Dakota had an average score that was lower than that of White students by 36 points. Data are not reported for Black students in 2003, because reporting standards were not met.
- In 2017, Hispanic students in South Dakota had an average score that was lower than that of White students by 25 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 2017 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 2017, the percentage of White students in South Dakota performing at or above *Proficient* was greater than the percentages of their respective peers in 2003, 2005, and 2015, but not significantly different from the percentages of their respective peers in 2007, 2009, 2011, and 2013.
- In 2017, 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 2011 and 2013.
- In 2017, 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, 2009, 2011, 2013, and 2015.
- In 2017, 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, 2009, 2011, 2013, and 2015.

**Table  
3-B****The Nation's Report Card 2017 State Assessment**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: Various years, 2003–2017

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below Basic	At or above Basic	At or above Proficient	At Advanced
<b>White</b>							
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
2013	Nation (public)	53*	293	17*	83*	44	11*
	South Dakota	79	294	14	86	45	9
2015	Nation (public)	51	291	19	81	42	10*
	South Dakota	78	290*	16	84	39*	7*
2017	Nation (public)	50	292	20	80	43	13
	South Dakota	77	293	17	83	45	11

See notes at end of table.

**Table  
3-B****The Nation's Report Card 2017 State Assessment**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: Various years, 2003–2017—Continued

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
<b>Black</b>							
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
2013	Nation (public)	15	263*	49*	51*	14	2
	South Dakota	2	254	55	45	10	#
2015	Nation (public)	15	260	53	47	12	1
	South Dakota	3	‡	‡	‡	‡	‡
2017	Nation (public)	15	260	54	46	13	2
	South Dakota	3	258	53	47	11	#

See notes at end of table.

**Table  
3-B****The Nation's Report Card 2017 State Assessment**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: Various years, 2003–2017—Continued

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below Basic	At or above Basic	At or above Proficient	At Advanced
<b>Hispanic</b>							
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
2013	Nation (public)	23*	271*	38*	62*	21	3
	South Dakota	3*	274	34	66	27	5
2015	Nation (public)	25	269	40	60	19	3
	South Dakota	4*	272	38	62	18	3
2017	Nation (public)	25	268	43	57	20	3
	South Dakota	5	269	40	60	20	2

See notes at end of table.

**Table  
3-B****The Nation's Report Card 2017 State Assessment**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: Various years, 2003–2017—Continued

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below Basic	At or above Basic	At or above Proficient	At Advanced
<b>Asian/Pacific Islander</b>							
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*	‡	‡	‡	‡	‡
2013	Nation (public)	5*	306	13	87	60	25
	South Dakota	2	‡	‡	‡	‡	‡
2015	Nation (public)	6	305	14	86	58	25
	South Dakota	2	‡	‡	‡	‡	‡
2017	Nation (public)	6	310	14	86	62	30
	South Dakota	2	‡	‡	‡	‡	‡

See notes at end of table.

**Table  
3-B****The Nation's Report Card 2017 State Assessment**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: Various years, 2003–2017—Continued

Race/ethnicity, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>	
<b>American Indian/Alaska Native</b>							
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
2013	Nation (public)	1*	270	40	60	21	3
	South Dakota	12	260	52	48	10	1
2015	Nation (public)	1	267	43	57	19	3
	South Dakota	12	260	52	48	11	1
2017	Nation (public)	1	268	43	57	19	4
	South Dakota	11	254	60	40	10	1

# Rounds to zero.

‡ Reporting standards not met.

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction and student group in 2017.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 or 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, 2003–2017 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, 2013, 2015, and 2017: White, Black, Hispanic, Asian, American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, and Two or more races at grades 4 and 8 in South Dakota and the nation.

**Table  
4-A****The Nation's Report Card 2017 State Assessment**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: Various years, 2011–2017

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below Basic	At or above Basic	At or above Proficient	At Advanced
<b>White</b>							
2011	Nation (public)	52*	249	9*	91*	52	9*
	South Dakota	77*	246	9	91	46	5*
2013	Nation (public)	51*	250*	9*	91*	54*	10
	South Dakota	75	247	9	91	48	6
2015	Nation (public)	49*	248	10*	90*	51	10
	South Dakota	75	246	10	90	47	5*
2017	Nation (public)	47	248	12	88	51	11
	South Dakota	73	247	10	90	50	9
<b>Black</b>							
2011	Nation (public)	16	224	34	66	17	1*
	South Dakota	3	227	32	68	21	1
2013	Nation (public)	16	224	34*	66*	18	1
	South Dakota	3	221	37	63	14	1
2015	Nation (public)	15	224	35	65	19	1
	South Dakota	3	218	44	56	11	2
2017	Nation (public)	15	223	37	63	19	2
	South Dakota	2	219	40	60	14	#
<b>Hispanic</b>							
2011	Nation (public)	24*	229	28	72	24	2*
	South Dakota	3*	226	29	71	18	2
2013	Nation (public)	25*	230	27*	73*	26	2
	South Dakota	4	226	30	70	16	1
2015	Nation (public)	26	230	27	73	26	3
	South Dakota	5	227	32	68	21	3
2017	Nation (public)	27	229	30	70	26	3
	South Dakota	5	229	31	69	28	2
<b>Asian</b>							
2011	Nation (public)	5	257	8	92	64	21
	South Dakota	1	‡	‡	‡	‡	‡
2013	Nation (public)	5	260	7	93	67	24
	South Dakota	2	‡	‡	‡	‡	‡
2015	Nation (public)	5	259	8	92	64	23
	South Dakota	2	‡	‡	‡	‡	‡
2017	Nation (public)	5	260	8	92	67	26
	South Dakota	1	‡	‡	‡	‡	‡

See notes at end of table.

**Table  
4-A****The Nation's Report Card 2017 State Assessment**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: Various years, 2011–2017—Continued

Race/ethnicity, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>	
<b>American Indian/Alaska Native</b>							
2011	Nation (public)	1	227	32	68	24	2
	South Dakota	14	220	40	60	15	#
2013	Nation (public)	1	228	30	70	24	2
	South Dakota	14	217	45	55	12	#
2015	Nation (public)	1	228	30	70	24	2
	South Dakota	13	216	45	55	14	1
2017	Nation (public)	1	228	31	69	25	3
	South Dakota	14	220	41	59	17	1
<b>Native Hawaiian/Other Pacific Islander</b>							
2011	Nation (public)	#	235	24	76	33	7
	South Dakota	#	‡	‡	‡	‡	‡
2013	Nation (public)	#	235	23	77	32	4
	South Dakota	#	‡	‡	‡	‡	‡
2015	Nation (public)	#	226	35	65	24	3
	South Dakota	#	‡	‡	‡	‡	‡
2017	Nation (public)	#	228	30	70	27	4
	South Dakota	#	‡	‡	‡	‡	‡
<b>Two or More Races</b>							
2011	Nation (public)	2*	244	15	85	43	9
	South Dakota	1*	‡	‡	‡	‡	‡
2013	Nation (public)	3*	244	14	86	45	9
	South Dakota	2*	‡	‡	‡	‡	‡
2015	Nation (public)	3*	244	15	85	44	9
	South Dakota	3	236	19	81	34	#
2017	Nation (public)	4	244	16	84	44	10
	South Dakota	4	240	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 2017.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 or 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), various years, 2011–2017 Mathematics Assessments.

**Table  
4-B****The Nation's Report Card 2017 State Assessment**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: Various years, 2011–2017

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below Basic	At or above Basic	At or above Proficient	At Advanced
<b>White</b>							
2011	Nation (public)	54*	293	17*	83*	43	10*
	South Dakota	82*	295	13*	87*	47	10
2013	Nation (public)	53*	293	17*	83*	44	11*
	South Dakota	79	294	14	86	45	9
2015	Nation (public)	51	291	19	81	42	10*
	South Dakota	78	290*	16	84	39*	7*
2017	Nation (public)	50	292	20	80	43	13
	South Dakota	77	293	17	83	45	11
<b>Black</b>							
2011	Nation (public)	16*	262*	50*	50*	13	1
	South Dakota	2	270	40	60	21	1
2013	Nation (public)	15	263*	49*	51*	14	2
	South Dakota	2	254	55	45	10	#
2015	Nation (public)	15	260	53	47	12	1
	South Dakota	3	‡	‡	‡	‡	‡
2017	Nation (public)	15	260	54	46	13	2
	South Dakota	3	258	53	47	11	#
<b>Hispanic</b>							
2011	Nation (public)	23*	269	40*	60*	20	3*
	South Dakota	3*	274	34	66	20	3
2013	Nation (public)	23*	271*	38*	62*	21	3
	South Dakota	3*	274	34	66	27	5
2015	Nation (public)	25	269	40	60	19	3
	South Dakota	4*	272	38	62	18	3
2017	Nation (public)	25	268	43	57	20	3
	South Dakota	5	269	40	60	20	2
<b>Asian</b>							
2011	Nation (public)	5	305*	12	88	58*	24*
	South Dakota	1*	‡	‡	‡	‡	‡
2013	Nation (public)	5*	308	12	88	62	27
	South Dakota	2	‡	‡	‡	‡	‡
2015	Nation (public)	5	307	12	88	60	26
	South Dakota	2	‡	‡	‡	‡	‡
2017	Nation (public)	5	312	12	88	65	32
	South Dakota	2	‡	‡	‡	‡	‡

See notes at end of table.

**Table  
4-B****The Nation's Report Card 2017 State Assessment**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year, and jurisdiction: Various years, 2011–2017—Continued

Race/ethnicity, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>	
<b>American Indian/Alaska Native</b>							
2011	Nation (public)	1	266	45	55	17	4
	South Dakota	11	263*	48	52	14	2
2013	Nation (public)	1*	270	40	60	21	3
	South Dakota	12	260	52	48	10	1
2015	Nation (public)	1	267	43	57	19	3
	South Dakota	12	260	52	48	11	1
2017	Nation (public)	1	268	43	57	19	4
	South Dakota	11	254	60	40	10	1
<b>Native Hawaiian/Other Pacific Islander</b>							
2011	Nation (public)	#	265	45	55	19	3
	South Dakota	#	‡	‡	‡	‡	‡
2013	Nation (public)	#	274	34	66	24	4
	South Dakota	#	‡	‡	‡	‡	‡
2015	Nation (public)	#	277	35	65	30	6
	South Dakota	#	‡	‡	‡	‡	‡
2017	Nation (public)	#	272	38	62	23	5
	South Dakota	#	‡	‡	‡	‡	‡
<b>Two or More Races</b>							
2011	Nation (public)	2*	286	24	76	37	10
	South Dakota	1*	‡	‡	‡	‡	‡
2013	Nation (public)	2*	286	24	76	37	10
	South Dakota	1*	‡	‡	‡	‡	‡
2015	Nation (public)	2*	283	28	72	35	9*
	South Dakota	2*	‡	‡	‡	‡	‡
2017	Nation (public)	3	285	28	72	36	12
	South Dakota	2	282	25	75	29	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 2017.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 or 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), various years, 2011–2017 Mathematics Assessments.

## Gender

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

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

### **Grade 4 Scale Score Results by Gender**

- In 2017, male students in South Dakota had an average score in mathematics (244) that was higher than that of female students (239). In 2003, male students in South Dakota had an average score in mathematics (239) that was higher than that of female students (235).
- In 2017, male students in South Dakota had an average scale score in mathematics (244) that was higher than that of male students in public schools across the nation (240). However, female students in South Dakota had an average scale score (239) that was not significantly different from that of female students across the nation (238).
- In South Dakota, the average scale score of male students in 2017 was higher than the scores of male students in 2003 and 2015, but not significantly different from the scores of male students in 2005, 2007, 2009, 2011, and 2013.
- In South Dakota, the average scale score of female students in 2017 was higher than the score of female students in 2003, but not significantly different from the scores of female students in 2005, 2007, 2009, 2011, 2013, and 2015.

### **Grade 4 Achievement-Level Results by Gender**

- In the 2017 assessment, 46 percent of male students and 39 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 2017 (46 percent) was greater than 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 2017 (39 percent) was not significantly different from that of female students in the nation (38 percent).
- In South Dakota, the percentage of male students performing at or above *Proficient* in 2017 was greater than the percentage of students in 2003, but not significantly different from the corresponding percentages of students in 2005, 2007, 2009, 2011, 2013, and 2015.
- In South Dakota, the percentage of female students performing at or above *Proficient* in 2017 was greater than the percentage of students in 2003, but not significantly different from the corresponding percentages of students in 2005, 2007, 2009, 2011, 2013, and 2015.

**Table  
5-A****The Nation's Report Card 2017 State Assessment**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by gender, year, and jurisdiction: Various years, 2003–2017

Gender, year, and jurisdiction	Percentage of students	Average scale score	Percent			
			Below Basic	At or above Basic	At or above Proficient	At Advanced
<b>Male</b>						
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*
2013 Nation (public)	51	242*	18*	82*	42	8
South Dakota	51	241	16	84	40	6*
2015 Nation (public)	51	241	19*	81*	41	8
South Dakota	51	240*	17	83	41	5*
2017 Nation (public)	51	240	21	79	41	9
South Dakota	50	244	16	84	46	9

See notes at end of table.

**Table  
5-A****The Nation's Report Card 2017 State Assessment**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by gender, year, and jurisdiction: Various years, 2003–2017—Continued

Gender, year, and jurisdiction	Percentage of students	Average scale score	Percent			
			Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
<b>Female</b>						
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
2013 Nation (public)	49	241*	18*	82*	40*	7
South Dakota	49	241	15	85	40	5
2015 Nation (public)	49	239	19*	81*	38	6
South Dakota	49	239	17	83	38	4
2017 Nation (public)	49	238	21	79	38	7
South Dakota	50	239	18	82	39	4

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction and student group in 2017.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 or 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, 2003–2017 Mathematics Assessments.

**Grade 8 Scale Score Results by Gender**

- In 2017, male students in South Dakota had an average score in mathematics (286) that was not significantly different from that of female students (287). 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 2017, male students in South Dakota had an average scale score in mathematics (286) that was higher than that of male students in public schools across the nation (282). Similarly, female students in South Dakota had an average scale score (287) that was higher than that of female students across the nation (282).
- In South Dakota, the average scale score of male students in 2017 was lower than the scores of male students in 2007, 2009, and 2011, but not significantly different from the scores of male students in 2003, 2005, 2013, and 2015.
- In South Dakota, the average scale score of female students in 2017 was lower than the score of female students in 2011, but not significantly different from the scores of female students in 2003, 2005, 2007, 2009, 2013, and 2015.

**Grade 8 Achievement-Level Results by Gender**

- In the 2017 assessment, 39 percent of male students and 38 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 2017 (39 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 2017 (38 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 2017 was greater than the percentage of students in 2015, but smaller than the percentage of students in 2009, and not significantly different from the corresponding percentages of students in 2003, 2005, 2007, 2011, and 2013.
- In South Dakota, the percentage of female students performing at or above *Proficient* in 2017 was not significantly different from the corresponding percentages of students in 2003, 2005, 2007, 2009, 2011, 2013, and 2015.

**Table  
5-B****The Nation's Report Card 2017 State Assessment**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by gender, year, and jurisdiction: Various years, 2003–2017

Gender, year, and jurisdiction	Percentage of students	Average scale score	Percent			
			Below Basic	At or above Basic	At or above Proficient	At Advanced
<b>Male</b>						
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
2013 Nation (public)	51	284*	27*	73*	35	9*
South Dakota	51	288	21	79	39	8
2015 Nation (public)	51	281	30	70	32*	8*
South Dakota	51	284	24	76	33*	6
2017 Nation (public)	51	282	31	69	34	11
South Dakota	51	286	25	75	39	9

See notes at end of table.

**Table  
5-B****The Nation's Report Card 2017 State Assessment**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by gender, year, and jurisdiction: Various years, 2003–2017—Continued

Gender, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>	
<b>Female</b>							
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
2013	Nation (public)	49	283*	27*	73*	34	7*
	South Dakota	49	287	22	78	38	7
2015	Nation (public)	49	281	29	71	32	7*
	South Dakota	49	286	21	79	35	5*
2017	Nation (public)	49	282	31	69	33	9
	South Dakota	49	287	23	77	38	9

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction and student group in 2017.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 or 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, 2003–2017 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 2017, students in South Dakota eligible for free/reduced-price lunch had an average mathematics scale score of 230. This was lower than that of students in South Dakota not eligible for this program (250).
- In 2017, 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. This performance gap was wider than that of 2003 (16 points).
- Students in South Dakota eligible for free/reduced-price lunch had an average scale score (230) in 2017 that was not significantly different from that of students in the nation who were eligible (228).
- In South Dakota, students eligible for free/reduced-price lunch had an average mathematics scale score in 2017 that was not significantly different from that of eligible students in 2003, 2005, 2007, 2009, 2011, 2013, and 2015.

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

- In South Dakota, 27 percent of students who were eligible for free/reduced-price lunch and 54 percent of those who were not eligible for this program performed at or above *Proficient* in 2017. These percentages were significantly different from one another.
- For students in South Dakota in 2017 who were eligible for free/reduced-price lunch, the percentage at or above *Proficient* (27 percent) was not significantly different from the corresponding percentage for their counterparts around the nation (25 percent).
- In South Dakota, the percentage of students eligible for free/reduced-price lunch who performed at or above *Proficient* in 2017 was greater than the percentage in 2003, but not significantly different from the corresponding percentages in 2005, 2007, 2009, 2011, 2013, and 2015.

**Table  
6-A****The Nation's Report Card 2017 State Assessment**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by National School Lunch Program eligibility status, year, and jurisdiction: Various years, 2003–2017

Eligibility status, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below Basic	At or above Basic	At or above Proficient	At Advanced
<b>Eligible</b>							
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
2013	Nation (public)	54	230*	27*	73*	26	2
	South Dakota	42	230	28	72	25	2
2015	Nation (public)	55	229*	28*	72*	24	2*
	South Dakota	43	229	29	71	25	2
2017	Nation (public)	54	228	31	69	25	3
	South Dakota	41	230	28	72	27	2

See notes at end of table.

**Table  
6-A****The Nation's Report Card 2017 State Assessment**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by National School Lunch Program eligibility status, year, and jurisdiction: Various years, 2003–2017—Continued

Eligibility status, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
<b>Not eligible</b>							
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*
2013	Nation (public)	46	254*	7*	93*	60*	14
	South Dakota	58	249	7	93	52	8
2015	Nation (public)	44	253	8*	92*	58	13
	South Dakota	56	248	8	92	51	7*
2017	Nation (public)	45	253	9	91	57	14
	South Dakota	58	250	9	91	54	10

See notes at end of table.

**Table  
6-A****The Nation's Report Card 2017 State Assessment**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by National School Lunch Program eligibility status, year, and jurisdiction: Various years, 2003–2017—Continued

Eligibility status, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>	
<b>Information not available</b>							
2003	Nation (public)	4*	235	23	77	34	4
	South Dakota	‡	‡	‡	‡	‡	‡
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	‡	‡	‡	‡	‡	‡
2013	Nation (public)	1*	255*	9*	91*	60*	18
	South Dakota	‡	‡	‡	‡	‡	‡
2015	Nation (public)	1	246*	15*	85*	49*	11
	South Dakota	‡	‡	‡	‡	‡	‡
2017	Nation (public)	1	238	22	78	38	8
	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 2017.

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 or 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, 2003–2017 Mathematics Assessments.

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

- In 2017, students in South Dakota eligible for free/reduced-price lunch had an average mathematics scale score of 269. This was lower than that of students in South Dakota not eligible for this program (296).
- In 2017, 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 27 points. This performance gap was wider than that of 2003 (19 points).
- Students in South Dakota eligible for free/reduced-price lunch had an average scale score (269) in 2017 that was not significantly different from that of students in the nation who were eligible (267).
- In South Dakota, students eligible for free/reduced-price lunch had an average mathematics scale score in 2017 that was lower than that of eligible students in 2005, 2007, 2009, and 2011, but not significantly different from that of eligible students in 2003, 2013, and 2015.

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

- In South Dakota, 21 percent of students who were eligible for free/reduced-price lunch and 48 percent of those who were not eligible for this program performed at or above *Proficient* in 2017. These percentages were significantly different from one another.
- For students in South Dakota in 2017 who were eligible for free/reduced-price lunch, the percentage at or above *Proficient* (21 percent) was not significantly different from the corresponding percentage for their counterparts around the nation (18 percent).
- In South Dakota, the percentage of students eligible for free/reduced-price lunch who performed at or above *Proficient* in 2017 was not significantly different from the corresponding percentages in 2003, 2005, 2007, 2009, 2011, 2013, and 2015.

**Table  
6-B****The Nation's Report Card 2017 State Assessment**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by National School Lunch Program eligibility status, year, and jurisdiction: Various years, 2003–2017

Eligibility status, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
<b>Eligible</b>							
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
2013	Nation (public)	50	270*	39*	61*	20	3
	South Dakota	36	271	38	62	22	3
2015	Nation (public)	52*	268	42*	58*	18	2*
	South Dakota	36	271	37	63	19	2
2017	Nation (public)	49	267	45	55	18	3
	South Dakota	35	269	41	59	21	3

See notes at end of table.

**Table  
6-B****The Nation's Report Card 2017 State Assessment**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by National School Lunch Program eligibility status, year, and jurisdiction: Various years, 2003–2017—Continued

Eligibility status, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
<b>Not eligible</b>							
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
2013	Nation (public)	50	297	14*	86*	49	14*
	South Dakota	64	297	12	88	48	10
2015	Nation (public)	47*	296	16*	84*	48	13*
	South Dakota	63	293*	14	86	42*	8*
2017	Nation (public)	50	297	17	83	48	16
	South Dakota	63	296	14	86	48	12

See notes at end of table.

**Table  
6-B****The Nation's Report Card 2017 State Assessment**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by National School Lunch Program eligibility status, year, and jurisdiction: Various years, 2003–2017—Continued

Eligibility status, year, and jurisdiction	Percentage of students	Average scale score	Percent				
			Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>	
<b>Information not available</b>							
2003	Nation (public)	6*	278*	32*	68*	29*	6*
	South Dakota	‡	‡	‡	‡	‡	‡
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	#*	‡	‡	‡	‡	‡
2013	Nation (public)	1*	285	29	71	39	13
	South Dakota	#	‡	‡	‡	‡	‡
2015	Nation (public)	1	293	21	79	45	17
	South Dakota	1	‡	‡	‡	‡	‡
2017	Nation (public)	1	293	23	77	46	17
	South Dakota	1	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met.

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction and student group in 2017.

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 or 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, 2003–2017 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 results for 2007, 2009, 2011, 2013, 2015, and 2017 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](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, 2011, 2013, 2015, and 2017 only).

### **Grade 4 Scale Score Results by Type of Location**

- In 2017, 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 town and rural schools.
- In 2017, 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 2017, students attending public schools in rural locations in South Dakota had an average scale score that was not significantly different from the average scale score of students in rural locations in the nation.
- In 2017, 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, 2009, 2011, 2013, and 2015 in South Dakota.

### **Grade 4 Achievement-Level Results by Type of Location**

- In 2017, 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 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 2017 were greater than those of students in city and town locations in the nation.
- The percentage of students in South Dakota's public schools in rural locations who performed at or above *Proficient* in 2017 was not significantly different from those of students in 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 2017 were not significantly different from those of students in city, town, and rural locations in 2007, 2009, 2011, 2013, and 2015 in South Dakota.

**Table  
7-A****The Nation's Report Card 2017 State Assessment**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by type of location, year, and jurisdiction: Various years, 2007–2017

Type of location, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below Basic	At or above Basic	At or above Proficient	At Advanced
<b>City</b>							
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
2013	Nation (public)	30	236*	24*	76*	35	7
	South Dakota	25	242	16	84	41	7
2015	Nation (public)	31	236*	24*	76*	35	7
	South Dakota	29	240	18	82	40	6
2017	Nation (public)	30	234	27	73	33	7
	South Dakota	27	242	16	84	42	8
<b>Suburb</b>							
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
2013	Nation (public)	35*	244	15*	85*	46	9
	South Dakota	2	240	17	83	42	2
2015	Nation (public)	41	243	16	84	44	9*
	South Dakota	3	‡	‡	‡	‡	‡
2017	Nation (public)	40	243	18	82	45	10
	South Dakota	2	‡	‡	‡	‡	‡
<b>Town</b>							
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
2013	Nation (public)	11	240*	17*	83*	39*	6
	South Dakota	28	241	14	86	39	5
2015	Nation (public)	11	237	20	80	35	5
	South Dakota	28	243	13	87	43	5
2017	Nation (public)	11	237	21	79	36	6
	South Dakota	27	245	13	87	47	6

See notes at end of table.

**Table  
7-A****The Nation's Report Card 2017 State Assessment**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by type of location, year, and jurisdiction: Various years, 2007–2017  
—Continued

Type of location, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
<b>Rural</b>							
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
2013	Nation (public)	25*	243*	14*	86*	44*	7
	South Dakota	46	241	16	84	41	5
2015	Nation (public)	18	241	16	84	40	6*
	South Dakota	39	237	19	81	37	3
2017	Nation (public)	19	240	18	82	41	7
	South Dakota	44	239	20	80	40	6

‡ Reporting standards not met.

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction and student group in 2017.

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 or 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, 2007–2017 Mathematics Assessments.

**Grade 8 Scale Score Results by Type of Location**

- In 2017, 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 town and rural schools.
- In 2017, 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 2017, students attending public schools in rural locations in South Dakota had an average scale score that was not significantly different from the average scale score of students in rural locations in the nation.
- In 2017, students attending public schools in city locations in South Dakota had an average scale score that was not significantly different from the average scale score of students in city locations in 2007, 2009, 2011, 2013, and 2015 in South Dakota.
- In 2017, students attending public schools in town and rural locations in South Dakota had average scale scores that were lower than the average scale scores of students in town and rural locations in 2009 and 2011 in South Dakota, but not significantly different from the average scale scores of students in town and rural locations in 2007, 2013, and 2015 in South Dakota.

**Grade 8 Achievement-Level Results by Type of Location**

- In 2017, 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 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 2017 were greater than those of students in city and town locations in the nation.
- The percentage of students in South Dakota's public schools in rural locations who performed at or above *Proficient* in 2017 was not significantly different from those of students in 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 2017 were not significantly different from those of students in city, town, and rural locations in 2007, 2009, 2011, 2013, and 2015 in South Dakota.

**Table  
7-B****The Nation's Report Card 2017 State Assessment**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by type of location, year, and jurisdiction: Various years, 2007–2017

Type of location, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below Basic	At or above Basic	At or above Proficient	At Advanced
<b>City</b>							
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
2013	Nation (public)	28	278	34*	66*	29	7
	South Dakota	23	284	24	76	33	7
2015	Nation (public)	29	276	35	65	28	7
	South Dakota	27	287	21	79	37	7
2017	Nation (public)	29	277	37	63	29	9
	South Dakota	24	288	23	77	39	11
<b>Suburb</b>							
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	#	‡	‡	‡	‡	‡
2013	Nation (public)	35*	288	24*	76*	39	10*
	South Dakota	#	‡	‡	‡	‡	‡
2015	Nation (public)	41	285	26	74	37	10*
	South Dakota	1	‡	‡	‡	‡	‡
2017	Nation (public)	41	287	27	73	39	12
	South Dakota	1	‡	‡	‡	‡	‡
<b>Town</b>							
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
2013	Nation (public)	13*	281*	28*	72*	32*	6
	South Dakota	28*	289	19	81	40	8
2015	Nation (public)	12	279	30	70	28	5
	South Dakota	32	286	22	78	35	7
2017	Nation (public)	11	278	33	67	28	6
	South Dakota	33	289	21	79	41	10

See notes at end of table.

**Table  
7-B****The Nation's Report Card 2017 State Assessment**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by type of location, year, and jurisdiction: Various years, 2007–2017  
—Continued

Type of location, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
<b>Rural</b>							
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
2013	Nation (public)	24*	286*	24*	76*	36*	8
	South Dakota	49*	288	21	79	40	7
2015	Nation (public)	19	282	27	73	31	6*
	South Dakota	40	282	25	75	31	4*
2017	Nation (public)	19	282	29	71	32	8
	South Dakota	42	284	26	74	36	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 2017.

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 or 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, 2007–2017 Mathematics Assessments.

## A More Inclusive NAEP: Students With Disabilities and/or 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.

Exclusion and accommodation rates may vary across jurisdictions. In addition, exclusion and accommodation rates may vary between assessment years, making it difficult to interpret comparisons over time within jurisdictions. Since SD and/or ELL students tend to score below average, 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 SD and/or ELL students 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 8-A and 8-B display data for grades 4 and 8 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 grades 4 and 8 students in the state.

Tables 9-A and 9-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 10-A and 10-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 11-A and 11-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  
8-A****The Nation's Report Card 2017 State Assessment**

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, 2003–2017

Year and testing status		SD and/or ELL		SD		ELL	
		South Dakota	Nation (public)	South Dakota	Nation (public)	South Dakota	Nation (public)
2003	<b>Identified</b>	<b>18</b>	<b>22</b>	<b>15</b>	<b>14</b>	<b>4</b>	<b>11</b>
	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	<b>Identified</b>	<b>19</b>	<b>23</b>	<b>16</b>	<b>14</b>	<b>4</b>	<b>10</b>
	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	<b>Identified</b>	<b>19</b>	<b>23</b>	<b>15</b>	<b>14</b>	<b>4</b>	<b>11</b>
	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	<b>Identified</b>	<b>16</b>	<b>23</b>	<b>15</b>	<b>13</b>	<b>2</b>	<b>10</b>
	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	<b>Identified</b>	<b>19</b>	<b>23</b>	<b>16</b>	<b>13</b>	<b>5</b>	<b>11</b>
	Excluded	2	2	2	2	#	#
	Assessed without accommodations	9	9	7	3	2	6
	Assessed with accommodations	9	12	7	9	2	4
2013	<b>Identified</b>	<b>19</b>	<b>23</b>	<b>16</b>	<b>14</b>	<b>4</b>	<b>11</b>
	Excluded	1	2	1	1	#	#
	Assessed without accommodations	7	7	6	2	1	5
	Assessed with accommodations	11	14	9	10	3	5
2015	<b>Identified</b>	<b>19</b>	<b>24</b>	<b>16</b>	<b>14</b>	<b>3</b>	<b>12</b>
	Excluded	1	2	1	1	#	1
	Assessed without accommodations	7	8	6	3	1	6
	Assessed with accommodations	11	14	10	11	2	5
2017	<b>Identified</b>	<b>18</b>	<b>25</b>	<b>17</b>	<b>15</b>	<b>2</b>	<b>12</b>
	Excluded	1	2	1	2	#	1
	Assessed without accommodations	10	10	10	4	1	7
	Assessed with accommodations	6	13	5	9	1	5

# 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, 2003–2017 Mathematics Assessments.

**Table  
8-B****The Nation's Report Card 2017 State Assessment**

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, 2003–2017

Year and testing status		SD and/or ELL		SD		ELL	
		South Dakota	Nation (public)	South Dakota	Nation (public)	South Dakota	Nation (public)
2003	<b>Identified</b>	<b>13</b>	<b>19</b>	<b>11</b>	<b>14</b>	<b>3</b>	<b>6</b>
	Excluded	2	4	2	3	#	1
	Assessed without accommodations	6	8	4	5	2	4
2005	Assessed with accommodations	6	7	5	6	1	1
	<b>Identified</b>	<b>14</b>	<b>19</b>	<b>12</b>	<b>13</b>	<b>2</b>	<b>6</b>
	Excluded	2	4	2	3	#	1
2007	Assessed without accommodations	4	7	3	3	1	4
	Assessed with accommodations	7	8	6	7	1	1
	<b>Identified</b>	<b>12</b>	<b>18</b>	<b>11</b>	<b>13</b>	<b>1</b>	<b>7</b>
2009	Excluded	2	4	2	4	#	1
	Assessed without accommodations	3	6	2	2	#	4
	Assessed with accommodations	6	8	6	6	#	2
2011	<b>Identified</b>	<b>12</b>	<b>18</b>	<b>10</b>	<b>13</b>	<b>2</b>	<b>6</b>
	Excluded	2	3	2	3	#	#
	Assessed without accommodations	3	5	2	2	1	3
2013	Assessed with accommodations	7	10	6	8	#	2
	<b>Identified</b>	<b>13</b>	<b>18</b>	<b>11</b>	<b>13</b>	<b>2</b>	<b>6</b>
	Excluded	2	3	1	2	#	#
2015	Assessed without accommodations	4	5	3	2	1	3
	Assessed with accommodations	7	10	7	9	1	2
	<b>Identified</b>	<b>13</b>	<b>17</b>	<b>11</b>	<b>13</b>	<b>3</b>	<b>6</b>
2017	Excluded	1	2	1	1	#	#
	Assessed without accommodations	3	3	2	1	1	2
	Assessed with accommodations	9	12	8	10	1	3
2015	<b>Identified</b>	<b>14</b>	<b>19</b>	<b>12</b>	<b>13</b>	<b>3</b>	<b>7</b>
	Excluded	1	2	1	1	#	#
	Assessed without accommodations	5	5	3	1	2	3
2017	Assessed with accommodations	8	13	7	11	1	3
	<b>Identified</b>	<b>15</b>	<b>20</b>	<b>13</b>	<b>14</b>	<b>3</b>	<b>7</b>
	Excluded	3	2	2	1	1	1
2017	Assessed without accommodations	9	6	7	3	2	3
	Assessed with accommodations	4	12	4	10	#	3

# 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, 2003–2017 Mathematics Assessments.

**Table  
9-A****The Nation's Report Card 2017 State Assessment**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by students with disabilities (SD) status, year, and jurisdiction: Various years, 2003–2017

SD status, year, and jurisdiction	Percentage of students	Average scale score	Percent			
			Below Basic	At or above Basic	At or above Proficient	At Advanced
<b>SD</b>						
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
2013 Nation (public)	13*	218*	45*	55*	18*	2
South Dakota	15	220	41	59	15	1
2015 Nation (public)	13	217*	46*	54*	16	2
South Dakota	16	219	44	56	18	2
2017 Nation (public)	13	214	52	48	16	2
South Dakota	15	218	46	54	18	2

See notes at end of table.

**Table  
9-A****The Nation's Report Card 2017 State Assessment**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by students with disabilities (SD) status, year, and jurisdiction: Various years, 2003–2017—Continued

SD status, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
<b>Not SD</b>							
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*
2013	Nation (public)	87*	244*	14*	86*	45*	8
	South Dakota	85	245	11	89	45	6
2015	Nation (public)	87	243	15*	85*	43	8
	South Dakota	84	244	12	88	44	5*
2017	Nation (public)	87	243	16	84	43	9
	South Dakota	85	246	12	88	47	8

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction and student group in 2017.

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 or 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, 2003–2017 Mathematics Assessments.

**Table  
9-B****The Nation's Report Card 2017 State Assessment**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by students with disabilities (SD) status, year, and jurisdiction: Various years, 2003–2017

SD status, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below Basic	At or above Basic	At or above Proficient	At Advanced
<b>SD</b>							
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
2013	Nation (public)	12*	248*	66*	34*	8	1*
	South Dakota	10*	243	73	27	5	#
2015	Nation (public)	12*	246	68	32	8	1*
	South Dakota	10	249	66	34	6	1
2017	Nation (public)	13	246	70	30	8	2
	South Dakota	12	242	71	29	5	1

See notes at end of table.

**Table  
9-B****The Nation's Report Card 2017 State Assessment**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by students with disabilities (SD) status, year, and jurisdiction: Various years, 2003–2017—Continued

SD status, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
<b>Not SD</b>							
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
2013	Nation (public)	88*	288*	22*	78*	38	9*
	South Dakota	90*	292	15	85	42	8*
2015	Nation (public)	88*	286	24	76	36	9*
	South Dakota	90	289*	18	82	37*	7*
2017	Nation (public)	87	287	25	75	37	11
	South Dakota	88	292	18	82	43	10

# Rounds to zero.

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction and student group in 2017.

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 or 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, 2003–2017 Mathematics Assessments.

**Table  
10-A****The Nation's Report Card 2017 State Assessment**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by English language learner (ELL) status, year, and jurisdiction: Various years, 2003–2017

ELL status, year, and jurisdiction	Percentage of students	Average scale score	Percent			
			Below Basic	At or above Basic	At or above Proficient	At Advanced
<b>ELL</b>						
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	#
2013 Nation (public)	11*	219*	41*	59*	14	1
South Dakota	4*	213	54	46	10	1
2015 Nation (public)	11	218	43*	57*	15	1
South Dakota	3*	‡	‡	‡	‡	‡
2017 Nation (public)	12	217	47	53	14	2
South Dakota	2	‡	‡	‡	‡	‡

See notes at end of table.

**Table  
10-A****The Nation's Report Card 2017 State Assessment**

Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by English language learner (ELL) status, year, and jurisdiction: Various years, 2003–2017—Continued

ELL status, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
<b>Not ELL</b>							
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*
2013	Nation (public)	89*	244*	15*	85*	45*	8
	South Dakota	96*	242	14	86	42	5
2015	Nation (public)	89	243	16*	84*	43	8
	South Dakota	97*	241	16	84	41	5*
2017	Nation (public)	88	242	18	82	43	9
	South Dakota	98	242	16	84	44	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 2017.

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 or 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, 2003–2017 Mathematics Assessments.

**Table  
10-B****The Nation's Report Card 2017 State Assessment**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by English language learner (ELL) status, year, and jurisdiction: Various years, 2003–2017

ELL status, year, and jurisdiction	Percentage of students	Average scale score	Percent			
			Below Basic	At or above Basic	At or above Proficient	At Advanced
<b>ELL</b>						
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	‡	‡	‡	‡	‡
2013 Nation (public)	5*	245	69	31	5	1
South Dakota	2	241	72	28	2	#
2015 Nation (public)	6	246	69	31	5	1
South Dakota	2	‡	‡	‡	‡	‡
2017 Nation (public)	6	245	72	28	6	1
South Dakota	2	‡	‡	‡	‡	‡

See notes at end of table.

**Table  
10-B****The Nation's Report Card 2017 State Assessment**

Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by English language learner (ELL) status, year, and jurisdiction: Various years, 2003–2017—Continued

ELL status, year, and jurisdiction		Percentage of students	Average scale score	Percent			
				Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
<b>Not ELL</b>							
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
2013	Nation (public)	95*	286	25*	75*	36	9*
	South Dakota	98	288	20	80	39	8
2015	Nation (public)	94	284	27	73	34	8*
	South Dakota	98	286	21	79	35*	6*
2017	Nation (public)	94	284	28	72	35	10
	South Dakota	98	288	23	77	39	9

# Rounds to zero.

‡ Reporting standards not met.

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction and student group in 2017.

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 or 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, 2003–2017 Mathematics Assessments.

**Table  
11-A****The Nation's Report Card 2017 State Assessment**

Number of fourth-grade public school students assessed in NAEP mathematics and weighted percentage excluded, by state/jurisdiction: 2017

State/jurisdiction	Number assessed	Weighted percentage excluded
<b>Nation (public)</b>	<b>144,000</b>	<b>2</b>
Alabama	2,200	1
Alaska	2,200	1
Arizona	2,300	2
Arkansas	2,300	2
California	6,000	3
Colorado	3,100	1
Connecticut	2,300	2
Delaware	2,300	2
Florida	5,600	3
Georgia	3,600	2
Hawaii	2,300	3
Idaho	2,400	1
Illinois	3,600	2
Indiana	2,400	1
Iowa	2,300	2
Kansas	2,300	1
Kentucky	3,200	2
Louisiana	2,300	2
Maine	2,100	1
Maryland	3,300	1
Massachusetts	3,500	2
Michigan	3,100	3
Minnesota	2,400	2
Mississippi	2,400	1
Missouri	2,300	1
Montana	2,300	1
Nebraska	2,300	2
Nevada	2,400	1
New Hampshire	2,300	1
New Jersey	2,200	2
New Mexico	2,800	2
New York	3,100	2
North Carolina	4,300	2
North Dakota	2,300	1
Ohio	3,100	2
Oklahoma	2,400	2
Oregon	2,200	2
Pennsylvania	3,300	2
Rhode Island	2,400	2
South Carolina	2,400	1
South Dakota	2,300	1
Tennessee	3,200	2
Texas	7,500	3
Utah	2,300	2
Vermont	2,300	1
Virginia	2,300	2
Washington	2,400	2
West Virginia	2,300	1
Wisconsin	3,300	2
Wyoming	2,400	1
Puerto Rico	3,000	0
Other jurisdictions		
District of Columbia	2,200	2
DoDEA <sup>1</sup>	2,300	1

<sup>1</sup> Department of Defense Education Activity (overseas and domestic 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), 2017 Mathematics Assessment.

**Table  
11-B****The Nation's Report Card 2017 State Assessment**

Number of eighth-grade public school students assessed in NAEP mathematics and weighted percentage excluded, by state/jurisdiction: 2017

State/jurisdiction	Number assessed	Weighted percentage excluded
<b>Nation (public)</b>	<b>140,200</b>	<b>2</b>
Alabama	2,300	2
Alaska	2,200	2
Arizona	2,300	1
Arkansas	2,300	2
California	5,900	2
Colorado	3,100	2
Connecticut	2,300	2
Delaware	2,400	2
Florida	5,700	3
Georgia	3,300	2
Hawaii	2,200	2
Idaho	2,400	1
Illinois	3,500	1
Indiana	2,300	2
Iowa	2,500	1
Kansas	2,200	1
Kentucky	3,100	1
Louisiana	2,100	3
Maine	2,200	2
Maryland	3,200	2
Massachusetts	3,100	2
Michigan	3,000	3
Minnesota	2,300	2
Mississippi	2,300	1
Missouri	2,300	2
Montana	2,300	1
Nebraska	2,400	2
Nevada	2,400	2
New Hampshire	2,200	1
New Jersey	2,300	2
New Mexico	2,900	2
New York	2,900	2
North Carolina	4,300	2
North Dakota	2,300	2
Ohio	2,900	2
Oklahoma	2,300	2
Oregon	2,100	1
Pennsylvania	3,000	2
Rhode Island	2,200	2
South Carolina	2,500	1
South Dakota	2,300	3
Tennessee	3,100	2
Texas	7,300	2
Utah	2,300	1
Vermont	2,100	1
Virginia	2,200	2
Washington	2,200	2
West Virginia	2,200	2
Wisconsin	3,100	2
Wyoming	2,500	1
Puerto Rico	3,100	0
Other jurisdictions		
District of Columbia	1,400	2
DoDEA <sup>1</sup>	1,600	1

<sup>1</sup> Department of Defense Education Activity (overseas and domestic 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), 2017 Mathematics Assessment.

## Where to Find More Information

### The NAEP Mathematics Assessment

The latest news about the NAEP 2017 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 *Mathematics Framework for the 2017 National Assessment of Educational Progress*, on which this assessment is based, is available at the National Assessment Governing Board website at <http://www.nagb.gov/content/nagb/assets/documents/publications/frameworks/mathematics/2017-mathematics-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, states, and the nation. 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 Instruments 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 SD and/or ELL students 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: 1-703-605-6794  
Order online at: <http://www.ed.gov/edpubs/>.

**The NAEP State Report Generator was developed for the NAEP 2017 reports by Phillip Leung, Patricia Donahue, Marc Berger, 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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