

Appendix

Technical Procedures for the NAEP 2017 Mathematics Assessment

This appendix provides an overview of some of the technical procedures for the NAEP 2017 mathematics assessment. Information is included about the content of the assessment, school and student samples and participation, inclusion of students with disabilities and/or English language learners, analysis procedures, and interpretation of results. Additional technical information about NAEP assessments is available on the Web at <http://www.nces.ed.gov/nationsreportcard/tdw/>.

Development of the Mathematics Framework

The National Assessment Governing Board oversees the creation of the NAEP frameworks that provide the theoretical basis for the assessment, the direction for what types of items should be included, and how the items should be designed and scored. While the frameworks describe the general content and design of NAEP subject area assessments, the specifications provide the detailed information used by test developers for constructing the assessments. Both the *Mathematics Framework for the 2017 National Assessment of Educational Progress* and *Assessment and Item Specifications for the NAEP 2017 Mathematics Assessment* are available on the Governing Board's website at <http://www.nagb.org/publications/frameworks.htm>.

The frameworks for the main NAEP assessments are periodically updated or changed to reflect current curricula and standards. Whenever changes are made to a subject framework, every effort is made to try to maintain the trend lines that permit the reporting of changes in student achievement over time. If, however, the nature of the changes made to an assessment are such that the results would not be comparable to earlier assessments, a new trend line is started.

The 1990 and 1992 mathematics frameworks reflected a two-dimensional "content by ability" matrix design in which questions were classified according to one of five content areas and one of three types of mathematical abilities (conceptual understanding, procedural knowledge, and problem solving). A third dimension, mathematical power (reasoning, connections, and communication), was introduced in the 1996 framework to form a "content by mathematical ability by mathematical power" matrix design that also guided the development of the 2000 and 2003 assessments.

For the 2005 framework, the dimensions of mathematical ability and power were replaced with the dimension of mathematical complexity, which indicates the level of cognitive demand (low, moderate, or high) of each item. In addition, the proportions of assessment questions by content area were changed for grade 8 to reflect the increasing importance of algebraic concepts, and for grade 12 to correspond more closely to the mathematics that high school students experience in a three-year sequence of courses (the equivalent of one year of geometry and two years of algebra). Because of changes in the framework and in administration procedures for grade 12, results from the 2005 twelfth-grade assessment could not be compared to results from previous years. A new trend line was started for grade 12 in 2005, and new mathematics achievement-level descriptions were applied.

There were no changes to the objectives at grades 4 and 8. The 2009 framework was unchanged for the 2011, 2013, 2015, and 2017 assessments. In 2011 and 2017, only the grade 4 and grade 8 assessments were administered, but in 2013 and 2015 the grade 4, grade 8, and grade 12 assessments were administered.

Each question in the 2017 mathematics assessment was classified based on two criteria: mathematical content and mathematical complexity. By considering these two criteria for each question, the framework ensures that NAEP assesses an appropriate balance of content along with a variety of ways of knowing and doing mathematics.

Content Areas: Although the names of the content areas have changed from one framework to the next, there is a consistent focus across frameworks on collecting information on student performance in five key areas:

- 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

All five content areas apply to each of the three grades assessed. In 2005, the five content areas were collapsed into four for grade 12, combining geometry and measurement because most measurement topics suitable for twelfth-grade students are geometric in nature. Detailed descriptions and specific objectives of each content area are included in the *Mathematics Framework for the 2017 National Assessment of Educational Progress*.

Because of differences in curricular emphasis, the proportion of the assessment devoted to each content area varies by grade (table A-1). For example, there is more emphasis on number properties and operations than on algebra at grade 4. In comparison, the percentage of algebra questions increases at grades 8 and 12, and the percentage of number properties and operations questions decreases.

Table A-1.**Target percentage distribution of questions in NAEP mathematics, by grade and content area: Various years, 1990–2017**

Grade and content area	1990 and 1992	1996, 2000, and 2003	2005, 2007, 2009, 2011, 2013, 2015, and 2017	Content area ¹
Grade 4				
Number sense, properties, and operations	45	40	40	Number properties and operations
Measurement	20	20	20	Measurement
Geometry and spatial sense	15	15	15	Geometry
Data analysis, statistics, and probability	10	10	10	Data analysis, statistics, and probability
Algebra and functions	10	15	15	Algebra
Grade 8				
Number sense, properties, and operations	30	25	20	Number properties and operations
Measurement	15	15	15	Measurement
Geometry and spatial sense	20	20	20	Geometry
Data analysis, statistics, and probability	15	15	15	Data analysis, statistics, and probability
Algebra and functions	20	25	30	Algebra

¹ The content area labels were revised in 2005, but test item content remains comparable to previous years.

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. The data analysis, statistics, and probability content area was called data analysis and probability in the 2005 and 2007 frameworks. Detail may not sum to totals because of rounding. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2017 Mathematics Assessments.

Complexity: The three levels of mathematical complexity—low, moderate, and high—form an ordered description of the demands a question makes on a student's thinking. Questions with a low level of complexity, for example, may ask students to recall a property. At the moderate level, a question may ask the student to make a connection between two properties, and questions at the high level may ask students to analyze the assumptions made in a mathematical model. Using the dimension of complexity to describe each question allows for a balance of mathematical thinking in the design of the assessment.

Content of the 2017 Mathematics Assessment

Each NAEP assessment contains two major components: subject-specific cognitive items that measure the achievement of students in an academic subject; and noncognitive survey questions that are given to students, teachers, and school administrators who participate in the NAEP assessment. NAEP survey questionnaires collect additional information that helps put student achievement results into context and allows meaningful comparison between student groups. NAEP survey questionnaires collect additional information that helps put student achievement results into context and allows meaningful comparison between student groups. Both the cognitive and noncognitive items are developed through a process that includes reviews by external advisory groups and pilot testing. Results from the cognitive items provide information about what students know and can do in a subject area. Information from the background items gives context to NAEP results and/or allows researchers to track factors associated with academic achievement.

The 2017 mathematics assessment was made up of 177 cognitive questions at fourth grade and 179 questions at eighth grade. The number of questions used for reporting results at each grade has remained relatively constant across assessment years. Students spend about one-half of the assessment time responding to multiple-choice questions and one-half responding to two types of constructed-response questions. Short constructed-response questions require students to provide answers to computation problems or to describe solutions in one or two sentences, while extended constructed-response questions require more detailed responses or explanations. Table A-2 shows the approximate percentage distribution of questions administered from 1990 to 2017 by the type of question for each grade level.

Table A-2.
Percentage distribution of administered NAEP mathematics questions, by grade and question type: Various years, 1990–2017

Grade and question type	1990	1992	1996	2000	2003	2005	2007	2009	2011	2013	2015	2017
Grade 4												
Multiple choice	71	61	51	60	63	64	69	68	70	70	70	59
Short constructed response	29	36	41	34	33	32	27	27	26	27	27	38
Extended constructed response	#	3	8	6	4	4	4	5	4	3	3	3
Grade 8												
Multiple choice	78	62	56	63	65	69	74	72	74	75	73	59
Short constructed response	22	34	38	32	29	28	23	23	23	22	24	39
Extended constructed response	#	3	7	6	5	4	4	4	3	3	3	2

Rounds to zero.

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Short constructed-response questions included in the 1990 and 1992 assessments were scored dichotomously (i.e., credit or no credit). Beginning with the 1996 assessment, some of the new short constructed-response questions were scored allowing for partial credit. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2017 Mathematics Assessments.

Cognitive Blocks: The assessment design allowed for broad coverage of the five mathematics content areas and levels of mathematical complexity at each grade, while minimizing the time burden for any one student. This was accomplished through the use of matrix sampling of items in which each student was required to take only a small portion of the entire pool of assessment questions.

The mathematics item pool for each grade was divided up into subsets or "blocks." In 2017, there were a total of 10 cognitive blocks at fourth grade and 10 blocks at eighth grade. Each mathematics assessment form contained two separately timed 25-minute blocks. Each block contained between 13 and 17 questions depending on the balance between multiple-choice and constructed-response questions.

The procedure used for distributing blocks across booklets controlled for position and context effects by balancing the positioning of blocks across booklets and balancing the pairing of blocks within booklets. The procedure also cycled the booklets for administration so that no more than a few students in an assessment section received the same test booklet.

Sample released questions at all three grade levels can be viewed at the NAEP website at <http://nces.ed.gov/nationsreportcard/itmrls/>. Questions released from the 2005, 2007, 2009, 2011, 2013, 2015, and 2017 assessments are classified by content area and level of complexity. Those released from assessments

administered in 2003 and earlier are classified by content area and mathematical ability. Items also may be sorted by difficulty and question type.

NAEP Samples

NAEP assesses representative samples of students rather than the entire population of students. The sample selection process utilizes a probability sample design in which each school and each student has a known probability of being selected (the probabilities are proportionate to the estimated number of students in the grade assessed). Samples are selected according to a multistage design, with students drawn from within sampled public and private schools nationwide.

The 2013–14 Common Core of Data (CCD) file, a comprehensive list of operating public schools in each jurisdiction that is compiled each school year by the National Center for Education Statistics, served as the sampling frame for the selection of public schools in each state/jurisdiction. The sample of students in districts participating in the Trial Urban District Assessment (TUDA) represents an augmentation of the sample of students selected as part of the state samples. All students at more local geographic sampling levels also make up part of the broader samples. For example, the TUDA samples are included as part of the corresponding state samples, and the state samples are included as part of the national sample.

The 2013–14 Private School Survey (PSS), a mail survey of all U.S. private schools carried out biennially by the Census Bureau under contract to NCES, served as the sampling frame for private schools. While state and district results are based on samples of public schools only, the national results are based on the combined samples of public and private schools. Although information about the combined public and private school national samples is provided here for context, performance results in the State Report Generator and the District Report Generator are for public school students only.

Table A-3 shows the target populations and sample sizes in 2017 for the nation and participating states and jurisdictions at grades 4 and 8. Table A-4 shows the same information for participating urban districts for grades 4 and 8.

Because each school that participated in the assessment, and each student assessed, represents only a portion of the larger population of interest, the results are weighted to make appropriate inferences between the student samples and the respective populations from which they are drawn. Sampling weights are adjusted for the disproportionate representation of some groups in the selected sample. This includes oversampling of schools with high concentrations of students from certain racial/ethnic groups and the lower sampling rates of students who attend very small schools.

Table A-3.**Student sample sizes and target populations in NAEP mathematics at grades 4 and 8, by state/jurisdiction: 2017**

State/jurisdiction	Grade 4		Grade 8	
	Sample size	Target population	Sample size	Target population
Nation	152,500	4,060,000	148,100	3,881,000
Public	147,100	3,739,000	143,300	3,572,000
Private	3,000	312,000	3,100	303,000
Alabama	2,200	53,000	2,400	52,000
Alaska	2,300	9,000	2,200	8,000
Arizona	2,300	83,000	2,300	81,000
Arkansas	2,300	38,000	2,400	35,000
California	6,100	437,000	6,100	439,000
Colorado	3,200	67,000	3,200	63,000
Connecticut	2,400	40,000	2,400	41,000
Delaware	2,300	11,000	2,400	10,000
Florida	5,800	206,000	5,900	196,000
Georgia	3,600	133,000	3,300	126,000
Hawaii	2,400	15,000	2,300	13,000
Idaho	2,500	24,000	2,400	23,000
Illinois	3,700	143,000	3,600	145,000
Indiana	2,400	77,000	2,300	74,000
Iowa	2,300	36,000	2,500	38,000
Kansas	2,400	36,000	2,200	33,000
Kentucky	3,200	51,000	3,200	49,000
Louisiana	2,300	53,000	2,200	48,000
Maine	2,200	13,000	2,200	13,000
Maryland	3,400	70,000	3,200	62,000
Massachusetts	3,600	71,000	3,200	69,000
Michigan	3,200	108,000	3,100	106,000
Minnesota	2,500	67,000	2,400	64,000
Mississippi	2,400	39,000	2,300	34,000
Missouri	2,300	68,000	2,400	65,000
Montana	2,400	11,000	2,400	11,000
Nebraska	2,400	23,000	2,400	23,000
Nevada	2,500	37,000	2,400	34,000
New Hampshire	2,300	13,000	2,200	14,000
New Jersey	2,200	97,000	2,300	101,000
New Mexico	2,900	26,000	3,000	24,000
New York	3,100	195,000	3,000	195,000
North Carolina	4,400	117,000	4,400	114,000
North Dakota	2,400	9,000	2,300	8,000
Ohio	3,200	124,000	3,000	129,000
Oklahoma	2,500	53,000	2,300	46,000
Oregon	2,300	43,000	2,200	40,000
Pennsylvania	3,400	131,000	3,100	121,000
Rhode Island	2,400	11,000	2,300	10,000
South Carolina	2,400	58,000	2,500	56,000
South Dakota	2,300	10,000	2,400	10,000
Tennessee	3,200	78,000	3,200	71,000
Texas	7,700	421,000	7,500	371,000
Utah	2,400	50,000	2,300	47,000
Vermont	2,300	6,000	2,200	6,000
Virginia	2,400	97,000	2,300	90,000
Washington	2,400	85,000	2,200	77,000
West Virginia	2,300	20,000	2,200	19,000
Wisconsin	3,300	62,000	3,200	59,000
Wyoming	2,400	8,000	2,500	7,000
Other jurisdictions				
BIE ¹	100	3,000	100	2,000
District of Columbia	2,200	6,000	1,500	4,000
DoDEA ²	2,300	6,000	1,600	4,000
Puerto Rico	—	—	—	—

— Not available.

¹ Bureau of Indian Education.² Department of Defense Education Activity (overseas and domestic schools).

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. The sample size is rounded to the nearest hundred. The target population is rounded to the nearest thousand. Data for BIE and DoDEA schools are counted in the overall national totals, but not in the public school totals. Data for the District of Columbia public schools are counted, along with the states, in the national public school totals. 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), 2017 Mathematics Assessment.

Table A-4.**Student sample sizes and target populations for Trial Urban District Assessment (TUDA) in mathematics at grades 4 and 8, by urban district: 2017**

Urban district	Grade 4		Grade 8	
	Sample size	Target population	Sample size	Target population
Albuquerque	1,200	7,000	1,200	6,000
Atlanta	1,300	4,000	1,000	3,000
Austin	1,200	7,000	1,100	5,000
Baltimore City	1,100	6,000	1,000	5,000
Boston	1,300	4,000	1,000	3,000
Charlotte	1,200	12,000	1,200	11,000
Chicago	1,800	28,000	1,700	24,000
Clark County (NV)	1,800	25,000	1,800	24,000
Cleveland	1,000	3,000	800	3,000
Dallas	1,200	12,000	1,200	10,000
Denver	1,200	7,000	1,100	6,000
Detroit	1,000	3,000	900	3,000
District of Columbia (DCPS)	1,400	4,000	800	2,000
Duval County (FL)	1,100	10,000	1,100	8,000
Fort Worth	1,300	7,000	1,200	6,000
Fresno	1,200	6,000	1,100	5,000
Guilford County (NC)	1,200	6,000	1,200	5,000
Hillsborough County (FL)	1,100	16,000	1,200	16,000
Houston	1,800	17,000	1,800	13,000
Jefferson County (KY)	1,200	8,000	1,100	7,000
Los Angeles	1,800	44,000	1,700	34,000
Miami-Dade	1,800	26,000	1,800	26,000
Milwaukee	1,200	6,000	1,100	5,000
New York City	1,800	72,000	1,700	64,000
Philadelphia	1,200	11,000	1,100	8,000
San Diego	1,100	8,000	1,200	7,000
Shelby County (TN)	1,100	8,000	1,000	7,000

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment.

DCPS = District of Columbia Public Schools. The sample size is rounded to the nearest hundred. The target population is rounded to the nearest thousand.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2017 Mathematics Assessment.

School and Student Participation

National Participation

To ensure unbiased samples, NAEP requires that participation rates be 70 percent or higher to report national results separately for public and private schools. In instances where participation rates meet the 70 percent criteria but fall below 85 percent, a nonresponse bias analysis is conducted; however, results may still be reported.

National school and student participation rates for the 2017 mathematics assessment are presented in table A-5. Student-weighted school participation rates were 97 percent for grade 4 (100 percent for public schools and 61 percent for private schools) and 96 percent for grade 8 (100 percent for public schools and 60 percent for private schools).

State and District Participation

Standards established by the Governing Board require that school participation rates for the original state and district samples need to be at least 85 percent for results to be reported. In 2017, all 52 states and jurisdictions participating in the mathematics assessment at grades 4 and 8 met this participation rate requirement (tables A-6 through A-7). The 27 urban districts participating at grades 4 and 8 also met the criteria for reporting (table A-8).

Table A-5.

National school and student participation rates in NAEP mathematics, by grade and type of school: 2017

Grade and type of school	School participation				Number of schools participating after substitution	Student participation	
	Student-weighted		School-weighted			Student-weighted percent	Number of students assessed
	Percent before substitution	Percent after substitution	Percent before substitution	Percent after substitution			
Grade 4							
Nation	97	98	87	90	7,840	94	149,400
Public	100	100	100	100	7,440	94	144,000
Private	61	73	54	64	300	95	3,000
Grade 8							
Nation	96	97	82	86	6,500	92	144,900
Public	100	100	100	100	6,150	91	140,200
Private	60	71	53	64	300	94	3,100

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. The national totals for schools include Department of Defense Education Activity (overseas and domestic schools) and Bureau of Indian Education schools, which are not included in either the public or private school totals. The national totals for students include students in these schools. Columns of percentages have different denominators. The number of schools is rounded to the nearest ten. The number of students 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 A-6.**Public school and student participation rates in NAEP mathematics at grade 4, by state/jurisdiction: 2017**

State/jurisdiction	School participation			Student participation	
	Student-weighted percent	School-weighted percent	Number of schools participating	Student-weighted percent	Number of students assessed
Nation (public)	100	100	7,440	94	144,000
Alabama	100	100	110	94	2,200
Alaska	99	96	160	92	2,200
Arizona	100	100	120	94	2,300
Arkansas	100	100	110	94	2,300
California	99	99	280	95	6,000
Colorado	100	100	160	92	3,100
Connecticut	99	100	110	93	2,300
Delaware	100	100	90	94	2,300
Florida	100	100	270	94	5,600
Georgia	100	100	150	95	3,600
Hawaii	100	100	110	94	2,300
Idaho	100	100	120	95	2,400
Illinois	100	100	190	94	3,600
Indiana	100	100	110	94	2,400
Iowa	100	100	120	95	2,300
Kansas	100	100	130	95	2,300
Kentucky	100	100	150	95	3,200
Louisiana	99	99	110	95	2,300
Maine	98	99	140	91	2,100
Maryland	100	100	170	94	3,300
Massachusetts	100	100	170	94	3,500
Michigan	100	100	170	94	3,100
Minnesota	100	100	120	94	2,400
Mississippi	100	100	110	94	2,400
Missouri	99	99	120	94	2,300
Montana	100	97	150	94	2,300
Nebraska	99	100	140	95	2,300
Nevada	100	100	110	94	2,400
New Hampshire	100	100	130	92	2,300
New Jersey	99	99	110	93	2,200
New Mexico	100	100	150	94	2,800
New York	100	100	150	88	3,100
North Carolina	100	100	210	93	4,300
North Dakota	98	98	160	94	2,300
Ohio	100	100	180	94	3,100
Oklahoma	100	100	130	95	2,400
Oregon	100	100	120	93	2,200
Pennsylvania	100	100	160	94	3,300
Rhode Island	99	99	110	94	2,400
South Carolina	100	100	110	95	2,400
South Dakota	100	93	140	95	2,300
Tennessee	100	100	150	94	3,200
Texas	99	99	340	95	7,500
Utah	100	100	110	93	2,300
Vermont	100	100	190	95	2,300
Virginia	100	100	110	94	2,300
Washington	100	100	110	93	2,400
West Virginia	100	100	140	94	2,300
Wisconsin	100	100	190	93	3,300
Wyoming	100	100	130	94	2,400
Other jurisdictions					
District of Columbia	99	98	120	92	2,200
DoDEA ¹	98	95	90	95	2,300
Puerto Rico	—	—	—	—	—

— Not available.

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

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. The number of schools is rounded to the nearest ten. The number of students is rounded to the nearest hundred. The school participation rates are student-weighted percentages before substitution. Columns of percentages have different denominators. 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), 2017 Mathematics Assessment.

Table A-7.**Public school and student participation rates in NAEP mathematics at grade 8, by state/jurisdiction: 2017**

State/jurisdiction	School participation			Student participation	
	Student-weighted percent	School-weighted percent	Number of schools participating	Student-weighted percent	Number of students assessed
Nation (public)	100	100	6,150	91	140,200
Alabama	100	100	110	94	2,300
Alaska	100	96	110	90	2,200
Arizona	100	100	110	92	2,300
Arkansas	100	100	110	94	2,300
California	100	100	220	91	5,900
Colorado	100	100	140	91	3,100
Connecticut	100	100	110	92	2,300
Delaware	100	100	50	93	2,400
Florida	100	100	230	92	5,700
Georgia	100	100	120	94	3,300
Hawaii	100	100	60	89	2,200
Idaho	100	100	100	93	2,400
Illinois	99	100	180	94	3,500
Indiana	100	100	100	94	2,300
Iowa	100	100	110	93	2,500
Kansas	100	100	110	93	2,200
Kentucky	100	100	120	93	3,100
Louisiana	96	98	100	93	2,100
Maine	96	99	110	88	2,200
Maryland	100	100	160	92	3,200
Massachusetts	100	100	140	91	3,100
Michigan	99	100	150	92	3,000
Minnesota	100	100	110	90	2,300
Mississippi	100	100	100	93	2,300
Missouri	100	100	120	93	2,300
Montana	100	97	130	92	2,300
Nebraska	100	100	110	92	2,400
Nevada	100	100	90	91	2,400
New Hampshire	100	100	90	87	2,200
New Jersey	100	100	110	90	2,300
New Mexico	100	100	120	93	2,900
New York	95	97	140	83	2,900
North Carolina	100	100	150	92	4,300
North Dakota	98	97	130	93	2,300
Ohio	100	100	180	91	2,900
Oklahoma	100	97	120	92	2,300
Oregon	100	98	110	89	2,100
Pennsylvania	100	100	150	91	3,000
Rhode Island	100	100	60	91	2,200
South Carolina	100	100	110	93	2,500
South Dakota	100	97	120	93	2,300
Tennessee	100	100	140	92	3,100
Texas	100	100	230	93	7,300
Utah	100	100	100	91	2,300
Vermont	100	100	110	93	2,100
Virginia	100	100	100	91	2,200
Washington	99	99	110	88	2,200
West Virginia	97	96	100	93	2,200
Wisconsin	100	100	160	93	3,100
Wyoming	100	100	80	92	2,500
Other jurisdictions					
District of Columbia	100	100	60	86	1,400
DoDEA ¹	97	91	50	94	1,600
Puerto Rico	—	—	—	—	—

— Not available.

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

NOTE: The number of schools is rounded to the nearest ten. The number of students is rounded to the nearest hundred. The school participation rates are student-weighted percentages before substitution. Columns of percentages have different denominators. 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), 2017 Mathematics Assessment.

Table A-8.

Public school and student participation rates for Trial Urban District Assessment (TUDA) in mathematics, by grade and urban district: 2017

Grade and urban district	School participation			Student participation	
	Student-weighted percent	School-weighted percent	Number of schools participating	Student-weighted percent	Number of students assessed
Grade 4					
Albuquerque	100	100	60	93	1,100
Atlanta	100	100	50	95	1,300
Austin	100	100	60	94	1,200
Baltimore City	100	100	70	91	1,100
Boston	100	100	70	94	1,300
Charlotte	100	100	50	94	1,200
Chicago	100	100	90	93	1,800
Clark County (NV)	100	100	80	94	1,700
Cleveland	100	100	80	92	900
Dallas	100	100	50	96	1,100
Denver	100	100	60	91	1,100
Detroit	100	100	60	89	1,000
District of Columbia (DCPS)	100	100	80	91	1,400
Duval County (FL)	100	100	50	93	1,100
Fort Worth	100	100	50	96	1,200
Fresno	100	100	50	93	1,200
Guilford County (NC)	100	100	60	94	1,200
Hillsborough County (FL)	100	100	50	93	1,100
Houston	100	100	80	96	1,700
Jefferson County (KY)	100	100	60	94	1,200
Los Angeles	100	100	80	96	1,800
Miami-Dade	100	100	80	95	1,700
Milwaukee	100	100	80	93	1,100
New York City	100	100	80	93	1,700
Philadelphia	98	99	60	94	1,100
San Diego	100	100	60	94	1,100
Shelby County (TN)	100	100	50	93	1,100
Grade 8					
Albuquerque	100	100	40	91	1,100
Atlanta	100	100	20	92	1,000
Austin	100	100	20	89	1,100
Baltimore City	100	100	70	89	1,000
Boston	100	100	40	91	1,000
Charlotte	100	100	30	93	1,200
Chicago	100	100	90	93	1,600
Clark County (NV)	100	100	60	92	1,700
Cleveland	100	100	70	87	800
Dallas	100	100	40	94	1,100
Denver	100	100	40	89	1,000
Detroit	100	100	50	89	800
District of Columbia (DCPS)	100	100	30	84	700
Duval County (FL)	100	100	30	92	1,100
Fort Worth	100	100	30	94	1,200
Fresno	100	100	20	88	1,100
Guilford County (NC)	100	100	20	87	1,100
Hillsborough County (FL)	100	100	50	92	1,200
Houston	100	100	50	94	1,700
Jefferson County (KY)	100	100	20	91	1,100
Los Angeles	100	100	70	93	1,700
Miami-Dade	100	100	70	93	1,700
Milwaukee	100	100	60	91	1,000
New York City	100	100	80	89	1,600
Philadelphia	98	99	60	91	1,000
San Diego	100	100	30	91	1,100
Shelby County (TN)	100	100	40	91	1,000

— Not available.

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. DCPS = District of Columbia Public Schools. The number of schools is rounded to the nearest ten. The number of students is rounded to the nearest hundred. The school participation rates are student-weighted percentages before substitution.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2017 Mathematics Assessment.

Inclusion of Students With Disabilities and/or English Language Learners

It is important for NAEP to assess as many students selected to participate as possible. Assessing representative samples of students, including students with disabilities (SD) and English language learners (ELL), helps to ensure that NAEP results accurately reflect the educational performance of all students in the target population, and can continue to serve as a meaningful measure of U.S. students' academic achievement over time.

The National Assessment Governing Board, which sets policy for NAEP, explored ways to ensure that NAEP continues to appropriately include as many students as possible and to do so in a consistent manner for all jurisdictions assessed and reported. In March 2010, the Governing Board adopted a new policy, NAEP Testing and Reporting on Students with Disabilities and English Language Learners. This policy was the culmination of work with experts in testing and curriculum, and those who work with exceptional children and students learning to speak English. The policy aims to

- maximize participation of sampled students in NAEP,
- reduce variation in exclusion rates for SD and ELL students across states and districts,
- develop uniform national rules for including students in NAEP, and
- ensure that NAEP is fully representative of SD and ELL students.

The policy defines specific inclusion goals for NAEP samples. At the national, state, and district levels, the goal is to include 95 percent of all students selected for the NAEP samples, and 85 percent of those in the NAEP sample who are identified as SD or ELL.

Students are selected to participate in NAEP based on a sampling procedure designed to yield a sample of students that is representative of students in all schools nationwide and in public schools within each state. First, schools are selected, and then students are sampled from within those schools without regard to disability or English language proficiency. Once students are selected, those previously identified as SD or ELL may be offered accommodations or excluded.

States and jurisdictions vary in their proportions of special-needs students and in their policies on inclusion and the use of accommodations. While identification of rates SD and ELL students in some states, have leveled off in recent years, NAEP inclusion rates have generally remained steady or increased since 2003. This reflects efforts on the part of states and jurisdictions to include all students who can meaningfully participate in the NAEP assessments. The NAEP inclusion policy is an effort to ensure that this trend continues.

Determining whether each jurisdiction has met the NAEP inclusion goals involves looking at three different inclusion rates—an overall inclusion rate, an inclusion rate for SD students, and an inclusion rate for ELL students. Each inclusion rate is calculated as the percentage of sampled students who were included in the assessment (i.e., were not excluded).

Inclusion rate percentages are estimates because they are based on representative samples of students rather than on the entire population of students. As such, the inclusion rates are associated with a margin of error. The margin of error for each jurisdiction's inclusion rate was taken into account when comparing it to the corresponding inclusion goal. For example, if the point estimate of a state's overall inclusion rate was 93 percent and had a margin of error of plus or minus 3 percentage points, the state was considered to have met the 95 percent inclusion goal because the 95 percent goal falls within the margin of error, which ranges from 90 percent to 96 percent. Refer to the Technical Notes for more details about how the margin of error was used in these calculations.

Confidence intervals for state inclusion rates

NAEP endeavors to include as many sampled students as possible in the assessment, including students with disabilities (SD) and English language learners (ELL), and has established specific inclusion goals: 95 percent of all sampled students and 85 percent of sampled students identified as SD or ELL. Inclusion rates were computed for each state/jurisdiction participating in the 2017 assessment and compared to NAEP inclusion goals. Three inclusion percentages were computed for each state/jurisdiction. An overall inclusion percentage represents included students as a percentage of all students sampled within the state/jurisdiction. In addition, separate percentages were computed to report included students as a percentage of the state/jurisdiction sample that was identified as SD (not including students having a Section 504 plan) or ELL.

Inclusion percentages are estimates based on a sample, and each estimate has a measure of uncertainty or margin of error. Confidence intervals quantify this uncertainty due to sampling, resulting in interval estimates of the inclusion percentages. Therefore, confidence intervals for inclusion percentages were used to determine upper and lower confidence bounds around the inclusion point estimates.

When determining whether each state/jurisdiction met the NAEP inclusion goals, the confidence intervals were used, rather than just the point estimates. This means that if the inclusion goal of either 95 percent or 85 percent fell within the corresponding confidence interval, the state/jurisdiction was considered as having met the goal. States/jurisdictions for which the upper bound of the confidence interval was less than 95 percent (or 85 percent) did not meet the inclusion goal.

See the National Assessment Governing Board's policy on NAEP Testing and Reporting on Students with Disabilities and English Language Learners at http://www.nagb.org/content/nagb/assets/documents/policies/naep_testandreport_studentswithdisabilities.pdf.

All of the states/jurisdictions participating in the 2017 mathematics assessment met the 95 percent inclusion goal at both grades 4 and 8. See appendix table A-10 for the inclusion rates as a percentage of all students selected in each state/jurisdiction, and table A-11 for the rates as a percentage of the SD or ELL students.

All of the districts participating in the 2017 mathematics assessment met the 95 percent inclusion goal at both grades 4 and 8. See appendix table A-12 for the inclusion rates as a percentage of all students selected in each urban district/jurisdiction, and table A-13 for the rates as a percentage of the SD or ELL students.

Table A-9.

Percentage of fourth- and eighth-grade public and nonpublic school students identified as students with disabilities (SD) and/or English language learners (ELL) assessed in NAEP mathematics with accommodations, by SD/ELL category and type of accommodation: 2017

Type of accommodation	Grade 4			Grade 8		
	SD and/or ELL	SD	ELL	SD and/or ELL	SD	ELL
Bilingual dictionary	0.9	0.1	0.9	0.9	#	0.9
Braille presentation	—	—	—	—	—	—
Braille response	—	—	—	—	—	—
Breaks during test	3.7	3.4	0.7	2.2	2.1	0.3
Calculator version of the test	1.2	1.2	0.2	3.1	3.1	0.3
Cueing to stay on task	1.5	1.5	0.2	0.8	0.8	0.1
Directions read aloud in English	—	—	—	—	—	—
Directions read aloud in Spanish	—	—	—	—	—	—
Directions translated into Spanish	0.2	#	0.2	0.1	#	0.1
Extended time	10.5	7.6	3.9	9.9	8.3	2.3
Hearing impaired version of test	#	#	#	#	#	#
High contrast for visually impaired	#	#	#	#	#	#
Large-print version of test	—	—	—	—	—	—
Low mobility version of test	#	#	#	#	#	#
Magnification equipment	0.1	0.1	#	0.1	0.1	#
Must be tested in separate session	2.3	2.1	0.4	1.6	1.6	0.2
One-on-one	—	—	—	—	—	—
Other	0.3	0.2	0.1	0.2	0.2	#
Preferential seating	0.9	0.9	0.1	0.8	0.8	0.1
Read aloud (all)	—	—	—	—	—	—
Read aloud (occasional)	—	—	—	—	—	—
Read aloud in Spanish	—	—	—	—	—	—
Responds orally to scribe	0.2	0.2	#	0.1	0.1	#
School staff administers/Aide present	0.3	0.3	#	0.2	0.2	#
Sign language presentation	#	#	#	#	#	#
Sign language response	#	#	#	#	#	#
Small group	—	—	—	—	—	—
Spanish-English booklet	0.3	0.1	0.3	0.3	#	0.3
Special equipment	0.1	0.1	#	0.1	0.1	#
Template	#	#	#	#	#	#

Rounds to zero.

— Not available.

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Students identified as both SD and ELL were counted only once under the combined SD and/or ELL category, but were counted separately under the SD and ELL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973.

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 A-10.

Inclusion rate and confidence interval in NAEP mathematics for fourth- and eighth-grade public school students, as a percentage of all students, by state/jurisdiction: 2017

State/jurisdiction	Grade 4				Grade 8			
	Inclusion rate	95% confidence interval		Inclusion rate	95% confidence interval			
		Lower	Upper		Lower	Upper		
Nation (public)	98 ¹	97.8	98.1	98 ¹	97.9	98.2		
Alabama	99 ¹	98.4	99.3	98 ¹	97.6	98.8		
Alaska	99 ¹	98.4	99.4	98 ¹	97.8	98.7		
Arizona	98 ¹	97.4	98.9	99 ¹	98.0	99.0		
Arkansas	98 ¹	97.9	98.9	98 ¹	97.2	98.4		
California	97 ¹	96.6	98.0	98 ¹	97.7	98.7		
Colorado	99 ¹	97.8	99.0	98 ¹	97.5	98.7		
Connecticut	98 ¹	97.3	98.5	98 ¹	96.7	98.5		
Delaware	98 ¹	97.7	98.9	98 ¹	97.0	98.2		
Florida	97 ¹	96.1	97.7	97 ¹	96.4	97.9		
Georgia	98 ¹	97.7	98.8	98 ¹	97.7	98.7		
Hawaii	97 ¹	96.5	98.0	98 ¹	97.1	98.4		
Idaho	99 ¹	97.8	99.2	99 ¹	98.3	99.3		
Illinois	98 ¹	97.8	98.9	99 ¹	97.9	98.9		
Indiana	99 ¹	98.0	98.9	98 ¹	97.6	99.0		
Iowa	98 ¹	97.5	98.7	99 ¹	98.3	99.1		
Kansas	99 ¹	97.9	98.9	99 ¹	98.0	99.1		
Kentucky	98 ¹	97.9	98.9	99 ¹	98.2	99.1		
Louisiana	98 ¹	97.0	98.5	97 ¹	96.5	97.9		
Maine	99 ¹	98.0	99.1	98 ¹	97.4	98.6		
Maryland	99 ¹	98.0	99.1	98 ¹	97.7	98.7		
Massachusetts	98 ¹	96.9	98.4	98 ¹	97.0	98.4		
Michigan	97 ¹	96.2	98.0	97 ¹	96.5	98.2		
Minnesota	98 ¹	97.6	98.8	98 ¹	96.7	98.2		
Mississippi	99 ¹	98.4	99.3	99 ¹	98.5	99.3		
Missouri	99 ¹	98.1	99.1	98 ¹	98.0	98.9		
Montana	99 ¹	98.4	99.2	99 ¹	98.2	99.1		
Nebraska	98 ¹	97.7	98.8	98 ¹	97.1	98.3		
Nevada	99 ¹	97.9	99.0	98 ¹	97.6	98.6		
New Hampshire	99 ¹	98.3	99.3	99 ¹	98.2	99.1		
New Jersey	98 ¹	97.4	98.8	98 ¹	97.5	98.9		
New Mexico	98 ¹	97.6	98.8	98 ¹	97.3	98.5		
New York	98 ¹	97.8	98.9	98 ¹	96.9	98.4		
North Carolina	98 ¹	97.6	98.8	98 ¹	97.3	98.4		
North Dakota	99 ¹	98.0	99.0	98 ¹	97.8	98.8		
Ohio	98 ¹	97.5	98.6	98 ¹	96.9	98.3		
Oklahoma	98 ¹	97.2	98.5	98 ¹	97.6	98.9		
Oregon	98 ¹	97.6	98.8	99 ¹	97.9	99.0		
Pennsylvania	98 ¹	97.1	98.4	98 ¹	97.0	98.3		
Rhode Island	98 ¹	97.1	98.3	98 ¹	97.2	98.3		
South Carolina	99 ¹	98.1	99.0	99 ¹	98.1	99.0		
South Dakota	99 ¹	98.0	99.1	97 ¹	96.7	98.1		
Tennessee	98 ¹	97.3	98.4	98 ¹	97.0	98.2		
Texas	97 ¹	96.1	97.6	98 ¹	97.1	98.2		
Utah	98 ¹	97.4	98.9	99 ¹	98.1	99.2		
Vermont	99 ¹	98.3	99.2	99 ¹	98.3	99.2		
Virginia	98 ¹	97.2	98.5	98 ¹	97.1	98.3		
Washington	98 ¹	96.6	98.4	98 ¹	97.6	98.9		
West Virginia	99 ¹	97.9	99.0	98 ¹	97.1	98.4		
Wisconsin	98 ¹	97.8	98.9	98 ¹	97.9	98.7		
Wyoming	99 ¹	98.2	99.0	99 ¹	98.5	99.3		
Other jurisdictions								
District of Columbia	98 ¹	97.4	98.6	98 ¹	97.0	98.5		
DoDEA ²	99 ¹	98.3	99.2	99 ¹	98.3	99.1		
Puerto Rico	—	—	—	—	—	—		

— Not available.

¹ The state/jurisdiction's inclusion rate is higher than or not significantly different from the National Assessment Governing Board goal of 95 percent.

² Department of Defense Education Activity (overseas and domestic schools).

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment.

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 A-11.

Inclusion rate and standard error (SE) in NAEP mathematics for fourth- and eighth-grade public school students with disabilities (SD) and English language learners (ELL), as a percentage of identified SD or ELL students, by state/jurisdiction: 2017

State/jurisdiction	Percentage of identified SD or ELL students									
	Grade 4					Grade 8				
	SD		ELL			SD		ELL		
Inclusion rate	SE	Inclusion rate	SE	Inclusion rate	SE	Inclusion rate	SE	Inclusion rate	SE	
Nation (public)	89 ¹	0.5	93 ¹	0.4	89 ¹	0.4	90 ¹	0.5		
Alabama	92 ¹	1.7	96 ¹	2.3	86 ¹	2.4	‡	‡		
Alaska	94 ¹	1.5	98 ¹	0.7	90 ¹	1.5	95 ¹	1.4		
Arizona	90 ¹	2.8	94 ¹	1.5	90 ¹	2.1	91 ¹	3.2		
Arkansas	89 ¹	1.9	97 ¹	1.0	85 ¹	2.3	93 ¹	1.7		
California	83 ¹	2.5	95 ¹	0.9	91 ¹	1.5	92 ¹	1.3		
Colorado	91 ¹	1.8	94 ¹	1.3	86 ¹	2.1	93 ¹	1.7		
Connecticut	89 ¹	1.8	90 ¹	2.3	91 ¹	1.7	74	6.0		
Delaware	94 ¹	1.3	93 ¹	1.8	90 ¹	1.7	76 ¹	5.1		
Florida	87 ¹	2.2	85 ¹	2.0	86 ¹	2.4	85 ¹	3.0		
Georgia	90 ¹	1.9	89 ¹	2.8	87 ¹	2.0	87 ¹	4.7		
Hawaii	84 ¹	2.8	76	3.6	84 ¹	2.4	85 ¹	3.2		
Idaho	91 ¹	2.0	92 ¹	3.2	92 ¹	2.0	86 ¹	4.0		
Illinois	93 ¹	1.6	92 ¹	1.4	92 ¹	1.5	86 ¹	3.0		
Indiana	93 ¹	1.5	92 ¹	2.5	90 ¹	2.0	96 ¹	1.7		
Iowa	90 ¹	1.7	90 ¹	2.8	92 ¹	1.6	92 ¹	3.0		
Kansas	92 ¹	1.5	96 ¹	1.0	92 ¹	1.7	96 ¹	1.3		
Kentucky	92 ¹	1.4	86 ¹	3.8	90 ¹	1.7	89 ¹	5.2		
Louisiana	86 ¹	2.8	92 ¹	2.0	78	3.0	‡	‡		
Maine	94 ¹	1.3	91 ¹	3.0	92 ¹	1.3	‡	‡		
Maryland	93 ¹	1.7	94 ¹	1.6	90 ¹	2.1	87 ¹	2.7		
Massachusetts	89 ¹	1.9	94 ¹	1.6	90 ¹	1.7	87 ¹	2.8		
Michigan	81 ¹	2.7	94 ¹	2.7	85 ¹	2.4	86 ¹	3.2		
Minnesota	90 ¹	1.8	93 ¹	1.9	85 ¹	2.0	91 ¹	2.3		
Mississippi	93 ¹	1.5	‡	‡	92 ¹	1.8	‡	‡		
Missouri	92 ¹	1.6	93 ¹	2.4	89 ¹	1.8	‡	‡		
Montana	91 ¹	1.5	99 ¹	1.1	91 ¹	1.6	‡	‡		
Nebraska	93 ¹	1.4	94 ¹	1.5	90 ¹	1.8	77 ¹	5.4		
Nevada	91 ¹	2.0	96 ¹	0.8	88 ¹	2.1	94 ¹	1.0		
New Hampshire	95 ¹	1.2	91 ¹	3.9	94 ¹	1.5	‡	‡		
New Jersey	95 ¹	1.4	79 ¹	4.8	94 ¹	1.6	78 ¹	5.0		
New Mexico	92 ¹	1.4	95 ¹	1.3	90 ¹	1.5	93 ¹	1.6		
New York	94 ¹	1.5	91 ¹	1.5	95 ¹	1.1	80 ¹	3.7		
North Carolina	91 ¹	1.8	89 ¹	2.5	88 ¹	2.0	86 ¹	3.9		
North Dakota	91 ¹	1.5	‡	‡	90 ¹	1.6	‡	‡		
Ohio	88 ¹	1.7	95 ¹	2.0	86 ¹	2.1	87 ¹	6.1		
Oklahoma	90 ¹	1.6	96 ¹	1.4	92 ¹	1.7	94 ¹	2.4		
Oregon	91 ¹	1.9	96 ¹	1.1	90 ¹	1.8	97 ¹	1.2		
Pennsylvania	90 ¹	1.7	88 ¹	3.6	88 ¹	1.9	92 ¹	2.5		
Rhode Island	93 ¹	1.7	83 ¹	2.9	89 ¹	1.6	87 ¹	2.6		
South Carolina	93 ¹	1.3	94 ¹	1.6	91 ¹	1.5	94 ¹	1.4		
South Dakota	92 ¹	1.4	‡	‡	86 ¹	2.2	70	5.7		
Tennessee	88 ¹	1.9	89 ¹	2.4	85 ¹	2.2	86 ¹	4.3		
Texas	79	2.9	95 ¹	0.8	81 ¹	2.2	96 ¹	0.9		
Utah	91 ¹	2.2	93 ¹	1.6	91 ¹	2.2	94 ¹	1.9		
Vermont	94 ¹	1.2	‡	‡	94 ¹	1.2	‡	‡		
Virginia	88 ¹	2.3	92 ¹	1.8	88 ¹	2.1	85 ¹	3.0		
Washington	84 ¹	2.8	95 ¹	1.8	90 ¹	2.0	94 ¹	2.4		
West Virginia	94 ¹	1.2	‡	‡	86 ¹	2.0	‡	‡		
Wisconsin	90 ¹	1.8	95 ¹	1.3	89 ¹	1.6	95 ¹	1.7		
Wyoming	92 ¹	1.3	90 ¹	3.3	93 ¹	1.3	‡	‡		
Other jurisdictions										
District of Columbia	92 ¹	1.5	89 ¹	2.6	95 ¹	1.3	81 ¹	4.1		
DoDEA ²	95 ¹	1.6	92 ¹	1.6	92 ¹	1.9	87 ¹	4.2		
Puerto Rico	—	‡	—	‡	—	‡	—	‡		

— Not available.

‡ Not applicable. Standard error estimate cannot be accurately determined.

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

¹ The state/jurisdiction's inclusion rate is higher than or not significantly different from the National Assessment Governing Board goal of 85 percent.

² Department of Defense Education Activity (overseas and domestic schools).

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. SD includes students identified as having an Individualized Education Program but excludes other students protected under Section 504 of the Rehabilitation Act of 1973. In Puerto Rico, the English language learner (ELL) category is for the Spanish language learner (SLL).

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 A-12.

Inclusion rate and confidence interval in NAEP mathematics for fourth- and eighth-grade public school students, as a percentage of all students, by urban district/jurisdiction: 2017

Urban district/jurisdiction	Grade 4				Grade 8			
	Inclusion rate	95% confidence interval		Inclusion rate	95% confidence interval			
		Lower	Upper		Lower	Upper		
Nation (public)	98 ²	97.8	98.1	98 ²	97.9	98.2		
Large city ¹ (public)	98 ²	97.3	97.9	97 ²	96.9	97.5		
Albuquerque	99 ²	97.4	99.2	98 ²	97.0	98.7		
Atlanta	99 ²	98.3	99.4	99 ²	98.2	99.5		
Austin	97 ²	95.9	98.0	98 ²	96.7	98.5		
Baltimore City	98 ²	96.7	98.8	98 ²	96.6	98.6		
Boston	97 ²	95.3	97.6	95 ²	93.8	96.3		
Charlotte	98 ²	96.6	98.4	98 ²	97.1	98.7		
Chicago	97 ²	95.9	98.3	98 ²	97.0	99.1		
Clark County (NV)	99 ²	97.7	99.0	98 ²	97.2	98.4		
Cleveland	94 ²	93.1	95.6	94 ²	92.9	95.6		
Dallas	96 ²	94.4	97.3	97 ²	95.9	98.2		
Denver	97 ²	96.4	98.2	97 ²	96.1	97.8		
Detroit	95 ²	94.0	96.4	94 ²	92.1	95.1		
District of Columbia (DCPS)	97 ²	96.4	98.1	97 ²	95.1	97.6		
Duval County (FL)	97 ²	95.0	98.0	97 ²	96.3	97.9		
Fort Worth	96 ²	94.5	97.6	98 ²	97.4	98.8		
Fresno	99 ²	98.3	99.6	98 ²	97.0	98.6		
Guilford County (NC)	98 ²	97.2	98.8	99 ²	97.9	99.0		
Hillsborough County (FL)	98 ²	96.6	98.7	98 ²	96.6	98.4		
Houston	98 ²	96.8	98.2	96 ²	95.4	97.3		
Jefferson County (KY)	98 ²	96.7	98.3	99 ²	97.8	99.3		
Los Angeles	98 ²	96.6	98.4	97 ²	95.9	97.5		
Miami-Dade	96 ²	94.8	97.2	97 ²	95.7	97.5		
Milwaukee	97 ²	95.9	98.0	96 ²	94.4	96.9		
New York City	98 ²	96.9	98.8	98 ²	96.2	98.4		
Philadelphia	95 ²	93.6	96.6	95 ²	93.3	96.4		
San Diego	98 ²	96.8	98.4	98 ²	97.2	98.8		
Shelby County (TN)	96 ²	95.1	97.1	98 ²	96.4	98.6		

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

² The urban district/jurisdiction's inclusion rate is higher than or not significantly different from the National Assessment Governing Board goal of 95 percent.

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment.

DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2017 Mathematics Assessment.

Table A-13.

Inclusion rate and standard error (SE) in NAEP mathematics for fourth- and eighth-grade public school students with disabilities (SD) and English language learners (ELL), as a percentage of identified SD and ELL students, by urban district/jurisdiction: 2017

Urban district/jurisdiction	Percentage of identified SD or ELL students									
	Grade 4					Grade 8				
	SD		ELL			SD		ELL		
	Inclusion rate	SE	Inclusion rate	SE	Inclusion rate	SE	Inclusion rate	SE	Inclusion rate	SE
Nation (public)	89 ²	0.5	93 ²	0.4	89 ²	0.4	90 ²	0.5		
Large city ¹ (public)	89 ²	0.9	94 ²	0.5	87 ²	0.6	89 ²	0.9		
Albuquerque	94 ²	2.3	96 ²	1.3	91 ²	1.9	95 ²	1.9		
Atlanta	92 ²	2.5	‡	†	92 ²	2.5	‡	†		
Austin	85 ²	3.1	94 ²	1.3	88 ²	2.6	93 ²	1.7		
Baltimore City	91 ²	2.8	92 ²	2.7	91 ²	2.1	‡	†		
Boston	90 ²	1.8	94 ²	1.1	80 ²	2.7	91 ²	1.6		
Charlotte	89 ²	3.1	85 ²	3.7	94 ²	2.1	83 ²	3.9		
Chicago	87 ²	3.0	91 ²	2.1	91 ²	2.9	90 ²	2.5		
Clark County (NV)	90 ²	2.6	96 ²	1.0	86 ²	2.6	93 ²	1.3		
Cleveland	80 ²	2.7	82 ²	3.0	80 ²	2.8	88 ²	2.8		
Dallas	75	5.6	95 ²	1.0	73	4.8	98 ²	0.6		
Denver	89 ²	2.8	95 ²	1.0	80 ²	3.3	94 ²	1.1		
Detroit	72	3.8	96 ²	1.2	71	3.7	92 ²	1.9		
District of Columbia (DCPS)	89 ²	2.1	87 ²	3.2	91 ²	2.3	77 ²	5.0		
Duval County (FL)	84 ²	3.9	84 ²	3.8	84 ²	2.8	‡	†		
Fort Worth	77 ²	4.8	97 ²	1.1	82 ²	3.4	98 ²	0.9		
Fresno	93 ²	2.5	98 ²	0.8	84 ²	3.3	94 ²	1.6		
Guilford County (NC)	88 ²	2.6	98 ²	1.7	92 ²	1.6	‡	†		
Hillsborough County (FL)	90 ²	3.1	93 ²	2.1	88 ²	2.3	93 ²	2.5		
Houston	71	4.2	98 ²	0.6	73	4.0	93 ²	1.2		
Jefferson County (KY)	88 ²	2.6	89 ²	2.8	86 ²	3.6	‡	†		
Los Angeles	89 ²	2.5	94 ²	1.3	88 ²	2.5	82 ²	2.4		
Miami-Dade	89 ²	3.2	83 ²	2.6	87 ²	2.7	84 ²	2.4		
Milwaukee	89 ²	2.0	92 ²	1.9	84 ²	2.5	93 ²	2.4		
New York City	96 ²	1.7	91 ²	1.8	95 ²	1.6	88 ²	2.8		
Philadelphia	78	3.6	89 ²	2.2	80 ²	3.4	84 ²	3.7		
San Diego	89 ²	2.4	96 ²	1.0	90 ²	2.4	91 ²	1.9		
Shelby County (TN)	72	3.7	86 ²	3.8	87 ²	3.5	‡	†		

† Not applicable. Standard error estimate cannot be accurately determined.

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

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

² The urban district/jurisdiction's inclusion rate is higher than or not significantly different from the National Assessment Governing Board goal of 85 percent.

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment.

DCPS = District of Columbia Public Schools. SD includes students identified as having an Individualized Education Program but excludes other students protected under Section 504 of the Rehabilitation Act of 1973.

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 A-14.

Percentage of fourth- and eighth-grade public and nonpublic school students identified as students with disabilities (SD) and/or English language learners (ELL) excluded and assessed in NAEP mathematics when accommodations were not permitted: 1992 and 1996

Grade and SD/ELL category	1992	1996
Grade 4		
SD and/or ELL		
Identified	9	14
Excluded	6	6
Assessed	3	8
SD		
Identified	7	11
Excluded	4	5
Assessed	3	6
ELL		
Identified	3	3
Excluded	2	1
Assessed	1	2
Grade 8		
SD and/or ELL		
Identified	9	11
Excluded	6	4
Assessed	4	6
SD		
Identified	7	9
Excluded	4	4
Assessed	3	5
ELL		
Identified	2	3
Excluded	2	1
Assessed	1	2

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Students identified as both SD and ELL were counted only once under the combined SD and/or ELL category, but were counted separately under the SD and ELL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1996 Mathematics Assessments.

Accommodations

Prior to 1996, no testing accommodations were provided to students taking the NAEP mathematics assessment, resulting in the exclusion of students who could not be assessed without them. As the number of identified students with disabilities and English language learners increased over the years, the exclusion of those needing accommodations to participate in NAEP threatened the stability of trend lines (excluding more students in one assessment year than in another might lead to apparent rather than real differences), and threatened to compromise NAEP samples as optimally representative of target populations. Therefore, administration procedures allowing for many of the same testing accommodations provided on state and district assessments (e.g., extra testing time or individual rather than group administration) were introduced in 1996 for national NAEP mathematics assessments and in 2000 for NAEP state assessments.

The percentages of SD/ELL students assessed with the available accommodations in 2017 are presented in table A-15. Students assessed with accommodations typically received some combination of accommodations. In contrast to assessment years prior to 2009 in which students were only counted once in the category reflecting the primary accommodation provided, students are counted in the categories for each accommodation they received in 2017. For example, students assessed in small groups (as compared with standard NAEP sessions of about 30 students) were also usually given extended time and are included in counts for both groups in table A-15.

Since providing accommodations represented a change in testing conditions that could potentially affect the measurement of changes over time, split national samples of students were assessed in mathematics in 1996 and 2000, and split state samples were assessed in 2000. In each of these years, one sample permitted accommodations, and the other did not. This eased the transition to single samples in which accommodations were permitted beginning in 2003 while maintaining trends back to 1990.

Table A-15.

Percentage of fourth- and eighth-grade public and nonpublic school students identified as students with disabilities (SD) and/or English language learners (ELL) excluded and assessed in NAEP mathematics when accommodations were permitted: Various years, 1996–2017

Grade and SD/ELL category	1996	2000	2003	2005	2007	2009	2011	2013	2015	2017
Grade 4										
SD and/or ELL										
Identified	15	18	21	21	21	21	22	22	23	24
Excluded	4	4	4	3	3	2	2	1	2	2
Assessed	11	14	17	18	19	19	20	20	22	22
Without accommodations	7	9	9	9	9	8	8	7	8	10
With accommodations	5	5	8	9	10	10	12	13	14	12
SD										
Identified	10	12	13	13	13	13	13	13	14	14
Excluded	3	3	3	2	2	2	2	1	1	1
Assessed	7	9	10	10	10	11	11	12	13	12
Without accommodations	4	5	4	3	3	3	2	2	2	3
With accommodations	4	4	6	7	7	8	8	10	10	9
ELL										
Identified	6	7	10	10	10	10	11	10	11	11
Excluded	1	1	1	1	1	1	#	#	1	1
Assessed	5	6	8	8	9	9	10	10	10	11
Without accommodations	3	4	6	6	6	6	6	5	6	6
With accommodations	2	1	2	2	3	3	4	5	5	4
Grade 8										
SD and/or ELL										
Identified	12	13	17	17	17	17	17	16	18	19
Excluded	3	4	3	3	4	3	2	1	2	2
Assessed	8	10	14	14	13	14	14	15	16	17
Without accommodations	6	7	7	6	6	5	4	3	4	5
With accommodations	3	3	6	8	7	9	10	12	12	12
SD										
Identified	9	10	13	12	12	12	12	12	13	13
Excluded	3	3	3	3	3	3	2	1	1	1
Assessed	6	7	10	10	8	9	10	11	12	12
Without accommodations	4	5	4	3	2	2	2	1	1	2
With accommodations	2	2	6	7	6	8	8	10	10	10
ELL										
Identified	3	4	6	6	6	5	6	5	6	7
Excluded	1	1	1	1	1	#	#	#	#	1
Assessed	2	3	5	5	5	5	5	5	6	6
Without accommodations	2	2	4	4	4	3	3	2	3	3
With accommodations	#	1	1	1	2	2	2	3	3	3

Rounds to zero.

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Students identified as both SD and ELL were counted only once under the combined SD and/or ELL category, but were counted separately under the SD and ELL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1996–2017 Mathematics Assessments.

Exclusion Rates

Even with the availability of accommodations, some students are excluded from the NAEP assessments by their schools. The decision to exclude any student is made by school staff, who, using NAEP guidelines and each student's Individualized Education Program (IEP), decide whether the student can meaningfully be assessed.

In 2013, the method used by school staff to determine whether or not a student should be excluded from the NAEP assessment was revised. Previously, a student who required an accommodation specified in their IEP that was not allowed by NAEP was excluded. Beginning in 2013, SD students could be excluded only if they took an alternate assessment with alternate achievement standards, and ELL students could be excluded only if they had been enrolled in U.S. schools for less than one year. All other students were encouraged to take the assessment, even if their accommodation was not allowed by NAEP. Schools, students, or parents could, however, refuse to allow such a student to be assessed. For weighting and reporting purposes, these refusals were counted as exclusions.

Jurisdictions vary in their proportions of SD and/or ELL students. These variations, as well as differences in policies and practices regarding the identification and inclusion of SD and/or ELL students, lead to differences in exclusion and accommodation rates. These differences should be considered when comparing student performance over time and across jurisdictions. While the effect of exclusion is not precisely known, the validity of comparisons of performance results could be affected if exclusion rates are comparatively high or vary widely over time.

National Exclusion Rates (public and nonpublic school students): The percentage of SD and/or ELL students excluded and assessed with and without accommodations as a percentage of students identified are provided in table A-16. (Note that the denominator for these percentages includes assessed students plus excluded students; it does not include sampled students who were absent or refused to participate).

State Exclusion Rates (public school students only): The states/jurisdictions that participated in the 1992, 1996, and 2000 mathematics assessments at grade 4 when accommodations were not permitted are provided in table A-17. The states/jurisdictions that participated in the 2000, 2003, 2005, 2007, 2009, 2011, 2013, 2015, and 2017 mathematics assessments at grade 4 when accommodations were permitted are provided in table A-18.

The states/jurisdictions that participated in the 1990, 1992, 1996, and 2000 mathematics assessments at grade 8 when accommodations were not permitted are provided in table A-19. The states/jurisdictions that participated in the 2000, 2003, 2005, 2007, 2009, 2011, 2013, 2015, and 2017 mathematics assessments at grade 8 when accommodations were permitted are provided in table A-20.

Rates by state are reported separately for SD and ELL students at each grade in tables A-21 through A-28. Rates are also reported as the percentage of SD and/or ELL students identified in each state in tables A-29 through A-30.

District Exclusion Rates (public school students only): District-level results in mathematics are only available based on administrations in which accommodations were permitted. Among the 27 urban districts that participated in the 2017 mathematics assessment, the percentage of fourth-graders identified as SD and/or ELL are provided in table A-31. The percentage of eighth-graders identified as SD and/or ELL are provided in table A-32.

Table A-16.

Percentage of fourth- and eighth-grade public and nonpublic school students identified as students with disabilities (SD) and/or English language learners (ELL) excluded and assessed in NAEP mathematics, as a percentage of identified SD and/or ELL students, by grade and SD/ELL category: 2017

Grade and SD/ELL category	Percentage of identified SD and/or ELL students			
	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Grade 4				
SD and/or ELL	8	92	41	51
SD	10	90	25	65
ELL	7	93	56	38
Grade 8				
SD and/or ELL	10	90	29	61
SD	10	90	18	72
ELL	10	90	51	40

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Students identified as both SD and ELL were counted only once under the combined SD and/or ELL category, but were counted separately under the SD and ELL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding.

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 A-17.

Percentage of fourth-grade public school students identified as students with disabilities and/or English language learners excluded and assessed in NAEP mathematics when accommodations were not permitted, by state/jurisdiction: 1992, 1996, and 2000

State/jurisdiction	1992			1996			2000		
	Identified	Excluded	Assessed	Identified	Excluded	Assessed	Identified	Excluded	Assessed
Nation (public)	10	7	4	16	6	9	16	7	9
Alabama	10	5	6	12	6	5	13	6	7
Alaska	—	—	—	20	4	16	—	—	—
Arizona	15	5	10	21	12	9	25	12	13
Arkansas	12	5	6	10	7	3	14	7	7
California	28	12	16	33	16	17	33	9	24
Colorado	10	5	5	15	8	7	—	—	—
Connecticut	14	7	7	16	8	8	15	10	5
Delaware	12	5	6	14	7	7	—	—	—
Florida	17	8	8	19	10	9	—	—	—
Georgia	10	5	4	13	7	6	11	7	4
Hawaii	13	6	8	14	6	9	19	10	9
Idaho	9	3	6	—	—	—	16	6	10
Illinois	—	—	—	—	—	—	17	10	6
Indiana	7	3	4	11	5	6	11	7	5
Iowa	9	3	6	13	6	7	15	10	5
Kansas	—	—	—	—	—	—	16	7	9
Kentucky	8	3	5	10	6	4	12	8	3
Louisiana	8	4	4	14	8	7	16	8	8
Maine	14	6	8	15	8	7	16	10	6
Maryland	11	4	7	14	8	7	12	9	4
Massachusetts	18	7	11	18	9	9	19	10	9
Michigan	7	5	2	11	6	5	11	8	3
Minnesota	9	3	6	14	6	8	16	6	10
Mississippi	7	5	2	8	6	2	6	4	2
Missouri	12	4	7	14	5	9	15	10	6
Montana	—	—	—	10	5	5	12	5	7
Nebraska	13	4	8	15	5	10	18	8	10
Nevada	—	—	—	16	9	8	20	10	9
New Hampshire	12	4	8	—	—	—	—	—	—
New Jersey	11	6	6	11	6	5	—	—	—
New Mexico	15	7	8	22	12	10	31	12	19
New York	12	5	6	15	8	7	16	12	4
North Carolina	12	4	8	14	7	7	16	13	3
North Dakota	9	2	7	11	4	7	12	6	6
Ohio	10	6	4	—	—	—	12	10	2
Oklahoma	13	7	6	—	—	—	20	10	10
Oregon	—	—	—	19	9	10	18	8	11
Pennsylvania	9	4	5	9	5	4	—	—	—
Rhode Island	15	6	10	18	6	12	23	12	11
South Carolina	10	5	5	12	6	7	17	7	10
Tennessee	12	4	8	13	6	6	11	4	7
Texas	17	8	9	24	10	14	25	15	10
Utah	10	4	6	13	6	7	14	7	7
Vermont	—	—	—	14	6	8	15	11	5
Virginia	11	5	6	14	7	7	16	11	5
Washington	—	—	—	13	5	8	—	—	—
West Virginia	9	4	4	13	8	5	13	10	3
Wisconsin	11	5	5	12	8	4	19	12	8
Wyoming	10	4	7	13	4	9	15	6	9
Other jurisdictions									
District of Columbia	11	9	2	14	11	3	19	9	10
DoDEA ¹	—	—	—	9	4	5	11	5	6

— Not available.

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

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. South Dakota did not participate in NAEP mathematics assessments from 1992 to 2000. 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), 1992, 1996, and 2000 Mathematics Assessments.

Table A-18.

Percentage of fourth-grade public school students identified as students with disabilities and/or English language learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17

State/jurisdiction	2000					2003				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	19	4	15	10	5	22	4	18	10	8
Alabama	13	3	10	7	3	12	2	10	8	2
Alaska	—	—	—	—	—	31	1	30	20	10
Arizona	25	4	21	12	9	27	5	23	18	5
Arkansas	14	4	10	6	4	17	2	14	7	8
California	33	6	27	19	8	38	3	35	31	4
Colorado	—	—	—	—	—	20	2	17	7	11
Connecticut	14	5	10	5	4	16	4	12	5	8
Delaware	—	—	—	—	—	18	7	11	4	7
Florida	—	—	—	—	—	26	3	23	8	15
Georgia	11	3	8	4	4	16	2	14	6	7
Hawaii	19	9	11	8	3	17	3	14	5	8
Idaho	16	2	13	7	7	18	2	16	9	7
Illinois	17	3	14	5	9	23	4	18	7	11
Indiana	11	2	9	3	6	17	2	14	8	7
Iowa	15	2	12	5	7	18	3	15	4	11
Kansas	16	3	13	9	4	16	2	14	3	11
Kentucky	12	3	9	4	5	14	3	11	5	7
Louisiana	16	3	13	2	11	22	3	19	3	16
Maine	16	5	12	5	7	18	3	15	4	11
Maryland	12	2	10	4	6	16	4	12	6	6
Massachusetts	19	3	17	7	10	22	3	19	4	15
Michigan	11	3	8	3	4	15	4	11	5	6
Minnesota	16	2	14	7	7	18	3	16	8	7
Mississippi	6	3	3	1	2	10	5	5	4	1
Missouri	15	3	13	5	8	17	4	13	4	10
Montana	12	2	11	5	6	16	2	14	7	7
Nebraska	18	3	15	10	4	20	3	17	9	9
Nevada	20	7	13	8	5	26	4	22	14	8
New Hampshire	—	—	—	—	—	20	3	17	5	12
New Jersey	—	—	—	—	—	18	2	16	1	14
New Mexico	31	6	26	16	10	40	4	36	22	15
New York	16	5	11	2	9	19	5	14	2	11
North Carolina	16	5	11	3	8	21	4	17	5	12
North Dakota	12	1	11	7	4	18	2	16	8	7
Ohio	12	5	7	2	5	13	4	9	2	7
Oklahoma	20	5	15	11	5	22	4	18	10	8
Oregon	18	3	16	8	8	27	4	23	11	11
Pennsylvania	—	—	—	—	—	15	3	12	3	9
Rhode Island	23	3	20	10	10	27	3	24	9	15
South Carolina	17	5	12	7	5	18	6	12	7	4
South Dakota	—	—	—	—	—	18	1	16	9	7
Tennessee	11	3	9	7	1	14	3	11	7	5
Texas	25	7	18	12	6	27	7	20	14	6
Utah	14	3	11	7	4	21	3	19	11	7
Vermont	15	3	13	4	9	18	4	14	4	10
Virginia	16	4	12	5	7	19	6	13	5	8
Washington	—	—	—	—	—	19	3	16	8	8
West Virginia	13	3	11	3	8	15	3	12	3	9
Wisconsin	19	5	14	7	8	20	4	16	4	12
Wyoming	15	2	13	8	6	18	1	17	6	11
Other jurisdictions										
District of Columbia	19	5	14	7	7	18	4	14	4	10
DoDEA ¹	11	3	8	4	4	14	1	13	6	7
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-18.

Percentage of fourth-grade public school students identified as students with disabilities and/or English language learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2005					2007				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	23	3	20	10	10	23	3	20	10	10
Alabama	13	1	12	9	3	13	2	12	8	4
Alaska	32	2	30	15	15	30	2	28	13	15
Arizona	29	4	25	17	8	25	3	22	14	7
Arkansas	16	3	13	5	8	18	3	15	4	11
California	39	4	35	31	5	40	2	38	33	5
Colorado	22	3	19	5	14	25	2	24	9	15
Connecticut	16	2	14	4	10	18	1	17	4	13
Delaware	20	8	12	5	7	20	5	15	5	10
Florida	25	3	21	5	17	22	3	18	2	16
Georgia	16	2	14	6	8	15	2	13	4	9
Hawaii	18	3	16	6	9	19	1	18	7	11
Idaho	18	1	17	9	8	18	2	16	8	8
Illinois	22	3	20	9	10	23	5	18	8	10
Indiana	18	2	16	5	11	22	3	19	7	12
Iowa	18	2	16	4	12	17	1	16	4	12
Kansas	19	3	16	6	10	20	3	17	7	10
Kentucky	15	3	13	3	9	17	3	14	6	8
Louisiana	24	4	20	3	18	19	2	16	3	13
Maine	20	4	16	5	12	19	3	16	4	12
Maryland	17	4	13	5	9	16	4	12	4	9
Massachusetts	24	4	19	6	13	23	5	18	6	12
Michigan	17	4	13	4	9	15	3	12	5	7
Minnesota	19	2	17	9	9	21	2	18	8	10
Mississippi	11	2	9	5	4	11	1	10	5	6
Missouri	18	2	16	6	10	16	4	13	5	8
Montana	14	2	12	4	8	16	2	14	5	9
Nebraska	23	2	21	9	12	23	3	20	10	10
Nevada	26	3	23	13	10	32	3	29	16	13
New Hampshire	22	2	20	5	14	21	2	18	4	14
New Jersey	18	3	15	4	11	18	2	16	2	14
New Mexico	36	3	33	15	18	32	4	29	14	15
New York	20	4	17	2	14	22	2	20	2	17
North Carolina	21	2	18	4	14	21	2	19	5	14
North Dakota	17	3	14	6	8	17	4	13	5	9
Ohio	13	3	9	2	8	17	5	12	3	9
Oklahoma	21	4	17	7	10	19	5	14	7	7
Oregon	27	4	23	11	11	26	3	23	9	14
Pennsylvania	18	3	15	4	11	18	2	16	5	11
Rhode Island	26	3	23	8	15	25	2	23	7	16
South Carolina	16	4	12	7	5	17	2	15	7	8
South Dakota	19	2	17	9	8	19	1	17	9	8
Tennessee	13	3	10	4	6	16	6	10	5	5
Texas	27	6	21	13	8	26	5	21	12	9
Utah	23	2	20	11	9	22	2	20	11	9
Vermont	18	3	15	5	10	19	2	16	4	12
Virginia	22	5	17	5	12	22	5	17	7	10
Washington	21	3	18	8	10	22	3	19	8	11
West Virginia	20	2	17	9	8	18	1	17	8	8
Wisconsin	19	2	17	5	12	21	3	18	5	13
Wyoming	19	2	17	6	11	18	2	16	6	10
Other jurisdictions										
District of Columbia	20	6	14	4	10	20	6	14	2	13
DoDEA ¹	17	2	15	6	8	17	2	15	6	9
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-18.

Percentage of fourth-grade public school students identified as students with disabilities and/or English language learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2009					2011				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	23	2	20	9	11	23	2	21	9	12
Alabama	12	1	11	8	4	12	1	11	6	4
Alaska	25	1	24	6	17	27	3	25	7	18
Arizona	26	1	24	11	14	22	1	21	5	15
Arkansas	17	1	16	4	12	20	1	19	5	14
California	36	2	34	28	5	38	2	36	29	7
Colorado	21	2	19	6	13	25	1	24	9	14
Connecticut	18	2	16	2	14	19	1	17	2	16
Delaware	18	3	15	2	13	19	4	15	3	12
Florida	23	2	21	4	18	23	2	22	3	19
Georgia	14	1	13	4	9	16	2	15	4	10
Hawaii	20	1	18	5	13	20	2	18	7	11
Idaho	15	1	14	5	8	15	1	13	5	9
Illinois	22	3	19	6	13	21	2	18	6	13
Indiana	19	2	17	6	11	22	2	20	6	14
Iowa	18	2	16	3	13	19	1	18	3	15
Kansas	22	3	19	7	12	24	2	23	10	13
Kentucky	17	3	14	5	8	16	3	13	5	9
Louisiana	22	2	20	4	16	22	2	20	3	18
Maine	20	2	18	3	15	20	2	19	4	15
Maryland	19	5	14	3	12	19	6	13	2	11
Massachusetts	24	5	19	7	13	25	3	21	6	15
Michigan	17	3	14	6	8	16	2	14	6	9
Minnesota	21	2	19	8	11	23	1	22	9	13
Mississippi	10	1	9	3	6	11	1	10	5	6
Missouri	16	3	14	5	9	16	2	15	5	10
Montana	14	2	13	4	9	14	2	12	4	8
Nebraska	24	3	21	10	11	23	2	22	8	14
Nevada	30	3	27	11	17	35	2	33	11	22
New Hampshire	21	2	18	3	15	19	2	17	2	15
New Jersey	19	3	16	2	14	20	3	16	2	14
New Mexico	26	2	24	8	15	27	3	24	9	15
New York	22	1	21	1	20	23	1	22	1	21
North Carolina	19	2	17	4	13	21	2	19	7	12
North Dakota	17	4	14	4	9	17	4	13	4	9
Ohio	16	3	13	2	11	17	2	15	2	13
Oklahoma	19	4	15	6	8	21	8	12	6	7
Oregon	26	3	23	8	15	28	3	25	10	15
Pennsylvania	18	3	15	4	11	18	1	16	4	13
Rhode Island	22	2	20	5	15	19	1	18	5	13
South Carolina	19	2	17	7	10	18	1	17	7	10
South Dakota	16	2	14	6	8	19	2	18	9	9
Tennessee	16	3	12	3	9	17	3	13	3	10
Texas	29	3	26	18	8	30	4	26	18	8
Utah	19	2	17	6	11	19	2	17	6	10
Vermont	21	2	18	4	14	19	2	18	3	15
Virginia	20	2	18	5	13	19	2	17	5	12
Washington	21	2	19	8	12	22	2	20	7	14
West Virginia	17	2	16	7	9	18	2	16	8	9
Wisconsin	20	2	18	4	15	21	2	19	4	16
Wyoming	18	1	17	5	12	19	2	17	5	12
Other jurisdictions										
District of Columbia	20	4	16	3	13	21	5	16	2	14
DoDEA ¹	18	2	16	6	10	19	3	16	5	10
Puerto Rico	—	—	—	—	—	25	#	24	1	23

See notes at end of table.

Table A-18.

Percentage of fourth-grade public school students identified as students with disabilities and/or English language learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2013					2015				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	23	2	21	7	14	24	2	23	8	14
Alabama	12	1	11	6	5	14	1	13	7	6
Alaska	27	1	26	4	22	27	1	26	7	18
Arizona	17	1	15	2	13	21	1	20	4	16
Arkansas	21	1	20	5	15	21	1	20	4	16
California	32	2	30	22	9	35	2	33	26	7
Colorado	23	1	21	9	12	24	2	22	11	11
Connecticut	19	1	17	2	16	19	1	18	4	14
Delaware	18	2	16	2	14	20	2	19	5	14
Florida	25	2	23	2	20	26	2	24	2	21
Georgia	16	1	15	3	11	19	2	18	4	14
Hawaii	17	1	16	5	11	16	2	14	6	8
Idaho	15	1	13	4	10	15	2	14	4	10
Illinois	20	1	19	4	15	22	1	21	6	14
Indiana	22	2	20	3	17	23	1	22	5	17
Iowa	18	1	17	3	14	20	1	19	3	16
Kansas	26	2	25	10	15	28	1	26	14	13
Kentucky	15	1	14	3	11	19	2	17	5	12
Louisiana	22	1	21	3	18	24	2	22	3	19
Maine	22	2	20	2	17	22	2	20	3	17
Maryland	21	1	20	2	17	21	1	19	4	15
Massachusetts	27	2	25	8	17	27	2	25	8	18
Michigan	20	2	18	7	11	19	3	16	6	10
Minnesota	22	1	20	10	11	23	2	21	11	9
Mississippi	12	1	11	4	7	14	1	13	5	8
Missouri	16	1	14	3	11	16	1	15	6	10
Montana	15	2	13	5	9	14	1	13	5	8
Nebraska	22	2	21	6	14	23	1	22	6	16
Nevada	31	1	30	7	23	33	2	31	11	20
New Hampshire	18	1	17	2	15	21	1	20	3	16
New Jersey	19	1	18	1	17	21	2	19	2	17
New Mexico	28	1	27	10	17	29	2	26	9	17
New York	22	1	21	1	20	25	1	23	1	22
North Carolina	20	1	19	5	14	19	1	18	5	13
North Dakota	16	3	13	3	10	15	2	13	4	9
Ohio	17	1	16	3	14	19	2	17	2	16
Oklahoma	22	2	20	6	14	24	2	21	8	14
Oregon	27	2	24	9	15	25	2	23	9	14
Pennsylvania	18	2	17	4	13	21	2	20	5	14
Rhode Island	19	1	18	3	15	20	2	18	5	13
South Carolina	20	1	19	7	12	21	1	20	8	12
South Dakota	19	1	17	7	11	19	1	18	7	11
Tennessee	18	1	16	3	14	20	2	18	4	14
Texas	33	2	31	13	18	34	3	32	12	19
Utah	18	1	16	4	13	16	1	15	7	8
Vermont	19	1	18	2	16	20	2	19	3	16
Virginia	19	2	18	5	13	18	2	17	4	13
Washington	22	2	20	6	14	24	1	23	9	14
West Virginia	19	2	17	7	10	21	1	20	8	11
Wisconsin	21	2	20	3	16	19	1	18	5	13
Wyoming	18	1	17	4	13	18	1	17	4	13
Other jurisdictions										
District of Columbia	20	1	19	1	18	19	2	17	2	15
DoDEA ¹	19	2	17	5	12	22	1	21	7	13
Puerto Rico	29	#	29	1	27	31	#	31	1	29

See notes at end of table.

Table A-18.

Percentage of fourth-grade public school students identified as students with disabilities and/or English language learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2017				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	25	2	23	10	13
Alabama	15	1	14	8	6
Alaska	27	1	26	13	13
Arizona	21	2	19	5	14
Arkansas	24	2	23	7	16
California	34	3	31	25	6
Colorado	24	1	23	13	10
Connecticut	22	2	20	5	15
Delaware	26	2	24	9	15
Florida	25	3	22	2	20
Georgia	18	2	16	4	12
Hawaii	15	3	13	7	6
Idaho	16	1	15	6	9
Illinois	24	2	23	7	16
Indiana	22	1	20	6	15
Iowa	20	2	18	4	14
Kansas	26	1	25	16	9
Kentucky	19	2	17	6	11
Louisiana	23	2	21	3	17
Maine	23	1	22	8	14
Maryland	22	1	21	5	16
Massachusetts	28	2	25	8	17
Michigan	20	3	17	11	6
Minnesota	22	2	20	14	6
Mississippi	16	1	15	6	9
Missouri	18	1	17	7	10
Montana	16	1	15	7	8
Nebraska	24	2	23	8	15
Nevada	27	1	25	18	7
New Hampshire	21	1	20	5	14
New Jersey	21	2	19	4	15
New Mexico	29	2	27	11	16
New York	24	2	22	3	19
North Carolina	20	2	18	6	12
North Dakota	15	1	14	6	8
Ohio	19	2	17	3	14
Oklahoma	25	2	23	9	14
Oregon	28	2	26	16	10
Pennsylvania	20	2	18	6	13
Rhode Island	21	2	19	4	15
South Carolina	22	1	21	13	8
South Dakota	18	1	17	10	6
Tennessee	18	2	16	6	10
Texas	37	3	34	15	19
Utah	21	2	19	12	8
Vermont	20	1	19	5	13
Virginia	21	2	19	8	11
Washington	25	2	23	15	8
West Virginia	22	1	21	11	10
Wisconsin	21	2	20	8	12
Wyoming	17	1	15	5	10
Other jurisdictions					
District of Columbia	22	2	20	4	16
DoDEA ¹	21	1	20	8	12
Puerto Rico	—	—	—	—	—

— Not available.

Rounds to zero.

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

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Detail may not sum to totals because of rounding. In Puerto Rico, the English language learner (ELL) category is for the Spanish language learner (SLL).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000–17 Mathematics Assessments.

Table A-19.

Percentage of eighth-grade public school students identified as students with disabilities and/or English language learners excluded and assessed in NAEP mathematics when accommodations were not permitted, by state/jurisdiction: Various years, 1990–2000

State/jurisdiction	1990			1992			1996			2000		
	Identified	Excluded	Assessed									
Nation (public)	—	—	—	10	6	4	11	5	7	15	7	8
Alabama	9	5	4	10	5	5	13	7	6	14	5	9
Alaska	—	—	—	—	—	—	15	5	10	—	—	—
Arizona	12	5	7	12	6	7	17	9	8	19	9	10
Arkansas	11	7	3	11	6	5	11	7	4	14	8	5
California	15	7	8	20	8	12	20	10	10	27	9	18
Colorado	10	4	5	10	4	5	12	4	8	—	—	—
Connecticut	11	6	5	14	7	8	15	8	7	16	10	6
Delaware	9	4	5	10	4	6	13	9	4	—	—	—
Florida	11	6	5	13	6	7	16	10	6	—	—	—
Georgia	7	3	3	8	5	3	10	7	3	11	7	3
Hawaii	10	4	5	13	5	8	12	5	7	20	7	13
Idaho	6	2	4	7	3	4	—	—	—	14	5	9
Illinois	9	5	4	—	—	—	—	—	—	15	8	7
Indiana	7	5	2	9	5	4	12	6	7	12	7	5
Iowa	10	4	6	11	4	6	13	5	7	—	—	—
Kansas	—	—	—	—	—	—	—	—	—	14	6	8
Kentucky	7	5	3	9	5	4	9	5	5	14	9	4
Louisiana	6	4	2	7	4	3	10	6	4	13	6	7
Maine	—	—	—	11	4	6	12	5	7	15	9	6
Maryland	11	4	6	11	5	6	12	7	5	13	11	3
Massachusetts	—	—	—	18	8	9	17	8	9	19	12	7
Michigan	8	4	4	9	6	3	9	5	4	11	7	4
Minnesota	9	3	6	7	3	4	11	3	8	15	5	10
Mississippi	—	—	—	10	7	3	11	7	4	11	7	3
Missouri	—	—	—	11	4	6	12	7	5	15	9	6
Montana	6	2	4	—	—	—	9	3	6	12	5	6
Nebraska	9	3	6	10	4	6	12	4	8	13	3	10
Nevada	—	—	—	—	—	—	16	8	8	16	10	6
New Hampshire	12	4	8	12	5	7	15	4	11	—	—	—
New Jersey	12	7	5	14	7	7	13	7	6	—	—	—
New Mexico	9	6	3	12	5	7	18	8	10	25	12	14
New York	12	6	6	13	8	4	14	8	6	16	13	3
North Carolina	9	3	6	12	3	9	9	4	5	16	14	2
North Dakota	8	3	5	8	2	5	10	3	6	11	4	7
Ohio	8	5	3	10	6	4	—	—	—	11	9	3
Oklahoma	8	5	3	10	6	4	—	—	—	15	9	6
Oregon	8	3	5	—	—	—	12	4	8	17	6	11
Pennsylvania	10	5	5	9	4	5	—	—	—	—	—	—
Rhode Island	14	6	8	14	5	8	17	7	10	20	12	8
South Carolina	—	—	—	10	6	4	10	6	4	13	7	6
Tennessee	—	—	—	10	5	5	11	4	7	13	5	8
Texas	12	6	6	14	7	7	17	9	8	20	10	11
Utah	—	—	—	9	4	5	11	6	5	14	6	8
Vermont	—	—	—	—	—	—	12	4	8	17	10	7
Virginia	9	5	4	12	5	7	13	7	6	15	10	5
Washington	—	—	—	—	—	—	13	6	7	—	—	—
West Virginia	9	5	4	10	6	4	13	8	4	15	11	3
Wisconsin	8	4	4	10	4	6	12	7	5	17	10	7
Wyoming	8	3	5	9	4	5	10	2	8	13	4	9
Other jurisdictions												
District of Columbia	6	5	1	11	10	2	13	10	4	15	9	6
DoDEA ¹	—	—	—	—	—	—	8	3	5	9	5	3

— Not available.

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

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. South Dakota did not participate in NAEP mathematics assessments from 1990 to 2000. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2000 Mathematics Assessments.

Table A-20.

Percentage of eighth-grade public school students identified as students with disabilities and/or English language learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17

State/jurisdiction	2000					2003				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	14	4	10	7	3	19	4	15	8	7
Alabama	14	6	8	7	1	14	2	11	9	3
Alaska	—	—	—	—	—	23	1	22	14	8
Arizona	19	3	16	11	4	24	4	20	15	6
Arkansas	14	2	11	8	4	17	2	15	7	8
California	27	4	22	17	5	27	3	25	22	3
Colorado	—	—	—	—	—	15	2	14	5	8
Connecticut	16	6	10	6	4	17	4	13	5	8
Delaware	—	—	—	—	—	18	9	9	3	6
Florida	—	—	—	—	—	19	3	16	5	11
Georgia	11	5	6	3	3	13	2	11	5	6
Hawaii	20	5	15	13	2	20	4	17	8	9
Idaho	14	2	12	8	4	15	1	14	9	5
Illinois	15	5	11	7	3	18	4	14	4	9
Indiana	12	3	9	6	3	15	2	13	6	7
Iowa	—	—	—	—	—	17	2	15	6	9
Kansas	14	3	10	8	3	16	3	13	4	9
Kentucky	14	4	9	5	4	14	4	9	4	5
Louisiana	13	3	10	4	6	16	5	12	2	10
Maine	15	3	12	7	5	17	4	13	5	8
Maryland	13	3	11	7	4	16	4	12	7	5
Massachusetts	19	3	17	8	9	18	3	15	4	11
Michigan	11	4	7	5	2	15	5	10	4	6
Minnesota	15	2	13	11	3	16	2	14	8	6
Mississippi	11	5	5	4	1	9	5	4	3	2
Missouri	15	3	12	5	7	16	4	12	3	9
Montana	12	2	9	6	3	14	2	12	5	6
Nebraska	13	4	10	7	2	16	4	13	7	5
Nevada	16	4	12	8	5	18	2	16	9	6
New Hampshire	—	—	—	—	—	20	3	16	6	10
New Jersey	—	—	—	—	—	18	2	16	2	14
New Mexico	25	7	18	14	4	32	2	30	16	14
New York	16	4	12	5	7	20	5	15	3	12
North Carolina	16	5	11	4	7	18	4	15	3	12
North Dakota	11	2	9	8	2	16	1	14	7	7
Ohio	11	4	7	4	3	13	5	8	3	5
Oklahoma	15	4	11	8	3	19	2	17	10	7
Oregon	17	3	14	8	6	20	3	16	11	6
Pennsylvania	—	—	—	—	—	15	2	14	3	11
Rhode Island	20	3	16	12	4	23	4	20	7	13
South Carolina	13	4	9	7	2	15	7	8	5	4
South Dakota	—	—	—	—	—	13	2	11	6	6
Tennessee	13	2	10	9	1	16	3	13	12	1
Texas	20	8	12	10	2	20	7	13	11	2
Utah	14	3	11	8	3	16	3	14	9	5
Vermont	17	3	14	10	4	18	3	15	7	7
Virginia	15	6	9	5	4	17	7	10	4	6
Washington	—	—	—	—	—	16	2	14	10	5
West Virginia	15	3	12	4	8	16	3	14	5	9
Wisconsin	17	4	13	6	6	17	3	14	3	11
Wyoming	13	1	12	9	3	17	1	15	6	10
Other jurisdictions										
District of Columbia	15	6	9	3	6	20	6	14	5	9
DoDEA ¹	9	1	8	6	2	11	1	10	4	6
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-20.

Percentage of eighth-grade public school students identified as students with disabilities and/or English language learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2005					2007				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	19	4	15	7	8	18	4	14	6	8
Alabama	14	1	13	10	3	14	3	11	9	2
Alaska	27	2	25	14	11	26	4	22	13	9
Arizona	23	5	18	12	6	19	3	15	9	6
Arkansas	15	3	12	5	7	15	2	13	3	10
California	28	2	25	21	4	28	2	26	21	5
Colorado	17	3	14	5	9	16	2	14	4	10
Connecticut	16	3	13	5	9	16	2	15	4	11
Delaware	18	11	7	4	3	16	7	10	3	7
Florida	21	3	18	4	13	19	3	15	2	13
Georgia	14	2	11	4	7	11	5	7	3	4
Hawaii	20	3	17	8	9	19	2	18	8	10
Idaho	17	2	15	8	7	15	2	13	7	7
Illinois	18	3	14	4	11	18	6	12	3	9
Indiana	17	4	13	3	10	18	6	13	3	9
Iowa	17	3	15	4	10	18	2	15	3	12
Kansas	17	4	13	4	9	16	4	12	5	8
Kentucky	12	3	9	2	6	14	7	8	2	6
Louisiana	15	4	11	1	10	13	3	10	1	9
Maine	19	5	14	5	9	18	5	13	4	9
Maryland	13	4	9	4	4	13	7	6	2	4
Massachusetts	20	6	13	4	10	20	9	11	3	7
Michigan	16	4	12	4	8	15	5	11	3	8
Minnesota	18	2	15	8	7	16	2	14	6	8
Mississippi	10	3	7	3	3	11	2	9	2	7
Missouri	15	4	11	3	8	15	5	10	3	7
Montana	16	2	14	5	9	17	3	14	4	9
Nebraska	16	1	14	6	9	15	3	13	5	8
Nevada	19	2	17	10	7	20	4	17	9	8
New Hampshire	19	2	17	6	11	21	3	17	6	12
New Jersey	18	4	15	2	12	18	3	15	2	12
New Mexico	30	3	26	13	13	26	3	23	14	9
New York	19	4	15	2	13	18	3	14	1	14
North Carolina	17	3	15	3	12	17	2	15	3	12
North Dakota	17	4	13	4	8	16	6	10	3	7
Ohio	14	6	9	2	7	16	7	9	2	7
Oklahoma	20	4	15	7	8	18	8	9	5	5
Oregon	19	3	16	9	8	19	3	16	8	8
Pennsylvania	16	3	13	3	10	17	4	13	3	10
Rhode Island	21	3	18	7	11	20	3	17	5	12
South Carolina	15	6	9	5	4	15	5	10	4	5
South Dakota	14	2	11	4	7	12	2	9	3	6
Tennessee	15	5	11	5	5	13	6	7	4	3
Texas	19	6	13	9	4	17	6	12	7	5
Utah	17	2	14	6	8	18	3	15	8	7
Vermont	19	4	15	7	9	21	4	16	5	11
Virginia	18	5	13	5	8	17	7	11	4	7
Washington	16	2	13	5	8	16	4	13	5	8
West Virginia	17	3	14	6	8	17	2	15	6	10
Wisconsin	18	4	13	3	10	18	5	13	2	11
Wyoming	17	2	15	5	10	15	2	13	4	9
Other jurisdictions										
District of Columbia	19	6	14	2	11	21	10	11	3	8
DoDEA ¹	13	2	11	4	7	12	2	10	3	7
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-20.

Percentage of eighth-grade public school students identified as students with disabilities and/or English language learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2009					2011				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	18	3	15	5	10	18	3	15	5	10
Alabama	11	2	10	7	3	12	1	11	7	4
Alaska	21	3	18	5	13	21	3	18	4	14
Arizona	16	2	14	5	9	12	1	11	2	9
Arkansas	16	1	15	3	11	16	1	14	3	12
California	25	2	24	18	6	23	1	22	15	7
Colorado	17	2	15	5	10	16	1	15	5	10
Connecticut	16	2	14	3	11	16	1	15	2	12
Delaware	17	3	14	1	13	16	3	13	2	11
Florida	19	2	17	1	16	19	2	17	1	16
Georgia	13	3	10	2	9	12	3	9	2	7
Hawaii	18	2	16	6	10	20	2	18	7	11
Idaho	12	1	11	5	6	12	1	10	3	7
Illinois	16	3	13	3	11	17	2	15	3	12
Indiana	16	4	12	3	9	17	3	14	2	12
Iowa	16	3	14	2	11	17	1	16	2	14
Kansas	17	3	14	4	9	18	1	16	7	9
Kentucky	13	5	8	2	7	13	3	10	2	8
Louisiana	16	2	14	2	12	15	1	14	1	13
Maine	19	2	16	4	13	20	2	18	4	14
Maryland	14	7	7	1	6	14	6	8	1	7
Massachusetts	21	6	15	4	11	22	4	18	3	15
Michigan	15	3	12	3	8	14	4	11	3	8
Minnesota	17	3	15	6	9	17	2	15	6	9
Mississippi	10	2	8	2	7	8	1	7	1	6
Missouri	14	3	10	3	8	14	1	12	2	10
Montana	14	3	11	3	8	13	2	12	2	9
Nebraska	17	3	13	4	9	16	4	13	4	9
Nevada	17	2	15	6	9	18	3	15	6	9
New Hampshire	21	3	18	6	13	20	2	18	4	14
New Jersey	18	2	16	2	14	19	4	15	1	14
New Mexico	21	3	18	7	11	22	2	20	10	10
New York	20	3	17	1	16	20	1	19	#	18
North Carolina	17	2	15	3	13	18	2	16	3	12
North Dakota	16	5	11	4	7	16	4	11	3	9
Ohio	15	5	10	1	9	16	5	11	1	10
Oklahoma	18	6	11	4	8	18	10	8	4	4
Oregon	18	3	16	7	8	18	1	16	6	11
Pennsylvania	19	3	16	3	13	17	2	15	2	13
Rhode Island	21	2	18	4	14	19	1	18	4	13
South Carolina	16	4	12	5	7	15	4	11	4	8
South Dakota	12	2	10	3	7	13	2	11	4	7
Tennessee	12	4	8	1	7	13	4	9	1	8
Texas	17	5	13	6	6	18	5	13	8	5
Utah	14	3	11	4	7	14	3	11	3	8
Vermont	21	2	19	5	13	20	1	18	4	15
Virginia	17	4	13	4	9	18	3	15	6	9
Washington	14	2	12	4	8	16	2	14	4	10
West Virginia	15	2	14	4	10	14	2	12	3	9
Wisconsin	18	3	15	3	12	18	2	16	2	14
Wyoming	15	2	13	3	10	14	1	13	2	11
Other jurisdictions										
District of Columbia	20	6	14	2	12	21	4	17	2	15
DoDEA ¹	13	2	11	4	7	14	3	11	3	8
Puerto Rico	—	—	—	—	—	19	1	18	#	17

See notes at end of table.

Table A-20.

Percentage of eighth-grade public school students identified as students with disabilities and/or English language learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2013					2015				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	17	2	16	3	12	19	2	17	5	13
Alabama	11	1	10	5	5	11	1	10	4	6
Alaska	23	1	22	3	19	23	2	21	4	17
Arizona	13	1	12	1	11	14	1	13	3	11
Arkansas	19	2	17	3	14	19	2	17	4	13
California	19	1	18	10	8	22	1	21	13	8
Colorado	18	1	17	5	11	21	1	19	9	11
Connecticut	18	2	16	2	14	19	1	17	3	15
Delaware	17	1	16	1	15	19	2	17	3	15
Florida	18	2	16	1	15	20	2	18	1	17
Georgia	13	2	12	2	10	15	1	13	2	11
Hawaii	21	2	19	7	12	17	2	16	6	9
Idaho	12	1	11	2	8	13	2	11	2	9
Illinois	17	1	16	2	14	17	1	16	3	13
Indiana	18	2	16	2	14	19	1	18	3	15
Iowa	15	1	14	1	13	16	1	15	3	12
Kansas	19	2	18	7	11	22	1	21	11	10
Kentucky	13	2	11	1	10	14	1	12	1	11
Louisiana	16	1	15	1	14	19	2	17	1	16
Maine	20	1	18	2	16	21	1	19	4	16
Maryland	16	2	14	1	13	18	2	16	2	14
Massachusetts	22	2	20	4	16	24	2	22	4	18
Michigan	16	2	13	3	11	16	2	14	4	10
Minnesota	18	2	16	7	9	19	2	17	8	9
Mississippi	9	1	8	2	7	11	1	10	2	8
Missouri	13	1	12	2	11	15	2	13	2	11
Montana	13	1	12	2	9	13	1	12	4	8
Nebraska	16	2	14	2	12	17	2	15	3	11
Nevada	16	1	15	3	12	23	1	21	12	10
New Hampshire	20	1	19	3	16	19	1	17	3	15
New Jersey	18	2	17	#	16	20	1	19	1	18
New Mexico	24	2	22	10	12	24	2	22	10	12
New York	22	2	20	#	19	22	1	21	1	20
North Carolina	18	1	17	3	14	18	1	17	3	14
North Dakota	16	3	13	1	11	16	2	14	2	11
Ohio	16	2	14	1	14	19	2	17	1	16
Oklahoma	19	2	17	3	14	20	2	19	4	15
Oregon	16	1	15	4	11	17	2	14	4	11
Pennsylvania	19	2	17	2	15	19	2	17	2	14
Rhode Island	19	1	18	2	16	20	2	18	4	14
South Carolina	15	1	14	4	10	17	1	15	5	10
South Dakota	13	1	12	3	9	14	1	12	5	8
Tennessee	12	2	10	1	10	16	2	14	1	13
Texas	18	2	16	4	12	21	2	19	6	13
Utah	14	2	12	2	10	13	1	12	3	9
Vermont	18	1	17	2	15	20	1	19	2	17
Virginia	17	1	16	4	12	18	2	16	3	12
Washington	16	2	14	3	11	18	1	17	5	12
West Virginia	13	2	12	3	9	15	2	13	2	11
Wisconsin	18	2	17	2	15	17	1	16	3	12
Wyoming	16	2	14	2	13	16	1	15	2	13
Other jurisdictions										
District of Columbia	23	1	22	1	21	25	3	21	2	20
DoDEA ¹	14	1	12	3	9	15	1	14	4	10
Puerto Rico	23	#	23	#	23	25	#	25	1	24

See notes at end of table.

Table A-20.

Percentage of eighth-grade public school students identified as students with disabilities and/or English language learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2017				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	20	2	18	6	12
Alabama	13	2	11	7	4
Alaska	23	2	22	8	14
Arizona	14	1	13	3	9
Arkansas	21	2	19	7	13
California	23	2	21	13	7
Colorado	20	2	18	9	9
Connecticut	20	2	17	4	13
Delaware	19	2	17	4	13
Florida	21	3	19	2	17
Georgia	15	2	13	2	11
Hawaii	16	2	14	8	6
Idaho	13	1	12	4	8
Illinois	18	1	16	3	14
Indiana	19	2	18	4	14
Iowa	16	1	15	2	12
Kansas	23	1	22	14	8
Kentucky	15	1	13	2	12
Louisiana	21	3	18	1	17
Maine	21	2	19	4	15
Maryland	17	2	16	1	14
Massachusetts	24	2	22	6	16
Michigan	19	3	16	6	10
Minnesota	19	2	17	11	6
Mississippi	12	1	11	3	8
Missouri	15	2	14	4	10
Montana	15	1	14	6	8
Nebraska	18	2	16	4	12
Nevada	22	2	21	13	7
New Hampshire	19	1	17	5	12
New Jersey	20	2	19	1	17
New Mexico	24	2	22	8	14
New York	23	2	21	2	19
North Carolina	17	2	15	5	10
North Dakota	16	2	15	5	9
Ohio	18	2	16	1	14
Oklahoma	20	2	19	5	14
Oregon	18	1	16	7	9
Pennsylvania	19	2	17	4	13
Rhode Island	21	2	19	4	15
South Carolina	20	1	19	12	6
South Dakota	15	3	13	9	4
Tennessee	17	2	14	3	11
Texas	23	2	21	8	13
Utah	15	1	13	4	9
Vermont	21	1	20	4	16
Virginia	17	2	15	5	10
Washington	18	2	17	6	11
West Virginia	16	2	14	5	8
Wisconsin	17	2	16	4	12
Wyoming	15	1	14	3	11
Other jurisdictions					
District of Columbia	24	2	22	2	19
DoDEA ¹	15	1	14	4	10
Puerto Rico	—	—	—	—	—

— Not available.

Rounds to zero.

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

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Detail may not sum to totals because of rounding. In Puerto Rico, the English language learner (ELL) category is for the Spanish language learner (SLL).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000–17 Mathematics Assessments.

Table A-21.

Percentage of fourth-grade public school students identified as students with disabilities excluded and assessed in NAEP mathematics when accommodations were not permitted, by state/jurisdiction: 1992, 1996, and 2000

State/jurisdiction	1992			1996			2000		
	Identified	Excluded	Assessed	Identified	Excluded	Assessed	Identified	Excluded	Assessed
Nation (public)	7	5	3	12	5	7	12	6	6
Alabama	10	4	6	11	6	5	12	6	7
Alaska	—	—	—	13	4	10	—	—	—
Arizona	7	3	4	10	7	3	11	6	4
Arkansas	11	5	6	9	6	3	13	7	6
California	7	3	4	8	5	3	8	3	5
Colorado	8	4	4	12	7	5	—	—	—
Connecticut	10	4	6	14	7	7	11	8	3
Delaware	11	5	6	12	6	6	—	—	—
Florida	13	7	6	14	7	7	—	—	—
Georgia	9	5	4	11	6	5	9	6	4
Hawaii	10	5	5	10	4	5	13	8	5
Idaho	8	3	5	—	—	—	12	5	6
Illinois	—	—	—	—	—	—	11	7	4
Indiana	6	3	3	11	5	6	11	6	4
Iowa	8	3	5	11	5	6	14	10	4
Kansas	—	—	—	—	—	—	12	6	6
Kentucky	8	3	5	10	6	4	11	8	3
Louisiana	7	4	3	13	7	6	15	7	8
Maine	14	6	8	14	7	7	16	10	6
Maryland	10	3	7	13	7	6	11	8	3
Massachusetts	15	6	9	15	7	8	14	8	6
Michigan	7	5	2	10	6	4	9	7	2
Minnesota	7	3	4	11	5	6	12	4	7
Mississippi	7	5	2	8	6	2	6	4	2
Missouri	12	4	7	14	5	9	15	9	5
Montana	—	—	—	10	5	5	11	5	5
Nebraska	12	4	8	14	4	10	16	6	9
Nevada	—	—	—	9	5	4	10	6	4
New Hampshire	12	4	8	—	—	—	—	—	—
New Jersey	8	3	5	9	5	4	—	—	—
New Mexico	12	6	6	14	8	6	15	9	6
New York	7	3	3	10	5	5	11	9	2
North Carolina	11	3	8	13	6	6	14	12	2
North Dakota	8	2	7	10	3	7	12	6	6
Ohio	10	6	4	—	—	—	12	10	2
Oklahoma	11	7	4	—	—	—	16	10	6
Oregon	—	—	—	13	6	7	14	6	7
Pennsylvania	8	3	5	8	4	4	—	—	—
Rhode Island	10	4	7	13	5	8	16	9	7
South Carolina	10	5	5	12	5	7	17	7	9
Tennessee	11	4	8	12	6	6	10	4	7
Texas	9	5	5	12	7	5	15	10	5
Utah	9	4	5	11	5	6	9	5	4
Vermont	—	—	—	14	6	8	14	10	4
Virginia	10	5	5	12	6	6	13	10	3
Washington	—	—	—	10	5	6	—	—	—
West Virginia	9	4	4	13	8	5	13	10	3
Wisconsin	9	5	5	10	7	3	15	10	5
Wyoming	9	3	6	12	4	8	13	5	8
Other jurisdictions									
District of Columbia	8	7	1	9	7	1	14	7	7
DoDEA ¹	—	—	—	8	4	4	8	4	4

— Not available.

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

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. South Dakota did not participate in NAEP mathematics assessments from 1992 to 2000. 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), 1992, 1996, and 2000 Mathematics Assessments.

Table A-22.

Percentage of fourth-grade public school students identified as students with disabilities excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000-17

State/jurisdiction	2000					2003				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	13	3	9	5	4	14	3	11	4	7
Alabama	13	3	9	7	3	11	2	10	7	2
Alaska	—	—	—	—	—	16	1	15	6	9
Arizona	11	3	8	4	4	12	3	9	5	3
Arkansas	12	4	8	5	4	14	1	12	5	8
California	8	3	5	4	1	10	2	8	6	2
Colorado	—	—	—	—	—	12	2	11	3	7
Connecticut	11	3	8	4	4	13	3	10	3	6
Delaware	—	—	—	—	—	16	6	10	3	7
Florida	—	—	—	—	—	18	2	16	4	12
Georgia	9	3	7	3	4	12	2	11	4	7
Hawaii	13	6	7	5	2	11	2	10	3	6
Idaho	12	1	11	5	6	12	1	11	4	7
Illinois	11	2	9	3	6	15	3	13	4	9
Indiana	10	2	8	3	5	14	2	12	6	6
Iowa	13	1	11	4	7	15	2	13	3	10
Kansas	12	3	9	5	4	14	1	12	2	10
Kentucky	11	3	8	3	5	13	3	11	4	7
Louisiana	15	3	13	2	11	21	3	18	3	16
Maine	15	4	11	4	7	18	3	14	4	10
Maryland	11	2	9	4	5	13	3	10	4	6
Massachusetts	14	1	14	5	9	18	2	16	2	14
Michigan	10	3	7	3	4	11	3	7	2	5
Minnesota	12	2	10	5	5	14	2	11	5	6
Mississippi	6	3	3	1	2	10	5	5	3	1
Missouri	14	2	12	5	7	15	3	12	3	9
Montana	12	2	10	5	6	14	2	12	5	7
Nebraska	15	2	13	9	4	16	2	14	6	8
Nevada	10	3	7	3	4	13	3	10	5	5
New Hampshire	—	—	—	—	—	18	3	16	4	11
New Jersey	—	—	—	—	—	14	2	13	1	12
New Mexico	15	5	10	5	5	17	2	15	7	9
New York	11	2	8	#	8	13	3	10	1	10
North Carolina	14	4	10	3	7	17	4	14	3	10
North Dakota	11	1	9	5	4	15	2	14	6	7
Ohio	12	4	7	2	5	12	4	8	2	7
Oklahoma	16	4	12	7	4	17	3	14	6	8
Oregon	14	2	12	6	5	17	4	14	7	7
Pennsylvania	—	—	—	—	—	13	2	11	2	9
Rhode Island	16	2	14	6	8	20	2	18	5	13
South Carolina	17	5	12	7	5	17	6	11	6	4
South Dakota	—	—	—	—	—	15	1	13	7	6
Tennessee	10	2	8	7	1	13	2	11	6	5
Texas	15	6	9	6	3	15	7	8	5	3
Utah	9	3	6	4	2	12	2	10	5	5
Vermont	15	3	12	4	8	17	4	13	4	10
Virginia	13	3	10	4	6	13	4	9	3	6
Washington	—	—	—	—	—	14	2	12	5	7
West Virginia	13	3	11	3	8	15	3	12	3	9
Wisconsin	15	4	10	5	6	15	3	12	2	10
Wyoming	14	2	12	6	6	15	1	14	3	11
Other jurisdictions										
District of Columbia	13	3	10	5	5	13	4	10	2	7
DoDEA ¹	8	2	6	3	4	10	1	9	2	6
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-22.

Percentage of fourth-grade public school students identified as students with disabilities excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2005					2007				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	14	3	11	4	8	14	3	11	3	8
Alabama	11	1	10	7	3	11	1	10	6	4
Alaska	15	1	14	4	10	16	1	15	4	10
Arizona	11	3	9	3	5	11	2	9	4	5
Arkansas	13	2	11	3	8	12	2	9	2	7
California	10	2	8	4	3	10	2	8	4	4
Colorado	12	2	10	2	8	12	2	11	2	9
Connecticut	13	2	11	3	8	13	1	11	2	9
Delaware	16	7	9	2	7	17	5	12	3	9
Florida	18	2	16	3	12	15	2	13	1	12
Georgia	14	2	12	5	7	12	2	10	3	7
Hawaii	11	2	10	3	7	11	1	10	2	8
Idaho	11	1	10	3	7	11	1	9	3	6
Illinois	14	2	12	4	8	15	3	11	4	8
Indiana	15	1	14	4	10	17	3	14	6	9
Iowa	14	2	13	2	11	13	1	12	2	10
Kansas	14	2	11	3	8	13	3	10	3	7
Kentucky	14	2	12	3	9	15	2	13	5	7
Louisiana	24	4	20	3	17	18	2	15	3	13
Maine	19	3	16	4	12	18	3	15	3	11
Maryland	13	3	10	3	7	12	4	9	3	6
Massachusetts	18	3	15	3	12	18	5	13	3	11
Michigan	14	4	11	3	7	13	3	10	4	7
Minnesota	13	2	11	5	6	13	2	12	4	7
Mississippi	11	2	8	5	4	10	1	9	4	6
Missouri	16	2	14	5	9	15	3	11	4	7
Montana	12	2	10	2	7	13	2	10	2	8
Nebraska	18	2	16	6	10	17	2	14	5	9
Nevada	12	3	10	3	6	13	2	11	5	6
New Hampshire	20	2	18	4	14	19	2	16	3	13
New Jersey	15	2	13	3	10	14	2	12	1	11
New Mexico	14	2	13	3	10	13	3	10	3	7
New York	15	3	12	1	11	15	1	13	1	12
North Carolina	15	2	13	3	10	15	2	13	3	10
North Dakota	16	2	13	5	8	15	4	11	3	8
Ohio	12	3	9	2	7	15	4	11	2	8
Oklahoma	16	4	12	4	9	14	5	10	3	6
Oregon	15	3	11	5	7	15	2	13	5	8
Pennsylvania	16	2	13	3	10	17	2	14	4	10
Rhode Island	20	2	18	6	12	19	2	17	5	12
South Carolina	14	4	10	6	5	13	2	12	5	6
South Dakota	16	1	14	7	7	15	1	14	7	7
Tennessee	11	3	8	3	6	14	6	8	4	4
Texas	14	5	8	4	4	13	5	8	3	5
Utah	12	2	11	4	6	12	2	10	4	6
Vermont	16	3	13	4	9	17	2	14	3	11
Virginia	16	4	11	3	8	15	4	11	4	7
Washington	13	2	11	4	7	15	2	13	5	8
West Virginia	19	2	17	9	8	17	1	16	8	8
Wisconsin	14	2	12	2	10	15	2	12	3	9
Wyoming	15	1	14	3	11	15	2	13	4	9
Other jurisdictions										
District of Columbia	16	5	11	2	8	14	5	9	1	8
DoDEA ¹	10	1	9	2	7	11	1	10	3	7
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-22.

Percentage of fourth-grade public school students identified as students with disabilities excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2009					2011				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	13	2	11	3	8	13	2	11	3	9
Alabama	10	1	9	6	4	10	1	9	5	4
Alaska	17	1	16	4	12	16	2	14	3	11
Arizona	13	1	12	4	8	12	1	11	2	8
Arkansas	12	1	11	2	8	13	1	12	2	10
California	10	2	7	3	5	10	1	8	2	6
Colorado	11	1	10	1	9	11	1	10	1	9
Connecticut	13	2	12	2	10	14	1	13	1	11
Delaware	15	3	12	2	11	16	3	13	3	10
Florida	17	2	15	3	12	16	1	14	3	12
Georgia	11	1	9	3	7	12	1	10	3	8
Hawaii	10	1	9	1	8	10	2	8	1	7
Idaho	10	1	9	3	7	11	1	9	2	7
Illinois	15	2	13	4	9	14	2	12	4	8
Indiana	16	2	13	5	8	16	2	14	4	9
Iowa	14	2	12	2	10	15	1	14	2	12
Kansas	14	3	11	3	9	14	2	13	4	9
Kentucky	15	3	12	5	7	15	3	12	4	8
Louisiana	20	2	18	3	15	20	2	18	2	16
Maine	18	1	17	3	14	17	2	16	2	14
Maryland	14	4	9	2	7	14	5	8	2	7
Massachusetts	19	5	14	2	12	18	3	15	1	14
Michigan	14	2	11	4	8	13	2	11	3	8
Minnesota	14	2	13	5	8	15	1	13	4	9
Mississippi	10	1	9	3	6	9	1	9	4	5
Missouri	14	3	12	4	8	13	2	11	3	8
Montana	12	2	10	2	8	12	1	10	3	7
Nebraska	18	2	16	7	9	17	1	15	5	10
Nevada	12	2	10	3	6	11	2	9	3	6
New Hampshire	18	2	16	3	14	17	2	15	1	14
New Jersey	16	2	13	2	12	17	3	14	2	12
New Mexico	13	2	11	2	8	13	2	11	2	9
New York	16	1	15	1	14	16	1	15	1	14
North Carolina	15	2	13	3	10	15	2	13	3	10
North Dakota	16	4	12	4	8	15	3	11	3	8
Ohio	14	3	11	2	9	14	2	12	2	10
Oklahoma	15	4	11	4	7	15	8	8	3	5
Oregon	16	2	13	5	9	15	2	13	4	9
Pennsylvania	15	2	13	3	10	15	1	14	3	11
Rhode Island	17	2	16	3	13	14	1	13	1	12
South Carolina	14	2	13	5	8	14	1	12	4	8
South Dakota	15	2	13	5	8	16	2	14	7	7
Tennessee	14	3	10	3	7	14	3	10	3	7
Texas	10	3	7	2	5	10	4	7	2	5
Utah	12	2	10	3	7	13	2	11	4	7
Vermont	19	2	16	3	13	17	1	16	2	14
Virginia	14	2	12	3	9	13	2	11	3	8
Washington	12	2	11	3	7	14	2	12	3	9
West Virginia	17	2	16	7	9	18	1	16	7	9
Wisconsin	15	2	13	2	11	14	2	13	2	10
Wyoming	16	1	15	4	11	16	2	14	4	11
Other jurisdictions										
District of Columbia	14	4	10	2	8	15	5	11	#	10
DoDEA ¹	12	1	11	3	8	13	2	11	3	8
Puerto Rico	—	—	—	—	—	24	#	24	1	23

See notes at end of table.

Table A-22.

Percentage of fourth-grade public school students identified as students with disabilities excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2013					2015				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	14	1	12	2	10	14	1	13	3	11
Alabama	10	1	9	4	5	12	1	11	5	6
Alaska	16	1	15	2	13	15	1	14	2	12
Arizona	10	1	10	2	8	13	1	12	2	10
Arkansas	14	1	13	2	11	14	1	13	2	11
California	10	2	8	2	7	10	1	9	2	6
Colorado	10	1	9	2	8	11	1	10	2	8
Connecticut	14	1	13	1	12	13	1	12	2	10
Delaware	16	2	14	2	12	17	1	16	3	13
Florida	16	1	15	2	12	17	1	16	2	14
Georgia	12	1	11	2	9	14	1	13	2	10
Hawaii	10	1	9	1	8	10	1	9	2	7
Idaho	11	1	10	2	8	11	2	10	2	7
Illinois	14	1	13	2	11	13	1	13	3	9
Indiana	17	1	15	2	13	17	1	16	3	13
Iowa	13	1	13	2	11	13	1	13	1	11
Kansas	15	1	14	3	11	15	1	14	4	10
Kentucky	13	1	12	2	9	16	2	14	4	10
Louisiana	20	1	19	2	17	21	2	19	2	17
Maine	20	2	18	2	16	19	1	18	2	16
Maryland	14	1	13	1	12	13	1	12	1	11
Massachusetts	19	2	17	1	16	20	2	18	2	16
Michigan	13	2	11	3	9	14	2	12	3	9
Minnesota	14	1	13	5	8	14	2	13	5	8
Mississippi	10	1	10	3	6	12	1	12	4	7
Missouri	14	1	13	3	9	14	1	13	4	9
Montana	12	2	10	2	8	12	1	11	3	8
Nebraska	17	1	15	4	11	17	1	16	4	11
Nevada	13	1	12	3	9	12	2	9	2	7
New Hampshire	16	1	15	1	14	18	1	17	1	16
New Jersey	16	1	15	1	14	18	1	17	2	15
New Mexico	14	1	13	2	10	15	2	13	2	11
New York	17	1	16	1	15	18	1	17	1	17
North Carolina	15	1	14	2	12	13	1	12	2	11
North Dakota	14	2	12	3	9	13	2	12	3	9
Ohio	15	1	14	2	11	16	2	14	1	13
Oklahoma	17	2	16	3	12	18	2	16	4	12
Oregon	16	2	14	4	10	14	2	12	3	9
Pennsylvania	16	1	15	3	12	19	1	17	4	13
Rhode Island	14	1	13	1	12	14	1	13	1	11
South Carolina	14	1	13	3	10	14	1	13	4	10
South Dakota	16	1	15	6	9	16	1	15	6	10
Tennessee	14	1	13	2	11	15	1	14	3	11
Texas	12	1	10	1	9	14	2	12	2	10
Utah	13	1	12	3	9	12	1	11	4	7
Vermont	17	1	16	1	15	18	1	16	2	15
Virginia	14	1	13	3	10	13	1	12	2	10
Washington	14	2	12	3	9	13	1	12	3	9
West Virginia	18	2	17	7	10	20	1	19	8	11
Wisconsin	15	2	13	2	11	13	1	12	3	9
Wyoming	15	1	15	3	11	15	1	15	3	12
Other jurisdictions										
District of Columbia	15	1	14	1	14	14	1	13	1	12
DoDEA ¹	14	1	13	3	10	14	1	14	3	11
Puerto Rico	28	#	28	1	27	30	#	30	1	29

See notes at end of table.

Table A-22.

Percentage of fourth-grade public school students identified as students with disabilities excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2017				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	15	2	13	4	9
Alabama	12	1	11	6	6
Alaska	15	1	14	5	9
Arizona	11	1	10	2	8
Arkansas	16	1	14	4	10
California	11	2	9	4	5
Colorado	12	1	11	3	8
Connecticut	15	1	14	3	10
Delaware	18	1	17	5	12
Florida	17	2	15	2	13
Georgia	14	1	12	3	10
Hawaii	10	1	8	3	5
Idaho	11	1	10	3	7
Illinois	15	1	14	2	12
Indiana	17	1	15	3	12
Iowa	15	1	14	2	12
Kansas	15	1	13	6	8
Kentucky	16	1	14	5	10
Louisiana	18	2	17	2	14
Maine	20	1	19	5	14
Maryland	13	1	12	2	10
Massachusetts	20	2	18	3	15
Michigan	12	2	10	5	5
Minnesota	14	1	12	7	5
Mississippi	14	1	13	5	8
Missouri	15	1	14	6	9
Montana	13	1	12	5	7
Nebraska	17	1	16	6	10
Nevada	12	1	11	6	5
New Hampshire	18	1	17	4	13
New Jersey	17	1	16	3	13
New Mexico	16	1	14	4	10
New York	17	1	16	2	14
North Carolina	15	1	14	4	10
North Dakota	14	1	13	5	7
Ohio	16	2	14	2	12
Oklahoma	18	2	16	5	12
Oregon	14	1	13	6	7
Pennsylvania	17	2	15	4	11
Rhode Island	14	1	13	1	12
South Carolina	15	1	14	8	6
South Dakota	17	1	15	10	5
Tennessee	13	2	12	4	7
Texas	15	2	12	3	10
Utah	14	1	12	6	6
Vermont	18	1	17	4	13
Virginia	13	1	12	3	8
Washington	13	2	11	5	7
West Virginia	21	1	20	11	9
Wisconsin	15	1	13	4	9
Wyoming	15	1	14	4	10
Other jurisdictions					
District of Columbia	16	1	15	2	13
DoDEA ¹	13	1	12	4	9
Puerto Rico	—	—	—	—	—

— Not available.

Rounds to zero.

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

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. 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, 2000–17 Mathematics Assessments.

Table A-23.

Percentage of eighth-grade public school students identified as students with disabilities excluded and assessed in NAEP mathematics when accommodations were not permitted, by state/jurisdiction: Various years, 1990–2000

State/jurisdiction	1990			1992			1996			2000		
	Identified	Excluded	Assessed									
Nation (public)	—	—	—	8	5	3	9	4	5	12	6	6
Alabama	9	5	4	10	5	5	13	7	6	14	5	9
Alaska	—	—	—	—	—	—	10	5	6	—	—	—
Arizona	7	3	3	6	4	2	9	5	4	11	7	4
Arkansas	10	7	3	11	6	5	11	7	4	12	8	4
California	7	3	4	8	4	4	8	5	4	10	6	5
Colorado	8	4	5	8	4	5	11	4	7	—	—	—
Connecticut	9	5	4	12	5	6	13	7	6	14	9	5
Delaware	9	4	5	9	4	5	12	8	4	—	—	—
Florida	8	5	4	9	5	4	12	7	5	—	—	—
Georgia	6	3	3	7	4	3	9	6	3	10	7	3
Hawaii	7	3	3	9	3	5	9	4	5	15	6	9
Idaho	6	2	4	7	3	4	—	—	—	10	5	6
Illinois	8	4	4	—	—	—	—	—	—	11	6	5
Indiana	7	5	2	8	4	4	12	5	6	11	7	4
Iowa	9	4	6	10	4	6	12	5	7	—	—	—
Kansas	—	—	—	—	—	—	—	—	—	10	5	5
Kentucky	7	5	3	9	5	4	9	4	5	13	9	4
Louisiana	6	4	2	7	4	3	9	6	3	13	6	7
Maine	—	—	—	11	4	6	11	5	6	14	9	5
Maryland	9	4	5	9	4	5	11	6	5	12	10	3
Massachusetts	—	—	—	14	6	8	15	7	9	16	10	6
Michigan	8	4	4	9	6	3	8	5	3	10	6	4
Minnesota	8	3	6	7	3	4	10	3	7	13	4	8
Mississippi	—	—	—	10	7	3	11	7	4	10	7	3
Missouri	—	—	—	11	4	6	11	6	4	14	8	6
Montana	6	2	4	—	—	—	9	3	6	11	5	5
Nebraska	8	3	5	9	4	6	11	4	7	11	3	8
Nevada	—	—	—	—	—	—	9	5	4	12	8	3
New Hampshire	12	4	7	12	5	7	14	4	11	—	—	—
New Jersey	10	5	4	12	6	6	10	5	5	—	—	—
New Mexico	8	6	3	10	4	6	13	5	9	17	10	7
New York	8	4	4	10	6	4	10	5	4	12	10	1
North Carolina	9	3	6	12	3	9	8	4	5	14	13	2
North Dakota	7	2	5	7	2	5	9	3	6	11	4	7
Ohio	8	5	3	9	6	4	—	—	—	11	9	3
Oklahoma	7	5	2	9	6	3	—	—	—	13	8	5
Oregon	7	2	5	—	—	—	10	3	7	13	4	9
Pennsylvania	10	5	5	8	4	4	—	—	—	—	—	—
Rhode Island	11	5	6	10	4	7	13	5	7	16	9	7
South Carolina	—	—	—	10	6	4	10	6	4	13	7	6
Tennessee	—	—	—	10	5	5	11	4	7	12	4	8
Texas	8	4	3	9	5	4	11	6	5	14	8	6
Utah	—	—	—	9	4	5	10	5	5	10	5	6
Vermont	—	—	—	—	—	—	12	4	8	16	9	7
Virginia	8	4	4	10	5	5	12	7	5	14	10	4
Washington	—	—	—	—	—	—	11	5	6	—	—	—
West Virginia	9	5	4	10	6	4	13	8	4	14	11	3
Wisconsin	7	4	3	9	4	5	11	7	4	16	10	6
Wyoming	8	3	4	9	4	5	10	2	8	12	4	8
Other jurisdictions												
District of Columbia	5	4	1	9	8	1	10	8	2	11	7	4
DoDEA ¹	—	—	—	—	—	—	7	2	5	6	4	3

— Not available.

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

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. South Dakota did not participate in NAEP mathematics assessments from 1990 to 2000. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2000 Mathematics Assessments.

Table A-24.

Percentage of eighth-grade public school students identified as students with disabilities excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17

State/jurisdiction	2000					2003				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	11	3	7	5	2	14	3	11	5	6
Alabama	14	6	7	7	1	13	2	11	8	3
Alaska	—	—	—	—	—	15	1	14	6	8
Arizona	11	2	9	6	2	11	3	9	4	4
Arkansas	13	2	11	7	4	15	1	13	6	7
California	10	3	7	5	3	11	1	9	7	2
Colorado	—	—	—	—	—	12	1	10	4	7
Connecticut	14	5	9	6	3	14	3	11	4	7
Delaware	—	—	—	—	—	16	8	8	3	5
Florida	—	—	—	—	—	14	2	12	3	9
Georgia	9	4	6	3	3	11	2	10	4	6
Hawaii	15	4	11	10	2	16	3	13	5	8
Idaho	11	2	9	6	3	10	1	10	6	4
Illinois	11	3	8	5	3	15	4	12	3	8
Indiana	11	3	8	5	3	14	2	11	5	6
Iowa	—	—	—	—	—	16	2	14	5	9
Kansas	12	3	9	6	3	13	2	11	3	8
Kentucky	12	4	8	4	4	13	4	9	4	5
Louisiana	12	2	10	4	6	16	4	11	2	9
Maine	14	3	12	7	4	16	4	12	5	7
Maryland	12	2	10	7	4	14	3	10	6	5
Massachusetts	16	2	15	7	8	16	2	14	4	10
Michigan	10	4	7	5	2	13	4	8	3	5
Minnesota	12	1	11	9	2	13	2	11	6	5
Mississippi	10	5	5	4	1	9	5	4	2	2
Missouri	14	3	12	5	7	15	4	12	3	9
Montana	12	2	9	6	3	12	2	10	5	6
Nebraska	11	3	8	6	2	14	3	11	6	5
Nevada	12	3	9	5	4	12	2	10	5	5
New Hampshire	—	—	—	—	—	19	3	15	6	9
New Jersey	—	—	—	—	—	15	1	14	2	12
New Mexico	17	7	10	8	3	20	2	18	8	10
New York	12	3	9	2	6	16	4	12	2	10
North Carolina	14	4	10	3	7	16	3	12	2	10
North Dakota	11	2	9	7	2	14	1	13	6	7
Ohio	11	4	7	4	3	13	5	8	3	5
Oklahoma	13	4	9	7	3	16	2	14	8	6
Oregon	13	2	11	6	5	14	3	12	7	4
Pennsylvania	—	—	—	—	—	14	1	13	2	10
Rhode Island	16	3	14	10	4	20	3	17	5	12
South Carolina	13	4	9	7	2	15	7	8	4	4
South Dakota	—	—	—	—	—	11	2	9	4	5
Tennessee	11	2	9	9	1	14	3	12	11	1
Texas	14	7	7	5	1	15	6	9	8	2
Utah	10	2	8	6	2	11	2	9	5	4
Vermont	16	3	13	9	4	17	3	15	7	7
Virginia	13	5	7	4	4	15	6	9	3	6
Washington	—	—	—	—	—	13	2	11	7	4
West Virginia	14	3	12	4	8	16	3	13	5	9
Wisconsin	15	4	12	6	6	15	3	13	2	10
Wyoming	12	1	11	8	3	15	1	14	4	9
Other jurisdictions										
District of Columbia	11	5	7	2	4	16	5	11	3	8
DoDEA ¹	6	1	5	4	2	8	1	7	1	5
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-24.

Percentage of eighth-grade public school students identified as students with disabilities excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2005					2007				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	13	3	10	3	7	13	4	9	2	6
Alabama	13	1	12	9	3	12	3	9	7	2
Alaska	14	2	12	3	10	12	4	8	3	6
Arizona	10	3	7	3	4	11	3	8	3	5
Arkansas	14	3	11	5	7	12	2	10	2	8
California	9	2	8	4	3	9	2	7	4	3
Colorado	10	2	9	2	6	10	2	9	1	7
Connecticut	13	2	11	4	7	13	1	12	3	9
Delaware	15	10	5	2	3	14	6	8	2	6
Florida	16	2	14	3	11	13	2	11	1	10
Georgia	12	2	9	3	6	9	5	5	2	3
Hawaii	14	2	12	5	7	13	1	12	4	7
Idaho	12	2	10	4	6	10	1	8	3	5
Illinois	15	3	13	2	10	14	5	9	2	8
Indiana	15	4	11	2	9	15	5	10	2	8
Iowa	15	2	13	3	10	15	2	13	2	11
Kansas	14	3	10	2	8	12	4	9	2	7
Kentucky	11	3	8	2	6	13	6	7	2	5
Louisiana	14	4	10	1	9	12	3	9	1	8
Maine	18	4	14	5	8	17	5	12	3	9
Maryland	11	4	7	3	4	11	7	4	1	3
Massachusetts	17	6	12	2	9	17	9	8	2	6
Michigan	14	4	10	2	7	14	4	9	2	8
Minnesota	12	2	10	4	6	12	2	10	3	7
Mississippi	9	3	6	3	3	11	2	8	2	6
Missouri	14	4	10	2	8	13	5	9	2	6
Montana	13	2	11	3	8	13	3	10	2	8
Nebraska	13	1	12	4	8	13	2	11	3	7
Nevada	11	2	9	4	5	12	3	9	4	5
New Hampshire	18	2	16	6	10	19	3	16	5	12
New Jersey	16	3	14	2	12	14	3	12	1	11
New Mexico	16	2	14	4	9	12	2	10	4	7
New York	15	3	12	1	11	14	3	11	1	11
North Carolina	14	2	12	2	11	13	2	11	1	10
North Dakota	16	4	12	4	8	14	6	8	2	6
Ohio	14	5	8	2	7	15	7	8	1	7
Oklahoma	16	4	12	5	7	14	8	6	2	4
Oregon	13	2	10	4	6	12	3	9	4	5
Pennsylvania	15	3	12	3	10	15	4	12	3	9
Rhode Island	17	3	15	6	9	17	2	15	3	12
South Carolina	14	6	8	4	4	13	5	8	3	5
South Dakota	12	2	10	3	6	11	2	9	2	6
Tennessee	14	5	10	5	5	12	6	5	3	3
Texas	13	5	8	5	3	11	5	6	3	3
Utah	11	2	9	3	6	10	2	8	2	6
Vermont	18	4	14	6	8	19	4	15	5	10
Virginia	15	4	10	3	7	14	6	8	2	6
Washington	11	2	9	3	7	11	3	8	2	6
West Virginia	17	3	14	6	8	17	2	15	5	10
Wisconsin	14	3	11	2	9	14	4	10	2	9
Wyoming	14	2	13	3	10	13	2	11	3	9
Other jurisdictions										
District of Columbia	17	5	12	2	10	17	9	8	2	6
DoDEA ¹	9	1	8	2	5	7	1	7	1	6
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-24.

Percentage of eighth-grade public school students identified as students with disabilities excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2009					2011				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	13	3	10	2	8	13	2	10	2	9
Alabama	10	1	9	6	3	10	1	9	6	3
Alaska	13	3	10	1	9	13	3	10	1	9
Arizona	12	2	10	2	7	11	1	9	1	8
Arkansas	12	1	11	2	9	11	1	10	1	9
California	9	1	8	2	5	10	1	9	3	6
Colorado	11	2	9	1	7	10	1	9	1	8
Connecticut	13	2	11	2	9	12	1	11	1	10
Delaware	15	2	13	1	12	14	3	12	2	10
Florida	15	2	13	1	12	14	2	13	1	12
Georgia	11	3	9	1	8	10	3	8	1	6
Hawaii	12	1	11	3	8	11	1	10	2	8
Idaho	9	1	8	3	5	8	1	7	1	6
Illinois	14	3	11	2	9	14	2	12	1	10
Indiana	14	4	10	2	8	14	2	12	1	11
Iowa	14	2	12	2	10	15	1	13	1	12
Kansas	12	3	9	1	8	12	1	10	2	8
Kentucky	12	4	7	1	6	12	3	8	1	7
Louisiana	15	2	13	2	12	14	1	13	1	12
Maine	17	2	15	3	12	18	1	17	3	14
Maryland	12	7	5	1	4	11	6	5	1	5
Massachusetts	19	5	13	3	10	19	3	15	1	14
Michigan	13	3	10	2	8	12	3	9	2	7
Minnesota	12	2	10	3	7	13	2	11	3	8
Mississippi	9	2	8	1	6	8	1	7	1	6
Missouri	13	3	10	2	7	13	1	12	2	10
Montana	12	3	9	2	8	12	2	11	2	9
Nebraska	14	3	11	3	8	14	3	11	2	8
Nevada	11	2	8	2	6	10	3	7	2	5
New Hampshire	20	3	17	5	12	18	2	16	3	13
New Jersey	16	2	14	1	13	17	4	13	1	12
New Mexico	13	3	10	3	8	12	2	11	3	8
New York	16	2	14	1	13	16	1	15	#	14
North Carolina	12	1	11	1	10	14	2	12	1	10
North Dakota	15	5	10	4	6	14	4	10	2	8
Ohio	15	5	10	1	9	15	5	10	1	9
Oklahoma	15	6	9	2	7	16	9	6	3	3
Oregon	13	3	10	4	6	13	1	12	3	9
Pennsylvania	17	3	14	2	12	16	2	13	2	11
Rhode Island	18	2	16	3	13	16	1	15	3	12
South Carolina	14	4	9	4	5	11	4	7	2	6
South Dakota	10	2	9	2	6	11	1	9	3	7
Tennessee	11	4	7	1	6	12	4	8	1	7
Texas	12	5	7	2	5	11	5	6	2	4
Utah	10	3	7	2	6	10	3	8	1	7
Vermont	20	2	18	5	13	18	1	17	3	14
Virginia	14	3	10	3	7	13	2	11	3	8
Washington	11	2	9	2	7	12	1	10	2	9
West Virginia	15	2	13	4	10	13	2	12	3	9
Wisconsin	14	2	12	2	10	14	2	12	1	11
Wyoming	14	2	12	2	10	13	1	12	1	10
Other jurisdictions										
District of Columbia	17	6	11	1	10	17	4	13	1	12
DoDEA ¹	8	1	7	2	5	10	2	8	1	7
Puerto Rico	—	—	—	—	—	19	1	18	#	17

See notes at end of table.

Table A-24.

Percentage of eighth-grade public school students identified as students with disabilities excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2013					2015				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	13	1	12	1	10	13	1	12	1	11
Alabama	10	1	9	4	5	10	1	9	4	6
Alaska	14	1	13	1	12	14	2	13	1	12
Arizona	12	1	11	1	10	11	1	10	1	9
Arkansas	13	2	11	1	11	12	2	11	1	9
California	10	1	8	2	7	11	1	10	3	7
Colorado	11	1	10	1	9	11	1	10	1	9
Connecticut	15	2	13	1	12	16	1	15	2	13
Delaware	15	1	14	1	14	17	1	16	2	14
Florida	13	1	12	1	11	14	1	13	1	12
Georgia	12	1	10	2	9	12	1	11	1	10
Hawaii	12	1	11	2	8	11	1	10	3	7
Idaho	9	1	8	1	7	11	1	10	1	9
Illinois	13	1	13	1	12	13	#	13	1	11
Indiana	15	2	13	1	12	14	1	13	1	12
Iowa	13	1	12	1	12	13	1	12	1	11
Kansas	13	2	11	1	10	12	1	11	2	9
Kentucky	11	2	10	#	9	13	1	11	1	11
Louisiana	15	1	14	#	13	18	1	17	1	16
Maine	18	1	17	2	15	18	1	17	2	16
Maryland	13	1	12	#	11	15	1	13	1	12
Massachusetts	17	1	16	1	15	19	2	18	2	16
Michigan	13	2	11	2	9	13	2	11	1	10
Minnesota	13	1	11	4	8	13	2	11	4	8
Mississippi	8	1	8	1	6	10	1	10	1	8
Missouri	12	1	11	1	10	13	1	12	1	10
Montana	12	1	10	1	9	12	1	11	3	8
Nebraska	14	2	12	2	11	14	2	13	2	11
Nevada	11	1	10	1	9	10	1	9	2	8
New Hampshire	18	1	17	2	15	18	1	16	2	14
New Jersey	17	1	15	#	15	18	1	17	1	16
New Mexico	13	2	12	3	9	14	1	12	3	9
New York	16	2	15	#	15	17	1	17	1	16
North Carolina	14	1	13	1	12	15	1	14	1	12
North Dakota	14	3	11	1	10	14	2	12	2	11
Ohio	15	1	13	1	13	16	2	14	#	13
Oklahoma	16	1	14	2	13	16	1	15	2	14
Oregon	14	1	13	3	10	15	2	13	3	10
Pennsylvania	16	1	15	2	13	17	2	15	1	14
Rhode Island	15	1	14	1	13	16	1	14	2	13
South Carolina	12	1	11	2	9	12	1	11	2	10
South Dakota	11	1	10	2	8	12	1	10	3	7
Tennessee	11	2	10	1	9	14	2	13	1	12
Texas	11	1	10	1	9	12	2	10	1	9
Utah	11	1	10	1	9	11	1	10	1	8
Vermont	17	1	17	2	15	19	1	18	1	16
Virginia	13	1	12	2	10	14	2	12	2	10
Washington	12	2	10	1	9	12	1	12	1	10
West Virginia	13	2	11	2	9	14	2	13	2	11
Wisconsin	14	1	13	1	12	14	1	13	1	11
Wyoming	14	1	13	1	11	14	1	13	1	12
Other jurisdictions										
District of Columbia	18	#	17	#	17	19	1	18	#	18
DoDEA ¹	11	1	10	1	8	10	1	10	1	8
Puerto Rico	23	#	23	#	23	24	#	24	1	23

See notes at end of table.

Table A-24.

Percentage of eighth-grade public school students identified as students with disabilities excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2017				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	14	1	13	3	10
Alabama	11	1	10	5	4
Alaska	14	1	12	2	10
Arizona	10	1	9	2	7
Arkansas	14	2	12	2	10
California	12	1	11	4	6
Colorado	12	1	10	3	8
Connecticut	16	1	14	3	12
Delaware	17	2	15	3	12
Florida	15	2	13	1	12
Georgia	13	1	11	2	10
Hawaii	11	2	9	5	4
Idaho	10	1	9	2	7
Illinois	14	1	13	1	12
Indiana	15	1	13	2	12
Iowa	13	1	12	1	11
Kansas	13	1	12	5	7
Kentucky	13	1	12	1	10
Louisiana	19	2	16	1	15
Maine	19	1	18	3	14
Maryland	13	1	12	1	11
Massachusetts	19	2	17	3	14
Michigan	13	2	11	2	9
Minnesota	13	2	11	6	5
Mississippi	10	1	10	2	8
Missouri	14	1	12	3	9
Montana	13	1	12	4	8
Nebraska	15	1	14	2	11
Nevada	11	1	9	4	5
New Hampshire	17	1	16	5	11
New Jersey	17	1	16	1	15
New Mexico	15	2	14	3	11
New York	17	1	17	1	15
North Carolina	14	2	13	4	9
North Dakota	14	1	13	4	8
Ohio	16	2	14	1	13
Oklahoma	17	1	15	3	13
Oregon	14	1	13	5	8
Pennsylvania	17	2	15	3	11
Rhode Island	16	2	15	3	12
South Carolina	13	1	12	7	6
South Dakota	13	2	11	7	4
Tennessee	14	2	12	2	10
Texas	14	2	12	1	10
Utah	11	1	10	2	8
Vermont	20	1	19	4	15
Virginia	13	1	12	4	8
Washington	14	1	12	3	9
West Virginia	15	2	13	5	8
Wisconsin	13	1	12	2	9
Wyoming	14	1	13	2	11
Other jurisdictions					
District of Columbia	18	1	17	2	15
DoDEA ¹	11	1	11	2	8
Puerto Rico	—	—	—	—	—

— Not available.

Rounds to zero.

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

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. 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, 2000–17 Mathematics Assessments.

Table A-25.

Percentage of fourth-grade public school students identified as English language learners excluded and assessed in NAEP mathematics when accommodations were not permitted, by state/jurisdiction: 1992, 1996, and 2000

State/jurisdiction	1992			1996			2000		
	Identified	Excluded	Assessed	Identified	Excluded	Assessed	Identified	Excluded	Assessed
Nation (public)	3	2	1	4	2	2	6	2	3
Alabama	#	#	#	#	#	#	1	#	#
Alaska	—	—	—	8	1	6	—	—	—
Arizona	8	2	6	12	7	6	16	7	9
Arkansas	1	#	#	#	#	#	1	#	1
California	22	10	12	26	12	14	27	7	20
Colorado	2	1	1	4	2	2	—	—	—
Connecticut	4	2	1	3	2	1	4	2	1
Delaware	1	1	#	2	1	1	—	—	—
Florida	4	2	2	6	3	3	—	—	—
Georgia	1	1	#	2	2	1	2	1	1
Hawaii	4	2	3	5	1	4	7	3	4
Idaho	2	1	1	—	—	—	5	2	4
Illinois	—	—	—	—	—	—	7	4	2
Indiana	#	#	#	#	#	#	1	1	#
Iowa	1	#	1	2	1	1	1	1	#
Kansas	—	—	—	—	—	—	5	2	3
Kentucky	#	#	#	#	#	#	#	#	#
Louisiana	1	#	1	1	1	#	1	1	1
Maine	#	#	#	#	#	#	1	#	#
Maryland	1	1	1	1	1	#	2	2	#
Massachusetts	3	1	2	4	2	1	6	3	3
Michigan	1	1	#	2	1	1	2	2	1
Minnesota	2	#	2	3	1	2	5	2	3
Mississippi	#	#	#	#	#	#	#	#	#
Missouri	#	#	#	1	#	#	1	#	#
Montana	—	—	—	#	#	#	2	#	2
Nebraska	1	#	1	2	1	1	4	3	1
Nevada	—	—	—	8	4	4	11	5	6
New Hampshire	#	#	#	—	—	—	—	—	—
New Jersey	4	2	1	2	1	1	—	—	—
New Mexico	4	1	2	10	5	5	20	6	14
New York	5	2	3	6	3	3	6	4	3
North Carolina	1	#	#	2	1	1	3	2	1
North Dakota	1	#	#	#	#	#	1	#	#
Ohio	1	#	1	—	—	—	1	#	#
Oklahoma	2	#	1	—	—	—	5	2	4
Oregon	—	—	—	6	3	3	6	2	3
Pennsylvania	1	1	#	1	1	#	—	—	—
Rhode Island	6	3	3	5	2	4	7	3	4
South Carolina	#	#	#	#	#	#	1	1	#
Tennessee	#	#	#	1	1	#	1	#	#
Texas	9	4	5	13	5	9	13	7	5
Utah	1	1	#	2	1	1	6	3	3
Vermont	—	—	—	1	#	#	2	1	1
Virginia	1	1	1	2	1	1	4	2	2
Washington	—	—	—	3	1	2	—	—	—
West Virginia	#	#	#	#	#	#	#	#	#
Wisconsin	1	1	1	2	1	1	5	3	3
Wyoming	1	#	1	1	#	#	2	1	2
Other jurisdictions									
District of Columbia	4	2	1	6	4	1	6	3	4
DoDEA ¹	—	—	—	2	1	1	3	1	2

— Not available.

Rounds to zero.

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

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment.

South Dakota did not participate in NAEP mathematics assessments from 1992 to 2000. 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), 1992, 1996, and 2000 Mathematics Assessments.

Table A-26.

Percentage of fourth-grade public school students identified as English language learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000-17

State/jurisdiction	2000					2003				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	7	1	6	5	1	11	1	9	7	2
Alabama	#	#	#	#	#	1	#	1	1	#
Alaska	—	—	—	—	—	18	#	18	15	3
Arizona	16	3	13	8	5	19	2	17	15	2
Arkansas	1	#	1	1	#	4	1	3	2	#
California	27	3	24	16	7	33	2	30	27	3
Colorado	—	—	—	—	—	9	1	9	4	4
Connecticut	3	1	2	1	1	4	1	3	1	2
Delaware	—	—	—	—	—	3	1	2	1	1
Florida	—	—	—	—	—	11	2	9	5	4
Georgia	2	1	1	1	#	4	1	4	3	1
Hawaii	7	3	4	4	#	7	2	5	3	2
Idaho	5	2	4	3	1	7	1	6	5	2
Illinois	7	2	5	2	3	9	2	7	4	3
Indiana	1	1	1	#	1	3	#	2	2	1
Iowa	2	1	1	1	#	4	1	3	2	1
Kansas	5	#	5	4	1	3	#	3	1	1
Kentucky	1	#	#	#	#	2	1	1	1	#
Louisiana	1	#	#	#	#	2	#	2	#	1
Maine	1	#	1	1	#	1	1	1	1	#
Maryland	2	1	1	1	#	4	2	2	2	1
Massachusetts	6	2	4	2	2	5	1	4	2	2
Michigan	1	1	#	#	#	5	1	4	3	1
Minnesota	5	1	4	2	3	6	1	5	3	2
Mississippi	#	#	#	#	#	1	1	#	#	#
Missouri	1	1	1	1	#	2	1	2	#	1
Montana	#	#	#	#	#	4	#	4	3	1
Nebraska	3	1	2	2	#	5	1	4	3	1
Nevada	11	4	7	6	1	17	2	14	11	4
New Hampshire	—	—	—	—	—	3	1	2	1	1
New Jersey	—	—	—	—	—	4	1	3	1	3
New Mexico	20	2	18	12	6	29	2	27	18	9
New York	6	3	3	1	2	8	3	4	2	3
North Carolina	3	1	2	1	1	5	1	4	2	2
North Dakota	1	#	1	1	#	4	#	4	3	1
Ohio	#	#	#	#	#	2	1	1	#	1
Oklahoma	5	1	5	3	1	7	1	6	5	1
Oregon	6	1	4	2	2	12	1	11	6	5
Pennsylvania	—	—	—	—	—	3	1	2	1	1
Rhode Island	7	1	6	4	2	10	2	7	4	3
South Carolina	1	1	#	#	#	2	#	2	1	#
South Dakota	—	—	—	—	—	4	#	4	2	2
Tennessee	1	1	1	1	#	1	#	1	1	#
Texas	13	2	11	8	3	16	2	14	10	4
Utah	6	1	5	3	2	12	1	10	8	3
Vermont	#	#	#	#	#	2	#	2	1	1
Virginia	4	2	2	1	1	8	2	6	2	3
Washington	—	—	—	—	—	7	1	6	4	2
West Virginia	#	#	#	#	#	#	#	#	#	#
Wisconsin	5	1	4	2	3	7	1	6	2	3
Wyoming	2	#	2	2	#	4	#	4	3	1
Other jurisdictions										
District of Columbia	6	2	4	2	2	7	1	5	2	3
DoDEA ¹	3	1	2	2	#	6	1	5	4	2
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-26.

Percentage of fourth-grade public school students identified as English language learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2005					2007				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	10	1	9	7	3	11	1	10	7	3
Alabama	2	#	2	1	#	2	#	2	2	#
Alaska	19	1	19	11	7	16	1	15	9	6
Arizona	20	2	18	14	5	16	2	14	11	3
Arkansas	4	2	3	2	1	7	1	6	2	5
California	33	3	30	28	2	34	1	33	30	3
Colorado	11	1	11	4	7	15	#	14	7	7
Connecticut	5	1	4	2	2	7	#	7	2	5
Delaware	5	1	3	2	1	5	1	4	2	2
Florida	8	1	6	1	5	8	2	7	1	5
Georgia	3	1	2	1	1	3	#	3	1	2
Hawaii	8	1	7	4	3	10	1	9	5	4
Idaho	8	1	8	6	2	8	#	8	5	2
Illinois	9	1	9	6	3	9	1	8	4	3
Indiana	4	1	3	1	2	5	#	5	2	3
Iowa	4	#	4	2	2	5	#	5	2	3
Kansas	6	1	5	3	3	8	#	8	4	4
Kentucky	1	#	1	#	1	2	#	2	1	1
Louisiana	1	#	1	#	#	1	#	1	1	1
Maine	1	#	1	1	#	2	#	2	1	1
Maryland	4	1	3	1	2	4	1	4	1	3
Massachusetts	7	1	6	3	2	6	1	5	4	2
Michigan	3	1	3	1	1	2	#	2	1	1
Minnesota	7	1	7	4	3	8	1	7	4	3
Mississippi	1	#	#	#	#	1	#	1	1	#
Missouri	3	#	2	1	1	2	#	2	1	1
Montana	3	#	3	2	1	4	#	4	2	2
Nebraska	7	1	7	4	3	8	1	7	5	2
Nevada	17	1	15	10	5	22	2	21	11	9
New Hampshire	3	#	2	2	1	3	#	2	1	1
New Jersey	3	1	3	1	1	4	#	3	#	3
New Mexico	25	1	24	13	11	23	2	21	12	9
New York	6	1	5	1	4	9	1	8	1	7
North Carolina	6	1	6	2	4	7	1	7	2	4
North Dakota	2	#	1	1	#	3	1	2	1	1
Ohio	1	#	1	#	#	3	1	2	1	1
Oklahoma	6	1	5	3	2	5	#	5	4	1
Oregon	14	1	12	7	5	13	1	12	5	7
Pennsylvania	2	#	2	1	1	2	#	2	1	1
Rhode Island	7	1	6	2	4	7	1	6	3	4
South Carolina	2	#	2	1	#	4	#	4	2	1
South Dakota	4	#	3	2	2	4	#	4	3	1
Tennessee	2	1	2	1	#	2	#	2	1	1
Texas	15	2	13	9	4	16	2	14	9	5
Utah	12	1	11	7	4	12	1	11	8	4
Vermont	2	#	2	1	1	3	#	2	1	1
Virginia	8	1	7	2	5	8	1	7	3	4
Washington	9	1	8	5	3	9	1	8	4	4
West Virginia	#	#	#	#	#	1	#	1	1	#
Wisconsin	6	1	6	2	3	7	1	6	2	4
Wyoming	5	#	4	3	1	4	#	4	2	1
Other jurisdictions										
District of Columbia	5	1	4	1	2	8	2	6	1	5
DoDEA ¹	8	1	7	4	2	7	1	5	3	2
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-26.

Percentage of fourth-grade public school students identified as English language learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2009					2011				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	10	1	10	6	4	11	#	11	6	4
Alabama	2	#	2	2	#	2	#	2	2	1
Alaska	10	#	10	3	7	14	1	13	4	9
Arizona	15	#	14	7	8	12	#	12	3	9
Arkansas	6	#	5	1	4	8	#	8	2	5
California	30	1	28	26	2	32	1	31	27	4
Colorado	11	#	10	5	6	16	#	16	8	7
Connecticut	6	1	5	1	5	6	#	6	1	5
Delaware	4	#	3	#	3	4	#	3	1	2
Florida	8	#	7	#	7	9	#	9	#	8
Georgia	4	#	4	1	3	5	#	5	2	3
Hawaii	10	#	10	4	6	11	#	11	6	5
Idaho	5	#	5	3	2	5	#	4	2	2
Illinois	8	1	7	2	5	8	1	7	2	6
Indiana	4	#	4	1	3	7	#	7	2	5
Iowa	5	#	4	1	3	6	#	5	1	4
Kansas	9	#	9	5	4	11	#	11	6	5
Kentucky	2	#	2	1	1	2	1	1	#	1
Louisiana	2	#	2	1	2	2	#	2	1	1
Maine	2	#	1	1	1	3	#	3	2	2
Maryland	6	1	5	1	4	6	1	5	1	5
Massachusetts	7	1	6	5	2	8	1	7	5	2
Michigan	3	#	3	2	1	4	#	3	3	1
Minnesota	8	1	8	4	4	10	#	9	5	4
Mississippi	1	#	1	#	1	2	#	2	1	1
Missouri	2	#	2	1	1	3	#	3	1	2
Montana	3	#	3	1	1	2	#	2	2	#
Nebraska	7	#	6	4	3	8	#	8	3	5
Nevada	20	1	20	8	12	27	#	26	8	18
New Hampshire	3	#	2	1	2	3	#	2	1	2
New Jersey	4	1	3	#	3	3	#	3	#	3
New Mexico	17	1	16	7	9	17	1	16	8	8
New York	8	1	7	#	7	9	1	9	#	8
North Carolina	6	#	5	2	4	7	#	7	4	3
North Dakota	2	#	1	1	1	3	#	3	1	1
Ohio	2	#	2	1	2	3	#	3	#	3
Oklahoma	4	#	4	2	2	6	1	5	3	3
Oregon	12	1	11	4	7	14	1	13	6	7
Pennsylvania	3	#	3	1	2	3	#	3	1	2
Rhode Island	6	1	6	2	3	6	#	6	4	2
South Carolina	5	#	5	2	2	6	#	6	3	2
South Dakota	2	#	2	1	1	5	#	4	2	2
Tennessee	2	#	2	#	2	4	#	3	#	3
Texas	21	1	20	16	4	22	1	21	16	4
Utah	9	1	8	3	5	7	#	6	3	4
Vermont	2	#	2	1	1	2	#	2	1	1
Virginia	7	#	6	2	5	7	#	7	2	5
Washington	10	#	10	4	5	11	#	11	4	7
West Virginia	#	#	#	#	#	1	#	1	#	#
Wisconsin	7	1	6	1	4	8	#	8	1	6
Wyoming	2	#	2	1	1	4	#	3	2	2
Other jurisdictions										
District of Columbia	8	1	6	1	5	7	1	6	1	5
DoDEA ¹	7	1	6	3	3	7	1	5	3	2
Puerto Rico	—	—	—	—	—	#	#	#	#	#

See notes at end of table.

Table A-26.

Percentage of fourth-grade public school students identified as English language learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2013					2015				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	11	#	11	5	5	12	1	11	6	5
Alabama	2	#	2	2	1	2	#	2	2	1
Alaska	14	#	14	2	11	15	#	15	5	9
Arizona	7	#	7	1	6	10	#	10	2	7
Arkansas	8	#	8	3	6	8	#	8	2	6
California	26	1	25	20	4	28	1	28	24	4
Colorado	14	#	14	8	6	14	#	14	10	4
Connecticut	6	#	6	#	5	7	1	7	2	5
Delaware	3	#	3	1	2	5	#	5	2	3
Florida	10	1	10	#	10	10	1	9	#	9
Georgia	5	#	5	1	3	6	#	5	2	4
Hawaii	8	1	7	4	4	8	1	7	4	3
Idaho	5	#	4	2	2	5	#	5	2	3
Illinois	9	#	8	1	7	10	1	10	3	6
Indiana	6	#	6	1	5	7	#	7	2	5
Iowa	6	#	5	1	5	8	1	7	1	6
Kansas	13	#	13	6	6	14	#	13	10	4
Kentucky	3	#	3	#	2	4	#	4	1	3
Louisiana	3	#	3	1	2	3	#	3	1	2
Maine	2	#	2	1	2	3	#	3	2	2
Maryland	8	#	8	1	7	9	#	8	2	6
Massachusetts	11	#	10	7	3	10	#	9	6	3
Michigan	8	#	8	5	3	5	#	4	3	2
Minnesota	8	#	8	5	4	10	#	9	6	3
Mississippi	2	#	1	1	1	2	#	2	1	1
Missouri	2	#	2	#	2	3	#	3	1	1
Montana	4	#	3	3	1	3	#	3	2	1
Nebraska	7	#	7	2	5	7	#	7	2	5
Nevada	23	#	22	4	18	24	1	24	9	15
New Hampshire	2	#	2	1	1	3	#	3	2	1
New Jersey	3	#	3	#	3	3	1	3	#	2
New Mexico	18	#	18	8	10	17	1	16	7	9
New York	8	1	7	#	7	8	1	8	#	7
North Carolina	7	#	6	3	4	7	#	6	3	3
North Dakota	2	#	2	1	1	2	#	2	1	1
Ohio	3	#	3	#	3	4	#	4	1	4
Oklahoma	7	#	6	3	3	7	#	6	4	3
Oregon	14	1	13	5	8	13	1	13	7	6
Pennsylvania	3	#	3	#	2	3	#	3	1	2
Rhode Island	7	#	6	2	4	8	1	7	4	3
South Carolina	7	#	7	4	3	8	#	7	5	3
South Dakota	4	#	4	1	3	3	#	3	1	2
Tennessee	4	#	4	#	4	5	#	5	1	3
Texas	23	1	23	12	11	23	1	22	11	11
Utah	6	#	6	1	5	5	1	4	3	1
Vermont	2	#	2	1	1	3	#	3	2	1
Virginia	7	#	7	2	5	7	1	6	1	5
Washington	9	#	9	2	7	13	#	13	6	7
West Virginia	1	#	1	#	#	1	#	1	1	#
Wisconsin	8	#	8	1	7	7	#	7	2	5
Wyoming	3	#	3	1	2	4	#	4	2	2
Other jurisdictions										
District of Columbia	7	1	6	1	6	7	1	6	2	4
DoDEA ¹	6	1	6	2	3	9	#	8	4	4
Puerto Rico	1	#	1	#	1	1	#	1	#	#

See notes at end of table.

Table A-26.

Percentage of fourth-grade public school students identified as English language learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2017				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	12	1	11	7	5
Alabama	4	#	3	2	1
Alaska	14	#	14	9	5
Arizona	11	1	10	4	7
Arkansas	10	#	10	3	7
California	27	1	25	22	4
Colorado	15	1	14	10	4
Connecticut	9	1	8	2	6
Delaware	10	1	9	5	4
Florida	9	1	8	#	7
Georgia	5	1	5	2	3
Hawaii	7	2	5	4	1
Idaho	6	#	6	4	2
Illinois	12	1	11	5	6
Indiana	6	#	6	3	3
Iowa	6	1	5	2	4
Kansas	13	1	12	10	2
Kentucky	3	#	3	1	2
Louisiana	5	#	5	1	4
Maine	4	#	3	2	1
Maryland	11	1	10	3	8
Massachusetts	10	1	9	6	4
Michigan	8	1	8	6	1
Minnesota	9	1	9	8	1
Mississippi	3	#	3	1	2
Missouri	4	#	4	1	2
Montana	3	#	3	2	1
Nebraska	9	1	8	3	6
Nevada	18	1	18	13	4
New Hampshire	4	#	3	2	2
New Jersey	5	1	4	1	3
New Mexico	17	1	17	8	9
New York	10	1	9	2	7
North Carolina	5	1	5	2	3
North Dakota	2	#	2	1	1
Ohio	4	#	4	2	2
Oklahoma	9	#	8	4	4
Oregon	16	1	15	11	5
Pennsylvania	4	1	4	2	2
Rhode Island	9	1	7	3	4
South Carolina	8	#	8	6	2
South Dakota	2	#	2	1	1
Tennessee	5	1	5	2	3
Texas	25	1	24	13	11
Utah	9	1	8	6	2
Vermont	3	#	2	1	1
Virginia	10	1	9	5	4
Washington	14	1	13	11	2
West Virginia	1	#	1	1	#
Wisconsin	8	#	8	4	4
Wyoming	3	#	2	1	1
Other jurisdictions					
District of Columbia	8	1	8	2	5
DoDEA ¹	9	1	9	5	4
Puerto Rico	—	—	—	—	—

— Not available.

Rounds to zero.

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

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Detail may not sum to totals because of rounding. In Puerto Rico, the English language learner (ELL) category is for the Spanish language learner (SLL).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000–17 Mathematics Assessments.

Table A-27.

Percentage of eighth-grade public school students identified as English language learners excluded and assessed in NAEP mathematics when accommodations were not permitted, by state/jurisdiction: Various years, 1990–2000

State/jurisdiction	1990			1992			1996			2000		
	Identified	Excluded	Assessed									
Nation (public)	—	—	—	2	2	1	3	1	2	4	2	3
Alabama	#	#	#	#	#	#	#	#	#	1	#	#
Alaska	—	—	—	—	—	—	5	1	4	—	—	—
Arizona	5	1	4	6	2	4	9	4	5	10	4	6
Arkansas	#	#	#	#	#	#	1	#	#	2	1	1
California	8	4	4	13	5	8	13	6	7	19	4	15
Colorado	1	1	#	1	1	1	2	1	1	—	—	—
Connecticut	2	1	1	3	1	1	2	2	1	2	1	1
Delaware	1	#	#	1	#	1	1	#	#	—	—	—
Florida	2	2	1	4	2	2	4	3	1	—	—	—
Georgia	#	#	#	1	#	#	2	1	#	1	1	#
Hawaii	3	1	2	5	2	3	4	1	2	6	2	4
Idaho	1	#	#	1	#	#	—	—	—	4	1	3
Illinois	1	1	#	—	—	—	—	—	—	5	2	3
Indiana	#	#	#	1	#	#	1	#	1	2	1	1
Iowa	#	#	#	1	#	1	#	#	#	—	—	—
Kansas	—	—	—	—	—	—	—	—	—	5	2	2
Kentucky	#	#	#	#	#	#	#	#	#	1	#	#
Louisiana	#	#	#	#	#	#	1	#	1	#	#	#
Maine	—	—	—	#	#	#	1	#	1	1	#	1
Maryland	1	1	1	1	1	1	1	1	#	2	1	#
Massachusetts	—	—	—	4	2	1	2	1	#	4	3	1
Michigan	#	#	#	1	#	#	1	1	1	1	1	#
Minnesota	1	#	1	#	#	#	1	#	1	2	1	1
Mississippi	—	—	—	#	#	#	#	#	#	#	#	#
Missouri	—	—	—	1	#	#	1	1	#	1	#	#
Montana	#	#	#	—	—	—	#	#	#	1	#	1
Nebraska	#	#	#	1	#	#	1	1	#	2	1	1
Nevada	—	—	—	—	—	—	7	3	4	5	3	2
New Hampshire	#	#	#	#	#	#	#	#	#	—	—	—
New Jersey	2	2	1	3	1	1	3	2	1	—	—	—
New Mexico	1	1	1	3	1	2	6	4	2	11	4	8
New York	4	2	2	3	3	1	5	3	2	6	4	2
North Carolina	#	#	#	#	#	#	1	1	#	3	3	#
North Dakota	1	#	1	1	#	1	#	#	#	1	#	#
Ohio	#	#	#	#	#	#	—	—	—	1	1	#
Oklahoma	1	#	#	1	#	1	—	—	—	2	1	1
Oregon	1	#	1	—	—	—	2	1	1	5	3	2
Pennsylvania	#	#	#	1	#	1	—	—	—	—	—	—
Rhode Island	4	2	2	4	2	2	4	2	2	4	3	1
South Carolina	—	—	—	#	#	#	#	#	#	#	#	#
Tennessee	—	—	—	#	#	#	#	#	#	1	1	#
Texas	5	2	3	6	2	4	7	3	4	8	3	5
Utah	—	—	—	1	1	#	2	1	#	4	2	2
Vermont	—	—	—	—	—	—	1	#	1	1	1	#
Virginia	1	1	#	2	1	2	1	1	1	2	1	1
Washington	—	—	—	—	—	—	2	1	1	—	—	—
West Virginia	#	#	#	#	#	#	#	#	#	#	#	#
Wisconsin	1	#	#	1	#	1	1	1	#	1	1	#
Wyoming	1	#	#	#	#	#	1	#	1	2	#	—
Other jurisdictions												
District of Columbia	1	1	#	3	2	1	4	3	2	4	3	2
DoDEA ¹	—	—	—	—	—	—	1	1	#	3	2	1

— Not available.

Rounds to zero.

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

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment.

South Dakota did not participate in NAEP mathematics assessments from 1990 to 2000. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2000 Mathematics Assessments.

Table A-28.

Percentage of eighth-grade public school students identified as English language learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000-17

State/jurisdiction	2000					2003				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	4	1	3	3	1	6	1	5	4	1
Alabama	1	#	#	#	#	1	#	1	1	#
Alaska	—	—	—	—	—	11	#	11	10	1
Arizona	10	1	8	6	2	16	2	14	12	2
Arkansas	1	#	#	#	#	3	1	2	1	1
California	19	2	17	13	4	20	2	19	17	1
Colorado	—	—	—	—	—	5	1	4	2	2
Connecticut	2	2	1	#	1	4	1	3	1	1
Delaware	—	—	—	—	—	2	1	1	1	1
Florida	—	—	—	—	—	7	1	5	3	3
Georgia	2	1	#	#	#	2	1	2	1	1
Hawaii	6	1	4	4	#	6	1	5	3	2
Idaho	4	1	4	3	1	6	#	5	4	1
Illinois	5	2	3	3	#	4	1	3	1	2
Indiana	1	#	1	1	#	3	#	2	1	1
Iowa	—	—	—	—	—	2	#	2	1	1
Kansas	1	#	1	1	#	4	1	3	1	2
Kentucky	1	1	1	1	#	1	1	1	1	#
Louisiana	1	#	1	#	#	1	1	1	#	#
Maine	#	#	#	#	#	1	#	1	#	#
Maryland	2	1	1	1	#	3	1	2	2	#
Massachusetts	4	2	2	1	1	3	1	2	1	1
Michigan	#	#	#	#	#	3	1	2	1	1
Minnesota	3	1	3	2	#	4	1	3	2	1
Mississippi	#	#	#	#	#	1	#	#	#	#
Missouri	#	#	#	#	#	1	#	1	#	1
Montana	#	#	#	#	#	3	#	2	1	1
Nebraska	2	1	1	1	#	3	1	2	1	#
Nevada	5	1	4	3	#	7	1	6	5	2
New Hampshire	—	—	—	—	—	1	#	1	#	1
New Jersey	—	—	—	—	—	3	1	2	#	2
New Mexico	11	2	9	7	2	20	1	19	11	7
New York	6	2	4	3	1	6	2	4	1	3
North Carolina	2	1	1	1	#	4	1	3	1	2
North Dakota	1	#	1	1	#	2	#	2	1	1
Ohio	2	1	1	#	#	1	#	1	#	#
Oklahoma	2	#	1	1	#	5	1	5	3	1
Oregon	5	1	4	3	1	7	1	6	4	2
Pennsylvania	—	—	—	—	—	2	#	2	1	1
Rhode Island	4	1	3	2	1	5	2	4	2	2
South Carolina	1	#	#	#	#	1	#	1	1	#
South Dakota	—	—	—	—	—	3	#	3	2	1
Tennessee	1	1	1	1	#	3	1	2	2	#
Texas	8	2	6	5	1	8	2	6	5	1
Utah	4	#	3	3	1	7	1	6	5	2
Vermont	1	1	1	#	#	1	#	1	1	#
Virginia	3	1	2	1	1	4	2	2	1	1
Washington	—	—	—	—	—	5	1	4	3	1
West Virginia	#	#	#	#	#	1	#	#	#	#
Wisconsin	2	1	1	1	1	3	1	2	1	1
Wyoming	2	#	2	2	#	3	#	3	2	1
Other jurisdictions										
District of Columbia	4	2	2	1	2	5	1	4	2	2
DoDEA ¹	3	1	2	2	#	5	1	4	2	1
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-28.

Percentage of eighth-grade public school students identified as English language learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2005					2007				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	6	1	5	4	1	7	1	6	4	2
Alabama	1	#	1	1	#	2	#	2	2	#
Alaska	15	#	15	11	4	17	1	16	11	5
Arizona	14	2	12	10	2	10	1	9	7	2
Arkansas	1	1	1	#	#	3	#	3	1	2
California	21	1	20	18	2	22	1	21	19	2
Colorado	7	1	6	3	3	7	#	6	3	3
Connecticut	3	#	3	1	2	4	#	4	1	2
Delaware	4	1	2	2	1	3	1	2	1	1
Florida	6	1	4	1	3	6	1	5	1	4
Georgia	2	#	2	1	1	2	#	2	1	1
Hawaii	7	1	6	4	2	7	1	6	4	3
Idaho	6	1	6	4	2	6	#	5	4	2
Illinois	3	1	2	1	1	4	1	3	2	1
Indiana	2	#	2	1	1	4	#	3	2	1
Iowa	2	#	2	1	1	3	#	3	1	2
Kansas	4	1	3	2	1	4	#	4	3	1
Kentucky	1	#	1	#	1	2	#	1	#	1
Louisiana	1	#	1	#	1	1	#	1	1	1
Maine	1	#	1	#	1	2	#	1	1	#
Maryland	2	#	2	1	#	2	#	2	1	1
Massachusetts	3	1	2	1	1	3	1	3	1	1
Michigan	3	#	2	2	1	2	#	2	1	#
Minnesota	7	1	6	5	1	5	#	4	4	1
Mississippi	1	#	1	#	#	#	#	#	#	#
Missouri	1	#	1	#	1	2	#	2	1	1
Montana	5	#	4	2	2	5	#	4	3	2
Nebraska	3	#	3	2	1	3	1	2	1	1
Nevada	9	1	9	6	2	11	1	9	6	4
New Hampshire	1	#	1	#	1	2	#	2	1	1
New Jersey	2	1	1	#	1	4	1	3	1	2
New Mexico	17	2	15	9	6	17	2	15	11	4
New York	5	1	4	1	3	5	1	4	#	4
North Carolina	4	1	3	1	2	4	#	4	2	2
North Dakota	1	#	1	1	#	3	#	2	1	1
Ohio	1	#	1	#	#	1	#	1	#	#
Oklahoma	4	1	4	2	1	4	1	3	2	1
Oregon	8	1	7	5	3	9	1	8	5	3
Pennsylvania	1	#	1	#	#	2	1	1	#	1
Rhode Island	5	1	4	2	2	4	1	3	2	1
South Carolina	1	#	1	1	#	2	#	2	1	1
South Dakota	2	#	2	1	1	1	#	1	#	#
Tennessee	1	#	1	1	#	2	#	2	1	1
Texas	8	2	6	5	1	8	2	6	4	2
Utah	7	1	6	4	2	9	1	8	6	2
Vermont	1	#	1	#	#	2	#	1	1	1
Virginia	4	1	3	2	1	4	1	3	2	1
Washington	5	1	4	3	2	6	1	5	3	2
West Virginia	#	#	#	#	#	1	#	1	1	#
Wisconsin	4	1	3	1	1	5	1	3	1	2
Wyoming	4	#	4	3	1	3	#	3	1	1
Other jurisdictions										
District of Columbia	4	1	3	1	2	4	1	3	1	2
DoDEA ¹	4	1	4	2	1	5	1	3	2	1
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-28.

Percentage of eighth-grade public school students identified as English language learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2009					2011				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	6	#	5	3	2	6	#	6	3	2
Alabama	1	#	1	1	#	2	#	2	1	#
Alaska	11	1	10	4	6	11	1	10	3	7
Arizona	6	1	6	2	3	2	#	2	1	1
Arkansas	4	#	4	1	2	5	#	5	2	3
California	20	1	19	16	3	17	1	17	13	4
Colorado	7	#	7	3	4	7	#	7	4	3
Connecticut	3	#	3	1	2	4	#	4	1	3
Delaware	2	1	2	#	1	2	#	2	1	1
Florida	5	#	5	#	4	5	#	5	#	4
Georgia	2	#	2	#	1	2	#	2	#	1
Hawaii	7	1	6	3	3	9	1	9	5	3
Idaho	4	#	3	2	1	4	#	4	2	2
Illinois	3	1	3	1	2	4	#	3	2	2
Indiana	3	#	3	1	1	3	#	3	1	2
Iowa	2	#	2	1	1	3	#	3	1	2
Kansas	6	#	5	3	2	7	#	7	5	2
Kentucky	1	#	1	#	1	1	#	1	#	1
Louisiana	1	#	1	#	1	1	#	1	#	1
Maine	2	#	1	1	1	3	#	3	2	1
Maryland	3	#	2	#	2	3	1	2	#	2
Massachusetts	3	1	2	1	1	4	1	3	2	2
Michigan	2	#	2	1	1	2	#	2	1	1
Minnesota	5	1	5	3	2	5	#	5	3	2
Mississippi	1	#	1	#	#	1	#	1	#	#
Missouri	1	#	1	#	#	1	#	1	#	1
Montana	3	#	3	1	1	2	#	2	1	1
Nebraska	3	#	3	2	1	3	#	2	1	1
Nevada	8	#	8	4	4	10	1	9	5	4
New Hampshire	1	#	1	1	#	2	#	2	1	1
New Jersey	2	#	2	#	2	2	#	2	#	2
New Mexico	11	1	10	5	5	12	1	11	7	4
New York	5	1	4	#	4	6	#	5	#	5
North Carolina	5	#	5	2	3	5	#	5	2	3
North Dakota	2	1	1	1	#	2	#	2	1	1
Ohio	1	1	1	#	#	1	#	1	#	1
Oklahoma	3	#	3	2	1	3	1	3	1	1
Oregon	6	#	6	4	2	6	#	6	3	3
Pennsylvania	2	#	2	1	1	2	#	2	#	2
Rhode Island	3	1	3	1	2	3	#	3	1	2
South Carolina	3	#	3	1	1	4	#	4	2	3
South Dakota	2	#	1	1	#	2	#	2	1	1
Tennessee	1	#	1	#	1	2	#	1	#	1
Texas	7	1	6	4	1	9	1	8	6	1
Utah	5	#	4	3	2	5	1	4	2	2
Vermont	2	#	1	1	1	1	#	1	1	1
Virginia	4	#	3	1	2	6	1	5	3	2
Washington	4	#	3	2	2	5	#	5	3	2
West Virginia	#	#	#	#	#	1	#	1	#	#
Wisconsin	4	1	3	1	2	5	#	5	1	4
Wyoming	2	#	2	1	1	2	#	2	1	1
Other jurisdictions										
District of Columbia	4	1	3	1	2	6	1	5	1	4
DoDEA ¹	5	1	4	2	2	5	1	4	2	1
Puerto Rico	—	—	—	—	—	#	#	#	#	#

See notes at end of table.

Table A-28.

Percentage of eighth-grade public school students identified as English language learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2013					2015				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	6	#	5	2	3	7	#	6	3	3
Alabama	1	#	1	1	#	1	#	1	1	1
Alaska	11	#	11	2	9	12	1	11	4	7
Arizona	2	#	1	#	1	4	#	4	1	2
Arkansas	7	#	6	2	4	7	#	7	3	4
California	13	1	12	9	3	15	#	14	10	4
Colorado	8	#	8	4	4	12	#	11	8	4
Connecticut	4	#	4	#	3	4	#	3	1	2
Delaware	2	#	2	#	1	3	#	2	1	1
Florida	5	1	4	#	4	7	1	6	#	5
Georgia	2	#	2	#	2	3	#	3	1	2
Hawaii	10	1	10	5	5	7	1	6	4	3
Idaho	3	#	3	1	2	3	#	3	1	2
Illinois	5	#	4	1	3	5	#	5	2	3
Indiana	4	#	3	1	3	6	#	5	2	3
Iowa	3	#	3	#	2	4	#	4	2	2
Kansas	8	#	8	5	2	11	#	10	9	2
Kentucky	2	#	2	#	1	1	#	1	#	1
Louisiana	1	#	1	#	1	1	#	1	#	1
Maine	2	#	2	#	1	3	#	3	2	#
Maryland	3	1	3	#	2	4	1	3	1	2
Massachusetts	6	1	5	3	2	6	#	5	3	3
Michigan	4	1	3	1	2	4	#	3	2	1
Minnesota	6	#	5	3	2	7	#	6	5	2
Mississippi	1	#	1	1	#	1	#	1	1	#
Missouri	1	#	1	#	1	2	#	2	1	1
Montana	2	#	2	1	1	2	#	2	1	#
Nebraska	3	#	2	1	2	3	1	2	1	1
Nevada	7	#	7	2	5	15	#	15	10	4
New Hampshire	2	#	2	#	2	2	#	2	#	1
New Jersey	2	#	1	#	1	2	1	2	#	2
New Mexico	14	#	13	7	6	14	1	13	8	5
New York	7	#	6	#	6	6	#	6	#	6
North Carolina	5	#	4	2	3	5	#	5	2	3
North Dakota	2	#	2	1	1	2	#	2	1	1
Ohio	2	#	2	#	1	3	1	3	1	2
Oklahoma	4	#	4	2	2	5	#	5	3	2
Oregon	4	#	3	1	2	3	1	3	1	1
Pennsylvania	3	#	3	#	2	3	1	2	1	1
Rhode Island	5	#	5	1	4	5	1	5	2	3
South Carolina	4	#	3	2	1	5	#	4	3	1
South Dakota	3	#	2	1	1	3	#	2	2	1
Tennessee	1	#	1	#	1	2	#	2	#	1
Texas	8	1	7	3	4	11	1	10	5	5
Utah	4	#	4	1	3	4	1	3	1	2
Vermont	1	#	1	#	1	2	#	2	#	1
Virginia	5	#	5	1	4	6	1	5	2	3
Washington	5	#	5	2	3	7	#	7	4	3
West Virginia	1	#	1	#	#	1	#	1	#	#
Wisconsin	5	#	5	1	4	4	#	4	2	2
Wyoming	2	#	2	#	2	3	#	3	1	1
Other jurisdictions										
District of Columbia	6	1	6	1	5	7	2	5	1	3
DoDEA ¹	4	#	3	2	2	5	#	5	3	2
Puerto Rico	#	#	#	#	#	1	#	#	#	#

See notes at end of table.

Table A-28.

Percentage of eighth-grade public school students identified as English language learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–17—Continued

State/jurisdiction	2017				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
Nation (public)	7	1	6	3	3
Alabama	2	#	2	1	#
Alaska	12	1	11	6	6
Arizona	4	#	4	1	3
Arkansas	9	1	8	4	4
California	15	1	13	10	3
Colorado	10	1	9	7	3
Connecticut	5	1	4	1	2
Delaware	3	1	3	1	2
Florida	7	1	6	1	5
Georgia	3	#	2	#	2
Hawaii	6	1	5	3	2
Idaho	4	1	3	2	1
Illinois	5	1	5	2	3
Indiana	5	#	5	2	3
Iowa	4	#	3	1	2
Kansas	12	#	11	10	1
Kentucky	2	#	2	#	1
Louisiana	2	#	2	#	2
Maine	2	1	2	1	1
Maryland	5	1	4	1	4
Massachusetts	7	1	6	3	4
Michigan	7	1	6	4	1
Minnesota	7	1	6	5	1
Mississippi	2	#	1	1	1
Missouri	2	#	2	1	1
Montana	2	#	2	1	1
Nebraska	3	1	3	1	1
Nevada	14	1	13	10	3
New Hampshire	2	#	2	1	1
New Jersey	3	1	2	#	2
New Mexico	12	1	12	5	7
New York	7	1	6	1	5
North Carolina	4	1	3	2	2
North Dakota	3	#	2	1	1
Ohio	3	#	2	1	2
Oklahoma	5	#	5	3	2
Oregon	5	#	5	2	3
Pennsylvania	3	#	3	1	2
Rhode Island	6	1	5	1	4
South Carolina	7	#	7	6	1
South Dakota	3	1	2	2	#
Tennessee	3	#	2	1	2
Texas	12	#	11	7	4
Utah	5	#	5	2	3
Vermont	1	#	1	1	1
Virginia	6	1	5	2	3
Washington	6	#	6	3	2
West Virginia	1	#	1	1	#
Wisconsin	5	#	5	2	3
Wyoming	2	#	2	1	1
Other jurisdictions					
District of Columbia	8	1	6	1	5
DoDEA ¹	5	1	4	2	2
Puerto Rico	—	—	—	—	—

— Not available.

Rounds to zero.

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

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Detail may not sum to totals because of rounding. In Puerto Rico, the English language learner (ELL) category is for the Spanish language learner (SLL).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000–17 Mathematics Assessments.

Table A-29.

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 identified SD and/or ELL students, by state/jurisdiction: 2017

State/jurisdiction	Percentage of identified SD and/or ELL students											
	SD and/or ELL				SD				ELL			
	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	8	92	40	51	10	90	25	64	7	93	55	38
Alabama	7	93	52	41	8	92	47	46	4	96	69	27
Alaska	4	96	49	47	6	94	36	59	2	98	60	38
Arizona	8	92	26	65	10	90	19	71	6	94	33	61
Arkansas	6	94	27	67	9	91	24	67	3	97	29	67
California	8	92	73	19	17	83	40	44	5	95	81	13
Colorado	6	94	53	41	8	92	27	65	6	94	69	26
Connecticut	9	91	23	68	9	91	22	69	10	90	23	68
Delaware	6	94	36	58	6	94	27	67	7	93	49	45
Florida	12	88	10	78	10	90	12	77	15	85	5	80
Georgia	9	91	25	66	9	91	20	71	11	89	37	52
Hawaii	17	83	46	37	15	85	35	49	24	76	59	17
Idaho	8	92	39	53	8	92	25	67	8	92	60	32
Illinois	7	93	29	64	7	93	15	78	8	92	44	49
Indiana	7	93	26	67	7	93	19	74	8	92	41	51
Iowa	9	91	19	72	9	91	13	78	10	90	31	59
Kansas	6	94	61	33	8	92	40	52	4	96	81	15
Kentucky	8	92	32	60	7	93	31	62	14	86	34	52
Louisiana	9	91	15	76	10	90	13	77	8	92	20	72
Maine	6	94	33	61	5	95	26	69	9	91	69	22
Maryland	6	94	21	73	6	94	15	79	6	94	25	69
Massachusetts	8	92	30	62	9	91	14	77	6	94	57	37
Michigan	14	86	56	31	18	82	41	41	6	94	76	18
Minnesota	8	92	66	26	9	91	54	37	7	93	81	11
Mississippi	7	93	35	59	7	93	34	59	‡	‡	‡	‡
Missouri	7	93	36	57	7	93	37	56	7	93	31	63
Montana	7	93	45	48	8	92	36	56	1	99	76	23
Nebraska	7	93	32	61	7	93	33	60	6	94	28	66
Nevada	5	95	69	26	9	91	53	38	4	96	73	23
New Hampshire	5	95	27	68	4	96	23	73	9	91	42	48
New Jersey	8	92	17	74	5	95	17	78	21	79	14	65
New Mexico	6	94	38	56	8	92	25	66	5	95	44	50
New York	7	93	13	80	5	95	11	84	9	91	17	75
North Carolina	9	91	30	61	8	92	27	65	11	89	35	53
North Dakota	9	91	41	50	9	91	40	52	‡	‡	‡	‡
Ohio	10	90	18	73	11	89	11	78	5	95	43	53
Oklahoma	8	92	35	57	10	90	27	63	4	96	50	45
Oregon	6	94	56	38	9	91	40	51	4	96	67	28
Pennsylvania	10	90	28	62	10	90	24	66	12	88	41	47
Rhode Island	10	90	18	72	7	93	7	87	17	83	32	51
South Carolina	6	94	59	34	7	93	53	40	6	94	69	25
South Dakota	7	93	58	35	8	92	60	32	‡	‡	‡	‡
Tennessee	11	89	31	58	12	88	32	57	11	89	28	60
Texas	8	92	41	50	16	84	19	65	5	95	50	44
Utah	8	92	56	36	9	91	46	45	7	93	69	24
Vermont	6	94	26	68	5	95	24	71	‡	‡	‡	‡
Virginia	10	90	38	52	11	89	26	62	8	92	52	40
Washington	9	91	60	31	15	85	35	60	5	95	80	15
West Virginia	6	94	50	43	6	94	50	44	‡	‡	‡	‡
Wisconsin	8	92	38	55	10	90	30	60	5	95	47	48
Wyoming	8	92	32	60	7	93	28	64	10	90	44	46
Other jurisdictions												
District of Columbia	9	91	19	72	8	92	12	80	11	89	28	61
DoDEA ¹	6	94	39	55	4	96	28	68	8	92	51	42
Puerto Rico	—	—	—	—	—	—	—	—	—	—	—	—

— Not available.

‡ Reporting standards not met.

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

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Students identified as both SD and ELL were counted only once under the combined SD and/or ELL category, but were counted separately under the SD and ELL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding. In Puerto Rico, the English language learner (ELL) category is for the Spanish language learner (SLL).

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 A-30.

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 identified SD and/or ELL students, by state/jurisdiction: 2017

State/jurisdiction	Percentage of identified SD and/or ELL students											
	SD and/or ELL				SD				ELL			
	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	10	90	29	61	10	90	18	72	10	90	50	40
Alabama	14	86	51	35	13	87	49	38	‡	‡	‡	‡
Alaska	7	93	32	60	10	90	17	73	5	95	47	48
Arizona	10	90	24	66	10	90	20	70	9	91	29	61
Arkansas	10	90	31	59	13	87	16	71	7	93	51	43
California	8	92	59	33	9	91	36	55	8	92	72	21
Colorado	9	91	44	47	12	88	22	66	7	93	65	27
Connecticut	11	89	20	69	7	93	18	74	26	74	24	50
Delaware	12	88	19	69	10	90	17	73	24	76	28	48
Florida	13	87	9	78	11	89	9	80	15	85	10	75
Georgia	11	89	16	73	11	89	15	74	13	87	14	72
Hawaii	14	86	51	36	16	84	46	37	15	85	52	34
Idaho	9	91	30	61	7	93	24	69	14	86	47	38
Illinois	8	92	15	77	7	93	8	85	14	86	29	57
Indiana	8	92	19	73	10	90	11	80	4	96	41	54
Iowa	8	92	15	77	7	93	11	82	8	92	30	62
Kansas	6	94	60	34	8	92	36	56	4	96	85	12
Kentucky	9	91	12	79	9	91	10	81	11	89	24	65
Louisiana	13	87	6	81	13	87	5	82	‡	‡	‡	‡
Maine	9	91	20	71	7	93	18	75	‡	‡	‡	‡
Maryland	10	90	8	82	8	92	5	87	13	87	15	72
Massachusetts	9	91	24	67	9	91	17	74	13	87	37	50
Michigan	13	87	34	53	14	86	17	69	14	86	65	20
Minnesota	13	87	57	30	15	85	46	39	9	91	76	15
Mississippi	9	91	22	70	8	92	17	74	‡	‡	‡	‡
Missouri	10	90	26	64	10	90	22	68	‡	‡	‡	‡
Montana	8	92	38	54	9	91	34	57	‡	‡	‡	‡
Nebraska	12	88	21	67	10	90	16	74	23	77	41	36
Nevada	8	92	60	32	12	88	40	48	6	94	72	22
New Hampshire	7	93	29	64	6	94	29	65	‡	‡	‡	‡
New Jersey	8	92	5	86	6	94	6	89	22	78	4	73
New Mexico	8	92	32	60	10	90	19	71	7	93	41	53
New York	9	91	7	83	4	96	7	88	20	80	9	71
North Carolina	12	88	29	59	11	89	25	63	14	86	43	43
North Dakota	10	90	33	57	10	90	31	59	‡	‡	‡	‡
Ohio	13	87	8	80	13	87	5	83	13	87	22	65
Oklahoma	8	92	24	68	8	92	15	77	6	94	55	39
Oregon	8	92	41	51	9	91	37	54	3	97	47	51
Pennsylvania	12	88	21	68	12	88	19	68	8	92	27	65
Rhode Island	10	90	19	71	9	91	18	73	13	87	21	66
South Carolina	7	93	61	32	8	92	48	44	6	94	84	10
South Dakota	16	84	55	28	14	86	55	31	30	70	56	15
Tennessee	14	86	18	68	14	86	16	70	14	86	28	58
Texas	10	90	33	57	13	87	9	77	4	96	59	36
Utah	9	91	27	64	9	91	20	71	6	94	41	53
Vermont	5	95	20	74	5	95	19	76	‡	‡	‡	‡
Virginia	13	87	31	56	11	89	29	60	15	85	36	49
Washington	9	91	33	58	9	91	23	68	6	94	55	39
West Virginia	13	87	34	53	14	86	32	54	‡	‡	‡	‡
Wisconsin	9	91	23	68	11	89	17	72	5	95	38	57
Wyoming	7	93	20	73	6	94	15	79	‡	‡	‡	‡
Other jurisdictions												
District of Columbia	9	91	10	81	5	95	10	86	19	81	11	70
DoDEA ¹	8	92	28	64	7	93	19	74	13	87	48	39
Puerto Rico	—	—	—	—	—	—	—	—	—	—	—	—

— Not available.

‡ Reporting standards not met.

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

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Students identified as both SD and ELL were counted only once under the combined SD and/or ELL category, but were counted separately under the SD and ELL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding. In Puerto Rico, the English language learner (ELL) category is for the Spanish language learner (SLL).

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 A-31.

Percentage of fourth-grade public school students identified as students with disabilities (SD) and/or English language learners (ELL) excluded and assessed in NAEP mathematics, by SD/ELL category and urban district/jurisdiction: Various years, 2003–17

SD/ELL category and urban district/jurisdiction	2003					2005				
	Identified	Excluded	Assessed	Assessed without accom- modations	Assessed with accom- modations	Identified	Excluded	Assessed	Assessed without accom- modations	Assessed with accom- modations
SD and/or ELL										
Nation (public)	22	4	18	10	8	23	3	20	10	10
Large city ¹ (public)	31	5	25	17	9	32	4	28	17	11
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	9	1	8	4	4	11	1	9	3	6
Austin	—	—	—	—	—	37	10	27	12	14
Baltimore City	—	—	—	—	—	—	—	—	—	—
Boston	33	5	28	11	17	33	6	27	11	15
Charlotte	21	4	17	5	12	22	3	19	7	12
Chicago	31	8	23	16	7	29	4	25	15	9
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	15	7	8	3	5	17	6	12	2	9
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	18	4	14	4	10	20	6	14	4	10
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	—	—	—	—	—
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	45	8	37	19	18	46	7	38	17	21
Jefferson County (KY)	—	—	—	—	—	—	—	—	—	—
Los Angeles	60	3	56	48	8	59	5	54	47	7
Miami-Dade	—	—	—	—	—	—	—	—	—	—
Milwaukee	—	—	—	—	—	—	—	—	—	—
New York City	22	6	16	4	12	24	4	19	2	17
Philadelphia	—	—	—	—	—	—	—	—	—	—
San Diego	41	2	38	34	4	43	4	39	33	6
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—
SD										
Nation (public)	14	3	11	4	7	14	3	11	4	8
Large city ¹ (public)	13	3	9	4	6	13	3	10	3	7
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	8	1	7	3	4	9	1	8	2	6
Austin	—	—	—	—	—	15	7	8	2	6
Baltimore City	—	—	—	—	—	—	—	—	—	—
Boston	20	3	16	4	12	22	5	17	3	14
Charlotte	17	3	14	3	10	13	2	11	3	8
Chicago	15	5	10	4	6	13	4	10	3	7
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	12	5	6	2	5	13	5	8	1	8
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	13	4	10	2	7	16	5	11	2	8
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	—	—	—	—	—
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	18	7	11	8	3	12	5	7	3	4
Jefferson County (KY)	—	—	—	—	—	—	—	—	—	—
Los Angeles	11	2	9	5	4	11	3	8	3	5
Miami-Dade	—	—	—	—	—	—	—	—	—	—
Milwaukee	—	—	—	—	—	—	—	—	—	—
New York City	12	1	12	1	10	14	2	11	1	11
Philadelphia	—	—	—	—	—	—	—	—	—	—
San Diego	11	1	10	7	3	11	2	9	4	4
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—
ELL										
Nation (public)	11	1	9	7	2	10	1	9	7	3
Large city ¹ (public)	21	3	18	14	4	21	2	19	14	5
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	2	#	2	1	#	2	#	2	1	1
Austin	—	—	—	—	—	25	5	20	11	9
Baltimore City	—	—	—	—	—	—	—	—	—	—
Boston	18	3	15	8	7	15	3	12	9	3
Charlotte	8	2	6	2	4	10	1	8	4	4
Chicago	20	5	15	13	2	18	2	16	12	4
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	4	1	2	1	1	4	1	3	2	2
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	7	1	5	2	3	5	1	4	1	2
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	—	—	—	—	—
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	35	4	31	14	17	37	4	33	15	18
Jefferson County (KY)	—	—	—	—	—	—	—	—	—	—
Los Angeles	56	2	53	47	6	54	4	50	45	5
Miami-Dade	—	—	—	—	—	—	—	—	—	—
Milwaukee	—	—	—	—	—	—	—	—	—	—
New York City	13	6	7	3	4	12	3	9	1	8
Philadelphia	—	—	—	—	—	—	—	—	—	—
San Diego	34	2	32	30	2	36	3	33	30	3
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-31.**Percentage of fourth-grade public school students identified as students with disabilities (SD) and/or English language learners (ELL) excluded and assessed in NAEP mathematics, by SD/ELL category and urban district/jurisdiction: Various years, 2003–17—Continued**

SD/ELL category and urban district/jurisdiction	2007					2009				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
SD and/or ELL										
Nation (public)	23	3	20	10	10	23	2	20	9	11
Large city ¹ (public)	33	4	29	17	12	31	3	28	14	14
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	12	2	11	4	7	12	1	11	4	7
Austin	40	5	34	17	18	44	5	39	20	19
Baltimore City	—	—	—	—	—	19	9	11	1	9
Boston	47	5	42	25	17	35	6	30	13	16
Charlotte	22	3	19	7	12	19	2	17	4	13
Chicago	32	5	26	17	10	24	4	20	7	13
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	23	13	10	1	8	25	10	15	2	13
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	20	3	17	7	10
District of Columbia (DCPS)	20	6	14	2	13	21	5	17	3	14
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	38	3	34	29	5
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	45	4	41	23	18	43	3	40	22	17
Jefferson County (KY)	—	—	—	—	—	19	3	15	5	10
Los Angeles	53	1	51	44	8	46	1	44	37	7
Miami-Dade	—	—	—	—	—	21	3	18	2	16
Milwaukee	—	—	—	—	—	30	7	23	2	20
New York City	29	2	27	2	25	31	2	29	1	28
Philadelphia	—	—	—	—	—	22	4	18	2	15
San Diego	46	3	43	36	7	43	3	40	32	7
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—
SD										
Nation (public)	14	3	11	3	8	13	2	11	3	8
Large city ¹ (public)	13	3	10	3	7	13	2	11	2	9
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	10	2	8	4	5	10	1	9	3	6
Austin	13	4	9	2	7	16	4	12	2	10
Baltimore City	—	—	—	—	—	17	8	9	1	8
Boston	22	4	18	3	15	22	5	17	3	15
Charlotte	12	2	10	2	8	12	2	11	2	9
Chicago	14	4	10	4	6	14	3	12	3	8
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	17	13	5	#	4	20	10	10	#	10
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	15	3	12	3	8
District of Columbia (DCPS)	14	5	9	1	8	15	4	10	2	9
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	11	3	7	3	5
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	10	3	7	2	4	7	2	5	1	4
Jefferson County (KY)	—	—	—	—	—	15	3	13	5	8
Los Angeles	11	1	9	4	5	10	1	9	3	7
Miami-Dade	—	—	—	—	—	13	2	11	1	10
Milwaukee	—	—	—	—	—	19	6	13	1	12
New York City	16	1	15	1	14	19	1	18	1	17
Philadelphia	—	—	—	—	—	15	4	11	2	9
San Diego	12	2	9	4	5	13	3	10	4	6
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—
ELL										
Nation (public)	11	1	10	7	3	10	1	10	6	4
Large city ¹ (public)	22	1	21	14	6	20	1	19	12	7
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	3	#	2	#	2	2	#	2	#	2
Austin	29	2	27	15	12	32	2	30	18	12
Baltimore City	—	—	—	—	—	2	#	2	#	2
Boston	31	2	28	22	6	18	2	16	11	4
Charlotte	11	2	10	5	5	8	1	7	2	5
Chicago	20	2	18	13	5	12	2	10	4	6
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	7	1	5	1	4	7	2	5	1	4
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	6	#	6	4	2
District of Columbia (DCPS)	8	2	6	1	5	8	1	7	1	6
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	30	1	29	27	1
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	38	2	36	21	15	38	2	36	21	15
Jefferson County (KY)	—	—	—	—	—	4	1	2	1	2
Los Angeles	48	1	47	42	5	41	1	40	36	4
Miami-Dade	—	—	—	—	—	9	1	8	1	7
Milwaukee	—	—	—	—	—	12	2	10	1	9
New York City	17	2	15	1	13	16	1	15	1	14
Philadelphia	—	—	—	—	—	8	1	7	#	7
San Diego	40	1	38	34	4	35	1	34	30	4
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-31.

Percentage of fourth-grade public school students identified as students with disabilities (SD) and/or English language learners (ELL) excluded and assessed in NAEP mathematics, by SD/ELL category and urban district/jurisdiction: Various years, 2003–17—Continued

SD/ELL category and urban district/jurisdiction	2011					2013				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
SD and/or ELL										
Nation (public)	23	2	21	9	12	23	2	21	7	14
Large city ¹ (public)	32	3	29	14	15	30	2	29	11	18
Albuquerque	30	3	27	7	19	31	1	30	9	20
Atlanta	11	1	10	1	8	12	1	11	1	10
Austin	45	4	41	24	17	45	2	43	12	31
Baltimore City	21	11	10	2	8	21	2	20	1	19
Boston	51	5	46	29	17	50	4	46	26	20
Charlotte	20	1	19	7	12	18	1	17	4	13
Chicago	29	2	27	7	20	24	1	23	3	19
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	28	6	22	1	21	28	4	23	1	22
Dallas	56	3	53	45	8	57	2	55	20	35
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	26	6	20	14	6	31	5	26	11	14
District of Columbia (DCPS)	23	6	16	1	15	22	2	20	1	18
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	36	1	35	28	7	34	1	33	25	8
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	30	2	28	2	26	26	1	25	2	23
Houston	44	4	40	26	14	46	2	44	16	27
Jefferson County (KY)	19	5	14	5	9	18	2	16	4	12
Los Angeles	39	2	37	28	9	33	2	31	22	10
Miami-Dade	27	3	24	1	23	32	2	29	1	28
Milwaukee	33	3	30	3	28	32	3	29	2	27
New York City	30	2	29	1	27	30	1	28	1	28
Philadelphia	22	4	18	2	16	22	3	18	2	16
San Diego	43	3	41	32	8	40	1	38	26	12
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—
SD										
Nation (public)	13	2	11	3	9	14	1	12	2	10
Large city ¹ (public)	13	2	11	2	9	13	1	12	1	10
Albuquerque	15	2	13	2	11	16	1	15	2	14
Atlanta	9	1	8	1	7	10	1	9	1	8
Austin	15	3	12	2	10	15	2	13	1	12
Baltimore City	19	11	8	1	6	18	1	17	1	16
Boston	21	3	18	2	16	21	3	18	1	17
Charlotte	11	1	10	2	8	11	1	10	1	9
Chicago	15	2	13	3	10	13	1	12	1	11
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	22	5	17	1	16	22	4	18	1	17
Dallas	8	2	6	1	5	10	2	8	1	7
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	15	6	9	3	6	16	5	11	3	8
District of Columbia (DCPS)	16	5	10	#	10	15	1	14	1	13
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	10	1	9	2	7	9	1	8	1	7
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	17	1	16	2	14	19	1	18	2	16
Houston	8	3	5	1	4	8	1	7	1	7
Jefferson County (KY)	15	3	12	4	8	13	1	12	4	9
Los Angeles	12	2	10	1	9	9	2	8	1	7
Miami-Dade	12	2	10	1	10	11	1	10	1	8
Milwaukee	20	3	18	2	16	20	3	17	2	16
New York City	17	1	16	1	15	18	#	17	1	17
Philadelphia	16	4	12	1	11	16	3	13	1	12
San Diego	11	2	9	1	7	11	1	10	1	8
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—
ELL										
Nation (public)	11	#	11	6	4	11	#	11	5	5
Large city ¹ (public)	22	1	21	12	9	20	1	20	9	10
Albuquerque	18	1	17	6	11	20	1	19	8	11
Atlanta	2	#	2	#	2	3	#	3	#	3
Austin	33	2	32	23	9	34	1	34	11	22
Baltimore City	2	#	2	#	2	4	#	4	#	4
Boston	36	3	34	28	6	36	1	35	26	9
Charlotte	10	#	10	6	5	8	1	8	2	5
Chicago	18	1	17	4	13	15	1	14	2	12
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	7	1	6	#	6	8	1	7	#	7
Dallas	50	1	48	44	4	52	1	51	19	32
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	12	#	12	11	1	17	1	16	9	7
District of Columbia (DCPS)	8	1	7	1	6	8	1	7	1	7
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	30	#	30	27	3	27	#	27	24	3
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	17	1	16	#	16	10	#	10	#	10
Houston	38	2	36	25	11	40	1	39	16	23
Jefferson County (KY)	5	3	2	1	1	5	1	5	1	4
Los Angeles	34	1	33	27	6	28	1	27	21	6
Miami-Dade	17	1	16	#	15	25	2	23	#	23
Milwaukee	15	#	15	1	13	14	1	13	#	13
New York City	17	1	16	1	15	16	1	15	#	15
Philadelphia	8	#	7	1	6	8	1	7	1	5
San Diego	36	1	35	31	4	33	1	32	25	7
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-31.

Percentage of fourth-grade public school students identified as students with disabilities (SD) and/or English language learners (ELL) excluded and assessed in NAEP mathematics, by SD/ELL category and urban district/jurisdiction: Various years, 2003–17—Continued

SD/ELL category and urban district/jurisdiction	2015					2017				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
SD and/or ELL										
Nation (public)	24	2	23	8	14	25	2	23	10	13
Large city ¹ (public)	32	2	29	12	17	31	2	29	13	16
Albuquerque	33	2	31	9	22	30	1	29	12	17
Atlanta	14	2	12	2	10	16	1	15	2	13
Austin	50	4	46	17	29	50	3	47	13	34
Baltimore City	22	1	20	2	19	23	2	21	2	18
Boston	49	3	45	19	26	48	3	45	21	24
Charlotte	19	2	18	7	11	19	2	16	6	10
Chicago	25	2	23	6	16	29	3	27	7	20
Clark County (NV)	—	—	—	—	—	28	1	26	19	8
Cleveland	29	6	23	2	21	31	6	25	5	20
Dallas	56	4	53	29	24	60	4	56	23	33
Denver	—	—	—	—	—	46	3	43	33	11
Detroit	28	5	24	16	8	31	5	26	17	9
District of Columbia (DCPS)	20	2	17	2	15	23	3	20	5	16
Duval County (FL)	21	4	17	2	15	22	3	19	3	15
Fort Worth	—	—	—	—	—	52	4	48	33	16
Fresno	34	1	33	25	7	32	1	31	26	6
Guilford County (NC)	—	—	—	—	—	20	2	18	9	9
Hillsborough County (FL)	28	2	26	2	24	26	2	24	2	22
Houston	48	3	45	16	28	47	2	44	19	25
Jefferson County (KY)	20	2	18	7	11	20	2	18	6	12
Los Angeles	37	2	35	25	10	35	2	33	27	6
Miami-Dade	29	4	25	#	25	26	4	23	2	21
Milwaukee	—	—	—	—	—	32	3	29	7	21
New York City	32	2	31	1	30	31	2	29	3	25
Philadelphia	24	5	19	3	16	26	5	21	5	15
San Diego	46	3	42	35	8	41	2	38	28	10
Shelby County (TN)	—	—	—	—	—	18	4	15	4	11
SD										
Nation (public)	14	1	13	3	11	15	2	13	4	9
Large city ¹ (public)	14	2	13	2	11	14	1	13	3	10
Albuquerque	17	1	15	2	13	17	1	16	5	11
Atlanta	10	1	9	1	8	13	1	12	2	11
Austin	17	2	15	2	13	19	2	17	2	16
Baltimore City	17	1	16	1	15	17	1	16	1	14
Boston	22	3	19	#	19	21	2	19	2	18
Charlotte	10	1	9	2	8	11	1	10	2	8
Chicago	14	2	12	1	12	16	2	14	1	13
Clark County (NV)	—	—	—	—	—	11	1	10	6	4
Cleveland	21	5	17	1	16	22	4	18	2	16
Dallas	8	2	6	1	6	10	2	8	1	7
Denver	—	—	—	—	—	11	1	10	5	5
Detroit	15	4	11	3	8	15	4	11	3	8
District of Columbia (DCPS)	13	1	12	#	12	15	2	14	2	12
Duval County (FL)	17	3	14	2	12	17	2	14	3	12
Fort Worth	—	—	—	—	—	13	2	11	3	8
Fresno	10	1	8	2	6	10	1	9	4	5
Guilford County (NC)	—	—	—	—	—	16	2	14	7	7
Hillsborough County (FL)	20	2	18	2	16	17	1	16	2	14
Houston	10	2	8	1	7	8	2	6	1	5
Jefferson County (KY)	13	1	11	4	7	14	1	12	4	8
Los Angeles	13	2	11	2	9	12	1	11	6	5
Miami-Dade	10	2	9	#	8	11	1	10	1	9
Milwaukee	—	—	—	—	—	18	2	16	4	12
New York City	22	1	22	1	21	21	1	20	2	18
Philadelphia	16	4	12	1	11	17	4	13	2	11
San Diego	12	3	10	3	7	13	1	12	4	7
Shelby County (TN)	—	—	—	—	—	11	3	8	3	5
ELL										
Nation (public)	12	1	11	6	5	12	1	11	7	5
Large city ¹ (public)	21	1	20	11	9	21	1	19	10	9
Albuquerque	21	1	20	6	14	18	1	17	8	9
Atlanta	4	#	4	1	3	3	#	3	1	3
Austin	38	2	36	16	19	36	2	34	12	22
Baltimore City	5	#	4	#	4	7	1	6	1	5
Boston	33	1	32	19	13	34	2	32	20	12
Charlotte	11	1	10	5	5	9	1	8	5	3
Chicago	15	1	13	6	7	18	2	16	6	10
Clark County (NV)	—	—	—	—	—	20	1	19	14	6
Cleveland	10	2	8	1	7	11	2	9	3	5
Dallas	51	2	48	28	20	54	3	51	22	29
Denver	—	—	—	—	—	39	2	37	30	7
Detroit	14	#	13	13	#	16	1	16	14	2
District of Columbia (DCPS)	8	1	7	2	5	10	1	8	3	5
Duval County (FL)	5	1	4	#	3	6	1	5	1	4
Fort Worth	—	—	—	—	—	43	1	41	31	11
Fresno	27	1	27	24	3	25	#	24	22	2
Guilford County (NC)	—	—	—	—	—	6	#	5	2	3
Hillsborough County (FL)	12	#	12	#	12	12	1	11	#	11
Houston	41	1	40	16	24	41	1	40	19	22
Jefferson County (KY)	9	1	8	3	5	8	1	7	2	5
Los Angeles	31	1	30	24	6	30	2	28	24	4
Miami-Dade	22	3	20	#	19	18	3	15	1	15
Milwaukee	—	—	—	—	—	16	1	15	4	11
New York City	14	1	13	#	13	15	1	14	2	12
Philadelphia	10	1	9	2	6	11	1	9	3	6
San Diego	39	2	37	33	4	33	1	32	25	7
Shelby County (TN)	—	—	—	—	—	9	1	7	1	6

— Not available.

Rounds to zero.

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

NAEP 2017 Mathematics Appendix

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. DCPS = District of Columbia Public Schools. Beginning in 2009, if the results for charter schools are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education under the Elementary and Secondary Education Act, they are excluded from that district's Trial Urban District Assessment (TUDA) results. Students identified as both SD and ELL were counted only once under the combined SD and/or ELL category, but were counted separately under the SD and ELL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003–17 Mathematics Assessments.

Table A-32.

Percentage of eighth-grade public school students identified as students with disabilities (SD) and/or English language learners (ELL) excluded and assessed in NAEP mathematics, by SD/ELL category and urban district/jurisdiction: Various years, 2003–17

SD/ELL category and urban district/jurisdiction	2003					2005				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
SD and/or ELL										
Nation (public)	19	4	15	8	7	19	4	15	7	8
Large city ¹ (public)	24	5	19	13	7	24	4	20	12	8
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	11	2	9	4	5	12	1	10	3	8
Austin	—	—	—	—	—	26	10	16	12	4
Baltimore City	—	—	—	—	—	—	—	—	—	—
Boston	31	7	24	9	15	25	9	16	7	9
Charlotte	18	3	14	5	9	18	3	15	5	10
Chicago	22	7	15	8	7	21	3	18	5	12
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	21	9	12	2	9	20	9	12	3	9
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	20	6	14	5	9	19	6	14	2	11
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	—	—	—	—	—
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	26	8	18	16	3	24	6	18	14	4
Jefferson County (KY)	—	—	—	—	—	—	—	—	—	—
Los Angeles	37	2	35	29	6	39	3	36	30	6
Miami-Dade	—	—	—	—	—	—	—	—	—	—
Milwaukee	—	—	—	—	—	—	—	—	—	—
New York City	24	5	19	6	14	20	2	18	2	16
Philadelphia	—	—	—	—	—	—	—	—	—	—
San Diego	29	4	26	22	4	28	4	24	17	7
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—
SD										
Nation (public)	14	3	11	5	6	13	3	10	3	7
Large city ¹ (public)	14	3	11	5	5	13	3	10	3	6
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	10	1	9	4	5	11	1	9	3	7
Austin	—	—	—	—	—	14	8	6	5	2
Baltimore City	—	—	—	—	—	—	—	—	—	—
Boston	24	4	20	7	13	18	7	11	3	8
Charlotte	14	3	12	4	8	12	2	10	2	8
Chicago	17	5	12	6	7	16	2	14	3	11
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	17	9	8	1	6	18	8	9	3	7
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	16	5	11	3	8	17	5	12	2	10
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	—	—	—	—	—
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	16	7	10	9	#	11	4	7	5	2
Jefferson County (KY)	—	—	—	—	—	—	—	—	—	—
Los Angeles	12	2	10	5	5	12	2	10	5	5
Miami-Dade	—	—	—	—	—	—	—	—	—	—
Milwaukee	—	—	—	—	—	—	—	—	—	—
New York City	15	2	13	3	10	12	1	11	1	10
Philadelphia	—	—	—	—	—	—	—	—	—	—
San Diego	11	1	10	7	3	11	3	8	4	4
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—
ELL										
Nation (public)	6	1	5	4	1	6	1	5	4	1
Large city ¹ (public)	13	2	11	9	3	13	2	12	9	3
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	2	1	1	1	#	1	#	1	#	1
Austin	—	—	—	—	—	14	4	10	8	2
Baltimore City	—	—	—	—	—	—	—	—	—	—
Boston	13	5	8	4	4	10	4	6	5	1
Charlotte	7	1	6	3	3	7	1	6	4	2
Chicago	8	3	5	3	2	6	2	5	2	2
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	5	1	4	1	3	3	1	2	#	2
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	5	1	4	2	2	4	1	3	1	2
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	—	—	—	—	—
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	16	5	11	9	2	15	3	12	10	3
Jefferson County (KY)	—	—	—	—	—	—	—	—	—	—
Los Angeles	33	2	31	27	4	34	2	32	28	4
Miami-Dade	—	—	—	—	—	—	—	—	—	—
Milwaukee	—	—	—	—	—	—	—	—	—	—
New York City	13	4	9	3	6	10	2	9	2	7
Philadelphia	—	—	—	—	—	—	—	—	—	—
San Diego	23	3	20	18	2	21	3	18	14	4
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-32.**Percentage of eighth-grade public school students identified as students with disabilities (SD) and/or English language learners (ELL) excluded and assessed in NAEP mathematics, by SD/ELL category and urban district/jurisdiction: Various years, 2003–17—Continued**

SD/ELL category and urban district/jurisdiction	2007					2009				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
SD and/or ELL										
Nation (public)	18	4	14	6	8	18	3	15	5	10
Large city ¹ (public)	23	4	19	10	9	23	3	20	9	11
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	11	3	8	2	6	12	1	10	1	9
Austin	29	5	23	16	8	29	7	23	13	9
Baltimore City	—	—	—	—	—	19	11	8	1	6
Boston	27	8	18	6	12	30	9	20	5	16
Charlotte	20	3	18	6	12	17	3	14	5	10
Chicago	23	6	17	5	12	21	4	17	3	13
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	24	13	11	2	9	28	11	17	2	15
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	23	5	18	7	11
District of Columbia (DCPS)	21	10	11	3	8	23	7	16	3	14
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	29	2	27	20	7
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	22	6	16	10	6	22	5	16	9	8
Jefferson County (KY)	—	—	—	—	—	15	4	11	4	7
Los Angeles	33	2	31	25	6	29	2	27	19	8
Miami-Dade	—	—	—	—	—	20	3	17	1	16
Milwaukee	—	—	—	—	—	26	4	22	2	20
New York City	22	2	20	1	19	23	2	21	1	20
Philadelphia	—	—	—	—	—	22	6	17	2	14
San Diego	28	4	24	19	5	25	5	20	15	5
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—
SD										
Nation (public)	13	4	9	2	6	13	3	10	2	8
Large city ¹ (public)	13	4	9	3	6	13	3	10	2	9
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	11	3	7	2	5	11	1	10	1	9
Austin	16	4	12	7	5	17	6	10	3	7
Baltimore City	—	—	—	—	—	18	11	7	1	5
Boston	19	7	12	3	9	22	7	15	3	12
Charlotte	13	2	11	2	10	11	2	9	1	7
Chicago	17	5	13	3	10	16	3	13	1	11
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	20	13	7	1	6	23	11	12	1	11
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	17	4	13	2	10
District of Columbia (DCPS)	17	9	8	2	6	19	6	12	1	11
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	11	2	9	2	6
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	13	5	8	4	4	12	5	7	2	6
Jefferson County (KY)	—	—	—	—	—	12	3	9	3	6
Los Angeles	10	2	8	3	5	11	2	10	3	7
Miami-Dade	—	—	—	—	—	12	2	11	#	10
Milwaukee	—	—	—	—	—	21	3	17	1	16
New York City	13	1	12	1	11	15	1	14	#	13
Philadelphia	—	—	—	—	—	17	5	11	1	10
San Diego	11	4	7	3	4	12	5	7	2	5
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—
ELL										
Nation (public)	7	1	6	4	2	6	#	5	3	2
Large city ¹ (public)	13	1	11	7	4	12	1	11	7	4
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	1	#	1	#	1	1	#	1	#	#
Austin	16	2	13	10	3	16	2	14	10	4
Baltimore City	—	—	—	—	—	1	#	1	#	1
Boston	9	2	7	4	3	11	4	7	2	5
Charlotte	9	1	7	4	3	7	1	6	3	3
Chicago	7	2	5	2	3	7	2	5	2	3
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	5	1	4	1	3	6	1	5	1	4
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	6	#	6	5	1
District of Columbia (DCPS)	4	1	3	1	2	6	2	4	2	2
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	22	1	21	19	2
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	12	2	10	7	2	12	2	10	7	3
Jefferson County (KY)	—	—	—	—	—	3	1	2	1	2
Los Angeles	28	1	27	23	4	23	1	22	18	4
Miami-Dade	—	—	—	—	—	8	1	7	#	6
Milwaukee	—	—	—	—	—	7	1	5	1	4
New York City	11	1	10	1	9	10	1	9	#	9
Philadelphia	—	—	—	—	—	6	#	6	1	5
San Diego	21	2	19	17	3	16	1	15	13	2
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-32.**Percentage of eighth-grade public school students identified as students with disabilities (SD) and/or English language learners (ELL) excluded and assessed in NAEP mathematics, by SD/ELL category and urban district/jurisdiction: Various years, 2003–17—Continued**

SD/ELL category and urban district/jurisdiction	2011					2013				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
SD and/or ELL										
Nation (public)	18	3	15	5	10	17	2	16	3	12
Large city ¹ (public)	23	3	20	8	12	22	2	20	5	15
Albuquerque	25	3	22	9	12	27	2	25	11	14
Atlanta	12	2	10	1	8	14	1	13	2	11
Austin	26	5	22	13	9	27	2	25	4	21
Baltimore City	21	12	8	1	7	22	2	20	1	20
Boston	36	6	30	11	19	37	3	34	14	21
Charlotte	17	1	16	4	11	17	1	16	6	10
Chicago	23	3	20	4	16	20	1	19	2	17
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	31	6	25	1	24	32	3	29	1	28
Dallas	29	5	24	18	6	29	2	26	8	18
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	26	8	18	10	8	28	4	24	9	15
District of Columbia (DCPS)	26	7	20	1	18	25	2	23	1	22
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	24	1	23	16	7	21	2	20	13	7
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	24	2	22	1	21	22	1	21	#	20
Houston	23	6	18	12	5	25	2	22	8	15
Jefferson County (KY)	15	3	12	3	8	16	2	14	2	13
Los Angeles	26	1	24	15	9	21	2	20	9	11
Miami-Dade	20	2	18	#	18	22	2	19	1	19
Milwaukee	33	5	28	3	25	31	4	27	1	26
New York City	26	1	25	#	24	28	2	26	#	26
Philadelphia	26	7	19	1	18	26	4	22	1	21
San Diego	24	3	21	13	8	24	2	22	10	12
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—
SD										
Nation (public)	13	2	10	2	9	13	1	12	1	10
Large city ¹ (public)	13	3	11	2	9	14	1	12	1	11
Albuquerque	15	3	13	3	9	16	1	15	4	11
Atlanta	11	2	8	1	7	12	1	11	2	10
Austin	13	4	10	2	8	15	2	14	1	13
Baltimore City	19	12	7	1	6	20	2	18	#	18
Boston	20	4	15	1	15	20	2	17	1	17
Charlotte	11	1	10	1	8	11	1	10	2	8
Chicago	18	3	15	2	13	15	1	14	1	14
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	25	5	19	1	19	26	2	24	#	24
Dallas	9	4	5	1	4	9	2	7	#	7
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	18	8	10	2	8	18	4	14	1	13
District of Columbia (DCPS)	20	5	15	1	14	18	1	17	#	17
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	9	1	8	2	6	10	2	8	1	7
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	16	2	14	1	14	15	1	14	#	14
Houston	12	5	7	3	4	10	2	8	1	7
Jefferson County (KY)	11	2	9	2	7	12	2	10	#	10
Los Angeles	12	1	11	2	9	12	1	11	1	10
Miami-Dade	11	1	10	#	10	10	1	9	1	9
Milwaukee	21	5	16	1	15	24	4	20	#	20
New York City	17	1	16	#	16	17	1	16	#	16
Philadelphia	17	6	11	#	11	20	3	17	1	16
San Diego	14	3	11	4	7	14	2	12	3	9
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—
ELL										
Nation (public)	6	#	6	3	2	6	#	5	2	3
Large city ¹ (public)	12	1	11	6	5	11	1	10	4	6
Albuquerque	13	2	11	6	5	14	#	14	8	7
Atlanta	2	#	2	#	1	2	#	2	#	2
Austin	16	2	14	11	3	15	1	15	3	11
Baltimore City	2	1	1	#	1	2	#	2	#	2
Boston	21	3	18	11	7	23	1	22	13	9
Charlotte	8	#	7	3	4	8	#	8	4	3
Chicago	7	1	6	2	4	7	1	7	1	6
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	8	1	7	1	6	7	1	7	#	6
Dallas	24	2	22	18	4	22	1	21	8	13
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	9	#	9	8	1	10	#	10	7	3
District of Columbia (DCPS)	7	1	6	1	5	8	1	7	1	6
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	19	#	19	16	3	15	1	14	12	2
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	9	#	9	#	9	8	#	8	#	8
Houston	14	2	12	10	3	17	1	16	7	9
Jefferson County (KY)	4	1	3	2	1	4	#	4	1	3
Los Angeles	19	1	19	14	5	15	1	14	8	5
Miami-Dade	10	1	9	#	9	12	1	11	#	11
Milwaukee	14	1	13	2	12	9	1	8	1	8
New York City	12	1	12	#	12	15	1	14	#	14
Philadelphia	10	1	9	#	8	8	1	7	#	7
San Diego	16	1	15	11	4	15	1	14	8	7
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-32.

Percentage of eighth-grade public school students identified as students with disabilities (SD) and/or English language learners (ELL) excluded and assessed in NAEP mathematics, by SD/ELL category and urban district/jurisdiction: Various years, 2003–17—Continued

SD/ELL category and urban district/jurisdiction	2015					2017				
	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations	Identified	Excluded	Assessed	Assessed without accom-modations	Assessed with accom-modations
SD and/or ELL										
Nation (public)	19	2	17	5	13	20	2	18	6	12
Large city ¹ (public)	24	2	21	7	15	25	3	22	9	13
Albuquerque	27	1	26	12	14	26	2	24	9	16
Atlanta	14	1	12	1	11	15	1	14	3	11
Austin	29	3	26	8	18	33	2	31	9	22
Baltimore City	26	3	22	1	22	22	2	20	1	19
Boston	38	4	34	7	27	39	5	34	12	23
Charlotte	16	1	14	4	10	18	2	16	9	6
Chicago	21	1	20	3	18	21	2	19	4	15
Clark County (NV)	—	—	—	—	—	24	2	22	15	7
Cleveland	32	5	27	2	25	33	6	28	6	21
Dallas	41	3	38	17	21	53	3	50	23	27
Denver	—	—	—	—	—	39	3	36	27	9
Detroit	32	5	27	14	13	35	6	29	19	9
District of Columbia (DCPS)	28	5	22	2	21	26	3	23	3	20
Duval County (FL)	16	2	13	2	12	18	3	15	3	13
Fort Worth	—	—	—	—	—	30	2	28	15	12
Fresno	26	2	24	16	8	21	2	19	13	6
Guilford County (NC)	—	—	—	—	—	20	1	18	6	12
Hillsborough County (FL)	25	2	23	1	22	25	2	23	1	21
Houston	27	4	23	6	17	28	4	24	10	14
Jefferson County (KY)	17	1	15	2	14	14	1	12	3	10
Los Angeles	22	3	20	8	12	22	3	19	12	7
Miami-Dade	22	3	19	#	19	23	3	20	2	18
Milwaukee	—	—	—	—	—	30	4	26	4	22
New York City	26	2	24	1	24	30	2	27	3	24
Philadelphia	24	3	21	3	18	27	5	22	6	15
San Diego	24	2	22	14	7	22	2	20	13	7
Shelby County (TN)	—	—	—	—	—	20	2	17	2	15
SD										
Nation (public)	13	1	12	1	11	14	1	13	3	10
Large city ¹ (public)	14	1	12	1	11	14	2	12	3	10
Albuquerque	17	1	16	4	11	19	2	17	5	12
Atlanta	12	1	11	1	10	13	1	12	3	9
Austin	16	1	14	1	14	17	1	15	1	14
Baltimore City	20	1	19	#	19	19	2	18	1	17
Boston	20	3	16	1	16	20	4	16	1	16
Charlotte	9	1	9	1	8	10	1	10	5	5
Chicago	16	1	15	1	14	15	1	14	1	13
Clark County (NV)	—	—	—	—	—	10	1	9	4	5
Cleveland	26	4	22	1	21	24	5	19	2	18
Dallas	10	2	8	#	8	11	2	9	1	8
Denver	—	—	—	—	—	12	2	10	4	6
Detroit	19	5	14	1	13	18	5	13	4	9
District of Columbia (DCPS)	20	2	18	#	18	18	1	16	2	14
Duval County (FL)	12	1	10	1	9	14	2	12	2	10
Fort Worth	—	—	—	—	—	11	2	9	1	8
Fresno	11	1	9	2	7	10	2	9	2	6
Guilford County (NC)	—	—	—	—	—	16	1	15	4	11
Hillsborough County (FL)	17	1	16	1	16	17	2	15	1	14
Houston	11	2	9	1	8	10	2	7	1	6
Jefferson County (KY)	12	1	11	1	10	10	1	9	1	8
Los Angeles	14	2	12	2	10	13	2	12	6	6
Miami-Dade	10	1	9	#	9	11	1	10	1	9
Milwaukee	—	—	—	—	—	22	4	19	3	16
New York City	19	1	18	#	18	19	1	18	2	16
Philadelphia	18	3	15	1	14	18	4	15	2	13
San Diego	12	2	10	4	6	12	1	11	5	6
Shelby County (TN)	—	—	—	—	—	16	2	14	1	13
ELL										
Nation (public)	7	#	6	3	3	7	1	6	3	3
Large city ¹ (public)	12	1	11	5	1	6	13	1	12	6
Albuquerque	15	#	15	8	6	12	1	11	5	7
Atlanta	2	#	2	#	2	2	#	2	#	1
Austin	17	2	15	8	7	20	2	19	8	11
Baltimore City	6	2	3	#	3	3	1	3	1	2
Boston	25	2	23	7	16	25	2	23	11	12
Charlotte	7	1	7	3	3	8	1	7	5	2
Chicago	9	1	8	2	7	9	1	8	3	4
Clark County (NV)	—	—	—	—	—	17	1	16	12	4
Cleveland	8	1	7	2	5	10	1	9	4	5
Dallas	33	1	32	17	15	46	1	45	23	23
Denver	—	—	—	—	—	32	2	30	25	5
Detroit	15	1	14	13	1	18	1	17	16	1
District of Columbia (DCPS)	9	4	5	1	4	10	2	8	1	7
Duval County (FL)	4	1	3	#	3	5	1	4	#	4
Fort Worth	—	—	—	—	—	23	#	22	15	8
Fresno	19	1	18	15	3	14	1	13	11	2
Guilford County (NC)	—	—	—	—	—	6	#	5	2	3
Hillsborough County (FL)	10	1	9	#	9	10	1	9	1	8
Houston	18	2	16	5	11	19	1	18	9	9
Jefferson County (KY)	5	#	5	1	4	4	#	4	2	2
Los Angeles	14	1	12	6	6	14	3	12	8	4
Miami-Dade	14	2	12	#	12	14	2	12	1	10
Milwaukee	—	—	—	—	—	10	1	10	2	8
New York City	10	1	9	#	8	13	2	12	1	10
Philadelphia	7	1	7	2	5	10	2	8	5	4
San Diego	17	1	16	12	4	14	1	12	9	3
Shelby County (TN)	—	—	—	—	—	5	#	4	1	3

— Not available.

Rounds to zero.

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

NAEP 2017 Mathematics Appendix

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. DCPS = District of Columbia Public Schools. Beginning in 2009, if the results for charter schools are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education under the Elementary and Secondary Education Act, they are excluded from that district's Trial Urban District Assessment (TUDA) results. Students identified as both SD and ELL were counted only once under the combined SD and/or ELL category, but were counted separately under the SD and ELL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003–17 Mathematics Assessments.

Data Collection

The NAEP 2017 mathematics assessment was conducted from January to March 2017 by contractors to the U.S. Department of Education. Data collection for NAEP involves a collaborative effort among the participating schools, school districts, states, and NAEP staff. To reduce the burden on the participating schools, NAEP field staff perform most of the work associated with the assessment. The cooperation of the schools involves enlisting a school staff member to assist in coordinating selected students and providing space to administer the assessments.

Assessment sessions are scripted so that all students are given the same instructions and opportunity to demonstrate what they know and can do. Assessment administrators conduct the sessions under the supervision of their team's assessment coordinator. Training of assessment administrators focuses on their responsibilities in the classroom and on reading the scripts verbatim to administer the sessions in a uniform manner.

NAEP procedures guarantee the anonymity of participants. The names of students are never removed from the schools. The results of NAEP are reported on the national level and by region of the country, state, and for some urban districts—not by school or individual student.

Scoring

Three types of cognitive items were scored for the NAEP mathematics assessment. Responses to multiple-choice questions were scored by high-speed scanners during student booklet processing. Short constructed-response questions (those with two or three valid score points) and extended constructed-response questions (those with four or five valid score points) were scored by trained personnel using high-definition images of student responses also captured during processing.

Scoring a large number of short and extended constructed-responses with a high level of accuracy and reliability within a limited time frame is essential to the success of NAEP. To ensure reliable, efficient scoring, NAEP

- develops focused, explicit scoring guides for each item that match the criteria delineated in the assessment frameworks,
- pilot tests all items and adjusts the scoring guides (if necessary) to reflect actual student responses,
- recruits qualified and experienced scorers, trains them, and verifies their ability to score particular questions through qualifying tests,
- employs an image-processing and scoring system that routes images of student responses directly to the scorers so they can focus on scoring rather than paper routing,
- monitors scorer consistency through a second scoring of a percentage of responses,
- assesses the quality of scorer decision-making through constant monitoring by NAEP assessment experts, and
- documents all training, scoring, and quality control procedures in the technical reports.

For the 2017 mathematics assessment, almost three and a half million individual student responses were scored across all three grades (including rescoring to monitor interrater reliability). Most of the mathematics items were scored with 90 percent or higher exact agreement between raters of the same student responses.

Data Analysis and Scaling

The goal of the analysis of NAEP data is to summarize the performance of groups of students. Initial analysis activities verify the accuracy of the data and data files used in the analysis and provide the first indication of aspects of the data and analysis that require special consideration and attention. The first step is to determine the percentages of students who gave various responses to each cognitive item. Next, the properties of the items are further examined using classical test theory measures of item difficulty and item discrimination. Some of these activities are conducted without student weights or with preliminary student weights, but final student weights are used whenever possible.

After the initial activities are completed, NAEP score scales are created using Item Response Theory (IRT), and scale score distributions are estimated for groups of students. Not all students take the same blocks of items in a NAEP assessment, so results cannot be summarized using the total number of correct item responses. Instead, IRT models are used to describe the relationships between the item responses provided by students and the underlying scale (e.g., mathematics ability). The primary purpose of IRT scaling is to provide a common scale on which performance can be compared even when students receive different blocks of items. Item parameters that are used in the models are estimated from student response data for each item. Different IRT models with different types of item parameters are used to describe multiple-choice items, constructed-response items that are scored simply right or wrong, and complex constructed-response items that have three or more categories.

Because the NAEP design gives each student a small proportion of the pool of assessment items, the assessment cannot provide reliable information about individual student performance. Traditional test scores for individual students, even those based on IRT, would result in misleading estimates of population characteristics, such as student group means and percentages of students at or above a certain scale-score level. However, it is NAEP's goal to estimate these population characteristics. This is accomplished using marginal estimation techniques for latent variables. Under the assumptions of the analysis models, these population estimates will be consistent in the sense that the estimates approach the population values as the sample size increases.

IRT and the NAEP marginal estimation methodology are used to estimate score scales for each of the mathematics content areas at each grade (e.g., at grades 4 and 8, score scales are estimated for number properties and operations; measurement; geometry; data analysis, statistics, and probability; and algebra). The scales summarize student performance across all three types of questions in the assessment (multiple-choice, short constructed-response, and extended constructed-response). Each scale score distribution is transformed to a NAEP scale that ranges from 0 to 500. A mathematics composite scale is subsequently created by combining the content area scales. Summary statistics of the scale scores are estimated, and statistical tests are used to make inferences about the comparisons of results for different groups of students or for different assessment years. Finally, NAEP scale score distributions are described via achievement levels and/or item mapping procedures. For more information about NAEP analysis, IRT, and scaling see <http://nces.ed.gov/nationsreportcard/tdw/analysis/>.

Variance Estimation

The averages and percentages in this report are estimates based on samples of students rather than on entire populations. Moreover, the collection of questions used at each grade level is only a sample of the many questions that could have been asked to assess the skills and abilities described in the NAEP framework. Therefore, the results are subject to a measure of uncertainty, reflected in the standard error of the estimates—a range of up to a few points above or below the score or percentage—which takes into account potential score fluctuation due to sampling error and measurement error.

Because NAEP uses complex sampling procedures, conventional formulas for estimating sampling variability that assume simple random sampling are inappropriate. NAEP uses a jackknife replication procedure to estimate standard errors. The jackknife standard error provides a reasonable measure of uncertainty for any student information that can be observed without error. However, because each student typically responds to only a few questions within any mathematics content area, the estimated scale score for any single student would be imprecise. In this case, NAEP's marginal estimation methodology is used to describe the performance of groups of students without requiring precise estimates of individual student performance. The estimate of the variance of the students' scale score distributions (which reflect the imprecision due to lack of measurement accuracy) is computed. This component of variability is then included in the standard errors of NAEP scale scores.

Drawing Inferences from the NAEP Results

Drawing correct inferences from NAEP assessment results depends on the use of appropriate statistical procedures for comparing assessment results for population groups of interest and following guidelines to ensure the validity of the inferences. Comparisons of different groups of students with respect to scores or percentages of a certain attribute are of primary interest to users of NAEP results. The user is cautioned to rely on the results of statistical tests, rather than on the apparent magnitude of the difference between two numbers when determining whether differences are likely to represent actual differences among the groups in the population.

***t* Test Comparison:** By convention, references to differences in NAEP reports indicate that scores or percentages from two groups are different (e.g., one group performed higher or lower than another group) only when the difference in the point estimates for the groups being compared is statistically significant at an approximate level of .05.

Since 1998, *t* tests have been used for most NAEP comparisons. These tests are more appropriate than *z* tests (based on normal distribution approximations) when the statistics that are being compared are from distributions with proportionally larger extremes (i.e., thicker tails) than the normal distribution. One aspect of the use of *t* tests that contributes to the difficulty in their use for large-scale surveys is the determination of the appropriate degrees of freedom for the *t* distribution of interest.

Multiple Comparison Procedures: The *t* test used by NAEP and the certainty ascribed to intervals (e.g., a 95 percent confidence interval) are based on statistical theory that assumes that only one confidence interval or test of statistical significance is being performed. However, in some sections of a report, many different groups may be compared (i.e., multiple sets of confidence intervals are being analyzed). In sets of confidence intervals, statistical theory indicates that certainty associated with the entire set of intervals is less than that attributable to each individual comparison from the set. To hold the significance level for the set of comparisons at a particular level (e.g., .05), adjustments—called multiple comparison procedures—must be made to the methods.

To ensure that comparisons made using NAEP data are as accurate as possible, error rates are controlled when multiple comparisons are made. When making a number of comparisons in a single analysis, such as analyzing White student performance versus the performance of Black, Hispanic, Asian/Pacific Islander, and American Indian/Alaska Native students, the probability of finding significant differences by chance, for at least one comparison, increases with the family size or number of comparisons. There are several ways to take into account how many related comparisons are being made. In NAEP, the Benjamini-Hochberg False Discovery Rate (FDR) procedure is used to control for this.

Unlike other multiple comparison procedures (e.g., the Bonferroni procedure) that control the familywise error rate (i.e., the probability of making even one false rejection in the set of comparisons), the FDR procedure controls the expected proportion of falsely rejected hypotheses. Familywise procedures are considered conservative for large families of comparisons; therefore the FDR procedure is more suitable for multiple comparisons in NAEP than other procedures. There are two exceptions where the FDR is not applied: when comparing multiple years and when comparing a state's overall results to the nation.

NAEP Reporting Groups

In addition to overall results for each grade assessed, NAEP results are reported for certain student groups provided there are sufficient numbers of students and adequate school representation. Results for some student groups may not be available for certain years, grades, or jurisdictions.

Race/Ethnicity: The school-recorded race/ethnicity variable records the race/ethnicity of each student as reported by the student's school. For 2017, the mutually exclusive racial/ethnic categories are White, Black, Hispanic, Asian, American Indian/Alaska Native, Native Hawaiian or Other Pacific Islander, and Two or more races. Black includes African American and Hispanic includes Latino. Race categories exclude Hispanic origin unless specified.

Gender: The gender of the student assessed is taken from school records.

Eligibility for the National School Lunch Program: The school lunch variable is based on available school records. Students are classified as either currently eligible or not currently eligible for the national lunch component of the Department of Agriculture's National School Lunch Program. The classification refers only to the school year when the assessment was administered and is not based on eligibility in previous years. If school records are not available, the student is classified as "Information not available." If the school did not participate in the program, all students in that school were classified as "Information not available." Eligibility for the program is determined by students' family income in relation to the federally established poverty level. Free lunch qualification is set at 130 percent of the poverty level or below, and reduced-price lunch qualification is set at between 130 and 185 percent of the poverty level. (For the period July 1, 2015 through June 30, 2016, for a family of four, 130 percent of the poverty level was \$31,525, and 185 percent was \$44,863.) Additional information on eligibility may be found at the U.S. Department of Agriculture website at <http://www.fns.usda.gov/cnd/lunch/>.

Type of Location: Results for four mutually exclusive categories of school location are also reported: city, suburb, town, and rural. The categories are 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 classification system was revised for 2007; therefore, trend comparisons to previous years are not available. The new locale codes are based on an address's proximity to an urbanized area (a densely settled core with densely settled surrounding areas). This is a change from the original system based on metropolitan statistical areas. To distinguish the two systems, the new system is referred to as "urban-centric locale codes."

Parental Education: Eighth-graders were asked the following two questions, the responses to which were combined to derive the parental education variable:

How far in school did your mother go?

- She did not finish high school.
- She graduated from high school.
- She had some education after high school.
- She graduated from college.
- I don't know.

How far in school did your father go?

- He did not finish high school.
- He graduated from high school.
- He had some education after high school.
- He graduated from college.
- I don't know.

The information was combined into one parental-education reporting variable in the following way:

- If a student indicated the extent of education for only one parent, that level was included in the data. If a student indicated the extent of education for both parents, the higher of the two levels was included in the data.
- If a student responded "I don't know" for both parents, or responded "I don't know" for one parent and did not respond for the other, the parental education level was classified as "I don't know."
- If the student did not respond for either parent, the student was recorded as having provided no response.

Because fourth-graders' responses to the questions tend to be highly variable, the questions are not presented to students at grade 4.

Region of the Country: Prior to 2003, NAEP results were reported for four NAEP-defined regions of the nation: Northeast, Southeast, Central, and West. To align NAEP with other federal data collections, NAEP analysis and reports have used the U.S. Census Bureau's definition of "region" beginning in 2003. The four regions defined by the U.S. Census Bureau are Northeast, South, Midwest, and West. Therefore, trend data by region are not provided for assessment years prior to 2003.

Figure A-1 shows how states are subdivided into these census regions. All 50 states and the District of Columbia are listed. Other jurisdictions, including the Department of Defense Education Activity schools, are not assigned to any region.

Figure A-1.
States/jurisdiction within regions of the country defined by the U.S. Census Bureau

Northeast	South	Midwest	West
Connecticut	Alabama	Illinois	Alaska
Maine	Arkansas	Indiana	Arizona
Massachusetts	Delaware	Iowa	California
New Hampshire	District of Columbia	Kansas	Colorado
New Jersey	Florida	Michigan	Hawaii
New York	Georgia	Minnesota	Idaho
Pennsylvania	Kentucky	Missouri	Montana
Rhode Island	Louisiana	Nebraska	Nevada
Vermont	Maryland	North Dakota	New Mexico
	Mississippi	Ohio	Oregon
	North Carolina	South Dakota	Utah
	Oklahoma	Wisconsin	Washington
	South Carolina		Wyoming
	Tennessee		
	Texas		
	Virginia		
	West Virginia		

SOURCE: U.S. Department of Commerce Economics and Statistics Administration, U.S. Census Bureau.

Caution in Interpretations

As previously stated, the NAEP mathematics scale makes it possible to examine relationships between students' performance and various background factors that NAEP measures. However, the relationship between achievement and another variable does not reveal its underlying cause, which may be influenced by a number of other variables. Similarly, the assessments do not reflect the influence of unmeasured variables. The results are most useful when considered in combination with other knowledge about the student population and the educational system, such as trends in instruction, changes in the school-age population, and societal demands and expectations.

Caution in interpretation is also warranted for some small population group estimates. At times in this report, smaller population groups show very large increases or decreases across years in average scores; however, it is necessary to interpret such score changes with extreme caution. The effects of exclusion-rate changes for small student groups may be more marked for small groups than they are for the whole population. In addition, standard errors are often quite large around the score estimates for small groups, which in turn means the standard error around the gain is also large.