

Appendix A

Technical Procedures for the NAEP 2011 Mathematics Assessment

This appendix provides an overview of some of the technical procedures for the NAEP 2011 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 2011 National Assessment of Educational Progress* and *Assessment and Item Specifications for the NAEP 2011 Mathematics Assessment* are available on the Governing Board's website at <http://www.nagb.org/publications/frameworks.htm>.

The frameworks for 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. 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.

The 2005 framework was used in developing the 2007 assessment for grades 4 and 8 (grade 12 was not assessed in 2007) and the 2009 assessment. In 2009, the framework was revised with new objectives at grade 12 to allow for reporting on how well-prepared twelfth-grade students are for postsecondary education and training. There were no changes to the objectives at grades 4 and 8 in 2009, and the framework is unchanged for 2011. In 2011, only the grade 4 and grade 8 assessments were administered.

Each question in the 2011 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, as well as some of the topics in those areas, may 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 (including computation and the understanding of number concepts)
- Measurement (including use of instruments, application of processes, and concepts of area and volume)
- Geometry (including spatial reasoning and applying geometric properties)
- Data Analysis, Statistics, and Probability (including graphical displays and statistics)
- Algebra (including representations and relationships)

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 2011 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 NAEP mathematics questions, by grade and content area: Various years, 1990–2011

Grade and content area	1990 and 1992	1996, 2000, and 2003	2005, 2007, 2009, and 2011	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

† Not applicable. Item distributions from previous years are not comparable because of changes in the framework for grade 12 in 2005.

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

NOTE: The data analysis, statistics, and probability content area was called data analysis and probability in the 2005 and 2007 frameworks.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2011 Mathematics Assessments.

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 2011 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 items that collect information from students, teachers, and school administrators about background variables that are related to student achievement. 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 2011 mathematics assessment was made up of 158 cognitive questions at fourth grade, 155 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 percentage distribution of questions administered from 1990 to 2011 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, 1990–2011

Grade and question type	1990	1992	1996	2000	2003	2005	2007	2009	2011
Grade 4									
Multiple-choice	71	61	51	60	63	64	69	68	70
Short constructed-response	29	36	41	34	33	32	27	27	26
Extended constructed-response	0	3	8	6	4	4	4	5	4
Grade 8									
Multiple-choice	78	62	56	63	65	69	74	72	74
Short constructed-response	22	34	38	32	29	28	23	23	23
Extended constructed-response	0	3	7	6	5	4	4	4	3

— Not available.

† Not applicable. Item distributions from previous years are not comparable because of changes in the framework for grade 12 in 2005.

NOTE: 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, 1990–2011 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 2011, there were a total of 10 cognitive blocks at fourth grade and 10 blocks at eighth grade. Each mathematics assessment booklet contained two separately timed 25-minute blocks. Each block contained between 13 and 19 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, and 2011 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 2007–08 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 2007–08 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 2011 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: 2011

State/jurisdiction	Grade 4		Grade 8	
	Sample size	Target population	Sample size	Target population
Nation	214,200	3,945,000	180,400	3,833,000
Public	204,000	3,614,000	169,500	3,508,000
Private	6,000	321,000	8,300	317,000
Alabama	3,000	54,000	2,800	55,000
Alaska	2,800	9,000	2,500	8,000
Arizona	3,700	80,000	2,800	75,000
Arkansas	3,500	37,000	2,800	35,000
California	9,300	438,000	7,400	462,000
Colorado	3,500	61,000	2,800	55,000
Connecticut	3,100	41,000	2,800	40,000
Delaware	3,500	10,000	2,800	9,000
Florida	7,300	195,000	6,300	191,000
Georgia	5,400	129,000	4,200	112,000
Hawaii	3,400	13,000	2,900	12,000
Idaho	3,600	21,000	3,000	19,000
Illinois	5,100	157,000	4,300	147,000
Indiana	3,500	80,000	2,800	75,000
Iowa	3,400	36,000	2,700	33,000
Kansas	3,200	35,000	2,800	32,000
Kentucky	5,000	51,000	4,000	49,000
Louisiana	3,300	56,000	2,700	46,000
Maine	3,200	14,000	2,800	14,000
Maryland	4,700	60,000	3,800	61,000
Massachusetts	5,200	76,000	4,000	73,000
Michigan	4,200	113,000	4,200	114,000
Minnesota	3,700	62,000	3,100	59,000
Mississippi	3,000	35,000	2,700	35,000
Missouri	3,500	68,000	2,600	60,000
Montana	3,200	11,000	2,700	10,000
Nebraska	3,200	22,000	2,700	20,000
Nevada	3,900	34,000	2,900	32,000
New Hampshire	3,300	14,000	2,800	15,000
New Jersey	3,400	99,000	2,700	95,000
New Mexico	4,200	25,000	3,500	23,000
New York	4,800	197,000	4,200	208,000
North Carolina	5,400	112,000	4,400	103,000
North Dakota	3,100	7,000	2,400	7,000
Ohio	4,400	125,000	3,700	125,000
Oklahoma	3,200	45,000	2,600	41,000
Oregon	3,700	45,000	3,000	42,000
Pennsylvania	4,700	130,000	3,900	138,000
Rhode Island	3,200	11,000	2,800	11,000
South Carolina	3,400	52,000	2,800	51,000
South Dakota	3,300	9,000	3,100	9,000
Tennessee	3,500	75,000	2,900	68,000
Texas	10,000	359,000	7,900	341,000
Utah	4,100	43,000	3,000	38,000
Vermont	2,800	6,000	2,200	6,000
Virginia	3,700	96,000	2,800	86,000
Washington	4,000	77,000	3,200	78,000
West Virginia	3,100	20,000	2,900	19,000
Wisconsin	4,600	62,000	3,700	58,000
Wyoming	2,900	7,000	2,200	6,000
Other jurisdictions				
BIE ¹	1,000	3,000	900	2,000
District of Columbia	2,100	5,000	2,600	4,000
DoDEA ²	3,200	7,000	1,800	5,000

¹ Bureau of Indian Education.

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

NOTE: 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 nation total, but not in the nation (public) total. Data for the District of Columbia public schools are counted, along with the states, in nation (public). Detail may not sum to totals because of rounding.

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

District	Grade 4		Grade 8	
	Sample size	Target population	Sample size	Target population
Albuquerque	TBA	TBA	TBA	TBA
Atlanta	TBA	TBA	TBA	TBA
Austin	TBA	TBA	TBA	TBA
Baltimore City	TBA	TBA	TBA	TBA
Boston	TBA	TBA	TBA	TBA
Charlotte	TBA	TBA	TBA	TBA
Chicago	TBA	TBA	TBA	TBA
Cleveland	TBA	TBA	TBA	TBA
Dallas	TBA	TBA	TBA	TBA
Detroit	TBA	TBA	TBA	TBA
District of Columbia (DCPS)	TBA	TBA	TBA	TBA
Fresno	TBA	TBA	TBA	TBA
Hillsborough County (FL)	TBA	TBA	TBA	TBA
Houston	TBA	TBA	TBA	TBA
Jefferson County (KY)	TBA	TBA	TBA	TBA
Los Angeles	TBA	TBA	TBA	TBA
Miami-Dade	TBA	TBA	TBA	TBA
Milwaukee	TBA	TBA	TBA	TBA
New York City	TBA	TBA	TBA	TBA
Philadelphia	TBA	TBA	TBA	TBA
San Diego	TBA	TBA	TBA	TBA

NOTE: The sample size is rounded to the nearest hundred. The target population is rounded to the nearest thousand. 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), 2011 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 2011 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 74 percent for private schools) and 98 percent for grade 8 (100 percent for public schools and 74 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 2011, 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-8). The 21 urban districts participating at grades 4 and 8 also met the criteria for reporting (table A-9).

Table A-5. National school and student participation rates in NAEP mathematics, by grade and type of school: 2011

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	92	95	8,500	95	209,000
Public	100	100	100	100	7,730	94	198,900
Private	74	84	68	80	550	96	6,000
Grade 8							
Nation	98	98	88	92	7,610	93	175,200
Public	100	100	100	100	6,760	93	164,400
Private	74	85	70	80	690	95	8,300

NOTE: 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 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), 2011 Mathematics Assessment.

Table A-6. Public school and student participation rates in NAEP mathematics at grade 4, by state/jurisdiction: 2011

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	7,730	94	198,900
Alabama	99	100	110	95	3,000
Alaska	100	100	170	93	2,700
Arizona	99	99	120	94	3,700
Arkansas	100	100	120	95	3,500
California	100	100	280	95	9,100
Colorado	100	100	120	92	3,500
Connecticut	100	100	110	93	3,000
Delaware	100	100	100	94	3,400
Florida	100	100	220	95	7,100
Georgia	100	100	170	94	5,300
Hawaii	100	100	120	93	3,300
Idaho	100	100	130	95	3,600
Illinois	100	100	190	93	5,000
Indiana	100	100	110	95	3,400
Iowa	100	100	140	95	3,300
Kansas	99	99	140	94	3,100
Kentucky	100	100	150	94	4,800
Louisiana	100	100	120	94	3,300
Maine	100	100	160	94	3,200
Maryland	100	100	170	95	4,400
Massachusetts	100	100	180	94	5,000
Michigan	100	100	150	94	4,100
Minnesota	100	100	140	94	3,600
Mississippi	100	100	110	95	3,000
Missouri	100	100	130	94	3,400
Montana	100	100	190	94	3,100
Nebraska	100	100	160	96	3,100
Nevada	100	100	120	95	3,800
New Hampshire	100	100	130	94	3,300
New Jersey	99	99	110	95	3,300
New Mexico	100	100	150	94	4,100
New York	100	100	160	94	4,700
North Carolina	100	100	170	94	5,300
North Dakota	100	100	250	95	3,000
Ohio	100	100	180	94	4,200
Oklahoma	100	100	140	95	2,900
Oregon	99	99	140	93	3,600
Pennsylvania	100	100	160	94	4,600
Rhode Island	100	100	110	94	3,200
South Carolina	100	100	110	94	3,300
South Dakota	100	100	190	95	3,200
Tennessee	100	100	120	94	3,400
Texas	99	99	300	95	9,600
Utah	100	100	120	94	4,000
Vermont	100	100	220	94	2,700
Virginia	100	100	110	95	3,600
Washington	100	100	130	94	3,900
West Virginia	100	100	150	95	3,000
Wisconsin	100	100	180	95	4,500
Wyoming	100	100	180	94	2,900
Other jurisdictions					
District of Columbia	100	100	120	95	2,000
DoDEA ¹	99	97	110	94	3,100

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), 2011 Mathematics Assessment.

Table A-7. Public school and student participation rates in NAEP mathematics at grade 8, by state/jurisdiction: 2011

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	6,760	93	164,400
Alabama	100	100	110	94	2,800
Alaska	100	98	120	89	2,400
Arizona	99	99	130	93	2,800
Arkansas	100	100	120	93	2,800
California	100	100	230	92	7,300
Colorado	100	97	120	93	2,800
Connecticut	100	100	110	93	2,800
Delaware	100	100	50	93	2,800
Florida	100	100	210	93	6,200
Georgia	100	100	120	93	4,100
Hawaii	100	100	80	92	2,900
Idaho	100	100	110	94	3,000
Illinois	100	100	210	93	4,200
Indiana	100	100	110	93	2,700
Iowa	100	100	130	93	2,700
Kansas	100	100	140	93	2,800
Kentucky	100	100	140	93	3,900
Louisiana	100	100	120	93	2,600
Maine	100	100	130	92	2,700
Maryland	99	99	150	92	3,500
Massachusetts	99	98	140	92	3,800
Michigan	100	100	160	93	4,000
Minnesota	100	100	140	93	3,000
Mississippi	100	100	110	94	2,700
Missouri	100	100	120	94	2,600
Montana	100	98	190	90	2,600
Nebraska	100	100	140	93	2,600
Nevada	100	97	90	94	2,800
New Hampshire	100	100	90	91	2,700
New Jersey	100	100	110	92	2,600
New Mexico	99	99	120	91	3,400
New York	99	100	170	91	4,200
North Carolina	100	100	150	92	4,400
North Dakota	100	99	180	95	2,300
Ohio	100	100	170	93	3,500
Oklahoma	100	100	150	92	2,400
Oregon	99	99	140	93	2,900
Pennsylvania	100	100	160	92	3,800
Rhode Island	100	100	50	92	2,700
South Carolina	100	100	110	94	2,700
South Dakota	100	100	220	94	3,100
Tennessee	100	100	120	91	2,800
Texas	99	100	210	94	7,500
Utah	100	100	110	91	2,900
Vermont	100	100	120	94	2,100
Virginia	100	100	110	93	2,700
Washington	100	100	140	92	3,200
West Virginia	100	100	110	93	2,800
Wisconsin	100	100	160	93	3,600
Wyoming	100	100	90	92	2,100
Other jurisdictions					
District of Columbia	100	100	80	90	2,400
DoDEA ¹	99	95	60	95	1,700

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), 2011 Mathematics Assessment.

Table A-8. Public school and student participation rates for Trial Urban District Assessment (TUDA) in mathematics, by grade and urban district: 2011

Grade and district	School participation		Student participation	
	Student-weighted percent	Number of schools participating	Student-weighted percent	Number of students assessed
Grade 4				
Albuquerque	TBA	TBA	TBA	TBA
Atlanta	TBA	TBA	TBA	TBA
Austin	TBA	TBA	TBA	TBA
Baltimore City	TBA	TBA	TBA	TBA
Boston	TBA	TBA	TBA	TBA
Charlotte	TBA	TBA	TBA	TBA
Chicago	TBA	TBA	TBA	TBA
Cleveland	TBA	TBA	TBA	TBA
Dallas	TBA	TBA	TBA	TBA
Detroit	TBA	TBA	TBA	TBA
District of Columbia (DCPS)	TBA	TBA	TBA	TBA
Fresno	TBA	TBA	TBA	TBA
Hillsborough County (FL)	TBA	TBA	TBA	TBA
Houston	TBA	TBA	TBA	TBA
Jefferson County (KY)	TBA	TBA	TBA	TBA
Los Angeles	TBA	TBA	TBA	TBA
Miami-Dade	TBA	TBA	TBA	TBA
Milwaukee	TBA	TBA	TBA	TBA
New York City	TBA	TBA	TBA	TBA
Philadelphia	TBA	TBA	TBA	TBA
San Diego	TBA	TBA	TBA	TBA
Grade 8				
Albuquerque	TBA	TBA	TBA	TBA
Atlanta	TBA	TBA	TBA	TBA
Austin	TBA	TBA	TBA	TBA
Baltimore City	TBA	TBA	TBA	TBA
Boston	TBA	TBA	TBA	TBA
Charlotte	TBA	TBA	TBA	TBA
Chicago	TBA	TBA	TBA	TBA
Cleveland	TBA	TBA	TBA	TBA
Dallas	TBA	TBA	TBA	TBA
Detroit	TBA	TBA	TBA	TBA
District of Columbia (DCPS)	TBA	TBA	TBA	TBA
Fresno	TBA	TBA	TBA	TBA
Hillsborough County (FL)	TBA	TBA	TBA	TBA
Houston	TBA	TBA	TBA	TBA
Jefferson County (KY)	TBA	TBA	TBA	TBA
Los Angeles	TBA	TBA	TBA	TBA
Miami-Dade	TBA	TBA	TBA	TBA
Milwaukee	TBA	TBA	TBA	TBA
New York City	TBA	TBA	TBA	TBA
Philadelphia	TBA	TBA	TBA	TBA
San Diego	TBA	TBA	TBA	TBA

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. The percentages for school-weighted and student-weighted school participation were both at 100 percent for the participating districts in 2011. 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), 2011 Mathematics Assessment.

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: 2011

Type of accommodation	Grade 4			Grade 8		
	SD and/or ELL	SD	ELL	SD and/or ELL	SD	ELL
Bilingual booklet	0.4	#	0.4	0.2	#	0.2
Bilingual dictionary	0.5	0.1	0.5	0.6	0.1	0.6
Braille version of the text	#	#	#	#	#	#
Breaks	2.9	2.3	0.8	1.3	1.2	0.2
Cue to stay on task	0.8	0.7	0.2	0.4	0.4	#
Directions read aloud in English	2.6	2.0	0.8	2.1	1.9	0.4
Directions read aloud in Spanish	0.2	#	0.2	#	#	#
Extended time	9.5	6.9	3.4	8.1	6.9	1.8
Large-print booklet	0.1	0.1	#	#	#	#
Magnification device	#	#	#	#	#	#
One-on-one	0.5	0.4	0.1	0.3	0.3	#
Other	0.3	0.2	0.1	0.2	0.2	#
Read aloud (all)	4.8	3.9	1.4	2.8	2.6	0.4
Read aloud (occasional)	0.9	0.7	0.3	0.8	0.7	0.2
Read aloud in Spanish	#	#	#	#	#	#
School staff administers	0.5	0.4	0.1	0.3	0.3	0.1
Scribe	0.4	0.4	#	0.2	0.2	#
Sign language	#	#	#	#	#	#
Small group	8.8	6.9	2.7	7.1	6.4	1.2
Special equipment	0.3	0.3	#	0.2	0.2	#

Rounds to zero.

NOTE: Students identified as both SD and ELL were counted only once under the combined SD and/or ELL category, but were counted separately under the SD and ELL categories.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 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, has been exploring 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. Despite the increasing identification of SD and ELL students in some states, in particular of ELL students at grade 4, NAEP inclusion rates have generally remained steady or increased since 2003. Only a small number of states included a smaller percentage of students in the 2011 NAEP mathematics assessments than in 2009. Inclusion rates decreased by more than 1 percentage point for 3 of 52 jurisdictions at each grade. This reflects efforts on the part of states and jurisdictions to include all students who can meaningfully participate in the NAEP assessments. The new 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.

Variations in inclusion rates across jurisdictions or from year to year may affect the comparability of results. Because SD and ELL students tend to score lower than average, it might be expected that excluding more of these students would tend to raise scores and that including more would tend to lower scores. However, across states, correlations between inclusion rates and average 2011 mathematics scores at grade 4 (.08) and grade 8 (-.04) showed only a weak association. With regard to state trends, changes in the percentages of students included and changes in average mathematics scores from 2009 to 2011 showed no association at grade 4 (-.06) and a weak negative association at grade 8 (-.20). Therefore, there was a weak tendency at grade 8 for states with score gains to also have excluded a larger percentage of students in 2011 compared to 2009.

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 2011 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 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/policies/PoliciesPDFs/Reporting and Dissemination/naep_testandreport_studentswithdisabilities.pdf](http://www.nagb.org/policies/PoliciesPDFs/Reporting_and_Dissemination/naep_testandreport_studentswithdisabilities.pdf).

Most of the states/jurisdictions participating in the 2011 mathematics assessment met the 95 percent inclusion goal. The goal was not met at grade 8 in Maryland, and at grades 4 and 8 in Oklahoma. 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.

Most of districts participating in the 2011 mathematics assessment met the 95 percent inclusion goal. The goal was not met at grade 8 in District, and at grades 4 and 8 in District. See appendix table A-12 for the inclusion rates as a percentage of all students selected in each state/jurisdiction, and table A-13 for the rates as a percentage of the SD or ELL students.

Table A-10. Percentage of fourth- and eighth-grade public school students included in NAEP mathematics, as a percentage of all students, by state/jurisdiction: 2011

State/jurisdiction	Grade 4			Grade 8		
	Inclusion rate	95% confidence interval		Inclusion rate	95% confidence interval	
		Lower	Upper		Lower	Upper
Nation (public)	98 ¹	97.6	97.9	97 ¹	97.2	97.5
Alabama	99 ¹	98.0	99.3	99 ¹	98.1	99.2
Alaska	97 ¹	96.4	97.8	97 ¹	96.2	97.4
Arizona	99 ¹	98.5	99.3	99 ¹	98.3	99.2
Arkansas	99 ¹	98.4	99.4	99 ¹	98.2	99.0
California	98 ¹	97.7	99.0	99 ¹	98.6	99.2
Colorado	99 ¹	98.3	99.2	99 ¹	98.7	99.5
Connecticut	99 ¹	98.1	99.1	99 ¹	98.2	99.0
Delaware	96 ¹	95.8	96.9	97 ¹	96.2	97.5
Florida	98 ¹	97.9	98.8	98 ¹	97.6	98.6
Georgia	98 ¹	97.7	98.8	97 ¹	96.0	98.2
Hawaii	98 ¹	97.7	98.7	98 ¹	97.5	98.6
Idaho	99 ¹	98.3	99.1	99 ¹	98.3	99.1
Illinois	98 ¹	96.8	98.4	98 ¹	96.9	98.2
Indiana	98 ¹	97.1	98.4	97 ¹	96.5	98.1
Iowa	99 ¹	97.8	99.1	99 ¹	97.8	99.0
Kansas	98 ¹	97.8	98.7	99 ¹	98.1	99.1
Kentucky	97 ¹	96.1	97.6	97 ¹	96.1	97.2
Louisiana	98 ¹	97.3	98.9	99 ¹	98.0	99.0
Maine	98 ¹	97.8	98.9	98 ¹	98.0	98.8
Maryland	94 ¹	93.5	95.2	94	92.7	94.5
Massachusetts	97 ¹	95.9	97.6	96 ¹	95.0	96.8
Michigan	98 ¹	97.1	98.4	96 ¹	95.6	97.0
Minnesota	99 ¹	98.0	98.9	98 ¹	97.1	98.5
Mississippi	99 ¹	98.7	99.5	99 ¹	98.4	99.3
Missouri	98 ¹	97.8	98.8	99 ¹	98.0	99.1
Montana	98 ¹	98.0	98.9	98 ¹	97.9	98.8
Nebraska	98 ¹	97.8	99.0	96 ¹	95.6	97.1
Nevada	98 ¹	97.1	98.2	97 ¹	96.4	97.4
New Hampshire	98 ¹	97.7	98.7	98 ¹	97.7	98.6
New Jersey	97 ¹	95.3	97.7	96 ¹	94.7	96.7
New Mexico	97 ¹	96.7	97.9	98 ¹	97.5	98.5
New York	99 ¹	98.1	99.1	99 ¹	98.1	99.0
North Carolina	98 ¹	97.6	98.7	98 ¹	97.6	98.6
North Dakota	96 ¹	95.7	97.0	96 ¹	94.9	96.4
Ohio	98 ¹	96.9	98.3	95 ¹	93.8	96.0
Oklahoma	92	90.2	93.0	90	88.8	91.4
Oregon	97 ¹	96.5	98.0	99 ¹	98.0	99.0
Pennsylvania	99 ¹	98.0	99.1	98 ¹	96.8	98.2
Rhode Island	99 ¹	98.7	99.3	99 ¹	98.3	99.1
South Carolina	99 ¹	98.1	99.2	96 ¹	95.4	96.9
South Dakota	98 ¹	97.7	98.6	98 ¹	97.8	98.6
Tennessee	97 ¹	95.6	97.4	96 ¹	95.2	97.1
Texas	96 ¹	94.9	96.6	95 ¹	93.9	95.6
Utah	98 ¹	97.1	98.6	97 ¹	96.7	97.8
Vermont	98 ¹	97.9	98.8	99 ¹	98.3	99.2
Virginia	98 ¹	97.3	98.4	97 ¹	96.2	97.8
Washington	98 ¹	97.3	98.7	98 ¹	97.7	98.8
West Virginia	98 ¹	97.9	98.9	98 ¹	98.0	98.9
Wisconsin	98 ¹	97.6	98.9	98 ¹	97.3	98.5
Wyoming	98 ¹	97.9	98.8	99 ¹	98.2	99.1
Other jurisdictions						
District of Columbia	95 ¹	93.9	95.5	96 ¹	94.9	96.3
DoDEA ²	97 ¹	96.7	97.7	97 ¹	96.5	97.9

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).

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

Table A-11. Percentage of fourth- and eighth-grade public school students with disabilities (SD) and English language learners (ELL) included in NAEP mathematics, as a percentage of identified SD or ELL students, by state/jurisdiction: 2011

State/jurisdiction	Percentage of identified SD or ELL students			
	Grade 4		Grade 8	
	SD	ELL	SD	ELL
Nation (public)	84 ¹ (0.5)	96 ¹ (0.3)	80 (0.6)	93 ¹ (0.6)
Alabama	88 ¹ (2.5)	‡ (†)	89 ¹ (2.4)	‡ (†)
Alaska	86 ¹ (2.1)	92 ¹ (1.5)	77 (2.4)	95 ¹ (1.4)
Arizona	91 ¹ (1.6)	99 ¹ (0.5)	89 ¹ (2.1)	‡ (†)
Arkansas	92 ¹ (1.8)	98 ¹ (0.9)	88 ¹ (1.7)	96 ¹ (1.9)
California	85 ¹ (2.7)	98 ¹ (0.8)	90 ¹ (1.4)	97 ¹ (0.8)
Colorado	90 ¹ (1.9)	99 ¹ (0.4)	91 ¹ (1.9)	97 ¹ (1.3)
Connecticut	90 ¹ (1.8)	97 ¹ (1.1)	89 ¹ (1.8)	93 ¹ (2.2)
Delaware	78 (1.6)	88 ¹ (2.3)	78 (2.3)	90 ¹ (4.4)
Florida	91 ¹ (1.3)	96 ¹ (1.1)	88 ¹ (1.7)	95 ¹ (1.3)
Georgia	87 ¹ (2.1)	95 ¹ (1.9)	74 (4.7)	92 ¹ (4.0)
Hawaii	83 ¹ (2.4)	97 ¹ (0.9)	91 ¹ (1.9)	90 ¹ (1.7)
Idaho	91 ¹ (1.7)	93 ¹ (2.4)	85 ¹ (2.5)	95 ¹ (2.3)
Illinois	86 ¹ (2.5)	93 ¹ (1.8)	84 ¹ (2.3)	90 ¹ (2.3)
Indiana	86 ¹ (1.9)	98 ¹ (0.8)	83 ¹ (2.5)	94 ¹ (2.7)
Iowa	92 ¹ (1.8)	94 ¹ (2.4)	90 ¹ (2.1)	97 ¹ (1.9)
Kansas	89 ¹ (1.5)	98 ¹ (0.7)	89 ¹ (1.9)	99 ¹ (1.0)
Kentucky	81 (2.4)	73 ¹ (7.2)	72 (2.4)	85 ¹ (4.4)
Louisiana	88 ¹ (2.2)	99 ¹ (1.3)	86 ¹ (2.4)	‡ (†)
Maine	91 ¹ (1.6)	98 ¹ (1.1)	91 ¹ (1.2)	97 ¹ (1.7)
Maryland	57 (3.1)	86 ¹ (2.3)	43 (3.1)	74 (5.5)
Massachusetts	84 ¹ (2.3)	89 ¹ (2.1)	80 (2.4)	78 ¹ (5.1)
Michigan	85 ¹ (2.0)	94 ¹ (3.3)	73 (2.5)	83 ¹ (4.7)
Minnesota	91 ¹ (1.6)	98 ¹ (0.6)	85 ¹ (2.2)	91 ¹ (3.0)
Mississippi	92 ¹ (2.0)	‡ (†)	86 ¹ (3.0)	‡ (†)
Missouri	87 ¹ (1.9)	99 ¹ (0.5)	89 ¹ (2.2)	‡ (†)
Montana	87 ¹ (1.8)	‡ (†)	87 ¹ (1.8)	‡ (†)
Nebraska	92 ¹ (1.5)	97 ¹ (1.1)	76 (2.4)	90 ¹ (3.7)
Nevada	79 (2.4)	98 ¹ (0.5)	71 (2.6)	90 ¹ (1.3)
New Hampshire	89 ¹ (1.5)	93 ¹ (3.1)	90 ¹ (1.3)	‡ (†)
New Jersey	81 ¹ (3.3)	89 ¹ (3.1)	75 (3.1)	96 ¹ (2.3)
New Mexico	84 ¹ (1.9)	93 ¹ (1.1)	86 ¹ (1.9)	94 ¹ (1.0)
New York	94 ¹ (1.4)	94 ¹ (1.4)	93 ¹ (1.3)	94 ¹ (1.9)
North Carolina	87 ¹ (1.7)	95 ¹ (1.8)	86 ¹ (2.0)	96 ¹ (1.6)
North Dakota	77 (1.9)	85 ¹ (3.7)	68 (2.4)	‡ (†)
Ohio	84 ¹ (2.2)	94 ¹ (2.3)	65 (3.5)	96 ¹ (2.7)
Oklahoma	49 (3.9)	86 ¹ (3.8)	40 (3.4)	78 ¹ (5.1)
Oregon	85 ¹ (2.1)	94 ¹ (1.4)	89 ¹ (1.7)	98 ¹ (1.0)
Pennsylvania	91 ¹ (1.5)	95 ¹ (2.0)	85 ¹ (2.2)	92 ¹ (2.7)
Rhode Island	94 ¹ (1.1)	98 ¹ (1.0)	94 ¹ (1.2)	91 ¹ (3.0)
South Carolina	91 ¹ (1.9)	99 ¹ (0.9)	67 (3.1)	93 ¹ (1.8)
South Dakota	89 ¹ (1.4)	97 ¹ (1.4)	87 ¹ (1.7)	80 ¹ (4.7)
Tennessee	75 (3.1)	92 ¹ (2.8)	68 (3.7)	‡ (†)
Texas	60 (3.8)	95 ¹ (0.7)	53 (3.4)	86 ¹ (2.9)
Utah	86 ¹ (2.5)	94 ¹ (1.4)	75 (2.6)	84 ¹ (2.9)
Vermont	90 ¹ (1.4)	‡ (†)	93 ¹ (1.5)	‡ (†)
Virginia	84 ¹ (2.0)	95 ¹ (1.5)	81 ¹ (2.6)	87 ¹ (3.5)
Washington	88 ¹ (2.3)	96 ¹ (0.9)	87 ¹ (2.1)	95 ¹ (1.6)
West Virginia	91 ¹ (1.3)	‡ (†)	89 ¹ (1.7)	‡ (†)
Wisconsin	88 ¹ (2.0)	97 ¹ (1.4)	86 ¹ (2.0)	96 ¹ (1.3)
Wyoming	90 ¹ (1.4)	96 ¹ (1.8)	90 ¹ (1.6)	‡ (†)
Other jurisdictions				
District of Columbia	69 (2.3)	88 ¹ (1.6)	78 (1.8)	85 ¹ (2.4)
DoDEA ²	87 ¹ (1.5)	78 (2.8)	82 ¹ (3.3)	71 (4.7)

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

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

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: Standard errors of the estimates appear in parentheses.

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

Table A-12. Percentage of fourth- and eighth-grade public school students included in NAEP mathematics, as a percentage of all students, by jurisdiction: 2011

Jurisdiction	Grade 4			Grade 8		
	Inclusion rate	95% confidence interval		Inclusion rate	95% confidence interval	
		Lower	Upper		Lower	Upper
Nation	98 ²	97.6	97.9	97 ²	97.2	97.5
Large city¹	TBA TBA	TBA	TBA	TBA TBA	TBA	TBA
Albuquerque	TBA TBA	TBA	TBA	TBA TBA	TBA	TBA
Atlanta	TBA TBA	TBA	TBA	TBA TBA	TBA	TBA
Austin	TBA TBA	TBA	TBA	TBA TBA	TBA	TBA
Baltimore City	TBA	TBA	TBA	TBA	TBA	TBA
Boston	TBA TBA	TBA	TBA	TBA TBA	TBA	TBA
Charlotte	TBA TBA	TBA	TBA	TBA TBA	TBA	TBA
Chicago	TBA TBA	TBA	TBA	TBA TBA	TBA	TBA
Cleveland	TBA TBA	TBA	TBA	TBA TBA	TBA	TBA
Dallas	TBA TBA	TBA	TBA	TBA TBA	TBA	TBA
Detroit	TBA TBA	TBA	TBA	TBA	TBA	TBA
District of Columbia (DCPS)	TBA	TBA	TBA	TBA	TBA	TBA
Fresno	TBA TBA	TBA	TBA	TBA TBA	TBA	TBA
Hillsborough County (FL)	TBA TBA	TBA	TBA	TBA TBA	TBA	TBA
Houston	TBA TBA	TBA	TBA	TBA TBA	TBA	TBA
Jefferson County (KY)	TBA TBA	TBA	TBA	TBA TBA	TBA	TBA
Los Angeles	TBA TBA	TBA	TBA	TBA TBA	TBA	TBA
Miami-Dade	TBA TBA	TBA	TBA	TBA TBA	TBA	TBA
Milwaukee	TBA TBA	TBA	TBA	TBA TBA	TBA	TBA
New York City	TBA TBA	TBA	TBA	TBA TBA	TBA	TBA
Philadelphia	TBA TBA	TBA	TBA	TBA TBA	TBA	TBA
San Diego	TBA TBA	TBA	TBA	TBA TBA	TBA	TBA

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

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

NOTE: 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), 2011 Mathematics Assessment.

Table A-13. Percentage of fourth- and eighth-grade public school students with disabilities (SD) and English language learners (ELL) included in NAEP mathematics, as a percentage of identified SD or ELL students, by jurisdiction: 2011

Jurisdiction	Percentage of identified SD or ELL students							
	Grade 4				Grade 8			
	SD		ELL		SD		ELL	
Nation	84 ²	(0.5)	96 ²	(0.3)	80	(0.6)	93 ²	(0.6)
Large city¹	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Albuquerque	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Atlanta	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Austin	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Baltimore City	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Boston	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Charlotte	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Chicago	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Cleveland	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Dallas	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Detroit	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
District of Columbia (DCPS)	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Fresno	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Hillsborough County (FL)	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Houston	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Jefferson County (KY)	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Los Angeles	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Miami-Dade	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Milwaukee	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
New York City	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Philadelphia	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
San Diego	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA

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

NOTE: Standard errors of the estimates appear in parentheses. DCSP = 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), 2011 Mathematics Assessment.

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 2011 are presented in table A-14. 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 2011. 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-14.

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-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

Rounds to zero.

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

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

Jurisdictions vary in their proportions of special-needs students. These variations, as well as differences in policies and practices regarding the identification and inclusion of special-needs 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): In the 1992 national sample, when accommodations were not permitted, 9 percent of students at grade 4 and 9 percent at grade 8 were identified as SD and/or ELL, 6 percent were excluded at grades 4 and 8 (table A-14). In 2011, 22 percent of students at grade 4 and 17 percent at grade 8 were identified as SD and/or ELL, with 2 percent excluded at grade 4 and 2 percent excluded at grade 8 (table A-15). The percentage of SD and/or ELL students assessed with accommodations in 2011 was 12 percent at grade 4 and 10 percent at grade 8. (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. The proportions 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).

State Exclusion Rates (public school students only): Across the states/jurisdictions that participated in the 1992 mathematics assessment at grade 4, the percentage of students identified as SD and/or ELL ranged from 7 to 28 percent, and the percentage excluded ranged from 2 to 12 percent (table A-17). In comparison, the state percentages of fourth-graders identified as SD and/or ELL in 2011 ranged from 11 to 38 percent, and exclusion rates ranged from 1 to 8 percent (table A-18).

Across the states/jurisdictions that participated in the 1990 mathematics assessment at grade 8, the percentage of students identified as SD and/or ELL ranged from 6 to 15 percent, and the percentage excluded ranged from 2 to 7 percent (table A-19). In comparison, the state percentages of eighth-graders identified as SD and/or ELL in 2011 ranged from 8 to 23 percent, and exclusion rates ranged from 1 to 10 percent (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.

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, 1996–2011

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

Rounds to zero.

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

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1996–2011 Mathematics Assessments.

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: 2011

Grade and SD/ELL category	Percentage of identified SD and/or ELL students			
	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Grade 4				
SD and/or ELL	9	91	38	52
SD	15	85	20	66
ELL	4	96	57	39
Grade 8				
SD and/or ELL	15	85	27	58
SD	19	81	13	68
ELL	7	93	55	38

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

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 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: 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 2011 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, 2000–11

State/jurisdiction	2000					2003				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
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

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, 2000–11—Continued

State/jurisdiction	2005					2007				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
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

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, 2000–11—Continued

State/jurisdiction	2009					2011				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
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

— Not available.

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

NOTE: 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, 2000–11 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	Identified	Excluded	Assessed	Identified	Excluded	Assessed	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: 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, 2000–11

State/jurisdiction	2000					2003				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
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

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, 2000–11—Continued

State/jurisdiction	2005					2007				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
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

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, 2000–11—Continued

State/jurisdiction	2009					2011				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
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

— Not available.

Rounds to zero.

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

NOTE: 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, 2000–11 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: 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, 2000–11

State/jurisdiction	2000					2003				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
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

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, 2000–11—Continued

State/jurisdiction	2005					2007				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
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

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, 2000–11—Continued

State/jurisdiction	2009					2011				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
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

— Not available.

Rounds to zero.

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

NOTE: 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, 2000–11 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	Identified	Excluded	Assessed	Identified	Excluded	Assessed	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: 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, 2000–11

State/jurisdiction	2000					2003				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
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

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, 2000–11—Continued

State/jurisdiction	2005					2007				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
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

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, 2000–11—Continued

State/jurisdiction	2009					2011				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
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

— Not available.

Rounds to zero.

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

NOTE: 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, 2000–11 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: 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, 2000–11

State/jurisdiction	2000					2003				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
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

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, 2000–11—Continued

State/jurisdiction	2005					2007				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
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

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, 2000–11—Continued

State/jurisdiction	2009					2011				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
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

— Not available.

Rounds to zero.

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

NOTE: 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, 2000–11 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	Identified	Excluded	Assessed	Identified	Excluded	Assessed	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	#	1
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: 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, 2000–11

State/jurisdiction	2000					2003				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
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

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, 2000–11—Continued

State/jurisdiction	2005					2007				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
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

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, 2000–11—Continued

State/jurisdiction	2009					2011				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
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

— Not available.

Rounds to zero.

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

NOTE: 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, 2000–11 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: 2011

State/jurisdiction	Percentage of identified SD and/or ELL students											
	SD and/or ELL				SD				ELL			
	Excluded	Assessed	Assessed without accom- modations	Assessed with accom- modations	Excluded	Assessed	Assessed without accom- modations	Assessed with accom- modations	Excluded	Assessed	Assessed without accom- modations	Assessed with accom- modations
Nation (public)	10	90	39	52	15	85	20	65	4	96	57	39
Alabama	10	90	55	35	11	89	51	38	+	+	+	+
Alaska	10	90	25	65	14	86	19	66	8	92	27	65
Arizona	5	95	24	71	9	91	20	71	1	99	25	74
Arkansas	5	95	23	71	7	93	17	76	2	98	33	66
California	4	96	77	19	14	86	26	60	2	98	85	13
Colorado	5	95	38	58	10	90	9	81	1	99	53	46
Connecticut	7	93	10	83	9	91	10	81	3	97	9	87
Delaware	19	81	18	63	20	80	16	63	12	88	22	66
Florida	7	93	12	81	8	92	17	75	4	96	1	94
Georgia	10	90	26	64	13	87	23	65	5	95	32	63
Hawaii	9	91	34	57	16	84	14	70	3	97	50	47
Idaho	8	92	33	59	10	90	23	67	7	93	51	42
Illinois	11	89	27	62	14	86	28	58	7	93	21	72
Indiana	10	90	27	63	13	87	28	59	2	98	23	75
Iowa	7	93	16	77	8	92	13	79	6	94	22	72
Kansas	7	93	42	52	11	89	28	61	2	98	56	42
Kentucky	19	81	29	53	18	82	29	53	27	73	23	50
Louisiana	8	92	13	79	9	91	10	81	1	99	36	63
Maine	8	92	18	74	9	91	12	79	2	98	47	52
Maryland	30	70	12	59	38	62	12	49	14	86	8	78
Massachusetts	13	87	25	62	14	86	7	78	11	89	60	28
Michigan	13	87	34	53	14	86	23	63	6	94	73	20
Minnesota	6	94	40	54	9	91	29	62	2	98	52	46
Mississippi	7	93	41	52	8	92	40	52	+	+	+	+
Missouri	10	90	28	62	12	88	26	62	1	99	33	66
Montana	11	89	33	56	13	87	24	63	+	+	+	+
Nebraska	6	94	32	61	8	92	29	62	3	97	35	63
Nevada	7	93	30	64	20	80	26	53	2	98	30	69
New Hampshire	9	91	11	80	10	90	9	82	7	93	23	70
New Jersey	17	83	11	72	18	82	11	71	11	89	8	81
New Mexico	10	90	35	55	16	84	15	69	7	93	46	48
New York	6	94	4	90	6	94	5	89	6	94	3	91
North Carolina	8	92	33	59	11	89	19	70	5	95	56	39
North Dakota	21	79	24	55	22	78	20	58	15	85	43	41
Ohio	13	87	10	77	15	85	11	74	6	94	4	89
Oklahoma	40	60	27	33	51	49	19	31	14	86	45	41
Oregon	10	90	37	53	15	85	28	57	6	94	45	49
Pennsylvania	8	92	22	71	9	91	22	69	5	95	17	78
Rhode Island	5	95	25	70	6	94	7	87	2	98	63	36
South Carolina	7	93	38	56	9	91	30	61	1	99	54	45
South Dakota	9	91	44	46	11	89	43	46	3	97	43	54
Tennessee	20	80	18	62	24	76	21	55	8	92	4	88
Texas	14	86	59	27	36	64	17	47	5	95	75	20
Utah	11	89	34	55	14	86	30	56	6	94	37	57
Vermont	8	92	15	76	8	92	12	80	+	+	+	+
Virginia	11	89	28	61	15	85	25	60	5	95	30	65
Washington	9	91	30	61	12	88	25	64	4	96	35	61
West Virginia	8	92	43	49	8	92	42	49	+	+	+	+
Wisconsin	8	92	18	74	12	88	17	72	3	97	17	80
Wyoming	9	91	28	63	10	90	24	66	4	96	43	53
Other jurisdictions												
District of Columbia	25	75	8	67	30	70	3	67	12	88	18	70
DoDEA ¹	15	85	29	56	13	87	22	65	22	78	41	37

+ Reporting standards not met.

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

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

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

State/jurisdiction	Percentage of identified SD and/or ELL students											
	SD and/or ELL				SD				ELL			
	Excluded	Assessed	Assessed without accom- modations	Assessed with accom- modations	Excluded	Assessed	Assessed without accom- modations	Assessed with accom- modations	Excluded	Assessed	Assessed without accom- modations	Assessed with accom- modations
Nation (public)												
Alabama	10	90	59	30	11	89	57	32	+	+	+	+
Alaska	15	85	18	67	23	77	7	70	5	95	29	66
Arizona	10	90	16	75	11	89	13	76	+	+	+	+
Arkansas	9	91	18	73	11	89	12	77	4	96	31	65
California	5	95	63	32	9	91	26	65	3	97	76	21
Colorado	5	95	32	63	8	92	12	80	3	97	53	44
Connecticut	8	92	14	77	10	90	12	78	7	93	17	76
Delaware	19	81	13	67	21	79	11	68	10	90	28	62
Florida	10	90	4	87	11	89	4	85	5	95	3	92
Georgia	23	77	15	62	26	74	13	61	8	92	22	70
Hawaii	9	91	37	54	9	91	19	72	10	90	56	34
Idaho	11	89	27	62	14	86	15	71	5	95	51	44
Illinois	14	86	18	68	15	85	10	74	10	90	42	47
Indiana	15	85	13	72	17	83	7	76	6	94	40	55
Iowa	8	92	10	82	9	91	5	85	3	97	27	70
Kansas	8	92	41	52	11	89	18	71	1	99	76	23
Kentucky	26	74	12	62	27	73	9	64	15	85	33	51
Louisiana	9	91	8	83	10	90	7	83	+	+	+	+
Maine	8	92	19	73	8	92	17	75	3	97	69	28
Maryland	46	54	7	47	51	49	7	42	26	74	9	66
Massachusetts	18	82	13	68	18	82	7	75	22	78	41	37
Michigan	25	75	21	54	26	74	14	59	17	83	53	30
Minnesota	12	88	37	51	14	86	26	60	9	91	60	31
Mississippi	13	87	12	75	14	86	9	77	+	+	+	+
Missouri	10	90	15	75	10	90	14	76	+	+	+	+
Montana	12	88	18	70	13	87	15	73	+	+	+	+
Nebraska	22	78	23	56	24	76	17	60	10	90	50	40
Nevada	17	83	35	48	28	72	17	55	10	90	46	43
New Hampshire	9	91	21	70	9	91	19	72	+	+	+	+
New Jersey	22	78	6	72	24	76	6	71	4	96	13	83
New Mexico	9	91	46	45	14	86	23	63	6	94	62	32
New York	7	93	2	91	7	93	2	91	6	94	1	92
North Carolina	10	90	19	70	12	88	11	77	4	96	42	54
North Dakota	27	73	16	57	30	70	13	57	+	+	+	+
Ohio	31	69	8	60	34	66	7	60	4	96	26	70
Oklahoma	54	46	23	23	60	40	19	21	22	78	41	37
Oregon	8	92	32	60	10	90	20	69	2	98	56	42
Pennsylvania	14	86	11	75	15	85	11	74	8	92	9	83
Rhode Island	7	93	23	70	6	94	20	74	9	91	37	54
South Carolina	25	75	23	52	32	68	18	50	7	93	37	56
South Dakota	14	86	28	58	12	88	23	64	20	80	54	26
Tennessee	29	71	10	61	31	69	10	58	+	+	+	+
Texas	28	72	44	28	42	58	17	40	14	86	73	13
Utah	19	81	21	60	25	75	11	64	16	84	35	49
Vermont	6	94	18	76	6	94	16	77	+	+	+	+
Virginia	16	84	31	52	19	81	23	58	13	87	47	40
Washington	10	90	27	63	12	88	13	75	5	95	54	40
West Virginia	11	89	23	66	11	89	22	67	+	+	+	+
Wisconsin	11	89	12	78	14	86	8	78	4	96	19	78
Wyoming	9	91	16	75	10	90	10	80	+	+	+	+
Other jurisdictions												
District of Columbia	20	80	8	72	22	78	4	74	15	85	18	67
DoDEA ¹	19	81	25	56	16	84	13	70	29	71	42	28

+ Reporting standards not met.

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

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

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 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: Various years, 2003–11

SD/ELL category and district	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)	22	4	18	10	8	23	3	20	10	10
Large city¹ (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
Cleveland	15	7	8	3	5	17	6	12	2	9
Dallas	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	18	4	14	4	10	20	6	14	4	10
Fresno	—	—	—	—	—	—	—	—	—	—
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
SD										
Nation (public)	14	3	11	4	7	14	3	11	4	8
Large city¹ (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
Cleveland	12	5	6	2	5	13	5	8	1	8
Dallas	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	13	4	10	2	7	16	5	11	2	8
Fresno	—	—	—	—	—	—	—	—	—	—
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
ELL										
Nation (public)	11	1	9	7	2	10	1	9	7	3
Large city¹ (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
Cleveland	4	1	2	1	1	4	1	3	2	2
Dallas	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	7	1	5	2	3	5	1	4	1	2
Fresno	—	—	—	—	—	—	—	—	—	—
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	—	—	—	—	—	—	—	—	—	—

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: Various years, 2003–11—Continued

SD/ELL category and district	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 city¹ (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
Cleveland	23	13	10	1	8	25	10	15	2	13
Dallas	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	20	3	17	7	10
District of Columbia (DCPS)	20	6	14	2	13	21	5	17	3	14
Fresno	—	—	—	—	—	38	3	34	29	5
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
SD										
Nation (public)	14	3	11	3	8	13	2	11	3	8
Large city¹ (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
Cleveland	17	13	5	#	4	20	10	10	#	10
Dallas	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	15	3	12	3	8
District of Columbia (DCPS)	14	5	9	1	8	15	4	10	2	9
Fresno	—	—	—	—	—	11	3	7	3	5
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
ELL										
Nation (public)	11	1	10	7	3	10	1	10	6	4
Large city¹ (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
Cleveland	7	1	5	1	4	7	2	5	1	4
Dallas	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	6	#	6	4	2
District of Columbia (DCPS)	8	2	6	1	5	8	1	7	1	6
Fresno	—	—	—	—	—	30	1	29	27	1
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

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: Various years, 2003–11—Continued

SD/ELL category and district	2011				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
SD and/or ELL					
Nation (public)	23	2	21	9	12
Large city¹ (public)	TBA	TBA	TBA	TBA	TBA
Albuquerque	TBA	TBA	TBA	TBA	TBA
Atlanta	TBA	TBA	TBA	TBA	TBA
Austin	TBA	TBA	TBA	TBA	TBA
Baltimore City	TBA	TBA	TBA	TBA	TBA
Boston	TBA	TBA	TBA	TBA	TBA
Charlotte	TBA	TBA	TBA	TBA	TBA
Chicago	TBA	TBA	TBA	TBA	TBA
Cleveland	TBA	TBA	TBA	TBA	TBA
Dallas	TBA	TBA	TBA	TBA	TBA
Detroit	TBA	TBA	TBA	TBA	TBA
District of Columbia (DCPS)	TBA	TBA	TBA	TBA	TBA
Fresno	TBA	TBA	TBA	TBA	TBA
Hillsborough County (FL)	TBA	TBA	TBA	TBA	TBA
Houston	TBA	TBA	TBA	TBA	TBA
Jefferson County (KY)	TBA	TBA	TBA	TBA	TBA
Los Angeles	TBA	TBA	TBA	TBA	TBA
Miami-Dade	TBA	TBA	TBA	TBA	TBA
Milwaukee	TBA	TBA	TBA	TBA	TBA
New York City	TBA	TBA	TBA	TBA	TBA
Philadelphia	TBA	TBA	TBA	TBA	TBA
San Diego	TBA	TBA	TBA	TBA	TBA
SD					
Nation (public)	13	2	11	3	9
Large city¹ (public)	TBA	TBA	TBA	TBA	TBA
Albuquerque	TBA	TBA	TBA	TBA	TBA
Atlanta	TBA	TBA	TBA	TBA	TBA
Austin	TBA	TBA	TBA	TBA	TBA
Baltimore City	TBA	TBA	TBA	TBA	TBA
Boston	TBA	TBA	TBA	TBA	TBA
Charlotte	TBA	TBA	TBA	TBA	TBA
Chicago	TBA	TBA	TBA	TBA	TBA
Cleveland	TBA	TBA	TBA	TBA	TBA
Dallas	TBA	TBA	TBA	TBA	TBA
Detroit	TBA	TBA	TBA	TBA	TBA
District of Columbia (DCPS)	TBA	TBA	TBA	TBA	TBA
Fresno	TBA	TBA	TBA	TBA	TBA
Hillsborough County (FL)	TBA	TBA	TBA	TBA	TBA
Houston	TBA	TBA	TBA	TBA	TBA
Jefferson County (KY)	TBA	TBA	TBA	TBA	TBA
Los Angeles	TBA	TBA	TBA	TBA	TBA
Miami-Dade	TBA	TBA	TBA	TBA	TBA
Milwaukee	TBA	TBA	TBA	TBA	TBA
New York City	TBA	TBA	TBA	TBA	TBA
Philadelphia	TBA	TBA	TBA	TBA	TBA
San Diego	TBA	TBA	TBA	TBA	TBA
ELL					
Nation (public)	11	#	11	6	4
Large city¹ (public)	TBA	TBA	TBA	TBA	TBA
Albuquerque	TBA	TBA	TBA	TBA	TBA
Atlanta	TBA	TBA	TBA	TBA	TBA
Austin	TBA	TBA	TBA	TBA	TBA
Baltimore City	TBA	TBA	TBA	TBA	TBA
Boston	TBA	TBA	TBA	TBA	TBA
Charlotte	TBA	TBA	TBA	TBA	TBA
Chicago	TBA	TBA	TBA	TBA	TBA
Cleveland	TBA	TBA	TBA	TBA	TBA
Dallas	TBA	TBA	TBA	TBA	TBA
Detroit	TBA	TBA	TBA	TBA	TBA
District of Columbia (DCPS)	TBA	TBA	TBA	TBA	TBA
Fresno	TBA	TBA	TBA	TBA	TBA
Hillsborough County (FL)	TBA	TBA	TBA	TBA	TBA
Houston	TBA	TBA	TBA	TBA	TBA
Jefferson County (KY)	TBA	TBA	TBA	TBA	TBA
Los Angeles	TBA	TBA	TBA	TBA	TBA
Miami-Dade	TBA	TBA	TBA	TBA	TBA
Milwaukee	TBA	TBA	TBA	TBA	TBA
New York City	TBA	TBA	TBA	TBA	TBA
Philadelphia	TBA	TBA	TBA	TBA	TBA
San Diego	TBA	TBA	TBA	TBA	TBA

— Not available. The district did not participate.

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.

NOTE: 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. Detail may not sum to totals because of rounding. 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), various years, 2003–11 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: Various years, 2003–11

SD/ELL category and district	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)	19	4	15	8	7	19	4	15	7	8
Large city¹ (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
Cleveland	21	9	12	2	9	20	9	12	3	9
Dallas	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	20	6	14	5	9	19	6	14	2	11
Fresno	—	—	—	—	—	—	—	—	—	—
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
SD										
Nation (public)	14	3	11	5	6	13	3	10	3	7
Large city¹ (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
Cleveland	17	9	8	1	6	18	8	9	3	7
Dallas	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	16	5	11	3	8	17	5	12	2	10
Fresno	—	—	—	—	—	—	—	—	—	—
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
ELL										
Nation (public)	6	1	5	4	1	6	1	5	4	1
Large city¹ (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
Cleveland	5	1	4	1	3	3	1	2	#	2
Dallas	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	5	1	4	2	2	4	1	3	1	2
Fresno	—	—	—	—	—	—	—	—	—	—
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	—	—	—	—	—	—	—	—	—	—

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: Various years, 2003–11—Continued

SD/ELL category and district	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 city¹ (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
Cleveland	24	13	11	2	9	28	11	17	2	15
Dallas	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	23	5	18	7	11
District of Columbia (DCPS)	21	10	11	3	8	23	7	16	3	14
Fresno	—	—	—	—	—	29	2	27	20	7
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
SD										
Nation (public)	13	4	9	2	6	13	3	10	2	8
Large city¹ (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
Cleveland	20	13	7	1	6	23	11	12	1	11
Dallas	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	17	4	13	2	10
District of Columbia (DCPS)	17	9	8	2	6	19	6	12	1	11
Fresno	—	—	—	—	—	11	2	9	2	6
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
ELL										
Nation (public)	7	1	6	4	2	6	#	5	3	2
Large city¹ (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
Cleveland	5	1	4	1	3	6	1	5	1	4
Dallas	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	6	#	6	5	1
District of Columbia (DCPS)	4	1	3	1	2	6	2	4	2	2
Fresno	—	—	—	—	—	22	1	21	19	2
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

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: Various years, 2003–11—Continued

SD/ELL category and district	2011				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
SD and/or ELL					
Nation (public)	18	3	15	5	10
Large city¹ (public)	TBA	TBA	TBA	TBA	TBA
Albuquerque	TBA	TBA	TBA	TBA	TBA
Atlanta	TBA	TBA	TBA	TBA	TBA
Austin	TBA	TBA	TBA	TBA	TBA
Baltimore City	TBA	TBA	TBA	TBA	TBA
Boston	TBA	TBA	TBA	TBA	TBA
Charlotte	TBA	TBA	TBA	TBA	TBA
Chicago	TBA	TBA	TBA	TBA	TBA
Cleveland	TBA	TBA	TBA	TBA	TBA
Dallas	TBA	TBA	TBA	TBA	TBA
Detroit	TBA	TBA	TBA	TBA	TBA
District of Columbia (DCPS)	TBA	TBA	TBA	TBA	TBA
Fresno	TBA	TBA	TBA	TBA	TBA
Hillsborough County (FL)	TBA	TBA	TBA	TBA	TBA
Houston	TBA	TBA	TBA	TBA	TBA
Jefferson County (KY)	TBA	TBA	TBA	TBA	TBA
Los Angeles	TBA	TBA	TBA	TBA	TBA
Miami-Dade	TBA	TBA	TBA	TBA	TBA
Milwaukee	TBA	TBA	TBA	TBA	TBA
New York City	TBA	TBA	TBA	TBA	TBA
Philadelphia	TBA	TBA	TBA	TBA	TBA
San Diego	TBA	TBA	TBA	TBA	TBA
SD					
Nation (public)	13	2	10	2	9
Large city¹ (public)	TBA	TBA	TBA	TBA	TBA
Albuquerque	TBA	TBA	TBA	TBA	TBA
Atlanta	TBA	TBA	TBA	TBA	TBA
Austin	TBA	TBA	TBA	TBA	TBA
Baltimore City	TBA	TBA	TBA	TBA	TBA
Boston	TBA	TBA	TBA	TBA	TBA
Charlotte	TBA	TBA	TBA	TBA	TBA
Chicago	TBA	TBA	TBA	TBA	TBA
Cleveland	TBA	TBA	TBA	TBA	TBA
Dallas	TBA	TBA	TBA	TBA	TBA
Detroit	TBA	TBA	TBA	TBA	TBA
District of Columbia (DCPS)	TBA	TBA	TBA	TBA	TBA
Fresno	TBA	TBA	TBA	TBA	TBA
Hillsborough County (FL)	TBA	TBA	TBA	TBA	TBA
Houston	TBA	TBA	TBA	TBA	TBA
Jefferson County (KY)	TBA	TBA	TBA	TBA	TBA
Los Angeles	TBA	TBA	TBA	TBA	TBA
Miami-Dade	TBA	TBA	TBA	TBA	TBA
Milwaukee	TBA	TBA	TBA	TBA	TBA
New York City	TBA	TBA	TBA	TBA	TBA
Philadelphia	TBA	TBA	TBA	TBA	TBA
San Diego	TBA	TBA	TBA	TBA	TBA
ELL					
Nation (public)	6	#	6	3	2
Large city¹ (public)	TBA	TBA	TBA	TBA	TBA
Albuquerque	TBA	TBA	TBA	TBA	TBA
Atlanta	TBA	TBA	TBA	TBA	TBA
Austin	TBA	TBA	TBA	TBA	TBA
Baltimore City	TBA	TBA	TBA	TBA	TBA
Boston	TBA	TBA	TBA	TBA	TBA
Charlotte	TBA	TBA	TBA	TBA	TBA
Chicago	TBA	TBA	TBA	TBA	TBA
Cleveland	TBA	TBA	TBA	TBA	TBA
Dallas	TBA	TBA	TBA	TBA	TBA
Detroit	TBA	TBA	TBA	TBA	TBA
District of Columbia (DCPS)	TBA	TBA	TBA	TBA	TBA
Fresno	TBA	TBA	TBA	TBA	TBA
Hillsborough County (FL)	TBA	TBA	TBA	TBA	TBA
Houston	TBA	TBA	TBA	TBA	TBA
Jefferson County (KY)	TBA	TBA	TBA	TBA	TBA
Los Angeles	TBA	TBA	TBA	TBA	TBA
Miami-Dade	TBA	TBA	TBA	TBA	TBA
Milwaukee	TBA	TBA	TBA	TBA	TBA
New York City	TBA	TBA	TBA	TBA	TBA
Philadelphia	TBA	TBA	TBA	TBA	TBA
San Diego	TBA	TBA	TBA	TBA	TBA

— Not available. The district did not participate.

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.

NOTE: 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. Detail may not sum to totals because of rounding. 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), various years, 2003–11 Mathematics Assessments.

Data Collection

The NAEP 2011 mathematics assessment was conducted from January to March 2011 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 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 2011 mathematics assessment, almost three and a half million individual student responses were scored between grades 4 and 8 (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. NAEP's objectives can be achieved with methodologies that produce estimates of the population-level parameters directly, without the intermediary computation of estimates of individuals. 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. When the school-recorded information is missing, student-reported data derived from the student background questions are used. For 2011, 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, 2010 through June 30, 2011, for a family of four, 130 percent of the poverty level was \$28,665, and 185 percent was \$40,793.) 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 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.