A Appendix A

Overview of Procedures Used for the NAEP 2000 Mathematics Assessment

This appendix provides an overview of the NAEP 2000 mathematics assessment's primary components – framework, development, administration, scoring, and analysis. A more extensive review of the procedures and methods used in the mathematics assessment will be included in the forthcoming *NAEP 2000 Technical Report*.

Chapter Focus

Technical Aspects of the NAEP 2000 Mathematics Assessment

The NAEP 2000 Mathematics Assessment

The National Assessment Governing Board (NAGB), created by Congress in 1988, is responsible for formulating policy for NAEP. NAGB is specifically charged with developing assessment objectives and test specifications through a national consensus approach. The mathematics framework used for the 2000 assessment had its origins in a framework developed for the 1990 mathematics assessment under contract with the Council of Chief State School Officers (CCSSO). The CCSSO project considered objectives and frameworks for mathematics instruction at the state, district, and school levels. The project also examined curricular frameworks on which previous NAEP assessments were based, consulted with leaders in mathematics education, and considered a draft version of the National Council of Teachers of Mathematics (NCTM) *Curriculum and Evaluation Standards for School Mathematics.*[1]

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[1] National Council of Teachers of Mathematics (1989). *Curriculum and evaluation standards for school mathematics.* Reston, VA: Author.

This project resulted in a "content-by-ability" matrix design used to guide both the 1990 and 1992 NAEP mathematics assessments. The design was reported in *Mathematics Objectives: 1990 Assessment*.[2]

Prior to 1990, mathematics was assessed based on an earlier framework, which was also used to develop NAEP long-term trend assessments. Because the long-term trend assessments all use the same test booklets, it is possible to compare students' performance across many assessment years. However, the NAEP main mathematics assessment that was administered in 2000 is comparable only to the other assessments based on the 1990 framework—1990, 1992, and 1996. Furthermore, the 2000 assessment includes questions based on a refinement of the 1990 framework, which took place in 1993 and represents more recent instructional viewpoints.

The 1996 assessment was based on the first update of the 1990 NAEP mathematics framework[3] since the release of the NCTM *Curriculum and Evaluation Standards for School Mathematics* in 1989. This update was conducted by the College Board and reflected refinements in the earlier framework specifications while ensuring comparability of results across the 1990, 1992, and 1996 assessments. Since the 2000 framework is the same as the 1996 framework, the assessment results from 1990 to 2000 can be compared. The refinements that distinguish the framework used in the 1996 and 2000 assessments from the assessments conducted in 1990 and 1992 include the following:

- moving away from the rigid content-by-ability matrix (Forcing items to be classified in cells of a matrix limited the possibility of assessing students' ability to reason in rich problem-solving situations and to make connections among the content areas.);
- including the three achievement levels, *Basic, Proficient,* and *Advanced,* described in chapter 1 of this report;
- allowing individual questions to be classified in more than one content area (The option to classify questions in more than one content area provides greater opportunity to measure student ability in content settings that more closely approximate real-world situations.);
- including the mathematics ability categories (conceptual understanding, procedural understanding, and problem solving) as well as the process goals (communication and connections) from the NCTM *Standards*;
- including more constructed-response questions in the 1996 and 2000 assessments than were included in 1990 and 1992; and
- revisiting some of the content strands to make sure they reflect recent curricular emphases.

Figure A.1 describes the five content strands that constitute the NAEP mathematics assessment. These content strands apply to each of the three grades assessed by NAEP. The questions designed to test the various strand topics at a particular grade level tend to reflect the expectations normally associated with instruction at that grade level.

[2] National Assessment of Educational Progress. (1988). *Mathematics objectives: 1990 assessment.* Princeton, NJ: Author.

[3] National Assessment Governing Board. *Mathematics framework for the 1996 National Assessment of Educational Progress.* Washington, DC: Author.

Figure A.1	Descriptions of the Five NAEP Mathematics Content Strands
Number Sense, Properties, and Operations	This content strand focuses on students' understanding of numbers (whole numbers, fractions, decimals, integers, real numbers, and complex numbers), operations, and estimation and their application to real-world situations. At grade 4, this strand emphasizes the development of number sense through connecting various models to their numerical representations and an understanding of the meaning of addition, subtraction, multiplication, and division. At grade 8, number sense is extended to include positive and negative numbers, and the strand addresses properties and operations involving whole numbers, fractions, decimals, integers, and rational numbers. At grade 12, this strand includes real and complex numbers and allows students to demonstrate competency up to the precalculus or calculus level.
Measurement	This content strand focuses on an understanding of the process of measurement and the use of numbers and measures to describe and compare mathematical and real-world objects. Students are asked to identify attributes, select appropriate units and tools, apply measurement concepts, and communicate measurement-related ideas. At grade 4, the strand focuses on time, money, temperature, length, perimeter, area, capacity, weight/mass, and angle measure. At grades 8 and 12, the strand includes these measurement concepts, but the focus shifts to more complex measurement problems that involve volume or surface area or that require students to combine shapes and to translate and apply measures. Eighth- and twelfth-grade students also solve problems involving proportional thinking (such as scale drawing or map reading) and do applications that involve the use of complex measurement formulas.
Geometry and Spatial Sense	This content strand is designed to extend beyond low-level identification of geometric shapes to include transformations and combinations of those shapes. Informal constructions and demonstrations (including drawing representations) along with their justifications take precedence over more traditional types of compass-and-straightedge constructions and proofs. At grade 4, students are asked to model properties of shapes under simple combinations and transformations, and they are asked to use mathematical communication skills to draw figures from verbal descriptions. At grade 8, students are asked to expand their understanding to include properties of angles and polygons. They are also asked to apply reasoning skills to make and validate conjectures about transformations and combinations of shapes. At grade 12, students are asked to demonstrate an understanding of transformational geometry and to apply concepts of proportional thinking to various geometric situations.

Continued on next page. ▶

Figure A.1 (continued)	Descriptions of the Five NAEP Mathematics Content Strands
Data Analysis, Statistics, and Probability	This content strand emphasizes the appropriate methods for gathering data, the visual exploration of data, various ways of representing data, and the development and evaluation of arguments based on data analysis. At grade 4, students are asked to apply their understanding of numbers and quantities by solving problems that involve data. Fourth-graders are asked to interact with a variety of graphs, to make predictions from data and explain their reasoning, to deal informally with measures of central tendency, and to use the basic concepts of chance in meaningful contexts. At grade 8, students are asked to analyze statistical claims and to design experiments, and they are asked to use simulations to model real-world situations. This strand focuses on eighth-graders' basic understanding of sampling, their ability to make predictions based on experiments or data, and their ability to use some formal terminology related to probability, data analysis, and statistics. At grade 12, the strand focuses on the ability to apply the concepts of probability and to use formulas and more formal terminology to describe a variety of situations. For twelfth-graders, the strand also emphasizes a basic understanding of how to use mathematical equations and graphs to interpret data.
Algebra and Functions	This content strand extends from work with simple patterns at grade 4 to basic algebra concepts at grade 8 to sophisticated analyses at grade 12. It involves not only algebra, but also precalculus and some topics from discrete mathematics. Students are expected to use algebraic notation and thinking in meaningful contexts to solve mathematical and real-world problems, specifically addressing an increasing understanding of the use of functions (including algebraic and geometric) as a representational tool. The grade 4 assessment involves informal demonstration of students' abilities to generalize from patterns, including the justification of their generalizations. Students are expected to translate between mathematical representations, to use simple equations, and to do basic graphing. At grade 8, the assessment includes more algebraic notation, stressing the meaning of variables and an informal understanding of the use of symbolic representations in problem-solving contexts. Students are asked to use variables to represent a rule underlying a pattern. Eighth-graders are asked to demonstrate a beginning understanding of equations and functions and the ability to solve simple equations and inequalities. By grade 12, students are asked about basic algebraic notation and terminology as they relate to representations of mathematical and real-world situations. Twelfth-graders are asked to use functions as a way of representing and describing relationships.

SOURCE: National Assessment Governing Board. *Mathematics framework for the 1996 National Assessment of Educational Progress*. Washington, DC: Author.

The assessment framework specified not only the particular strand topics that should be assessed, but also the target percentages of the assessment questions that should be devoted to each of the strands. The distribution of items among the content strands is a critical feature of the assessment design, since it reflects the relative importance and value given to each. Table A.1 gives the target percentages for each of the five strands by grade level for the four most recent assessments. The actual percentages of items came very close to these targets. Notice that these percentages shift from grade 4 to grade 12 to reflect the shift in curricular emphasis as students move from fourth- to twelfth-grade. For example, in grade 4 there is more emphasis on the number sense, properties, and operations strand than on the algebra and functions strand. In grade 12, the percentage of algebra and functions items increases, and the percentage of number sense, properties, and operations items decreases.

Table A.1

Target percentage distribution of items by content strand and grade: 1990–2000

	Grade 4				Grade 8				Grade 12			
	1990	1992	1996	2000	1990	1992	1996	2000	1990	1992	1996	2000
Number sense, properties, and operations	45	45	40	40	30	30	25	25	25	25	20	20
Measurement	20	20	20	20	15	15	15	15	15	15	15	15
Geometry and spatial sense	15	15	15	15	20	20	20	20	20	20	20	20
Data analysis, statistics, and probability	10	10	10	10	15	15	15	15	15	15	20	20
Algebra and functions	10	10	15	15	20	20	25	25	25	25	25	25

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

The Assessment Design

Each student who participated in the mathematics assessment received a booklet containing six sections: a set of general background questions, a set of subject-specific background questions, three sets of cognitive questions, and a set of questions about their motivation and familiarity with assessment tasks. Assessments for each grade consisted of 13 sets of cognitive questions or "blocks." Three blocks at each grade level from the 1990 assessment, three from the 1992 assessment, and four from the 1996 assessment were carried forward to 2000 to allow for the measurement of trends across time. The remaining three blocks contained new questions that were developed for the 2000 assessment as specified by the updated framework.

As mentioned in chapter 1 of this report, three types of questions are used in the assessment: multiple-choice, short constructed-response, and extended constructed-response. Table A.2 shows the distribution of questions administered from 1990 to 2000 by type for each grade level. The total number of questions administered has varied somewhat across the assessment years due to the inclusion of special study blocks in certain years. The number of questions used in the main scaling, however, has remained relatively consistent.

Table A.2

Distribution of questions administered by question type and grade: 1990–2000

	Grade 4				Grade 8				Grade 12			
	1990	1992	1996	2000	1990	1992	1996	2000	1990	1992	1996	2000
Multiple-choice	102	99	81	87	149	118	102	100	156	115	99	100
Short constructed-response *	41	59	64	50	42	65	69	51	47	64	74	54
Extended constructed-response **	—	5	13	8	—	6	12	9	—	6	11	9
Total	143	163	158	145	191	189	183	160	203	185	184	163

*Short constructed-response questions included in the 1990 and 1992 assessments were scored dichotomously.
New short constructed-response questions included in the 1996 and 2000 assessments were scored to allow for partial credit.
**No extended constructed-response questions were included in the 1990 assessment.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

The assessment design allowed for maximum coverage of mathematics abilities at grades 4, 8, and 12 while minimizing the time burden for any one student. This was accomplished through the use of matrix sampling of items, in which representative samples of students took various portions of the entire pool of assessment questions. Individual students were required to take only a small portion of the assessment, but the aggregate results across the entire assessment allowed for broad reporting of mathematics abilities for the targeted population.

In addition to matrix sampling, the assessment design utilized a procedure for distributing booklets that controlled for position and context effects. Students received different blocks of questions in their booklets according to a procedure called "balanced incomplete block (BIB) spiraling." This procedure assigns blocks of questions so that every block appears in the first, second, or third position within a booklet an equal number of times. Every block of questions is paired with every other block. The spiraling aspect of this procedure cycles the booklets for administration, so that typically only a few students in any assessment session receive the same booklet.

In addition to the student assessment booklets, three other instruments provided data relating to the assessment—a teacher questionnaire, a school questionnaire, and a Students with Disabilities/Limited English Proficiency (SD/LEP) questionnaire.

The teacher questionnaire was administered to the mathematics teachers of the fourth- and eighth-grade students participating in the assessment. The questionnaire consisted of three sections and took approximately 20 minutes to complete. The first section focused on the teacher's general background and experience; the second section on the teacher's background related to the mathematics; and the third section on classroom information about mathematics instruction.

The school characteristics and policy questionnaire was given to the principal or other administrator in each participating school and took about 20 minutes to complete. The questions asked about school policies, programs, facilities, and the demographic composition and background of the students and teachers at the school.

The SD/LEP student questionnaire was completed by a school staff member knowledgeable about those students selected to participate in the assessment who were identified as 1) having an Individualized Education Plan (IEP) or equivalent classification (for reasons other than being gifted or talented) or 2) being limited English proficient (LEP). An SD/LEP student questionnaire was completed for each identified student regardless of whether or not the student participated in the assessment. Each SD/LEP questionnaire took approximately three minutes to complete and asked about the student and the special-education programs in which he or she participated.

National and State Samples

The national results presented in this report are based on a nationally representative probability sample of fourth-, eighth-, and twelfth-grade students. The sample was chosen using a complex multistage design that involved sampling students from selected schools within selected geographic areas across the country. The sample design had the following stages:

1) selection of geographic areas (a county, group of counties, or metropolitan statistical area);

2) selection of schools (public and nonpublic) within the selected areas; and

3) selection of students within selected schools.

Each selected school that participated in the assessment and each student assessed represents a portion of the population of interest. Sampling weights are needed to make valid inferences between the student samples and the respective populations from which they were drawn. Sampling weights account for disproportionate representation due to the oversampling of students who attend schools with high concentrations of black and/or Hispanic students and students who attend nonpublic schools. Among other uses, sampling weights also account for lower sampling rates for very small schools.

A special feature of the 1996 and 2000 national assessments of mathematics was the collection of data from samples of

Table A.3

National student sample size by grade: 1990–2000

	1990	1992	1996		2000	
	Accommodations not permitted sample	Accommodations not permitted sample	Accommodations not permitted sample	Accommodations permitted sample	Accommodations not permitted sample	Accommodations permitted sample
Grade 4						
Non SD/LEP students assessed	—	6,906	6,351	6,399	12,970	
SD/LEP students assessed without accommodations	—	270	276	286	541	590
SD/LEP students assessed with accommodations	NA	NA	NA	230	NA	295
Total students assessed	3,423	7,176	6,627	6,915	13,511	13,855
Grade 8						
Non SD/LEP students assessed	—	7,364	6,921	6,574	14,778	
SD/LEP students assessed without accommodations	—	299	225	357	916	802
SD/LEP students assessed with accommodations	NA	NA	NA	183	NA	350
Total students assessed	3,431	7,663	7,146	7,114	15,694	15,930
Grade 12						
Non SD/LEP students assessed	—	6,810	6,763	6,371	12,965	
SD/LEP students assessed without accommodations	—	163	141	281	467	563
SD/LEP students assessed with accommodations	NA	NA	NA	73	NA	135
Total students assessed	3,138	6,973	6,904	6,725	13,432	13,663

SD = Students with Disabilities (the term previously used was IEP).
LEP = Limited English Proficient students.
NA = Not applicable. No accommodations were permitted in this sample.
— Data on participation of SD/LEP students in the national assessment are not available for 1990.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

students where assessment accommodations for special-needs students were not permitted and samples of students where accommodations were permitted. NAEP inclusion rules were applied, and accommodations were offered only when a student had an Individualized Education Plan (IEP) for reasons other than being gifted and talented or was identified as limited English proficient (LEP); all other students were asked to participate in the assessment under standard conditions.

Table A.3 shows the number of students included in the national samples for the NAEP mathematics assessments at each grade level. For the 1996 and 2000 assessments, the table includes the number of students in the sample where accommodations were not permitted and the number of students in the sample where accommodations were permitted. The table shows that the same non-SD/LEP students were included in both samples in 2000; only the SD/LEP students differed between the two samples. The 1996 design differed somewhat, in that the two samples did not include all the same non-SD/LEP students. Although there was some overlap, not all of the non-SD/LEP students were included in both samples as was the case in 2000.

Table A.4 provides a summary of the national school and student participation rates for the mathematics assessment samples where accommodations were not permitted and where accommodations were permitted. Participation rates are presented for public and nonpublic schools, individually and combined. The first rate is the weighted percentage of schools participating in the assessment before substitution. This rate is based only on the number of schools that were initially selected for the assessment. The numerator of this rate is the sum of the number of students represented by each initially selected school that participated in the assessment. The denominator is the sum of the number of students represented by each of the initially selected schools that had eligible students enrolled.

The second school participation rate is the weighted participation rate after substitution. The numerator of this rate is the sum of the number of students represented by each of the participating schools, whether originally selected or selected as a substitute for a school that chose not to participate. The denominator is the same as that for the weighted participation rate for the initial sample. The denominator for this participation rate, as well as for the rate before substitution of schools, is the number of eligible students from all schools with eligible students within the nation. Because of the common denominators, the weighted participation rate after substitution is at least as great as the weighted participation rate before substitution.

Also presented in table A.4 are weighted student participation rates. The numerator of this rate is the sum across all students assessed (in either an initial session or a makeup session) of the number of students that each represents. The denominator of this rate is the sum across all eligible sampled students in participating schools of the number of students that each represents. The overall participation rates take into account the weighted percentage of school participation before or after substitution and the weighted percentage of student participation after makeup sessions.

Table A.4

National school and student participation rates for public schools, nonpublic schools, and public and nonpublic schools combined: 2000

	Weighted school participation			Samples where accommodations were not permitted				Samples where accommodations were permitted			
						Overall participation rate				Overall participation rate	
	Percentage before substitution	Percentage after substitution	Total number of schools	Weighted percentage student participation	Total number of students assessed	Before substitution	After substitution	Weighted percentage student participation	Total number of students assessed	Before substitution	After substitution
Grade 4											
Public	86	89	385	96	7,070	82	85	95	7,395	82	85
Nonpublic	83	88	357	96	6,441	80	84	96	6,460	80	84
All schools	85	89	742	96	13,511	82	85	96	13,855	82	85
Grade 8											
Public	83	86	385	92	9,389	76	79	91	9,583	76	78
Nonpublic	81	84	359	96	6,305	78	81	96	6,347	78	81
All schools	83	85	744	92	15,694	76	79	92	15,930	76	78
Grade 12											
Public	79	82	243	76	6,874	59	62	76	7,051	60	63
Nonpublic	75	83	315	88	6,558	66	73	88	6,612	66	73
All schools	78	82	558	77	13,432	60	63	77	13,663	60	64

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

The results of the 2000 state assessment program in mathematics provided in this report are based on state-level samples of fourth- and eighth-grade public school students. The samples were selected using a two-stage sample design that first selected schools within participating jurisdictions and then students within schools. As with the national samples, the jurisdiction samples were weighted to allow for valid inferences about the populations of interest. Tables A.5a and A.5b contain the unweighted number of participating schools and students as well as weighted school and student participation rates for state samples where accommodations were not permitted and where accommodations were permitted.

Table A.5a

State school and student participation rates for grade 4 public schools: 2000

	Weighted school participation			Samples where accommodations were not permitted				Samples where accommodations were permitted			
						Overall participation rate				Overall participation rate	
	Percentage before substitution	Percentage after substitution	Total number of schools	Weighted percentage student participation	Total number of students assessed	Before substitution	After substitution	Weighted percentage student participation	Total number of students assessed	Before substitution	After substitution
Nation	86	89	385	96	7,070	82	85	95	7,395	82	85
Alabama	87	94	108	95	2,438	83	90	95	2,493	83	90
Arizona	88	88	95	94	2,082	83	83	95	2,135	83	83
Arkansas	87	87	99	95	2,262	83	83	96	2,291	83	83
California †	76	76	81	94	1,656	72	72	94	1,678	71	71
Connecticut	100	100	106	96	2,499	96	96	96	2,560	96	96
Georgia	99	99	107	95	2,681	94	94	95	2,740	94	94
Hawaii	99	99	108	94	2,439	93	93	94	2,441	93	93
Idaho †	74	75	77	96	1,699	71	72	95	1,748	71	71
Illinois †	74	74	78	94	1,622	69	69	94	1,713	70	70
Indiana †	71	71	80	95	1,864	68	68	95	1,924	68	68
Iowa †	70	70	90	95	1,909	67	67	95	1,998	67	67
Kansas †	71	71	79	96	1,561	68	68	95	1,621	68	68
Kentucky	92	94	104	95	2,275	87	90	95	2,335	87	90
Louisiana	100	100	109	96	2,513	96	96	96	2,575	96	96
Maine †	86	86	108	95	2,132	81	81	94	2,202	81	81
Maryland	100	100	109	95	2,645	95	95	94	2,726	94	94
Massachusetts	99	99	105	96	2,292	95	95	96	2,391	95	95
Michigan †	72	85	85	94	1,903	68	80	94	1,942	68	80
Minnesota †	83	83	77	94	1,822	78	78	94	1,844	78	78
Mississippi	98	98	108	95	2,831	93	93	95	2,850	93	93
Missouri	96	96	101	95	2,330	92	92	95	2,410	92	92
Montana †	75	77	61	95	1,123	71	73	95	1,109	71	73
Nebraska	97	97	79	94	1,396	92	92	95	1,452	92	92
Nevada	100	100	109	94	2,529	94	94	94	2,619	94	94
New Mexico	93	93	100	95	1,933	88	88	95	2,044	88	88
New York †	71	71	76	94	1,753	67	67	94	1,827	67	67
North Carolina	100	100	107	95	2,413	95	95	96	2,526	96	96
North Dakota	88	88	131	96	2,456	85	85	96	2,478	85	85
Ohio †	82	82	86	95	1,913	78	78	95	1,938	78	78
Oklahoma	100	100	114	95	2,302	95	95	94	2,352	94	94
Oregon †	73	74	78	93	1,596	68	69	94	1,661	68	69
Rhode Island	100	100	112	95	2,447	95	95	95	2,550	95	95
South Carolina	97	97	104	96	2,501	93	93	96	2,537	93	93
Tennessee	97	97	104	96	2,488	93	93	96	2,518	93	93
Texas	97	99	101	96	2,171	93	95	96	2,299	93	95
Utah	100	100	109	94	2,639	94	94	93	2,704	93	93
Vermont †	70	70	61	95	1,165	66	66	95	1,246	67	67
Virginia	100	100	106	96	2,439	96	96	95	2,568	95	95
West Virginia	100	100	123	95	2,431	95	95	95	2,533	95	95
Wisconsin †	67	69	70	96	1,455	64	66	97	1,540	64	67
Wyoming	100	100	94	95	1,739	95	95	95	1,770	95	95
Other Jurisdictions											
American Samoa	100	100	16	94	459	94	94	94	492	94	94
District of Columbia	99	99	110	94	2,297	93	93	94	2,354	94	94
DDESS	100	100	40	95	1,334	95	95	95	1,328	95	95
DoDDS	100	100	86	94	2,786	94	94	93	2,819	93	93
Guam	97	97	25	95	1,012	92	92	95	1,114	92	92
Virgin Islands	100	100	23	95	751	95	95	95	773	95	95

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.
DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools. DoDDS: Department of Defense Dependents Schools (Overseas).
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Table A.5b

State school and student participation rates for grade 8 public schools: 2000

	Weighted school participation			Samples where accommodations were not permitted				Samples where accommodations were permitted			
						Overall participation rate				Overall participation rate	
	Percentage before substitution	Percentage after substitution	Total number of schools	Weighted percentage student participation	Total number of students assessed	Before substitution	After substitution	Weighted percentage student participation	Total number of students assessed	Before substitution	After substitution
Nation	83	86	385	92	9,389	76	79	91	9,583	76	78
Alabama	82	91	102	92	2,327	76	84	92	2,308	75	84
Arizona †	76	76	79	91	1,786	69	69	91	1,839	69	69
Arkansas	87	87	94	93	2,170	81	81	93	2,224	81	81
California †	72	72	76	91	1,628	65	65	92	1,677	66	66
Connecticut	99	99	104	92	2,454	91	91	92	2,504	91	91
Georgia	99	99	102	90	2,513	89	89	90	2,545	89	89
Hawaii	91	91	51	90	2,277	82	82	91	2,249	83	83
Idaho †	78	78	66	93	1,971	73	73	93	2,047	73	73
Illinois †	75	75	78	93	1,719	70	70	92	1,753	69	69
Indiana †	73	73	76	93	1,855	68	68	92	1,900	67	67
Kansas †	71	71	74	92	1,676	65	65	92	1,670	65	65
Kentucky	94	95	97	94	2,294	89	90	94	2,363	89	90
Louisiana	100	100	104	90	2,359	90	90	90	2,411	90	90
Maine †	83	84	84	91	2,102	76	77	91	2,184	75	77
Maryland	98	98	105	90	2,401	88	88	91	2,503	89	89
Massachusetts	99	99	99	93	2,303	92	92	93	2,423	92	92
Michigan †	71	81	85	88	1,975	63	71	88	1,993	63	71
Minnesota †	74	74	64	93	1,525	69	69	92	1,575	68	68
Mississippi	98	98	101	92	2,394	90	90	92	2,418	90	90
Missouri	92	94	104	92	2,329	85	87	93	2,408	85	87
Montana †	74	75	65	92	1,740	68	69	92	1,771	68	69
Nebraska	99	99	83	92	1,916	91	91	91	1,899	90	90
Nevada	100	100	63	92	2,614	92	92	92	2,710	92	92
New Mexico	91	91	83	89	1,919	81	81	89	1,926	81	81
New York †	70	70	74	90	1,633	63	63	90	1,718	63	63
North Carolina	99	99	104	92	2,354	91	91	92	2,479	91	91
North Dakota	90	90	95	95	2,227	86	86	94	2,271	85	85
Ohio	91	91	87	91	2,084	83	83	91	2,114	82	82
Oklahoma	99	99	113	93	2,424	92	92	92	2,485	91	91
Oregon †	75	75	81	90	1,779	67	67	91	1,825	68	68
Rhode Island	100	100	51	91	2,314	91	91	90	2,428	90	90
South Carolina	91	92	95	93	2,306	85	86	93	2,341	85	86
Tennessee	89	91	95	90	2,232	80	82	91	2,259	81	83
Texas	93	96	104	93	2,317	87	89	93	2,334	86	89
Utah	100	100	96	92	2,472	92	92	92	2,502	92	92
Vermont †	82	82	76	92	2,004	76	76	92	2,058	76	76
Virginia	100	100	105	92	2,469	92	92	91	2,517	91	91
West Virginia	100	100	104	92	2,463	92	92	91	2,574	91	91
Wisconsin †	65	73	79	92	1,760	60	68	91	1,847	60	67
Wyoming	100	100	71	93	2,634	93	93	93	2,665	93	93
Other Jurisdictions											
American Samoa	100	100	14	97	423	97	97	98	438	98	98
District of Columbia	100	100	34	87	1,614	87	87	88	1,665	88	88
DDESS	100	100	13	92	646	92	92	92	692	92	92
DoDDS	100	100	51	94	1,951	94	94	94	1,993	94	94
Guam	100	100	7	92	1,017	92	92	93	985	93	93
Virgin Islands *	100	100	6	94	596	94	94	94	607	94	94

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

* Although 100% of the schools serving eighth-graders in the Virgin Islands participated in the 2000 mathematics assessment, the results from only two-thirds of the schools qualified for reporting. For this reason, grade 8 Virgin Island results are omitted from this report.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools. DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Standards for Sample Participation and Reporting of Results

In carrying out the 2000 state assessment program, the National Center for Education Statistics (NCES) established participation rate standards that jurisdictions were required to meet in order for their results to be reported. NCES also established additional standards that required the annotation of published results for jurisdictions whose sample participation rates were low enough to raise concerns about their representativeness. The NCES guideline used to report results in the state assessments, and the guidelines for notation when there is some risk of nonresponse bias in the reported results, are presented in the tables of the following section.

Guidelines for Notations 1

The publication of NAEP results

The conditions that will result in the publication of a jurisdiction's results are presented below.

Guideline 1 - Publication of Public School Results

A jurisdiction will have its public school results published in the 2000 NAEP Mathematics Report Card (or in other reports that include all state-level results) if and only if its weighted participation rate for the initial sample of public schools is greater than or equal to 70 percent. Similarly, a jurisdiction will receive a separate NAEP State Report if and only if its weighted participation rate for the initial sample of public schools is greater than or equal to 70 percent.

Discussion: If a jurisdiction's public school participation rate for the initial sample of schools is below 70 percent, there is a substantial possibility that bias will be introduced into the assessment results. This possibility remains even after making statistical adjustments to compensate for school nonparticipation. There remains the likelihood that, in aggregate, the substitute schools are sufficiently dissimilar from the originals that they are replacing and represent too great a proportion of the population to discount such a difference. Similarly, the assumptions underlying the use of statistical adjustments to compensate for nonparticipation are likely to be significantly violated if the initial response rate falls below the 70 percent level. Guideline 1 takes this into consideration. This guideline is congruent with current NAGB policy, which requires that data for jurisdictions that do not have a 70 percent before-substitution participation rate be reported "in a different format," and with the Education Information Advisory Committee (EIAC) resolution, which calls for data from such jurisdictions not to be published.

The following guidelines concerning school and student participation rates in the NAEP state assessment program were established to address four significant ways in which nonresponse bias could be introduced into the jurisdiction sample estimates. Presented on the following pages are the conditions that will result in a jurisdiction's receiving a notation in the 2000 reports. Note that in order for a jurisdiction's results to be published with no notations, that jurisdiction must satisfy all guidelines.

Guidelines for Notations 2

Reporting school and student participation rates with possible bias due to school nonresponse

Guideline 2 - Notation for Overall Public School Participation Rate

A jurisdiction that meets Guideline 1 will receive a notation if its weighted participation rate for the initial sample of public schools was below 85 percent and the weighted public school participation rate after substitution was below 90 percent.

Discussion: For jurisdictions that did not use substitute schools, the participation rates are based on participating schools from the original sample. In these situations, the NCES standards specify weighted school participation rates of at least 85 percent to guard against potential bias due to school nonresponse. Thus the first part of these guidelines, referring to the weighted school participation rate for the initial sample of schools, is in direct accordance with NCES standards.

To help ensure adequate sample representation for each jurisdiction participating in the NAEP 2000 state assessments, NAEP provided substitutes for nonparticipating public schools. For jurisdictions that used substitute schools, the assessment results will be based on the student data from all schools participating from both the original sample and the list of substitutes (unless both an initial school and its substitute eventually participated, in which case only the data from the initial school will be used).

The NCES standards do not explicitly address the use of substitute schools to replace initially selected schools that decide not to participate in the assessment. However, considerable technical consideration was given to this issue. Even though the characteristics of the substitute schools were matched as closely as possible to the characteristics of the initially selected schools, substitution does not entirely eliminate bias due to the nonparticipation of initially selected schools. Thus, for the weighted school participation rates including substitute schools, the guidelines were set at 90 percent.

If a jurisdiction meets either standard (i.e., 85 percent or higher prior to substitution or 90 percent or higher after substitution), there will be no notation for the relevant overall school participation rate.

Guidelines for Notations 3

Important segments of the jurisdiction's student population that must be adequately represented to avoid possible nonresponse bias

Guideline 3 - Notation for Strata-Specific Public School Participation Rates

A jurisdiction that is not already receiving a notation under Guideline 2 will receive a notation if the sample of public schools included a class of schools with similar characteristics that had a weighted participation rate (after substitution) of below 80 percent, and from which the nonparticipating schools together accounted for more than five percent of the jurisdiction's total weighted sample of public schools. The classes of schools from each of which a jurisdiction needed minimum school participation levels were determined by degree of urbanization, minority enrollment, and median household income of the area in which the school is located.

Discussion: The NCES standards specify that attention should be given to the representativeness of the sample coverage. Thus, if some important segment of the jurisdiction's population is not adequately represented, it is of concern, regardless of the overall participation rate.

If nonparticipating schools are concentrated within a particular class of schools, the potential for substantial bias remains, even if the overall level of school participation appears to be satisfactory. Nonresponse adjustment cells for public schools have been formed within each jurisdiction, and the schools within each cell are similar with respect to minority enrollment, degree of urbanization, and/or median household income, as appropriate for each jurisdiction.

If the weighted response rate, after substitution, for a single adjustment cell falls below 80 percent, and more than five percent (weighted) of the sampled schools are nonparticipants from such a cell, the potential for nonresponse bias is too great. This guideline is based on the NCES standard for stratum-specific school response rates.

Guidelines for Notations 4

Possible student nonresponse bias

Guideline 4 - Notation for Overall Student Participation Rate in Public Schools

A jurisdiction that meets Guideline 1 will receive a notation if the weighted student response rate within participating public schools was below 85 percent.

Discussion: This guideline follows the NCES standard of 85 percent for overall student participation rates. The weighted student participation rate is based on all eligible students from initially selected or substitute schools who participated in the assessment in either an initial session or a make-up session. If the rate falls below 85 percent, the potential for bias due to students' nonresponse is too great.

Guidelines for Notations 5

Possible nonresponse bias from inadequately represented strata

Guideline 5 - Notation for Strata-Specific Student Participation Rates in Public Schools

A jurisdiction that is not already receiving a notation under Guideline 4 will receive a notation if the sampled students within participating public schools included a class of students with similar characteristics that had a weighted student response rate of below 80 percent, and from which the nonresponding students together accounted for more than five percent of the jurisdiction's weighted assessable public school student sample. Student groups from which a jurisdiction needed minimum levels of participation were determined by the age of the student, whether or not the student was classified as a student with a disability (SD) or of limited English proficiency (LEP), and the type of assessment session (monitored or unmonitored), as well as school level of urbanization, minority enrollment, and median household income of the area in which the school is located.

Discussion: This guideline addresses the fact that if nonparticipating students are concentrated within a particular class of students, the potential for substantial bias remains, even if the overall student participation level appears to be satisfactory. Student nonresponse adjustment cells have been formed using the school-level nonresponse adjustment cells, together with the student's age and the nature of the assessment session (unmonitored or monitored).

If the weighted response rate for a single adjustment cell falls below 80 percent, and more than five percent (weighted) of the invited students who do not participate in the assessment are from such a cell, the potential for nonresponse bias is too great. This guideline is based on the NCES standard for stratum-specific student response rates.

At both fourth- and eighth-grade, one state, Wisconsin, failed to meet the initial public school participation rate of 70 percent, and the Virgin Islands failed to meet this standard at grade 8. Results for these jurisdictions are not reported in this or any report of NAEP 2000 mathematics findings. Several other jurisdictions whose results were published received a notation to indicate possible nonresponse bias.

Thirteen jurisdictions at grade 4 failed to meet the second guideline for notation (i.e., the weighted participation rate for the initial sample of schools was below 85 percent and the weighted school participation rate after substitution was below 90 percent): California, Idaho, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Montana, New York, Ohio, Oregon, and Vermont. Similarly, 13 jurisdictions failed to meet this guideline at grade 8: Arizona, California, Idaho, Illinois, Indiana, Kansas, Maine, Michigan, Minnesota, Montana, New York, Oregon, and Vermont. Results for these jurisdictions were reported with a notation. In addition, grade 4 results for Maine also received a notation for failing to meet the third guideline indicating that the sample of public schools included a class of schools with similar characteristics that had a weighted participation rate (after substitution) of below 80 percent, and from which the nonparticipating schools together accounted for more than five percent of the jurisdiction's total weighted sample of public schools.

Students with Disabilities (SD) and Limited English Proficient (LEP) Students

It is NAEP's intent to assess all selected students from the target population. Therefore, every effort is made to ensure that all selected students who are capable of participating in the assessment are assessed. Some students sampled for participation in NAEP can be excluded from the sample according to carefully defined criteria. These criteria were revised in 1996 to communicate more clearly a presumption of inclusion except under special circumstances. According to these criteria, students with Individualized Education Programs (IEPs) were to be included in the NAEP assessment except in the following cases:

1. The school's IEP team determined that the student could not participate, OR,
2. The student's cognitive functioning was so severely impaired that she or he could not participate, OR,
3. The student's IEP required that the student had to be tested with an accommodation or adaptation and that the student could not demonstrate his or her knowledge without that accommodation.

All LEP students receiving academic instruction in English for three years or more were to be included in the assessment. Those LEP students receiving instruction in English for fewer than three years were to be included unless school staff judged them to be incapable of participating in the assessment in English.

Participation of SD/LEP students in the two NAEP samples

Testing all sampled students is the best way for NAEP to ensure that the statistics generated by the assessment are as representative as possible of the performance of the entire national population and the populations of participating jurisdictions. However, all groups of students include certain proportions that cannot be tested in

large-scale assessments (such as students who have profound mental disabilities), or who can only be tested through the use of "accommodations" such as extra time, one-on-one administration, or use of magnifying equipment. When such accommodations are not allowed, students requiring such adjustments are often excluded from large-scale assessments such as NAEP. This phenomenon has become more common in the last decade, and gained momentum with the passage of the Individuals with Disabilities Education ACT (IDEA), which led schools and states to identify increasing proportions of students as needing accommodations on assessments to best show what they know and can do.[4] In addition, as the proportion of English-language learners in the population has increased, some states have started offering accommodations such as translated versions of assessments or the use of bilingual dictionaries as part of assessments.

Before 1996, NAEP did not allow any testing under nonstandard conditions (i.e., accommodations were not permitted). At that time, NAEP samples were able to include almost all sampled students in "standard" assessment sessions. However, as the influence of IDEA grew more widespread, the failure to provide accommodations led to increasing levels of exclusion in the assessment. Such increases posed two threats to the program: they threatened the stability of trend lines (because excluding more students in one year than the next might lead to apparent rather than real gains), and made NAEP samples less than optimally representative of target populations.

NAEP reacted to this challenge by adopting a multipart strategy. It became clear that to ensure that NAEP samples were as inclusive as possible, the program had to move toward allowing the same assessment accommodations that were afforded students in state and district testing programs. However, allowing accommodations represents a change in testing conditions that may affect trend. Therefore, beginning with the 1996 national assessments and the 1998 state assessments, NAEP has assessed a series of parallel samples of students. In one set of samples, testing accommodations were not permitted: this has allowed NAEP to maintain the measurement of achievement trends on an assessment that was, throughout its existence, administered under common conditions. In addition to the samples where accommodations were not permitted, parallel samples in which accommodations were permitted were also assessed. By having two overlapping samples and two sets of related data points, NAEP could meet two core program goals. First, data trends could be maintained. Second, parallel trend lines could be set in ways that ensure that, in future years, the program will be able to use the most inclusive practices possible and mirror the procedures used by most state and district assessments. Beginning in 2002, NAEP will use only the more inclusive samples in which assessment accommodations are permitted.

In mathematics, national and state data from 1990, 1992, 1996, and 2000 are reported for the sample in which accommodations were not permitted. The results

[4] Office of Special Education Programs (1997). *Nineteenth annual report to Congress on the implementation of the individuals with disabilities education act*. Washington, DC: U. S. Department of Education.

for this sample are presented in chapters 1, 2, 3, 5, and 6 of this report. National data for the second sample, in which accommodations were permitted, is reported at all grades for 1996 and 2000. State data on this more inclusive sample is reported for 2000. The results for this sample are presented in chapter 4. By comparing the results for the two samples, readers may get a general sense of the impact of excluding of students.

In order to make it possible to evaluate both the impact of increasing exclusion rates in some jurisdictions and differences between jurisdictions, complete data on exclusion in all years are included in this appendix. Since the exclusion rates may affect trend measurement within a jurisdiction, readers should consider the magnitude of exclusion rate changes when interpreting score changes in jurisdictions. In addition, different rates of exclusion may influence the meaning of state comparisons. Thus, exclusion data should be reviewed in this context as well.

Participation rates across the assessment years for students with disabilities (SD) and limited English proficient (LEP) students for the national sample where accommodations were not permitted are presented in table A.6. The data in this table include the percentages of students *identified* as SD and/or LEP, the percentage of students *excluded*, and the percentage of *assessed* SD/LEP students. Data for SD/LEP students in 1990 are not available at the national level.[5] Tables A.7a and A.7b show similar information by jurisdiction for grades 4 and 8. Participation rates for the national sample where accommodations were permitted are presented in table A.8, and state results where accommodations were permitted are shown in tables A.9a and A.9b. The data in these tables include the percentages of students *identified* as SD and/or LEP, the percentage of students *excluded*, the percentage of *assessed* SD/LEP students, the percentage *assessed without accommodations*, and the percentage *assessed with accommodations*.

In the 2000 accommodations-not-permitted national sample, 7 percent of students at grades 4 and 8, and 4 percent of students at grade 12 were excluded from the assessment. The comparable percentages in the 2000 accommodations-permitted national sample were 4 percent at grades 4 and 8, and 2 percent at grade 12. This comparison would suggest that allowing accommodations did help to decrease the percentage of students excluded from the assessment. A similar pattern is evident in the various jurisdictions that participated in the 2000 state assessment. Across the jurisdictions, the percentage of students excluded in the accommodations-not-permitted sample ranged from 4 to 15 percent at grade 4, and from 3 to 14 percent at grade 8. In the accommodations-permitted sample the percentages of students excluded ranged from 1 to 9 percent at grade 4, and from 1 to 8 percent at grade 8. As with the national exclusion rates, most states and jurisdictions excluded a smaller percentage of students when accommodations were permitted.

[5] In 1990, information on SD/LEP students was collected across the entire national sample, including the sample which was administered the 1990 NAEP science assessment. As a consequence, SD/LEP information specific to the national mathematics assessment is not reported in table A.6. Because only one subject area (grade-eight mathematics) was assessed at the state level in 1990, SD/LEP information is available for individual states that participated in that year, and is presented in table A.7b.

Table A.6

SD and LEP students in the NAEP mathematics assessment national samples where accommodations were not permitted: 1992–2000

	1992*		1996		2000	
	Number of students	Weighted percentage of students sampled	Number of students	Weighted percentage of students sampled	Number of students	Weighted percentage of students sampled
Grade 4						
SD and LEP students						
Identified	2,020	9	480	14	1,031	15
Excluded	1,750	6	204	6	490	7
Assessed	270	3	276	8	541	8
SD students only						
Identified	1,163	7	359	11	672	11
Excluded	990	4	153	5	380	5
Assessed	173	3	206	6	292	5
LEP students only						
Identified	939	3	142	3	454	5
Excluded	835	2	67	1	189	2
Assessed	104	1	75	2	265	3
Grade 8						
SD and LEP students						
Identified	2,329	9	391	11	1,772	14
Excluded	2,030	6	166	4	856	7
Assessed	299	4	225	6	916	8
SD students only						
Identified	1,538	7	310	9	1,316	11
Excluded	1,323	4	149	4	719	6
Assessed	215	3	161	5	597	5
LEP students only						
Identified	838	2	106	3	551	4
Excluded	750	2	38	1	210	1
Assessed	88	1	68	2	341	2
Grade 12						
SD and LEP students						
Identified	1,580	6	257	7	904	9
Excluded	1,417	4	116	3	437	4
Assessed	163	2	141	4	467	5
SD students only						
Identified	1,166	4	211	6	680	7
Excluded	1,088	3	108	3	379	4
Assessed	78	1	103	3	301	3
LEP students only						
Identified	447	2	47	1	264	2
Excluded	351	1	9	▲	93	1
Assessed	96	1	38	1	171	2

SD = Students with Disabilities (the term previously used was IEP). LEP = Limited English Proficient students.

* In 1992, the identified and excluded students were combined across subject areas. Although their weighted percentages are comparable to 1996 and 2000, the raw numbers of students are not.

NOTE: Within each grade level the combined SD/LEP portion of the table is not a sum of the separate SD and LEP portions because some students were identified as both SD and LEP. Such students would be counted separately in the bottom portions but counted only once in the top portion.

Within each portion of the table, percentages may not sum properly due to rounding. SD/LEP information is not available at the national level in 1990.

▲ Percentage is between 0.0 and 0.5.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table A.7a

Percentage of SD and LEP students in the NAEP mathematics assessment state samples where accommodations were not permitted for grade 4 public schools: 1992–2000

	SD and LEP Students								
	1992			1996			2000		
	Identified	Excluded	Assessed	Identified	Excluded	Assessed	Identified	Excluded	Assessed
Nation	12	8	4	16	6	9	16	7	9
Alabama	10	5	6	12	6	5	13	6	7
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
Connecticut	14	7	7	16	8	8	15	10	5
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 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
Rhode Island	16	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	7	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
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									
American Samoa	—	—	—	—	—	—	15	14	1
District of Columbia	11	9	2	14	11	3	19	9	10
DDESS	—	—	—	9	4	5	11	5	5
DoDDS	—	—	—	10	5	5	11	5	6
Guam	12	6	5	16	12	3	26	12	15
Virgin Islands	5	3	2	—	—	—	8	6	3

SD = Students with Disabilities (the term previously used was IEP). LEP = Limited English Proficient students.
Percentages may not sum properly due to rounding.
† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.
— Jurisdiction did not participate in this year.
DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools. DoDDS: Department of Defense Dependents Schools (Overseas).
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1996, and 2000 Mathematics Assessments.

Table A.7b

Percentage of SD and LEP students in the NAEP mathematics assessment state samples where accommodations were not permitted for grade 8 public schools: 1990–2000

	SD and LEP Students											
	1990			1992			1996			2000		
	Identified	Excluded	Assessed	Identified	Excluded	Assessed	Identified	Excluded	Assessed	Identified	Excluded	Assessed
Nation	*	*	*	12	7	5	11	5	7	15	7	8
Alabama	9	5	4	10	5	5	13	7	6	14	5	9
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
Connecticut	11	6	5	14	7	8	15	8	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
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	5	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 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
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
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												
American Samoa	—	—	—	—	—	—	—	—	—	14	12	2
District of Columbia	6	5	1	11	10	2	13	10	4	15	9	6
DDESS	—	—	—	—	—	—	12	4	8	13	11	1
DoDDS	—	—	—	—	—	—	7	3	4	8	3	4
Guam	6	4	2	7	4	3	7	3	4	13	5	8

SD = Students with Disabilities (the term previously used was IEP) LEP = Limited English Proficient students.
* SD/LEP information not available for the nation in 1990.
Within each portion of the table, percentages may not sum properly due to rounding.
† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.
— Jurisdiction did not participate in this year.
DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools. DoDDS: Department of Defense Dependents Schools (Overseas).
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table A.8

SD and LEP students in the NAEP mathematics assessment national samples where accommodations were permitted: 1996 and 2000

		1996		2000	
		Number of students	Weighted percentage of students sampled	Number of students	Weighted percentage of students sampled
Grade 4					
SD and LEP students	Identified	701	15	1131	17
	Excluded	185	4	246	4
	Assessed	516	11	885	13
Assessed without accommodations		286	6	590	8
Assessed with accommodations		230	5	295	4
SD students only	Identified	424	11	706	12
	Excluded	109	3	180	3
	Assessed	315	8	526	9
Assessed without accommodations		172	4	310	5
Assessed with accommodations		143	4	216	4
LEP students only	Identified	308	5	472	5
	Excluded	86	1	87	1
	Assessed	222	4	385	4
Assessed without accommodations		114	2	297	3
Assessed with accommodations		108	1	88	1
Grade 8					
SD and LEP students	Identified	758	12	1603	13
	Excluded	218	3	451	4
	Assessed	540	9	1152	10
Assessed without accommodations		357	6	802	7
Assessed with accommodations		183	3	350	3
SD students only	Identified	557	9	1206	10
	Excluded	183	3	402	3
	Assessed	374	7	804	7
Assessed without accommodations		227	4	523	5
Assessed with accommodations		147	2	281	2
LEP students only	Identified	226	3	471	3
	Excluded	51	1	103	1
	Assessed	175	2	368	3
Assessed without accommodations		133	2	290	2
Assessed with accommodations		42	▲	78	1
Grade 12					
SD and LEP students	Identified	589	8	961	9
	Excluded	235	3	263	2
	Assessed	354	5	698	7
Assessed without accommodations		281	4	563	5
Assessed with accommodations		73	1	135	2
SD students only	Identified	386	6	681	7
	Excluded	206	3	228	2
	Assessed	180	3	453	5
Assessed without accommodations		107	2	338	4
Assessed with accommodations		73	1	115	1
LEP students only	Identified	228	3	318	2
	Excluded	38	▲	56	▲
	Assessed	190	2	262	2
Assessed without accommodations		178	2	241	2
Assessed with accommodations		12	▲	21	▲

SD = Students with Disabilities (the term previously used was IEP). LEP = Limited English Proficient students.
NOTE: Within each grade level, the combined SD/LEP portion of the table is not a sum of the separate SD and LEP portions because some students were identified as both SD and LEP. Such students would be counted separately in the bottom portions but counted only once in the top portion.
Within each portion of the table, percentages may not sum properly due to rounding.

▲ Percentage is between 0.0 and 0.5.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table A.9a

Percentage of SD and LEP students in the NAEP mathematics assessment state samples where accommodations were permitted for grade 4 public schools: 2000

	Identified	Excluded	Assessed	Assessed under standard conditions	Assessed with accommodations	All students assessed under standard conditions
Nation	18	4	14	9	5	91
Alabama	13	3	10	7	3	94
Arizona	25	4	21	12	9	87
Arkansas	14	4	10	6	4	92
California †	33	6	27	19	8	86
Connecticut	14	5	10	5	4	91
Georgia	11	3	8	4	4	93
Hawaii	19	9	11	8	3	89
Idaho †	16	2	13	7	7	91
Illinois †	17	3	14	5	9	88
Indiana †	11	2	9	3	6	91
Iowa †	15	2	12	5	7	91
Kansas †	16	3	13	9	4	93
Kentucky	12	3	9	4	5	92
Louisiana	16	3	13	2	11	86
Maine †	16	5	12	5	7	89
Maryland	12	2	10	4	6	92
Massachusetts	19	3	17	7	10	87
Michigan †	11	3	8	3	4	92
Minnesota †	16	2	14	7	7	90
Mississippi	6	3	3	1	2	95
Missouri	15	3	13	5	8	90
Montana †	12	2	11	5	6	93
Nebraska	18	3	15	10	4	92
Nevada	20	7	13	8	5	88
New Mexico	31	6	26	16	10	85
New York †	16	5	11	2	9	86
North Carolina	16	5	11	3	8	87
North Dakota	12	1	11	7	4	95
Ohio †	12	5	7	2	5	90
Oklahoma	20	5	15	11	5	90
Oregon †	18	3	16	8	8	90
Rhode Island	23	3	20	10	10	87
South Carolina	17	5	12	7	5	90
Tennessee	11	3	9	7	1	96
Texas	25	7	18	12	6	87
Utah	14	3	11	7	4	94
Vermont †	15	3	13	4	9	89
Virginia	16	4	12	5	7	89
West Virginia	13	3	11	3	8	89
Wisconsin †	19	5	14	7	8	87
Wyoming	15	2	13	8	6	92
Other Jurisdictions						
American Samoa	15	4	11	8	3	93
District of Columbia	19	5	14	7	7	88
DDESS	11	4	7	3	4	92
DoDDS	11	2	9	5	4	94
Guam	26	6	20	16	4	89
Virgin Islands	8	4	4	4	▲	96

SD = Students with Disabilities (the term previously used was IEP). LEP = Limited English Proficient students.

Percentages may not sum properly due to rounding.

▲ Percentage is between 0.0 and 0.5.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

DDESS:Department of Defense Domestic Dependent Elementary and Secondary Schools. DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Table A.9b

Percentage of SD and LEP students in the NAEP mathematics assessment state samples where accommodations were permitted for grade 8 public schools: 2000

	Identified	Excluded	Assessed	Assessed under standard conditions	Assessed with accommodations	All students assessed under standard conditions
Nation	14	4	10	7	3	93
Alabama	14	6	8	7	1	93
Arizona †	19	3	16	11	4	92
Arkansas	14	2	11	8	4	94
California †	27	4	22	17	5	91
Connecticut	16	6	10	6	4	90
Georgia	11	5	6	3	3	93
Hawaii	20	5	15	13	2	93
Idaho †	14	2	12	8	4	94
Illinois †	15	5	11	7	3	92
Indiana †	12	3	9	6	3	94
Kansas †	14	3	10	8	3	94
Kentucky	14	4	9	5	4	91
Louisiana	13	3	10	4	6	91
Maine †	15	3	12	7	5	93
Maryland	13	3	11	7	4	94
Massachusetts	19	3	17	8	9	88
Michigan †	11	4	7	5	2	94
Minnesota †	15	2	13	11	3	96
Mississippi	11	5	5	4	1	93
Missouri	15	3	12	5	7	90
Montana †	12	2	9	6	3	94
Nebraska	13	4	10	7	2	94
Nevada	16	4	12	8	5	92
New Mexico	25	7	18	14	4	89
New York †	16	4	12	5	7	89
North Carolina	16	5	11	4	7	88
North Dakota	11	2	9	8	2	96
Ohio	11	4	7	4	3	93
Oklahoma	15	4	11	8	3	93
Oregon †	17	3	14	8	6	91
Rhode Island	20	3	16	12	4	92
South Carolina	13	4	9	7	2	94
Tennessee	13	2	10	9	1	97
Texas	20	8	12	10	2	90
Utah	14	3	11	8	3	95
Vermont †	17	3	14	10	4	93
Virginia	15	6	9	5	4	90
West Virginia	15	3	12	4	8	90
Wisconsin †	17	4	13	6	6	90
Wyoming	13	1	12	9	3	96
Other Jurisdictions						
American Samoa	14	4	10	5	4	92
District of Columbia	15	6	9	3	6	88
DDESS	13	3	10	7	3	94
DoDDS	8	1	7	5	1	98
Guam	13	6	6	5	2	92

SD = Students with Disabilities (the term previously used was IEP). LEP = Limited English Proficient students

Percentages may not sum properly due to rounding.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Investigating the effects of exclusion rates on assessment results

As indicated by the data in the previous section, exclusion rates have tended to increase across assessment years in the samples that did not permit accommodations, particularly within certain states. In considering the effects of exclusion rates on assessment results, at least two major issues become evident. First, if exclusion rates vary substantially across assessment years, then the ability to report trends (i.e., compare results between years) may be threatened by the fact that the results from different years are based on different proportions of the population. Second, the variation in exclusion rates among states and jurisdictions may threaten the comparison of state-by-state results within a given year, again because the results for different states or jurisdictions are based on different proportions of the populations.

As a consequence, NCES investigated the possibility of establishing criteria for including cautionary notations based on excessive or increased exclusion rates (similar to those based on overall participation rates) in the reporting of national and state-by-state results. This investigation, however, did not reveal a consistent relationship between levels of exclusion, or degrees of change in inclusion rates, and overall results. There were several reasons for this.

First of all, real demographic differences influence exclusion rates in states, and thus some differences may be unavoidable. Second, program research conducted by NCES and Educational Testing Service (ETS) was unable to identify a particular level of exclusion increase that seemed to affect scores. Third, since excluded students were not tested, NAEP has no direct information about how those students *would* have done had they been tested. Given these realities and uncertainties, the best approach seemed to be to supply all data about student exclusion, and allow readers to consider it as they interpret the achievement data. However, it is important to remember that the main solutions to this issue lie not in flagging results, but in ensuring that all sampled students participate in assessments. The new, more inclusive samples that are to become NAEP's main samples in 2002 are intended to accomplish this goal.

The move to more inclusive samples, however, will not be a perfect solution. For example, even within the context of the samples in which accommodations are permitted, there is still some student exclusion (albeit at a far lower level, as the data in tables A.8 and A.9a/b show). In addition, the assessment accommodations may not have an entirely neutral impact on scores. In other words, it is possible that changes in the percentages of students receiving assessment accommodations may influence scores. It is also possible that differences in state and local accommodations policies will affect state comparisons.

Because of these remaining issues, NCES has funded and undertaken several major research studies. These activities have been organized around two distinct questions. First, as was mentioned above, some students are excluded from even the more inclusive NAEP. Therefore, NCES has funded research into ways excluded students might be *included* in the estimation of scores for overall populations. In other words, NCES is researching statistical adjustments that might be used to ensure

that final NAEP estimates include data for all students in a sampled population. There are two general ways in which this might be accomplished. The first is an idea championed by Dr. Albert Beaton of Boston College. Dr. Beaton recommends making a simple assumption about excluded students: he would assume that, had these students been tested, they would have performed below some predefined level (for example, the median score or the lowest score in the *basic* achievement range). This statistic (whether median or some other level) would be adjusted to take account of excluded students.

The second approach to obtaining full population estimates has been recommended by Dr. Donald McLaughlin of the American Institutes for Research (AIR). His approach involves using background data about excluded students to estimate how they, as a group, would have performed had they been assessed. This approach is based on different and stronger assumptions than Dr. Beaton's. It would have the advantage of allowing NAEP to continue to report all the types of statistics currently in use (including average scores).

The results from an initial examination of the 1996 and 2000 NAEP mathematics data using Dr. McLaughlin's approach indicated that the reported average score gains from 1996 to 2000 in many jurisdictions would be somewhat smaller if full-population estimates were used. This is apparently due to the increase in exclusion rates between years within these states. It should be noted that using such full-population estimates may not only alter the estimates of score gains, but may also alter the rank ordering of states within a given year.

NCES has not yet judged either statistical adjustment approach ready for operational use. Therefore, these "full population reporting" approaches may or may not be used in future years. Results of the studies produced by Dr. McLaughlin may be obtained from NCES, as can copies of an Educational Testing Service (ETS) study that implemented Dr. Beaton's methodology.

In addition to full population reporting research, NCES has also commissioned studies of the impact of assessment accommodations on overall scores. Specifically, ETS has conducted differential item functioning (DIF) studies of items assessed with accommodation in both the 1996 and 1998 assessments.[6] In these studies, ETS researchers found little evidence that accommodations changed the functioning of test questions.

Types of accommodations permitted

Table A.10 displays the number and the percentages of SD and LEP students assessed with the variety of available accommodations. It should be noted that students assessed with accommodations typically received some combination of accommodations. For example, students assessed in small groups (as compared to standard NAEP sessions of about 30 students) usually received extended time. In one-on-one administrations, students often received assistance in recording answers and were afforded extra time. Extended time was considered the primary accommodation only when it was the sole accommodation provided.

[6] For information on DIF studies of items assessed with accommodations in the 1996 mathematics assessment, see Mazzeo, J.M., Carlson, J.E., Voelkl, K.E., and Lutkus, A.D. (1999). *Increasing the participation of special needs students in NAEP; A report on 1996 NAEP research activities*. Washington, DC: National Center for Education Statistics.

Table A.10

SD and LEP students in the NAEP mathematics assessment national samples where accommodations were permitted by type of accommodation: 1996 and 2000

	Grade 4				Grade 8				Grade 12			
	1996		2000		1996		2000		1996		2000	
	Number of students	Weighted percentage of students sampled	Number of students	Weighted percentage of students sampled	Number of students	Weighted percentage of students sampled	Number of students	Weighted percentage of students sampled	Number of students	Weighted percentage of students sampled	Number of students	Weighted percentage of students sampled
SD and LEP students												
Bilingual book	88	1.13	63	0.61	34	0.36	52	0.39	NA	NA	NA	NA
Large-print book	0	0	1	0.04	1	0.05	0	0	0	0	1	0.05
Extended time	32	0.82	59	0.64	41	0.71	77	0.53	23	0.28	60	0.48
Read aloud	15	0.41	21	0.32	11	0.16	29	0.26	7	0.18	7	0.10
Small group	70	1.86	128	2.47	68	1.05	169	1.63	26	0.40	58	0.96
One-on-one	24	0.85	21	0.47	16	0.44	13	0.11	13	0.22	2	0.00
Scribe/computer	NA	NA	2	0.03	NA	NA	1	0.00	NA	NA	0	0
Other	1	0.02	0	0	10	0.10	9	0.08	4	0.04	1	0.01
SD students only												
Bilingual book	1	0.02	0	0	0	0	0	0	NA	NA	NA	NA
Large-print book	0	0	1	0.04	1	0.05	0	0	0	0	1	0.05
Extended time	32	0.82	55	0.61	41	0.71	68	0.44	23	0.28	51	0.42
Read aloud	15	0.41	20	0.31	11	0.16	28	0.23	7	0.18	7	0.10
Small group	70	1.86	118	2.34	68	1.05	164	1.59	26	0.40	53	0.83
One-on-one	24	0.85	20	0.45	16	0.44	12	0.11	13	0.22	2	0.00
Scribe/computer	NA	NA	2	0.03	NA	NA	1	0.00	NA	NA	0	0
Other	1	0.02	0	0	10	0.10	8	0.07	4	0.04	1	0.01
LEP students only												
Bilingual book	88	1.13	63	0.61	34	0.36	52	0.39	NA	NA	NA	NA
Large-print book	0	0	0	0	0	0	0	0	0	0	0	0
Extended time	6	0.07	5	0.05	1	0.01	11	0.10	5	0.05	10	0.07
Read aloud	1	0.02	2	0.01	4	0.06	3	0.04	1	0.01	0	0
Small group	9	0.11	17	0.24	0	0	10	0.07	1	0.01	5	0.13
One-on-one	4	0.06	1	0.01	1	0.01	1	0.00	3	0.07	0	0
Scribe/computer	NA	NA	0	0	NA	NA	0	0	NA	NA	0	0
Other	0	0	0	0	0	0	1	0.01	2	0.03	0	0

SD = Students with Disabilities (the term previously used was IEP). LEP = Limited English Proficient students.
NA = Not Applicable. Accommodation was not offered.
NOTE: The combined SD/LEP portion of the table is not a sum of the separate SD and LEP portions because some students were identified as both SD and LEP. Such students would be counted separately in the bottom portions but counted only once in the top portion.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Data Collection and Scoring

The 2000 mathematics assessment was conducted from January through March 2000, with some makeup sessions in early April. As with all NAEP assessments, data collection for the 2000 assessment was conducted by a trained field staff. For the national assessment, this was accomplished by staff from Westat, Inc.

For the state assessment, testing sessions were conducted and administered by employees of state and local educational agencies and institutions. These employees were carefully trained in assessment procedures by Westat. In addition, Westat employed quality control monitors who observed 25 percent of the sessions in state assessments.

Materials from the 2000 assessment were shipped to National Computer Systems, where trained staff evaluated the responses to the constructed-response questions using scoring rubrics or guides prepared by Educational Testing Service. Each constructed-response question had a unique scoring rubric that defined the criteria used to evaluate students' responses. The extended constructed-response questions were evaluated with four- and five-level rubrics, and many of the short constructed-response questions were rated according to three-level rubrics that permitted partial credit. Other short constructed-response questions were scored as either acceptable or unacceptable.

For the 2000 mathematics assessment, 3,856,211 constructed responses were scored. This number includes rescoring to monitor inter-rater reliability. The within-year average percentage of agreement for the 2000 national reliability sample was 97 percent at grade 4, 97 percent at grade 8, and 97 percent at grade 12.

Data Analysis and IRT Scaling

Subsequent to the professional scoring, all information was transcribed to the NAEP database at ETS. Each processing activity was conducted with rigorous quality control. After the assessment information had been compiled in the database, the data were weighted according to the population structure. The weighting for the national sample reflected the probability of selection for each student as a result of the sampling design, adjusted for nonresponse. Through post-stratification, the weighting assured that the representation of certain subpopulations corresponded to figures from the U.S. Census and the Current Population Survey.[7]

The procedure used for sample weighting in the state assessments is similar to that used in national samples. There are two important differences. First, because there is no oversampling of high-minority schools in state samples, the weighting process does not need to adjust for such a procedure. Second, Current Population Survey target totals are not available or stable on a state-by-state basis. Therefore, the poststratification process described above is not utilized in the state program.

Analyses were then conducted to determine the percentages of students who gave various responses to each cognitive and background question. In determining these percentages for the cognitive questions, a distinction was made between missing

[7] These procedures are described more fully in the section "Weighting and Variance Estimation." For additional information about the use of weighting procedures in NAEP, see Johnson, E.G. (1989, December). Considerations and techniques for the analysis of NAEP data. *Journal of Education Statistics* (*14)*4, 303–334.

responses at the end of a block (i.e., missing responses subsequent to the last question the student answered) and missing responses prior to the last observed response. Missing responses before the last observed response were considered intentional omissions. Missing responses at the end of the block were considered "not reached" and treated as if the questions had not been presented to the student. In calculating response percentages for each question, only students classified as having been presented the question were included in the denominator of the statistic.

It is standard NAEP practice to treat all nonrespondents to the last question in a block as if they had not reached the question. For multiple-choice and short constructed-response questions, this practice produces a reasonable pattern of results in that the proportion reaching the last question is not dramatically smaller than the proportion reaching the next-to-last question. However, for mathematics blocks that ended with extended constructed-response questions, the standard practice would result in extremely large drops in the proportion of students attempting the final question. Therefore, for blocks ending with an extended constructed-response question, students who answered the next-to-last question but did not respond to the extended constructed-response question were classified as having intentionally omitted the last question.

Item Response Theory (IRT) was used to estimate average mathematics scale scores for the nation and for various subgroups of interest within the nation. IRT models the probability of answering a question in a certain way as a mathematical function of proficiency or skill. The main purpose of IRT analysis is to provide a common scale on which performance can be compared across groups such as those defined by characteristics, including gender and race/ethnicity.

In producing the mathematics scales, three distinct IRT models were used. Multiple-choice questions were scaled using the three-parameter logistic (3PL) model; short constructed-response questions rated as acceptable or unacceptable were scaled using the two-parameter logistic (2PL) model; and short constructed-response questions rated according to a three-level rubric, as well as extended constructed-response questions rated on a four- or five-level rubric, were scaled using a Generalized Partial-Credit (GPC) model.[8] Developed by ETS and first used in 1992, the GPC model permits the scaling of questions scored according to multipoint rating schemes. The model takes full advantage of the information available from each of the student response categories used for these more complex constructed-response questions.

The mathematics scale is composed of three types of questions: multiple choice, short constructed-response (scored either dichotomously or allowing for partial credit) and extended constructed-response (scored according to a partial-credit model). One natural question about the mathematics scales concerns the amount of information contributed by each type of question. Unfortunately, this question has no simple answer for the NAEP mathematics assessment, due to the complex procedures used to form the composite mathematics scale. The information provided

8 Muraki, E. (1992). A generalized partial credit model: Application of an EM algorithm. *Applied Psychological Measurement*, (*16)*2, 159–176.

by a given question is determined by the IRT model used to scale the question. It is a function of the item parameters and varies by level of mathematics proficiency.[9] Thus, the answer to the query "How much information do the different types of questions provide?" will differ for each level of mathematics performance. When considering the composite mathematics scale, the answer is even more complicated. The mathematics data are scaled separately by the content strands. The composite scale is a weighted combination of these subscales. IRT information functions are only strictly comparable when they are derived from the same calibration. Because the composite scale is based on five separate calibrations, there is no direct way to compare the information provided by the questions on the composite scale.

Because of the BIB-spiraling design used by NAEP, students do not receive enough questions about a specific topic to provide reliable information about individual performance. Traditional test scores for individual students, even those based on IRT, would lead to misleading estimates of population characteristics, such as subgroup means and percentages of students at or above a certain scale-score level. Consequently, NAEP constructs sets of plausible values designed to represent the distribution of performance in the population. A plausible value for an individual is not a scale score for that individual, but may be regarded as a representative value from the distribution of potential scale scores for all students in the population with similar characteristics and identical patterns of item response. Statistics describing performance on the NAEP mathematics scale are based on the plausible values. Under the assumptions of the scaling models, these population estimates will be consistent, in the sense that the estimates approach the model-based population values as the sample size increases, which would not be the case for population estimates obtained by aggregating optimal estimates of individual performance.[10]

Asian/Pacific Islander Samples

As noted in earlier chapters, national scale score and achievement level results for eighth-grade Asian/Pacific Islanders in 1996 and for fourth-grade Asian/Pacific Islander students in 2000 are not included in the main body of the *NAEP 2000 Mathematics Report Card*. Table A.11 contains average mathematics scale score estimates, and their standard errors, for the nation and Asian/Pacific Islander subgroup for the 1990, 1992, 1996, and 2000 assessment years. Despite statistically significant gains from 1992 to 1996 in average scale scores for the nation as a whole at all three grade levels, a large apparent decline in average scores was observed for the grade 8 Asian/Pacific Islander subgroup. From 1992 to 1996, the estimated decline in average scores for this subgroup was approximately 14 scale score points (about 0.4 within-grade standard deviation units) on the

[9] Donoghue, J.R. (1994). An empirical examination of the IRT information of polytomously scored reading items under the generalized partial credit model. *Journal of Educational Measurement*, (*31)*4, 295–311.

[10] For theoretical and empirical justification of the procedures employed, see Mislevy, R.J. (1988). Randomization-based inferences about latent variables from complex samples. *Psychometrika, (56)*2, 177–196.

For computational details, see the forthcoming NAEP 2000 technical report.

National Assessment of Educational Progress (2000). *NAEP 2000 technical report*. [forthcoming] Princeton, NJ: Educational Testing Service.

NAEP 500-point scale. Despite the large magnitude of this apparent decline, it was not statistically significant at the 0.05 level, after controlling for multiple comparisons. In 2000, the mean scale score for Asian/ Pacific Islanders at grade 4 was 12 points higher than in 1996, however, this cross-year difference was also not significant. There were no large apparent changes in average scores for the grade 12 Asian/ Pacific Islander group.

It is important to note that all NAEP results are estimates and are subject to some degree of sampling variability. If different samples of schools or students had been obtained, results for some subgroups would be higher than reported here and some would be lower. In most subgroups, particularly large subgroups or subgroups for which special sampling procedures are employed, estimates of performance are likely to remain similar from one sample to another. However, the national population of Asian/Pacific Islander students is small (about 3 percent of the national population), heterogeneous with respect to academic achievement, and highly clustered in certain locations and schools — factors which are associated with large sampling variability in survey results and reflected in the large standard errors associated with performance estimates for this subgroup. Furthermore, the sampling plan for the national assessment does not include explicit stratification procedures designed to mitigate these factors. The occurrence of the large, but statistically nonsignificant, change in the 1996 grade 8 and 2000 grade 4 Asian/Pacific Islander results was a likely consequence of these three factors: 1) the heterogeneous nature of the Asian/Pacific Islander population, 2) the current NAEP sampling design, and, 3) the sample sizes that were assessed.

Table A.11

Average mathematics scale scores for the Asian/Pacific Islander subgroup at grades 8 and 4: 1990-2000

	1990		1992		1996		2000	
	Percentage	Average score	Percentage	Average score	Percentage	Average score	Percentage	Average score
All students at grade 8	100	263 (1.3)	100	268 (0.9)*	100	272 (1.1)*†	100	275 (0.8) *†‡
Asian/ Pacific Islander at grade 8	2 (0.5)	279 (4.8)!	3 (0.2)	288 (5.4)	3 (0.2)	274 (3.9)	4 (0.4)	289 (3.4) ‡
All students at grade 4	100	213 (0.9)	100	220 (0.7)*	100	224 (0.9) *†	100	228 (0.9) *†‡
Asian/ Pacific Islander at grade 4	2 (0.2)	228 (3.5)	2 (0.2)	232 (2.3)	3 (0.2)	232 (4.1)	3 (0.2)	244 (4.5)*

The standard errors of the estimated percentages and average scale scores appear in parentheses.
! The nature of the sample does not allow accurate determination of the variability of the statistic.
* Indicates a significant difference from 1990.
† Indicates a significant difference from 1992.
‡ Indicates a significant difference from 1996.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Item Mapping Procedures

To map items to particular points on the mathematics proficiency scale, a response probability convention was adopted that would divide those who had a higher probability of success from those who had a lower probability. Establishing a response probability convention has an impact on the mapping of the test items onto the mathematics scale. A lower boundary convention maps the mathematics items at lower points along the scale, and a higher boundary convention maps the same items at higher points on the scale. The underlying distribution of mathematics skills in the population does not change, but the choice of a response probability convention does have an impact on the proportion of the student population that is reported as "able to do" the items on the mathematics scales.

There is no obvious choice of a point along the probability scale that is clearly superior to any other point. If the convention were set with a boundary at 50 percent, those above the boundary would be more likely to get an item right than get it wrong, while those below the boundary would be more likely to get the item wrong than right. Although this convention has some intuitive appeal, it was rejected on the grounds that having a 50/50 chance of getting the item right shows an insufficient degree of mastery. If the convention were set with a boundary at 80 percent, students above the criterion would have a high probability of success with an item. However, many students below this criterion show some level of mathematics ability that would be ignored by such a stringent criterion. In particular, those in the range between 50 and 80 percent correct would be more likely to get the item right than wrong, yet would not be in the group described as "able to do" the item.

In a compromise between the 50 percent and the 80 percent conventions, NAEP has adopted two related response probability conventions: 74 percent for multiple-choice questions with four response options or 72 percent for five response options (to correct for the possibility of answering correctly by guessing with slightly less correction applied when students were presented with five rather than four options) and 65 percent for constructed-response questions (where guessing is not a factor). These probability conventions were established, in part, based on an intuitive judgment that they would provide the best picture of students' mathematics skills.

Some additional support for the dual conventions adopted by NAEP was provided by Huynh.[11] He examined the IRT information provided by items, according to the IRT model used in scaling NAEP questions. ("Information" is used here in a technical sense. See the forthcoming *NAEP 2000 Technical Report* for details.) Following Bock, Huynh decomposed the item information into that provided by a correct response [P(q) I(q)] and that provided by an incorrect response [(1- P(q)) I(q)].[12] Huynh showed that the item information provided by a correct response to a constructed-response item is maxi-

[11] Huynh, H. (1994, October). *Some technical aspects of standard setting*. Paper presented at the Joint Conference on Standard Setting for Large-Scale Assessment, Washington, DC.

[12] Bock, R. D. (1972). Estimating item parameters and latent ability when responses are scored in two or more latent categories. *Psychometrika*, 37, 29–51.

mized at the point along the mathematics scale at which the probability of a correct response is two thirds (for multiple-choice items, the information provided by a correct response is maximized at the point at which the probability of getting the item correct is .74). It should be noted, however, that maximizing the item information I(q), rather than the information provided by a correct response [P(q) I(q)], would imply an item mapping criterion closer to 50 percent.

The results in this report are presented in terms of the composite mathematics scale. However, the mathematics assessment was scaled separately for the five content strands at grade 4, 8 and 12. The composite scale is a weighted combination of the five subscales for the five content strands. To obtain item map information presented in this report, a procedure developed by Donoghue was used.[13] This method models the relationship between the item response function for the subscale and the subscale structure to derive the relationship between the item score and the composite scale (i.e., an item response function for the composite scale). This item response function is then used to derive the probability used in the mapping.

Weighting and Variance Estimation

A complex sample design was used to select the students who were assessed. The properties of a sample selected through a complex design could be very different from those of a simple random sample, in which every student in the target population has an equal chance of selection and in which the observations from different sampled students can be considered to be statistically independent of one another. Therefore, the properties of the sample for the complex data collection design were taken into account during the analysis of the assessment data.

One way that the properties of the sample design were addressed was by using sampling weights to account for the fact that the probabilities of selection were not identical for all students. All population and subpopulation characteristics based on the assessment data were estimated using sampling weights. These weights included adjustments for school and student nonresponse.

Not only must appropriate estimates of population characteristics be derived, but appropriate measures of the degree of uncertainty must be obtained for those statistics. Two components of uncertainty are accounted for in the variability of statistics based on student ability: (1) the uncertainty due to sampling only a relatively small number of students, and (2) the uncertainty due to sampling only a relatively small number of cognitive questions. The first component accounts for the variability associated with the estimated percentages of students who had certain background characteristics or who answered a certain cognitive question correctly.

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

[13] Donoghue, J. R. (1997, March). *Item mapping to a weighted composite scale*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

information that can be observed without error. However, because each student typically responds to only a few questions within any content strand, the scale score for any single student would be imprecise. In this case, plausible values methodology can be used to describe the performance of groups and subgroups of students, but the underlying imprecision involved in this step adds another component of variability to statistics based on NAEP scale scores.[14] (Appendix B provides the standard errors for the results presented in this report.)

Typically, when the standard error is based on a small number of students or when the group of students is enrolled in a small number of schools, the amount of uncertainty associated with the estimation of standard errors may be quite large. Throughout this report, estimates of standard errors subject to a large degree of uncertainty are followed by the "!" symbol. In such cases, the standard errors-and any confidence intervals or significance tests involving these standard errors-should be interpreted cautiously. Additional details concerning procedures for identifying such standard errors are discussed in the forthcoming *NAEP 2000 Technical Report*.

The reader is reminded that, as with findings from all surveys, NAEP results are subject to other kinds of error, including the effects of imperfect adjustment for student and school nonresponse and unknowable effects associated with the particular instrumentation and data collection methods. Nonsampling errors can be attributed to a number of sources—inability to obtain complete information about all selected schools in the sample (some students or schools refused to participate, or students participated but answered only certain questions); ambiguous definitions; differences in interpreting questions; inability or unwillingness to give correct information; mistakes in recording, coding, or scoring data; and other errors in collecting, processing, sampling, and estimating missing data. The extent of nonsampling error is difficult to estimate; and, because of their nature, the impact of such errors cannot be reflected in the data–based estimates of uncertainty provided in NAEP reports.

Drawing Inferences from the Results

The statistics included in this report are estimates and are therefore subject to a measure of uncertainty. There are two sources of such uncertainty. First, NAEP uses a sample of students rather than testing all students. Second, all assessments have some amount of uncertainty related to the fact that they cannot ask all questions that might be asked in a content area. The magnitude of this uncertainty is reflected in the standard error of each of the estimates. When the percentages or average scale scores of certain groups are compared, the standard error should be taken into account, and observed similarities or differences should not be relied on solely. Therefore, the comparisons discussed in this report are based on statistical tests that consider the standard errors of those statistics and the magnitude of the difference among the averages or percentages.

[14] For further details, see Johnson, E.G. & Rust, K.F. (1992). Population inferences and variance estimation for NAEP data. *Journal of Educational Statistics*, (*17)*2, 175–190.

Using confidence intervals based on the standard errors provides a way to take into account the uncertainty associated with sample estimates, and to make inferences about the population averages and percentages in a manner that reflects that uncertainty. An estimated sample average scale score plus or minus 1.96 standard errors approximates a 95 percent confidence interval for the corresponding population quantity. This statement means that one can conclude with approximately a 95 percent level of confidence that the average performance of the entire population of interest (e.g., all fourth-grade students in public and nonpublic schools) is within plus or minus 1.96 standard errors of the sample average.

As an example, suppose that the average mathematics scale score of the students in a particular group was 256 with a standard error of 1.2. A 95 percent confidence interval for the population quantity would be as follows:

$$\text{Average} \pm 1.96 \text{ standard errors}$$

$$256 \pm 1.96 \times 1.2$$

$$256 \pm 2.35$$

$$(253.65, 258.35)$$

Thus, one can conclude with a 95 percent level of confidence that the average scale score for the entire population of students in that group is between 253.65 and 258.35.

Similar confidence intervals can be constructed for percentages, if the percentages are not extremely large or extremely small. Extreme percentages should be interpreted with caution. Adding or subtracting the standard errors associated with extreme percentages could cause the confidence interval to exceed 100 percent or go below 0 percent, resulting in numbers that are not meaningful. (The forthcoming *NAEP 2000 Technical Report* will contain a more complete discussion of extreme percentages.)

Analyzing Group Differences in Averages and Percentages

Statistical tests determine whether the evidence, based on the data from the groups in the sample, is strong enough to conclude that the averages or percentages are actually different for those groups in the population. If the evidence is strong (i.e., the difference is statistically significant), the report describes the group averages or percentages as being different (e.g., one group performed higher than or lower than another group), regardless of whether the sample averages or percentages appear to be approximately the same. Occasionally, if an apparent difference is quite large but not statistically significant, this report will point out that fact.

The reader is cautioned to rely on the results of the statistical tests rather than on the apparent magnitude of the difference between sample averages or percentages when determining whether the sample differences are likely to represent actual differences among the groups in the population.

To determine whether a real difference exists between the average scale scores (or percentages of a certain attribute) for two groups in the population, one needs to obtain an estimate of the degree of uncertainty associated with the difference between the averages (or percentages) of these groups for the sample. This estimate of the degree of uncertainty, called the standard error of the difference between the groups, is obtained by taking the square

of each group's standard error, summing the squared standard errors, and taking the square root of that sum.

Standard Error of the Difference =

$$SE_{A-B} = \sqrt{(SE_A^2 + SE_B^2)}$$

Similar to how the standard error for an individual group average or percentage is used, the standard error of the difference can be used to help determine whether differences among groups in the population are real. The difference between the averages or percentages of the two groups plus or minus two standard errors of the difference represents an approximate 95 percent confidence interval. If the resulting interval includes zero, there is insufficient evidence to claim a real difference between the groups in the population. If the interval does not contain zero, the difference between the groups is statistically significant (different) at the 0.05 level.

As an example of comparing groups, consider the problem of determining whether the average mathematics scale score of group A is higher than that of group B. Suppose that the sample estimates of the average scale scores and standard errors were as follows:

Group	Average Scale Score	Standard Error
A	218	0.9
B	216	1.1

The difference between the estimates of the average scale scores of groups A and B is two points (218 - 216). The standard error of this difference is

$$\sqrt{(0.9^2 + 1.1^2)} = 1.4$$

Thus, an approximate 95 percent confidence interval for this difference is plus or minus two standard errors of the difference

$$2 \pm 1.96 \times 1.4$$

$$2 \pm 2.74$$

$$(-0.74, 4.74)$$

The value zero is within the confidence interval; therefore, there is insufficient evidence to claim that group A outperformed group B.

In some cases, the differences between groups were not discussed in this report. This happened for one of two reasons: (a) if the comparison involved an extreme percentage (as defined above); or (b) if the standard error for either group was subject to a large degree of uncertainty (i.e., the coefficient of variation is greater than 20 percent, denoted by "!" in the tables).[15] In either case, the results of any statistical test involving that group need to be interpreted with caution; and so, the results of such tests are not discussed in this report.

Conducting Multiple Tests

The procedures in the previous section 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

[15] As was discussed in the section "Weighting and Variance Estimation," estimates of standard errors subject to a large degree of uncertainty are designated by the symbol "!". In such cases, the standard error—and any confidence intervals or significance tests among these standard errors—should be interpreted with caution.

significance is being performed. However, in chapters 2, 3, 4, 5, and 6 of this report, many different groups are being compared (i.e., multiple sets of confidence intervals are being analyzed). In sets of confidence intervals, statistical theory indicates that the 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., 0.05), adjustments (called "multiple comparison procedures"[16]) must be made to the methods described in the previous section. One such procedure, the False Discovery Rate (FDR) procedure[17] was used to control the certainty level.

Unlike the 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. Furthermore, familywise procedures are considered conservative for large families of comparisons.[18] Therefore, the FDR procedure is more suitable for multiple comparisons in NAEP than other procedures. A detailed description of the FDR procedure appears in the forthcoming *NAEP 2000 Technical Report*.

To illustrate how the FDR procedure is used, consider the comparisons of current and previous years' average mathematics scale scores for the five groups presented in table A.12. Note that the difference in average scale scores and the standard error of the difference are calculated in a way comparable with that of the example in the previous section. The test statistic shown is the difference in average scale scores divided by the standard error of the difference.

Table A.12

FDR comparisons of average scale scores for different groups of students

	Previous year		Current year		Previous year and current year			
	Average scale score	Standard error	Average scale score	Standard error	Difference in averages	Standard error of difference	Test statistic	Percent confidence*
Group 1	224	1.3	226	1.0	2.08	1.62	1.29	20
Group 2	187	1.7	193	1.7	6.31	2.36	2.68	1
Group 3	191	2.6	197	1.7	6.63	3.08	2.15	4
Group 4	229	4.4	232	4.6	3.24	6.35	.51	62
Group 5	201	3.4	196	4.7	-5.51	5.81	-.95	35

* The percent confidence is 2(1−F(x)) where F(x) is the cumulative distribution of the t-distribution with the degrees of freedom adjusted to reflect the complexities of the sample design.

16 Miller, R.G. (1966). *Simultaneous statistical inference*. New York: Wiley.

17 Benjamini, Y. & Hochberg, Y. (1995). Controlling the false discovery rate: A practical and powerful approach to multiple testing. *Journal of the Royal Statistical Society, Series B, No. 1.*, pp 298–300.

18 Williams, V.S.L., Jones, L.V., & Tukey, J.W. (1994, December). *Controlling error in multiple comparisons with special attention to the National Assessment of Educational Progress.* Research Triangle Park, NC: National Institute of Statistical Sciences.

The difference in average scale scores and its standard error can be used to find an approximate 95 percent confidence interval as in the example in the previous section or they can be used to identify a confidence percentage. In the example in the previous section, because an approximate 95 percent confidence interval was desired, the number 2 was used to multiply the standard error of the difference to create the approximate confidence interval. In the current example, the test statistic is treated like the number 2 and the matching percent confidence for the related confidence interval is identified from statistical tables. Instead of checking to see if zero is within the 95 percent confidence interval, the percent confidence from the statistical tables can be directly compared to 100-95 = 5 percent.

If the comparison of average scale scores across two years were made for only one of the five groups, there would be a significant difference between the average scale scores for the two years if the percent confidence were less than 5 percent. However, because we are interested in the difference in average scale scores across the two years for all five of the groups, comparing each of the percents of confidence to 5 percent is not adequate. Groups of students defined by shared characteristics, such as race/ethnicity groups, are treated as sets or families when making comparisons. However, comparisons of average scale scores for each pair of years were treated separately. So the steps described in this example would be replicated for the comparison of other current and previous year average scale scores.

To use the FDR procedure to take into account that all comparisons are of interest to us, the percents of confidence in the example are ordered from largest to smallest: 62, 35, 20, 4, and 1. In the FDR procedure, 62 percent confidence for the Group 4 comparison would be compared to 5 percent, 35 percent for the Group 5 comparison would be compared to .05*(5-1)/5 = 4 percent,[19] 20 percent for the Group 1 comparison would be compared to .05*(5-2)/5 = 3 percent, 4 percent for the Group 3 comparison would be compared to .05*(5-3)/5 = 2 percent, and 1 percent for the Group 2 comparison (actually slightly smaller than 1 prior to rounding) would be compared to .05*(5-4)/5 = 1 percent. The last of these comparisons is the only one for which the percent confidence is smaller than the FDR procedure value. The difference in the current year and previous years' average scale scores for the Group 2 students is significant; for all of the other groups, average scale scores for current and previous year are not significantly different from one another. In practice, a very small number of counterintuitive results occur when using the FDR procedures to examine between-year differences in subgroup results by jurisdiction. In that case, results were not included in this report. NCES is continuing to evaluate the use of FDR and multiple-comparison procedures for future reporting.

[19] The level of confidence times the number of comparisons minus one divided by the number of comparisons is .05*(5–1)/5 = 4 percent.

NAEP Reporting Groups

In this report, results are provided for groups of students defined by shared characteristics-region of the country, gender, race or ethnicity, school's type of location, eligibility for the Free/Reduced-Price School Lunch program, and type of school. Based on participation rate criteria, results are reported for subpopulations only when sufficient numbers of students and adequate school representation are present. The minimum requirement is at least 62 students in a particular subgroup from at least five primary sampling units (PSUs).[20] However, the data for all students, regardless of whether their subgroup was reported separately, were included in computing overall results. Definitions of the subpopulations referred to in this report are presented below.

Region

Results in NAEP are reported for four regions of the nation: Northeast, Southeast, Central, and West. Figure A.2 shows how states are subdivided into these NAEP regions. All 50 states and the District of Columbia are listed. Territories and the two Department of Defense Educational Activities jurisdictions are not assigned to any region.

Figure A.2

States included in the four NAEP regions

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

* NOTE: The part of Virginia that is included in the Northeast region is the Washington, DC metropolitan area; the remainder of the state is included in the Southeast region.

[20] For the national assessment, a PSU is a selected geographic region (a county, group of counties, or metropolitan statistical area). For the state assessment program, a PSU is most often a single school. Further details about the procedure for determining minimum sample size appear in the *1998 NAEP Technical Report*.

National Assessment of Educational Progress (2000). *NAEP 2000 technical report*. [forthcoming] Princeton, NJ: Educational Testing Service.

Gender

Results are reported separately for males and females.

Race/Ethnicity

The race/ethnicity variable is derived from two questions asked of students and from school records, and it is used for race/ethnicity subgroup comparisons. Two questions from the set of general student background questions were used to determine race/ethnicity:

If you are Hispanic, what is your Hispanic background?

- ❑ I am not Hispanic
- ❑ Mexican, Mexican American, or Chicano
- ❑ Puerto Rican
- ❑ Cuban
- ❑ Other Spanish or Hispanic background

Students who responded to this question by filling in the second, third, fourth, or fifth oval were considered Hispanic. For students who filled in the first oval, did not respond to the question, or provided information that was illegible or could not be classified, responses to the following question were examined to determine their race/ethnicity.

Which best describes you?

- ❑ White (not Hispanic)
- ❑ Black (not Hispanic)
- ❑ Hispanic ("Hispanic" means someone who is Mexican, Mexican American, Chicano, Puerto Rican, Cuban, or other Spanish or Hispanic background)
- ❑ Asian or Pacific Islander ("Asian or Pacific Islander" means someone who is from a Chinese, Japanese, Korean, Filipino, Vietnamese, Asian American or from some other Asian or Pacific Islander background.)
- ❑ American Indian or Alaskan Native ("American Indian or Alaskan Native" means someone who is from one of the American Indian tribes or one of the original people of Alaska.)
- ❑ Other (specify) _____

Students' race/ethnicity was then assigned on the basis of their responses. For students who filled in the sixth oval ("Other"), provided illegible information or information that could not be classified, or did not respond at all, race/ethnicity was assigned as determined by school records.

Race/ethnicity could not be determined for students who did not respond to either of the demographic questions and whose schools did not provide information about race/ethnicity.

Details of how race/ethnicity classifications were derived are presented so that readers can determine how useful the results are for their particular purposes.

Also, some students indicated that they were from a Hispanic background (e.g., Puerto Rican or Cuban) and that a racial/ethnic category other than Hispanic best described them. These students were classified as Hispanic based on the rules described above. Furthermore, information from the schools did not always correspond to how students described themselves.

Therefore, the racial/ethnic results presented in this report attempt to provide a clear picture based on several sources of information.

Type of Location

Results from the 2000 assessment are reported for students attending schools in three mutually exclusive location types: central city, urban fringe/large town, and rural/small town:

Central City: This category includes central cities of all Standard Metropolitan Statistical Areas (SMSA) as defined by the Office of Management and Budget. Central City is a geographical term and is not synonymous with "inner city."

Urban Fringe/Large Town: The urban fringe category includes all densely settled places and areas within SMSA's that are classified as urban by the Bureau of the Census, but which do not qualify as Central City. A Large Town is defined as a place outside a SMSA with a population greater than or equal to 25,000.

Rural/Small Town: Rural includes all places and areas with populations of less than 2,500 that are classified as rural by the Bureau of the Census. A Small Town is defined as a place outside a SMSA with a population of less than 25,000, but greater than or equal to 2,500.

In this report, results for each type of location are not compared across years. This was due to new methods used by NCES to identify the type of location assigned to each school in the Common Core of Data (CCD). The new methods were put into place by NCES in order to improve the quality of the assignments and they take into account more information about the exact physical location of the school.

Eligibility for the Free/Reduced-Price School Lunch Program

Based on available school records, students were classified as either currently eligible for the free/reduced-price lunch component of the Department of Agriculture's National School Lunch Program or not eligible. The classification applies only to the school year when the assessment was administered (i.e., the 1999-2000 school year) and is not based on eligibility in previous years. If school records were not available, the student was 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."

Type of School

Results are reported by the type of school that the student attends-public or nonpublic. Nonpublic schools include Catholic and other private schools.[21] Although Bureau of Indian Affairs (BIA) schools and Department of Defense Domestic Dependent Elementary and Secondary Schools (DDESS) are not included in either the public or nonpublic categories, they are included in the overall national results.

[21] Through a pilot study, more detailed breakdowns of nonpublic school results are available on the NAEP web site (http://nces.ed.gov/nationsreportcard).

Grade 12 Participation Rates and Motivation

NAEP has been described as a "low-stakes" assessment. That is, students receive no individual scores, and their NAEP performance has no effect on their grades, promotions, or graduation. There has been continued concern that this lack of consequences affects participation rates of students and schools, as well as the motivation of students to perform well on NAEP. Of particular concern has been the performance of twelfth graders, who typically have lower student participation rates than fourth- and eighth-graders, and who are more likely to omit responses compared to the younger cohorts.

Participation Rates

In NAEP, there has been a consistent pattern of lower participation rates for older students. In the 2000 NAEP assessments, for example, the student participation rates were 96 percent and 92 percent at grades 4 and 8, respectively. At the twelfth grade, however, the participation rate was 77 percent. School participation rates (the percentage of sampled schools that participated in the assessment) have also typically decreased with grade level. Again citing the 2000 assessments, the school participation rate was 89 percent for the fourth grade, 85 percent for the eighth grade, and 82 percent for the twelfth grade.

The effect of participation rates on student performance, however, is unclear. Students may choose not to participate in NAEP for many reasons, such as desire to attend regular classes so as not to miss important instruction or fear of not doing well on NAEP. Similarly, there are a variety of reasons for which various schools do not participate. The sampling weights and nonresponse adjustments, described earlier in this appendix, provide an approximate statistical adjustment for nonparticipation. However, the effect of some school and student nonparticipation may have some undetermined effect on results.

Motivation

To the extent that students in the NAEP sample are not trying their hardest, NAEP results may underestimate student performance. The concern increases as students get older, and may be particularly pronounced for twelfth graders. The students themselves furnish some evidence about their motivation. As part of the background questions, students were asked how important it was to do well on the NAEP mathematics assessment. They were asked to indicate whether it was very important, important, somewhat important, or not very important to them. The percentage of students indicating they thought it was either important or very important to do well was 89 percent for fourth graders, 60 percent for eighth graders, and 28 percent for twelfth graders.

Several factors may contribute to this pattern. NAEP was administered in the late winter, when high school seniors often have other things on their minds. More recently, the addition to NAEP of more constructed-response questions, which in many instances take longer for the student to answer, may also have had some effect on twelfth graders completing the assessment. As with participation rates, however, the combined effect of these and other factors is unknown.

It is also interesting to note that students who indicated it was very important for them to do well on NAEP did not have the highest average scores. In fact, at grades 8 and 12, students who reported it was not very important to do well also had higher average scores than those who reported it was very important to do well. These data further cloud the relationship between motivation and performance on NAEP.

Need for Future Research

More research is needed to delineate the factors that contribute to nonparticipation and lack of motivation. To that end, NCES commissioned a study of high school transcripts to learn more about the academic performance of twelfth-grade students who do not participate in the assessment. In addition, NCES is currently investigating how various types of incentives can be effectively used to increase participation in NAEP.

Cautions in Interpretations

As described earlier, the NAEP mathematics scale makes it possible to examine relationships between students' performance and various background factors measured by NAEP. However, a relationship that exists 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 capture the influence of unmeasured variables. The results are most useful when they are 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.

B Appendix B
Data Appendix

This appendix contains complete data for all the tables and figures presented in this report, including average scores, achievement level results, and percentages of students. In addition, standard errors appear in parentheses next to each scale score and percentage. The comparisons presented in this report are based on statistical tests that consider the magnitude of the difference between group averages or percentages and the standard errors of those statistics. Because NAEP scores and percentages are based on samples rather than the entire population(s), the results are subject to a measure of uncertainty reflected in the standard errors of the estimates. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample. As with the figures and tables in the chapters, significant differences between results of previous assessments and the 2000 assessment are highlighted.

Appendix Focus

Complete data for all tables and figures.

Appendix Contents

Table B.1: Data for Figure 2.1 National Scale Score Results

Average mathematics scale scores, grades 4, 8, and 12: 1990–2000

	Grade 12	Grade 8	Grade 4
1990	294 (1.1) *	263 (1.3) *	213 (0.9) *
1992	299 (0.9)	268 (0.9) *	220 (0.7) *
1996	304 (1.0) *	272 (1.1) *	224 (0.9) *
2000	301 (0.9)	275 (0.8)	228 (0.9)

Standard errors of the estimated scale scores appear in parentheses.
* Significantly different from 2000.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.2: Data for Figure 2.2: National Achievement Level Results

Percentage of students within each mathematics achievement level range and at or above achievement levels, grades 4, 8, and 12: 1990–2000

		Below *Basic*	At *Basic*	At *Proficient*	At *Advanced*	At or above *Basic*	At or above *Proficient*
Grade 4	1990	50 (1.4) *	37 (1.5) *	12 (1.1) *	1 (0.4) *	50 (1.4) *	13 (1.2) *
	1992	41 (1.0) *	41 (1.0)	16 (1.0) *	2 (0.3) *	59 (1.0) *	18 (1.0) *
	1996	36 (1.2) *	43 (0.9)	19 (0.8) *	2 (0.3)	64 (1.2) *	21 (0.9) *
	2000	31 (1.1)	43 (0.8)	23 (0.9)	3 (0.3)	69 (1.1)	26 (1.1)
Grade 8	1990	48 (1.4) *	37 (1.1)	13 (1.0) *	2 (0.3) *	52 (1.4) *	15 (1.1) *
	1992	42 (1.1) *	37 (0.8)	18 (0.8) *	3 (0.4) *	58 (1.1) *	21 (1.0) *
	1996	38 (1.1) *	39 (1.0)	20 (0.8) *	4 (0.5)	62 (1.1) *	24 (1.1) *
	2000	34 (0.8)	38 (0.8)	22 (0.7)	5 (0.5)	66 (0.8)	27 (0.9)
Grade 12	1990	42 (1.6) *	46 (1.5)	10 (0.8) *	1 (0.3)	58 (1.6) *	12 (0.9) *
	1992	36 (1.1)	49 (1.0)	13 (0.7)	2 (0.3)	64 (1.1)	15 (0.8)
	1996	31 (1.3) *	53 (1.1) *	14 (0.9)	2 (0.3)	69 (1.3) *	16 (1.1)
	2000	35 (1.1)	48 (0.9)	14 (0.8)	2 (0.3)	65 (1.1)	17 (0.9)

Standard errors of the estimated percentages appear in parentheses.
* Significantly different from 2000.
NOTE: Percentages within each mathematics achievement level range may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.3: Data for Figure 2.3: National Performance Distribution

National mathematics scale score percentiles, grades 4, 8, and 12: 1990–2000

		Mean	10th	25th	50th	75th	90th
Grade 4	1990	213 (0.9) *	171 (2.1) *	193 (1.0) *	214 (1.3) *	235 (1.0) *	253 (1.6) *
	1992	220 (0.7) *	177 (0.9) *	199 (1.3) *	221 (1.0) *	242 (1.0) *	259 (0.9) *
	1996	224 (0.9) *	182 (1.2) *	204 (1.3) *	226 (1.0) *	246 (0.7) *	262 (1.2) *
	2000	228 (0.9)	186 (1.1)	208 (0.9)	230 (1.0)	250 (1.0)	266 (1.0)
Grade 8	1990	263 (1.3) *	215 (2.3) *	239 (1.5) *	264 (1.4) *	288 (1.3) *	307 (2.2) *
	1992	268 (0.9) *	221 (0.9) *	243 (0.9) *	269 (1.7) *	294 (0.8) *	315 (1.1) *
	1996	272 (1.1) *	224 (1.9)	248 (1.5)	273 (1.1) *	298 (1.6)	317 (1.2)
	2000	275 (0.8)	227 (1.4)	252 (1.0)	277 (0.8)	301 (1.0)	321 (1.6)
Grade 12	1990	294 (1.1) *	247 (1.0) *	270 (1.3) *	296 (1.7) *	319 (1.4) *	339 (1.6) *
	1992	299 (0.9)	254 (1.3)	276 (1.5)	301 (1.2)	324 (1.4)	343 (0.8)
	1996	304 (1.0) *	261 (1.1) *	282 (1.4) *	305 (1.2) *	327 (1.3)	345 (1.3)
	2000	301 (0.9)	255 (1.3)	277 (1.0)	302 (0.8)	326 (1.0)	346 (1.4)

Standard errors of the estimated scale scores appear in parentheses.
* Significantly different from 2000.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.4: Data for Figure 2.4 National Scale Score Results by Region

Percentage of students and average mathematics scale scores results by region of the country, grades 4, 8, and 12: 1990–2000

		Northeast	Southeast	Central	West
Grade 12	1990	24 (1.2) 300 (2.3)	20 (1.1) 284 (2.2) *	27 (0.8) 297 (2.6) *	29 (1.2) 294 (2.6) *
	1992	24 (0.6) 303 (1.5)	23 (0.6) 292 (1.4)	25 (0.6) 304 (1.8)	27 (0.9) 299 (1.7)
	1996	22 (1.3) 307 (2.0)	22 (1.9) 296 (1.9)	24 (0.8) 310 (2.9)	33 (2.0) 303 (1.7)
	2000	21 (1.1) 305 (2.8)	22 (1.3) 292 (1.8)	26 (0.6) 306 (1.9)	31 (1.3) 301 (1.7)
Grade 8	1990	20 (0.9) 270 (2.8) *	25 (1.1) 255 (2.5) *	24 (0.8) 266 (2.3) *	30 (1.0) 261 (2.6) *
	1992	22 (0.8) 270 (2.7) *	25 (0.7) 261 (1.4) *	25 (0.6) 275 (1.9) *	28 (0.7) 268 (2.0) *
	1996	20 (1.2) 277 (3.1)	23 (1.7) 266 (2.6)	24 (1.0) 277 (3.1)	32 (1.6) 269 (2.2)
	2000	21 (0.6) 277 (2.0)	21 (0.7) 267 (1.3)	26 (0.7) 282 (1.9)	32 (0.8) 274 (1.5)
Grade 4	1990	22 (1.0) 215 (2.9) *	25 (1.1) 205 (2.1) *	25 (0.8) 216 (1.7) *	27 (0.8) 216 (2.4) *
	1992	21 (0.9) 224 (2.0) *	24 (0.9) 211 (1.6) *	27 (0.5) 224 (1.8) *	28 (0.7) 219 (1.5) *
	1996	22 (1.2) 228 (2.2)	21 (1.6) 218 (2.1)	25 (0.7) 231 (1.6)	32 (1.8) 220 (2.0)
	2000	22 (0.8) 230 (1.6)	23 (1.3) 222 (2.1)	24 (0.5) 232 (1.4)	30 (1.3) 227 (1.9)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
* Significantly different from 2000.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.5: Data for Figure 2.5: National Achievement Level Results by Region

Percentage of students within each mathematics achievement level range and at or above achievement levels, by region of the country, grades 4, 8, and 12: 1990–2000

			Below *Basic*	At *Basic*	At *Proficient*	At *Advanced*	At or above *Basic*	At or above *Proficient*
Grade 4	Northeast	1990	49 (4.2) *	37 (4.7)	13 (2.9) *	2 (1.0)	51 (4.2) *	14 (3.4) *
		1992	37 (2.7) *	40 (2.3)	21 (2.3)	3 (0.7)	63 (2.7) *	23 (2.5)
		1996	30 (2.9)	43 (2.7)	24 (1.6)	3 (0.9)	70 (2.9)	26 (1.6)
		2000	28 (1.8)	44 (1.9)	25 (1.8)	3 (0.8)	72 (1.8)	28 (2.2)
	Southeast	1990	60 (2.9) *	31 (2.4) *	8 (1.4) *	▲ (0.3)	40 (2.9) *	8 (1.6) *
		1992	52 (2.2) *	37 (1.4)	10 (1.0) *	1 (0.4)	48 (2.2) *	11 (1.2) *
		1996	45 (2.9)	40 (2.2)	14 (1.9)	2 (0.8)	55 (2.9)	16 (2.4)
		2000	39 (3.1)	41 (1.9)	19 (1.8)	2 (0.3)	61 (3.1)	21 (1.9)
	Central	1990	45 (2.7) *	41 (2.7)	12 (1.6) *	1 (****)	55 (2.7) *	14 (1.6) *
		1992	34 (2.8) *	45 (1.7)	19 (1.8) *	2 (0.5)	66 (2.8) *	21 (1.7) *
		1996	25 (2.6)	48 (1.8)	24 (2.1)	2 (0.6)	75 (2.6)	27 (2.1)
		2000	26 (1.7)	45 (1.7)	27 (1.9)	3 (0.5)	74 (1.7)	30 (2.0)
	West	1990	46 (3.2) *	39 (2.3)	13 (1.9) *	1 (0.7)	54 (3.2) *	15 (2.3) *
		1992	41 (2.1) *	42 (2.3)	15 (2.1) *	2 (0.6)	59 (2.1) *	17 (2.2) *
		1996	42 (2.8)	41 (2.0)	15 (1.6) *	2 (0.5)	58 (2.8)	18 (1.7) *
		2000	33 (2.3)	41 (1.5)	23 (1.9)	3 (0.5)	67 (2.3)	26 (2.1)
Grade 8	Northeast	1990	41 (4.0)	39 (2.8)	18 (2.7)	3 (0.7) *	59 (4.0)	20 (2.7) *
		1992	43 (3.5) *	34 (1.9)	19 (1.8)	5 (0.9)	57 (3.5) *	23 (2.5)
		1996	33 (3.1)	39 (2.8)	22 (2.6)	5 (1.9)	67 (3.1)	27 (3.7)
		2000	33 (2.2)	39 (1.7)	23 (1.7)	5 (0.9)	67 (2.2)	28 (2.0)
	Southeast	1990	57 (2.6) *	31 (3.0)	10 (1.8) *	1 (0.5) *	43 (2.6) *	12 (2.1) *
		1992	50 (1.8) *	35 (1.5)	13 (1.2)	2 (0.4) *	50 (1.8) *	15 (1.2) *
		1996	44 (3.2)	38 (2.5)	15 (1.7)	3 (0.6)	56 (3.2)	18 (1.8)
		2000	43 (1.6)	37 (1.2)	17 (1.0)	3 (0.5)	57 (1.6)	20 (1.2)
	Central	1990	43 (2.5) *	41 (1.9)	14 (1.2) *	2 (0.5) *	57 (2.5) *	15 (1.3) *
		1992	34 (2.7) *	41 (2.0)	22 (2.4)	3 (0.6) *	66 (2.7) *	25 (2.4) *
		1996	31 (3.4)	39 (1.8)	24 (1.8)	5 (1.0)	69 (3.4)	29 (2.5)
		2000	26 (2.0)	42 (1.8)	27 (1.9)	6 (1.1)	74 (2.0)	33 (2.3)
	West	1990	50 (2.6) *	36 (1.7)	12 (1.8) *	2 (0.6) *	50 (2.6) *	15 (2.1) *
		1992	42 (2.5)	37 (1.8)	17 (1.7)	3 (1.0)	58 (2.5)	21 (1.9) *
		1996	41 (2.2)	38 (1.5)	19 (1.6)	3 (0.6)	59 (2.2)	22 (1.9)
		2000	37 (1.5)	36 (1.2)	22 (1.3)	5 (0.6)	63 (1.5)	27 (1.4)
Grade 12	Northeast	1990	36 (3.1)	48 (2.5)	14 (1.7)	2 (0.8)	64 (3.1)	16 (1.9)
		1992	34 (2.0)	49 (1.7)	15 (1.2)	2 (0.7)	66 (2.0)	18 (1.5)
		1996	28 (2.9)	51 (2.4)	19 (1.8)	3 (0.7)	72 (2.9)	21 (2.1)
		2000	32 (2.7)	48 (2.0)	16 (1.8)	4 (1.3)	68 (2.7)	20 (2.5)
	Southeast	1990	53 (3.9)	41 (3.5)	5 (0.8) *	1 (0.3)	47 (3.9)	6 (0.8) *
		1992	45 (2.1)	44 (1.6)	9 (1.1)	1 (0.3)	55 (2.1)	10 (1.1)
		1996	42 (2.6)	47 (2.4)	10 (1.3)	1 (0.3)	58 (2.6)	11 (1.5)
		2000	44 (2.2)	46 (2.0)	9 (1.1)	1 (0.2)	56 (2.2)	10 (1.2)
	Central	1990	38 (3.5)	50 (3.4)	11 (1.5) *	1 (0.6)	62 (3.5)	13 (1.7) *
		1992	30 (2.6)	53 (2.1)	15 (1.3)	1 (0.4)	70 (2.6)	17 (1.4)
		1996	23 (3.6)	57 (2.1)	17 (2.3)	3 (0.7)	77 (3.6)	20 (2.8)
		2000	29 (2.3)	51 (1.9)	18 (2.2)	2 (0.6)	71 (2.3)	20 (2.1)
	West	1990	43 (3.2)	45 (2.8)	10 (1.9)	2 (0.9)	57 (3.2)	12 (2.5)
		1992	36 (1.7)	50 (1.5)	12 (1.4)	2 (0.4)	64 (1.7)	14 (1.6)
		1996	31 (2.4)	55 (2.2) *	12 (1.5)	2 (0.6)	69 (2.4)	14 (1.7)
		2000	35 (2.0)	48 (1.4)	15 (1.1)	2 (0.6)	65 (2.0)	17 (1.3)

Standard errors of the estimated percentages appear in parentheses.
* Significantly different from 2000. (****) Standard error estimates cannot be accurately determined.
▲ Percentage is between 0.0 and 0.5.
NOTE: Percentages within each mathematics achievement level range may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.6: Data for Table 2.1: State Scale Score Results, Grade 4

Average mathematics scale score results by state for grade 4 public schools: 1992–2000

	2000	1996	1992
Nation	226 (1.0)	222 (1.0) *	219 (0.8) *
Alabama	218 (1.4)	212 (1.2) ‡	208 (1.6) ‡
Alaska	—	224 (1.3)	—
Arizona	219 (1.4)	218 (1.7)	215 (1.1)
Arkansas	217 (1.1)	216 (1.5)	210 (0.9) ‡
California †	214 (1.8)	209 (1.8)	208 (1.6) ‡
Colorado	—	226 (1.0)	221 (1.0)
Connecticut	234 (1.2)	232 (1.1)	227 (1.1) ‡
Delaware	—	215 (0.6)	218 (0.8)
Florida	—	216 (1.2)	214 (1.5)
Georgia	220 (1.1)	215 (1.5) *	216 (1.2) ‡
Hawaii	216 (1.1)	215 (1.5)	214 (1.3)
Idaho †	227 (1.2)	—	222 (1.0) ‡
Illinois †	225 (1.9)	—	—
Indiana †	234 (1.1)	229 (1.0) ‡	221 (1.0) ‡
Iowa †	233 (1.3)	229 (1.1) *	230 (1.0)
Kansas †	232 (1.5)	—	—
Kentucky	221 (1.2)	220 (1.1)	215 (1.0) ‡
Louisiana	218 (1.4)	209 (1.1) ‡	204 (1.5) ‡
Maine †	231 (0.9)	232 (1.0)	232 (1.0)
Maryland	222 (1.3)	221 (1.6)	217 (1.3) ‡
Massachusetts	235 (1.1)	229 (1.3) ‡	227 (1.2) ‡
Michigan †	231 (1.4)	226 (1.3) *	220 (1.7) ‡
Minnesota †	235 (1.3)	232 (1.1)	228 (0.9) ‡
Mississippi	211 (1.1)	208 (1.2)	202 (1.1) ‡
Missouri	229 (1.2)	225 (1.1) *	222 (1.2) ‡
Montana †	230 (1.8)	228 (1.2)	—
Nebraska	226 (1.7)	228 (1.2)	225 (1.2)
Nevada	220 (1.2)	218 (1.3)	—
New Hampshire	—	—	230 (1.2)
New Jersey	—	227 (1.5)	227 (1.5)
New Mexico	214 (1.5)	214 (1.8)	213 (1.4)
New York †	227 (1.3)	223 (1.2) *	218 (1.2) ‡
North Carolina	232 (1.0)	224 (1.2) ‡	213 (1.1) ‡
North Dakota	231 (0.9)	231 (1.2)	229 (0.8)
Ohio †	231 (1.3)	—	219 (1.2) ‡
Oklahoma	225 (1.3)	—	220 (1.0) ‡
Oregon †	227 (1.6)	223 (1.4)	—
Pennsylvania	—	226 (1.2)	224 (1.3)
Rhode Island	225 (1.2)	220 (1.4) *	215 (1.5) ‡
South Carolina	220 (1.4)	213 (1.3) ‡	212 (1.1) ‡
Tennessee	220 (1.5)	219 (1.4)	211 (1.4) ‡
Texas	233 (1.2)	229 (1.4) *	218 (1.2) ‡
Utah	227 (1.2)	227 (1.2)	224 (1.0) *
Vermont †	232 (1.6)	225 (1.2) ‡	—
Virginia	230 (1.3)	223 (1.4) ‡	221 (1.3) ‡
West Virginia	225 (1.2)	223 (1.0)	215 (1.1) ‡
Washington	—	225 (1.2)	—
Wisconsin †	—	231 (1.0)	229 (1.1)
Wyoming	229 (1.3)	223 (1.4) ‡	225 (0.9) ‡
Other Jurisdictions			
American Samoa	157 (3.9)	—	—
District of Columbia	193 (1.2)	187 (1.1) ‡	193 (0.5)
DDESS	228 (1.2)	224 (1.0) *	—
DoDDS	228 (0.7)	223 (0.7) ‡	—
Guam	184 (2.3)	188 (1.3)	193 (0.8) ‡
Virgin Islands	183 (2.8)	—	—

Standard errors of the estimated scale scores appear in parentheses.
* Significantly different from 2000 if only one jurisdiction or the nation is being examined. ‡ Significantly different from 2000 when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.
† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2000.
— Indicates that the jurisdiction did not participate.
NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.
DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools. DoDDS: Department of Defense Dependents Schools (Overseas).
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1996, and 2000 Mathematics Assessments.

Table B.7: Data for Table 2.2: State Scale Score Results, Grade 8

Average mathematics scale score results by state for grade 8 public schools: 1990–2000

	2000	1996	1992	1990
Nation	274 (0.8)	271 (1.2) *	267 (1.0) *	262 (1.4) *
Alabama	262 (1.8)	257 (2.1)	252 (1.7) ‡	253 (1.1) ‡
Alaska	—	278 (1.8)	—	—
Arizona †	271 (1.5)	268 (1.6)	265 (1.3) ‡	260 (1.3) ‡
Arkansas	261 (1.4)	262 (1.5)	256 (1.2) ‡	256 (0.9) ‡
California †	262 (2.0)	263 (1.9)	261 (1.7)	256 (1.3) ‡
Colorado	—	276 (1.1)	272 (1.0)	267 (0.9)
Connecticut	282 (1.4)	280 (1.1)	274 (1.1) ‡	270 (1.0) ‡
Delaware	—	267 (0.9)	263 (1.0)	261 (0.9)
Florida	—	264 (1.8)	260 (1.5)	255 (1.2)
Georgia	266 (1.3)	262 (1.6)	259 (1.2) ‡	259 (1.3) ‡
Hawaii	263 (1.3)	262 (1.0)	257 (0.9) ‡	251 (0.8) ‡
Idaho †	278 (1.3)	—	275 (0.7)	271 (0.8) ‡
Illinois †	277 (1.6)	—	—	261 (1.7) ‡
Indiana †	283 (1.4)	276 (1.4) ‡	270 (1.1) ‡	267 (1.2) ‡
Iowa	—	284 (1.3)	283 (1.0)	278 (1.1)
Kansas †	284 (1.4)	—	—	—
Kentucky	272 (1.4)	267 (1.1) ‡	262 (1.1) ‡	257 (1.2) ‡
Louisiana	259 (1.5)	252 (1.6) ‡	250 (1.7) ‡	246 (1.2) ‡
Maine †	284 (1.2)	284 (1.3)	279 (1.0) ‡	—
Maryland	276 (1.4)	270 (2.1) ‡	265 (1.3) ‡	261 (1.4) ‡
Massachusetts	283 (1.3)	278 (1.7) ‡	273 (1.0) ‡	—
Michigan †	278 (1.6)	277 (1.8)	267 (1.4) ‡	264 (1.2) ‡
Minnesota †	288 (1.4)	284 (1.3)	282 (1.0) ‡	275 (0.9) ‡
Mississippi	254 (1.3)	250 (1.2) *	246 (1.2) ‡	—
Missouri	274 (1.5)	273 (1.4)	271 (1.2)	—
Montana †	287 (1.2)	283 (1.3) *	—	280 (0.9) ‡
Nebraska	281 (1.1)	283 (1.0)	278 (1.1)	276 (1.0) ‡
Nevada	268 (0.9)	—	—	—
New Hampshire	—	—	278 (1.0)	273 (0.9)
New Jersey	—	—	272 (1.6)	270 (1.1)
New Mexico	260 (1.7)	262 (1.2)	260 (0.9)	256 (0.7)
New York †	276 (2.1)	270 (1.7) *	266 (2.1) ‡	261 (1.4) ‡
North Carolina	280 (1.1)	268 (1.4) ‡	258 (1.2) ‡	250 (1.1) ‡
North Dakota	283 (1.1)	284 (0.9)	283 (1.1)	281 (1.2)
Ohio	283 (1.5)	—	268 (1.5) ‡	264 (1.0) ‡
Oklahoma	272 (1.5)	—	268 (1.1)	263 (1.3) ‡
Oregon †	281 (1.6)	276 (1.5)	—	271 (1.0) ‡
Pennsylvania	—	—	271 (1.5)	266 (1.6)
Rhode Island	273 (1.1)	269 (0.9) ‡	266 (0.7) ‡	260 (0.6) ‡
South Carolina	266 (1.4)	261 (1.5) ‡	261 (1.0) ‡	—
Tennessee	263 (1.7)	263 (1.4)	259 (1.4) *	—
Texas	275 (1.5)	270 (1.4) *	265 (1.3) ‡	258 (1.4) ‡
Utah	275 (1.2)	277 (1.0)	274 (0.7)	—
Vermont †	283 (1.1)	279 (1.0) ‡	—	—
Virginia	277 (1.5)	270 (1.6) ‡	268 (1.2) ‡	264 (1.5) ‡
Washington	—	276 (1.3)	—	—
West Virginia	271 (1.0)	265 (1.0) ‡	259 (1.0) ‡	256 (1.0) ‡
Wisconsin †	—	283 (1.5)	278 (1.5)	274 (1.3)
Wyoming	277 (1.2)	275 (0.9)	275 (0.9)	272 (0.7) ‡
Other Jurisdictions				
American Samoa	195 (4.5)	—	—	—
District of Columbia	234 (2.2)	233 (1.3)	235 (0.9)	231 (0.9)
DDESS	277 (2.3)	269 (2.3) ‡	—	—
DoDDS	278 (1.0)	275 (0.9) ‡	—	—
Guam	233 (2.2)	239 (1.7)	235 (1.0)	232 (0.7)
Virgin Islands †	—	—	223 (1.1)	219 (0.9)

Standard errors of the estimated scale scores appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined. ‡ Significantly different from 2000 when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2000.

— Indicates that the jurisdiction did not participate.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools. DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.8: Data for Figure 2.10: State Achievement Level Results, Grade 4

Percentage of students within each mathematics achievement level range by state for grade 4 public schools: 2000

	Below *Basic*	At *Basic*	At *Proficient*	At *Advanced*
National - public schools	33 (1.2)	42 (0.9)	22 (1.1)	2 (0.3)
Alabama	43 (2.1)	43 (1.6)	13 (1.2)	1 (0.2)
Arizona	42 (1.9)	42 (1.6)	15 (1.3)	2 (0.5)
Arkansas	44 (1.9)	43 (1.6)	13 (1.1)	1 (0.2)
California †	48 (2.3)	38 (1.6)	14 (1.4)	1 (0.3)
Connecticut	23 (1.5)	45 (1.4)	29 (1.4)	3 (0.5)
Georgia	42 (1.5)	40 (1.4)	17 (1.0)	1 (0.3)
Hawaii	45 (1.9)	41 (1.7)	13 (0.9)	1 (0.3)
Idaho †	29 (1.7)	49 (1.4)	20 (1.5)	1 (0.4)
Illinois †	34 (2.4)	44 (1.9)	20 (2.1)	2 (0.6)
Indiana †	22 (1.5)	48 (1.6)	28 (1.6)	3 (0.7)
Iowa †	22 (1.9)	50 (1.9)	26 (1.7)	2 (0.4)
Kansas †	25 (2.3)	46 (1.6)	27 (1.9)	3 (0.7)
Kentucky	40 (1.8)	43 (1.6)	16 (1.1)	1 (0.3)
Louisiana	43 (2.0)	43 (1.5)	13 (1.3)	1 (0.2)
Maine †	26 (1.8)	50 (1.8)	22 (1.2)	2 (0.4)
Maryland	39 (1.8)	39 (1.7)	20 (1.2)	2 (0.4)
Massachusetts	21 (1.4)	45 (1.2)	30 (1.5)	3 (0.5)
Michigan †	28 (1.9)	43 (1.6)	26 (1.6)	3 (0.6)
Minnesota †	22 (1.7)	44 (1.5)	31 (1.5)	3 (0.7)
Mississippi	55 (1.7)	36 (1.4)	9 (0.8)	▲ (0.2)
Missouri	28 (1.6)	49 (1.6)	22 (1.4)	2 (0.4)
Montana †	27 (2.6)	48 (2.3)	23 (2.4)	2 (0.7)
Nebraska	33 (2.3)	43 (1.9)	22 (1.7)	2 (0.5)
Nevada	39 (1.7)	44 (1.5)	15 (1.1)	1 (0.2)
New Mexico	49 (2.0)	39 (1.6)	11 (1.0)	1 (0.2)
New York †	33 (2.1)	45 (1.8)	20 (1.4)	2 (0.4)
North Carolina	24 (1.5)	48 (1.5)	25 (1.4)	3 (0.4)
North Dakota	25 (1.5)	50 (1.5)	23 (1.2)	2 (0.4)
Ohio †	27 (2.0)	48 (2.0)	24 (1.9)	2 (0.4)
Oklahoma	31 (1.9)	53 (1.6)	16 (1.1)	1 (0.2)
Oregon †	33 (2.3)	44 (2.1)	21 (1.5)	3 (0.6)
Rhode Island	33 (1.5)	44 (1.2)	21 (1.2)	2 (0.4)
South Carolina	40 (1.8)	42 (1.6)	16 (1.1)	2 (0.3)
Tennessee	40 (1.8)	42 (1.3)	17 (1.4)	1 (0.4)
Texas	23 (1.6)	50 (1.4)	25 (1.6)	2 (0.5)
Utah	30 (1.7)	46 (1.5)	22 (1.2)	2 (0.3)
Vermont †	27 (2.0)	44 (1.7)	26 (2.0)	4 (0.7)
Virginia	27 (1.8)	47 (1.5)	23 (1.3)	2 (0.6)
West Virginia	32 (1.6)	49 (1.7)	17 (1.5)	1 (0.3)
Wyoming	27 (2.0)	48 (1.8)	23 (1.4)	2 (0.5)
Other Jurisdictions				
American Samoa	95 (1.4)	5 (1.3)	▲ (****)	0 (****)
District of Columbia	76 (1.1)	19 (0.8)	5 (0.8)	1 (0.2)
DDESS	30 (2.0)	46 (1.8)	21 (1.5)	3 (0.6)
DoDDS	30 (1.2)	48 (0.9)	21 (1.1)	2 (0.3)
Guam	79 (1.8)	19 (1.5)	2 (0.6)	▲ (****)
Virgin Islands	85 (3.2)	14 (3.2)	1 (0.5)	▲ (****)

Standard errors of the estimated percentages appear in parentheses.
(****) Standard error estimates cannot be accurately determined.
† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.
▲ Percentage is between 0.0 and 0.5.
DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.
DoDDS: Department of Defense Dependents Schools (Overseas).
NOTE: Percentages within each mathematics achievement level range may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Table B.9: Data for Figure 2.11: State Achievement Level Results, Grade 8

Percentage of students within each mathematics achievement level range by state for grade 8 public schools: 2000

	Below *Basic*	At *Basic*	At *Proficient*	At *Advanced*
National - public schools	35 (0.9)	38 (0.9)	21 (0.8)	5 (0.5)
Alabama	48 (2.1)	36 (1.4)	14 (1.2)	2 (0.5)
Arizona †	38 (1.9)	41 (1.8)	18 (1.5)	3 (0.5)
Arkansas	48 (1.9)	38 (1.5)	13 (1.2)	1 (0.4)
California †	48 (2.3)	34 (1.5)	15 (1.3)	3 (0.6)
Connecticut	28 (1.3)	38 (1.2)	28 (1.3)	6 (0.7)
Georgia	45 (1.7)	37 (1.5)	16 (1.0)	3 (0.4)
Hawaii	48 (1.6)	36 (1.8)	14 (1.3)	2 (0.4)
Idaho †	29 (1.5)	44 (1.8)	24 (1.7)	3 (0.5)
Illinois †	32 (2.1)	41 (1.8)	23 (1.3)	4 (0.7)
Indiana †	24 (1.7)	45 (1.6)	26 (1.5)	5 (0.7)
Kansas †	23 (1.7)	43 (1.4)	30 (1.6)	4 (0.8)
Kentucky	37 (1.7)	42 (1.6)	18 (1.4)	3 (0.5)
Louisiana	52 (1.8)	36 (1.5)	11 (1.1)	1 (0.4)
Maine †	24 (1.5)	44 (1.4)	26 (1.2)	6 (0.7)
Maryland	35 (1.6)	36 (1.3)	22 (1.1)	6 (0.6)
Massachusetts	24 (1.5)	43 (1.2)	27 (1.1)	6 (0.7)
Michigan †	30 (1.9)	41 (1.3)	24 (1.6)	5 (0.7)
Minnesota †	20 (1.8)	40 (1.5)	33 (1.4)	7 (0.8)
Mississippi	59 (1.6)	33 (1.4)	7 (0.7)	1 (0.3)
Missouri	33 (2.0)	45 (1.5)	19 (1.3)	2 (0.3)
Montana †	20 (1.5)	43 (1.6)	32 (1.6)	6 (0.6)
Nebraska	26 (1.6)	43 (1.4)	26 (1.4)	5 (0.7)
Nevada	42 (1.1)	39 (1.3)	17 (0.8)	2 (0.4)
New Mexico	50 (1.8)	36 (1.8)	12 (1.0)	1 (0.4)
New York †	32 (2.5)	42 (1.8)	22 (1.7)	4 (0.7)
North Carolina	30 (1.3)	40 (1.2)	24 (1.0)	6 (0.7)
North Dakota	23 (1.4)	46 (1.7)	27 (1.5)	4 (0.6)
Ohio	25 (1.9)	45 (1.4)	26 (1.5)	5 (0.7)
Oklahoma	36 (1.9)	46 (1.5)	17 (1.1)	2 (0.3)
Oregon †	29 (1.7)	40 (1.5)	26 (1.7)	6 (0.8)
Rhode Island	36 (1.1)	41 (1.1)	20 (0.9)	4 (0.6)
South Carolina	45 (1.9)	37 (1.4)	15 (1.1)	2 (0.4)
Tennessee	47 (1.9)	36 (1.4)	15 (1.2)	2 (0.4)
Texas	32 (1.8)	44 (1.5)	22 (1.3)	3 (0.5)
Utah	32 (1.4)	42 (1.3)	23 (1.1)	3 (0.4)
Vermont †	25 (1.7)	43 (1.9)	26 (1.3)	6 (0.6)
Virginia	33 (2.0)	42 (1.3)	21 (1.2)	5 (0.7)
West Virginia	38 (1.2)	44 (0.9)	16 (0.7)	2 (0.4)
Wyoming	30 (1.4)	45 (1.2)	21 (1.2)	4 (0.5)
Other Jurisdictions				
American Samoa	93 (2.1)	6 (2.0)	1 (****)	▲ (****)
District of Columbia	77 (2.0)	17 (1.6)	5 (0.8)	1 (0.4)
DDESS	33 (2.9)	40 (3.0)	20 (2.0)	6 (1.4)
DoDDS	29 (1.4)	44 (1.3)	22 (1.1)	4 (0.7)
Guam	76 (1.5)	20 (1.6)	3 (0.7)	1 (0.3)

Standard errors of the estimated percentages appear in parentheses.
(****) Standard error estimates cannot be accurately determined.
† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.
▲ Percentage is between 0.0 and 0.5.
DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.
DoDDS: Department of Defense Dependents Schools (Overseas).
NOTE: Percentages within each mathematics achievement level range may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Table B.10: Data for Table 2.3 State Cumulative Achievement Level Results, Grade 4

Percentage of students at or above mathematics achievement levels by state for grade 4 public schools: 1992–2000

	1992				1996			
	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*
Nation	43 (1.2) *	57 (1.2) *	17 (1.1) *	2 (0.3)	38 (1.4) *	62 (1.4) *	20 (1.0) *	2 (0.3)
Alabama	57 (2.1) ‡	43 (2.1) ‡	10 (1.2) ‡	▲ (0.1)	52 (2.0) ‡	48 (2.0) ‡	11 (1.1)	1 (0.2)
Arizona	47 (1.6)	53 (1.6)	13 (0.9) *	1 (0.2)	43 (2.4)	57 (2.4)	15 (1.6)	1 (0.4)
Arkansas	53 (1.5) ‡	47 (1.5) ‡	10 (0.7) ‡	▲ (0.2)	46 (2.2)	54 (2.2)	13 (1.4)	1 (0.3)
California †	54 (1.9)	46 (1.9)	12 (1.2)	1 (0.4)	54 (2.4)	46 (2.4)	11 (1.5)	1 (0.4)
Connecticut	33 (1.6) ‡	67 (1.6) ‡	24 (1.4) ‡	3 (0.5)	25 (1.5)	75 (1.5)	31 (1.7)	3 (0.5)
Georgia	47 (1.7) *	53 (1.7) *	15 (1.2)	1 (0.3)	47 (2.1) *	53 (2.1) *	13 (1.3) ‡	1 (0.3)
Hawaii	48 (1.8)	52 (1.8)	15 (0.9)	1 (0.2)	47 (1.6)	53 (1.6)	16 (1.1)	2 (0.4)
Idaho †	37 (1.7) ‡	63 (1.7) ‡	16 (1.0) ‡	1 (0.3)	—	—	—	—
Illinois †	—	—	—	—	—	—	—	—
Indiana †	40 (1.7) ‡	60 (1.7) ‡	16 (1.1) ‡	1 (0.2) *	28 (1.7) ‡	72 (1.7) ‡	24 (1.6) ‡	2 (0.5)
Iowa †	28 (1.5) ‡	72 (1.5) ‡	26 (1.2)	2 (0.4)	26 (1.4)	74 (1.4)	22 (1.4) *	1 (0.4)
Kansas †	—	—	—	—	—	—	—	—
Kentucky	49 (1.5) ‡	51 (1.5) ‡	13 (1.2) ‡	1 (0.3)	40 (1.8)	60 (1.8)	16 (1.1)	1 (0.3)
Louisiana	61 (2.0) ‡	39 (2.0) ‡	8 (0.8) ‡	▲ (0.2)	56 (1.8) ‡	44 (1.8) ‡	8 (0.9) ‡	▲ (0.2)
Maine †	25 (1.5)	75 (1.5)	27 (1.5)	2 (0.5)	25 (1.4)	75 (1.4)	27 (1.4)	3 (0.6)
Maryland	45 (1.6) ‡	55 (1.6) ‡	18 (1.2) *	2 (0.3)	41 (1.8)	59 (1.8)	22 (1.7)	3 (0.7)
Massachusetts	32 (1.6) ‡	68 (1.6) ‡	23 (1.5) ‡	2 (0.5)	29 (1.8) ‡	71 (1.8) ‡	24 (1.9) ‡	2 (0.5)
Michigan †	39 (2.2) ‡	61 (2.2) ‡	18 (1.7) ‡	1 (0.4) *	32 (1.8)	68 (1.8)	23 (1.5) ‡	2 (0.5)
Minnesota †	29 (1.6) ‡	71 (1.6) ‡	26 (1.3) ‡	3 (0.4)	24 (1.5)	76 (1.5)	29 (1.5)	3 (0.5)
Mississippi	64 (1.3) ‡	36 (1.3) ‡	6 (0.6) ‡	▲ (0.1)	58 (1.9)	42 (1.9)	8 (0.9)	▲ (0.2)
Missouri	38 (1.7) ‡	62 (1.7) ‡	19 (1.3) ‡	1 (0.3)	34 (1.7) ‡	66 (1.7) ‡	20 (1.3)	1 (0.3)
Montana †	—	—	—	—	29 (1.9)	71 (1.9)	22 (1.6)	1 (0.4)
Nebraska	33 (1.8)	67 (1.8)	22 (1.6)	2 (0.5)	30 (1.6)	70 (1.6)	24 (1.4)	2 (0.3)
Nevada	—	—	—	—	43 (1.8)	57 (1.8)	14 (1.2)	1 (0.3)
New Mexico	50 (2.0)	50 (2.0)	11 (1.3)	1 (0.2)	49 (2.4)	51 (2.4)	13 (1.2)	1 (0.3)
New York †	43 (1.8) ‡	57 (1.8) ‡	17 (1.3) ‡	1 (0.3)	36 (1.8)	64 (1.8)	20 (1.2)	2 (0.4)
North Carolina	50 (1.6) ‡	50 (1.6) ‡	13 (0.8) ‡	1 (0.3) *	36 (1.6) ‡	64 (1.6) ‡	21 (1.3) ‡	2 (0.4)
North Dakota	28 (1.3)	72 (1.3)	22 (1.1)	1 (0.3)	25 (1.9)	75 (1.9)	24 (1.3)	2 (0.5)
Ohio †	43 (1.7) ‡	57 (1.7) ‡	16 (1.2) ‡	1 (0.3)	—	—	—	—
Oklahoma	40 (1.7) ‡	60 (1.7) ‡	14 (1.2)	1 (0.3)	—	—	—	—
Oregon †	—	—	—	—	35 (2.2)	65 (2.2)	21 (1.3)	2 (0.5)
Rhode Island	46 (2.2) ‡	54 (2.2) ‡	13 (1.1) ‡	1 (0.4)	39 (2.0) ‡	61 (2.0) ‡	17 (1.3) ‡	1 (0.3)
South Carolina	52 (1.7) ‡	48 (1.7) ‡	13 (1.1) ‡	1 (0.3)	52 (2.0) ‡	48 (2.0) ‡	12 (1.3) ‡	1 (0.3)
Tennessee	53 (2.0) ‡	47 (2.0) ‡	10 (1.0) ‡	▲ (0.2)	42 (2.0)	58 (2.0)	17 (1.5)	1 (0.3)
Texas	44 (1.6) ‡	56 (1.6) ‡	15 (1.2) ‡	1 (0.3)	31 (1.9) ‡	69 (1.9) ‡	25 (1.5)	3 (0.5)
Utah	34 (1.7)	66 (1.7)	19 (1.1) ‡	1 (0.3)	31 (1.6)	69 (1.6)	23 (1.3)	2 (0.4)
Vermont †	—	—	—	—	33 (2.1) *	67 (2.1) *	23 (1.1) ‡	3 (0.5)
Virginia	41 (1.4) ‡	59 (1.4) ‡	19 (1.5) ‡	2 (0.5)	38 (2.2) ‡	62 (2.2) ‡	19 (1.5) ‡	2 (0.5)
West Virginia	48 (1.5) ‡	52 (1.5) ‡	12 (0.9) ‡	1 (0.3)	37 (1.6)	63 (1.6)	19 (1.2)	2 (0.5)
Wyoming	31 (1.4)	69 (1.4)	19 (1.1) ‡	1 (0.3)	36 (1.7) ‡	64 (1.7) ‡	19 (1.2) ‡	1 (0.3)
Other Jurisdictions								
American Samoa	—	—	—	—	—	—	—	—
District of Columbia	77 (0.9)	23 (0.9)	5 (0.3)	1 (0.2)	80 (0.8) ‡	20 (0.8) ‡	5 (0.5)	1 (0.4)
DDESS	—	—	—	—	36 (1.7) *	64 (1.7) *	20 (1.5)	2 (0.6)
DoDDS	—	—	—	—	36 (1.2) ‡	64 (1.2) ‡	19 (1.1) *	1 (0.3)
Guam	74 (1.4) ‡	26 (1.4) ‡	5 (0.5) ‡	▲ (0.2)	77 (1.4)	23 (1.4)	3 (0.5)	▲ (****)
Virgin Islands	—	—	—	—	—	—	—	—

See footnotes at end of table. ▶

Table B.10: Data for Table 2.3 State Cumulative Achievement Level Results, Grade 4 (continued)

Percentage of students at or above mathematics achievement levels by state for grade 4 public schools: 1992–2000

	2000			
	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*
Nation	33 (1.2)	67 (1.2)	25 (1.2)	2 (0.3)
Alabama	43 (2.1)	57 (2.1)	14 (1.3)	1 (0.2)
Arizona	42 (1.9)	58 (1.9)	17 (1.6)	2 (0.5)
Arkansas	44 (1.9)	56 (1.9)	13 (1.1)	1 (0.2)
California †	48 (2.3)	52 (2.3)	15 (1.4)	1 (0.3)
Connecticut	23 (1.5)	77 (1.5)	32 (1.6)	3 (0.5)
Georgia	42 (1.5)	58 (1.5)	18 (1.1)	1 (0.3)
Hawaii	45 (1.5)	55 (1.5)	14 (1.0)	1 (0.3)
Idaho †	29 (1.7)	71 (1.7)	21 (1.6)	1 (0.4)
Illinois †	34 (2.4)	66 (2.4)	21 (2.5)	2 (0.6)
Indiana †	22 (1.5)	78 (1.5)	31 (1.6)	3 (0.7)
Iowa †	22 (1.9)	78 (1.9)	28 (1.9)	2 (0.4)
Kansas †	25 (2.3)	75 (2.3)	30 (2.1)	3 (0.7)
Kentucky	40 (1.8)	60 (1.8)	17 (1.2)	1 (0.3)
Louisiana	43 (2.0)	57 (2.0)	14 (1.4)	1 (0.2)
Maine †	26 (1.8)	74 (1.8)	25 (1.3)	2 (0.4)
Maryland	39 (1.8)	61 (1.8)	22 (1.4)	2 (0.4)
Massachusetts	21 (1.4)	79 (1.4)	33 (1.6)	3 (0.5)
Michigan †	28 (1.9)	72 (1.9)	29 (1.8)	3 (0.6)
Minnesota †	22 (1.7)	78 (1.7)	34 (1.8)	3 (0.7)
Mississippi	55 (1.7)	45 (1.7)	9 (0.9)	▲ (0.2)
Missouri	28 (1.6)	72 (1.6)	23 (1.6)	2 (0.4)
Montana †	27 (2.6)	73 (2.6)	25 (2.5)	2 (0.7)
Nebraska	33 (2.3)	67 (2.3)	24 (1.9)	2 (0.5)
Nevada	39 (1.7)	61 (1.7)	16 (1.1)	1 (0.2)
New Mexico	49 (2.0)	51 (2.0)	12 (1.0)	1 (0.2)
New York †	33 (2.1)	67 (2.1)	22 (1.6)	2 (0.4)
North Carolina	24 (1.5)	76 (1.5)	28 (1.5)	3 (0.4)
North Dakota	25 (1.5)	75 (1.5)	25 (1.3)	2 (0.4)
Ohio †	27 (2.0)	73 (2.0)	26 (2.1)	2 (0.4)
Oklahoma	31 (1.9)	69 (1.9)	16 (1.2)	1 (0.2)
Oregon †	33 (2.3)	67 (2.3)	23 (1.8)	3 (0.6)
Rhode Island	33 (1.5)	67 (1.5)	23 (1.3)	2 (0.4)
South Carolina	40 (1.8)	60 (1.8)	18 (1.2)	2 (0.3)
Tennessee	40 (1.8)	60 (1.8)	18 (1.5)	1 (0.4)
Texas	23 (1.6)	77 (1.6)	27 (1.8)	2 (0.5)
Utah	30 (1.7)	70 (1.7)	24 (1.3)	2 (0.3)
Vermont †	27 (2.0)	73 (2.0)	29 (2.2)	4 (0.7)
Virginia	27 (1.8)	73 (1.8)	25 (1.6)	2 (0.6)
West Virginia	32 (1.6)	68 (1.6)	18 (1.6)	1 (0.3)
Wyoming	27 (2.0)	73 (2.0)	25 (1.5)	2 (0.5)
Other Jurisdictions				
American Samoa	95 (1.4)	5 (1.4)	▲ (****)	0 (****)
District of Columbia	76 (1.1)	24 (1.1)	6 (0.8)	1 (0.2)
DDESS	30 (2.0)	70 (2.0)	24 (1.8)	3 (0.6)
DoDDS	30 (1.2)	70 (1.2)	22 (1.1)	2 (0.3)
Guam	79 (1.8)	21 (1.8)	2 (0.6)	▲ (****)
Virgin Islands	85 (3.2)	15 (3.2)	1 (0.6)	▲ (****)

Standard errors of the estimated percentages appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined.

‡ Significantly different from 2000 when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.

(****) Standard error estimates cannot be accurately determined.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

— Indicates that the jurisdiction did not participate.

▲ Percentage is between 0.0 and 0.5.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1996, and 2000 Mathematics Assessments.

Table B.11: Data for Table 2.4 State Cumulative Achievement Level Results, Grade 8

Percentage of students at or above mathematics achievement levels by state for grade 8 public schools: 1990–2000

	1990				1992			
	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*
Nation	49 (1.5) *	51 (1.5) *	15 (1.1) *	2 (0.4) *	44 (1.2) *	56 (1.2) *	20 (1.0) *	3 (0.4) *
Alabama	60 (1.7) ‡	40 (1.7) ‡	9 (0.7) ‡	1 (0.2) ‡	61 (1.9) ‡	39 (1.9) ‡	10 (0.9) ‡	1 (0.3) ‡
Arizona †	52 (1.8) ‡	48 (1.8) ‡	13 (0.9) ‡	1 (0.4) ‡	45 (1.8) ‡	55 (1.8) ‡	15 (1.3) ‡	1 (0.3) ‡
Arkansas	56 (1.2) ‡	44 (1.2) ‡	9 (0.7) ‡	1 (0.2)	56 (1.8) ‡	44 (1.8) ‡	10 (0.8) ‡	1 (0.2)
California †	55 (1.7) ‡	45 (1.7) ‡	12 (1.1) ‡	2 (0.3)	50 (1.9)	50 (1.9)	16 (1.3)	2 (0.7)
Connecticut	40 (1.4) ‡	60 (1.4) ‡	22 (0.9) ‡	3 (0.4) ‡	36 (1.4) ‡	64 (1.4) ‡	26 (1.1) ‡	3 (0.6) ‡
Georgia	53 (1.5) ‡	47 (1.5) ‡	14 (1.2) ‡	2 (0.4)	52 (1.7) ‡	48 (1.7) ‡	13 (0.9) ‡	1 (0.3) ‡
Hawaii	60 (1.0) ‡	40 (1.0) ‡	12 (0.7) ‡	2 (0.3)	54 (1.1) ‡	46 (1.1) ‡	14 (0.7)	2 (0.3)
Idaho †	37 (1.2) ‡	63 (1.2) ‡	18 (1.1) ‡	1 (0.3) ‡	32 (1.0)	68 (1.0)	22 (1.2) ‡	2 (0.3) *
Illinois †	50 (2.0) ‡	50 (2.0) ‡	15 (1.3) ‡	2 (0.4) ‡	—	—	—	—
Indiana †	44 (1.5) ‡	56 (1.5) ‡	17 (1.1) ‡	3 (0.5) ‡	40 (1.5) ‡	60 (1.5) ‡	20 (1.2) ‡	3 (0.4) ‡
Kansas †	—	—	—	—	—	—	—	—
Kentucky	57 (1.7) ‡	43 (1.7) ‡	10 (0.8) ‡	1 (0.3) ‡	49 (1.5) ‡	51 (1.5) ‡	14 (1.1) ‡	2 (0.3) *
Louisiana	68 (1.6) ‡	32 (1.6) ‡	5 (0.6) ‡	1 (0.2)	63 (1.9) ‡	37 (1.9) ‡	7 (1.0) ‡	▲ (0.2)
Maine †	—	—	—	—	28 (1.3) ‡	72 (1.3) ‡	25 (1.5) ‡	3 (0.6) ‡
Maryland	50 (1.6) ‡	50 (1.6) ‡	17 (1.2) ‡	3 (0.5) ‡	46 (1.4) ‡	54 (1.4) ‡	20 (1.2) ‡	3 (0.5) ‡
Massachusetts	—	—	—	—	37 (1.5) ‡	63 (1.5) ‡	23 (1.3) ‡	3 (0.5) ‡
Michigan †	47 (1.7) ‡	53 (1.7) ‡	16 (1.2) ‡	2 (0.4) ‡	42 (1.7) ‡	58 (1.7) ‡	19 (1.5) ‡	2 (0.4) ‡
Minnesota †	33 (1.1) ‡	67 (1.1) ‡	23 (1.2) ‡	3 (0.5) ‡	26 (1.3) ‡	74 (1.3) ‡	31 (1.2) ‡	5 (0.6)
Mississippi	—	—	—	—	67 (1.6) ‡	33 (1.6) ‡	6 (0.7)	▲ (0.1)
Missouri	—	—	—	—	38 (1.6)	62 (1.6)	20 (1.2)	2 (0.4)
Montana †	26 (1.5) ‡	74 (1.5) ‡	27 (1.4) ‡	4 (0.5) ‡	—	—	—	—
Nebraska	32 (1.3) ‡	68 (1.3) ‡	24 (1.2) ‡	3 (0.5)	30 (1.3)	70 (1.3)	26 (1.6) *	3 (0.5)
Nevada	—	—	—	—	—	—	—	—
New Mexico	57 (1.2) ‡	43 (1.2) ‡	10 (0.9) ‡	1 (0.3)	52 (1.3)	48 (1.3)	11 (0.8)	1 (0.3)
New York †	50 (1.7) ‡	50 (1.7) ‡	15 (0.9) ‡	3 (0.4)	43 (2.2) ‡	57 (2.2) ‡	20 (1.3) ‡	3 (0.5)
North Carolina	62 (1.4) ‡	38 (1.4) ‡	9 (0.7) ‡	1 (0.3) ‡	53 (1.4) ‡	47 (1.4) ‡	12 (1.0) ‡	1 (0.3) ‡
North Dakota	25 (1.6)	75 (1.6)	27 (1.8)	4 (0.6)	22 (1.4)	78 (1.4)	29 (1.6)	3 (0.5)
Ohio	47 (1.6) ‡	53 (1.6) ‡	15 (1.1) ‡	2 (0.3) ‡	41 (2.1) ‡	59 (2.1) ‡	18 (1.3) ‡	2 (0.4) ‡
Oklahoma	48 (1.8) ‡	52 (1.8) ‡	13 (1.2) ‡	1 (0.4)	41 (1.6)	59 (1.6)	17 (1.1)	1 (0.3)
Oregon †	38 (1.4) ‡	62 (1.4) ‡	21 (1.1) ‡	3 (0.5) ‡	—	—	—	—
Rhode Island	51 (1.0) ‡	49 (1.0) ‡	15 (0.7) ‡	2 (0.3) ‡	44 (1.2) ‡	56 (1.2) ‡	16 (1.1) ‡	1 (0.3) ‡
South Carolina	—	—	—	—	52 (1.3) ‡	48 (1.3) ‡	15 (1.0)	2 (0.5)
Tennessee	—	—	—	—	53 (1.9) ‡	47 (1.9) ‡	12 (1.0) ‡	1 (0.4) ‡
Texas	55 (1.6) ‡	45 (1.6) ‡	13 (1.1) ‡	2 (0.3)	47 (1.5) ‡	53 (1.5) ‡	18 (1.2) ‡	3 (0.6)
Utah	—	—	—	—	33 (1.2)	67 (1.2)	22 (1.0) *	2 (0.4)
Vermont †	—	—	—	—	—	—	—	—
Virginia	48 (1.7) ‡	52 (1.7) ‡	17 (1.6) ‡	4 (0.8)	43 (1.7) ‡	57 (1.7) ‡	19 (1.1) ‡	3 (0.6) *
West Virginia	58 (1.1) ‡	42 (1.1) ‡	9 (0.8) ‡	1 (0.2) ‡	53 (1.6) ‡	47 (1.6) ‡	10 (0.8) ‡	1 (0.2) ‡
Wyoming	36 (1.3) ‡	64 (1.3) ‡	19 (0.9) ‡	2 (0.2) ‡	33 (1.3)	67 (1.3)	21 (1.1) ‡	2 (0.4) ‡
Other Jurisdictions								
American Samoa	—	—	—	—	—	—	—	—
District of Columbia	83 (1.0) ‡	17 (1.0) ‡	3 (0.6) ‡	1 (0.2)	78 (1.1)	22 (1.1)	4 (0.9)	1 (0.2)
DDESS	—	—	—	—	—	—	—	—
DoDDS	—	—	—	—	—	—	—	—
Guam	78 (1.0)	22 (1.0)	4 (0.4)	▲ (0.2)	75 (1.4)	25 (1.4)	6 (0.6)	▲ (0.1)

See footnotes at end of table. ▶

Table B.11: Data for Table 2.4 State Cumulative Achievement Level Results, Grade 8 (continued)

Percentage of students at or above mathematics achievement levels by state for grade 8 public schools: 1990–2000

	1996				2000			
	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*
Nation	39 (1.3) *	61 (1.3) *	23 (1.2) *	4 (0.6)	35 (0.9)	65 (0.9)	26 (1.0)	5 (0.5)
Alabama	55 (2.6)	45 (2.6)	12 (1.8)	1 (0.4)	48 (2.1)	52 (2.1)	16 (1.6)	2 (0.5)
Arizona †	43 (1.9)	57 (1.9)	18 (1.2)	2 (0.3) *	38 (1.9)	62 (1.9)	21 (1.6)	3 (0.5)
Arkansas	48 (1.8)	52 (1.8)	13 (1.0)	2 (0.4)	48 (1.9)	52 (1.9)	14 (1.2)	1 (0.4)
California †	49 (2.1)	51 (2.1)	17 (1.5)	3 (0.5)	48 (2.3)	52 (2.3)	18 (1.6)	3 (0.6)
Connecticut	30 (1.4)	70 (1.4)	31 (1.5)	5 (0.6)	28 (1.3)	72 (1.3)	34 (1.5)	6 (0.7)
Georgia	49 (2.0)	51 (2.0)	16 (1.8)	2 (0.5)	45 (1.7)	55 (1.7)	19 (1.1)	3 (0.4)
Hawaii	49 (1.5)	51 (1.5)	16 (0.9)	2 (0.4)	49 (1.3)	51 (1.3)	16 (1.3)	2 (0.4)
Idaho †	—	—	—	—	29 (1.5)	71 (1.5)	27 (1.7)	3 (0.5)
Illinois †	—	—	—	—	32 (2.1)	68 (2.1)	27 (1.4)	4 (0.7)
Indiana †	32 (2.0) ‡	68 (2.0) ‡	24 (1.7) *	3 (0.5) *	24 (1.7)	76 (1.7)	31 (1.9)	5 (0.7)
Kansas †	—	—	—	—	23 (1.7)	77 (1.7)	34 (1.9)	4 (0.8)
Kentucky	44 (1.6) ‡	56 (1.6) ‡	16 (1.2) *	1 (0.3) *	37 (1.7)	63 (1.7)	21 (1.5)	3 (0.5)
Louisiana	62 (2.0) ‡	38 (2.0) ‡	7 (1.1) *	▲ (0.2)	52 (1.8)	48 (1.8)	12 (1.2)	1 (0.4)
Maine †	23 (1.5)	77 (1.5)	31 (1.7)	6 (0.7)	24 (1.5)	76 (1.5)	32 (1.4)	6 (0.7)
Maryland	43 (2.2) ‡	57 (2.2) ‡	24 (2.3)	5 (1.0)	35 (1.6)	65 (1.6)	29 (1.4)	6 (0.6)
Massachusetts	32 (2.3) ‡	68 (2.3) ‡	28 (1.8) *	5 (0.8)	24 (1.5)	76 (1.5)	32 (1.3)	6 (0.7)
Michigan †	33 (2.1)	67 (2.1)	28 (1.8)	4 (0.8)	30 (1.9)	70 (1.9)	28 (1.9)	5 (0.7)
Minnesota †	25 (1.5)	75 (1.5)	34 (1.8) *	6 (0.8)	20 (1.8)	80 (1.8)	40 (1.6)	7 (0.8)
Mississippi	64 (1.3) ‡	36 (1.3) ‡	7 (0.8)	▲ (0.2)	59 (1.6)	41 (1.6)	8 (0.7)	1 (0.3)
Missouri	36 (2.0)	64 (2.0)	22 (1.4)	2 (0.5)	33 (2.0)	67 (2.0)	22 (1.4)	2 (0.3)
Montana †	25 (1.7)	75 (1.7)	32 (1.5) *	5 (0.5)	20 (1.5)	80 (1.5)	37 (1.6)	6 (0.6)
Nebraska	24 (1.1)	76 (1.1)	31 (1.5)	5 (0.7)	26 (1.6)	74 (1.6)	31 (1.6)	5 (0.7)
Nevada	—	—	—	—	42 (1.1)	58 (1.1)	20 (0.9)	2 (0.4)
New Mexico	49 (1.6)	51 (1.6)	14 (1.1)	2 (0.3)	50 (1.8)	50 (1.8)	13 (1.0)	1 (0.4)
New York †	39 (2.0) *	61 (2.0) *	22 (1.5)	3 (0.5)	32 (2.5)	68 (2.5)	26 (1.9)	4 (0.7)
North Carolina	44 (1.8) ‡	56 (1.8) ‡	20 (1.3) ‡	3 (0.6) *	30 (1.3)	70 (1.3)	30 (1.3)	6 (0.7)
North Dakota	23 (1.2)	77 (1.2)	33 (1.5)	4 (0.7)	23 (1.4)	77 (1.4)	31 (1.6)	4 (0.6)
Ohio	—	—	—	—	25 (1.9)	75 (1.9)	31 (1.7)	5 (0.7)
Oklahoma	—	—	—	—	36 (1.9)	64 (1.9)	19 (1.2)	2 (0.3)
Oregon †	33 (1.7)	67 (1.7)	26 (1.6) *	4 (0.7)	29 (1.7)	71 (1.7)	32 (1.9)	6 (0.8)
Rhode Island	40 (1.6) *	60 (1.6) *	20 (1.3) *	3 (0.4)	36 (1.1)	64 (1.1)	24 (1.0)	4 (0.6)
South Carolina	52 (1.7) ‡	48 (1.7) ‡	14 (1.2) *	2 (0.4)	45 (1.9)	55 (1.9)	18 (1.2)	2 (0.4)
Tennessee	47 (1.8)	53 (1.8)	15 (1.3)	2 (0.3)	47 (1.9)	53 (1.9)	17 (1.4)	2 (0.4)
Texas	41 (1.8) ‡	59 (1.8) ‡	21 (1.5)	3 (0.4)	32 (1.8)	68 (1.8)	24 (1.4)	3 (0.5)
Utah	30 (1.5)	70 (1.5)	24 (1.3)	3 (0.4)	32 (1.4)	68 (1.4)	26 (1.2)	3 (0.4)
Vermont †	28 (1.7)	72 (1.7)	27 (1.4) *	4 (0.6) *	25 (1.7)	75 (1.7)	32 (1.5)	6 (0.6)
Virginia	42 (2.0) ‡	58 (2.0) ‡	21 (1.2) *	3 (0.4) *	33 (2.0)	67 (2.0)	26 (1.5)	5 (0.7)
West Virginia	46 (1.6) ‡	54 (1.6) ‡	14 (0.9) ‡	1 (0.4) *	38 (1.2)	62 (1.2)	18 (0.9)	2 (0.4)
Wyoming	32 (1.2)	68 (1.2)	22 (1.0) *	2 (0.6)	30 (1.4)	70 (1.4)	25 (1.1)	4 (0.5)
Other Jurisdictions								
American Samoa	—	—	—	—	93 (2.1)	7 (2.1)	1 (****)	▲ (****)
District of Columbia	80 (1.2)	20 (1.2)	5 (0.8)	1 (0.3)	77 (2.0)	23 (2.0)	6 (0.8)	1 (0.4)
DDESS	43 (3.1) *	57 (3.1) *	21 (2.4)	5 (1.1)	33 (2.9)	67 (2.9)	27 (2.8)	6 (1.4)
DoDDS	35 (1.4) ‡	65 (1.4) ‡	23 (1.2) *	3 (0.6)	29 (1.4)	71 (1.4)	27 (1.2)	4 (0.7)
Guam	71 (1.6) *	29 (1.6) *	6 (0.8)	▲ (****)	76 (1.5)	24 (1.5)	4 (0.8)	1 (0.3)

Standard errors of the estimated percentages appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined.

‡ Significantly different from 2000 when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.

(****) Standard error estimates cannot be accurately determined.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

— Indicates that the jurisdiction did not participate.

▲ Percentage is between 0.0 and 0.5.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.12: Data for Figure 3.1 National Scale Score Results by Gender

Percentage of students and average mathematics scale scores by gender, grades 4, 8, and 12: 1990–2000

		Male	Female
Grade 12	1990	48 (1.0) 297 (1.4) *	52 (1.0) 291 (1.3) *
	1992	49 (0.8) 301 (1.1)	51 (0.8) 298 (1.0)
	1996	48 (0.9) 305 (1.1)	52 (0.9) 303 (1.1) *
	2000	49 (0.6) 303 (1.1)	51 (0.6) 299 (0.9)
Grade 8	1990	51 (1.0) 263 (1.6) *	49 (1.0) 262 (1.3) *
	1992	51 (0.6) 268 (1.1) *	49 (0.6) 269 (1.0) *
	1996	52 (0.8) 272 (1.4) *	48 (0.8) 272 (1.1)
	2000	51 (0.5) 277 (0.9)	49 (0.5) 274 (0.9)
Grade 4	1990	52 (1.0) 214 (1.2) *	48 (1.0) 213 (1.1) *
	1992	50 (0.6) 221 (0.8) *	50 (0.6) 219 (1.0) *
	1996	51 (0.7) 226 (1.1) *	49 (0.7) 222 (1.0) *
	2000	51 (0.7) 229 (1.0)	49 (0.7) 226 (0.9)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
* Significantly different from 2000.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.13: Data for Figure 3.2 National Achievement Level Results by Gender

Percentage of students within each mathematics achievement level range and at or above achievement levels by gender, grades 4, 8, and 12: 1990–2000

		Below *Basic*	At *Basic*	At *Proficient*	At *Advanced*	At or above *Basic*	At or above *Proficient*
Grade 4							
Male	1990	49 (1.7) *	38 (1.8)	12 (1.3) *	2 (0.6) *	51 (1.7) *	13 (1.5) *
	1992	40 (1.1) *	41 (1.4)	17 (1.0) *	2 (0.3) *	60 (1.1) *	19 (1.1) *
	1996	35 (1.6) *	41 (1.6)	21 (1.0) *	3 (0.4)	65 (1.6) *	24 (1.1) *
	2000	30 (1.1)	41 (1.0)	25 (1.0)	3 (0.4)	70 (1.1)	28 (1.2)
Female	1990	51 (1.9) *	36 (2.0) *	12 (1.3) *	1 (0.4) *	49 (1.9) *	12 (1.3) *
	1992	43 (1.6) *	41 (1.4)	15 (1.3) *	1 (0.3)	57 (1.6) *	16 (1.3) *
	1996	37 (1.6) *	44 (1.3)	17 (1.0) *	1 (0.3)	63 (1.6) *	19 (1.1) *
	2000	32 (1.2)	44 (0.9)	22 (1.1)	2 (0.3)	68 (1.2)	24 (1.2)
Grade 8							
Male	1990	48 (1.9) *	35 (1.6)	14 (1.3) *	2 (0.5) *	52 (1.9) *	17 (1.5) *
	1992	43 (1.4) *	36 (1.1)	18 (1.1) *	3 (0.5) *	57 (1.4) *	21 (1.3) *
	1996	38 (1.7) *	37 (1.8)	20 (1.2)	4 (0.7)	62 (1.7) *	25 (1.5) *
	2000	33 (0.9)	37 (1.0)	24 (0.8)	6 (0.6)	67 (0.9)	29 (1.1)
Female	1990	48 (1.5) *	38 (1.4)	12 (1.0) *	2 (0.4) *	52 (1.5) *	14 (1.1) *
	1992	42 (1.4) *	37 (1.1)	18 (1.0) *	3 (0.4)	58 (1.4) *	21 (1.2) *
	1996	37 (1.3)	41 (1.2)	19 (1.0)	3 (0.6)	63 (1.3)	23 (1.2)
	2000	35 (1.0)	40 (0.8)	21 (0.8)	4 (0.5)	65 (1.0)	25 (1.0)
Grade 12							
Male	1990	40 (1.8) *	45 (1.7)	13 (1.2) *	2 (0.6)	60 (1.8) *	15 (1.4) *
	1992	35 (1.3)	48 (1.2)	15 (0.8)	2 (0.4)	65 (1.3)	17 (1.0)
	1996	30 (1.4) *	51 (1.3) *	16 (1.2)	3 (0.4)	70 (1.4) *	18 (1.3)
	2000	34 (1.3)	46 (1.1)	17 (0.8)	3 (0.5)	66 (1.3)	20 (1.0)
Female	1990	44 (1.8) *	47 (1.8)	8 (0.9) *	1 (0.2)	56 (1.8) *	9 (0.9) *
	1992	37 (1.3)	50 (1.2)	12 (0.9)	1 (0.2)	63 (1.3)	13 (1.0)
	1996	31 (1.5) *	54 (1.4) *	13 (1.1)	1 (0.3)	69 (1.5) *	14 (1.2)
	2000	36 (1.2)	50 (1.1)	13 (1.1)	1 (0.3)	64 (1.2)	14 (1.1)

Standard errors of the estimated percentages appear in parentheses.
* Significantly different from 2000.
NOTE: Percentages within each mathematics achievement level range may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.14: Data for Figure 3.3 National Scale Score Results by Race/Ethnicity

Percentage of students and average mathematics scale scores by race/ethnicity, grades 4, 8, and 12: 1990–2000

		White	Black	Hispanic	Asian/ Pacific Islander	American Indian
Grade 12	1990	74 (0.6) 301 (1.2) *	14 (0.5) 268 (1.9)	8 (0.2) 276 (2.8)	3 (0.3) 311 (5.2)	1 (0.3) **** (****)
	1992	71 (0.6) 306 (0.9)	15 (0.4) 276 (1.7)	9 (0.5) 284 (1.7)	4 (0.2) 316 (3.5)	1 (0.1) **** (****)
	1996	70 (0.5) 311 (1.0)	14 (0.4) 280 (2.2)	11 (0.4) 287 (1.8)	4 (0.4) 319 (4.8)	1 (0.6) 279 (8.9) !
	2000	70 (0.4) 308 (1.0)	14 (0.3) 274 (1.9)	11 (0.2) 283 (2.1)	5 (0.2) 319 (2.8)	1 (0.1) 293 (4.4)
Grade 8	1990	71 (0.3) 270 (1.4) *	15 (0.2) 238 (2.7) *	10 (0.2) 244 (2.8) *	2 (0.5) 279 (4.8) !	2 (0.6) 246 (9.4) !
	1992	70 (0.2) 278 (1.0) *	16 (0.1) 238 (1.3) *	10 (0.2) 247 (1.2) *	3 (0.2) 288 (5.4)	1 (0.2) 255 (2.8)
	1996	69 (0.2) 282 (1.2) *	14 (0.2) 243 (2.0)	12 (0.1) 251 (2.0)	~	1 (0.2) 264 (3.0) !
	2000	67 (0.2) 286 (0.8)	13 (0.1) 247 (1.4)	14 (0.2) 253 (1.5)	4 (0.4) 289 (3.4)	2 (0.4) 255 (8.3) !
Grade 4	1990	70 (0.2) 220 (1.1) *	15 (0.1) 189 (1.8) *	10 (0.2) 198 (2.0) *	2 (0.2) 228 (3.5)	2 (0.2) 208 (3.9)
	1992	70 (0.2) 228 (0.9) *	16 (0.1) 193 (1.3) *	9 (0.2) 202 (1.4) *	2 (0.2) 232 (2.3)	1 (0.2) 211 (3.1)
	1996	68 (0.4) 232 (0.9)	15 (0.2) 200 (2.3)	13 (0.4) 206 (2.1)	3 (0.2) 232 (4.1)	2 (0.2) 216 (2.3)
	2000	66 (0.3) 236 (1.0)	14 (0.2) 205 (1.6)	15 (0.3) 212 (1.5)	~	2 (0.2) 216 (2.1)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
* Significantly different from 2000.
! The nature of the sample does not allow accurate determination of the variability of the statistic.
**** (****) Sample size is insufficient to permit a reliable estimate.
NOTE: Percentages may not add to 100 due to rounding.
~ Special analyses raised concerns about the accuracy and precision of national grade 8 Asian/Pacific Islander results in 1996 and grade 4 Asian/Pacific Islander results in 2000. As a result, they are omitted from the body of this report. See appendix A for a more detailed discussion.

Table B.15: Data for Figure 3.4 National Achievement Level Results by Race/Ethnicity

Percentage of students within each mathematics achievement level range and at or above achievement levels by race/ethnicity, grades 4, 8, and 12: 1990–2000

		Below *Basic*	At *Basic*	At *Proficient*	At *Advanced*	At or above *Basic*	At or above *Proficient*
Grade 4							
White	1990	41 (1.7) *	43 (2.0)	15 (1.5) *	2 (0.5) *	59 (1.7) *	16 (1.6) *
	1992	30 (1.2) *	47 (1.3)	21 (1.3) *	2 (0.3)	70 (1.2) *	23 (1.4) *
	1996	24 (1.4)	48 (1.0)	25 (1.1) *	3 (0.4)	76 (1.4)	28 (1.2) *
	2000	20 (1.1)	46 (1.2)	30 (1.2)	3 (0.4)	80 (1.1)	34 (1.4)
Black	1990	81 (2.4) *	17 (2.2) *	1 (0.5) *	▲ (****)	19 (2.4) *	1 (0.6) *
	1992	77 (1.8) *	20 (1.7) *	3 (0.7)	0 (****)	23 (1.8) *	3 (0.7) *
	1996	68 (3.2)	27 (2.4)	5 (1.4)	▲ (0.1)	32 (3.2)	5 (1.4)
	2000	61 (2.5)	33 (2.2)	5 (0.9)	▲ (****)	39 (2.5)	5 (0.9)
Hispanic	1990	69 (2.6) *	26 (2.6) *	5 (1.1) *	▲ (****)	31 (2.6) *	5 (1.1) *
	1992	65 (2.1) *	30 (2.0) *	5 (1.1) *	▲ (****)	35 (2.1) *	5 (1.1) *
	1996	59 (2.4)	34 (2.2)	7 (0.9)	▲ (****)	41 (2.4)	8 (1.0)
	2000	52 (2.1)	38 (1.7)	10 (1.3)	1 (0.2)	48 (2.1)	10 (1.3)
Asian/Pacific Islander	1990	35 (5.4)	42 (7.0)	21 (4.5)	3 (****)	65 (5.4)	23 (5.6)
	1992	25 (3.2)	45 (4.2)	26 (3.8)	4 (1.8)	75 (3.2)	30 (4.5)
	1996	27 (5.0)	47 (5.1)	21 (4.1)	5 (2.4)	73 (5.0)	26 (5.3)
	2000	~	~	~	~	~	~
American Indian	1990	56 (8.3)	39 (8.9)	4 (2.6) *	▲ (****)	44 (8.3)	5 (2.6) *
	1992	57 (4.8)	33 (5.2)	8 (3.5)	2 (0.9)	43 (4.8)	10 (3.6)
	1996	48 (5.7)	44 (5.5)	7 (2.7)	1 (****)	52 (5.7)	8 (2.5)
	2000	47 (5.8)	39 (6.2)	13 (2.7)	1 (****)	53 (5.8)	14 (2.9)
Grade 8							
White	1990	39 (1.6) *	42 (1.4)	16 (1.2) *	3 (0.5) *	61 (1.6) *	19 (1.3) *
	1992	31 (1.3) *	42 (0.8)	23 (1.0) *	4 (0.4) *	69 (1.3) *	27 (1.2) *
	1996	26 (1.3)	43 (1.2)	25 (1.0)	5 (0.7)	74 (1.3)	31 (1.4)
	2000	23 (0.9)	43 (1.0)	28 (1.0)	7 (0.6)	77 (0.9)	35 (1.2)
Black	1990	78 (2.4) *	18 (2.2) *	5 (1.1)	▲ (****)	22 (2.4) *	5 (1.0)
	1992	79 (2.0) *	19 (2.0) *	2 (0.6) *	▲ (****)	21 (2.0) *	2 (0.7) *
	1996	72 (2.8)	24 (2.6)	4 (0.9)	▲ (****)	28 (2.8)	4 (0.9)
	2000	68 (1.8)	27 (1.6)	5 (0.6)	▲ (0.2)	32 (1.8)	6 (0.6)
Hispanic	1990	68 (3.1) *	27 (3.0)	4 (1.4) *	▲ (0.2)	32 (3.1) *	5 (1.3) *
	1992	66 (1.9) *	28 (1.8)	6 (0.9) *	1 (0.4)	34 (1.9) *	6 (0.8) *
	1996	61 (2.5)	30 (2.4)	8 (1.4)	1 (0.6)	39 (2.5)	9 (1.6)
	2000	59 (1.9)	32 (1.4)	9 (0.8)	1 (0.3)	41 (1.9)	10 (0.9)
Asian/Pacific Islander	1990	29 (5.8) !	39 (4.8) !	26 (5.5) !	5 (2.3) !	71 (5.8) !	32 (5.8) !
	1992	24 (4.6)	36 (4.3)	27 (4.6)	13 (3.9)	76 (4.6)	40 (6.8)
	1996	~	~	~	~	~	~
	2000	24 (3.5)	35 (3.4)	29 (2.8)	12 (2.6)	76 (3.5)	41 (3.7)
American Indian	1990	67 (10.2) !	27 (7.3) !	5 (****)	▲ (****)	33 (10.2) !	6 (****)
	1992	61 (5.8)	32 (4.6)	7 (3.1)	▲ (****)	39 (5.8)	7 (3.1)
	1996	49 (6.2) !	38 (7.0) !	11 (5.9) !	2 (****)	51 (6.2) !	13 (5.0) !
	2000	58 (9.6) !	34 (6.9) !	8 (3.8) !	▲ (****)	42 (9.6) !	9 (3.9) !

See footnotes at end of table. ▶

Table B.15: Data for Figure 3.4 National Achievement Level Results by Race/Ethnicity (continued)

Percentage of students within each mathematics achievement level range and at or above achievement levels by race/ethnicity, grades 4, 8, and 12: 1990–2000

		Below *Basic*	At *Basic*	At *Proficient*	At *Advanced*	At or above *Basic*	At or above *Proficient*
Grade 12							
White	1990	34 (1.8) *	51 (1.7)	13 (0.9) *	2 (0.4)	66 (1.8) *	14 (1.1) *
	1992	28 (1.3)	54 (1.3)	16 (0.8)	2 (0.3)	72 (1.3)	18 (0.9)
	1996	21 (1.3)	59 (1.4) *	17 (1.1)	2 (0.4)	79 (1.3)	20 (1.3)
	2000	26 (1.2)	54 (1.2)	18 (1.1)	3 (0.4)	74 (1.2)	20 (1.2)
Black	1990	73 (2.7)	25 (2.6)	2 (0.8)	0 (****)	27 (2.7)	2 (0.8)
	1992	66 (2.6)	32 (2.5)	2 (0.6)	▲ (****)	34 (2.6)	2 (0.5)
	1996	62 (3.3)	34 (2.7)	4 (1.0)	▲ (0.1)	38 (3.3)	4 (1.0)
	2000	69 (2.6)	28 (2.4)	2 (0.6)	▲ (****)	31 (2.6)	3 (0.6)
Hispanic	1990	64 (3.9)	31 (3.8)	4 (1.2)	▲ (****)	36 (3.9)	4 (1.1)
	1992	55 (2.0)	40 (1.8)	5 (0.9)	▲ (****)	45 (2.0)	6 (0.9)
	1996	50 (3.6)	44 (3.8)	6 (1.1)	▲ (****)	50 (3.6)	6 (1.1)
	2000	56 (3.1)	39 (2.7)	4 (0.8)	▲ (0.1)	44 (3.1)	4 (0.7)
Asian/Pacific Islander	1990	25 (5.8)	52 (6.1)	19 (6.2)	5 (2.4)	75 (5.8)	23 (7.1)
	1992	19 (4.3)	51 (5.5)	26 (5.1)	4 (1.4)	81 (4.3)	30 (5.6)
	1996	19 (4.3)	48 (4.6)	26 (4.9)	7 (2.8)	81 (4.3)	33 (6.3)
	2000	20 (2.6)	46 (3.1)	28 (3.2)	7 (2.5)	80 (2.6)	34 (3.8)
American Indian	1990	**** (****)	**** (****)	**** (****)	**** (****)	**** (****)	**** (****)
	1992	**** (****)	**** (****)	**** (****)	**** (****)	**** (****)	**** (****)
	1996	66 (16.0) !	31 (13.7) !	3 (****)	▲ (****)	34 (16.0) !	3 (****)
	2000	43 (5.7)	47 (7.9)	10 (4.8)	▲ (****)	57 (5.7)	10 (4.8)

Standard errors of the estimated percentages appear in parentheses.
* Significantly different from 2000.
! The nature of the sample does not allow accurate determination of the variability of the statistic.
(****) Standard error estimates cannot be accurately determined.
**** (****) Sample size is insufficient to permit a reliable estimate.
▲ Percentage is between 0.0 and 0.5.
NOTE: Percentages within each mathematics achievement level range may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.
Special analyses raised concerns about the accuracy and precision of national grade 8 Asian/Pacific Islander results in 1996 and grade 4 Asian/Pacific Islander results in 2000. As a result, they are omitted from the body of this report. See appendix A for a more detailed discussion.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.16: Data for Figure 3.5 National Scale Score Differences by Gender

Gender gaps in average mathematics scale scores, grades 4, 8, and 12: 1990–2000

		Male-Female
Grade 4	1990	1 (1.7)
	1992	2 (1.2)
	1996	3 (1.5)
	2000	3 (1.3)
Grade 8	1990	1 (2.1)
	1992	-1 (1.5)
	1996	-1 (1.7)
	2000	3 (1.2)
Grade 12	1990	6 (1.9)
	1992	4 (1.4)
	1996	2 (1.6)
	2000	4 (1.5)

Standard errors of the estimated difference in scale scores appear in parentheses.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.17: Data for Figure 3.6 National Scale Score Differences by Race/Ethnicity

Racial/ethnic gaps in average mathematics scale scores, grades 4, 8, and 12: 1990–2000

		White-Black	White-Hispanic
Grade 4	1990	31 (2.1)	22 (2.2)
	1992	35 (1.6)	25 (1.6)
	1996	32 (2.5)	27 (2.3)
	2000	31 (1.9)	24 (1.8)
Grade 8	1990	32 (3.1)	27 (3.1)
	1992	40 (1.7)	31 (1.6)
	1996	39 (2.3)	31 (2.4)
	2000	39 (1.6)	33 (1.8)
Grade 12	1990	33 (2.3)	25 (3.1)
	1992	30 (1.9)	22 (2.0)
	1996	31 (2.4)	24 (2.1)
	2000	34 (2.2)	26 (2.4)

Standard errors of the estimated difference in scale scores appear in parentheses.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.18: Data for Figure 3.7 National Scale Score Results by Parents' Education

Percentage of students and average mathematics scale scores by student-reported parents' highest level of education, grades 8 and 12: 1990–2000

		Less than High School	Graduated High School	Some education after High School	Graduated College	Unknown
Grade 12	1990	8 (0.7) 272 (2.1)	24 (1.1) 283 (2.0)	27 (1.0) 297 (1.2)	39 (1.4) 306 (1.6) *	2 (0.3) 269 (4.9)
	1992	6 (0.4) 278 (1.7)	21 (0.8) 288 (1.4)	26 (0.7) 299 (1.0)	43 (1.1) 311 (1.2)	3 (0.3) 277 (3.0)
	1996	6 (0.5) 282 (1.8)	19 (0.8) 294 (1.3) *	25 (0.8) 302 (0.8)	47 (1.5) 314 (1.3)	3 (0.2) 275 (2.4)
	2000	6 (0.4) 278 (1.9)	20 (0.6) 288 (1.2)	25 (0.6) 300 (1.2)	46 (1.1) 313 (1.1)	3 (0.2) 277 (2.8)
Grade 8	1990	9 (0.8) 242 (2.0) *	24 (1.1) 255 (1.6) *	17 (0.8) 267 (1.6) *	41 (1.8) 274 (1.5) *	9 (0.6) 241 (3.2) *
	1992	8 (0.5) 249 (1.7) *	24 (0.7) 257 (1.2) *	18 (0.5) 271 (1.1) *	42 (1.3) 281 (1.2) *	9 (0.4) 252 (1.6) *
	1996	7 (0.4) 254 (1.8)	22 (0.8) 261 (1.2)	19 (0.7) 279 (1.4)	42 (1.3) 282 (1.5)	11 (0.6) 254 (1.6)
	2000	7 (0.3) 255 (1.5)	20 (0.5) 264 (1.1)	18 (0.5) 279 (1.0)	45 (0.9) 287 (1.0)	11 (0.4) 256 (1.1)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
* Significantly different from 2000.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.19: Data for Figure 3.8 National Achievement Level Results by Parents' Education

Percentage of students within each mathematics achievement level range and at or above achievement levels by parents' highest level of education, grades 8 and 12: 1990–2000

		Below *Basic*	At *Basic*	At *Proficient*	At *Advanced*	At or above *Basic*	At or above *Proficient*
Grade 8							
Less than H.S.	1990	75 (3.4) *	21 (3.2) *	3 (1.1) *	▲ (****)	25 (3.4) *	3 (1.1) *
	1992	65 (3.1) *	29 (2.9)	6 (1.6)	1 (****)	35 (3.1) *	6 (1.6)
	1996	56 (2.6)	35 (2.6)	8 (2.1)	1 (****)	44 (2.6)	8 (2.1)
	2000	55 (2.3)	37 (2.3)	7 (1.3)	1 (0.3)	45 (2.3)	8 (1.4)
Graduated H.S.	1990	58 (2.0) *	33 (1.9) *	8 (1.3) *	▲ (****)	42 (2.0) *	9 (1.3) *
	1992	54 (1.9) *	36 (1.6)	9 (1.0) *	1 (0.4)	46 (1.9) *	10 (1.0) *
	1996	48 (2.0)	39 (2.0)	12 (1.3)	1 (0.4)	52 (2.0)	13 (1.3)
	2000	46 (1.3)	38 (1.2)	14 (1.3)	1 (0.4)	54 (1.3)	16 (1.3)
Some Educ After H.S.	1990	42 (2.6) *	43 (3.1)	13 (2.0) *	2 (0.8)	58 (2.6) *	16 (1.9) *
	1992	39 (1.7) *	41 (1.6)	17 (1.2) *	3 (0.6)	61 (1.7) *	20 (1.3) *
	1996	29 (2.0)	45 (1.9)	23 (1.8)	4 (0.8)	71 (2.0)	26 (1.8)
	2000	28 (1.5)	45 (1.9)	23 (1.3)	3 (0.9)	72 (1.5)	27 (1.5)
Graduated College	1990	34 (1.9) *	42 (1.8) *	20 (1.9) *	4 (0.7) *	66 (1.9) *	24 (2.1) *
	1992	29 (1.3) *	38 (1.3)	27 (1.3)	6 (0.8) *	71 (1.3) *	33 (1.7) *
	1996	27 (1.3)	38 (1.4)	28 (1.3)	7 (1.0)	73 (1.3)	35 (1.9)
	2000	23 (0.9)	37 (1.1)	31 (1.1)	9 (0.8)	77 (0.9)	39 (1.3)
Unknown	1990	70 (3.5) *	25 (3.4) *	5 (1.7) *	▲ (****)	30 (3.5) *	5 (1.7) *
	1992	61 (2.4) *	30 (2.7)	8 (1.2)	1 (****)	39 (2.4) *	9 (1.3)
	1996	58 (2.2)	32 (2.5)	9 (1.4)	1 (0.3)	42 (2.2)	10 (1.4)
	2000	55 (2.1)	34 (2.3)	10 (1.2)	1 (0.4)	45 (2.1)	11 (1.1)
Grade 12							
Less than H.S.	1990	73 (3.6)	25 (3.6)	3 (1.7)	0 (****)	27 (3.6)	3 (1.7)
	1992	62 (2.9)	35 (3.0)	3 (1.1)	▲ (****)	38 (2.9)	3 (1.2)
	1996	58 (3.3)	38 (3.4)	3 (1.1)	▲ (0.2)	42 (3.3)	3 (1.1)
	2000	62 (2.6)	36 (2.5)	2 (0.6)	▲ (****)	38 (2.6)	2 (0.6)
Graduated H.S.	1990	55 (2.8)	40 (2.7)	5 (1.0)	▲ (0.3)	45 (2.8)	5 (1.1)
	1992	49 (1.9)	45 (1.6)	6 (0.9)	▲ (****)	51 (1.9)	6 (0.9)
	1996	42 (2.2)	50 (2.3)	7 (1.1)	1 (0.3)	58 (2.2)	7 (1.2)
	2000	49 (2.0)	45 (2.0)	6 (0.8)	▲ (0.2)	51 (2.0)	6 (0.8)
Some Educ After H.S.	1990	37 (1.7)	51 (2.2)	10 (1.4)	1 (0.5)	63 (1.7)	11 (1.4)
	1992	37 (1.8)	51 (1.6)	11 (1.0)	1 (0.4)	63 (1.8)	12 (1.0)
	1996	30 (1.2)	59 (1.4)	10 (0.9)	1 (0.4)	70 (1.2)	12 (0.9)
	2000	34 (1.9)	53 (1.7)	11 (0.9)	1 (0.4)	66 (1.9)	12 (0.9)
Graduated College	1990	29 (1.9) *	53 (1.9)	16 (1.5) *	3 (0.6)	71 (1.9) *	19 (1.8) *
	1992	23 (1.4)	53 (1.5)	20 (1.1)	3 (0.6)	77 (1.4)	23 (1.3)
	1996	21 (1.5)	54 (1.4)	22 (1.3)	3 (0.5)	79 (1.5)	25 (1.6)
	2000	23 (1.1)	50 (1.2)	23 (1.3)	4 (0.7)	77 (1.1)	27 (1.5)
Unknown	1990	69 (6.8)	28 (6.6)	3 (1.9)	▲ (****)	31 (6.8)	3 (1.7)
	1992	64 (6.0)	34 (5.8)	3 (1.8)	0 (****)	36 (6.0)	3 (1.8)
	1996	64 (4.4)	35 (4.5)	1 (0.7)	0 (****)	36 (4.4)	1 (0.7)
	2000	66 (4.1)	29 (4.1)	5 (1.7)	▲ (****)	34 (4.1)	5 (1.6)

Standard errors of the estimated percentages appear in parentheses.
* Significantly different from 2000.
(****) Standard error estimates cannot be accurately determined.
▲ Percentage is between 0.0 and 0.5.
NOTE: Percentages within each mathematics achievement level range may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.20: Data for Figure 3.9 National Scale Score Results by Type of School

Percentage of students and average mathematics scale scores by type of school, grades 4, 8, and 12: 1990–2000

		Public	Nonpublic	Private Only	Catholic Only
Grade 12	1990	91 (2.0) 294 (1.2) *	9 (2.0) 300 (3.6) !*	3 (1.4) 298 (5.1) !*	5 (1.6) 301 (4.6) !*
	1992	87 (1.2) 297 (1.0)	13 (1.2) 314 (2.3)	4 (1.0) 320 (4.2) !	8 (1.3) 311 (2.5)
	1996	88 (1.5) 303 (0.9)	12 (1.5) 314 (2.2)	4 (0.8) 321 (4.2)	8 (1.3) 311 (2.1)
	2000	91 (0.5) 300 (1.1)	9 (0.5) 315 (1.2)	4 (0.3) 315 (1.8)	5 (0.4) 315 (1.5)
Grade 8	1990	92 (1.3) 262 (1.4) *	8 (1.3) 271 (2.5) *	3 (0.8) 272 (3.1) !*	5 (1.0) 271 (3.5) *
	1992	89 (0.9) 267 (1.0) *	11 (0.9) 281 (2.2) *	5 (0.7) 284 (4.0)	6 (0.7) 278 (2.1) *
	1996	89 (1.1) 271 (1.2) *	11 (1.1) 284 (2.4)	4 (0.8) 286 (3.7)	6 (0.8) 283 (3.1)
	2000	90 (0.4) 274 (0.8)	10 (0.4) 287 (1.2)	4 (0.3) 290 (1.4)	5 (0.4) 284 (1.6)
Grade 4	1990	89 (1.4) 212 (1.1) *	11 (1.4) 224 (2.6) *	4 (0.9) 233 (3.6) !	7 (1.2) 219 (3.0) *
	1992	88 (0.8) 219 (0.8) *	12 (0.8) 228 (1.1) *	4 (0.6) 230 (2.8) *	8 (0.7) 228 (1.2) *
	1996	89 (1.6) 222 (1.0) *	11 (1.6) 237 (1.9)	4 (0.8) 247 (2.8) !*	7 (1.2) 232 (2.2) *
	2000	89 (0.5) 226 (1.0)	11 (0.5) 238 (0.8)	5 (0.3) 239 (1.3)	6 (0.5) 238 (1.1)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
* Significantly different from 2000.
! The nature of the sample does not allow accurate determination of the variability of the statistic.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.21: Data for Figure 3.10 National Achievement Level Results by Type of School

Percentage of students within each mathematics achievement level range and at or above achievement levels by type of school, grades 4, 8, and 12: 1990–2000

		Below *Basic*	At *Basic*	At *Proficient*	At *Advanced*	At or above *Basic*	At or above *Proficient*
Grade 4							
Public	1990	52 (1.5) *	36 (1.6) *	11 (1.2) *	1 (0.4) *	48 (1.5) *	12 (1.3) *
	1992	43 (1.2) *	40 (1.1)	16 (1.1) *	2 (0.3)	57 (1.2) *	17 (1.1) *
	1996	38 (1.4) *	42 (1.1)	18 (0.9) *	2 (0.3)	62 (1.4) *	20 (1.0) *
	2000	33 (1.2)	42 (0.9)	22 (1.1)	2 (0.3)	67 (1.2)	25 (1.2)
Nonpublic	1990	35 (3.9) *	45 (2.7)	18 (2.3) *	2 (1.0)	65 (3.9) *	20 (2.8) *
	1992	29 (1.8) *	48 (2.2)	21 (1.5) *	2 (0.4) *	71 (1.8) *	22 (1.6) *
	1996	20 (2.2)	47 (1.7)	29 (1.9)	4 (1.2)	80 (2.2)	33 (2.2)
	2000	17 (1.1)	47 (1.0)	32 (1.0)	4 (0.4)	83 (1.1)	36 (1.1)
Private Only	1990	26 (5.8) !	46 (4.8) !	26 (3.9) !	3 (****)	74 (5.8) !	29 (5.1) !
	1992	28 (4.7) *	48 (4.6)	21 (3.4) *	3 (1.1)	72 (4.7) *	24 (3.7) *
	1996	11 (2.3) !	42 (3.4) !	38 (2.5) !	8 (2.9) !	89 (2.3) !	47 (3.8) !*
	2000	17 (1.6)	45 (1.5)	33 (1.6)	5 (0.7)	83 (1.6)	38 (1.8)
Catholic Only	1990	41 (4.5) *	44 (3.5)	14 (2.3) *	1 (0.6) *	59 (4.5) *	15 (2.5) *
	1992	30 (2.4) *	48 (2.7)	20 (1.6) *	2 (0.3)	70 (2.4) *	22 (1.6) *
	1996	24 (3.1)	50 (2.3)	24 (2.5) *	2 (0.7)	76 (3.1)	26 (2.5) *
	2000	17 (1.5)	48 (1.4)	31 (1.3)	3 (0.6)	83 (1.5)	34 (1.5)
Grade 8							
Public	1990	49 (1.5) *	36 (1.2)	13 (1.0) *	2 (0.4) *	51 (1.5) *	15 (1.1) *
	1992	44 (1.2) *	36 (0.8)	17 (0.8) *	3 (0.4) *	56 (1.2) *	20 (1.0) *
	1996	39 (1.3) *	38 (1.1)	19 (0.9)	4 (0.6)	61 (1.3) *	23 (1.2)
	2000	35 (0.9)	38 (0.9)	21 (0.8)	5 (0.5)	65 (0.9)	26 (1.0)
Nonpublic	1990	37 (4.1) *	46 (4.0)	16 (2.0) *	1 (0.5) *	63 (4.1) *	17 (2.0) *
	1992	29 (2.5) *	41 (1.9)	26 (2.0)	5 (0.9)	71 (2.5) *	31 (2.5) *
	1996	25 (2.8)	42 (2.4)	28 (2.3)	6 (1.2)	75 (2.8)	33 (2.9)
	2000	21 (1.3)	42 (1.0)	31 (1.0)	6 (0.6)	79 (1.3)	37 (1.3)
Private Only	1990	36 (5.5) !*	45 (6.7) !	17 (3.7) !*	1 (****)	64 (5.5) !*	19 (4.0) !*
	1992	27 (4.3)	37 (2.6)	30 (4.2)	7 (1.7)	73 (4.3)	37 (5.0)
	1996	25 (4.2)	39 (3.8)	27 (3.5)	8 (2.3)	75 (4.2)	36 (4.7)
	2000	19 (1.6)	40 (1.9)	33 (1.3)	8 (0.9)	81 (1.6)	42 (1.9)
Catholic Only	1990	37 (5.6) *	47 (4.5)	14 (2.5) *	1 (0.7) *	63 (5.6) *	16 (2.5) *
	1992	30 (2.8)	43 (2.2)	24 (2.3)	3 (0.9)	70 (2.8)	27 (2.3) *
	1996	25 (3.9)	43 (2.5)	28 (3.1)	4 (0.9)	75 (3.9)	32 (3.5)
	2000	23 (1.8)	44 (1.4)	28 (1.4)	5 (0.8)	77 (1.8)	33 (1.8)
Grade 12							
Public	1990	43 (1.7) *	46 (1.7)	10 (0.8) *	1 (0.3)	57 (1.7) *	12 (1.0) *
	1992	39 (1.3)	48 (1.0)	12 (0.7)	1 (0.3)	61 (1.3)	13 (0.8)
	1996	32 (1.3) *	52 (1.1) *	13 (0.8)	2 (0.3)	68 (1.3) *	15 (1.0)
	2000	37 (1.2)	48 (1.0)	14 (0.9)	2 (0.4)	63 (1.2)	16 (1.0)
Nonpublic	1990	35 (4.8) !*	53 (3.9) !	11 (2.3) !*	1 (0.8) !	65 (4.8) !*	12 (2.6) !*
	1992	19 (2.5)	55 (2.2)	22 (2.4)	3 (0.6)	81 (2.5)	25 (2.6)
	1996	18 (2.5)	58 (2.0)	22 (2.0)	2 (0.9)	82 (2.5)	24 (2.4)
	2000	19 (1.3)	55 (1.0)	23 (1.1)	3 (0.5)	81 (1.3)	26 (1.2)
Private Only	1990	39 (7.6) !*	51 (6.5) !	8 (3.2) !*	1 (****)	61 (7.6) !*	10 (4.1) !*
	1992	16 (4.1) !	50 (3.5) !	29 (4.6) !	5 (1.5) !	84 (4.1) !	34 (5.4) !
	1996	14 (4.0)	56 (1.5)	27 (3.4)	3 (2.2)	86 (4.0)	30 (4.2)
	2000	20 (2.1)	53 (1.7)	23 (1.9)	4 (0.9)	80 (2.1)	27 (1.9)
Catholic Only	1990	33 (5.7) !*	53 (4.4) !	13 (3.0) !*	1 (0.6) !	67 (5.7) !*	14 (3.4) !*
	1992	21 (2.8)	58 (2.2)	19 (2.7)	2 (0.7)	79 (2.8)	21 (2.6)
	1996	21 (2.8)	59 (2.8)	19 (2.3)	2 (1.0)	79 (2.8)	20 (2.6)
	2000	19 (1.6)	56 (1.2)	23 (1.3)	3 (0.5)	81 (1.6)	25 (1.5)

Standard errors of the estimated percentages appear in parentheses.
* Significantly different from 2000.
! The nature of the sample does not allow accurate determination of the variability of the statistic.
(****) Standard error estimates cannot be accurately determined.
NOTE: Percentages within each mathematics achievement level range may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.22: Data for Table 3.1 National Scale Score Results by Type of Location

Percentage of students and average mathematics scale scores by type of location, grades 4, 8, and 12: 2000

	Central city	Urban fringe/large town	Rural/small town
Grade 12	27 (2.0)	48 (3.4)	25 (2.9)
	298 (1.8)	304 (1.4)	300 (1.9)
Grade 8	30 (1.3)	45 (2.0)	25 (1.9)
	268 (1.8)	280 (1.4)	276 (1.9)
Grade 4	31 (1.7)	46 (2.3)	23 (1.9)
	222 (1.6)	232 (1.5)	227 (1.7)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Table B.23: Data for Figure 3.11 National Achievement Level Results by Type of Location

Percentage of students within each mathematics achievement level range and at or above achievement levels by type of location, grades 4, 8, and 12: 2000

	Below *Basic*	At *Basic*	At *Proficient*	At *Advanced*	At or above *Basic*	At or above *Proficient*
Grade 4						
Central city	39 (2.2)	40 (1.4)	19 (1.4)	2 (0.3)	61 (2.2)	21 (1.6)
Urban fringe/large town	26 (1.7)	42 (1.3)	28 (1.4)	4 (0.5)	74 (1.7)	31 (1.7)
Rural/small town	30 (2.5)	47 (2.0)	21 (2.1)	2 (0.5)	70 (2.5)	23 (2.1)
Grade 8						
Central city	44 (1.9)	33 (1.2)	18 (1.3)	5 (0.8)	56 (1.9)	23 (1.8)
Urban fringe/large town	29 (1.5)	40 (1.4)	25 (1.2)	6 (0.6)	71 (1.5)	31 (1.6)
Rural/small town	33 (2.0)	41 (1.6)	22 (1.7)	4 (0.9)	67 (2.0)	26 (2.0)
Grade 12						
Central city	40 (2.2)	45 (1.5)	14 (1.0)	2 (0.5)	60 (2.2)	16 (1.2)
Urban fringe/large town	32 (1.6)	48 (1.6)	16 (1.3)	3 (0.6)	68 (1.6)	19 (1.5)
Rural/small town	35 (2.5)	52 (2.0)	12 (1.6)	1 (0.4)	65 (2.5)	13 (1.6)

Standard errors of the estimated percentages appear in parentheses.
NOTE: Percentages within each mathematics achievement level range may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Table B.24: Data for Figure 3.12 National Scale Score Results by Free/Reduced-Price Lunch Eligibility

Percentage of students and average mathematics scale scores by student eligibility for free/reduced-price lunch program, grades 4, 8, and 12: 1996–2000

		Eligible	Not Eligible	Info Not Available
Grade 12	1996	13 (1.3) 281 (1.6)	60 (3.7) 307 (1.3)	27 (3.8) 308 (1.9)
	2000	13 (1.0) 280 (1.8)	59 (3.4) 305 (1.4)	28 (3.6) 304 (1.5)
Grade 8	1996	27 (1.4) 252 (1.5)	55 (2.4) 280 (1.4) *	17 (2.9) 280 (2.9)
	2000	26 (1.0) 255 (1.3)	53 (1.6) 285 (1.1)	21 (1.9) 278 (1.3)
Grade 4	1996	31 (1.4) 207 (1.9)	53 (2.5) 231 (1.0) *	16 (3.0) 233 (3.1)
	2000	32 (1.0) 210 (1.0)	49 (2.2) 236 (1.2)	18 (2.2) 237 (1.6)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
* Significantly different from 2000.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.25: Data for Figure 3.13 National Achievement Level Results by Free/Reduced-Price Lunch

Percentage of students within each mathematics achievement level range and at or above achievement levels by student eligibility for the free/reduced-price lunch program, grades 4, 8, and 12: 1996–2000

		Below *Basic*	At *Basic*	At *Proficient*	At *Advanced*	At or above *Basic*	At or above *Proficient*
Grade 4							
Eligible	1996	58 (2.6)	33 (1.9)	8 (1.2)	▲ (0.3)	42 (2.6)	9 (1.1)
	2000	54 (1.5)	37 (1.2)	8 (0.8)	▲ (0.1)	46 (1.5)	9 (0.8)
Not Eligible	1996	26 (1.7)	48 (1.6)	23 (1.3) *	3 (0.6)	74 (1.7)	26 (1.3) *
	2000	21 (1.3)	46 (1.1)	30 (1.2)	4 (0.5)	79 (1.3)	33 (1.5)
Info Not Available	1996	25 (4.1)	46 (2.9)	26 (3.3)	3 (1.3)	75 (4.1)	30 (4.1)
	2000	20 (2.2)	44 (1.8)	32 (2.3)	4 (0.6)	80 (2.2)	36 (2.4)
Grade 8							
Eligible	1996	61 (1.8)	31 (1.6)	7 (1.0)	1 (0.3)	39 (1.8)	8 (1.1)
	2000	57 (1.8)	33 (1.6)	9 (0.8)	1 (0.2)	43 (1.8)	10 (0.9)
Not Eligible	1996	29 (1.5) *	42 (1.5)	25 (1.2)	5 (0.8)	71 (1.5) *	30 (1.6)
	2000	24 (1.0)	41 (1.0)	28 (1.1)	7 (0.7)	76 (1.0)	35 (1.4)
Info Not Available	1996	29 (3.1)	40 (2.2)	25 (2.7)	6 (1.2)	71 (3.1)	30 (3.5)
	2000	32 (1.8)	38 (1.7)	25 (1.5)	5 (0.7)	68 (1.8)	30 (1.4)
Grade 12							
Eligible	1996	60 (2.4)	36 (2.2)	4 (0.8)	▲ (****)	40 (2.4)	4 (0.8)
	2000	60 (2.8)	36 (2.6)	4 (0.8)	▲ (****)	40 (2.8)	4 (0.8)
Not Eligible	1996	26 (1.4)	56 (1.2) *	16 (1.1)	3 (0.4)	74 (1.4)	18 (1.4)
	2000	31 (1.6)	50 (1.2)	16 (1.4)	3 (0.6)	69 (1.6)	19 (1.5)
Info Not Available	1996	26 (2.6)	55 (2.5)	17 (2.0)	2 (0.5)	74 (2.6)	18 (2.2)
	2000	31 (1.9)	51 (1.6)	16 (1.4)	2 (0.3)	69 (1.9)	18 (1.5)

Standard errors of the estimated percentages appear in parentheses.
* Significantly different from 2000.
(****) Standard error estimates cannot be accurately determined.
▲ Percentage is between 0.0 and 0.5.
NOTE: Percentages within each mathematics achievement level range may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.26: Data for Figure 3.14 State Scale Score Results by Gender, Grade 4

State average mathematics scale scores by gender for grade 4 public schools: 1992–2000

	Male			Female		
	1992	1996	2000	1992	1996	2000
Nation	220(0.9) *	224(1.2) *	227(1.1)	218(1.1) *	221(1.1) *	225(1.0)
Alabama	208(1.8) ‡	212(1.4) *	217(1.7)	208(1.6) ‡	212(1.3) ‡	219(1.4)
Arizona	215(1.3) ‡	218(2.1)	220(1.5)	216(1.1)	217(1.6)	218(1.7)
Arkansas	211(1.0) ‡	216(1.5)	217(1.4)	210(1.1) ‡	216(1.7)	217(1.3)
California †	209(1.9)	211(2.2)	213(2.0)	208(1.6) ‡	207(1.7) *	214(2.2)
Connecticut	228(1.3) ‡	234(1.2)	235(1.4)	225(1.3) ‡	230(1.3)	233(1.2)
Georgia	215(1.6) ‡	216(1.7)	220(1.4)	216(1.3)	215(1.5)	219(1.1)
Hawaii	213(1.7)	215(1.4)	214(1.3)	215(1.2)	215(2.0)	217(1.4)
Idaho †	223(1.1) *	—	227(1.5)	220(1.1) ‡	—	227(1.3)
Illinois †	—	—	227(2.2)	—	—	222(2.0)
Indiana †	222(1.4) ‡	231(1.3) *	235(1.2)	220(1.1) ‡	228(1.2) ‡	233(1.4)
Iowa †	230(1.1)	230(1.2) *	235(1.5)	229(1.2)	228(1.3)	231(1.4)
Kansas †	—	—	232(1.9)	—	—	232(1.7)
Kentucky	215(1.3) ‡	220(1.5)	222(1.5)	215(1.1) ‡	220(1.1)	220(1.2)
Louisiana	205(1.7) ‡	209(1.6) ‡	218(1.6)	204(1.6) ‡	210(1.0) ‡	218(1.4)
Maine †	232(1.2)	234(1.3)	232(1.3)	231(1.3)	231(1.2)	229(1.0)
Maryland	219(1.5)	222(1.6)	223(1.6)	216(1.6) ‡	220(1.7)	221(1.4)
Massachusetts	228(1.3) ‡	230(1.5) ‡	237(1.3)	225(1.3) ‡	228(1.4) ‡	233(1.1)
Michigan †	222(1.8) ‡	227(1.5) *	232(1.8)	217(1.9) ‡	225(1.4) *	230(1.7)
Minnesota †	229(1.1) ‡	234(1.3)	237(1.8)	228(1.1) ‡	231(1.3)	233(1.2)
Mississippi	201(1.3) ‡	208(1.5)	210(1.5)	203(1.3) ‡	209(1.4)	211(1.0)
Missouri	222(1.4) ‡	225(1.3)	229(1.5)	223(1.2) ‡	224(1.2) *	228(1.1)
Montana †	—	229(1.4)	232(2.1)	—	226(1.5)	228(2.4)
Nebraska	227(1.3)	228(1.5)	227(2.4)	224(1.5)	227(1.2)	225(1.6)
Nevada	—	220(1.6)	222(1.4)	—	216(1.6)	218(1.3)
New Mexico	213(1.7)	215(2.0)	216(1.8)	213(1.5)	213(2.0)	212(1.6)
New York †	222(1.3) ‡	224(1.4) *	228(1.4)	215(1.5) ‡	222(1.4)	225(1.6)
North Carolina	213(1.2) ‡	224(1.3) ‡	234(1.3)	213(1.3) ‡	224(1.3) ‡	231(1.0)
North Dakota	230(1.0)	232(1.5)	233(1.1)	227(0.9)	230(1.3)	229(1.2)
Ohio †	220(1.2) ‡	—	233(1.6)	217(1.5) ‡	—	228(1.3)
Oklahoma	221(1.1) ‡	—	226(1.6)	219(1.2) ‡	—	224(1.2)
Oregon †	—	224(1.6)	229(2.1)	—	223(1.5)	224(1.7)
Rhode Island	216(1.8) ‡	223(1.7)	225(1.8)	215(1.6) ‡	218(1.6) ‡	224(1.4)
South Carolina	213(1.4) ‡	214(1.3) ‡	221(1.7)	212(1.1) ‡	213(1.6) ‡	220(1.3)
Tennessee	211(1.5) ‡	220(1.6)	222(1.7)	211(1.5) ‡	218(1.5)	218(1.5)
Texas	219(1.4) ‡	229(1.4) *	235(1.5)	217(1.3) ‡	228(1.6)	231(1.2)
Utah	224(1.1)	228(1.3)	227(1.7)	224(1.2) ‡	225(1.4)	228(1.2)
Vermont †	—	226(1.5) *	232(2.0)	—	224(1.4) ‡	231(1.8)
Virginia	222(1.6) ‡	224(1.6) ‡	233(1.3)	219(1.4) ‡	221(1.4) ‡	228(1.5)
West Virginia	216(1.4) ‡	224(1.3)	226(1.4)	214(1.0) ‡	223(1.1)	223(1.3)
Wyoming	227(1.2)	224(1.6) *	230(1.8)	224(1.0) ‡	223(1.4) ‡	228(1.3)
Other Jurisdictions						
American Samoa	—	—	156(5.4)	—	—	157(4.0)
District of Columbia	193(1.0)	187(1.5) *	193(1.6)	192(0.9)	187(1.4) ‡	194(1.2)
DDESS	—	226(1.3)	230(1.5)	—	222(1.2)	226(1.6)
DoDDS	—	224(1.0) ‡	230(0.9)	—	222(0.9) *	226(1.2)
Guam	190(1.2) ‡	187(1.5)	181(3.0)	195(1.0) ‡	189(1.8)	187(2.8)
Virgin Islands	—	—	183(4.0)	—	—	183(2.5)

Standard errors of the estimated scale scores appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined.

‡ Significantly different from 2000 when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

— Indicates that the jurisdiction did not participate.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools. DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1996, and 2000 Mathematics Assessments.

Table B.27: Data for Figure 3.15 State Scale Score Results by Gender, Grade 8

State average mathematics scale scores by gender for grade 8 public schools: 1990–2000

	Male				Female			
	1990	1992	1996	2000	1990	1992	1996	2000
Nation	262 (1.7) *	266 (1.1) *	270 (1.5) *	276 (0.9)	261 (1.4) *	267 (1.1) *	271 (1.2)	273 (1.0)
Alabama	254 (1.5) ‡	253 (1.8) ‡	257 (2.9)	262 (1.9)	252 (1.3) ‡	251 (1.9) ‡	256 (1.8)	262 (2.2)
Arizona †	262 (1.5) ‡	266 (1.4) ‡	271 (1.5)	274 (1.7)	257 (1.5) ‡	265 (1.4)	265 (2.2)	268 (1.7)
Arkansas	257 (1.3) ‡	257 (1.4) ‡	261 (1.9)	262 (1.7)	255 (1.1) ‡	256 (1.3) ‡	262 (1.6)	261 (1.7)
California †	258 (1.6)	260 (1.9)	264 (2.4)	262 (2.4)	255 (1.3) ‡	262 (1.9)	261 (1.7)	262 (2.1)
Connecticut	271 (1.2) ‡	275 (1.4) ‡	280 (1.5)	284 (1.7)	269 (1.4) ‡	273 (1.3) ‡	279 (1.4)	279 (1.5)
Georgia	259 (1.7) ‡	261 (1.5) ‡	262 (1.8) *	268 (1.6)	258 (1.5) ‡	258 (1.2) ‡	263 (1.8)	265 (1.4)
Hawaii	248 (1.1) ‡	254 (1.1) ‡	259 (1.3)	261 (2.0)	254 (1.3) ‡	261 (1.2) *	266 (1.3)	264 (1.4)
Idaho †	272 (1.0) ‡	277 (1.1)	—	278 (1.5)	270 (0.9) ‡	273 (0.9)	—	278 (1.8)
Illinois †	261 (2.0) ‡	—	—	276 (1.6)	260 (1.7) ‡	—	—	278 (2.1)
Indiana †	270 (1.4) ‡	272 (1.4) ‡	276 (1.7) ‡	285 (1.6)	264 (1.4) ‡	268 (1.3) ‡	275 (1.5) *	281 (1.8)
Kansas †	—	—	—	285 (1.8)	—	—	—	283 (1.5)
Kentucky	259 (1.4) ‡	263 (1.4) ‡	267 (1.4) ‡	274 (1.6)	256 (1.2) ‡	261 (1.4) ‡	266 (1.2)	270 (1.9)
Louisiana	248 (1.4) ‡	252 (1.6) ‡	252 (1.8) ‡	261 (2.0)	245 (1.5) ‡	248 (2.0) ‡	253 (1.7) *	258 (1.6)
Maine †	—	279 (1.3) ‡	285 (1.4)	285 (1.7)	—	279 (1.2)	283 (1.4)	282 (1.4)
Maryland	261 (1.5) ‡	266 (1.6) ‡	271 (2.5)	276 (1.6)	261 (1.8) ‡	264 (1.5) ‡	269 (2.2) *	276 (1.7)
Massachusetts	—	274 (1.5) ‡	278 (2.1) *	285 (1.3)	—	272 (1.1) ‡	277 (2.0)	281 (1.5)
Michigan †	265 (1.4) ‡	270 (1.6) ‡	279 (2.0)	279 (1.8)	264 (1.3) ‡	265 (1.5) ‡	275 (2.0)	278 (1.8)
Minnesota †	276 (1.1) ‡	282 (1.4) ‡	285 (1.7)	288 (1.4)	275 (1.1) ‡	283 (1.0) *	283 (1.5)	288 (2.1)
Mississippi	—	248 (1.6) ‡	251 (1.4)	255 (1.7)	—	245 (1.4) ‡	250 (1.4)	253 (1.3)
Missouri	—	272 (1.5)	274 (1.5)	276 (1.6)	—	270 (1.4)	273 (1.6)	271 (1.7)
Montana †	283 (1.4)	—	283 (1.6)	287 (1.6)	278 (1.4) ‡	—	283 (1.7)	286 (1.8)
Nebraska	277 (1.4) ‡	278 (1.3) ‡	283 (1.4)	283 (1.5)	275 (1.4)	277 (1.4)	282 (1.1) ‡	278 (1.3)
Nevada	—	—	—	269 (1.2)	—	—	—	267 (1.1)
New Mexico	259 (1.1)	261 (1.3)	262 (1.8)	259 (2.2)	254 (1.0) ‡	258 (1.0)	262 (1.4)	260 (1.7)
New York †	262 (1.6) ‡	267 (2.3) ‡	272 (2.0) *	280 (2.2)	259 (1.7) ‡	266 (2.2) ‡	269 (1.8)	273 (2.3)
North Carolina	250 (1.3) ‡	259 (1.4) ‡	270 (1.9) ‡	282 (1.6)	251 (1.2) ‡	257 (1.4) ‡	266 (1.5) ‡	278 (1.1)
North Dakota	284 (1.5)	285 (1.3)	285 (1.1)	283 (1.6)	278 (1.6) ‡	282 (1.4)	284 (1.3)	284 (1.5)
Ohio	266 (1.3) ‡	270 (1.8) ‡	—	283 (1.6)	261 (1.2) ‡	267 (1.8) ‡	—	282 (1.7)
Oklahoma	266 (1.5) ‡	269 (1.2)	—	273 (1.7)	261 (1.5) ‡	267 (1.6)	—	270 (1.7)
Oregon †	272 (1.3) ‡	—	276 (1.7)	281 (2.1)	270 (1.0) ‡	—	277 (1.7)	280 (1.8)
Rhode Island	262 (1.0) ‡	266 (0.9) ‡	271 (1.2)	274 (1.3)	259 (1.0) ‡	266 (0.9) ‡	267 (1.4) ‡	273 (1.5)
South Carolina	—	261 (1.4) ‡	262 (1.8)	266 (1.7)	—	260 (1.0) ‡	259 (1.7) ‡	267 (1.7)
Tennessee	—	261 (1.7)	263 (1.8)	265 (2.1)	—	257 (1.5)	263 (1.5)	261 (1.7)
Texas	260 (1.8) ‡	267 (1.3) ‡	273 (1.7)	274 (2.0)	256 (1.4) ‡	262 (1.6) ‡	268 (1.7) ‡	276 (1.4)
Utah	—	276 (1.0)	278 (1.1)	275 (1.9)	—	273 (1.0)	275 (1.3)	276 (1.0)
Vermont †	—	—	281 (1.3)	283 (1.6)	—	—	278 (1.4) ‡	283 (1.3)
Virginia	266 (2.0) ‡	268 (1.6) ‡	273 (1.7) *	278 (1.9)	263 (1.4) ‡	267 (1.2) ‡	267 (1.8) ‡	276 (1.6)
West Virginia	256 (1.5) ‡	260 (1.1) ‡	264 (1.2) ‡	270 (1.5)	255 (1.1) ‡	259 (1.2) ‡	266 (1.3) ‡	271 (1.1)
Wyoming	274 (0.8)	275 (1.1)	276 (1.2)	277 (1.7)	270 (0.9) ‡	275 (1.2)	274 (1.3)	276 (1.3)
Other Jurisdictions								
American Samoa	—	—	—	190 (8.2)	—	—	—	200 (3.2)
District of Columbia	230 (1.2)	234 (1.2)	231 (2.2)	234 (2.0)	233 (1.0)	236 (1.4)	235 (1.5)	235 (3.0)
DDESS	—	—	271 (3.9)	279 (3.0)	—	—	267 (2.2)	275 (3.2)
DoDDS	—	—	276 (1.3) *	280 (1.2)	—	—	274 (1.9)	277 (1.6)
Guam	232 (1.4)	233 (1.5)	235 (2.7)	233 (2.9)	231 (1.1)	237 (1.5)	242 (2.4) *	234 (2.3)

Standard errors of the estimated scale scores appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined.

‡ Significantly different from 2000 when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

— Indicates that the jurisdiction did not participate.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.28: Data for Figure 3.16 State *Proficient* Level Achievement Results by Gender, Grade 4

State percentages of students at or above the *Proficient* level in mathematics by gender for grade 4 public schools: 1992–2000

	Male			Female		
	1992	1996	2000	1992	1996	2000
Nation	19 (1.2) *	22 (1.2) *	27 (1.3)	16 (1.4) *	17 (1.2) *	22 (1.3)
Alabama	10 (1.3) ‡	11 (1.3)	15 (1.6)	10 (1.4)	10 (1.2)	13 (1.5)
Arizona	13 (1.2)	17 (2.2)	18 (1.8)	13 (1.2)	13 (1.5)	16 (1.7)
Arkansas	10 (1.0) ‡	14 (1.7)	14 (1.3)	9 (1.1)	12 (1.6)	13 (1.7)
California †	13 (1.5)	12 (1.9)	14 (1.7)	12 (1.2)	9 (1.3) *	15 (1.8)
Connecticut	26 (1.7) ‡	34 (2.2)	34 (2.0)	23 (1.8) ‡	27 (2.0)	29 (1.8)
Georgia	16 (1.5)	15 (1.7)	19 (1.5)	14 (1.2)	11 (1.6) *	17 (1.2)
Hawaii	16 (1.3)	18 (1.3)	14 (1.4)	14 (1.0)	15 (1.4)	14 (1.4)
Idaho †	17 (1.1) *	—	23 (2.2)	14 (1.2) ‡	—	20 (1.8)
Illinois †	—	—	25 (2.9)	—	—	17 (2.6)
Indiana †	17 (1.5) ‡	26 (2.2) *	33 (1.9)	15 (1.1) ‡	21 (1.9) *	29 (2.1)
Iowa †	27 (1.6)	24 (1.7)	31 (2.5)	25 (1.4)	20 (1.9)	24 (1.8)
Kansas †	—	—	32 (2.3)	—	—	28 (2.6)
Kentucky	14 (1.6) *	17 (1.8)	19 (1.6)	12 (1.2) *	14 (1.2)	16 (1.5)
Louisiana	8 (0.9) ‡	8 (1.4) *	14 (1.7)	7 (1.0) ‡	7 (0.9) ‡	14 (1.5)
Maine †	28 (1.8)	29 (2.0)	27 (1.8)	27 (1.9)	26 (1.5)	22 (1.5)
Maryland	20 (1.6)	22 (2.0)	24 (1.7)	17 (1.5)	21 (2.1)	20 (1.8)
Massachusetts	25 (1.7) ‡	27 (2.4) *	36 (2.2)	21 (1.6) ‡	22 (1.9) ‡	31 (1.9)
Michigan †	21 (2.1) ‡	25 (1.7) *	31 (2.3)	15 (1.8) ‡	21 (1.8) *	28 (2.8)
Minnesota †	28 (1.5) ‡	32 (1.9)	38 (2.4)	24 (1.6) ‡	27 (1.6)	30 (1.8)
Mississippi	6 (0.9) ‡	9 (1.0)	10 (1.3)	6 (0.8)	7 (1.2)	8 (0.9)
Missouri	19 (1.6)	22 (1.5)	24 (1.9)	18 (2.0)	18 (1.7)	23 (1.7)
Montana †	—	25 (1.8)	29 (2.8)	—	19 (2.3)	20 (3.3)
Nebraska	24 (1.7)	26 (1.7)	25 (2.4)	20 (2.1)	22 (1.6)	23 (2.3)
Nevada	—	16 (1.8)	19 (1.7)	—	12 (1.1)	13 (1.4)
New Mexico	11 (1.1)	14 (1.6)	14 (1.5)	11 (2.0)	11 (1.3)	10 (1.2)
New York †	20 (1.6)	21 (1.6)	24 (1.8)	13 (1.4) ‡	18 (1.6)	20 (2.0)
North Carolina	13 (1.1) ‡	22 (1.5) ‡	30 (1.9)	12 (1.2) ‡	20 (1.6) *	26 (1.6)
North Dakota	24 (1.6)	26 (1.9)	29 (1.4)	20 (1.9)	22 (1.7)	22 (2.1)
Ohio †	18 (1.4) ‡	—	30 (2.9)	14 (1.5) ‡	—	22 (2.0)
Oklahoma	15 (1.7)	—	18 (1.7)	13 (1.3)	—	14 (1.3)
Oregon †	—	22 (1.7)	27 (2.6)	—	20 (1.6)	20 (2.0)
Rhode Island	15 (1.5) ‡	20 (1.7) *	26 (1.8)	12 (1.2) ‡	14 (1.5) *	20 (1.7)
South Carolina	14 (1.5) ‡	13 (1.6) ‡	20 (1.5)	12 (1.1) *	11 (1.5) *	15 (1.2)
Tennessee	10 (1.3) ‡	18 (1.9)	20 (1.9)	10 (1.1) ‡	15 (1.4)	16 (1.6)
Texas	17 (1.7) ‡	27 (2.0)	31 (2.3)	13 (1.5) ‡	24 (1.9)	24 (2.0)
Utah	19 (1.5) ‡	26 (1.7)	25 (1.8)	19 (1.4)	20 (1.6)	23 (1.7)
Vermont †	—	24 (1.5) *	31 (2.6)	—	21 (1.5) *	28 (2.8)
Virginia	20 (1.9) ‡	21 (2.0) *	29 (2.0)	17 (1.6)	17 (1.4)	22 (1.9)
West Virginia	14 (1.5) ‡	20 (1.6)	21 (2.2)	11 (1.0) ‡	18 (1.5)	15 (1.7)
Wyoming	21 (1.5) ‡	20 (1.8) *	27 (2.0)	17 (1.3) ‡	18 (1.2) *	23 (1.8)
Other Jurisdictions						
American Samoa	—	—	▲ (0.5)	—	—	▲ (0.4)
District of Columbia	6 (0.7)	6 (0.6)	6 (1.1)	5 (0.7)	4 (0.5)	5 (1.0)
DDESS	—	24 (2.1)	26 (2.3)	—	17 (1.6)	22 (2.3)
DoDDS	—	21 (1.5) *	26 (1.4)	—	17 (1.2)	19 (1.3)
Guam	4 (0.7)	4 (0.7)	3 (1.1)	5 (0.8) ‡	3 (0.8)	2 (0.7)
Virgin Islands	—	—	1 (0.7)	—	—	1 (0.8)

Standard errors of the estimated percentages appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined.

‡ Significantly different from 2000 when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

— Indicates that the jurisdiction did not participate.

▲ Percentage is between 0.0 and 0.5.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1996, and 2000 Mathematics Assessments.

Table B.29: Data for Figure 3.17 State *Proficient* Level Achievement Results by Gender, Grade 8

State percentages of students at or above the *Proficient* level in mathematics by gender for grade 8 public schools: 1990–2000

	Male				Female			
	1990	1992	1996	2000	1990	1992	1996	2000
Nation	17 (1.5) *	20 (1.3) *	24 (1.6) *	29 (1.2)	14 (1.2) *	20 (1.3) *	21 (1.4)	24 (1.0)
Alabama	10 (1.1) ‡	11 (1.3) ‡	14 (2.3)	17 (1.9)	8 (0.9) ‡	9 (1.2) ‡	11 (1.7)	15 (1.7)
Arizona †	15 (1.3) ‡	16 (1.6) ‡	20 (1.6)	24 (1.8)	10 (1.2) ‡	14 (1.5)	16 (1.3)	18 (1.9)
Arkansas	11 (0.9) ‡	11 (1.2) ‡	14 (1.4)	15 (1.5)	8 (1.0) ‡	9 (0.9)	12 (1.1)	13 (1.8)
California †	14 (1.5) ‡	16 (1.5)	19 (2.0)	19 (1.8)	11 (1.2) ‡	17 (1.8)	15 (1.4)	16 (1.7)
Connecticut	23 (1.4) ‡	27 (1.3) ‡	30 (2.1)	36 (1.9)	20 (1.4) ‡	24 (1.3) ‡	31 (1.6)	31 (1.7)
Georgia	15 (1.7) ‡	14 (1.3) ‡	17 (2.0)	20 (1.4)	13 (1.3) ‡	11 (1.1) ‡	14 (2.0)	17 (1.5)
Hawaii	11 (1.1) ‡	12 (1.0) ‡	15 (1.1)	17 (1.7)	12 (1.0)	15 (1.0)	17 (1.4)	16 (2.0)
Idaho †	20 (1.6) ‡	24 (1.7)	—	28 (2.5)	16 (1.4) ‡	19 (1.2) ‡	—	26 (1.9)
Illinois †	15 (1.5) ‡	—	—	26 (1.9)	14 (1.4) ‡	—	—	28 (2.2)
Indiana †	19 (1.6) ‡	22 (1.7) ‡	24 (2.0) ‡	35 (2.2)	14 (1.4) ‡	18 (1.5) ‡	23 (1.9)	27 (2.1)
Kansas †	—	—	—	37 (2.5)	—	—	—	32 (2.4)
Kentucky	11 (1.1) ‡	15 (1.6) ‡	17 (1.6) *	23 (1.7)	9 (0.8) ‡	13 (1.3) ‡	15 (1.5)	18 (1.9)
Louisiana	7 (0.9) ‡	7 (1.1) ‡	8 (1.3) *	14 (1.5)	4 (0.7) ‡	7 (1.2)	7 (1.3)	10 (1.3)
Maine †	—	27 (1.9) ‡	33 (2.1)	34 (2.2)	—	24 (1.9) ‡	29 (2.0)	30 (1.6)
Maryland	17 (1.3) ‡	21 (1.7) ‡	26 (2.8)	29 (1.8)	16 (1.4) ‡	19 (1.5) ‡	23 (2.3)	29 (1.8)
Massachusetts	—	26 (1.8) ‡	29 (2.2)	34 (1.6)	—	21 (1.5) ‡	26 (2.1)	30 (1.8)
Michigan †	17 (1.3) ‡	21 (1.9) ‡	30 (2.1)	30 (2.2)	15 (1.4) ‡	17 (1.6) ‡	27 (2.0)	27 (2.2)
Minnesota †	25 (1.5) ‡	32 (1.7) ‡	36 (2.4)	40 (2.0)	22 (1.4) ‡	31 (1.6) ‡	33 (1.9)	39 (2.2)
Mississippi	—	7 (1.0)	7 (0.9)	10 (1.2)	—	6 (0.9)	7 (1.0)	7 (1.1)
Missouri	—	21 (1.6)	23 (1.8)	24 (2.0)	—	18 (1.4)	21 (1.6)	20 (1.9)
Montana †	31 (2.0) ‡	—	33 (1.9)	38 (2.4)	22 (1.9) ‡	—	31 (2.3)	37 (2.6)
Nebraska	26 (1.8) ‡	28 (1.9)	32 (2.0)	34 (2.1)	23 (1.6)	25 (1.9)	30 (1.7)	27 (1.9)
Nevada	—	—	—	21 (1.5)	—	—	—	18 (1.2)
New Mexico	12 (1.2)	13 (1.2)	15 (1.5)	14 (1.5)	8 (1.3) ‡	9 (0.9) ‡	14 (1.4)	12 (1.1)
New York †	17 (1.3) ‡	21 (1.7) ‡	24 (1.6)	29 (2.2)	14 (1.1) ‡	19 (1.4)	20 (2.3)	23 (2.2)
North Carolina	9 (0.8) ‡	14 (1.4) ‡	23 (1.6) ‡	31 (1.9)	8 (0.9) ‡	10 (1.2) ‡	18 (1.6) ‡	29 (1.4)
North Dakota	30 (2.4)	31 (2.1)	34 (1.3)	32 (2.0)	24 (2.0) ‡	28 (1.9)	32 (2.4)	31 (2.0)
Ohio	17 (1.4) ‡	19 (1.8) ‡	—	33 (2.1)	13 (1.4) ‡	17 (1.9) ‡	—	29 (2.2)
Oklahoma	16 (1.5) ‡	18 (1.4)	—	21 (1.3)	11 (1.4) ‡	15 (1.8)	—	17 (1.6)
Oregon †	23 (1.5) ‡	—	26 (2.1) *	34 (2.3)	18 (1.2) ‡	—	26 (1.8)	29 (2.1)
Rhode Island	16 (1.2) ‡	17 (1.6) ‡	22 (1.6)	24 (1.5)	13 (1.0) ‡	15 (1.3) ‡	19 (1.5)	23 (1.5)
South Carolina	—	16 (1.3)	16 (1.5)	18 (1.7)	—	14 (1.4)	12 (1.3) *	18 (1.4)
Tennessee	—	14 (1.4) ‡	16 (1.6)	20 (1.7)	—	9 (1.1) ‡	14 (1.4)	14 (1.5)
Texas	14 (1.4) ‡	21 (1.4)	23 (1.9)	24 (2.1)	11 (1.4) ‡	16 (1.6) ‡	19 (1.9)	25 (1.8)
Utah	—	24 (1.5)	27 (1.6)	27 (1.7)	—	21 (1.2)	22 (1.5)	25 (1.3)
Vermont †	—	—	28 (2.1)	33 (2.1)	—	—	26 (1.8)	32 (1.9)
Virginia	19 (2.2) ‡	20 (1.6) ‡	24 (1.5)	28 (1.9)	15 (1.4) ‡	18 (1.3) ‡	18 (1.6)	23 (1.8)
West Virginia	10 (1.1) ‡	11 (1.2) ‡	14 (1.0) ‡	19 (1.4)	8 (1.1) ‡	9 (0.9) ‡	14 (1.2)	17 (1.5)
Wyoming	21 (1.4) ‡	21 (1.6)	24 (1.5)	26 (1.4)	16 (1.0) ‡	21 (1.6)	20 (1.4)	24 (1.6)
Other Jurisdictions								
American Samoa	—	—	—	1 (0.9)	—	—	—	1 (0.9)
District of Columbia	2 (0.6) ‡	4 (1.1)	6 (1.0)	6 (1.0)	4 (0.8)	5 (1.1)	5 (1.0)	6 (1.2)
DDESS	—	—	24 (2.8)	30 (3.0)	—	—	18 (3.6)	23 (4.6)
DoDDS	—	—	25 (1.7)	28 (1.9)	—	—	21 (2.3)	25 (2.0)
Guam	4 (0.8)	6 (1.0)	6 (1.3)	4 (1.1)	3 (0.7)	5 (1.0)	6 (1.0)	4 (1.3)

Standard errors of the estimated percentages appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined.

‡ Significantly different from 2000 when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

— Indicates that the jurisdiction did not participate.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.30: State Scale Score Differences by Gender, Grade 4

Gender gaps in state average mathematics scale scores for grade 4 public schools: 1992–2000

	Male-Female		
	1992	1996	2000
Nation	2 (1.4)	3 (1.7)	3 (1.5)
Alabama	▲ (2.4)	▲ (2.0)	-2 (2.3)
Arizona	-1 (1.7)	1 (2.7)	2 (2.2)
Arkansas	1 (1.5)	-1 (2.3)	▲ (1.9)
California †	1 (2.5)	3 (2.8)	-2 (3.0)
Connecticut	3 (1.8)	5 (1.8)	2 (1.9)
Georgia	-1 (2.1)	1 (2.3)	2 (1.8)
Hawaii	-3 (2.1)	▲ (2.4)	-3 (1.9)
Idaho †	3 (1.6)	—	1 (1.9)
Illinois †	—	—	5 (3.0)
Indiana †	3 (1.7)	4 (1.7)	2 (1.8)
Iowa †	1 (1.7)	2 (1.8)	3 (2.0)
Kansas †	—	—	1 (2.5)
Kentucky	▲ (1.7)	1 (1.9)	2 (1.9)
Louisiana	1 (2.3)	-1 (1.9)	1 (2.2)
Maine †	1 (1.8)	3 (1.8)	4 (1.6)
Maryland	4 (2.2)	2 (2.4)	2 (2.1)
Massachusetts	3 (1.9)	2 (2.0)	4 (1.7)
Michigan †	5 (2.6)	2 (2.0)	3 (2.5)
Minnesota †	1 (1.5)	3 (1.8)	4 (2.2)
Mississippi	-2 (1.8)	▲ (2.1)	-1 (1.8)
Missouri	-1 (1.9)	1 (1.7)	1 (1.9)
Montana †	—	3 (2.0)	4 (3.2)
Nebraska	3 (2.0)	▲ (1.9)	2 (2.9)
Nevada	—	4 (2.3)	4 (1.9)
New Mexico	▲ (2.2)	2 (2.8)	5 (2.4)
New York †	7 (2.0)	2 (2.0)	4 (2.1)
North Carolina	-1 (1.7)	▲ (1.9)	2 (1.6)
North Dakota	3 (1.4)	2 (2.0)	4 (1.6)
Ohio †	3 (1.9)	—	5 (2.1)
Oklahoma	2 (1.6)	—	3 (2.0)
Oregon †	—	▲ (2.2)	5 (2.7)
Rhode Island	2 (2.4)	5 (2.3)	1 (2.2)
South Carolina	1 (1.8)	1 (2.0)	2 (2.2)
Tennessee	▲ (2.1)	2 (2.2)	4 (2.3)
Texas	2 (2.0)	1 (2.1)	4 (1.9)
Utah	▲ (1.6)	3 (1.9)	-2 (2.1)
Vermont †	—	2 (2.1)	1 (2.7)
Virginia	2 (2.1)	3 (2.1)	6 (2.0)
West Virginia	2 (1.8)	1 (1.7)	3 (1.9)
Wyoming	3 (1.6)	1 (2.1)	2 (2.2)
Other Jurisdictions			
American Samoa	—	—	-2 (6.7)
District of Columbia	1 (1.3)	▲ (2.1)	-1 (2.0)
DDESS	—	5 (1.8)	4 (2.2)
DoDDS	—	2 (1.4)	4 (1.5)
Guam	-5 (1.6)	-2 (2.4)	-6 (4.1)
Virgin Islands	—	—	-1 (4.7)

Standard errors of the estimated difference in scale scores appear in parentheses.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

— Indicates that the jurisdiction did not participate.

▲ Difference is between −0.5 and 0.5.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1996 and 2000 Mathematics Assessments.

Table B.31: State Scale Score Differences by Gender, Grade 8

Gender gaps in state average mathematics scale scores for grade 8 public schools: 1990–2000

	Male-Female			
	1990	1992	1996	2000
Nation	1 (2.2)	-1 (1.6)	▲ (2.0)	3 (1.3)
Alabama	2 (2.0)	3 (2.6)	1 (3.4)	1 (2.9)
Arizona †	6 (2.1)	1 (2.0)	5 (2.6)	6 (2.4)
Arkansas	2 (1.7)	1 (1.9)	-1 (2.5)	▲ (2.4)
California †	3 (2.1)	-2 (2.6)	3 (2.9)	▲ (3.2)
Connecticut	3 (1.8)	2 (1.9)	▲ (2.1)	5 (2.3)
Georgia	1 (2.2)	3 (1.9)	-1 (2.6)	3 (2.1)
Hawaii	-6 (1.7)	-6 (1.6)	-7 (1.8)	-3 (2.4)
Idaho †	2 (1.3)	4 (1.4)	—	1 (2.3)
Illinois †	▲ (2.7)	—	—	-1 (2.7)
Indiana †	5 (2.0)	4 (1.9)	1 (2.3)	4 (2.4)
Kansas †	—	—	—	2 (2.3)
Kentucky	3 (1.8)	2 (2.0)	▲ (1.8)	4 (2.5)
Louisiana	3 (2.0)	4 (2.5)	-1 (2.5)	3 (2.5)
Maine †	—	▲ (1.7)	2 (2.0)	3 (2.2)
Maryland	▲ (2.3)	2 (2.2)	2 (3.3)	1 (2.3)
Massachusetts	—	2 (1.9)	2 (2.9)	4 (2.0)
Michigan †	1 (1.9)	5 (2.2)	4 (2.8)	1 (2.6)
Minnesota †	1 (1.6)	▲ (1.8)	3 (2.3)	▲ (2.5)
Mississippi	—	3 (2.1)	1 (2.0)	2 (2.1)
Missouri	—	2 (2.0)	1 (2.2)	4 (2.3)
Montana †	6 (1.9)	—	▲ (2.4)	▲ (2.4)
Nebraska	2 (2.0)	2 (1.9)	1 (1.7)	6 (2.0)
Nevada	—	—	—	2 (1.7)
New Mexico	6 (1.4) *	3 (1.7)	▲ (2.3)	-1 (2.8)
New York †	3 (2.3)	2 (3.2)	3 (2.7)	6 (3.2)
North Carolina	-1 (1.8)	2 (1.9)	3 (2.4)	3 (2.0)
North Dakota	6 (2.2) *	3 (1.9)	1 (1.7)	-1 (2.2)
Ohio	5 (1.8)	3 (2.5)	—	2 (2.3)
Oklahoma	5 (2.1)	3 (2.0)	—	4 (2.4)
Oregon †	2 (1.6)	—	-1 (2.4)	2 (2.7)
Rhode Island	3 (1.4)	▲ (1.3)	4 (1.8)	1 (2.0)
South Carolina	—	1 (1.7)	3 (2.5)	-1 (2.4)
Tennessee	—	5 (2.3)	1 (2.3)	4 (2.7)
Texas	4 (2.3)	5 (2.1) *	5 (2.4) *	-3 (2.5)
Utah	—	2 (1.4)	3 (1.7)	-1 (2.2)
Vermont †	—	—	3 (1.9)	▲ (2.1)
Virginia	3 (2.4)	1 (2.0)	6 (2.5)	2 (2.5)
West Virginia	1 (1.9)	1 (1.7)	-2 (1.8)	-1 (1.9)
Wyoming	5 (1.2)	▲ (1.7)	2 (1.7)	1 (2.1)
Other Jurisdictions				
American Samoa	—	—	—	-10 (8.8)
District of Columbia	-3 (1.6)	-2 (1.9)	-4 (2.6)	▲ (3.6)
DDESS	—	—	4 (4.5)	4 (4.4)
DoDDS	—	—	2 (2.3)	3 (2.0)
Guam	1 (1.8)	-5 (2.1)	-7 (3.6)	-2 (3.7)

Standard errors of the estimated difference in scale scores appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

— Indicates that the jurisdiction did not participate.

▲ Difference is between −0.5 and 0.5.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996 and 2000 Mathematics Assessments.

Table B.32: State Percentages of Students by Gender, Grade 4

State percentages of students by gender for grade 4 public schools: 1992–2000

	Male			Female		
	1992	1996	2000	1992	1996	2000
Nation	50 (0.7)	51 (0.7)	51 (0.7)	50 (0.7)	49 (0.7)	49 (0.7)
Alabama	51 (1.0)	50 (1.2)	50 (1.2)	49 (1.0)	50 (1.2)	50 (1.2)
Arizona	51 (1.1)	51 (1.0)	52 (1.0)	49 (1.1)	49 (1.0)	48 (1.0)
Arkansas	53 (1.0)	50 (1.2)	51 (1.1)	47 (1.0)	50 (1.2)	49 (1.1)
California †	52 (1.0)	51 (1.1)	50 (1.2)	48 (1.0)	49 (1.1)	50 (1.2)
Connecticut	49 (1.1)	50 (0.9)	51 (1.0)	51 (1.1)	50 (0.9)	49 (1.0)
Georgia	51 (1.0)	50 (1.0)	48 (0.9)	49 (1.0)	50 (1.0)	52 (0.9)
Hawaii	49 (1.0)	53 (1.2)	49 (1.1)	51 (1.0)	47 (1.2)	51 (1.1)
Idaho †	49 (0.8)	—	50 (1.2)	51 (0.8)	—	50 (1.2)
Illinois †	—	—	50 (1.6)	—	—	50 (1.6)
Indiana †	50 (1.0)	49 (1.0)	50 (1.2)	50 (1.0)	51 (1.0)	50 (1.2)
Iowa †	51 (0.9)	51 (1.0)	50 (1.2)	49 (0.9)	49 (1.0)	50 (1.2)
Kansas †	—	—	51 (1.6)	—	—	49 (1.6)
Kentucky	49 (0.9)	52 (1.1)	49 (1.2)	51 (0.9)	48 (1.1)	51 (1.2)
Louisiana	52 (1.0)	50 (1.0)	51 (1.0)	48 (1.0)	50 (1.0)	49 (1.0)
Maine †	49 (1.1)	50 (1.1)	50 (1.0)	51 (1.1)	50 (1.1)	50 (1.0)
Maryland	50 (1.1)	50 (0.9)	49 (1.2)	50 (1.1)	50 (0.9)	51 (1.2)
Massachusetts	51 (1.0)	52 (1.1)	50 (1.0)	49 (1.0)	48 (1.1)	50 (1.0)
Michigan †	52 (1.0)	51 (0.8)	50 (1.4)	48 (1.0)	49 (0.8)	50 (1.4)
Minnesota †	50 (0.9)	51 (1.1)	49 (1.2)	50 (0.9)	49 (1.1)	51 (1.2)
Mississippi	52 (0.7)	50 (1.1)	48 (1.0)	48 (0.7)	50 (1.1)	52 (1.0)
Missouri	52 (0.9)	50 (1.0)	49 (0.9)	48 (0.9)	50 (1.0)	51 (0.9)
Montana †	—	53 (1.0)	51 (1.9)	—	47 (1.0)	49 (1.9)
Nebraska	51 (0.9)	52 (0.9)	49 (1.6)	49 (0.9)	48 (0.9)	51 (1.6)
Nevada	—	50 (1.1)	51 (1.0)	—	50 (1.1)	49 (1.0)
New Mexico	47 (1.0)	48 (1.0)	50 (1.1)	53 (1.0)	52 (1.0)	50 (1.1)
New York †	52 (1.1)	50 (0.9)	48 (1.1)	48 (1.1)	50 (0.9)	52 (1.1)
North Carolina	51 (0.9)	50 (0.8)	49 (1.0)	49 (0.9)	50 (0.8)	51 (1.0)
North Dakota	53 (1.1)	50 (1.0)	51 (1.0)	47 (1.1)	50 (1.0)	49 (1.0)
Ohio †	51 (1.0)	—	50 (1.3)	49 (1.0)	—	50 (1.3)
Oklahoma	51 (1.1)	—	48 (1.1)	49 (1.1)	—	52 (1.1)
Oregon †	—	50 (1.0)	50 (1.4)	—	50 (1.0)	50 (1.4)
Rhode Island	51 (1.1)	52 (1.1)	50 (1.3)	49 (1.1)	48 (1.1)	50 (1.3)
South Carolina	50 (1.1)	50 (1.0)	52 (1.1)	50 (1.1)	50 (1.0)	48 (1.1)
Tennessee	52 (0.8)	51 (1.1)	50 (0.9)	48 (0.8)	49 (1.1)	50 (0.9)
Texas	49 (0.9)	51 (1.1)	47 (1.1)	51 (0.9)	49 (1.1)	53 (1.1)
Utah	51 (1.0)	50 (0.9)	52 (1.0)	49 (1.0)	50 (0.9)	48 (1.0)
Vermont †	—	51 (1.0)	49 (1.4)	—	49 (1.0)	51 (1.4)
Virginia	51 (1.0)	50 (0.9)	49 (1.0)	49 (1.0)	50 (0.9)	51 (1.0)
West Virginia	49 (0.9)	52 (1.1)	50 (1.0)	51 (0.9)	48 (1.1)	50 (1.0)
Wyoming	50 (1.0)	50 (1.3)	53 (1.2)	50 (1.0)	50 (1.3)	47 (1.2)
Other Jurisdictions						
American Samoa	—	—	46 (2.4)	—	—	54 (2.4)
District of Columbia	48 (0.9)	49 (1.2)	48 (1.1)	52 (0.9)	51 (1.2)	52 (1.1)
DDESS	—	50 (1.8)	52 (1.6)	—	50 (1.8)	48 (1.6)
DoDDS	—	50 (1.0)	50 (0.9)	—	50 (1.0)	50 (0.9)
Guam	52 (1.2)	52 (1.3)	50 (1.6)	48 (1.2)	48 (1.3)	50 (1.6)
Virgin Islands	—	—	53 (1.7)	—	—	47 (1.7)

Standard errors of the estimated percentages appear in parentheses.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

— Indicates that the jurisdiction did not participate.

NOTE: Percentages may not add to 100 due to rounding.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1996, and 2000 Mathematics Assessments.

Table B.33: State Percentages of Students by Gender, Grade 8

State percentages of students by gender for grade 8 public schools: 1990–2000

	Male				Female			
	1990	1992	1996	2000	1990	1992	1996	2000
Nation	51 (1.1)	52 (0.6)	52 (0.9)	50 (0.5)	49 (1.1)	48 (0.6)	48 (0.9)	50 (0.5)
Alabama	50 (1.0)	52 (1.0)	49 (0.9)	50 (1.0)	50 (1.0)	48 (1.0)	51 (0.9)	50 (1.0)
Arizona †	50 (0.9)	51 (1.0)	48 (1.0)	50 (1.0)	50 (0.9)	49 (1.0)	52 (1.0)	50 (1.0)
Arkansas	50 (1.1)	51 (1.0)	50 (1.3)	50 (1.1)	50 (1.1)	49 (1.0)	50 (1.3)	50 (1.1)
California †	51 (0.9)	49 (1.2)	49 (1.1)	51 (1.1)	49 (0.9)	51 (1.2)	51 (1.1)	49 (1.1)
Connecticut	48 (0.8)	50 (0.9)	51 (1.1)	52 (1.1)	52 (0.8)	50 (0.9)	49 (1.1)	48 (1.1)
Georgia	51 (0.8)	48 (1.0)	50 (0.9)	48 (1.1)	49 (0.8)	52 (1.0)	50 (0.9)	52 (1.1)
Hawaii	53 (1.0)	52 (1.2)	52 (1.0)	51 (1.1)	47 (1.0)	48 (1.2)	48 (1.0)	49 (1.1)
Idaho †	52 (1.2)	51 (1.0)	—	52 (1.2)	48 (1.2)	49 (1.0)	—	48 (1.2)
Illinois †	52 (1.1)	—	—	51 (1.3)	48 (1.1)	—	—	49 (1.3)
Indiana †	51 (0.9)	51 (1.0)	51 (1.2)	48 (1.3)	49 (0.9)	49 (1.0)	49 (1.2)	52 (1.3)
Kansas †	—	—	—	49 (1.3)	—	—	—	51 (1.3)
Kentucky	51 (1.1)	50 (1.0)	51 (1.0)	49 (1.1)	49 (1.1)	50 (1.0)	49 (1.0)	51 (1.1)
Louisiana	50 (1.1)	47 (1.0)	48 (1.0)	46 (1.0)	50 (1.1)	53 (1.0)	52 (1.0)	54 (1.0)
Maine †	—	51 (1.0)	50 (1.1)	50 (1.2)	—	49 (1.0)	50 (1.1)	50 (1.2)
Maryland	51 (0.8)	50 (1.0)	50 (1.0)	50 (1.0)	49 (0.8)	50 (1.0)	50 (1.0)	50 (1.0)
Massachusetts	—	50 (0.8)	52 (1.4)	51 (1.1)	—	50 (0.8)	48 (1.4)	49 (1.1)
Michigan †	52 (1.0)	48 (1.0)	50 (1.1)	49 (1.2)	48 (1.0)	52 (1.0)	50 (1.1)	51 (1.2)
Minnesota †	50 (1.0)	49 (1.0)	51 (1.0)	50 (1.5)	50 (1.0)	51 (1.0)	49 (1.0)	50 (1.5)
Mississippi	—	48 (1.0)	48 (1.1)	51 (1.0)	—	52 (1.0)	52 (1.1)	49 (1.0)
Missouri	—	52 (1.0)	49 (1.0)	51 (1.3)	—	48 (1.0)	51 (1.0)	49 (1.3)
Montana †	51 (1.4)	—	49 (0.9)	52 (1.1)	49 (1.4)	—	51 (0.9)	48 (1.1)
Nebraska	52 (1.2)	53 (1.2)	51 (1.0)	53 (1.1)	48 (1.2)	47 (1.2)	49 (1.0)	47 (1.1)
Nevada	—	—	—	49 (0.9)	—	—	—	51 (0.9)
New Mexico	50 (1.2)	50 (1.0)	48 (1.1)	50 (1.2)	50 (1.2)	50 (1.0)	52 (1.1)	50 (1.2)
New York †	49 (1.3)	49 (1.2)	50 (1.1)	46 (1.2)	51 (1.3)	51 (1.2)	50 (1.1)	54 (1.2)
North Carolina	51 (1.0)	50 (0.9)	48 (1.2)	49 (1.2)	49 (1.0)	50 (0.9)	52 (1.2)	51 (1.2)
North Dakota	51 (1.6)	51 (1.1)	51 (1.2)	52 (1.1)	49 (1.6)	49 (1.1)	49 (1.2)	48 (1.1)
Ohio	53 (0.9)	50 (1.1)	—	50 (1.2)	47 (0.9)	50 (1.1)	—	50 (1.2)
Oklahoma	50 (0.8)	50 (1.0)	—	51 (1.0)	50 (0.8)	50 (1.0)	—	49 (1.0)
Oregon †	52 (0.9)	—	51 (1.0)	52 (1.2)	48 (0.9)	—	49 (1.0)	48 (1.2)
Rhode Island	50 (0.9)	50 (0.8)	49 (1.2)	51 (1.0)	50 (0.9)	50 (0.8)	51 (1.2)	49 (1.0)
South Carolina	—	50 (0.9)	47 (1.1)	49 (1.1)	—	50 (0.9)	53 (1.1)	51 (1.1)
Tennessee	—	50 (1.1)	50 (1.1)	49 (0.9)	—	50 (1.1)	50 (1.1)	51 (0.9)
Texas	50 (1.0)	49 (0.9)	47 (1.3)	51 (1.2)	50 (1.0)	51 (0.9)	53 (1.3)	49 (1.2)
Utah	—	52 (1.2)	50 (0.9)	49 (1.0)	—	48 (1.2)	50 (0.9)	51 (1.0)
Vermont †	—	—	51 (1.4)	51 (1.3)	—	—	49 (1.4)	49 (1.3)
Virginia	49 (0.9)	50 (0.7)	50 (1.2)	49 (1.1)	51 (0.9)	50 (0.7)	50 (1.2)	51 (1.1)
West Virginia	52 (1.1)	49 (1.0)	50 (1.1)	51 (1.2)	48 (1.1)	51 (1.0)	50 (1.1)	49 (1.2)
Wyoming	51 (0.8)	50 (1.0)	51 (0.8)	50 (1.2)	49 (0.8)	50 (1.0)	49 (0.8)	50 (1.2)
Other Jurisdictions								
American Samoa	—	—	—	46 (2.1)	—	—	—	54 (2.1)
District of Columbia	47 (0.9)	49 (1.4)	47 (1.5)	47 (1.2)	53 (0.9)	51 (1.4)	53 (1.5)	53 (1.2)
DDESS	—	—	52 (2.1)	50 (1.9)	—	—	48 (2.1)	50 (1.9)
DoDDS	—	—	52 (1.2)	50 (1.2)	—	—	48 (1.2)	50 (1.2)
Guam	51 (1.2)	52 (1.2)	53 (1.4)	47 (1.4)	49 (1.2)	48 (1.2)	47 (1.4)	53 (1.4)

Standard errors of the estimated percentages appear in parentheses.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

— Indicates that the jurisdiction did not participate.

NOTE: Percentages may not add to 100 due to rounding.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.34: Data for Figure 3.18 State Scale Score Results by Race/Ethnicity, Grade 4

State average mathematics scale scores by race/ethnicity for grade 4 public schools: 1992–2000

	White			Black			Hispanic		
	1992	1996	2000	1992	1996	2000	1992	1996	2000
Nation	227 (1.0) *	231 (1.1)	235 (1.1)	192 (1.4) *	200 (2.4)	205 (1.7)	201 (1.5) *	205 (2.2)	211 (1.6)
Alabama	219 (1.5) ‡	223 (1.3) ‡	229 (1.4)	189 (1.1) ‡	194 (1.5) ‡	205 (1.3)	193 (3.9)	196 (3.1)	201 (3.3)
Arizona	226 (0.8) ‡	228 (1.6)	231 (1.3)	199 (3.6)	200 (3.7)	208 (3.5)	203 (1.2)	203 (2.1)	204 (1.9)
Arkansas	218 (0.9) ‡	224 (1.4)	225 (1.1)	189 (1.7) ‡	193 (2.2)	198 (1.7)	195 (2.9) ‡	203 (2.6)	205 (3.2)
California †	221 (1.7) ‡	223 (1.7)	229 (1.6)	184 (3.3) *	188 (3.0)	193 (2.8)!	192 (1.6) ‡	197 (2.5)	201 (2.3)
Connecticut	235 (0.9) ‡	241 (1.0)	243 (1.0)	195 (2.6) ‡	206 (2.8)	209 (2.3)	206 (2.7) ‡	207 (3.1)	214 (2.3)
Georgia	229 (1.2)	225 (1.6) ‡	232 (1.5)	197 (1.4) ‡	201 (1.5) *	206 (1.4)	198 (2.6) ‡	202 (3.4)	208 (2.8)
Hawaii	219 (1.7)	225 (1.8)	225 (2.0)	200 (3.2)	204 (3.9)	204 (2.7)	199 (2.6)	201 (2.5)	205 (1.9)
Idaho †	224 (0.9) ‡	—	230 (1.2)	****(****)	—	****(****)	204 (2.4) ‡	—	213 (2.1)
Illinois †	—	—	237 (2.5)	—	—	205 (2.0)	—	—	213 (2.0)
Indiana †	225 (0.9) ‡	233 (1.0) ‡	238 (1.2)	196 (2.3) ‡	206 (2.5) ‡	216 (2.5)	210 (1.9) ‡	215 (2.6)	220 (3.7)
Iowa †	232 (0.9) ‡	231 (1.0) ‡	235 (1.1)	194 (3.8) !	205 (3.3) !	****(****)	219 (2.5)	212 (2.9)	216 (4.0)
Kansas †	—	—	238 (1.5)	—	—	207 (5.3)!	—	—	215 (2.6)
Kentucky	217 (1.0) ‡	223 (1.1)	225 (1.2)	201 (2.5)	203 (2.3)	200 (1.9)	199 (2.9)	201 (4.2)	207 (4.6)
Louisiana	218 (1.5) ‡	222 (1.3) ‡	230 (1.3)	187 (1.7) ‡	196 (1.5) ‡	204 (1.9)	200 (4.3)	193 (3.2) ‡	210 (3.2)
Maine †	233 (1.0)	233 (1.1)	231 (1.0)	****(****)	****(****)	****(****)	219 (3.5)	218 (2.8)	****(****)
Maryland	229 (1.1) ‡	235 (1.6)	237 (1.4)	195 (1.8) ‡	199 (1.4)	204 (1.9)	207 (3.4)	206 (3.8)	210 (3.1)
Massachusetts	232 (1.0) ‡	233 (1.3) ‡	241 (1.0)	194 (3.0) ‡	208 (3.3)	212 (2.9)	207 (2.6)	211 (2.4)	210 (2.7)
Michigan †	228 (1.5) ‡	233 (1.2) ‡	239 (1.3)	186 (3.8) ‡	199 (2.8)	201 (2.6)	206 (2.6)	205 (2.6)	210 (3.9)
Minnesota †	232 (0.8) ‡	236 (1.1) *	240 (1.1)	194 (3.0) ‡	193 (4.5) ‡	211 (4.3)	208 (2.9)	219 (3.3)	214 (4.1)
Mississippi	219 (1.2) ‡	222 (1.2)	224 (1.5)	190 (1.3) ‡	197 (1.3)	199 (1.0)	186 (2.8) ‡	196 (3.0)	201 (2.6)
Missouri	228 (1.0) ‡	230 (0.9) ‡	235 (1.0)	196 (2.2)	201 (2.2)	202 (3.0)	208 (3.1)	214 (3.2)	213 (4.2)
Montana †	—	231 (1.2)	234 (1.8)	—	****(****)	****(****)	—	218 (2.5)	219 (3.9)
Nebraska	229 (1.2)	232 (1.1)	232 (1.3)	191 (2.4)	198 (3.5)	199 (3.8)!	210 (3.1)	209 (3.2)	206 (3.8)
Nevada	—	225 (1.2)	228 (1.0)	—	196 (3.4)	206 (2.5)	—	206 (2.1)	210 (2.1)
New Mexico	225 (1.4)	227 (1.2)	227 (1.8)	203 (3.8)	205 (8.2)	****(****)	203 (1.4)	205 (1.6)	208 (1.8)
New York †	229 (1.3) ‡	234 (1.0) *	238 (1.5)	199 (2.7) ‡	204 (2.7) *	211 (2.2)	199 (2.3) ‡	205 (2.3) *	211 (1.7)
North Carolina	223 (1.1) ‡	234 (1.1) ‡	241 (1.1)	193 (1.3) ‡	205 (1.2) ‡	218 (1.3)	200 (4.1) ‡	206 (4.3) *	218 (3.6)
North Dakota	230 (0.7) ‡	232 (1.0)	233 (0.9)	****(****)	****(****)	****(****)	215 (3.5)	222 (5.0)	214 (3.6)
Ohio †	223 (1.1) ‡	—	236 (1.4)	195 (2.9) ‡	—	208 (1.5)	208 (3.1) *	—	218 (3.1)
Oklahoma	225 (1.0) ‡	—	230 (1.0)	202 (2.5)	—	206 (5.3)	210 (2.4)	—	215 (2.1)
Oregon †	—	227 (1.4)	230 (1.6)	—	****(****)	****(****)	—	201 (2.4)	206 (2.6)
Rhode Island	222 (1.3) ‡	226 (1.3) ‡	234 (1.0)	191 (3.3)	194 (4.0)	201 (3.6)	190 (2.7)	201 (3.0)	198 (2.7)
South Carolina	226 (1.2) ‡	225 (1.4) ‡	233 (1.0)	195 (1.1) ‡	199 (1.3) *	204 (1.8)	200 (2.6)	199 (2.9) *	209 (3.8)
Tennessee	218 (1.1) ‡	226 (1.2)	227 (1.3)	193 (1.9)	198 (2.4)	199 (2.9)	193 (4.1)	208 (4.5)	207 (5.3)
Texas	229 (1.6) ‡	242 (1.4)	243 (1.3)	199 (1.9) ‡	212 (1.8) *	220 (2.5)	209 (1.9) ‡	216 (1.8) ‡	224 (1.6)
Utah	226 (0.9) ‡	230 (1.0)	232 (1.0)	****(****)	****(****)	****(****)	209 (2.1)	208 (2.9)	206 (2.5)
Vermont †	—	226 (1.2) ‡	233 (1.8)	—	****(****)	****(****)	—	214 (4.1)	****(****)
Virginia	229 (1.5) ‡	230 (1.4) ‡	240 (1.2)	198 (1.5) ‡	204 (1.5) ‡	212 (1.5)	212 (3.3)	214 (3.3)	219 (2.4)
West Virginia	216 (1.0) ‡	225 (1.1)	227 (1.1)	204 (4.3)	205 (4.1)	207 (3.4)	204 (3.0)	210 (3.2)	213 (4.1)
Wyoming	228 (0.9)	226 (1.1) ‡	232 (1.5)	****(****)	****(****)	****(****)	215 (1.7)	208 (3.3)	215 (2.2)
Other Jurisdictions									
American Samoa	—	—	****(****)	—	—	****(****)	—	—	150 (6.1)
District of Columbia	242 (4.2)	240 (3.9)	241 (4.7)	190 (0.7)	184 (1.1) ‡	191 (0.9)	182 (2.1)	182 (4.5)	189 (3.5)
DDESS	—	234 (1.2)	237 (1.7)	—	211 (2.5)	218 (2.6)	—	215 (3.0)	220 (2.5)
DoDDS	—	230 (1.2) ‡	235 (1.2)	—	210 (1.4)	214 (1.9)	—	214 (1.9)	218 (1.8)
Guam	206 (2.0)	198 (5.2)	****(****)	185 (5.3)	****(****)	****(****)	181 (2.1)	176 (3.8)	168 (7.6)
Virgin Islands	—	—	****(****)	—	—	185 (3.3)	—	—	176 (3.9)

See footnotes at end of table. ▶

Table B.34: Data for Figure 3.18 State Scale Score Results by Race/Ethnicity, Grade 4 (continued)

State average mathematics scale scores by race/ethnicity for grade 4 public schools: 1992–2000

	Asian			American Indian		
	1992	1996	2000	1992	1996	2000
Nation	233 (2.5)	231 (4.6)	~	210 (3.5)	216 (2.5)	215 (2.3)
Alabama	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Arizona	****(****)	****(****)	234 (4.3)	193 (3.4)	201 (2.9) !	196 (2.4)
Arkansas	****(****)	****(****)	****(****)	211 (3.7)	210 (3.9)	213 (4.7)
California †	224 (2.7)	218 (5.0)	227 (4.2)	208 (6.6)	****(****)	****(****)
Connecticut	****(****)	****(****)	246 (3.6)	****(****)	****(****)	****(****)
Georgia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Hawaii	216 (1.6)	216 (2.0)	216 (1.5)	****(****)	213 (5.6)	****(****)
Idaho †	****(****)	—	****(****)	213 (2.9)	—	****(****)
Illinois †	—	—	****(****)	—	—	****(****)
Indiana †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Iowa †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Kansas †	—	—	****(****)	—	—	****(****)
Kentucky	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Louisiana	****(****)	****(****)	****(****)	****(****)	205 (2.5) !	****(****)
Maine †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Maryland	235 (3.7)	247 (5.0)	240 (4.1)	****(****)	****(****)	****(****)
Massachusetts	229 (7.7)	237 (5.4)	239 (5.3)	****(****)	****(****)	****(****)
Michigan †	****(****)	****(****)	****(****)	212 (3.8)	216 (4.0)	****(****)
Minnesota †	****(****)	220 (4.4) *	235 (3.6)	****(****)	218 (5.1)	****(****)
Mississippi	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Missouri	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Montana †	—	****(****)	****(****)	—	209 (2.6)	212 (4.1)
Nebraska	****(****)	****(****)	****(****)	****(****)	215 (4.9)	****(****)
Nevada	—	225 (3.5)	224 (3.6)	—	213 (3.1) !	212 (4.2)
New Mexico	****(****)	****(****)	****(****)	208 (2.9) !	197 (4.6) !	197 (3.3)
New York †	236 (4.2) !	233 (2.8) ‡	247 (3.7)!	****(****)	****(****)	****(****)
North Carolina	****(****)	****(****)	****(****)	204 (4.7) ! ‡	****(****)	229 (3.5)!
North Dakota	****(****)	****(****)	****(****)	213 (3.1) !	209 (7.3) !	208 (4.9)
Ohio †	****(****)	—	****(****)	218 (4.1)	—	****(****)
Oklahoma	****(****)	—	****(****)	213 (1.9) ‡	—	222 (1.6)
Oregon †	—	229 (3.7)	240 (4.0)	—	210 (3.2)	****(****)
Rhode Island	193 (4.2) *	215 (5.3)	221 (5.2)	****(****)	****(****)	****(****)
South Carolina	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Tennessee	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Texas	235 (4.3) *	****(****)	247 (3.4)	****(****)	****(****)	****(****)
Utah	****(****)	****(****)	222 (4.5)	****(****)	214 (4.2)	****(****)
Vermont †	—	****(****)	****(****)	—	****(****)	****(****)
Virginia	237 (4.5)	240 (4.5)	243 (7.5)!	****(****)	****(****)	****(****)
West Virginia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Wyoming	****(****)	****(****)	****(****)	213 (3.8) !	211 (4.7)	224 (5.0)
Other Jurisdictions						
American Samoa	—	—	157 (4.4)	—	—	****(****)
District of Columbia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
DDESS	—	****(****)	230 (5.8)	—	****(****)	****(****)
DoDDS	—	228 (2.3)	233 (1.6)	—	218 (3.6)	219 (4.9)
Guam	195 (1.1) ‡	192 (1.5)	188 (2.5)	****(****)	****(****)	****(****)
Virgin Islands	—	—	****(****)	—	—	****(****)

Standard errors of the estimated scale scores appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined.

‡ Significantly different from 2000 when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.

! The nature of the sample does not allow accurate determination of the variability of the statistic.

****(****) Sample size is insufficient to permit a reliable estimate.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

— Indicates that the jurisdiction did not participate.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

~ Special analyses raised concerns about the accuracy and precision of national grade 4 Asian/Pacific Islander results in 2000. As a result, they are omitted from the body of this report. See appendix A for a more detailed discussion.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1996, and 2000 Mathematics Assessments.

Table B.35: Data for Figure 3.19 State Scale Score Results by Race/Ethnicity, Grade 8

State average mathematics scale scores by race/ethnicity for grade 8 public schools: 1990–2000

	White				Black				Hispanic			
	1990	1992	1996	2000	1990	1992	1996	2000	1990	1992	1996	2000
Nation	270 (1.5) *	277 (1.1) *	281 (1.4)	285 (0.9)	237 (2.8) *	237 (1.3) *	242 (2.1)	246 (1.5)	242 (2.8) *	245 (1.3) *	250 (2.1)	252 (1.6)
Alabama	263 (1.0) ‡	265 (1.4) ‡	271 (2.4)	275 (1.6)	234 (1.6)	232 (2.2) *	233 (1.8)	239 (2.0)	227 (3.7)	221 (5.3) ‡	232 (5.0)	239 (5.1)
Arizona †	271 (1.1) ‡	276 (1.1) ‡	278 (1.2) ‡	284 (1.4)	245 (3.2)	252 (3.3)	254 (3.5)	250 (4.4)	242 (1.9) ‡	248 (2.7)	251 (2.4)	252 (2.2)
Arkansas	265 (0.9) ‡	265 (1.0) ‡	270 (1.3)	272 (1.3)	232 (1.2)	231 (1.8)	235 (3.0)	235 (1.9)	230 (4.0)	229 (4.1)	****(****)	234 (5.9)
California †	271 (1.5) ‡	277 (1.9)	279 (1.5)	278 (2.2)	233 (3.4)	234 (3.6)	239 (3.9)	242 (2.8)	236 (1.6) ‡	241 (2.0)	246 (1.8)	246 (2.7)
Connecticut	278 (0.9) ‡	284 (0.9) ‡	288 (1.1) ‡	294 (1.2)	241 (2.4) *	243 (2.9)	245 (2.3)	248 (2.1)	237 (2.7) ‡	242 (2.4)	252 (1.8)	252 (3.4)
Georgia	271 (1.5) ‡	271 (1.3) ‡	276 (1.9)	280 (1.5)	240 (1.5) ‡	242 (1.3)	241 (1.5) *	246 (1.5)	231 (3.3) ‡	234 (5.5)	246 (4.9)	247 (2.6)
Hawaii	263 (2.0) ‡	266 (1.6) ‡	273 (2.3)	275 (3.3)	****(****)	****(****)	****(****)	256 (5.6)	231 (2.5) ‡	239 (2.2)	245 (3.6)	248 (4.4)
Idaho †	274 (0.8) ‡	277 (0.8) ‡	—	282 (1.1)	****(****)	****(****)	—	****(****)	249 (2.8)	254 (2.2)	—	250 (4.3)
Illinois †	271 (1.4) ‡	—	—	288 (1.6)	233 (4.2) ‡	—	—	255 (2.9)	237 (3.9) ‡	—	—	261 (3.9)
Indiana †	271 (1.0) ‡	274 (1.2) ‡	281 (1.3) ‡	287 (1.2)	243 (2.9) ‡	244 (2.5) ‡	247 (2.1) ‡	260 (2.8)!	245 (3.6) ‡	250 (4.5) *	254 (4.8)	264 (4.3)
Kansas †	—	—	—	288 (1.4)	—	—	—	257 (5.5)	—	—	—	261 (3.7)
Kentucky	260 (1.2) ‡	265 (1.1) ‡	269 (1.1) ‡	275 (1.3)	240 (2.4) ‡	242 (2.6) ‡	248 (3.3)	253 (2.8)	229 (3.5)	233 (4.5)	****(****)	****(****)
Louisiana	259 (1.4) ‡	263 (1.7) ‡	266 (1.3) ‡	276 (1.3)	230 (1.3) ‡	233 (2.1) *	235 (1.8)	240 (1.8)	226 (4.2)	229 (3.5)	242 (3.5)	237 (5.2)
Maine †	—	280 (0.9) ‡	285 (1.3)	285 (1.2)	—	****(****)	****(****)	****(****)	—	****(****)	****(****)	****(****)
Maryland	273 (1.5) ‡	279 (1.5) ‡	285 (1.9) *	290 (1.3)	238 (1.9) ‡	240 (2.0) ‡	243 (1.8) *	249 (2.0)	237 (2.9) ‡	241 (3.2) ‡	248 (4.2) *	265 (4.3)
Massachusetts	—	278 (1.1) ‡	283 (1.5) ‡	289 (1.0)	—	244 (4.9)	250 (4.2)	254 (3.7)	—	241 (3.4) ‡	242 (4.1) ‡	259 (3.8)
Michigan †	271 (1.0) ‡	277 (1.5) ‡	285 (1.6)	287 (1.4)	232 (1.5) ‡	233 (1.8) ‡	246 (3.7)	242 (2.6)	243 (3.2) ‡	249 (3.9)	249 (4.4)	259 (3.9)
Minnesota †	278 (0.9) ‡	284 (0.9) ‡	287 (1.2) *	291 (1.1)	239 (4.7) !	****(****)	248 (5.0)	****(****)	239 (5.0) ‡	254 (3.7)	266 (5.9)	257 (5.1)
Mississippi	—	263 (1.4) ‡	266 (1.2)	268 (1.2)	—	231 (1.4) ‡	236 (1.4)	238 (1.5)	—	224 (3.1)	225 (3.3)	227 (4.7)
Missouri	—	276 (1.0) ‡	278 (1.3)	280 (1.2)	—	242 (2.9)	243 (3.8)	244 (4.2)	—	251 (4.1)	259 (4.3)	251 (5.5)
Montana †	283 (0.9) ‡	—	287 (1.2) *	290 (1.1)	****(****)	—	****(****)	****(****)	263 (3.8)	—	256 (5.6) *	276 (4.4)
Nebraska	279 (1.1) ‡	282 (1.1)	286 (1.0)	285 (1.1)	235 (5.2)	237 (4.7)	256 (3.3)	246 (4.5)	253 (4.1)	255 (3.1)	253 (4.2)	255 (3.8)
Nevada	—	—	—	278 (0.9)	—	—	—	251 (2.1)	—	—	—	251 (2.0)
New Mexico	272 (1.2) ‡	273 (1.2) ‡	280 (1.0)	278 (1.4)	****(****)	****(****)	****(****)	****(****)	247 (1.1)	249 (1.0)	252 (1.5)	251 (2.0)
New York †	274 (1.1) ‡	280 (1.1) ‡	283 (1.3) ‡	289 (1.3)	236 (3.1) ‡	233 (4.4) ‡	246 (3.0)	257 (4.3)	237 (2.9) ‡	244 (4.7)	245 (2.7)	259 (5.0)
North Carolina	262 (1.3) ‡	267 (1.0) ‡	278 (1.3) ‡	291 (1.1)	233 (1.3) ‡	239 (1.7) ‡	247 (1.6) ‡	256 (1.4)	218 (3.3) ‡	239 (4.7) ‡	253 (3.5) ‡	269 (3.6)
North Dakota	284 (1.0)	284 (1.1)	286 (0.9)	286 (1.2)	****(****)	****(****)	****(****)	****(****)	248 (6.0)	****(****)	264 (5.0)	262 (6.7)
Ohio	269 (1.0) ‡	275 (1.4) ‡	—	287 (1.2)	233 (1.7) ‡	235 (2.3) ‡	—	255 (3.7)	237 (4.4) ‡	246 (4.7) ‡	—	270 (4.2)
Oklahoma	269 (1.3) ‡	273 (1.0) ‡	—	277 (1.2)	237 (2.2)	239 (3.0)	—	248 (4.7)	246 (4.3)	253 (3.2)	—	254 (5.9)
Oregon †	274 (0.9) ‡	—	279 (1.3)	284 (1.7)	****(****)	—	****(****)	260 (6.9)!	254 (2.8)	—	259 (3.7)	259 (5.4)
Rhode Island	266 (0.7) ‡	271 (0.8) ‡	275 (0.8) ‡	281 (1.1)	227 (3.1) ‡	241 (2.9)	244 (3.9)	245 (3.2)	230 (2.4) ‡	233 (2.7) ‡	239 (4.3)	246 (2.8)
South Carolina	—	274 (1.1) ‡	274 (1.6)	279 (1.5)	—	242 (1.0) ‡	246 (1.5)	249 (1.7)	—	234 (2.6) ‡	235 (6.0)	250 (3.9)
Tennessee	—	266 (1.1) ‡	271 (1.5)	271 (1.4)	—	235 (2.4)	234 (2.9)	237 (3.0)	—	229 (4.8) *	246 (5.2)	246 (6.1)
Texas	273 (1.3) ‡	279 (1.5) ‡	285 (1.4)	288 (1.4)	236 (1.8) ‡	244 (2.0)	249 (2.6)	252 (3.3)	245 (1.9) ‡	249 (1.2) ‡	256 (1.8) ‡	266 (1.9)
Utah	—	276 (0.8)	279 (0.9)	279 (1.1)	—	****(****)	****(****)	****(****)	—	254 (2.2)	256 (2.9)	249 (3.1)
Vermont †	—	—	281 (0.9) *	284 (1.1)	—	—	****(****)	****(****)	—	—	****(****)	****(****)
Virginia	272 (1.6) ‡	275 (1.1) ‡	279 (1.3) ‡	285 (1.4)	242 (1.6) ‡	245 (1.8) ‡	244 (2.6) *	252 (1.9)	243 (4.1) ‡	254 (4.0) *	258 (4.8)	267 (3.5)
West Virginia	258 (0.9) ‡	261 (1.0) ‡	266 (1.1) ‡	272 (1.0)	235 (4.1) ‡	244 (3.7)	246 (3.8) !	251 (4.8)	232 (4.2) ‡	231 (4.9) ‡	244 (5.6)	256 (4.7)
Wyoming	275 (0.7) ‡	278 (0.8)	278 (0.8)	280 (1.1)	****(****)	****(****)	****(****)	****(****)	255 (2.2)	258 (2.1)	256 (3.2)	255 (3.7)
Other Jurisdictions												
American Samoa	—	—	—	****(****)	—	—	—	****(****)	—	—	—	172 (5.9)
District of Columbia	****(****)	****(****)	303 (8.6)	****(****)	231 (0.7)	234 (0.9)	231 (1.4)	232 (2.3)	217 (3.1)	227 (3.7)	221 (3.4)	224 (7.6)
DDESS	—	—	285 (4.0)	288 (2.1)	—	—	252 (4.5) *	267 (2.9)	—	—	264 (6.0)	269 (5.9)
DoDDS	—	—	284 (1.4)	287 (1.2)	—	—	255 (2.0)	261 (2.1)	—	—	268 (2.6)	271 (2.3)
Guam	257 (3.5)	267 (5.5)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	210 (1.9)	218 (2.9)	218 (4.9)	216 (4.4)

See footnotes at end of table. ▶

Table B.35: Data for Figure 3.19 State Scale Score Results by Race/Ethnicity, Grade 8 (continued)

State average mathematics scale scores by race/ethnicity for grade 8 public schools: 1990–2000

	Asian				American Indian			
	1990	1992	1996	2000	1990	1992	1996	2000
Nation	279 (5.4) !	287 (6.5)	~	288 (3.7)	244 (9.0) !	255 (2.9)	263 (3.3) !	261 (5.6)
Alabama	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Arizona †	****(****)	****(****)	****(****)	282 (4.5)	235 (2.5) !	252 (2.7)	254 (8.6) !	****(****)
Arkansas	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
California †	271 (2.8) ‡	277 (2.8)	279 (4.0)	282 (4.3)	****(****)	****(****)	****(****)	****(****)
Connecticut	****(****)	287 (7.9)	281 (6.2)	287 (4.2)	****(****)	****(****)	****(****)	****(****)
Georgia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Hawaii	252 (1.0) ‡	259 (1.1) *	264 (1.2)	263 (1.3)	****(****)	****(****)	****(****)	****(****)
Idaho †	****(****)	****(****)	—	****(****)	252 (4.9)	260 (4.1)	—	****(****)
Illinois †	280 (3.9)	—	—	****(****)	****(****)	—	—	****(****)
Indiana †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Kansas †	—	—	—	****(****)	—	—	—	****(****)
Kentucky	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Louisiana	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Maine †	—	****(****)	****(****)	****(****)	—	262 (4.4)	****(****)	****(****)
Maryland	291 (4.3) ‡	287 (4.6) ‡	306 (5.4) !	306 (3.7)	****(****)	****(****)	****(****)	****(****)
Massachusetts	—	****(****)	277 (6.4) *	295 (4.6)	—	****(****)	****(****)	****(****)
Michigan †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Minnesota †	270 (5.6)	****(****)	274 (5.1) !	****(****)	****(****)	****(****)	****(****)	****(****)
Mississippi	—	****(****)	****(****)	****(****)	—	****(****)	****(****)	****(****)
Missouri	—	****(****)	****(****)	****(****)	—	****(****)	****(****)	****(****)
Montana †	****(****)	—	****(****)	****(****)	257 (3.3)	—	265 (3.6)	253 (5.2)!
Nebraska	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Nevada	—	—	—	278 (2.8)	—	—	—	263 (4.4)
New Mexico	****(****)	****(****)	****(****)	****(****)	238 (1.4)	250 (2.9)	252 (2.6)	243 (4.9)!
New York †	278 (6.9) !	281 (6.7)	283 (5.9)	288 (4.1)	****(****)	****(****)	****(****)	****(****)
North Carolina	****(****)	****(****)	****(****)	****(****)	233 (4.3) !	****(****)	****(****)	****(****)
North Dakota	****(****)	****(****)	****(****)	****(****)	242 (2.6) ! ‡	262 (4.3) !	252 (3.8) !	258 (3.8)
Ohio	****(****)	****(****)	—	****(****)	****(****)	****(****)	—	****(****)
Oklahoma	****(****)	****(****)	—	****(****)	255 (2.5) ‡	262 (3.2)	—	264 (2.7)
Oregon †	277 (4.3)	—	285 (4.3)	281 (7.1)	253 (3.8)	—	257 (4.5)	****(****)
Rhode Island	****(****)	264 (3.4)	267 (4.7)	271 (4.9)	****(****)	****(****)	****(****)	****(****)
South Carolina	—	****(****)	****(****)	****(****)	—	****(****)	****(****)	****(****)
Tennessee	—	****(****)	****(****)	****(****)	—	****(****)	****(****)	****(****)
Texas	****(****)	301 (4.8)	299 (5.6) !	292 (4.3)	****(****)	****(****)	****(****)	****(****)
Utah	—	****(****)	274 (3.6)	281 (5.2)	—	****(****)	****(****)	****(****)
Vermont †	—	—	****(****)	****(****)	—	—	****(****)	****(****)
Virginia	295 (4.2)	281 (3.9) ‡	284 (4.6) *	300 (4.8)	****(****)	****(****)	****(****)	****(****)
West Virginia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Wyoming	****(****)	****(****)	****(****)	****(****)	257 (3.4)	251 (2.3) !	250 (5.4)	253 (5.6)!
Other Jurisdictions								
American Samoa	—	—	—	205 (5.3)	—	—	—	****(****)
District of Columbia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
DDESS	—	—	****(****)	****(****)	—	—	****(****)	****(****)
DoDDS	—	—	280 (3.4)	283 (2.2)	—	—	****(****)	****(****)
Guam	235 (0.9)	237 (1.1)	242 (2.1)	236 (1.8)	****(****)	****(****)	****(****)	****(****)

Standard errors of the estimated scale scores appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined.

‡ Significantly different from 2000 when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.

! The nature of the sample does not allow accurate determination of the variability of the statistic.

**** (****) Sample size is insufficient to permit a reliable estimate.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

— Indicates that the jurisdiction did not participate.

~ Special analyses raised concerns about the accuracy and precision of national grade 8 Asian/Pacific Islander results in 1996. As a result, they are omitted from the body of this report. See appendix A for a more detailed discussion.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.36: Data for Figure 3.20 State *Proficient* Level Achievement Results by Race/Ethnicity, Grade 4

State percentages of students at or above the *Proficient* level in mathematics by race/ethnicity for grade 4 public schools: 1992–2000

	White			Black			Hispanic		
	1992	1996	2000	1992	1996	2000	1992	1996	2000
Nation	22 (1.5) *	26 (1.3) *	33 (1.6)	2 (0.7) *	5 (1.5)	5 (0.9)	5 (1.0) *	7 (1.0)	10 (1.5)
Alabama	15 (1.6) ‡	16 (1.6) *	23 (1.9)	1 (0.5) ‡	2 (0.6)	4 (0.7)	2 (1.4)	5 (1.9)	5 (2.0)
Arizona	20 (1.2) ‡	22 (2.1)	26 (2.1)	3 (2.6)	4 (3.3)	5 (2.5)	4 (0.8)	6 (1.3)	6 (1.3)
Arkansas	13 (1.0) ‡	18 (1.8)	18 (1.5)	1 (0.6)	2 (0.9)	2 (1.1)	1 (1.3)	3 (1.6)	6 (1.8)
California †	19 (1.8)	17 (2.4)	25 (2.5)	2 (1.1)	2 (1.2)	2 (1.3) !	4 (0.8)	4 (1.3)	5 (1.3)
Connecticut	31 (1.7) ‡	38 (1.8)	41 (1.9)	2 (1.3)	5 (1.7)	6 (1.7)	8 (1.9)	8 (2.0)	9 (1.4)
Georgia	24 (1.6)	20 (1.9) ‡	29 (2.1)	3 (0.8) ‡	2 (0.6) ‡	6 (1.0)	4 (1.6)	5 (1.9)	8 (2.7)
Hawaii	20 (2.2)	22 (2.3)	19 (2.0)	5 (2.3)	7 (2.5)	3 (1.8)	6 (1.3)	7 (1.6)	7 (1.7)
Idaho †	18 (1.1) ‡	—	24 (1.7)	****(****)	—	****(****)	5 (1.4)	—	8 (2.0)
Illinois †	—	—	32 (3.4)	—	—	5 (1.5)	—	—	8 (2.3)
Indiana †	18 (1.3) ‡	27 (1.7) *	34 (2.0)	2 (0.7) ‡	4 (1.4) ‡	14 (2.9)	3 (1.6) ‡	9 (2.7)	16 (4.6)
Iowa †	28 (1.3)	24 (1.5) *	30 (1.9)	2 (2.0) !	4 (2.5) !	****(****)	14 (3.3)	9 (2.5)	13 (4.1)
Kansas †	—	—	36 (2.5)	—	—	7 (3.7) !	—	—	11 (3.6)
Kentucky	14 (1.3) ‡	17 (1.3)	20 (1.4)	4 (2.0)	4 (1.4)	2 (0.8)	4 (2.6)	7 (2.4)	9 (5.1)
Louisiana	13 (1.4) ‡	13 (1.6) ‡	23 (2.3)	2 (0.5) ‡	2 (0.8) *	4 (0.8)	5 (1.9)	3 (1.9)	7 (2.9)
Maine †	28 (1.7)	29 (1.5)	25 (1.4)	****(****)	****(****)	****(****)	14 (5.0)	9 (4.5)	****(****)
Maryland	26 (1.6) ‡	32 (2.5)	36 (2.4)	3 (0.7)	4 (0.9)	5 (0.9)	10 (3.2)	12 (3.1)	10 (2.6)
Massachusetts	27 (1.6) ‡	28 (2.1) ‡	39 (1.7)	2 (1.5)	6 (2.7)	7 (2.5)	9 (2.5)	10 (2.8)	10 (1.8)
Michigan †	23 (1.9) ‡	28 (1.6) ‡	37 (2.2)	2 (1.3)	3 (1.1)	4 (1.6)	8 (2.3)	7 (1.9)	15 (3.7)
Minnesota †	28 (1.4) ‡	33 (1.7)	39 (1.9)	4 (1.9)	3 (2.2)	11 (3.1)	11 (2.5)	17 (3.7)	13 (3.9)
Mississippi	13 (1.3)	14 (1.4)	16 (1.5)	1 (0.4)	2 (0.6)	2 (0.6)	2 (1.3)	3 (1.7)	6 (2.0)
Missouri	22 (1.5) ‡	24 (1.4)	28 (1.8)	1 (0.8)	2 (0.8)	4 (1.3)	10 (3.2)	10 (3.0)	11 (2.9)
Montana †	—	25 (1.9)	28 (2.8)	—	****(****)	****(****)	—	13 (3.4)	12 (4.7)
Nebraska	24 (1.7)	27 (1.5)	29 (2.0)	4 (2.3)	5 (1.9)	6 (3.0)!	8 (3.4)	13 (2.6)	7 (3.4)
Nevada	—	18 (1.5)	23 (1.5)	—	2 (1.3)	5 (1.5)	—	7 (1.2)	8 (1.5)
New Mexico	19 (2.0)	23 (1.8)	22 (2.5)	3 (2.8)	3 (1.9)	****(****)	5 (1.2)	6 (1.0)	6 (1.0)
New York †	23 (1.9) ‡	27 (1.7)	34 (2.7)	4 (1.4)	5 (1.6)	5 (1.8)	5 (1.2)	8 (1.7)	7 (1.3)
North Carolina	18 (1.2) ‡	29 (1.7) ‡	38 (2.0)	2 (0.6) ‡	4 (0.7) ‡	9 (1.2)	7 (2.8)	10 (3.6)	13 (3.0)
North Dakota	23 (1.2)	26 (1.4)	27 (1.5)	****(****)	****(****)	****(****)	7 (3.0)	15 (6.2)	12 (4.0)
Ohio †	18 (1.4) ‡	—	32 (2.4)	3 (1.0)	—	3 (1.6)	7 (1.9)	—	12 (3.6)
Oklahoma	17 (1.4)	—	20 (1.5)	3 (1.3)	—	3 (1.1)	6 (2.8)	—	9 (2.0)
Oregon †	—	23 (1.5)	26 (1.9)	—	****(****)	****(****)	—	6 (1.6)	6 (1.9)
Rhode Island	17 (1.3) ‡	20 (1.4) ‡	30 (1.7)	2 (1.6)	3 (1.7)	4 (2.4)	2 (0.8) *	7 (2.0)	5 (1.3)
South Carolina	21 (1.7) ‡	19 (2.1) ‡	28 (1.6)	2 (0.5) *	2 (0.7)	4 (0.8)	6 (2.0)	5 (1.7)	12 (3.5)
Tennessee	13 (1.2) ‡	21 (1.9)	23 (1.8)	1 (0.6)	3 (1.0)	4 (1.2)	3 (2.2)	12 (4.2)	9 (2.9)
Texas	23 (2.0) ‡	40 (2.2)	41 (2.8)	3 (1.1) ‡	7 (2.0)	12 (2.6)	7 (1.3) ‡	11 (1.4)	14 (1.7)
Utah	21 (1.1) ‡	26 (1.4)	28 (1.5)	****(****)	****(****)	****(****)	7 (2.2)	7 (2.4)	8 (1.8)
Vermont †	—	24 (1.2) *	31 (2.3)	—	****(****)	****(****)	—	14 (4.1)	****(****)
Virginia	25 (2.0) ‡	25 (1.9) ‡	35 (2.1)	3 (0.9)	4 (0.8)	6 (1.2)	9 (3.3)	9 (3.1)	11 (2.6)
West Virginia	13 (1.0) ‡	20 (1.3)	19 (1.6)	2 (1.7)	7 (3.4)	6 (3.2)	5 (2.8)	9 (2.9)	13 (3.4)
Wyoming	21 (1.3) ‡	21 (1.3) ‡	28 (1.7)	****(****)	****(****)	****(****)	8 (1.7)	7 (2.1)	12 (2.7)
Other Jurisdictions									
American Samoa	—	—	****(****)	—	—	****(****)	—	—	▲ (0.8)
District of Columbia	52 (6.5)	49 (3.2)	49 (7.1)	3 (0.4)	2 (0.4)	2 (0.5)	2 (1.3)	4 (2.2)	4 (1.2)
DDESS	—	29 (2.4)	34 (2.7)	—	8 (2.2)	12 (3.3)	—	13 (2.9)	14 (3.3)
DoDDS	—	26 (1.8)	31 (1.6)	—	6 (1.3)	7 (1.6)	—	11 (2.2)	13 (1.8)
Guam	11 (1.9)	11 (4.3)	****(****)	2 (2.4)	****(****)	****(****)	2 (0.9)	1 (0.8)	1 (0.9)
Virgin Islands	—	—	****(****)	—	—	1 (0.7)	—	—	1 (0.7)

See footnotes at end of table. ▶

Table B.36: Data for Figure 3.20 State *Proficient* Level Achievement Results by Race/Ethnicity, Grade 4 (continued)

State percentages of students at or above the *Proficient* level in mathematics by race/ethnicity for grade 4 public schools: 1992–2000

	Asian			American Indian		
	1992	1996	2000	1992	1996	2000
Nation	30 (4.9)	24 (6.0)	~	10 (3.8)	8 (2.5)	13 (3.0)
Alabama	****(****)	**** (****)	****(****)	****(****)	****(****)	****(****)
Arizona	****(****)	****(****)	28 (7.8)	3 (1.8)	4 (2.7) !	4 (1.6)
Arkansas	****(****)	****(****)	****(****)	9 (4.0)	6 (2.5)	9 (5.0)
California †	21 (3.7)	17 (3.0)	25 (4.9)	11 (6.9)	****(****)	****(****)
Connecticut	****(****)	****(****)	45 (6.7)	****(****)	****(****)	****(****)
Georgia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Hawaii	15 (1.3)	17 (1.6)	15 (1.3)	****(****)	13 (5.0)	****(****)
Idaho †	****(****)	—	****(****)	5 (3.0)	—	****(****)
Illinois †	—	—	****(****)	—	—	****(****)
Indiana †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Iowa †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Kansas †	—	—	****(****)	—	—	****(****)
Kentucky	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Louisiana	****(****)	****(****)	****(****)	****(****)	3 (2.7) !	****(****)
Maine †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Maryland	32 (5.5)	49 (6.2)	40 (6.1)	****(****)	****(****)	****(****)
Massachusetts	29 (8.1)	35 (8.2)	41 (5.1)	****(****)	****(****)	****(****)
Michigan †	****(****)	****(****)	****(****)	9 (3.7)	11 (4.5)	****(****)
Minnesota †	****(****)	19 (4.7)	32 (5.4)	****(****)	16 (5.4)	****(****)
Mississippi	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Missouri	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Montana †	—	****(****)	****(****)	—	10 (2.2)	8 (2.8)
Nebraska	****(****)	****(****)	****(****)	****(****)	14 (6.0)	****(****)
Nevada	—	21 (5.7)	21 (3.9)	—	8 (2.9) !	7 (3.0)
New Mexico	****(****)	****(****)	****(****)	4 (2.6) !	2 (1.8) !	5 (2.0)
New York †	37 (6.3) !	32 (4.1)	47 (7.5)!	****(****)	****(****)	****(****)
North Carolina	****(****)	****(****)	****(****)	8 (4.2) !	****(****)	21 (5.5)!
North Dakota	****(****)	****(****)	****(****)	8 (3.6) !	7 (3.1)!	7 (3.3)
Ohio †	****(****)	—	****(****)	11 (5.2)	—	****(****)
Oklahoma	****(****)	—	****(****)	7 (2.1)	—	12 (2.6)
Oregon †	—	23 (5.2)	36 (7.3)	—	9 (3.9)	****(****)
Rhode Island	1 (1.5) ‡	16 (4.6)	21 (5.8)	****(****)	****(****)	****(****)
South Carolina	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Tennessee	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Texas	34 (9.5)	****(****)	48 (6.7)	****(****)	****(****)	****(****)
Utah	****(****)	****(****)	16 (5.1)	****(****)	10 (4.9)	****(****)
Vermont †	—	****(****)	****(****)	—	****(****)	****(****)
Virginia	26 (6.8)	39 (6.1)	45 (9.9)!	****(****)	****(****)	****(****)
West Virginia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Wyoming	****(****)	****(****)	****(****)	9 (3.3) !	7 (3.2)	18 (7.6)
Other Jurisdictions						
American Samoa	—	—	▲ (0.2)	—	—	****(****)
District of Columbia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
DDESS	—	****(****)	23 (7.5)	—	****(****)	****(****)
DoDDS	—	24 (3.2)	27 (3.2)	—	13 (4.2)	10 (4.5)
Guam	4 (0.8)	3 (0.7)	2 (0.7)	****(****)	****(****)	****(****)
Virgin Islands	—	—	****(****)	—	—	****(****)

Standard errors of the estimated percentages appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined.

‡ Significantly different from 2000 when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.

! The nature of the sample does not allow accurate determination of the variability of the statistic.

**** (****) Sample size is insufficient to permit a reliable estimate.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

— Indicates that the jurisdiction did not participate.

▲ Percentage is between 0.0 and 0.5.

~ Special analyses raised concerns about the accuracy and precision of national grade 4 Asian/Pacific Islander results in 2000. As a result, they are omitted from the body of this report. See appendix A for a more detailed discussion.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1996, and 2000 Mathematics Assessments.

Table B.37: State *Basic* Level Achievement Results by Race/Ethnicity, Grade 4

State percentages of students at or above *Basic* in mathematics by race/ethnicity for grade 4 public schools: 1992–2000

	White			Black			Hispanic		
	1992	1996	2000	1992	1996	2000	1992	1996	2000
Nation	69 (1.4) *	74 (1.6)	78 (1.3)	22 (1.9) *	32 (3.4)	38 (2.6)	33 (2.3) *	40 (2.6)	47 (2.2)
Alabama	57 (2.3) ‡	64 (2.2) ‡	74 (2.2)	16 (1.4) ‡	21 (2.0) ‡	36 (2.2)	26 (5.1)	29 (4.2)	37 (5.0)
Arizona	69 (1.7) ‡	72 (2.3)	75 (1.7)	28 (6.1)	28 (5.6)	43 (6.4)	36 (2.1)	37 (3.2)	40 (3.2)
Arkansas	57 (1.6) ‡	66 (2.3)	68 (1.7)	18 (2.8)	21 (3.0)	28 (3.4)	29 (3.8)	36 (5.6)	39 (5.2)
California †	61 (2.6) ‡	63 (2.4)	71 (2.5)	21 (2.6)	18 (4.0)	25 (3.4) !	27 (2.1)	29 (2.9)	36 (3.1)
Connecticut	79 (1.2) ‡	86 (1.5)	88 (1.0)	24 (3.2) ‡	40 (5.0)	41 (3.9)	37 (4.3) ‡	42 (4.5)	53 (4.1)
Georgia	72 (1.8)	67 (2.0) ‡	75 (1.9)	27 (2.3) ‡	31 (2.7)	38 (2.2)	30 (4.3)	36 (4.8)	43 (5.8)
Hawaii	60 (2.4)	66 (2.8)	68 (3.2)	33 (5.9)	38 (5.5)	37 (7.9)	33 (3.5)	37 (2.9)	40 (3.4)
Idaho †	67 (1.7) ‡	—	76 (1.7)	****(****)	—	****(****)	36 (4.3) *	—	49 (4.7)
Illinois †	—	—	82 (2.9)	—	—	37 (3.5)	—	—	51 (3.7)
Indiana †	66 (1.5) ‡	78 (1.5) *	83 (1.4)	22 (3.7) ‡	36 (5.6)	51 (5.0)	42 (3.5) ‡	52 (5.1)	61 (6.3)
Iowa †	74 (1.4) ‡	77 (1.4)	81 (1.5)	29 (6.2) !	34 (5.6) !	****(****)	61 (5.7)	48 (5.7)	51 (7.9)
Kansas †	—	—	83 (2.2)	—	—	42 (8.6) !	—	—	54 (5.9)
Kentucky	54 (1.5) ‡	64 (1.9)	66 (1.8)	32 (3.9)	39 (4.1)	29 (3.3)	31 (5.1)	33 (7.2)	43 (6.9)
Louisiana	57 (2.6) ‡	63 (2.3) ‡	76 (2.0)	18 (1.7) ‡	24 (2.2) ‡	35 (2.6)	33 (6.5)	26 (3.8) *	45 (6.3)
Maine †	76 (1.4)	77 (1.6)	75 (1.8)	****(****)	****(****)	****(****)	63 (6.3)	57 (5.6)	****(****)
Maryland	70 (1.7) ‡	77 (1.8)	81 (1.7)	26 (1.9) ‡	30 (1.9)	36 (2.7)	45 (4.6)	43 (5.5)	47 (4.4)
Massachusetts	76 (1.4) ‡	78 (1.6) ‡	87 (1.4)	24 (5.4) ‡	39 (6.5)	47 (5.1)	41 (4.5)	46 (4.5)	47 (3.4)
Michigan †	70 (2.1) ‡	78 (1.7)	83 (1.9)	19 (3.5) ‡	30 (4.5)	32 (4.2)	43 (3.6)	42 (5.4)	49 (4.9)
Minnesota †	75 (1.6) ‡	81 (1.5)	84 (1.4)	28 (7.0)	28 (6.2)	46 (6.8)	44 (5.0)	55 (5.6)	54 (5.8)
Mississippi	58 (1.8) ‡	63 (2.4)	66 (2.1)	20 (1.5) ‡	24 (2.0)	27 (1.6)	19 (3.5) *	24 (4.5)	30 (4.1)
Missouri	70 (1.6) ‡	74 (1.5) ‡	82 (1.3)	26 (3.7)	31 (3.0)	34 (5.3)	44 (4.8)	50 (5.3)	54 (6.7)
Montana †	—	76 (1.7)	78 (2.4)	—	****(****)	****(****)	—	58 (5.3)	57 (6.2)
Nebraska	72 (1.7)	77 (1.6)	75 (1.9)	18 (3.8)	32 (3.4)	21 (5.4) !	47 (6.0)	43 (4.5)	45 (5.1)
Nevada	—	67 (2.1)	72 (1.6)	—	30 (4.1)	40 (4.5)	—	40 (3.2)	46 (3.2)
New Mexico	66 (2.3)	69 (2.0)	70 (2.5)	34 (8.4)	40 (10.0)	****(****)	36 (2.6)	38 (2.2)	42 (2.2)
New York †	71 (2.0) ‡	80 (1.6)	85 (2.1)	31 (4.0) *	37 (4.3)	44 (4.8)	33 (2.6) ‡	40 (3.3)	46 (3.1)
North Carolina	65 (1.6) ‡	77 (1.4) ‡	86 (1.3)	24 (2.3) ‡	37 (2.4) ‡	58 (3.0)	35 (5.8) *	43 (5.6)	56 (7.7)
North Dakota	75 (1.2)	77 (1.5)	79 (1.5)	****(****)	****(****)	****(****)	49 (7.4)	66 (8.9)	53 (6.6)
Ohio †	62 (1.6) ‡	—	82 (1.7)	23 (3.6) ‡	—	37 (3.8)	45 (5.1)	—	60 (5.7)
Oklahoma	66 (1.9) ‡	—	77 (1.7)	29 (3.9)	—	39 (7.0)	45 (4.2)	—	54 (4.3)
Oregon †	—	70 (2.2)	73 (2.3)	—	****(****)	****(****)	—	34 (4.3)	40 (5.0)
Rhode Island	63 (2.0) ‡	68 (2.1) ‡	79 (1.2)	20 (4.1) ‡	25 (4.6)	37 (4.3)	23 (3.3) *	35 (4.6)	33 (3.1)
South Carolina	66 (1.8) ‡	66 (2.2) ‡	77 (1.5)	23 (1.9) ‡	27 (2.5) *	37 (2.7)	33 (4.2) *	27 (5.4) *	46 (5.1)
Tennessee	58 (2.1) ‡	68 (1.9)	70 (1.8)	21 (2.6) *	28 (3.2)	31 (3.5)	22 (5.1) ‡	45 (6.0)	46 (7.9)
Texas	72 (2.1) ‡	85 (1.8)	89 (1.4)	29 (4.0) ‡	47 (3.0) *	60 (4.4)	43 (2.7) ‡	55 (3.1) ‡	68 (2.8)
Utah	69 (1.7) ‡	73 (1.6)	76 (1.5)	****(****)	****(****)	****(****)	47 (3.3)	46 (4.3)	42 (3.6)
Vermont †	—	69 (2.2) *	75 (2.1)	—	****(****)	****(****)	—	53 (6.4)	****(****)
Virginia	70 (1.9) ‡	73 (2.1) ‡	86 (1.4)	25 (2.1) ‡	34 (2.7) ‡	46 (3.2)	48 (5.6)	52 (6.4)	59 (6.5)
West Virginia	54 (1.5) ‡	66 (1.7)	70 (1.6)	40 (5.6)	36 (7.6)	39 (5.6)	37 (4.4) ‡	47 (4.8)	55 (5.0)
Wyoming	72 (1.5)	68 (1.6) ‡	77 (1.9)	****(****)	****(****)	****(****)	54 (3.9)	44 (3.9)	56 (5.0)
Other Jurisdictions									
American Samoa	—	—	****(****)	—	—	****(****)	—	—	6 (3.2)
District of Columbia	79 (4.6)	77 (3.0)	78 (4.4)	20 (1.0)	16 (0.8) ‡	21 (1.2)	14 (2.2)	18 (3.7)	22 (3.3)
DDESS	—	77 (1.9)	80 (2.2)	—	46 (4.8)	58 (6.0)	—	52 (4.5)	59 (3.2)
DoDDS	—	74 (1.6)	80 (2.0)	—	45 (2.7)	50 (3.3)	—	51 (3.3)	59 (3.5)
Guam	43 (3.8)	35 (6.2)	****(****)	23 (5.8)	****(****)	****(****)	16 (2.3)	13 (4.3)	10 (5.5)
Virgin Islands	—	—	****(****)	—	—	15 (3.7)	—	—	12 (3.8)

See footnotes at end of table. ▶

Table B.37: State *Basic* Level Achievement Results by Race/Ethnicity, Grade 4 (continued)

State percentages of students at or above *Basic* in mathematics by race/ethnicity for grade 4 public schools: 1992–2000

	Asian			American Indian		
	1992	1996	2000	1992	1996	2000
Nation	75 (3.5)	72 (5.5)	~	42 (5.3)	52 (6.1)	51 (6.1)
Alabama	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Arizona	****(****)	****(****)	77 (5.4)	25 (4.0)	32 (4.9) !	24 (3.9)
Arkansas	****(****)	****(****)	****(****)	52 (7.0)	45 (7.4)	49 (8.7)
California †	64 (3.2)	58 (6.8)	71 (5.9)	50 (9.3)	****(****)	****(****)
Connecticut	****(****)	****(****)	89 (4.7)	****(****)	****(****)	****(****)
Georgia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Hawaii	54 (2.1)	53 (2.2)	56 (2.1)	****(****)	50 (8.4)	****(****)
Idaho †	****(****)	—	****(****)	53 (6.0)	—	****(****)
Illinois †	—	—	****(****)	—	—	****(****)
Indiana †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Iowa †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Kansas †	—	—	****(****)	—	—	****(****)
Kentucky	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Louisiana	****(****)	****(****)	****(****)	****(****)	35 (6.4) !	****(****)
Maine †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Maryland	78 (4.2)	84 (5.7)	82 (6.1)	****(****)	****(****)	****(****)
Massachusetts	65 (8.8)	77 (7.9)	81 (5.1)	****(****)	****(****)	****(****)
Michigan †	****(****)	****(****)	****(****)	51 (7.0)	54 (7.0)	****(****)
Minnesota †	****(****)	61 (5.2)	77 (6.4)	****(****)	54 (7.6)	****(****)
Mississippi	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Missouri	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Montana †	—	****(****)	****(****)	—	43 (4.1)	49 (6.2)
Nebraska	****(****)	****(****)	****(****)	****(****)	54 (8.5)	****(****)
Nevada	—	64 (7.5)	64 (4.6)	—	52 (5.3) !	51 (6.8)
New Mexico	****(****)	****(****)	****(****)	42 (9.6) !	27 (4.7) !	30 (5.1)
New York †	72 (6.4) * !	78 (5.0)	90 (5.1) !	****(****)	****(****)	****(****)
North Carolina	****(****)	****(****)	****(****)	40 (9.8) ‡!	****(****)	77 (8.3) !
North Dakota	****(****)	****(****)	****(****)	47 (6.9) !	48 (8.9) !	42 (7.8)
Ohio †	****(****)	—	****(****)	58 (8.1)	—	****(****)
Oklahoma	****(****)	—	****(****)	48 (4.5) ‡	—	65 (3.4)
Oregon †	—	73 (6.4)	77 (5.9)	—	50 (6.5)	****(****)
Rhode Island	24 (5.4) ‡	48 (8.8)	55 (6.4)	****(****)	****(****)	****(****)
South Carolina	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Tennessee	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Texas	79 (4.5)	****(****)	90 (5.3)	****(****)	****(****)	****(****)
Utah	****(****)	****(****)	61 (6.3)	****(****)	46 (8.6)	****(****)
Vermont †	—	****(****)	****(****)	—	****(****)	****(****)
Virginia	82 (4.8)	80 (4.9)	88 (10.2) !	****(****)	****(****)	****(****)
West Virginia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Wyoming	****(****)	****(****)	****(****)	49 (7.0) !	47 (7.5)	69 (8.2)
Other Jurisdictions						
American Samoa	—	—	4 (1.8)	—	—	****(****)
District of Columbia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
DDESS	—	****(****)	74 (9.6)	—	****(****)	****(****)
DoDDS	—	69 (4.2)	77 (2.1)	—	58 (9.2)	55 (10.6)
Guam	27 (1.7)	26 (1.5)	23 (2.3)	****(****)	****(****)	****(****)
Virgin Islands	—	—	****(****)	—	—	****(****)

Standard errors of the estimated percentages appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined.

‡ Significantly different from 2000 when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.

! The nature of the sample does not allow accurate determination of the variability of the statistic.

**** (****) Sample size is insufficient to permit a reliable estimate.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

— Indicates that the jurisdiction did not participate.

~ Special analyses raised concerns about the accuracy and precision of the national grade 4 Asian/Pacific Islander results in 2000. As a result, they are omitted from the body of this report. See appendix A for a more detailed discussion.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.
DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1996, and 2000 Mathematics Assessments.

Table B.38: State Achievement Level Results by Race/Ethnicity, Grade 4

State percentages of students at or above mathematics achievement levels by race/ethnicity for grade 4 public schools: 2000

	White				Black				Hispanic			
	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*
Nation	22 (1.3)	78 (1.3)	33 (1.6)	3 (0.4)	62 (2.6)	38 (2.6)	5 (0.9)	▲ (****)	53 (2.2)	47 (2.2)	10 (1.5)	1 (0.3)
Alabama	26 (2.2)	74 (2.2)	23 (1.9)	1 (0.4)	64 (2.2)	36 (2.2)	4 (0.7)	▲ (****)	63 (5.0)	37 (5.0)	5 (2.0)	0 (****)
Arizona	25 (1.7)	75 (1.7)	26 (2.1)	2 (0.9)	57 (6.4)	43 (6.4)	5 (2.5)	2 (****)	60 (3.2)	40 (3.2)	6 (1.3)	0 (****)
Arkansas	32 (1.7)	68 (1.7)	18 (1.5)	1 (0.4)	72 (3.4)	28 (3.4)	2 (1.1)	▲ (****)	61 (5.2)	39 (5.2)	6 (1.8)	▲ (****)
California †	29 (2.5)	71 (2.5)	25 (2.5)	1 (0.7)	75 (3.4) !	25 (3.4) !	2 (1.3) !	0 (****) !	64 (3.1)	36 (3.1)	5 (1.3)	▲ (****)
Connecticut	12 (1.0)	88 (1.0)	41 (1.9)	4 (0.7)	59 (3.9)	41 (3.9)	6 (1.7)	▲ (****)	47 (4.1)	53 (4.1)	9 (1.4)	▲ (****)
Georgia	25 (1.9)	75 (1.9)	29 (2.1)	2 (0.5)	62 (2.2)	38 (2.2)	6 (1.0)	▲ (****)	57 (5.8)	43 (5.8)	8 (2.7)	0 (****)
Hawaii	32 (3.2)	68 (3.2)	19 (2.0)	1 (0.6)	63 (7.9)	37 (7.9)	3 (1.8)	0 (****)	60 (3.4)	40 (3.4)	7 (1.7)	▲ (****)
Idaho †	24 (1.7)	76 (1.7)	24 (1.7)	1 (0.5)	****(****)	****(****)	****(****)	****(****)	51 (4.7)	49 (4.7)	8 (2.0)	▲ (****)
Illinois †	18 (2.9)	82 (2.9)	32 (3.4)	3 (1.1)	63 (3.5)	37 (3.5)	5 (1.5)	0 (****)	49 (3.7)	51 (3.7)	8 (2.3)	▲ (0.1)
Indiana †	17 (1.4)	83 (1.4)	34 (2.0)	3 (0.8)	49 (5.0) !	51 (5.0) !	14 (2.9) !	1 (****) !	39 (6.3)	61 (6.3)	16 (4.6)	1 (****)
Iowa †	19 (1.5)	81 (1.5)	30 (1.9)	2 (0.4)	****(****)	****(****)	****(****)	****(****)	49 (7.9)	51 (7.9)	13 (4.1)	▲ (****)
Kansas †	17 (2.2)	83 (2.2)	36 (2.5)	4 (0.9)	58 (8.6) !	42 (8.6) !	7 (3.7) !	1 (****) !	46 (5.9)	54 (5.9)	11 (3.6)	0 (****)
Kentucky	34 (1.8)	66 (1.8)	20 (1.4)	2 (0.3)	71 (3.3)	29 (3.3)	2 (0.8)	▲ (****)	57 (6.9)	43 (6.9)	9 (5.1)	▲ (****)
Louisiana	24 (2.0)	76 (2.0)	23 (2.3)	1 (0.4)	65 (2.6)	35 (2.6)	4 (0.8)	▲ (****)	55 (6.3)	45 (6.3)	7 (2.9)	▲ (****)
Maine †	25 (1.8)	75 (1.8)	25 (1.4)	2 (0.4)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Maryland	19 (1.7)	81 (1.7)	36 (2.4)	4 (0.8)	64 (2.7)	36 (2.7)	5 (0.9)	▲ (****)	53 (4.4)	47 (4.4)	10 (2.6)	▲ (****)
Massachusetts	13 (1.4)	87 (1.4)	39 (1.7)	3 (0.6)	53 (5.1)	47 (5.1)	7 (2.5)	▲ (****)	53 (3.4)	47 (3.4)	10 (1.8)	1 (****)
Michigan †	17 (1.9)	83 (1.9)	37 (2.2)	4 (0.9)	68 (4.2)	32 (4.2)	4 (1.6)	▲ (****)	51 (4.9)	49 (4.9)	15 (3.7)	▲ (****)
Minnesota †	16 (1.4)	84 (1.4)	39 (1.9)	4 (0.8)	54 (6.8)	46 (6.8)	11 (3.1)	▲ (****)	46 (5.8)	54 (5.8)	13 (3.9)	0 (****)
Mississippi	34 (2.1)	66 (2.1)	16 (1.5)	1 (0.3)	73 (1.6)	27 (1.6)	2 (0.6)	0 (****)	70 (4.1)	30 (4.1)	6 (2.0)	▲ (****)
Missouri	18 (1.3)	82 (1.3)	28 (1.8)	2 (0.5)	66 (5.3)	34 (5.3)	4 (1.3)	▲ (****)	46 (6.7)	54 (6.7)	11 (2.9)	▲ (****)
Montana	22 (2.4)	78 (2.4)	28 (2.8)	2 (0.8)	****(****)	****(****)	****(****)	****(****)	43 (6.2)	57 (6.2)	12 (4.7)	▲ (****)
Nebraska	25 (1.9)	75 (1.9)	29 (2.0)	2 (0.6)	79 (5.4) !	21 (5.4) !	6 (3.0) !	▲ (****) !	55 (5.1)	45 (5.1)	7 (3.4)	▲ (****)
Nevada	28 (1.6)	72 (1.6)	23 (1.5)	1 (0.4)	60 (4.5)	40 (4.5)	5 (1.5)	▲ (****)	54 (3.2)	46 (3.2)	8 (1.5)	▲ (****)
New Mexico	30 (2.5)	70 (2.5)	22 (2.5)	1 (0.5)	****(****)	****(****)	****(****)	****(****)	58 (2.2)	42 (2.2)	6 (1.0)	▲ (****)
New York †	15 (2.1)	85 (2.1)	34 (2.7)	2 (0.7)	56 (4.8)	44 (4.8)	5 (1.8)	▲ (****)	54 (3.1)	46 (3.1)	7 (1.3)	▲ (****)
North Carolina	14 (1.3)	86 (1.3)	38 (2.0)	4 (0.6)	42 (3.0)	58 (3.0)	9 (1.2)	▲ (****)	44 (7.7)	56 (7.7)	13 (3.0)	1 (****)
North Dakota	21 (1.5)	79 (1.5)	27 (1.5)	2 (0.4)	****(****)	****(****)	****(****)	****(****)	47 (6.6)	53 (6.6)	12 (4.0)	▲ (****)
Ohio †	18 (1.7)	82 (1.7)	32 (2.4)	3 (0.6)	63 (3.8)	37 (3.8)	3 (1.6)	0 (****)	40 (5.7)	60 (5.7)	12 (3.6)	1 (0.7)
Oklahoma	23 (1.7)	77 (1.7)	20 (1.5)	1 (0.2)	61 (7.0)	39 (7.0)	3 (1.1)	▲ (****)	46 (4.3)	54 (4.3)	9 (2.0)	▲ (****)
Oregon †	27 (2.3)	73 (2.3)	26 (1.9)	3 (0.7)	****(****)	****(****)	****(****)	****(****)	60 (5.0)	40 (5.0)	6 (1.9)	▲ (****)
Rhode Island	21 (1.2)	79 (1.2)	30 (1.7)	3 (0.5)	63 (4.3)	37 (4.3)	4 (2.4)	▲ (****)	67 (3.1)	33 (3.1)	5 (1.3)	1 (****)
South Carolina	23 (1.5)	77 (1.5)	28 (1.6)	3 (0.5)	63 (2.7)	37 (2.7)	4 (0.8)	▲ (****)	54 (5.1)	46 (5.1)	12 (3.5)	1 (****)
Tennessee	30 (1.8)	70 (1.8)	23 (1.8)	2 (0.5)	69 (3.5)	31 (3.5)	4 (1.2)	▲ (****)	54 (7.9)	46 (7.9)	9 (2.9)	▲ (****)
Texas	11 (1.4)	89 (1.4)	41 (2.8)	4 (1.1)	40 (4.4)	60 (4.4)	12 (2.6)	▲ (****)	32 (2.8)	68 (2.8)	14 (1.7)	1 (0.3)
Utah	24 (1.5)	76 (1.5)	28 (1.5)	2 (0.3)	****(****)	****(****)	****(****)	****(****)	58 (3.6)	42 (3.6)	8 (1.8)	▲ (****)
Vermont †	25 (2.1)	75 (2.1)	31 (2.3)	4 (0.8)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Virginia	14 (1.4)	86 (1.4)	35 (2.1)	3 (1.0)	54 (3.2)	46 (3.2)	6 (1.2)	▲ (****)	41 (6.5)	59 (6.5)	11 (2.6)	▲ (****)
West Virginia	30 (1.6)	70 (1.6)	19 (1.6)	1 (0.3)	61 (5.6)	39 (5.6)	6 (3.2)	▲ (****)	45 (5.0)	55 (5.0)	13 (3.4)	▲ (****)
Wyoming	23 (1.9)	77 (1.9)	28 (1.7)	2 (0.5)	****(****)	****(****)	****(****)	****(****)	44 (5.0)	56 (5.0)	12 (2.7)	1 (****)
Other Jurisdictions												
American Samoa	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	94 (3.2)	6 (3.2)	▲ (****)	0 (****)
District of Columbia	22 (4.4)	78 (4.4)	49 (7.1)	12 (3.4)	79 (1.2)	21 (1.2)	2 (0.5)	▲ (****)	78 (3.3)	22 (3.3)	4 (1.2)	▲ (****)
DDESS	20 (2.2)	80 (2.2)	34 (2.7)	4 (1.3)	42 (6.0)	58 (6.0)	12 (3.3)	1 (0.5)	41 (3.2)	59 (3.2)	14 (3.3)	1 (****)
DoDDS	20 (2.0)	80 (2.0)	31 (1.6)	3 (0.6)	50 (3.3)	50 (3.3)	7 (1.6)	▲ (****)	41 (3.5)	59 (3.5)	13 (1.8)	▲ (****)
Guam	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	90 (5.5)	10 (5.5)	1 (****)	▲ (****)
Virgin Islands	****(****)	****(****)	****(****)	****(****)	85 (3.7)	15 (3.7)	1 (0.7)	▲ (****)	88 (3.8)	12 (3.8)	1 (****)	0 (****)

See footnotes at end of table. ▶

Table B.38: State Achievement Level Results by Race/Ethnicity, Grade 4 (continued)

State percentages of students at or above mathematics achievement levels by race/ethnicity for grade 4 public schools: 2000

	Asian				American Indian			
	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*
Nation	~	~	~	~	49 (6.1)	51 (6.1)	13 (3.0)	1 (****)
Alabama	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Arizona	23 (5.4)	77 (5.4)	28 (7.8)	6 (3.5)	76 (3.9)	24 (3.9)	4 (1.6)	▲ (****)
Arkansas	****(****)	****(****)	****(****)	****(****)	51 (8.7)	49 (8.7)	9 (5.0)	1 (****)
California †	29 (5.9)	71 (5.9)	25 (4.9)	2 (1.2)	****(****)	****(****)	****(****)	****(****)
Connecticut	11 (4.7)	89 (4.7)	45 (6.7)	7 (3.0)	****(****)	****(****)	****(****)	****(****)
Georgia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Hawaii	44 (2.1)	56 (2.1)	15 (1.3)	1 (0.4)	****(****)	****(****)	****(****)	****(****)
Idaho †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Illinois †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Indiana †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Iowa †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Kansas †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Kentucky	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Louisiana	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Maine †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Maryland	18 (6.1)	82 (6.1)	40 (6.1)	6 (3.1)	****(****)	****(****)	****(****)	****(****)
Massachusetts	19 (5.1)	81 (5.1)	41 (5.1)	8 (3.6)	****(****)	****(****)	****(****)	****(****)
Michigan †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Minnesota †	23 (6.4)	77 (6.4)	32 (5.4)	4 (3.1)	****(****)	****(****)	****(****)	****(****)
Mississippi	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Missouri	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Montana †	****(****)	****(****)	****(****)	****(****)	51 (6.2)	49 (6.2)	8 (2.8)	0 (****)
Nebraska	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Nevada	36 (4.6)	64 (4.6)	21 (3.9)	2 (1.6)	49 (6.8)	51 (6.8)	7 (3.0)	0 (****)
New Mexico	****(****)	****(****)	****(****)	****(****)	70 (5.1)	30 (5.1)	5 (2.0)	0 (****)
New York †	10 (5.1) !	90 (5.1) !	47 (7.5) !	7 (3.7) !	****(****)	****(****)	****(****)	****(****)
North Carolina	****(****)	****(****)	****(****)	****(****)	23 (8.3) !	77 (8.3) !	21 (5.5) !	2 (****)!
North Dakota	****(****)	****(****)	****(****)	****(****)	58 (7.8)	42 (7.8)	7 (3.3)	0 (****)
Ohio †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Oklahoma	****(****)	****(****)	****(****)	****(****)	35 (3.4)	65 (3.4)	12 (2.6)	▲ (****)
Oregon †	23 (5.9)	77 (5.9)	36 (7.3)	12 (4.3)	****(****)	****(****)	****(****)	****(****)
Rhode Island	45 (6.4)	55 (6.4)	21 (5.8)	2 (****)	****(****)	****(****)	****(****)	****(****)
South Carolina	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Tennessee	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Texas	10 (5.3)	90 (5.3)	48 (6.7)	9 (4.8)	****(****)	****(****)	****(****)	****(****)
Utah	39 (6.3)	61 (6.3)	16 (5.1)	1 (****)	****(****)	****(****)	****(****)	****(****)
Vermont †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Virginia	12 (****) !	88 (****) !	45 (9.9) !	8 (3.6) !	****(****)	****(****)	****(****)	****(****)
West Virginia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Wyoming	****(****)	****(****)	****(****)	****(****)	31 (8.2)	69 (8.2)	18 (7.6)	1 (****)
Other Jurisdictions								
American Samoa	96 (1.8)	4 (1.8)	▲ (****)	0 (****)	****(****)	****(****)	****(****)	****(****)
District of Columbia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
DDESS	26 (9.6)	74 (9.6)	23 (7.5)	2 (****)	****(****)	****(****)	****(****)	****(****)
DoDDS	23 (2.1)	77 (2.1)	27 (3.2)	2 (0.8)	45 (10.6)	55 (10.6)	10 (4.5)	▲ (****)
Guam	77 (2.3)	23 (2.3)	2 (0.7)	▲ (****)	****(****)	****(****)	****(****)	****(****)
Virgin Islands	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)

Standard errors of the estimated percentages and scale scores appear in parentheses.

! The nature of the sample does not allow accurate determination of the variability of the statistic.

(****) Standard error estimates cannot be accurately determined.

**** (****) Sample size is insufficient to permit a reliable estimate.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

▲ Percentage is between 0.0 and 0.5.

~ Special analyses raised concerns about the accuracy and precision of the national grade 4 Asian/Pacific Islander results in 2000. As a result, they are omitted from the body of this report. See appendix A for a more detailed discussion.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Table B.39: Data for Figure 3.21 State *Proficient* Level Achievement Results by Race/Ethnicity, Grade 8

State percentages of students at or above the *Proficient* level in mathematics by race/ethnicity for grade 8 public schools: 1990–2000

	White				Black				Hispanic			
	1990	1992	1996	2000	1990	1992	1996	2000	1990	1992	1996	2000
Nation	19 (1.4) *	26 (1.3) *	30 (1.5)	34 (1.3)	5 (1.1)	2 (0.7) *	4 (0.9)	5 (0.6)	5 (1.5) *	6 (0.8) *	8 (1.6)	9 (0.9)
Alabama	12 (1.0) ‡	15 (1.3) ‡	18 (2.7)	23 (2.0)	2 (0.6)	1 (0.4) *	1 (0.5)	4 (0.9)	4 (1.7)	1 (1.5)	6 (2.6)	6 (3.5)
Arizona †	18 (1.2) ‡	22 (1.7) ‡	25 (1.7)	31 (2.2)	4 (2.1)	4 (2.5)	5 (2.7)	8 (3.9)	4 (0.9)	5 (1.3)	6 (1.1)	8 (1.6)
Arkansas	12 (0.9) ‡	13 (1.0) ‡	17 (1.3)	19 (1.6)	1 (0.4)	2 (0.8)	2 (0.9)	2 (0.6)	2 (2.1)	3 (1.8)	****(****)	4 (2.9)
California †	19 (1.9) ‡	25 (2.2)	28 (2.3)	27 (2.0)	3 (1.3)	2 (1.2)	2 (1.4)	4 (1.8)	3 (0.7)	4 (1.0)	5 (0.8)	7 (2.4)
Connecticut	26 (1.1) ‡	32 (1.2) ‡	37 (1.6) *	44 (1.9)	4 (1.4)	3 (1.2)	4 (1.5)	4 (1.5)	4 (1.5)	4 (1.3)	8 (1.9)	9 (1.8)
Georgia	20 (1.7) ‡	19 (1.4) ‡	24 (2.6)	28 (1.5)	4 (0.8)	3 (0.6)	3 (0.8)	4 (0.8)	3 (1.6)	4 (2.9)	10 (4.2)	5 (2.1)
Hawaii	17 (2.8) ‡	18 (2.3) *	22 (3.5)	28 (3.6)	****(****)	****(****)	****(****)	8 (4.2)	4 (1.4)	4 (1.0)	8 (1.9)	5 (2.3)
Idaho †	19 (1.3) ‡	23 (1.2) ‡	—	30 (1.8)	****(****)	****(****)	—	****(****)	5 (1.8)	7 (2.0)	—	9 (2.4)
Illinois †	19 (1.6) ‡	—	—	38 (1.8)	3 (1.2)	—	—	7 (2.1)	3 (1.2) ‡	—	—	11 (2.4)
Indiana †	18 (1.1) ‡	22 (1.3) ‡	27 (1.8) *	35 (1.9)	2 (1.0)	3 (1.4)	2 (1.0)	7 (3.1)!	8 (3.2)	8 (2.9)	10 (3.1)	13 (3.9)
Kansas †	—	—	—	38 (2.1)	—	—	—	10 (4.2)	—	—	—	13 (3.6)
Kentucky	12 (0.9) ‡	15 (1.2) ‡	17 (1.3) *	23 (1.5)	2 (0.9)	4 (1.8)	2 (1.9)	7 (2.3)	1 (0.8)	4 (2.5)	****(****)	****(****)
Louisiana	8 (1.1) ‡	12 (1.6) ‡	12 (1.6) *	20 (2.0)	1 (0.4)	1 (0.4)	2 (0.5)	2 (0.6)	2 (1.5)	1 (0.7)	2 (1.7)	4 (2.0)
Maine †	—	26 (1.5) ‡	32 (1.7)	33 (1.5)	—	****(****)	****(****)	****(****)	—	****(****)	****(****)	****(****)
Maryland	22 (1.4) ‡	29 (1.8) ‡	34 (2.8)	40 (1.8)	3 (0.8) *	3 (0.9) ‡	4 (1.0)	7 (1.3)	7 (1.7) *	4 (1.9) ‡	14 (3.7)	17 (4.4)
Massachusetts	— ‡	26 (1.4) ‡	32 (2.1)	37 (1.3)	—	6 (2.2)	8 (3.3)	8 (3.6)	—	4 (1.6) ‡	5 (2.2)	14 (3.1)
Michigan †	19 (1.3) ‡	24 (1.8) ‡	34 (1.8)	35 (2.0)	1 (0.6)	2 (0.7)	5 (2.0)	2 (1.0)	4 (1.9)	8 (3.0)	12 (4.6)	9 (3.8)
Minnesota †	25 (1.3) ‡	33 (1.2) ‡	37 (1.9)	42 (1.6)	8 (2.8)!	****(****)	6 (3.5)	****(****)	6 (2.3)	6 (2.5)	19 (6.4)	13 (4.3)
Mississippi	—	12 (1.3)	13 (1.6)	14 (1.3)	—	1 (0.4)	1 (0.3)	1 (0.4)	—	1 (0.7)	3 (1.7)	1 (1.0)
Missouri	—	22 (1.3)	25 (1.6)	25 (1.5)	—	3 (1.0)	4 (1.7)	5 (1.4)	—	9 (4.7)	10 (4.3)	10 (4.5)
Montana †	29 (1.5) ‡	—	36 (1.5)	40 (1.6)	****(****)	—	****(****)	****(****)	10 (5.2)	—	12 (4.1)	23 (6.6)
Nebraska	27 (1.4) ‡	29 (1.7)	34 (1.6)	34 (1.6)	2 (2.4)	2 (1.3)	7 (3.3)	8 (3.6)	4 (2.7)	10 (2.8)	7 (2.8)	11 (2.8)
Nevada	—	—	—	26 (1.3)	—	—	—	7 (2.2)	—	—	—	9 (1.1)
New Mexico	20 (2.0)	19 (1.5) ‡	28 (1.8)	26 (2.0)	****(****)	****(****)	****(****)	****(****)	4 (0.8)	5 (0.6)	6 (1.2)	6 (1.1)
New York †	21 (1.3) ‡	27 (1.7) ‡	31 (1.8)	36 (2.1)	4 (1.1)	4 (1.5)	4 (1.8)	10 (3.1)	5 (1.5) ‡	7 (1.7)	6 (1.4)	12 (2.3)
North Carolina	13 (1.0) ‡	16 (1.2) ‡	28 (1.6) ‡	41 (1.5)	2 (0.7) ‡	3 (0.8) ‡	5 (1.0)	7 (1.0)	1 (1.0) ‡	5 (3.9) *	7 (2.8)	18 (4.5)
North Dakota	29 (1.8)	31 (1.7)	35 (1.5)	33 (1.7)	****(****)	****(****)	****(****)	****(****)	7 (4.5)	****(****)	13 (4.9)	17 (6.8)
Ohio	17 (1.2) ‡	21 (1.5) ‡	—	34 (1.8)	2 (1.1) *	3 (0.8)	—	8 (2.2)	3 (2.5) ‡	5 (2.8) ‡	—	21 (4.6)
Oklahoma	16 (1.4) ‡	19 (1.2)	—	22 (1.2)	▲ (0.6) ‡	2 (0.9)	—	5 (1.6)	4 (2.2)	9 (2.9)	—	8 (2.6)
Oregon †	22 (1.2) ‡	—	29 (1.7)	34 (2.0)	****(****)	—	****(****)	15 (5.9)!	10 (3.0)	—	13 (3.7)	13 (4.3)
Rhode Island	17 (0.9) ‡	18 (1.3) ‡	24 (1.5)	29 (1.3)	2 (1.1)	2 (2.1)	7 (3.6)	6 (2.7)	2 (0.7)	2 (0.9)	4 (1.4)	4 (1.4)
South Carolina	—	23 (1.6)	22 (2.1)	28 (1.7)	—	3 (0.6)	3 (0.6)	4 (0.9)	—	2 (1.2)	4 (2.9)	9 (3.7)
Tennessee	—	15 (1.2) ‡	18 (1.5)	21 (1.6)	—	2 (0.8)	3 (1.2)	3 (1.2)	—	2 (1.8)	6 (2.7)	12 (6.9)
Texas	21 (1.8) ‡	27 (1.8) ‡	33 (1.8)	37 (2.1)	2 (1.1)	5 (1.4)	5 (1.7)	6 (2.0)	4 (1.0) ‡	7 (1.0) *	8 (1.4)	14 (2.0)
Utah	—	24 (1.2) *	27 (1.3)	28 (1.2)	—	****(****)	****(****)	****(****)	—	6 (2.6)	6 (1.8)	7 (2.2)
Vermont †	—	—	29 (1.4) ‡	33 (1.5)	—	—	****(****)	****(****)	—	—	****(****)	****(****)
Virginia	21 (1.9) ‡	24 (1.3) ‡	28 (1.4)	33 (1.8)	4 (1.0)	4 (1.1)	4 (0.8)	5 (1.2)	9 (3.5)	11 (4.0)	9 (3.4)	14 (3.4)
West Virginia	10 (0.8) ‡	10 (0.8) ‡	15 (0.9) *	19 (1.0)	2 (3.3)	3 (1.8)	2 (1.5)!	8 (3.7)	3 (2.6) *	2 (1.5) ‡	7 (4.2)	14 (4.0)
Wyoming	20 (1.1) ‡	23 (1.1)	24 (1.0)	27 (1.2)	****(****)	****(****)	****(****)	****(****)	7 (2.8)	9 (2.5)	8 (1.6)	10 (2.1)
Other Jurisdictions												
American Samoa	—	—	—	****(****)	—	—	—	****(****)	—	—	—	▲ (0.0)
District of Columbia	****(****)	****(****)	61 (9.2)	****(****)	1 (0.4) ‡	2 (0.6)	2 (0.6)	3 (0.6)	2 (1.1)	6 (3.1)	4 (1.5)	4 (2.0)
DDESS	—	—	34 (4.7)	38 (4.0)	—	—	8 (3.1)	17 (3.2)	—	—	18 (5.2)	16 (4.4)
DoDDS	—	—	32 (1.8)	36 (1.9)	—	—	6 (1.2)	10 (1.7)	—	—	15 (3.0)	18 (2.6)
Guam	10 (2.5)	19 (7.1)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	1 (0.5)	3 (1.3)	2 (1.4)	2 (1.5)

See footnotes at end of table. ▶

Table B.39: Data for Figure 3.21 State *Proficient* Level Achievement Results by Race/Ethnicity, Grade 8 (continued)

State percentages of students at or above the *Proficient* level in mathematics by race/ethnicity for grade 8 public schools: 1990–2000

	Asian				American Indian			
	1990	1992	1996	2000	1990	1992	1996	2000
Nation	32 (6.5)	38 (8.0)	~	40 (4.1)	****(****)	7 (3.3)	14 (5.4)	12 (3.6)
Alabama	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Arizona †	****(****)	****(****)	****(****)	35 (5.8)	▲ (0.5) !	6 (2.9)	9 (5.3) !	****(****)
Arkansas	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
California †	20 (3.1)	29 (3.3)	29 (4.1)	33 (5.4)	****(****)	****(****)	****(****)	****(****)
Connecticut	****(****)	45 (8.8)	35 (7.9)	38 (9.1)	****(****)	****(****)	****(****)	****(****)
Georgia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Hawaii	12 (0.8) *	15 (0.8)	17 (1.1)	16 (1.2)	****(****)	****(****)	****(****)	****(****)
Idaho †	****(****)	****(****)	—	****(****)	5 (5.9)	9 (4.6)	—	****(****)
Illinois †	32 (5.4)	—	—	****(****)	****(****)	—	—	****(****)
Indiana †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Kansas †	—	—	—	****(****)	—	—	—	****(****)
Kentucky	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Louisiana	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Maine †	—	****(****)	****(****)	****(****)	—	9 (4.6)	****(****)	****(****)
Maryland	47 (6.5) *	41 (6.3) ‡	62 (5.9) !	64 (4.6)	****(****)	****(****)	****(****)	****(****)
Massachusetts	—	****(****)	29 (6.5)	49 (6.5)	—	****(****)	****(****)	****(****)
Michigan †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Minnesota †	20 (5.6)	****(****)	27 (5.5) !	****(****)	****(****)	****(****)	****(****)	****(****)
Mississippi	—	****(****)	****(****)	****(****)	—	****(****)	****(****)	****(****)
Missouri	—	****(****)	****(****)	****(****)	—	****(****)	****(****)	****(****)
Montana †	****(****)	—	****(****)	****(****)	7 (2.5)	—	14 (2.6)	8 (2.9)!
Nebraska	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Nevada	—	—	—	26 (3.7)	—	—	—	11 (4.7)
New Mexico	****(****)	****(****)	****(****)	****(****)	2 (1.0)	1 (1.6)	6 (1.6)	4 (1.5)!
New York †	32 (6.2) !	33 (7.8)	35 (6.3)	42 (6.0)	****(****)	****(****)	****(****)	****(****)
North Carolina	****(****)	****(****)	****(****)	****(****)	2 (2.1) !	****(****)	****(****)	****(****)
North Dakota	****(****)	****(****)	****(****)	****(****)	2 (2.4) !	5 (3.0) !	7 (3.6) !	6 (3.0)
Ohio	****(****)	****(****)	—	****(****)	****(****)	****(****)	—	****(****)
Oklahoma	****(****)	****(****)	—	****(****)	6 (2.1)	12 (3.2)	—	8 (2.1)
Oregon †	28 (6.2)	—	34 (5.5)	35 (6.6)	6 (2.6)	—	10 (3.7)	****(****)
Rhode Island	****(****)	14 (3.3)	18 (5.5)	21 (6.7)	****(****)	****(****)	****(****)	****(****)
South Carolina	—	****(****)	****(****)	****(****)	—	****(****)	****(****)	****(****)
Tennessee	—	****(****)	****(****)	****(****)	—	****(****)	****(****)	****(****)
Texas	****(****)	57 (7.0)	57 (10.0) !	42 (7.1)	****(****)	****(****)	****(****)	****(****)
Utah	—	****(****)	24 (7.5)	35 (6.2)	—	****(****)	****(****)	****(****)
Vermont †	—	—	****(****)	****(****)	—	—	****(****)	****(****)
Virginia	41 (5.5)	32 (5.4)	38 (6.8)	49 (8.2)	****(****)	****(****)	****(****)	****(****)
West Virginia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Wyoming	****(****)	****(****)	****(****)	****(****)	5 (2.4)	1 (1.0) !	4 (2.5)	7 (3.9)!
Other Jurisdictions								
American Samoa	—	—	—	1 (0.8)	—	—	—	****(****)
District of Columbia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
DDESS	—	—	****(****)	****(****)	—	—	****(****)	****(****)
DoDDS	—	—	24 (4.2)	30 (2.4)	—	—	****(****)	****(****)
Guam	4 (0.6)	6 (0.6)	6 (1.1)	4 (0.7)	****(****)	****(****)	****(****)	****(****)

Standard errors of the estimated percentages appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined.

‡ Significantly different from 2000 when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.

! The nature of the sample does not allow accurate determination of the variability of the statistic.

**** (****) Sample size is insufficient to permit a reliable estimate.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

— Indicates that the jurisdiction did not participate.

▲ Percentage is between 0.0 and 0.5.

~ Special analyses raised concerns about the accuracy and precision of national grade 8 Asian/Pacific Islander results in 1996. As a result, they are omitted from the body of this report. See appendix A for a more detailed discussion.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.40: State *Basic* Level Achievement Results by Race/Ethnicity, Grade 8

State percentages of students at or above *Basic* in mathematics by race/ethnicity for grade 8 public schools: 1990–2000

	White				Black				Hispanic			
	1990	1992	1996	2000	1990	1992	1996	2000	1990	1992	1996	2000
Nation	60 (1.8) *	68 (1.4) *	73 (1.5)	77 (1.0)	22 (2.5) *	20 (2.0) *	27 (2.9)	32 (1.9)	31 (3.2) *	32 (2.1) *	37 (2.5)	40 (1.9)
Alabama	52 (1.8) ‡	53 (2.0) ‡	63 (3.2)	67 (2.0)	18 (2.0)	15 (1.7) ‡	17 (2.0)	24 (2.3)	15 (4.7)	12 (3.8) *	23 (5.0)	29 (7.3)
Arizona †	61 (1.7) ‡	68 (1.9) ‡	72 (1.8) *	78 (1.4)	30 (5.6)	31 (6.5)	34 (6.2)	39 (5.7)	27 (2.2) ‡	32 (3.7)	35 (2.6)	41 (3.3)
Arkansas	55 (1.4) ‡	55 (2.0) ‡	62 (1.8)	65 (2.0)	13 (1.3)	14 (1.9)	17 (2.9)	18 (2.1)	16 (5.0)	18 (4.5)	****(****)	25 (5.1)
California †	61 (2.2) ‡	69 (2.1)	71 (2.0)	71 (2.8)	19 (2.9)	21 (4.4)	25 (4.4)	25 (3.4)	23 (2.2) ‡	28 (2.1)	32 (2.4)	34 (3.2)
Connecticut	69 (1.5) ‡	77 (1.2) ‡	80 (1.4) ‡	86 (1.3)	28 (3.6)	27 (3.9)	29 (3.8)	31 (3.1)	23 (3.3) ‡	27 (3.2)	37 (2.5)	37 (3.4)
Georgia	62 (1.8) ‡	63 (2.1) ‡	68 (2.1)	73 (2.3)	25 (1.7)	24 (1.9)	24 (1.7)	30 (2.3)	20 (3.7) ‡	24 (8.7)	36 (6.6)	34 (4.6)
Hawaii	53 (2.5) ‡	57 (2.5)	62 (3.3)	66 (5.0)	****(****)	****(****)	****(****)	41 (8.9)	18 (3.2) ‡	29 (2.8)	35 (3.8)	37 (5.0)
Idaho †	66 (1.3) ‡	71 (1.0) ‡	—	76 (1.2)	****(****)	****(****)	—	****(****)	34 (4.7)	40 (4.3)	—	37 (6.8)
Illinois †	62 (1.8) ‡	—	—	81 (1.8)	20 (4.6) ‡	—	—	42 (4.2)	23 (3.8) ‡	—	—	51 (5.2)
Indiana †	62 (1.4) ‡	65 (1.6) ‡	74 (1.9) *	81 (1.5)	23 (3.9) ‡	27 (4.1) ‡	31 (4.4) *	48 (4.6) !	28 (4.1) ‡	41 (7.4)	44 (7.6)	57 (8.0)
Kansas †	—	—	—	83 (1.6)	—	—	—	42 (9.8)	—	—	—	51 (4.8)
Kentucky	47 (1.8) ‡	55 (1.5) ‡	60 (1.6) ‡	67 (1.7)	23 (3.4) ‡	25 (3.6) ‡	31 (4.0)	38 (3.9)	14 (3.8)	23 (5.7)	****(****)	****(****)
Louisiana	45 (2.0) ‡	52 (2.4) ‡	56 (1.8) ‡	71 (1.9)	13 (1.5) ‡	17 (1.9)	17 (2.0)	22 (1.9)	14 (3.7)	19 (3.7)	24 (4.6)	26 (4.9)
Maine †	—	73 (1.2) *	78 (1.6)	77 (1.6)	—	****(****)	****(****)	****(****)	—	****(****)	****(****)	****(****)
Maryland	64 (1.8) ‡	70 (1.7) ‡	75 (1.9) *	81 (1.5)	23 (2.5) ‡	25 (2.1) ‡	26 (2.2) *	36 (2.6)	26 (3.2) ‡	29 (3.8) ‡	36 (5.2) *	57 (5.2)
Massachusetts	—	69 (1.7) ‡	75 (2.0) ‡	83 (1.5)	—	29 (4.5) *	35 (5.4)	43 (5.5)	—	25 (4.5) ‡	26 (5.5) ‡	49 (5.0)
Michigan †	62 (1.6) ‡	69 (1.8) ‡	77 (1.7)	79 (1.6)	13 (1.5) ‡	18 (2.7)	29 (4.6)	25 (3.2)	29 (4.0) ‡	38 (6.5)	37 (5.2)	51 (6.1)
Minnesota †	71 (1.1) ‡	77 (1.3) ‡	79 (1.3) *	84 (1.4)	22 (5.6) !	****(****)	33 (7.1)	****(****)	26 (5.7)	40 (7.0)	49 (7.7)	43 (7.7)
Mississippi	—	53 (2.0) *	56 (1.9)	59 (1.8)	—	14 (1.5) *	16 (1.3)	20 (1.7)	—	10 (3.5)	11 (2.9)	15 (4.4)
Missouri	—	69 (1.5)	70 (2.1)	75 (2.0)	—	25 (3.4)	26 (4.7)	29 (4.4)	—	34 (6.8)	48 (8.2)	41 (6.5)
Montana †	79 (1.6) ‡	—	79 (1.5)	84 (1.3)	****(****)	—	****(****)	****(****)	53 (6.2)	—	52 (6.5)	68 (7.2)
Nebraska	73 (1.5) ‡	76 (1.2)	80 (1.1)	79 (1.5)	19 (4.1)	19 (6.0)	40 (4.5)	31 (8.1)	41 (6.6)	41 (5.2)	44 (5.6)	44 (5.7)
Nevada	—	—	—	70 (1.5)	—	—	—	35 (3.3)	—	—	—	37 (2.1)
New Mexico	64 (2.1) ‡	66 (1.9)	72 (2.0)	72 (2.4)	****(****)	****(****)	****(****)	****(****)	31 (1.7) ‡	33 (1.8)	38 (1.9)	38 (2.1)
New York †	65 (1.6) ‡	73 (1.2) ‡	77 (1.8) ‡	85 (1.3)	20 (3.9) ‡	20 (4.4) ‡	32 (4.0)	44 (6.6)	24 (3.5) ‡	32 (4.4)	30 (3.6) *	47 (5.3)
North Carolina	50 (2.0) ‡	57 (1.5) ‡	69 (1.8) ‡	83 (1.4)	18 (1.5) ‡	24 (2.0) ‡	31 (2.5) ‡	42 (1.8)	10 (3.3) ‡	23 (6.2) ‡	41 (5.6)	57 (6.4)
North Dakota	79 (1.4)	80 (1.4)	80 (1.1)	80 (1.5)	****(****)	****(****)	****(****)	****(****)	37 (8.0)	****(****)	55 (8.5)	55 (7.2)
Ohio	59 (1.6) ‡	67 (2.1) ‡	—	81 (1.7)	17 (2.6) ‡	20 (2.7) ‡	—	41 (4.9)	21 (6.6) ‡	33 (4.6) ‡	—	58 (6.1)
Oklahoma	58 (2.0) ‡	66 (1.5)	—	71 (1.9)	20 (2.8)	22 (4.3)	—	33 (6.2)	34 (5.6)	41 (5.1)	—	45 (7.4)
Oregon †	65 (1.4) ‡	—	70 (1.6)	75 (1.9)	****(****)	—	****(****)	51 (9.2) !	38 (4.2)	—	46 (5.3)	50 (6.4)
Rhode Island	55 (1.2) ‡	63 (1.4) ‡	67 (1.6) *	73 (1.3)	14 (3.5) ‡	28 (4.3)	31 (5.0)	32 (4.4)	15 (3.2) ‡	18 (4.2) *	27 (5.8)	31 (3.4)
South Carolina	—	64 (1.5) ‡	65 (2.3)	71 (1.7)	—	25 (1.4) ‡	28 (1.9)	33 (2.6)	—	15 (2.9) ‡	26 (5.6)	34 (6.4)
Tennessee	—	56 (1.7) *	62 (2.1)	62 (2.0)	—	17 (2.7)	19 (2.9)	23 (2.7)	—	18 (5.4) *	32 (8.0)	38 (6.7)
Texas	64 (2.0) ‡	71 (2.0) ‡	78 (1.7)	83 (1.8)	18 (2.3) ‡	28 (3.0) *	31 (4.3)	40 (4.3)	29 (1.9) ‡	33 (1.7) ‡	42 (2.6) ‡	59 (2.9)
Utah	—	70 (1.2)	73 (1.3)	72 (1.3)	—	****(****)	****(****)	****(****)	—	40 (4.6)	45 (4.4)	38 (3.8)
Vermont †	—	—	74 (1.6)	76 (1.8)	—	—	****(****)	****(****)	—	—	****(****)	****(****)
Virginia	60 (1.9) ‡	66 (1.6) ‡	71 (1.8) ‡	78 (1.7)	26 (2.4) ‡	29 (3.0)	26 (3.3) *	38 (3.6)	31 (4.5) ‡	44 (4.4)	44 (7.3)	56 (4.9)
West Virginia	44 (1.1) ‡	49 (1.6) ‡	56 (1.7) ‡	64 (1.3)	18 (6.1) *	26 (5.9)	29 (6.3) !	37 (6.2)	19 (4.3) ‡	15 (5.4) ‡	30 (6.6)	46 (5.6)
Wyoming	67 (1.4) ‡	71 (1.2)	72 (1.2)	74 (1.2)	****(****)	****(****)	****(****)	****(****)	39 (3.9)	45 (4.5)	45 (5.0)	45 (4.9)
Other Jurisdictions												
American Samoa	—	—	—	****(****)	—	—	—	****(****)	—	—	—	1 (1.1)
District of Columbia	****(****)	****(****)	79 (6.3)	****(****)	15 (0.8) ‡	20 (1.3)	17 (1.5)	20 (2.3)	10 (2.3) ‡	19 (3.2)	16 (4.1)	23 (3.9)
DDESS	—	—	74 (5.5)	79 (3.1)	—	—	39 (6.0)	54 (5.3)	—	—	52 (7.7)	59 (8.7)
DoDDS	—	—	77 (2.2)	81 (1.7)	—	—	39 (3.8)	49 (3.0)	—	—	59 (4.2)	62 (4.7)
Guam	48 (5.3)	60 (7.7)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	6 (1.5)	15 (2.7)	16 (3.0)	14 (3.7)

See footnotes at end of table. ▶

Table B.40: State *Basic* Level Achievement Results by Race/Ethnicity, Grade 8 (continued)

State percentages of students at or above *Basic* in mathematics by race/ethnicity for grade 8 public schools: 1990–2000

	Asian				American Indian			
	1990	1992	1996	2000	1990	1992	1996	2000
Nation	71 (6.1) !	75 (5.4)	~	75 (3.9)	31 (9.7) !	38 (6.1)	50 (6.2) !	50 (8.8)
Alabama	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Arizona †	****(****)	****(****)	****(****)	71 (5.6)	18 (2.8) !	39 (5.1)	40 (9.9) !	****(****)
Arkansas	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
California †	59 (4.5)	65 (3.8)	67 (4.5)	72 (4.7)	****(****)	****(****)	****(****)	****(****)
Connecticut	****(****)	75 (7.1)	70 (7.8)	76 (6.3)	****(****)	****(****)	****(****)	****(****)
Georgia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Hawaii	40 (1.2) ‡	48 (1.5)	52 (1.7)	52 (1.6)	****(****)	****(****)	****(****)	****(****)
Idaho †	****(****)	****(****)	—	****(****)	36 (7.3)	46 (6.5)	—	****(****)
Illinois †	70 (6.0)	—	—	****(****)	****(****)	—	—	****(****)
Indiana †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Kansas †	—	—	—	****(****)	—	—	—	****(****)
Kentucky	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Louisiana	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Maine †	—	****(****)	****(****)	****(****)	—	49 (7.4)	****(****)	****(****)
Maryland	80 (4.2)	77 (5.0) *	86 (5.2) !	90 (3.1)	****(****)	****(****)	****(****)	****(****)
Massachusetts	—	****(****)	67 (7.1)	80 (4.0)	—	****(****)	****(****)	****(****)
Michigan †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Minnesota †	61 (5.9)	****(****)	60 (7.0) !	****(****)	****(****)	****(****)	****(****)	****(****)
Mississippi	—	****(****)	****(****)	****(****)	—	****(****)	****(****)	****(****)
Missouri	—	****(****)	****(****)	****(****)	—	****(****)	****(****)	****(****)
Montana †	****(****)	—	****(****)	****(****)	42 (6.0)	—	55 (5.3)	41 (7.0) !
Nebraska	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Nevada	—	—	—	71 (4.5)	—	—	—	56 (6.9)
New Mexico	****(****)	****(****)	****(****)	****(****)	22 (2.4)	33 (5.4)	37 (3.8)	30 (5.8) !
New York †	68 (7.0) !	69 (8.8)	75 (5.2)	77 (4.1)	****(****)	****(****)	****(****)	****(****)
North Carolina	****(****)	****(****)	****(****)	****(****)	18 (4.9) !	****(****)	****(****)	****(****)
North Dakota	****(****)	****(****)	****(****)	****(****)	26 (4.7) !	48 (11.6) !	36 (7.0) !	45 (5.1)
Ohio	****(****)	****(****)	—	****(****)	****(****)	****(****)	—	****(****)
Oklahoma	****(****)	****(****)	—	****(****)	44 (3.7) ‡	50 (5.1)	—	58 (4.2)
Oregon †	69 (5.4)	—	78 (7.1)	71 (7.2)	42 (5.2)	—	46 (6.7)	****(****)
Rhode Island	****(****)	59 (5.4)	56 (7.3)	62 (5.7)	****(****)	****(****)	****(****)	****(****)
South Carolina	—	****(****)	****(****)	****(****)	—	****(****)	****(****)	****(****)
Tennessee	—	****(****)	****(****)	****(****)	—	****(****)	****(****)	****(****)
Texas	****(****)	85 (4.6)	86 (5.5) !	83 (6.6)	****(****)	****(****)	****(****)	****(****)
Utah	—	****(****)	62 (7.1)	66 (8.2)	—	****(****)	****(****)	****(****)
Vermont †	—	—	****(****)	****(****)	—	—	****(****)	****(****)
Virginia	83 (4.5)	71 (5.3) ‡	74 (5.5) *	89 (3.1)	****(****)	****(****)	****(****)	****(****)
West Virginia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Wyoming	****(****)	****(****)	****(****)	****(****)	45 (6.7)	32 (4.4) !	35 (7.3)	42 (7.3) !
Other Jurisdictions								
American Samoa	—	—	—	9 (3.2)	—	—	—	****(****)
District of Columbia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
DDESS	—	—	****(****)	****(****)	—	—	****(****)	****(****)
DoDDS	—	—	72 (3.8)	77 (3.4)	—	—	****(****)	****(****)
Guam	23 (1.2)	25 (1.5)	31 (2.2)	25 (1.6)	****(****)	****(****)	****(****)	****(****)

Standard errors of the estimated percentages appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined.

‡ Significantly different from 2000 when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.

! The nature of the sample does not allow accurate determination of the variability of the statistic.

**** (****) Sample size is insufficient to permit a reliable estimate.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

— Indicates that the jurisdiction did not participate.

~ Special analyses raised concerns about the accuracy and precision of the national grade 8 Asian/Pacific Islander results in 1996. As a result, they are omitted from the body of this report. See appendix A for a more detailed discussion.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.
DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.
DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.41: State Achievement Level Results by Race/Ethnicity, Grade 8

State percentages of students at or above mathematics achievement levels by race/ethnicity for grade 8 public schools: 2000

	White				Black				Hispanic			
	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*
Nation	23 (1.0)	77 (1.0)	34 (1.3)	6 (0.7)	68 (1.9)	32 (1.9)	5 (0.6)	▲(****)	60 (1.9)	40 (1.9)	9 (0.9)	1 (0.3)
Alabama	33 (2.0)	67 (2.0)	23 (2.0)	3 (0.8)	76 (2.3)	24 (2.3)	4 (0.9)	▲(****)	71 (7.3)	29 (7.3)	6 (3.5)	1 (****)
Arizona †	22 (1.4)	78 (1.4)	31 (2.2)	5 (0.8)	61 (5.7)	39 (5.7)	8 (3.9)	▲(****)	59 (3.3)	41 (3.3)	8 (1.6)	▲(****)
Arkansas	35 (2.0)	65 (2.0)	19 (1.6)	2 (0.5)	82 (2.1)	18 (2.1)	2 (0.6)	0 (****)	75 (5.1)	25 (5.1)	4 (****)	0 (****)
California †	29 (2.8)	71 (2.8)	27 (2.0)	4 (0.9)	75 (3.4)	25 (3.4)	4 (1.8)	1 (****)	66 (3.2)	34 (3.2)	7 (2.4)	▲(****)
Connecticut	14 (1.3)	86 (1.3)	44 (1.9)	8 (1.0)	69 (3.1)	31 (3.1)	4 (1.5)	▲(****)	63 (3.4)	37 (3.4)	9 (1.8)	1 (0.7)
Georgia	27 (2.3)	73 (2.3)	28 (1.5)	4 (0.7)	70 (2.3)	30 (2.3)	4 (0.8)	▲ (0.1)	66 (4.6)	34 (4.6)	5 (2.1)	▲(****)
Hawaii	34 (5.0)	66 (5.0)	28 (3.6)	5 (1.7)	59 (8.9)	41 (8.9)	8 (4.2)	0 (****)	63 (5.0)	37 (5.0)	5 (2.3)	▲(****)
Idaho †	24 (1.2)	76 (1.2)	30 (1.8)	4 (0.6)	****(****)	****(****)	****(****)	****(****)	63 (6.8)	37 (6.8)	9 (2.4)	▲(****)
Illinois †	19 (1.8)	81 (1.8)	38 (1.8)	6 (1.3)	58 (4.2)	42 (4.2)	7 (2.1)	▲(****)	49 (5.2)	51 (5.2)	11 (2.4)	▲(****)
Indiana †	19 (1.5)	81 (1.5)	35 (1.9)	6 (0.7)	52 (4.6) !	48 (4.6) !	7 (3.1) !	▲(****)!	43 (8.0)	57 (8.0)	13 (3.9)	1 (****)
Kansas †	17 (1.6)	83 (1.6)	38 (2.1)	4 (0.8)	58 (9.8)	42 (9.8)	10 (4.2)	1 (****)	49 (4.8)	51 (4.8)	13 (3.6)	2 (1.6)
Kentucky	33 (1.7)	67 (1.7)	23 (1.5)	3 (0.5)	62 (3.9)	38 (3.9)	7 (2.3)	1 (****)	****(****)	****(****)	****(****)	****(****)
Louisiana	29 (1.9)	71 (1.9)	20 (2.0)	1 (0.5)	78 (1.9)	22 (1.9)	2 (0.6)	▲(****)	74 (4.9)	26 (4.9)	4 (2.0)	▲(****)
Maine †	23 (1.6)	77 (1.6)	33 (1.5)	6 (0.7)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Maryland	19 (1.5)	81 (1.5)	40 (1.8)	9 (1.1)	64 (2.6)	36 (2.6)	7 (1.3)	▲(0.3)	43 (5.2)	57 (5.2)	17 (4.4)	3 (1.5)
Massachusetts	17 (1.5)	83 (1.5)	37 (1.3)	6 (0.7)	57 (5.5)	43 (5.5)	8 (3.6)	▲(****)	51 (5.0)	49 (5.0)	14 (3.1)	1 (1.0)
Michigan †	21 (1.6)	79 (1.6)	35 (2.0)	6 (0.8)	75 (3.2)	25 (3.2)	2 (1.0)	0 (****)	49 (6.1)	51 (6.1)	9 (3.8)	1 (****)
Minnesota †	16 (1.4)	84 (1.4)	42 (1.6)	7 (0.8)	****(****)	****(****)	****(****)	****(****)	57 (7.7)	43 (7.7)	13 (4.3)	1 (0.8)
Mississippi	41 (1.8)	59 (1.8)	14 (1.3)	1 (0.4)	80 (1.7)	20 (1.7)	1 (0.4)	0 (****)	85 (4.4)	15 (4.4)	1 (****)	0 (****)
Missouri	25 (2.0)	75 (2.0)	25 (1.5)	3 (0.4)	71 (4.4)	29 (4.4)	5 (1.4)	▲(****)	59 (6.5)	41 (6.5)	10 (4.5)	1 (****)
Montana †	16 (1.3)	84 (1.3)	40 (1.6)	6 (0.7)	****(****)	****(****)	****(****)	****(****)	32 (7.2)	68 (7.2)	23 (6.6)	3 (****)
Nebraska	21 (1.5)	79 (1.5)	34 (1.6)	5 (0.7)	69 (8.1)	31 (8.1)	8 (3.6)	1 (****)	56 (5.7)	44 (5.7)	11 (2.8)	1 (****)
Nevada	30 (1.5)	70 (1.5)	26 (1.3)	3 (0.5)	65 (3.3)	35 (3.3)	7 (2.2)	▲ (****)	63 (2.1)	37 (2.1)	9 (1.1)	▲(****)
New Mexico	28 (2.4)	72 (2.4)	26 (2.0)	3 (1.1)	****(****)	****(****)	****(****)	****(****)	62 (2.1)	38 (2.1)	6 (1.1)	▲(0.1)
New York †	15 (1.3)	85 (1.3)	36 (2.1)	6 (1.2)	56 (6.6)	44 (6.6)	10 (3.1)	1 (0.5)	53 (5.3)	47 (5.3)	12 (2.3)	2 (0.8)
North Carolina	17 (1.4)	83 (1.4)	41 (1.5)	8 (1.0)	58 (1.8)	42 (1.8)	7 (1.0)	1 (0.4)	43 (6.4)	57 (6.4)	18 (4.5)	3 (****)
North Dakota	20 (1.5)	80 (1.5)	33 (1.7)	5 (0.7)	****(****)	****(****)	****(****)	****(****)	45 (7.2)	55 (7.2)	17 (6.8)	1 (****)
Ohio	19 (1.7)	81 (1.7)	34 (1.8)	6 (0.9)	59 (4.9)	41 (4.9)	8 (2.2)	▲(****)	42 (6.1)	58 (6.1)	21 (4.6)	2 (****)
Oklahoma	29 (1.9)	71 (1.9)	22 (1.2)	2 (0.4)	67 (6.2)	33 (6.2)	5 (1.6)	0 (****)	55 (7.4)	45 (7.4)	8 (2.6)	1 (****)
Oregon †	25 (1.9)	75 (1.9)	34 (2.0)	6 (0.9)	49 (9.2) !	51 (9.2) !	15 (5.9) !	3 (****)!	50 (6.4)	50 (6.4)	13 (4.3)	1 (****)
Rhode Island	27 (1.3)	73 (1.3)	29 (1.3)	5 (0.7)	68 (4.4)	32 (4.4)	6 (2.7)	0 (****)	69 (3.4)	31 (3.4)	4 (1.4)	▲(****)
South Carolina	29 (1.7)	71 (1.7)	28 (1.7)	4 (0.7)	67 (2.6)	33 (2.6)	4 (0.9)	▲(****)	66 (6.4)	34 (6.4)	9 (3.7)	0 (****)
Tennessee	38 (2.0)	62 (2.0)	21 (1.6)	3 (0.5)	77 (2.7)	23 (2.7)	3 (1.2)	▲(****)	62 (6.7)	38 (6.7)	12 (6.9)	1 (****)
Texas	17 (1.8)	83 (1.8)	37 (2.1)	4 (0.8)	60 (4.3)	40 (4.3)	6 (2.0)	▲(****)	41 (2.9)	59 (2.9)	14 (2.0)	1 (0.5)
Utah	28 (1.3)	72 (1.3)	28 (1.2)	3 (0.4)	****(****)	****(****)	****(****)	****(****)	62 (3.8)	38 (3.8)	7 (2.2)	▲(****)
Vermont †	24 (1.8)	76 (1.8)	33 (1.5)	6 (0.6)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Virginia	22 (1.7)	78 (1.7)	33 (1.8)	6 (0.8)	62 (3.6)	38 (3.6)	5 (1.2)	1 (0.3)	44 (4.9)	56 (4.9)	14 (3.4)	1 (****)
West Virginia	36 (1.3)	64 (1.3)	19 (1.0)	2 (0.5)	63 (6.2)	37 (6.2)	8 (3.7)	1 (****)	54 (5.6)	46 (5.6)	14 (4.0)	2 (****)
Wyoming	26 (1.2)	74 (1.2)	27 (1.2)	4 (0.6)	****(****)	****(****)	****(****)	****(****)	55 (4.9)	45 (4.9)	10 (2.1)	1 (****)
Other Jurisdictions												
American Samoa	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	99 (****)	1 (****)	0 (****)	0 (****)
District of Columbia	****(****)	****(****)	****(****)	****(****)	80 (2.3)	20 (2.3)	3 (0.6)	▲(0.2)	77 (3.9)	23 (3.9)	4 (2.0)	1 (****)
DDESS	21 (3.1)	79 (3.1)	38 (4.0)	10 (2.2)	46 (5.3)	54 (5.3)	17 (3.2)	3 (****)	41 (8.7)	59 (8.7)	16 (4.4)	3 (1.9)
DoDDS	19 (1.7)	81 (1.7)	36 (1.9)	6 (1.3)	51 (3.0)	49 (3.0)	10 (1.7)	1 (0.6)	38 (4.7)	62 (4.7)	18 (2.6)	3 (1.3)
Guam	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	86 (3.7)	14 (3.7)	2 (1.5)	▲(****)

See footnotes at end of table. ▶

Table B.41: State Achievement Level Results by Race/Ethnicity, Grade 8 (continued)

State percentages of students at or above mathematics achievement levels by race/ethnicity for grade 8 public schools: 2000

	Asian				American Indian			
	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*
Nation	25 (3.9)	75 (3.9)	40 (4.1)	11 (2.8)	50 (8.8)	50 (8.8)	12 (3.6)	▲ (****)
Alabama	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Arizona †	29 (5.6)	71 (5.6)	35 (5.8)	7 (3.3)	****(****)	****(****)	****(****)	****(****)
Arkansas	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
California †	28 (4.7)	72 (4.7)	33 (5.4)	9 (2.5)	****(****)	****(****)	****(****)	****(****)
Connecticut	24 (6.3)	76 (6.3)	38 (9.1)	7 (3.5)	****(****)	****(****)	****(****)	****(****)
Georgia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Hawaii	48 (1.6)	52 (1.6)	16 (1.2)	2 (0.4)	****(****)	****(****)	****(****)	****(****)
Idaho †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Illinois †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Indiana †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Kansas †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Kentucky	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Louisiana	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Maine †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Maryland	10 (3.1)	90 (3.1)	64 (4.6)	21 (4.3)	****(****)	****(****)	****(****)	****(****)
Massachusetts	20 (4.0)	80 (4.0)	49 (6.5)	14 (4.6)	****(****)	****(****)	****(****)	****(****)
Michigan †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Minnesota †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Mississippi	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Missouri	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Montana †	****(****)	****(****)	****(****)	****(****)	59 (7.0) !	41 (7.0) !	8 (2.9) !	1 (****)!
Nebraska	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Nevada	29 (4.5)	71 (4.5)	26 (3.7)	4 (1.9)	44 (6.9)	56 (6.9)	11 (4.7)	0 (****)
New Mexico	****(****)	****(****)	****(****)	****(****)	70 (5.8) !	30 (5.8) !	4 (1.5) !	1 (****)!
New York †	23 (4.1)	77 (4.1)	42 (6.0)	8 (3.6)	****(****)	****(****)	****(****)	****(****)
North Carolina	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
North Dakota	****(****)	****(****)	****(****)	****(****)	55 (5.1)	45 (5.1)	6 (3.0)	▲ (****)
Ohio	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Oklahoma	****(****)	****(****)	****(****)	****(****)	42 (4.2)	58 (4.2)	8 (2.1)	▲ (****)
Oregon †	29 (7.2)	71 (7.2)	35 (6.6)	11 (4.2)	****(****)	****(****)	****(****)	****(****)
Rhode Island	38 (5.7)	62 (5.7)	21 (6.7)	3 (****)	****(****)	****(****)	****(****)	****(****)
South Carolina	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Tennessee	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Texas	17 (6.6)	83 (6.6)	42 (7.1)	9 (4.0)	****(****)	****(****)	****(****)	****(****)
Utah	34 (8.2)	66 (8.2)	35 (6.2)	5 (3.4)	****(****)	****(****)	****(****)	****(****)
Vermont †	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Virginia	11 (3.1)	89 (3.1)	49 (8.2)	14 (6.3)	****(****)	****(****)	****(****)	****(****)
West Virginia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
Wyoming	****(****)	****(****)	****(****)	****(****)	58 (7.3) !	42 (7.3) !	7 (3.9) !	1 (****)!
Other Jurisdictions								
American Samoa	91 (3.2)	9 (3.2)	1 (0.8)	▲ (****)	****(****)	****(****)	****(****)	****(****)
District of Columbia	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
DDESS	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)	****(****)
DoDDS	23 (3.4)	77 (3.4)	30 (2.4)	4 (1.1)	****(****)	****(****)	****(****)	****(****)
Guam	75 (1.6)	25 (1.6)	4 (0.7)	▲ (0.3)	****(****)	****(****)	****(****)	****(****)

Standard errors of the estimated percentages appear in parentheses.

! The nature of the sample does not allow accurate determination of the variability of the statistic.

(****) Standard error estimates cannot be accurately determined.

**** (****) Sample size is insufficient to permit a reliable estimate.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

▲ Percentage is between 0.0 and 0.5.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Table B.42: State Scale Score Differences by Race/Ethnicity, Grade 4

Racial/ethnic gaps in state average mathematics scale scores for grade 4 public schools: 1992–2000

	White-Black			White-Hispanic		
	1992	1996	2000	1992	1996	2000
Nation	35 (1.7)	31 (2.7)	30 (2.0)	26 (1.8)	26 (2.4)	24 (1.9)
Alabama	30 (1.9) *	29 (2.0)	24 (1.9)	26 (4.2)	27 (3.4)	28 (3.6)
Arizona	27 (3.7)	29 (4.0)	23 (3.8)	22 (1.5)	25 (2.6)	27 (2.4)
Arkansas	29 (2.0)	30 (2.6)	27 (2.1)	23 (3.0)	21 (3.0)	20 (3.4)
California †	38 (3.7)	35 (3.4)	36 (3.2)	29 (2.4)	26 (3.0)	28 (2.8)
Connecticut	40 (2.8)	35 (3.0)	33 (2.5)	29 (2.9)	34 (3.3)	28 (2.5)
Georgia	32 (1.8)	24 (2.2)	26 (2.0)	31 (2.9)	23 (3.8)	24 (3.2)
Hawaii	19 (3.7)	21 (4.3)	21 (3.4)	20 (3.1)	24 (3.1)	20 (2.8)
Idaho †	****(****)	—	****(****)	20 (2.6)	—	18 (2.4)
Illinois †	—	—	31 (3.2)	—	—	23 (3.2)
Indiana †	29 (2.5)	27 (2.7)	22 (2.7)	15 (2.1)	18 (2.8)	18 (3.9)
Iowa †	38 (3.9)	26 (3.5)	****(****)	12 (2.7)	19 (3.1)	20 (4.2)
Kansas †	—	—	31 (5.5)	—	—	22 (3.0)
Kentucky	16 (2.7) *	19 (2.6)	25 (2.2)	18 (3.1)	22 (4.3)	18 (4.7)
Louisiana	31 (2.3)	27 (1.9)	26 (2.3)	18 (4.5)	29 (3.5)	20 (3.5)
Maine †	****(****)	****(****)	****(****)	13 (3.7)	15 (3.0)	****(****)
Maryland	34 (2.2)	35 (2.1)	33 (2.4)	22 (3.6)	28 (4.1)	27 (3.4)
Massachusetts	38 (3.2)	25 (3.5)	29 (3.1)	25 (2.8)	22 (2.7) *	31 (2.9)
Michigan †	41 (4.1)	34 (3.0)	38 (2.9)	22 (3.0)	28 (2.9)	29 (4.1)
Minnesota †	38 (3.1)	43 (4.6) *	29 (4.4)	24 (3.0)	17 (3.5)	25 (4.2)
Mississippi	28 (1.8)	25 (1.8)	25 (1.8)	33 (3.1) *	26 (3.2)	23 (3.0)
Missouri	32 (2.4)	29 (2.3)	33 (3.1)	20 (3.3)	16 (3.4)	23 (4.3)
Montana †	—	****(****)	****(****)	—	13 (2.8)	15 (4.3)
Nebraska	39 (2.7)	34 (3.7)	33 (4.0)	19 (3.3)	23 (3.4)	26 (4.0)
Nevada	—	29 (3.6)	22 (2.6)	—	19 (2.4)	19 (2.3)
New Mexico	22 (4.1)	23 (8.2)	****(****)	21 (2.0)	22 (2.0)	19 (2.5)
New York †	29 (3.0)	30 (2.9)	27 (2.6)	29 (2.6)	29 (2.5)	27 (2.3)
North Carolina	30 (1.7) *	29 (1.7) *	23 (1.7)	23 (4.3)	28 (4.4)	23 (3.8)
North Dakota	****(****)	****(****)	****(****)	15 (3.5)	10 (5.1)	20 (3.7)
Ohio †	27 (3.1)	—	29 (2.1)	15 (3.3)	—	19 (3.4)
Oklahoma	23 (2.7)	—	24 (5.4)	15 (2.6)	—	15 (2.3)
Oregon †	—	****(****)	****(****)	—	26 (2.8)	24 (3.0)
Rhode Island	32 (3.6)	32 (4.2)	33 (3.8)	32 (3.0)	25 (3.3) *	36 (2.9)
South Carolina	30 (1.6)	26 (2.0)	29 (2.1)	26 (2.9)	26 (3.2)	24 (3.9)
Tennessee	25 (2.2)	28 (2.7)	28 (3.2)	25 (4.2)	18 (4.6)	20 (5.4)
Texas	30 (2.5)	30 (2.3)	23 (2.8)	20 (2.5)	25 (2.2) *	19 (2.1)
Utah	****(****)	****(****)	****(****)	17 (2.3) *	22 (3.1)	26 (2.7)
Vermont †	—	****(****)	****(****)	—	13 (4.2)	****(****)
Virginia	31 (2.1)	26 (2.0)	27 (1.9)	16 (3.7)	16 (3.6)	20 (2.7)
West Virginia	13 (4.5)	20 (4.3)	19 (3.6)	12 (3.2)	15 (3.4)	14 (4.3)
Wyoming	****(****)	****(****)	****(****)	13 (2.0)	18 (3.4)	17 (2.7)
Other Jurisdictions						
American Samoa	—	—	****(****)	—	—	****(****)
District of Columbia	52 (4.2)	56 (4.0)	50 (4.8)	59 (4.7)	58 (6.0)	51 (5.9)
DDESS	—	22 (2.8)	18 (3.1)	—	19 (3.2)	17 (3.0)
DoDDS	—	21 (1.8)	21 (2.2)	—	16 (2.3)	17 (2.1)
Guam	22 (5.6)	****(****)	****(****)	25 (2.8)	23 (6.4)	****(****)
Virgin Islands	—	—	****(****)	—	—	****(****)

Standard errors of the estimated difference in scale scores appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

**** (****) Sample size is insufficient to permit a reliable estimate.

— Indicates that the jurisdiction did not participate.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1996 and 2000 Mathematics Assessments.

Table B.43: State Scale Score Differences by Race/Ethnicity, Grade 8

Racial/ethnic gaps in state average mathematics scale scores for grade 8 public schools: 1990-2000

	White-Black				White-Hispanic			
	1990	1992	1996	2000	1990	1992	1996	2000
Nation	32 (3.2)	40 (1.7)	39 (2.5)	39 (1.7)	27 (3.2)	31 (1.7)	31 (2.5)	33 (1.9)
Alabama	29 (1.9) *	33 (2.6)	38 (3.0)	36 (2.6)	36 (3.8)	43 (5.4)	40 (5.5)	36 (5.4)
Arizona †	26 (3.4)	24 (3.5)	24 (3.7)	34 (4.6)	29 (2.2)	28 (2.9)	27 (2.6)	32 (2.6)
Arkansas	33 (1.5)	34 (2.1)	35 (3.3)	37 (2.3)	35 (4.1)	36 (4.2)	****(****)	38 (6.0)
California †	39 (3.8)	42 (4.0)	40 (4.2)	37 (3.6)	35 (2.2)	36 (2.7)	33 (2.3)	32 (3.5)
Connecticut	37 (2.5) *	41 (3.0)	43 (2.5)	46 (2.4)	41 (2.8)	42 (2.6)	36 (2.1)	42 (3.6)
Georgia	31 (2.1)	29 (1.8)	36 (2.4)	34 (2.1)	40 (3.6)	37 (5.7)	30 (5.2)	33 (3.0)
Hawaii	****(****)	****(****)	****(****)	19 (6.4)	32 (3.2)	27 (2.7)	28 (4.3)	27 (5.5)
Idaho †	****(****)	****(****)	—	****(****)	25 (2.9)	23 (2.4)	—	32 (4.4)
Illinois †	38 (4.4)	—	—	33 (3.3)	34 (4.1)	—	—	27 (4.2)
Indiana †	28 (3.1)	30 (2.8)	33 (2.5)	27 (3.0)	26 (3.7)	24 (4.7)	26 (5.0)	23 (4.5)
Kansas †	—	—	—	31 (5.7)	—	—	—	27 (4.0)
Kentucky	20 (2.7)	23 (2.8)	21 (3.5)	22 (3.1)	32 (3.7)	32 (4.7)	****(****)	****(****)
Louisiana	29 (1.9) *	30 (2.7)	32 (2.2)	36 (2.2)	34 (4.4)	34 (3.9)	24 (3.7) *	39 (5.4)
Maine †	—	****(****)	****(****)	****(****)	—	****(****)	****(****)	****(****)
Maryland	35 (2.4)	39 (2.5)	42 (2.6)	41 (2.4)	36 (3.3)	37 (3.6) *	37 (4.6)	26 (4.5)
Massachusetts	—	34 (5.1)	33 (4.5)	34 (3.8)	—	37 (3.6)	41 (4.4)	30 (3.9)
Michigan †	40 (1.8)	44 (2.3)	39 (4.0)	44 (2.9)	28 (3.4)	28 (4.2)	36 (4.6)	28 (4.2)
Minnesota †	39 (4.8)	****(****)	39 (5.1)	****(****)	39 (5.1)	31 (3.9)	22 (6.1)	35 (5.2)
Mississippi	—	32 (1.9)	30 (1.8)	31 (1.9)	—	39 (3.4)	42 (3.5)	41 (4.9)
Missouri	—	34 (3.1)	35 (4.0)	36 (4.4)	—	25 (4.2)	19 (4.5)	30 (5.6)
Montana †	****(****)	—	****(****)	****(****)	21 (3.9)	—	30 (5.8) *	15 (4.6)
Nebraska	44 (5.3)	45 (4.8)	31 (3.4)	39 (4.6)	27 (4.3)	27 (3.3)	34 (4.3)	30 (3.9)
Nevada	—	—	—	26 (2.3)	—	—	—	26 (2.2)
New Mexico	****(****)	****(****)	****(****)	****(****)	25 (1.6)	24 (1.6)	28 (1.8)	27 (2.4)
New York †	38 (3.3)	47 (4.5) *	38 (3.3)	32 (4.5)	37 (3.1)	36 (4.9)	39 (3.0)	31 (5.2)
North Carolina	29 (1.9) *	28 (2.0) *	31 (2.1)	35 (1.8)	43 (3.5) ‡	28 (4.8)	25 (3.7)	22 (3.8)
North Dakota	****(****)	****(****)	****(****)	****(****)	36 (6.1)	****(****)	22 (5.1)	23 (6.8)
Ohio	36 (2.0)	40 (2.7)	—	32 (3.9)	32 (4.5) *	29 (4.9)	—	17 (4.4)
Oklahoma	32 (2.5)	34 (3.1)	—	29 (4.8)	22 (4.5)	20 (3.3)	—	23 (6.0)
Oregon †	****(****)	—	****(****)	24 (7.1)	20 (3.0)	—	20 (4.0)	25 (5.7)
Rhode Island	39 (3.2)	30 (3.0)	32 (4.0)	35 (3.4)	36 (2.5)	39 (2.8)	36 (4.3)	34 (3.0)
South Carolina	—	32 (1.5)	29 (2.2)	30 (2.3)	—	40 (2.8) *	39 (6.2)	29 (4.2)
Tennessee	—	31 (2.6)	36 (3.2)	34 (3.4)	—	38 (4.9)	25 (5.4)	25 (6.2)
Texas	38 (2.2)	35 (2.5)	35 (2.9)	36 (3.6)	28 (2.3)	30 (2.0) *	29 (2.2) *	22 (2.4)
Utah	—	****(****)	****(****)	****(****)	—	23 (2.4)	24 (3.1)	30 (3.3)
Vermont †	—	—	****(****)	****(****)	—	—	****(****)	****(****)
Virginia	29 (2.3)	30 (2.1)	35 (2.9)	33 (2.3)	29 (4.4)	21 (4.1)	22 (4.9)	19 (3.7)
West Virginia	23 (4.2)	17 (3.8)	20 (4.0)	21 (4.9)	26 (4.3)	29 (5.0)	22 (5.8)	16 (4.8)
Wyoming	****(****)	****(****)	****(****)	****(****)	20 (2.3)	20 (2.2)	22 (3.3)	26 (3.8)
Other Jurisdictions								
American Samoa	—	—	—	****(****)	—	—	—	****(****)
District of Columbia	****(****)	****(****)	73 (8.7)	****(****)	****(****)	****(****)	82 (9.3)	****(****)
DDESS	—	—	33 (6.1)	21 (3.6)	—	—	21 (7.3)	19 (6.3)
DoDDS	—	—	28 (2.5)	26 (2.4)	—	—	16 (2.9)	16 (2.6)
Guam	****(****)	****(****)	****(****)	****(****)	47 (4.0)	49 (6.2)	****(****)	****(****)

Standard errors of the estimated difference in scale scores appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined.

‡ Significantly different from 2000 when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

**** (****) Sample size is insufficient to permit a reliable estimate.

— Indicates that the jurisdiction did not participate.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996 and 2000 Mathematics Assessments.

Table B.44: State Percentages of Students by Race/Ethnicity, Grade 4

State percentages of students by race/ethnicity for grade 4 public schools: 1992–2000

	White			Black			Hispanic		
	1992	1996	2000	1992	1996	2000	1992	1996	2000
Nation	69 (0.4)	66 (0.6)	64 (0.4)	17 (0.4)	15 (0.4)	15 (0.2)	10 (0.2)	14 (0.5)	16 (0.3)
Alabama	61 (2.5)	60 (2.1)	54 (2.6)	32 (2.3)	31 (2.0)	35 (2.4)	4 (0.6)	6 (0.6)	8 (0.8)
Arizona	56 (2.1)	56 (2.5)	52 (2.0)	4 (0.7)	4 (0.6)	5 (0.6)	29 (1.5)	29 (1.6)	31 (1.7)
Arkansas	69 (1.5)	69 (2.2)	64 (2.1)	21 (1.4)	20 (2.1)	23 (1.8)	6 (0.6)	6 (0.7)	8 (0.8)
California †	45 (2.0)	41 (2.3)	36 (2.5)	6 (0.7)	8 (1.0)	9 (1.8)	35 (1.7)	38 (2.2)	41 (2.6)
Connecticut	73 (1.4)	72 (1.5)	68 (1.8)	10 (1.1)	11 (1.5)	12 (1.2)	13 (1.1)	13 (1.1)	14 (1.0)
Georgia	56 (2.2)	57 (2.2)	49 (1.3)	35 (2.1)	31 (1.9)	38 (1.3)	6 (0.6)	8 (1.0)	9 (0.7)
Hawaii	21 (1.6)	18 (1.1)	17 (1.2)	4 (0.6)	4 (0.4)	4 (0.5)	11 (0.7)	12 (0.7)	12 (0.8)
Idaho †	84 (1.2)	—	80 (1.2)	1 (0.2)	—	1 (0.4)	11 (1.0)	—	15 (1.1)
Illinois †	—	—	53 (3.4)	—	—	20 (3.0)	—	—	23 (3.3)
Indiana †	82 (1.5)	82 (1.3)	82 (2.0)	10 (1.3)	9 (1.0)	8 (1.7)	5 (0.6)	6 (0.8)	6 (0.8)
Iowa †	90 (0.9)	88 (1.0)	86 (1.2)	2 (0.5)	3 (0.5)	3 (0.6)	5 (0.5)	6 (0.8)	7 (1.1)
Kansas †	—	—	75 (2.2)	—	—	7 (1.8)	—	—	13 (1.7)
Kentucky	85 (1.6)	85 (1.1)	82 (1.3)	9 (1.3)	9 (0.9)	11 (1.1)	4 (0.6)	4 (0.7)	4 (0.6)
Louisiana	50 (2.0)	49 (2.0)	50 (2.4)	43 (2.0)	40 (1.9)	41 (2.5)	5 (0.6)	7 (0.9)	6 (0.7)
Maine †	91 (0.7)	93 (0.8)	93 (0.8)	1 (0.1)	1 (0.3)	1 (0.3)	5 (0.6)	4 (0.6)	2 (0.4)
Maryland	59 (1.7)	53 (2.4)	50 (1.6)	30 (1.4)	34 (2.3)	35 (1.9)	6 (0.6)	7 (0.7)	9 (0.8)
Massachusetts	79 (1.6)	77 (1.9)	76 (1.5)	7 (0.8)	7 (0.8)	7 (1.2)	8 (0.8)	11 (1.2)	12 (1.0)
Michigan †	73 (1.8)	74 (2.3)	72 (2.3)	13 (1.7)	14 (2.2)	15 (2.1)	9 (0.9)	8 (0.6)	8 (1.2)
Minnesota †	85 (1.3)	83 (1.1)	79 (1.9)	3 (0.5)	4 (0.7)	6 (1.1)	7 (0.8)	6 (0.6)	8 (1.1)
Mississippi	40 (2.0)	45 (2.0)	46 (1.5)	52 (2.1)	47 (1.9)	44 (1.6)	6 (0.9)	5 (0.7)	8 (0.7)
Missouri	77 (1.7)	76 (1.7)	75 (1.3)	14 (1.7)	15 (1.5)	15 (1.2)	6 (0.5)	6 (0.6)	6 (0.7)
Montana †	—	79 (2.6)	77 (2.2)	—	1 (0.2)	1 (0.2)	—	7 (0.7)	9 (1.0)
Nebraska	84 (1.3)	81 (1.2)	75 (2.5)	6 (0.7)	6 (1.1)	5 (1.4)	7 (0.9)	9 (0.8)	14 (1.8)
Nevada	—	60 (1.4)	54 (1.8)	—	8 (1.1)	10 (1.2)	—	22 (1.0)	27 (1.4)
New Mexico	44 (2.4)	43 (2.5)	36 (2.0)	4 (0.5)	3 (0.5)	3 (0.5)	47 (2.0)	43 (1.6)	49 (2.2)
New York †	59 (2.2)	58 (1.6)	49 (2.4)	13 (1.6)	16 (1.4)	18 (2.1)	22 (1.7)	19 (1.4)	26 (2.0)
North Carolina	62 (1.7)	66 (1.6)	61 (1.8)	29 (1.3)	27 (1.7)	30 (1.5)	6 (0.7)	4 (0.6)	5 (0.6)
North Dakota	91 (1.0)	89 (1.3)	87 (1.1)	▲ (0.2)	1 (0.2)	2 (0.3)	4 (0.6)	5 (0.5)	4 (0.5)
Ohio †	79 (1.5)	—	74 (1.9)	11 (1.2)	—	15 (1.7)	6 (0.5)	—	7 (0.8)
Oklahoma	73 (1.5)	—	65 (1.8)	9 (1.2)	—	10 (1.6)	7 (0.8)	—	13 (1.0)
Oregon †	—	78 (1.5)	76 (1.4)	—	2 (0.4)	3 (0.7)	—	11 (1.1)	13 (1.2)
Rhode Island	78 (2.1)	76 (1.4)	71 (1.7)	6 (1.0)	6 (0.6)	6 (0.6)	11 (1.1)	13 (1.0)	17 (1.4)
South Carolina	55 (1.7)	54 (1.7)	53 (1.8)	37 (1.8)	37 (1.7)	38 (1.9)	6 (0.8)	6 (0.7)	6 (0.5)
Tennessee	69 (2.1)	72 (2.2)	72 (1.8)	23 (1.9)	21 (2.3)	22 (1.4)	5 (0.8)	4 (0.6)	4 (0.5)
Texas	49 (1.8)	49 (2.1)	44 (1.8)	14 (1.8)	14 (1.9)	15 (1.8)	34 (2.3)	33 (2.6)	36 (2.1)
Utah	86 (1.0)	82 (1.3)	79 (1.4)	1 (0.2)	1 (0.2)	2 (0.3)	10 (0.8)	12 (1.1)	13 (1.0)
Vermont †	—	88 (0.9)	92 (1.0)	—	2 (0.3)	1 (0.5)	—	7 (0.7)	4 (0.7)
Virginia	67 (1.4)	65 (2.0)	59 (1.8)	23 (1.3)	24 (1.8)	25 (1.5)	5 (0.6)	6 (0.7)	9 (0.8)
West Virginia	90 (0.9)	87 (1.0)	87 (1.1)	3 (0.4)	4 (0.7)	4 (0.7)	5 (0.8)	6 (0.7)	6 (0.8)
Wyoming	82 (1.4)	81 (1.3)	81 (1.2)	1 (0.2)	1 (0.3)	1 (0.3)	11 (0.9)	13 (1.0)	13 (1.2)
Other Jurisdictions									
American Samoa	—	—	8 (1.3)	—	—	6 (0.9)	—	—	29 (2.2)
District of Columbia	5 (0.4)	6 (0.4)	6 (0.4)	82 (0.6)	82 (0.7)	76 (1.0)	10 (0.4)	10 (0.7)	15 (0.9)
DDESS	—	49 (1.6)	46 (1.2)	—	25 (1.3)	26 (1.1)	—	18 (1.2)	19 (1.0)
DoDDS	—	48 (1.0)	46 (1.1)	—	18 (0.8)	18 (0.7)	—	16 (0.8)	16 (0.7)
Guam	12 (0.7)	8 (0.8)	6 (1.0)	4 (0.4)	4 (0.5)	2 (0.5)	20 (0.8)	22 (1.3)	12 (1.7)
Virgin Islands	—	—	2 (0.5)	—	—	73 (1.6)	—	—	21 (1.6)

See footnotes at end of table. ▶

Table B.44: State Percentages of Students by Race/Ethnicity, Grade 4 (continued)

State percentages of students by race/ethnicity for grade 4 public schools: 1992–2000

	Asian			American Indian		
	1992	1996	2000	1992	1996	2000
Nation	3 (0.3)	3 (0.2)	3 (0.3)	2 (0.2)	2 (0.2)	2 (0.2)
Alabama	1 (0.2)	1 (0.2)	1 (0.3)	2 (1.0)	2 (0.4)	2 (0.4)
Arizona	1 (0.2)	2 (0.4)	3 (0.4)	10 (1.7)	9 (2.3)	9 (0.9)
Arkansas	1 (0.2)	1 (0.3)	1 (0.2)	3 (0.4)	4 (0.5)	3 (0.5)
California †	11 (1.1)	10 (1.4)	11 (1.3)	3 (0.5)	2 (0.5)	3 (0.5)
Connecticut	2 (0.4)	2 (0.3)	3 (0.4)	1 (0.2)	1 (0.3)	2 (0.3)
Georgia	1 (0.2)	2 (0.4)	2 (0.4)	1 (0.3)	2 (0.3)	2 (0.3)
Hawaii	61 (2.1)	62 (1.5)	64 (1.7)	2 (0.3)	2 (0.3)	2 (0.2)
Idaho †	1 (0.2)	—	2 (0.3)	3 (0.3)	—	3 (0.5)
Illinois †	—	—	3 (1.3)	—	—	1 (0.2)
Indiana †	1 (0.2)	1 (0.2)	1 (0.4)	1 (0.3)	2 (0.3)	2 (0.5)
Iowa †	1 (0.3)	1 (0.2)	1 (0.3)	2 (0.3)	2 (0.3)	2 (0.4)
Kansas †	—	—	1 (0.4)	—	—	3 (0.6)
Kentucky	1 (0.2)	▲ (0.1)	1 (0.2)	2 (0.3)	1 (0.2)	2 (0.3)
Louisiana	2 (0.7)	1 (0.3)	1 (0.3)	1 (0.3)	3 (0.7)	2 (0.3)
Maine †	1 (0.2)	1 (0.2)	1 (0.2)	3 (0.5)	2 (0.3)	3 (0.5)
Maryland	4 (0.5)	4 (0.6)	3 (0.5)	2 (0.2)	2 (0.3)	2 (0.3)
Massachusetts	4 (0.7)	3 (0.7)	4 (0.5)	2 (0.2)	1 (0.2)	1 (0.3)
Michigan †	2 (0.3)	2 (0.3)	2 (0.4)	3 (0.4)	3 (0.4)	3 (0.4)
Minnesota †	2 (0.4)	4 (0.4)	5 (0.7)	2 (0.3)	3 (0.4)	2 (0.5)
Mississippi	1 (0.2)	1 (0.3)	1 (0.3)	1 (0.2)	1 (0.2)	2 (0.3)
Missouri	1 (0.2)	1 (0.3)	1 (0.2)	2 (0.4)	2 (0.3)	3 (0.5)
Montana †	—	1 (0.2)	1 (0.4)	—	12 (2.4)	11 (1.9)
Nebraska	1 (0.2)	1 (0.2)	2 (0.3)	2 (0.3)	3 (0.4)	4 (1.3)
Nevada	—	4 (0.6)	6 (0.6)	—	5 (1.0)	3 (0.4)
New Mexico	1 (0.3)	2 (0.3)	1 (0.3)	4 (1.3)	9 (2.3)	11 (1.7)
New York †	4 (0.8)	5 (0.6)	4 (1.1)	2 (0.4)	2 (0.5)	2 (0.4)
North Carolina	1 (0.2)	1 (0.4)	1 (0.3)	3 (0.9)	2 (0.4)	3 (1.0)
North Dakota	1 (0.2)	1 (0.2)	1 (0.2)	4 (0.8)	4 (1.1)	6 (0.9)
Ohio †	1 (0.3)	—	1 (0.3)	2 (0.4)	—	2 (0.4)
Oklahoma	1 (0.2)	—	1 (0.3)	10 (0.8)	—	11 (0.9)
Oregon †	—	5 (0.7)	4 (0.7)	—	4 (0.6)	4 (0.5)
Rhode Island	3 (0.4)	3 (0.5)	3 (0.5)	2 (0.3)	2 (0.3)	2 (0.4)
South Carolina	1 (0.2)	1 (0.3)	1 (0.1)	1 (0.3)	2 (0.3)	2 (0.4)
Tennessee	1 (0.4)	1 (0.2)	1 (0.2)	1 (0.2)	1 (0.3)	1 (0.3)
Texas	2 (0.4)	2 (0.3)	3 (0.6)	1 (0.2)	2 (0.3)	1 (0.3)
Utah	2 (0.3)	2 (0.3)	3 (0.4)	2 (0.3)	3 (0.4)	3 (0.8)
Vermont †	—	1 (0.2)	1 (0.3)	—	3 (0.4)	2 (0.6)
Virginia	3 (0.4)	3 (0.4)	4 (0.9)	1 (0.3)	2 (0.3)	2 (0.3)
West Virginia	1 (0.2)	1 (0.2)	1 (0.2)	2 (0.2)	2 (0.3)	2 (0.4)
Wyoming	1 (0.2)	1 (0.2)	1 (0.3)	5 (1.2)	3 (0.6)	4 (0.5)
Other Jurisdictions						
American Samoa	—	—	55 (2.2)	—	—	3 (0.7)
District of Columbia	1 (0.2)	1 (0.2)	1 (0.3)	2 (0.3)	1 (0.2)	2 (0.4)
DDESS	—	4 (0.6)	6 (0.7)	—	3 (0.6)	3 (0.5)
DoDDS	—	11 (0.7)	15 (1.1)	—	3 (0.4)	3 (0.3)
Guam	62 (1.0)	64 (1.4)	78 (2.1)	2 (0.4)	2 (0.3)	1 (0.5)
Virgin Islands	—	—	1 (0.3)	—	—	1 (0.4)

Standard errors of the estimated percentages appear in parentheses.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

— Indicates that the jurisdiction did not participate.

▲ Percentage is between 0.0 and 0.5.

NOTE: Percentages may not add to 100 due to rounding.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1996, and 2000 Mathematics Assessments.

Table B.45: State Percentages of Students by Race/Ethnicity, Grade 8

State percentages of students by race/ethnicity for grade 8 public schools: 1990–2000

	White				Black				Hispanic			
	1990	1992	1996	2000	1990	1992	1996	2000	1990	1992	1996	2000
Nation	70 (0.5)	69 (0.4)	68 (0.5)	66 (0.5)	16 (0.3)	16 (0.2)	15 (0.4)	14 (0.2)	10 (0.4)	10 (0.3)	13 (0.3)	15 (0.2)
Alabama	64 (1.9)	61 (2.3)	59 (2.3)	63 (1.9)	29 (1.8)	32 (2.1)	34 (2.2)	31 (1.9)	5 (0.6)	4 (0.6)	4 (0.5)	4 (0.4)
Arizona †	59 (1.8)	60 (2.1)	58 (2.2)	54 (2.1)	3 (0.4)	4 (0.5)	3 (0.4)	4 (0.5)	29 (1.3)	28 (1.6)	30 (1.7)	35 (2.2)
Arkansas	72 (1.5)	72 (1.4)	74 (2.2)	69 (1.9)	22 (1.5)	22 (1.3)	20 (1.9)	23 (1.8)	4 (0.4)	4 (0.4)	3 (0.5)	5 (0.6)
California †	45 (1.8)	44 (1.8)	39 (2.1)	34 (2.5)	7 (0.8)	7 (1.1)	8 (0.8)	7 (1.0)	35 (1.4)	36 (1.7)	38 (1.8)	43 (2.4)
Connecticut	77 (1.5)	72 (1.6)	77 (1.4)	70 (1.7)	10 (1.0)	12 (1.1)	9 (1.0)	13 (1.1)	10 (0.9)	12 (0.9)	11 (1.0)	14 (1.5)
Georgia	59 (1.8)	59 (2.1)	57 (2.5)	56 (1.7)	33 (1.7)	35 (1.9)	36 (2.5)	37 (1.5)	6 (0.6)	4 (0.5)	4 (0.5)	4 (0.5)
Hawaii	18 (0.8)	17 (0.9)	15 (0.9)	13 (0.9)	2 (0.3)	3 (0.3)	3 (0.4)	2 (0.3)	10 (0.6)	11 (0.7)	11 (0.7)	10 (0.8)
Idaho †	90 (0.8)	88 (0.7)	—	84 (1.1)	▲ (0.1)	1 (0.2)	—	1 (0.3)	6 (0.6)	7 (0.6)	—	11 (1.0)
Illinois †	67 (1.9)	—	—	59 (3.0)	17 (1.9)	—	—	19 (3.1)	12 (1.4)	—	—	19 (2.3)
Indiana †	84 (1.2)	85 (1.3)	82 (1.5)	81 (2.6)	9 (1.2)	8 (1.1)	10 (1.2)	10 (2.0)	4 (0.7)	4 (0.6)	6 (0.8)	6 (1.2)
Kansas †	—	—	—	82 (1.4)	—	—	—	6 (1.0)	—	—	—	8 (0.8)
Kentucky	85 (1.1)	87 (1.0)	87 (1.0)	84 (1.4)	9 (1.0)	9 (1.0)	9 (0.9)	11 (1.2)	4 (0.5)	3 (0.4)	2 (0.4)	3 (0.4)
Louisiana	55 (2.1)	54 (1.7)	53 (2.3)	51 (2.0)	38 (1.9)	39 (1.5)	41 (2.4)	42 (2.1)	5 (0.6)	5 (0.5)	4 (0.6)	5 (0.6)
Maine †	—	94 (0.5)	95 (0.7)	92 (0.7)	—	▲ (0.1)	1 (0.2)	1 (0.3)	—	2 (0.3)	2 (0.3)	3 (0.4)
Maryland	59 (1.5)	60 (1.8)	55 (2.2)	55 (1.8)	28 (1.5)	29 (1.8)	33 (2.2)	32 (1.5)	7 (0.8)	6 (0.6)	5 (0.5)	7 (0.7)
Massachusetts	—	83 (1.1)	80 (1.6)	76 (1.5)	—	5 (1.0)	7 (1.0)	8 (1.0)	—	8 (1.5)	8 (1.0)	10 (1.1)
Michigan †	77 (1.4)	73 (1.6)	75 (2.3)	76 (2.2)	13 (1.1)	18 (1.9)	15 (2.1)	14 (2.0)	5 (0.6)	5 (0.8)	5 (0.6)	6 (0.9)
Minnesota †	90 (0.9)	91 (1.0)	86 (1.6)	85 (2.3)	2 (0.5)	2 (0.3)	4 (0.7)	3 (1.3)	3 (0.4)	3 (0.5)	3 (0.4)	6 (1.1)
Mississippi	—	49 (1.9)	48 (1.9)	54 (1.8)	—	44 (1.8)	45 (1.8)	40 (1.8)	—	6 (0.6)	5 (0.6)	4 (0.4)
Missouri	—	82 (1.5)	82 (1.2)	79 (1.5)	—	12 (1.4)	12 (1.0)	14 (1.3)	—	3 (0.3)	3 (0.5)	4 (0.6)
Montana †	87 (1.1)	—	84 (1.8)	86 (2.0)	▲ (0.1)	—	▲ (0.1)	1 (0.2)	3 (0.4)	—	5 (0.5)	4 (0.5)
Nebraska	88 (0.8)	87 (1.1)	87 (0.9)	84 (1.4)	5 (0.4)	5 (0.9)	4 (0.6)	4 (0.6)	5 (0.5)	6 (0.7)	6 (0.7)	9 (0.9)
Nevada	—	—	—	56 (0.8)	—	—	—	8 (0.5)	—	—	—	27 (0.9)
New Mexico	40 (1.3)	44 (1.5)	36 (1.7)	34 (1.8)	2 (0.4)	2 (0.4)	3 (0.5)	2 (0.4)	45 (1.3)	49 (1.4)	51 (1.7)	52 (1.9)
New York †	60 (1.9)	61 (2.7)	60 (2.4)	53 (2.4)	17 (1.6)	17 (2.2)	16 (1.8)	20 (2.4)	17 (1.7)	14 (2.0)	16 (1.3)	20 (2.1)
North Carolina	62 (1.7)	68 (1.4)	64 (1.8)	64 (1.8)	30 (1.3)	27 (1.3)	28 (1.2)	28 (1.6)	5 (0.5)	3 (0.3)	4 (0.5)	5 (0.6)
North Dakota	91 (1.4)	93 (0.8)	92 (0.9)	89 (1.1)	1 (0.3)	▲ (0.1)	1 (0.2)	1 (0.3)	3 (0.4)	3 (0.3)	3 (0.3)	3 (0.5)
Ohio	82 (0.9)	80 (1.9)	—	82 (1.6)	11 (0.8)	14 (1.7)	—	12 (1.4)	3 (0.4)	4 (0.5)	—	4 (0.5)
Oklahoma	74 (1.8)	75 (1.6)	—	70 (1.4)	11 (1.2)	8 (1.1)	—	9 (0.8)	5 (0.7)	6 (0.6)	—	7 (1.1)
Oregon †	85 (0.9)	—	82 (1.4)	80 (1.3)	1 (0.4)	—	3 (0.7)	3 (0.7)	7 (0.6)	—	8 (0.8)	9 (0.9)
Rhode Island	83 (0.8)	81 (0.7)	79 (0.7)	76 (0.9)	5 (0.5)	6 (0.6)	5 (0.5)	6 (0.4)	8 (0.5)	8 (0.4)	10 (0.5)	13 (0.7)
South Carolina	—	58 (1.5)	53 (1.8)	56 (1.8)	—	35 (1.3)	40 (1.8)	38 (1.8)	—	6 (0.6)	4 (0.4)	4 (0.5)
Tennessee	—	75 (2.0)	78 (1.3)	74 (1.6)	—	21 (2.1)	18 (1.2)	20 (1.6)	—	3 (0.3)	3 (0.5)	3 (0.3)
Texas	47 (2.1)	48 (1.9)	48 (2.0)	45 (1.8)	13 (1.3)	12 (1.6)	12 (1.3)	13 (1.5)	36 (2.1)	36 (2.0)	37 (2.2)	38 (2.0)
Utah	—	90 (0.9)	87 (0.8)	85 (1.0)	—	1 (0.2)	1 (0.2)	1 (0.2)	—	7 (0.6)	8 (0.7)	10 (0.6)
Vermont †	—	—	93 (0.7)	92 (0.7)	—	—	1 (0.2)	1 (0.3)	—	—	3 (0.4)	3 (0.4)
Virginia	68 (1.5)	69 (1.9)	66 (2.2)	63 (1.7)	23 (1.5)	22 (1.6)	24 (2.2)	24 (1.6)	5 (0.5)	5 (0.6)	5 (0.5)	6 (0.7)
West Virginia	90 (0.7)	91 (0.9)	92 (0.8)	91 (0.7)	3 (0.5)	4 (0.8)	3 (0.7)	4 (0.5)	4 (0.4)	3 (0.3)	3 (0.4)	3 (0.3)
Wyoming	86 (0.8)	86 (1.7)	86 (0.7)	84 (1.2)	1 (0.2)	1 (0.2)	1 (0.1)	1 (0.2)	9 (0.6)	9 (0.6)	9 (0.6)	10 (0.7)
Other Jurisdictions												
American Samoa	—	—	—	3 (0.8)	—	—	—	5 (1.2)	—	—	—	25 (2.5)
District of Columbia	3 (0.4)	3 (0.2)	4 (0.5)	4 (0.4)	84 (1.0)	85 (0.8)	83 (1.2)	82 (0.9)	10 (0.6)	10 (0.7)	10 (1.0)	11 (1.1)
DDESS	—	—	40 (1.9)	44 (1.8)	—	—	30 (1.8)	21 (1.2)	—	—	22 (1.5)	25 (1.5)
DoDDS	—	—	46 (1.1)	46 (1.1)	—	—	20 (1.0)	20 (0.9)	—	—	15 (0.7)	14 (0.9)
Guam	7 (0.7)	5 (0.5)	4 (0.5)	2 (0.4)	1 (0.4)	1 (0.3)	1 (0.4)	▲ (0.2)	19 (1.0)	15 (0.9)	17 (1.4)	13 (1.3)

See footnotes at end of table. ▶

Table B.45: State Percentages of Students by Race/Ethnicity, Grade 8 (continued)

State percentages of students by race/ethnicity for grade 8 public schools: 1990–2000

	Asian				American Indian			
	1990	1992	1996	2000	1990	1992	1996	2000
Nation	2 (0.5)	2 (0.2)	3 (0.3)	4 (0.4)	2 (0.7)	1 (0.2)	1 (0.3)	1 (0.2)
Alabama	1 (0.3)	1 (0.2)	1 (0.2)	1 (0.2)	1 (0.2)	2 (0.4)	2 (0.5)	2 (0.5)
Arizona †	2 (0.3)	2 (0.3)	2 (0.3)	4 (0.5)	7 (1.5)	6 (1.3)	6 (1.3)	3 (0.9)
Arkansas	1 (0.2)	1 (0.2)	1 (0.4)	2 (0.3)	2 (0.3)	1 (0.2)	1 (0.4)	1 (0.2)
California †	12 (1.1)	11 (1.0)	12 (1.3)	14 (1.6)	2 (0.4)	1 (0.2)	1 (0.3)	1 (0.3)
Connecticut	2 (0.3)	3 (0.4)	3 (0.4)	3 (0.4)	1 (0.2)	▲ (0.1)	1 (0.2)	1 (0.2)
Georgia	1 (0.2)	2 (0.3)	2 (0.4)	2 (0.4)	1 (0.1)	▲ (0.1)	1 (0.2)	1 (0.2)
Hawaii	67 (1.0)	66 (1.1)	67 (1.1)	73 (1.2)	1 (0.2)	1 (0.2)	2 (0.4)	1 (0.3)
Idaho †	1 (0.3)	1 (0.2)	—	2 (0.4)	2 (0.4)	3 (0.4)	—	2 (0.4)
Illinois †	3 (0.5)	—	—	3 (0.6)	1 (0.2)	—	—	▲ (0.1)
Indiana †	1 (0.3)	1 (0.2)	1 (0.2)	1 (0.3)	1 (0.3)	1 (0.2)	1 (0.2)	1 (0.2)
Kansas †	—	—	—	2 (0.4)	—	—	—	1 (0.4)
Kentucky	1 (0.2)	1 (0.2)	1 (0.1)	1 (0.2)	1 (0.2)	1 (0.2)	1 (0.2)	1 (0.2)
Louisiana	1 (0.2)	2 (0.4)	1 (0.3)	1 (0.3)	1 (0.3)	1 (0.2)	1 (0.4)	1 (0.4)
Maine †	—	1 (0.2)	1 (0.3)	1 (0.2)	—	3 (0.4)	2 (0.3)	2 (0.4)
Maryland	4 (0.7)	3 (0.5)	5 (1.0)	5 (0.5)	1 (0.3)	1 (0.2)	1 (0.3)	1 (0.3)
Massachusetts	—	2 (0.4)	5 (0.6)	5 (0.6)	—	1 (0.2)	1 (0.2)	1 (0.2)
Michigan †	2 (0.4)	1 (0.3)	2 (0.5)	2 (0.4)	2 (0.5)	2 (0.3)	1 (0.3)	1 (0.4)
Minnesota †	3 (0.4)	2 (0.3)	5 (1.0)	4 (0.8)	2 (0.5)	1 (0.4)	2 (0.5)	1 (0.4)
Mississippi	—	▲ (0.1)	1 (0.3)	1 (0.3)	—	1 (0.2)	▲ (0.1)	1 (0.2)
Missouri	—	1 (0.2)	1 (0.2)	2 (0.3)	—	2 (0.3)	1 (0.3)	1 (0.2)
Montana †	1 (0.3)	—	1 (0.4)	1 (0.3)	8 (1.1)	—	10 (1.7)	8 (1.8)
Nebraska	1 (0.2)	1 (0.2)	2 (0.2)	1 (0.4)	1 (0.2)	2 (0.4)	1 (0.3)	2 (0.4)
Nevada	—	—	—	7 (0.5)	—	—	—	2 (0.4)
New Mexico	1 (0.3)	1 (0.3)	1 (0.3)	1 (0.3)	11 (0.8)	4 (0.7)	9 (1.4)	11 (2.3)
New York †	4 (0.8)	4 (0.6)	6 (0.9)	6 (1.1)	1 (0.3)	1 (0.3)	2 (0.5)	1 (0.3)
North Carolina	1 (0.2)	1 (0.2)	2 (0.3)	2 (0.3)	3 (0.9)	2 (0.4)	2 (1.1)	2 (0.6)
North Dakota	1 (0.4)	1 (0.2)	1 (0.2)	1 (0.3)	5 (1.2)	3 (0.7)	3 (0.8)	5 (0.9)
Ohio	1 (0.3)	1 (0.2)	—	1 (0.3)	1 (0.3)	2 (0.3)	—	1 (0.3)
Oklahoma	2 (0.4)	2 (0.3)	—	2 (0.4)	9 (1.0)	10 (1.0)	—	12 (0.8)
Oregon †	3 (0.3)	—	4 (0.5)	5 (0.6)	4 (0.5)	—	4 (0.6)	3 (0.5)
Rhode Island	2 (0.3)	3 (0.4)	4 (0.3)	4 (0.5)	1 (0.2)	2 (0.3)	1 (0.3)	1 (0.3)
South Carolina	—	1 (0.2)	1 (0.4)	1 (0.2)	—	1 (0.2)	2 (0.3)	1 (0.3)
Tennessee	—	▲ (0.1)	1 (0.2)	2 (0.4)	—	1 (0.2)	1 (0.2)	1 (0.2)
Texas	2 (0.6)	3 (0.4)	3 (0.6)	4 (0.7)	1 (0.2)	1 (0.3)	1 (0.2)	▲ (0.1)
Utah	—	2 (0.3)	2 (0.2)	3 (0.4)	—	2 (0.2)	2 (0.2)	2 (0.5)
Vermont †	—	—	1 (0.3)	2 (0.3)	—	—	2 (0.4)	2 (0.3)
Virginia	4 (0.4)	4 (0.5)	4 (0.6)	5 (0.6)	1 (0.2)	1 (0.2)	1 (0.2)	1 (0.2)
West Virginia	1 (0.2)	▲ (0.1)	1 (0.1)	1 (0.2)	2 (0.3)	2 (0.3)	2 (0.3)	1 (0.3)
Wyoming	1 (0.2)	1 (0.2)	1 (0.1)	1 (0.3)	3 (0.4)	4 (1.6)	3 (0.4)	3 (0.9)
Other Jurisdictions								
American Samoa	—	—	—	66 (2.7)	—	—	—	2 (0.6)
District of Columbia	1 (0.2)	1 (0.2)	2 (0.4)	2 (0.4)	2 (0.3)	1 (0.3)	1 (0.3)	1 (0.2)
DDESS	—	—	4 (0.9)	6 (1.1)	—	—	2 (0.8)	3 (0.6)
DoDDS	—	—	13 (0.6)	17 (0.7)	—	—	2 (0.3)	2 (0.3)
Guam	72 (1.2)	76 (1.1)	76 (1.4)	84 (1.3)	1 (0.2)	1 (0.1)	▲ (0.2)	▲ (0.2)

Standard errors of the estimated percentages appear in parentheses.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

— Indicates that the jurisdiction did not participate.

▲ Percentage is between 0.0 and 0.5.

NOTE: Percentages may not add to 100 due to rounding.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.46: Data for Figure 3.22 State Scale Score Results by Free/Reduced-Price Lunch, Grade 4

State average mathematics scale scores by student eligibility for free/reduced-price lunch program for grade 4 public schools: 1996–2000

	Eligible		Not eligible		Info not available	
	1996	2000	1996	2000	1996	2000
Nation	207 (2.0)	210 (1.0)	231 (1.1) *	236 (1.3)	230 (4.2) !	235 (2.3)
Alabama	199 (1.5) ‡	206 (1.4)	224 (1.6) ‡	230 (1.5)	214 (2.4) !*	227 (4.2) !
Arizona	202 (1.9)	205 (1.8)	230 (1.6)	231 (2.1)	218 (4.1) !	214 (5.9) !
Arkansas	204 (1.5)	206 (1.3)	227 (1.3)	229 (1.1)	****(****)	****(****)
California †	194 (2.4)	200 (1.9)	222 (1.9) *	229 (1.6)	216 (3.0) !	217 (6.0) !
Connecticut	207 (1.8) ‡	216 (1.9)	240 (1.1)	242 (1.1)	****(****)	225 (6.4) !
Georgia	201 (1.4)	204 (1.2)	226 (1.7) ‡	233 (1.4)	226 (6.5) !	223 (4.0) !
Hawaii	202 (2.0)	205 (1.6)	224 (1.2)	226 (1.5)	212 (7.5) !	212 (4.3) !
Idaho †	—	217 (1.8)	—	234 (1.3)	—	228 (4.7) !
Illinois †	—	209 (1.7)	—	235 (2.6)	—	231 (8.2) !
Indiana †	213 (1.4) ‡	222 (1.4)	236 (1.1) *	240 (1.3)	****(****)	231 (5.1) !
Iowa †	219 (1.6)	224 (1.8)	234 (1.1)	236 (1.3)	226 (6.0) !	232 (6.0) !
Kansas †	—	217 (2.2)	—	241 (1.3)	—	211 (6.5) !
Kentucky	209 (1.3)	210 (1.4)	230 (1.0)	231 (1.2)	218 (6.9) !	226 (10.3) !
Louisiana	200 (1.2) ‡	210 (1.6)	224 (1.5) ‡	233 (1.7)	214 (5.5) !	212 (3.8) !
Maine †	221 (1.4)	222 (1.4)	238 (1.2)	234 (0.9)	239 (4.4) !	235 (5.0) !
Maryland	199 (1.6)	204 (2.0)	233 (1.7)	233 (1.4)	204 (4.5) !	214 (6.2) !
Massachusetts	213 (1.4)	213 (1.9)	235 (1.4) ‡	243 (1.0)	229 (5.1) !	236 (4.9) !
Michigan †	210 (1.7)	211 (1.9)	234 (1.3) ‡	240 (1.3)	228 (8.0) !	218 (9.6) !
Minnesota †	218 (2.6)	220 (2.7)	238 (1.3)	240 (1.0)	227 (5.9) !*	250 (5.7) !
Mississippi	200 (1.2)	202 (1.2)	224 (1.5)	226 (1.4)	****(****)	213 (5.0) !
Missouri	210 (1.4)	213 (1.7)	233 (1.0) *	237 (1.1)	****(****)	233 (4.9) !
Montana †	217 (2.1)	217 (2.5)	234 (1.1)	236 (1.8)	223 (5.7) !	233 (4.4) !
Nebraska	213 (1.8)	210 (2.4)	235 (1.3)	235 (1.4)	235 (3.2) !	231 (6.7) !
Nevada	202 (2.9)	208 (1.6)	223 (2.3)	228 (1.1)	219 (1.7)	218 (4.9) !
New Mexico	203 (2.2)	205 (2.1)	227 (1.3)	227 (1.8)	221 (3.3) !	217 (5.8) !
New York †	206 (2.0) ‡	214 (1.4)	236 (1.1)	239 (1.9)	233 (5.5) !	236 (5.7) !
North Carolina	209 (1.7) ‡	220 (1.1)	234 (1.1) ‡	241 (1.2)	217 (5.7) ! ‡	237 (2.3) !
North Dakota	223 (2.5)	221 (2.0)	234 (1.1)	235 (0.9)	230 (3.0) !	230 (2.3)
Ohio †	—	217 (1.7)	—	239 (1.4)	—	231 (3.3) !
Oklahoma	—	217 (1.9)	—	234 (1.0)	—	225 (5.5) !
Oregon †	210 (1.6)	213 (2.3)	231 (1.5)	234 (1.7)	222 (4.9) !	232 (5.6) !
Rhode Island	204 (1.8)	206 (2.1)	229 (1.4) ‡	236 (1.1)	****(****)	219 (10.9) !
South Carolina	201 (1.3) ‡	208 (1.8)	226 (1.5) ‡	235 (1.0)	****(****)	205 (8.2) !
Tennessee	204 (1.7)	204 (2.0)	229 (1.4)	231 (1.5)	217 (8.1) !	226 (9.5) !
Texas	215 (1.4) ‡	222 (1.4)	240 (1.4)	242 (1.3)	228 (5.9) !	232 (4.6) !
Utah	216 (1.8)	215 (2.0)	231 (1.3)	233 (1.1)	226 (2.4) !	233 (3.3) !
Vermont †	210 (2.2)	216 (2.7)	231 (1.3) ‡	237 (1.8)	226 (2.6) !	237 (5.3) !
Virginia	206 (1.7) ‡	214 (1.4)	230 (1.3) ‡	237 (1.3)	228 (8.5) !	239 (3.8) !
West Virginia	213 (1.2)	217 (1.4)	232 (1.2)	232 (1.2)	231 (2.8) !	225 (4.8) !
Wyoming	213 (2.2) *	220 (1.9)	228 (1.3) ‡	234 (1.4)	224 (6.9) !	227 (2.8) !
Other Jurisdictions						
American Samoa	—	157 (3.8)	—	****(****)	—	****(****)
District of Columbia	178 (1.3) ‡	188 (1.4)	213 (1.6)	219 (2.9)	206 (2.8) *	198 (2.4)
DDESS	218 (1.6)	224 (1.8)	229 (1.5)	231 (1.6)	225 (2.7)	229 (3.9)
DoDDS	220 (2.4)	222 (1.1)	225 (1.2) *	229 (1.0)	222 (1.1) ‡	229 (1.2)
Guam	177 (2.0)	176 (2.9)	195 (1.8)	194 (3.1)	186 (3.2)	****(****)
Virgin Islands	—	183 (2.8)	—	****(****)	—	****(****)

Standard errors of the estimated scale scores appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined.

‡ Significantly different from 2000 when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.

! The nature of the sample does not allow accurate determination of the variability of the statistic.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

**** (****) Sample size is insufficient to permit a reliable estimate.

— Indicates that the jurisdiction did not participate.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.47: Data for Figure 3.23 State Scale Score Results by Free/Reduced-Price Lunch, Grade 8

State average mathematics scale scores by student eligibility for free/reduced-price lunch program for grade 8 public schools: 1996–2000

	Eligible		Not eligible		Info not available	
	1996	2000	1996	2000	1996	2000
Nation	252 (1.5)	255 (1.2)	279 (1.5) *	285 (1.1)	278 (3.9) !	273 (2.1)
Alabama	237 (2.2)	243 (1.8)	270 (2.3)	275 (1.7)	254 (7.7) !	270 (7.8) !
Arizona †	254 (3.8)	252 (2.5)	277 (1.3)	280 (1.5)	264 (3.1)	276 (4.0) !
Arkansas	246 (2.7)	249 (2.1)	270 (1.4)	269 (1.5)	262 (4.7) !	269 (4.7) !
California †	246 (2.1)	242 (2.1)	276 (1.9)	273 (3.3)	261 (4.5)	273 (5.1) !
Connecticut	254 (3.3)	251 (4.0)	287 (1.1) ‡	292 (1.2)	275 (10.3) !	275 (6.8) !
Georgia	242 (1.5) ‡	248 (1.4)	273 (2.1)	278 (1.7)	271 (4.7) !	265 (2.6)
Hawaii	249 (1.5)	251 (2.0)	269 (1.2)	270 (1.6)	253 (3.5)	270 (4.5)
Idaho †	—	264 (2.7)	—	284 (1.4)	—	282 (2.3)
Illinois †	—	259 (3.1)	—	285 (1.5)	—	278 (4.5) !
Indiana †	256 (1.9) ‡	267 (2.3)	282 (1.4) ‡	288 (1.4)	****(****)	278 (5.8) !
Kansas †	—	267 (2.4)	—	290 (1.7)	—	285 (4.5) !
Kentucky	252 (1.3) *	257 (1.7)	276 (1.3) ‡	281 (1.5)	261 (4.1) !	****(****)
Louisiana	241 (1.8)	246 (2.0)	265 (1.5) ‡	276 (1.6)	250 (5.9) !	260 (3.5) !
Maine †	272 (2.2)	273 (2.1)	288 (1.3)	287 (1.3)	284 (4.7) !	283 (3.4) !
Maryland	243 (2.3) *	251 (2.2)	279 (2.4) *	286 (1.4)	274 (6.5) !	270 (6.0) !
Massachusetts	254 (2.5)	261 (2.9)	284 (1.5) *	289 (1.2)	269 (10.2) !	286 (5.6) !
Michigan †	257 (2.7)	256 (2.2)	284 (1.7)	286 (1.7)	272 (6.9) !	274 (7.4) !
Minnesota †	270 (1.8)	274 (3.4)	288 (1.3)	291 (1.4)	286 (6.4) !	294 (7.0) !
Mississippi	239 (1.6)	241 (2.0)	265 (1.2)	267 (1.6)	248 (6.2) !	256 (2.9) !
Missouri	259 (1.9)	256 (2.3)	280 (1.3)	280 (1.3)	264 (9.5) !	277 (6.6) !
Montana †	266 (2.6)	275 (2.8)	290 (1.0)	292 (1.2)	286 (2.2)	287 (4.1)
Nebraska	269 (1.9) *	262 (2.5)	288 (1.1)	288 (1.1)	288 (2.0)	****(****)
Nevada	—	248 (2.1)	—	275 (0.9)	—	275 (4.2)
New Mexico	251 (1.8)	250 (2.1)	272 (1.4)	272 (2.0)	265 (2.6)	258 (3.6)
New York †	253 (2.4)	261 (4.1)	282 (1.5)	286 (2.0)	271 (7.3) !	281 (5.3)
North Carolina	250 (1.8) ‡	261 (1.7)	277 (1.5) ‡	289 (1.3)	263 (5.0) !	272 (5.3) !
North Dakota	274 (2.0)	271 (2.7)	288 (0.9)	287 (1.3)	282 (3.0)	284 (2.1)
Ohio	—	262 (2.8)	—	289 (1.4)	—	273 (6.2) !
Oklahoma	—	259 (2.2)	—	280 (1.2)	—	275 (5.0) !
Oregon †	262 (2.1)	263 (2.8)	282 (1.5)	287 (1.9)	273 (3.7)	285 (3.0) !
Rhode Island	250 (2.2)	252 (1.8)	277 (0.9) ‡	283 (1.0)	249 (8.5)	269 (4.5)
South Carolina	246 (1.7) *	252 (1.7)	272 (1.6) *	278 (1.5)	****(****)	****(****)
Tennessee	246 (2.3)	244 (2.5)	271 (1.9)	274 (1.7)	262 (4.7) !	262 (4.6) !
Texas	252 (1.6) ‡	261 (2.0)	282 (1.5)	285 (1.7)	271 (3.6)	276 (6.3) !
Utah	268 (2.4)	262 (2.0)	280 (1.0)	281 (1.0)	276 (3.6)	269 (8.6)
Vermont †	266 (1.8)	266 (1.9)	283 (1.1) ‡	288 (1.2)	278 (3.1) !	283 (4.2) !
Virginia	246 (2.6) ‡	258 (2.0)	277 (1.3) ‡	282 (1.5)	277 (5.3) !	276 (7.6) !
West Virginia	254 (1.5) *	259 (1.4)	271 (1.1) ‡	278 (1.2)	274 (3.5) !	276 (3.5) !
Wyoming	262 (1.8)	265 (1.6)	277 (1.1)	281 (1.3)	285 (4.0)	274 (7.6) !
Other Jurisdictions						
American Samoa	—	195 (4.3)	—	****(****)	—	****(****)
District of Columbia	226 (1.8)	227 (2.1)	245 (2.4) ‡	261 (3.3)	234 (2.7)	230 (4.3)
DDESS	260 (4.5)	268 (2.7)	276 (2.8)	281 (3.0)	269 (4.1)	281 (5.9)
DoDDS	267 (3.6)	271 (2.3)	276 (1.3)	280 (1.6)	275 (1.4)	279 (2.0)
Guam	217 (3.7)	216 (4.2)	243 (1.9)	238 (2.2)	****(****)	****(****)

Standard errors of the estimated scale scores appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined.

‡ Significantly different from 2000 when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.

! The nature of the sample does not allow accurate determination of the variability of the statistic.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

**** (****) Sample size is insufficient to permit a reliable estimate.

— Indicates that the jurisdiction did not participate.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.48: Data for Figure 3.24 State *Proficient* Level Achievement Results by Free/Reduced-Price Lunch, Grade 4

State percentages of students at or above *Proficient* in mathematics by student eligibility for free/reduced-price lunch program for grade 4 public schools: 1996–2000

	Eligible		Not eligible		Info not available	
	1996	2000	1996	2000	1996	2000
Nation	8 (1.2)	9 (0.8)	25 (1.4) *	33 (1.6)	28 (5.4)	35 (3.4)
Alabama	3 (0.7)	5 (0.9)	18 (1.9)	24 (2.0)	9 (4.7) !	22 (5.3) !
Arizona	5 (1.0)	7 (1.0)	24 (2.3)	26 (2.7)	14 (3.6) !	12 (3.6) !
Arkansas	6 (0.9)	5 (0.7)	20 (1.9)	21 (1.8)	****(****)	****(****)
California †	4 (1.2)	5 (1.1)	17 (2.6)	25 (2.1)	12 (2.5) !	19 (5.9) !
Connecticut	7 (1.2)	11 (1.7)	38 (2.1)	40 (2.0)	****(****)	24 (6.8) !
Georgia	3 (0.7)	5 (0.8)	20 (2.0) ‡	29 (2.0)	24 (7.4) !	21 (4.7) !
Hawaii	7 (1.0)	6 (0.9)	23 (1.5)	22 (2.0)	13 (4.6) !	11 (3.8) !
Idaho †	—	13 (1.7)	—	28 (2.2)	—	20 (3.5) !
Illinois †	—	7 (1.3)	—	30 (4.0)	—	31 (10.3) !
Indiana †	8 (1.4) *	14 (2.2)	30 (2.0) *	37 (2.1)	****(****)	31 (5.6) !
Iowa †	13 (1.5)	17 (2.3)	27 (1.8)	32 (2.2)	20 (6.2) !	27 (6.5) !
Kansas †	—	13 (2.3)	—	40 (2.5)	—	15 (4.9) !
Kentucky	7 (0.9)	7 (0.7)	24 (1.7)	26 (1.8)	9 (3.1) !	28 (6.2) !
Louisiana	3 (0.6) ‡	7 (1.0)	15 (1.9) ‡	27 (3.0)	10 (5.7) !	10 (2.5) !
Maine †	13 (1.7)	14 (1.7)	34 (1.7)	29 (1.6)	35 (9.3) !	32 (7.8) !
Maryland	5 (0.8)	7 (1.2)	31 (2.4)	31 (2.1)	8 (2.9) !	18 (5.1) !
Massachusetts	8 (1.4)	9 (1.3)	30 (2.4) ‡	42 (1.9)	26 (7.0) !	41 (7.1) !
Michigan †	8 (1.4)	11 (1.8)	30 (1.8) *	38 (2.1)	28 (7.7) !	15 (8.5) !
Minnesota †	14 (1.7)	15 (2.6)	35 (1.9)	40 (1.9)	26 (6.5) !	55 (10.0) !
Mississippi	3 (0.5)	4 (0.7)	17 (2.1)	18 (1.9)	****(****)	11 (3.2) !
Missouri	7 (1.2)	9 (1.7)	27 (1.6)	31 (2.0)	****(****)	24 (6.4) !
Montana †	13 (2.0)	10 (2.6)	29 (1.9)	32 (3.4)	15 (5.1) !	30 (7.0) !
Nebraska	12 (1.3)	11 (1.8)	30 (1.8)	31 (2.2)	32 (5.9) !	27 (7.2) !
Nevada	4 (1.2)	6 (1.1)	17 (2.7)	22 (1.5)	15 (1.5)	14 (4.4) !
New Mexico	5 (0.9)	5 (1.0)	21 (1.7)	22 (2.5)	20 (3.5) !	14 (5.3) !
New York †	7 (1.2)	8 (1.3)	29 (1.9)	36 (2.8)	28 (5.8) !	29 (11.1) !
North Carolina	7 (1.3) *	12 (1.4)	30 (1.9) ‡	39 (2.1)	17 (4.3) !*	34 (5.8) !
North Dakota	15 (1.9)	16 (1.9)	28 (1.5)	29 (1.7)	21 (3.8) !	25 (2.7)
Ohio †	—	11 (1.9)	—	35 (2.9)	—	24 (6.0) !
Oklahoma	—	8 (1.2)	—	25 (1.7)	—	15 (4.9) !
Oregon †	9 (1.1)	11 (1.6)	27 (1.6)	30 (2.3)	22 (6.2) !	31 (7.4) !
Rhode Island	5 (0.9)	7 (1.0)	24 (1.8) ‡	33 (1.7)	****(****)	16 (8.6) !
South Carolina	4 (0.8) *	7 (1.0)	20 (2.2) ‡	31 (1.8)	****(****)	11 (4.9) !
Tennessee	6 (0.9)	6 (0.9)	23 (2.1)	27 (2.1)	18 (7.4) !	23 (14.6) !
Texas	9 (1.1)	13 (1.5)	39 (2.1)	40 (2.7)	22 (6.9) !	27 (5.5) !
Utah	13 (1.8)	13 (1.7)	27 (1.8)	29 (1.6)	23 (3.4) !	28 (5.6) !
Vermont †	9 (1.4)	15 (2.7)	28 (1.5)	34 (3.0)	24 (4.2) !	37 (6.9) !
Virginia	5 (0.9)	9 (1.2)	25 (1.9)	32 (2.1)	28 (11.2) !	37 (6.0) !
West Virginia	10 (1.3)	11 (1.7)	27 (1.6)	25 (2.0)	25 (6.4) !	18 (5.5) !
Wyoming	10 (1.6)	16 (2.0)	23 (1.6) *	30 (2.1)	22 (8.6) !	23 (3.4) !
Other Jurisdictions						
American Samoa	—	▲ (0.4)	—	****(****)	—	****(****)
District of Columbia	1 (0.2)	2 (0.7)	19 (1.8)	22 (2.6)	11 (2.2)	11 (2.1)
DDESS	14 (1.6)	18 (2.2)	26 (3.0)	28 (2.2)	21 (3.2)	25 (3.8)
DoDDS	15 (2.6)	17 (2.4)	21 (1.7)	24 (1.4)	18 (1.7)	23 (1.6)
Guam	1 (0.5)	1 (0.5)	5 (1.0)	4 (1.5)	3 (2.0)	****(****)
Virgin Islands	—	1 (0.6)	—	****(****)	—	****(****)

Standard errors of the estimated percentages appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined.

‡ Significantly different from 2000 when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.

! The nature of the sample does not allow accurate determination of the variability of the statistic.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

**** (****) Sample size is insufficient to permit a reliable estimate.

— Indicates that the jurisdiction did not participate.

▲ Percentage is between 0.0 and 0.5.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.49: State *Basic* Level Achievement Results by Free/Reduced-Price Lunch, Grade 4

State percentage of students at or above *Basic* in mathematics by student eligibility for free/reduced-price lunch program for grade 4 public schools: 1996–2000

	Eligible		Not eligible		Info not available	
	1996	2000	1996	2000	1996	2000
Nation	41 (2.6)	46 (1.5)	73 (1.8) *	79 (1.4)	72 (5.6) !	77 (3.3)
Alabama	30 (2.3) ‡	39 (2.3)	66 (2.5) ‡	76 (2.2)	51 (5.0) *!	69 (6.6) !
Arizona	34 (2.8)	40 (2.5)	75 (2.4)	75 (2.8)	58 (6.3) !	53 (7.9) !
Arkansas	37 (2.2)	41 (2.4)	70 (2.1)	73 (1.9)	****(****)	****(****)
California †	26 (2.9) *	35 (2.4)	63 (2.7) *	72 (2.3)	54 (5.6) !	54 (8.8) !
Connecticut	42 (2.6) *	53 (3.3)	85 (1.4)	87 (1.2)	****(****)	63 (8.7) !
Georgia	33 (2.3)	37 (1.9)	68 (2.4) ‡	77 (2.1)	66 (9.0) !	60 (4.9) !
Hawaii	37 (2.4)	40 (2.2)	64 (1.7)	70 (2.4)	48 (7.1) !	51 (7.6) !
Idaho †	—	59 (2.3)	—	80 (1.8)	—	74 (7.6) !
Illinois †	—	43 (2.9)	—	80 (2.7)	—	71 (10.1) !
Indiana †	49 (2.8) ‡	64 (2.8)	82 (1.6)	85 (1.5)	****(****)	70 (8.3) !
Iowa †	59 (3.0)	66 (3.0)	81 (1.4)	82 (1.8)	70 (9.8) !	76 (8.5) !
Kansas †	—	57 (3.7)	—	87 (1.8)	—	50 (11.0) !
Kentucky	46 (2.3)	46 (2.2)	73 (1.8)	74 (2.1)	58 (12.1) !	69 (10.7) !
Louisiana	31 (1.9) ‡	45 (2.4)	66 (2.8) ‡	79 (2.3)	47 (8.0) !	49 (6.6) !
Maine †	61 (2.6)	64 (2.8)	82 (1.5)	79 (1.8)	82 (4.4) !	80 (4.8) !
Maryland	32 (2.6)	37 (2.7)	73 (1.9)	75 (1.8)	37 (6.8) !	51 (9.6) !
Massachusetts	50 (2.4)	51 (2.9)	79 (1.7) ‡	90 (1.2)	70 (7.3) !	75 (6.8) !
Michigan †	47 (2.9)	48 (3.1)	79 (2.0)	83 (1.7)	67 (10.6) !	59 (13.2) !
Minnesota †	59 (4.2)	60 (4.3)	82 (1.6)	85 (1.2)	70 (6.8) !	89 (5.8) !
Mississippi	28 (2.0)	33 (2.1)	67 (2.1)	67 (2.2)	****(****)	49 (8.2) !
Missouri	45 (2.4)	51 (2.6)	78 (1.5) *	83 (1.4)	****(****)	83 (5.7) !
Montana †	57 (3.3)	58 (4.3)	79 (1.6)	81 (2.6)	67 (9.5) !	77 (7.3) !
Nebraska	52 (2.9)	45 (3.7)	79 (1.7)	79 (1.8)	80 (3.9) !	74 (8.8) !
Nevada	35 (3.6)	43 (2.7)	64 (2.9)	71 (1.7)	59 (2.6)	55 (8.6) !
New Mexico	35 (2.9)	38 (2.8)	70 (1.8)	71 (3.0)	59 (4.4) !	53 (9.2) !
New York †	41 (2.4)	49 (2.5)	83 (1.6)	85 (2.7)	80 (7.7) !	82 (7.5) !
North Carolina	45 (2.7) ‡	61 (2.7)	77 (1.3) ‡	86 (1.4)	57 (7.5) *!	81 (4.8) !
North Dakota	65 (4.5)	63 (4.2)	79 (1.6)	81 (1.5)	76 (5.0) !	74 (3.9)
Ohio †	—	55 (3.6)	—	84 (1.9)	—	76 (4.9) !
Oklahoma	—	57 (2.8)	—	83 (1.7)	—	67 (9.1) !
Oregon †	47 (2.8)	51 (3.9)	74 (2.2)	77 (2.2)	62 (7.1) !	72 (6.8) !
Rhode Island	40 (2.5)	44 (2.4)	72 (2.2) ‡	82 (1.5)	****(****)	57 (13.4) !
South Carolina	31 (2.3) ‡	44 (2.4)	68 (2.2) ‡	78 (1.7)	****(****)	43 (8.7) !
Tennessee	38 (2.4)	40 (2.1)	72 (2.0)	74 (2.0)	52 (12.6) !	65 (11.8) !
Texas	52 (2.8) ‡	66 (2.5)	84 (1.6)	87 (1.6)	71 (8.7) !	74 (6.4) !
Utah	55 (2.7)	53 (3.1)	75 (1.9)	77 (1.5)	68 (3.4) !	77 (4.8) !
Vermont †	50 (4.3)	54 (3.5)	74 (1.5)	80 (2.2)	66 (4.6) !	79 (8.9) !
Virginia	39 (2.9) *	50 (2.9)	72 (2.1) ‡	83 (1.6)	69 (11.3) !	82 (5.1) !
West Virginia	49 (1.9) ‡	57 (2.3)	76 (1.9)	77 (1.4)	74 (3.6) !	73 (9.0) !
Wyoming	50 (2.4) ‡	62 (3.0)	71 (1.8) ‡	79 (2.3)	65 (8.3) !	71 (5.9) !
Other Jurisdictions						
American Samoa	—	5 (1.4)	—	****(****)	—	****(****)
District of Columbia	11 (0.9) ‡	18 (1.2)	49 (2.3)	58 (3.7)	34 (3.5)	30 (2.8)
DDESS	56 (3.8)	65 (3.5)	69 (2.0)	73 (2.5)	66 (3.7)	72 (7.2)
DoDDS	60 (4.3)	63 (2.0)	66 (1.6) ‡	72 (1.5)	64 (2.1) ‡	71 (1.7)
Guam	13 (1.8)	15 (1.8)	29 (2.5)	29 (3.5)	24 (5.9)	****(****)
Virgin Islands	—	15 (3.2)	—	****(****)	—	****(****)

Standard errors of the estimated percentages appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined.

‡ Significantly different from 2000 when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.

! The nature of the sample does not allow accurate determination of the variability of the statistic.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

**** (****) Sample size is insufficient to permit a reliable estimate.

— Indicates that the jurisdiction did not participate.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.50: State Achievement Level Results by Free/Reduced-Price Lunch, Grade 4

State percentages of students at or above mathematics achievement levels by eligibility for free/reduced-price lunch program for grade 4 public schools: 2000

	Eligible				Not eligible			
	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*
Nation	54 (1.5)	46 (1.5)	9 (0.8)	▲ (0.1)	21 (1.4)	79 (1.4)	33 (1.6)	4 (0.6)
Alabama	61 (2.3)	39 (2.3)	5 (0.9)	▲ (0.2)	24 (2.2)	76 (2.2)	24 (2.0)	1 (0.4)
Arizona	60 (2.5)	40 (2.5)	7 (1.0)	▲ (****)	25 (2.8)	75 (2.8)	26 (2.7)	3 (0.9)
Arkansas	59 (2.4)	41 (2.4)	5 (0.7)	▲ (****)	27 (1.9)	73 (1.9)	21 (1.8)	1 (0.5)
California †	65 (2.4)	35 (2.4)	5 (1.1)	▲ (****)	28 (2.3)	72 (2.3)	25 (2.1)	2 (0.7)
Connecticut	47 (3.3)	53 (3.3)	11 (1.7)	▲ (****)	13 (1.2)	87 (1.2)	40 (2.0)	4 (0.7)
Georgia	63 (1.9)	37 (1.9)	5 (0.8)	▲ (****)	23 (2.1)	77 (2.1)	29 (2.0)	2 (0.5)
Hawaii	60 (2.2)	40 (2.2)	6 (0.9)	▲ (****)	30 (2.4)	70 (2.4)	22 (2.0)	1 (0.5)
Idaho †	41 (2.3)	59 (2.3)	13 (1.7)	▲ (0.2)	20 (1.8)	80 (1.8)	28 (2.2)	2 (0.7)
Illinois †	57 (2.9)	43 (2.9)	7 (1.3)	▲ (****)	20 (2.7)	80 (2.7)	30 (4.0)	2 (1.1)
Indiana †	36 (2.8)	64 (2.8)	14 (2.2)	▲ (****)	15 (1.5)	85 (1.5)	37 (2.1)	3 (1.0)
Iowa †	34 (3.0)	66 (3.0)	17 (2.3)	1 (0.7)	18 (1.8)	82 (1.8)	32 (2.2)	2 (0.4)
Kansas †	43 (3.7)	57 (3.7)	13 (2.3)	▲ (****)	13 (1.8)	87 (1.8)	40 (2.5)	4 (1.1)
Kentucky	54 (2.2)	46 (2.2)	7 (0.7)	▲ (****)	26 (2.1)	74 (2.1)	26 (1.8)	3 (0.5)
Louisiana	55 (2.4)	45 (2.4)	7 (1.0)	▲ (****)	21 (2.3)	79 (2.3)	27 (3.0)	2 (0.5)
Maine †	36 (2.8)	64 (2.8)	14 (1.7)	1 (0.3)	21 (1.8)	79 (1.8)	29 (1.6)	3 (0.6)
Maryland	63 (2.7)	37 (2.7)	7 (1.2)	▲ (****)	25 (1.8)	75 (1.8)	31 (2.1)	4 (0.7)
Massachusetts	49 (2.9)	51 (2.9)	9 (1.3)	1 (****)	10 (1.2)	90 (1.2)	42 (1.9)	4 (0.7)
Michigan †	52 (3.1)	48 (3.1)	11 (1.8)	▲ (****)	17 (1.7)	83 (1.7)	38 (2.1)	5 (0.9)
Minnesota †	40 (4.3)	60 (4.3)	15 (2.6)	1 (****)	15 (1.2)	85 (1.2)	40 (1.9)	4 (0.6)
Mississippi	67 (2.1)	33 (2.1)	4 (0.7)	▲ (****)	33 (2.2)	67 (2.2)	18 (1.9)	1 (0.6)
Missouri	49 (2.6)	51 (2.6)	9 (1.7)	▲ (****)	17 (1.4)	83 (1.4)	31 (2.0)	3 (0.6)
Montana †	42 (4.3)	58 (4.3)	10 (2.6)	▲ (****)	19 (2.6)	81 (2.6)	32 (3.4)	3 (1.0)
Nebraska	55 (3.7)	45 (3.7)	11 (1.8)	1 (0.5)	21 (1.8)	79 (1.8)	31 (2.2)	3 (0.6)
Nevada	57 (2.7)	43 (2.7)	6 (1.1)	▲ (****)	29 (1.7)	71 (1.7)	22 (1.5)	1 (0.3)
New Mexico	62 (2.8)	38 (2.8)	5 (1.0)	▲ (0.2)	29 (3.0)	71 (3.0)	22 (2.5)	2 (0.6)
New York †	51 (2.5)	49 (2.5)	8 (1.3)	▲ (****)	15 (2.7)	85 (2.7)	36 (2.8)	3 (0.8)
North Carolina	39 (2.7)	61 (2.7)	12 (1.4)	▲ (****)	14 (1.4)	86 (1.4)	39 (2.1)	5 (0.6)
North Dakota	37 (4.2)	63 (4.2)	16 (1.9)	1 (0.6)	19 (1.5)	81 (1.5)	29 (1.7)	3 (0.5)
Ohio †	45 (3.6)	55 (3.6)	11 (1.9)	▲ (****)	16 (1.9)	84 (1.9)	35 (2.9)	3 (0.8)
Oklahoma	43 (2.8)	57 (2.8)	8 (1.2)	▲ (****)	17 (1.7)	83 (1.7)	25 (1.7)	1 (0.2)
Oregon †	49 (3.9)	51 (3.9)	11 (1.6)	▲ (****)	23 (2.2)	77 (2.2)	30 (2.3)	4 (0.9)
Rhode Island	56 (2.4)	44 (2.4)	7 (1.0)	1 (****)	18 (1.5)	82 (1.5)	33 (1.7)	3 (0.6)
South Carolina	56 (2.4)	44 (2.4)	7 (1.0)	▲ (****)	22 (1.7)	78 (1.7)	31 (1.8)	3 (0.6)
Tennessee	60 (2.1)	40 (2.1)	6 (0.9)	▲ (****)	26 (2.0)	74 (2.0)	27 (2.1)	2 (0.6)
Texas	34 (2.5)	66 (2.5)	13 (1.5)	▲ (0.2)	13 (1.6)	87 (1.6)	40 (2.7)	4 (1.0)
Utah	47 (3.1)	53 (3.1)	13 (1.7)	1 (0.4)	23 (1.5)	77 (1.5)	29 (1.6)	2 (0.4)
Vermont †	46 (3.5)	54 (3.5)	15 (2.7)	1 (0.5)	20 (2.2)	80 (2.2)	34 (3.0)	5 (1.0)
Virginia	50 (2.9)	50 (2.9)	9 (1.2)	1 (****)	17 (1.6)	83 (1.6)	32 (2.1)	3 (0.9)
West Virginia	43 (2.3)	57 (2.3)	11 (1.7)	▲ (0.2)	23 (1.4)	77 (1.4)	25 (2.0)	2 (0.5)
Wyoming	38 (3.0)	62 (3.0)	16 (2.0)	1 (0.7)	21 (2.3)	79 (2.3)	30 (2.1)	2 (0.6)
Other Jurisdictions								
American Samoa	95 (1.4)	5 (1.4)	▲ (****)	0 (****)	****(****)	****(****)	****(****)	****(****)
District of Columbia	82 (1.2)	18 (1.2)	2 (0.7)	▲ (****)	42 (3.7)	58 (3.7)	22 (2.6)	3 (1.4)
DDESS	35 (3.5)	65 (3.5)	18 (2.2)	1 (0.7)	27 (2.5)	73 (2.5)	28 (2.2)	4 (1.1)
DoDDS	37 (2.0)	63 (2.0)	17 (2.4)	1 (****)	28 (1.5)	72 (1.5)	24 (1.4)	2 (0.5)
Guam	85 (1.8)	15 (1.8)	1 (0.5)	▲ (****)	71 (3.5)	29 (3.5)	4 (1.5)	1 (****)
Virgin Islands	85 (3.2)	15 (3.2)	1 (0.6)	▲(****)	****(****)	****(****)	****(****)	****(****)

See footnotes at end of table. ▶

Table B.50: State Achievement Level Results by Free/Reduced-Price Lunch, Grade 4 (continued)

State percentages of students at or above mathematics achievement levels by eligibility for free/reduced-price lunch program for grade 4 public schools: 2000

Not available

	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*
Nation	23 (3.3)	77 (3.3)	35 (3.4)	3 (0.9)
Alabama	31 (6.6) !	69 (6.6) !	22 (5.3) !	2 (****) !
Arizona	47 (7.9) !	53 (7.9) !	12 (3.6) !	1 (0.7) !
Arkansas	****(****)	****(****)	****(****)	****(****)
California †	46 (8.8) !	54 (8.8) !	19 (5.9) !	1 (****) !
Connecticut	37 (8.7) !	63 (8.7) !	24 (6.8) !	2 (1.5) !
Georgia	40 (4.9) !	60 (4.9) !	21 (4.7) !	2 (1.0) !
Hawaii	49 (7.6) !	51 (7.6) !	11 (3.8) !	0 (****) !
Idaho †	26 (7.6) !	74 (7.6) !	20 (3.5) !	1 (****) !
Illinois †	29 (10.1) !	71 (10.1) !	31 (10.3) !	4 (****) !
Indiana †	30 (8.3) !	70 (8.3) !	31 (5.6) !	5 (2.1) !
Iowa †	24 (8.5) !	76 (8.5) !	27 (6.5) !	2 (****) !
Kansas †	50 (11.0) !	50 (11.0) !	15 (4.9) !	1 (****) !
Kentucky	31 (10.7) !	69 (10.7) !	28 (6.2) !	2 (1.3) !
Louisiana	51 (6.6) !	49 (6.6) !	10 (2.5) !	▲ (****) !
Maine †	20 (4.8) !	80 (4.8) !	32 (7.8) !	3 (****) !
Maryland	49 (9.6) !	51 (9.6) !	18 (5.1) !	1 (****) !
Massachusetts	25 (6.8) !	75 (6.8) !	41 (7.1) !	3 (1.5) !
Michigan †	41 (13.2) !	59 (13.2) !	15 (8.5) !	1 (****) !
Minnesota †	11 (5.8) !	89 (5.8) !	55 (10.0) !	13 (5.0) !
Mississippi	51 (8.2) !	49 (8.2) !	11 (3.2) !	▲ (****) !
Missouri	17 (5.7) !	83 (5.7) !	24 (6.4) !	1 (****) !
Montana †	23 (7.3) !	77 (7.3) !	30 (7.0) !	1 (****) !
Nebraska	26 (8.8) !	74 (8.8) !	27 (7.2) !	2 (****) !
Nevada	45 (8.6) !	55 (8.6) !	14 (4.4) !	1 (****) !
New Mexico	47 (9.2) !	53 (9.2) !	14 (5.3) !	1 (****) !
New York †	18 (7.5) !	82 (7.5) !	29 (11.1) !	2 (****) !
North Carolina	19 (4.8) !	81 (4.8) !	34 (5.8) !	3 (1.5) !
North Dakota	26 (3.9)	74 (3.9)	25 (2.7)	2 (0.7)
Ohio †	24 (4.9) !	76 (4.9) !	24 (6.0) !	1 (****) !
Oklahoma	33 (9.1) !	67 (9.1) !	15 (4.9) !	1 (****) !
Oregon †	28 (6.8) !	72 (6.8) !	31 (7.4) !	4 (1.8) !
Rhode Island	43 (13.4) !	57 (13.4) !	16 (8.6) !	1 (****) !
South Carolina	57 (8.7) !	43 (8.7) !	11 (4.9) !	1 (****) !
Tennessee	35 (11.8) !	65 (11.8) !	23 (14.6) !	2 (****) !
Texas	26 (6.4) !	74 (6.4) !	27 (5.5) !	3 (1.0) !
Utah	23 (4.8) !	77 (4.8) !	28 (5.6) !	2 (****) !
Vermont †	21 (8.9) !	79 (8.9) !	37 (6.9) !	5 (****) !
Virginia	18 (5.1) !	82 (5.1) !	37 (6.0) !	4 (1.5) !
West Virginia	27 (9.0) !	73 (9.0) !	18 (5.5) !	▲ (****) !
Wyoming	29 (5.9) !	71 (5.9) !	23 (3.4) !	1 (****) !
Other Jurisdictions				
American Samoa	****(****)	****(****)	****(****)	****(****)
District of Columbia	70 (2.8)	30 (2.8)	11 (2.1)	2 (0.7)
DDESS	28 (7.2)	72 (7.2)	25 (3.8)	3 (1.6)
DoDDS	29 (1.7)	71 (1.7)	23 (1.6)	2 (0.8)
Guam	****(****)	****(****)	****(****)	****(****)
Virgin Islands	****(****)	****(****)	****(****)	****(****)

Standard errors of the estimated percentages appear in parentheses.

! The nature of the sample does not allow accurate determination of the variability of the statistic.

(****) Standard error estimates cannot be accurately determined.

**** (****) Sample size is insufficient to permit a reliable estimate.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

▲ Percentage is between 0.0 and 0.5.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Table B.51: Data for Figure 3.25 State *Proficient* Level Achievement Results by Free/Reduced-Price Lunch, Grade 8

State percentages of students at or above *Proficient* in mathematics by student eligibility for free/reduced-price lunch program for grade 8 public schools: 1996–2000

	Eligible		Not eligible		Info not available	
	1996	2000	1996	2000	1996	2000
Nation	8 (1.1)	10 (0.9)	29 (1.7)	35 (1.5)	29 (4.6)	26 (2.3)
Alabama	2 (0.6)	5 (1.0)	18 (2.6)	23 (2.1)	7 (2.0) !	21 (8.9) !
Arizona †	8 (1.8)	9 (1.8)	24 (1.8)	27 (2.4)	16 (2.7)	24 (4.4) !
Arkansas	5 (1.1)	7 (1.3)	18 (1.5)	18 (1.8)	12 (4.9) !	20 (5.3) !
California †	5 (1.1)	4 (1.1)	26 (2.3)	24 (2.5)	15 (3.8)	26 (5.6) !
Connecticut	9 (2.3)	7 (1.5)	36 (1.6)	42 (1.9)	34 (8.7) !	29 (5.7) !
Georgia	3 (0.8)	5 (0.8)	22 (2.8)	27 (1.9)	22 (4.2) !	17 (2.5)
Hawaii	7 (1.3)	8 (1.2)	21 (1.3)	21 (1.7)	8 (1.9) *	22 (3.6)
Idaho †	—	17 (2.2)	—	32 (2.2)	—	29 (4.5)
Illinois †	—	12 (2.2)	—	34 (1.9)	—	25 (6.4) !
Indiana †	8 (1.7)	13 (1.8)	28 (1.7) *	36 (1.9)	****(****)	26 (7.5) !
Kansas †	—	17 (2.7)	—	41 (2.1)	—	36 (6.1) !
Kentucky	4 (1.1) *	8 (1.1)	23 (1.8) *	29 (2.1)	12 (3.2) !	****(****)
Louisiana	3 (0.8)	4 (0.8)	12 (1.8) *	22 (2.4)	7 (4.3) !	10 (2.7) !
Maine †	18 (2.8)	20 (2.7)	35 (1.8)	36 (1.7)	30 (8.2) !	31 (3.7) !
Maryland	6 (1.2)	7 (1.4)	31 (3.1)	37 (1.8)	26 (6.5) !	25 (5.4) !
Massachusetts	7 (1.5)	11 (2.3)	33 (2.2)	38 (1.5)	24 (7.4) !	35 (7.0) !
Michigan †	10 (1.8)	9 (1.9)	34 (2.1)	35 (2.1)	28 (5.4) !	27 (7.1) !
Minnesota †	20 (2.2)	27 (3.3)	37 (1.7)	42 (1.6)	41 (8.8) !	50 (10.0) !
Mississippi	2 (0.5)	3 (0.6)	13 (1.7)	14 (1.4)	7 (3.7) !	9 (1.8) !
Missouri	9 (1.8)	9 (1.8)	27 (1.4)	26 (1.6)	17 (7.3) !	26 (6.2) !
Montana †	17 (2.7)	25 (3.0)	38 (1.5)	43 (1.7)	34 (4.6)	37 (4.7)
Nebraska	19 (2.6)	15 (2.3)	35 (1.7)	36 (1.9)	34 (3.7)	****(****)
Nevada	—	6 (1.3)	—	24 (1.0)	—	25 (5.3)
New Mexico	7 (0.9)	6 (1.1)	21 (1.8)	21 (1.8)	17 (2.9)	15 (2.0)
New York †	10 (1.5)	12 (2.4)	29 (2.1)	34 (2.4)	28 (6.3) !	32 (5.4)
North Carolina	6 (1.0) *	13 (1.7)	28 (1.7) ‡	38 (1.6)	14 (4.2) !	21 (5.4) !
North Dakota	22 (2.5)	21 (2.8)	38 (1.6)	35 (1.9)	33 (4.2)	31 (3.2)
Ohio	—	10 (2.1)	—	36 (1.8)	—	24 (6.9) !
Oklahoma	—	8 (1.5)	—	26 (1.6)	—	21 (5.3) !
Oregon †	12 (2.1)	16 (2.6)	32 (1.9)	37 (2.5)	23 (4.1)	35 (4.4) !
Rhode Island	8 (1.8)	7 (1.3)	26 (1.6) *	31 (1.3)	10 (4.1)	18 (5.0)
South Carolina	5 (1.2)	6 (1.1)	21 (1.7) *	27 (1.7)	****(****)	****(****)
Tennessee	5 (1.0)	7 (1.2)	19 (1.9)	23 (1.9)	14 (4.0) !	12 (4.1) !
Texas	6 (1.2)	11 (1.6)	31 (1.9)	34 (2.0)	18 (4.4)	26 (5.5) !
Utah	17 (2.0)	15 (1.8)	27 (1.3)	29 (1.3)	24 (4.5)	24 (5.7)
Vermont †	16 (2.1)	14 (2.1)	31 (1.5) *	38 (1.7)	21 (4.3) !	32 (6.0) !
Virginia	5 (1.2)	8 (1.6)	26 (1.4)	31 (1.6)	25 (5.9) !	27 (7.6) !
West Virginia	6 (1.1)	8 (1.2)	18 (1.3) ‡	25 (1.4)	22 (5.5) !	22 (4.0) !
Wyoming	11 (1.5)	15 (1.5)	24 (1.3)	28 (1.4)	34 (4.1)	21 (6.4) !
Other Jurisdictions						
American Samoa	—	1 (0.5)	—	****(****)	—	****(****)
District of Columbia	2 (0.8)	2 (0.4)	12 (2.1)	18 (2.6)	4 (0.8)	5 (1.1)
DDESS	14 (3.5)	16 (3.7)	27 (3.4)	31 (3.3)	21 (4.9)	32 (5.7)
DoDDS	17 (3.8)	18 (3.3)	23 (1.6)	27 (2.1)	24 (1.7)	29 (2.2)
Guam	1 (1.1)	1 (0.8)	7 (1.0)	5 (1.0)	****(****)	****(****)

Standard errors of the estimated percentages appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined.

‡ Significantly different from 2000 when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.

! The nature of the sample does not allow accurate determination of the variability of the statistic.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

**** (****) Sample size is insufficient to permit a reliable estimate.

— Indicates that the jurisdiction did not participate.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.52: State Basic Level Achievement Results by Free/Reduced-Price Lunch, Grade 8

State percentage of students at or above *Basic* in mathematics by student eligibility for free/reduced-price lunch program for grade 8 public schools: 1996–2000

	Eligible		Not eligible		Info not available	
	1996	2000	1996	2000	1996	2000
Nation	39 (1.8)	44 (1.7)	71 (1.7) *	76 (1.0)	69 (4.2) !	63 (2.7)
Alabama	22 (2.2)	30 (2.8)	60 (2.8)	66 (2.2)	43 (11.7) !	60 (7.5) !
Arizona †	37 (4.1)	40 (3.5)	70 (1.8)	73 (1.9)	54 (4.0)	69 (4.3) !
Arkansas	33 (3.5)	37 (2.6)	62 (2.0)	61 (2.2)	51 (7.6) !	59 (6.7) !
California †	32 (2.5)	30 (2.7)	67 (2.3)	64 (3.9)	49 (5.0)	64 (5.0) !
Connecticut	40 (4.4)	36 (3.3)	79 (1.5)	83 (1.3)	66 (11.8) !	64 (8.4) !
Georgia	26 (1.8)	32 (2.7)	64 (2.4)	69 (2.1)	60 (5.9) !	55 (3.7)
Hawaii	35 (2.7)	38 (2.3)	59 (1.9)	60 (2.1)	42 (4.1) *	62 (4.6)
Idaho †	—	54 (3.6)	—	78 (1.6)	—	77 (3.7)
Illinois †	—	47 (3.9)	—	77 (1.9)	—	70 (6.0) !
Indiana †	42 (3.4) *	58 (4.5)	76 (1.8) *	81 (1.7)	****(****)	71 (5.9) !
Kansas †	—	58 (3.7)	—	84 (2.0)	—	78 (6.1) !
Kentucky	38 (2.1) *	45 (2.3)	68 (1.8) *	75 (1.8)	50 (4.3) !	****(****)
Louisiana	24 (2.4) *	32 (2.3)	54 (2.0) ‡	69 (2.5)	36 (6.8) !	48 (5.5) !
Maine †	64 (2.9)	65 (3.1)	81 (1.5)	80 (1.8)	80 (6.6) !	78 (4.2) !
Maryland	28 (2.7) *	39 (2.9)	68 (2.1) ‡	76 (1.5)	60 (8.6) !	57 (6.3) !
Massachusetts	41 (3.7)	52 (3.8)	76 (1.9) *	82 (1.4)	59 (11.4) !	78 (7.0) !
Michigan †	45 (4.1)	45 (2.8)	75 (2.0)	79 (1.8)	60 (7.7) !	60 (9.7) !
Minnesota †	60 (2.4)	65 (4.2)	80 (1.5)	84 (2.0)	72 (6.1) !	80 (7.8) !
Mississippi	20 (1.5)	26 (2.4)	55 (2.0)	57 (2.2)	32 (11.2) !	43 (4.4) !
Missouri	46 (2.9)	46 (3.2)	72 (2.1)	74 (1.9)	55 (11.1) !	70 (8.5) !
Montana †	55 (3.3) *	68 (3.6)	82 (1.6)	84 (1.7)	79 (2.5)	81 (4.9)
Nebraska	60 (2.4)	53 (2.8)	81 (1.1)	82 (1.6)	84 (3.5)	****(****)
Nevada	—	35 (2.6)	—	66 (1.4)	—	65 (5.9)
New Mexico	36 (2.1)	38 (2.2)	64 (2.3)	64 (2.9)	53 (3.5)	48 (3.1)
New York †	42 (3.1)	50 (4.8)	75 (2.0)	81 (2.8)	58 (8.4) !	72 (6.2)
North Carolina	36 (2.4) ‡	49 (2.7)	66 (2.1) ‡	80 (1.5)	50 (7.5) !	61 (5.0) !
North Dakota	67 (2.9)	64 (3.3)	82 (1.3)	82 (1.9)	75 (4.0)	77 (2.9)
Ohio	—	50 (4.5)	—	83 (1.7)	—	64 (7.3) !
Oklahoma	—	49 (2.8)	—	74 (1.8)	—	71 (5.6) !
Oregon †	50 (3.1)	51 (3.7)	74 (1.8)	78 (1.8)	64 (3.5)	77 (4.2) !
Rhode Island	38 (2.8)	39 (2.0)	70 (1.7) *	75 (1.2)	34 (7.2) *	60 (5.9)
South Carolina	30 (1.8) *	36 (2.3)	63 (2.4) *	70 (2.0)	****(****)	****(****)
Tennessee	32 (3.0)	33 (2.9)	63 (2.5)	64 (2.2)	46 (5.9) !	51 (5.7) !
Texas	36 (2.3) ‡	53 (2.9)	74 (1.9)	79 (2.5)	66 (5.8)	70 (7.9) !
Utah	58 (3.2)	51 (2.9)	74 (1.5)	74 (1.3)	67 (3.4)	62 (7.4)
Vermont †	55 (3.3)	58 (3.2)	76 (1.9)	80 (1.8)	75 (3.6) !	75 (7.2) !
Virginia	29 (3.0) ‡	46 (3.1)	67 (1.8) *	74 (1.9)	67 (5.9) !	66 (9.8) !
West Virginia	39 (2.4) ‡	48 (1.8)	62 (1.7) ‡	70 (1.7)	62 (6.0) !	67 (4.3) !
Wyoming	54 (3.2)	56 (2.2)	72 (1.3)	75 (1.6)	78 (5.0)	67 (10.9) !
Other Jurisdictions						
American Samoa	—	7 (2.0)	—	****(****)	—	****(****)
District of Columbia	14 (1.1)	16 (1.8)	30 (2.3) ‡	47 (4.5)	21 (3.1)	21 (3.0)
DDESS	48 (5.6)	59 (4.1)	64 (4.6)	71 (4.3)	56 (4.5)	69 (4.9)
DoDDS	56 (5.2)	62 (4.1)	66 (2.3)	73 (1.9)	67 (1.7)	71 (2.5)
Guam	11 (2.7)	12 (2.3)	33 (1.8)	27 (1.8)	****(****)	****(****)

Standard errors of the estimated percentages appear in parentheses.

* Significantly different from 2000 if only one jurisdiction or the nation is being examined.

‡ Significantly different from 2000 when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.

! The nature of the sample does not allow accurate determination of the variability of the statistic.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

**** (****) Sample size is insufficient to permit a reliable estimate.

— Indicates that the jurisdiction did not participate.

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.53: State Achievement Level Results by Free/Reduced-Price Lunch, Grade 8

State percentages of students at or above mathematics achievement levels by eligibility for free/reduced-price lunch program for grade 8 public schools: 2000

	Eligible				Not eligible			
	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*
Nation	56 (1.7)	44 (1.7)	10 (0.9)	1 (0.3)	24 (1.0)	76 (1.0)	35 (1.5)	7 (0.8)
Alabama	70 (2.8)	30 (2.8)	5 (1.0)	1 (0.3)	34 (2.2)	66 (2.2)	23 (2.1)	3 (0.8)
Arizona †	60 (3.5)	40 (3.5)	9 (1.8)	1 (****)	27 (1.9)	73 (1.9)	27 (2.4)	4 (0.8)
Arkansas	63 (2.6)	37 (2.6)	7 (1.3)	▲ (****)	39 (2.2)	61 (2.2)	18 (1.8)	2 (0.6)
California †	70 (2.7)	30 (2.7)	4 (1.1)	0 (****)	36 (3.9)	64 (3.9)	24 (2.5)	4 (1.0)
Connecticut	64 (3.3)	36 (3.3)	7 (1.5)	1 (0.3)	17 (1.3)	83 (1.3)	42 (1.9)	8 (1.0)
Georgia	68 (2.7)	32 (2.7)	5 (0.8)	▲ (****)	31 (2.1)	69 (2.1)	27 (1.9)	4 (0.8)
Hawaii	62 (2.3)	38 (2.3)	8 (1.2)	1 (0.5)	40 (2.1)	60 (2.1)	21 (1.7)	3 (0.7)
Idaho †	46 (3.6)	54 (3.6)	17 (2.2)	2 (0.7)	22 (1.6)	78 (1.6)	32 (2.2)	4 (0.8)
Illinois †	53 (3.9)	47 (3.9)	12 (2.2)	1 (0.4)	23 (1.9)	77 (1.9)	34 (1.9)	5 (1.1)
Indiana †	42 (4.5)	58 (4.5)	13 (1.8)	1 (****)	19 (1.7)	81 (1.7)	36 (1.9)	6 (0.8)
Kansas †	42 (3.7)	58 (3.7)	17 (2.7)	1 (0.9)	16 (2.0)	84 (2.0)	41 (2.1)	5 (0.9)
Kentucky	55 (2.3)	45 (2.3)	8 (1.1)	1 (0.3)	25 (1.8)	75 (1.8)	29 (2.1)	4 (0.8)
Louisiana	68 (2.3)	32 (2.3)	4 (0.8)	▲ (0.2)	31 (2.5)	69 (2.5)	22 (2.4)	2 (0.8)
Maine †	35 (3.1)	65 (3.1)	20 (2.7)	2 (0.7)	20 (1.8)	80 (1.8)	36 (1.7)	7 (1.0)
Maryland	61 (2.9)	39 (2.9)	7 (1.4)	▲ (0.3)	24 (1.5)	76 (1.5)	37 (1.8)	9 (0.8)
Massachusetts	48 (3.8)	52 (3.8)	11 (2.3)	1 (0.6)	18 (1.4)	82 (1.4)	38 (1.5)	7 (0.8)
Michigan †	55 (2.8)	45 (2.8)	9 (1.9)	1 (****)	21 (1.8)	79 (1.8)	35 (2.1)	6 (0.9)
Minnesota †	35 (4.2)	65 (4.2)	27 (3.3)	4 (1.6)	16 (2.0)	84 (2.0)	42 (1.6)	7 (1.0)
Mississippi	74 (2.4)	26 (2.4)	3 (0.6)	▲ (****)	43 (2.2)	57 (2.2)	14 (1.4)	2 (0.6)
Missouri	54 (3.2)	46 (3.2)	9 (1.8)	1 (0.5)	26 (1.9)	74 (1.9)	26 (1.6)	3 (0.4)
Montana †	32 (3.6)	68 (3.6)	25 (3.0)	2 (0.8)	16 (1.7)	84 (1.7)	43 (1.7)	7 (1.0)
Nebraska	47 (2.8)	53 (2.8)	15 (2.3)	2 (1.0)	18 (1.6)	82 (1.6)	36 (1.9)	5 (1.0)
Nevada	65 (2.6)	35 (2.6)	6 (1.3)	▲ (****)	34 (1.4)	66 (1.4)	24 (1.0)	3 (0.5)
New Mexico	62 (2.2)	38 (2.2)	6 (1.1)	▲ (****)	36 (2.9)	64 (2.9)	21 (1.8)	2 (0.7)
New York †	50 (4.8)	50 (4.8)	12 (2.4)	1 (0.6)	19 (2.8)	81 (2.8)	34 (2.4)	5 (1.2)
North Carolina	51 (2.7)	49 (2.7)	13 (1.7)	1 (0.5)	20 (1.5)	80 (1.5)	38 (1.6)	8 (1.1)
North Dakota	36 (3.3)	64 (3.3)	21 (2.8)	2 (1.0)	18 (1.9)	82 (1.9)	35 (1.9)	5 (0.7)
Ohio	50 (4.5)	50 (4.5)	10 (2.1)	1 (0.4)	17 (1.7)	83 (1.7)	36 (1.8)	6 (1.1)
Oklahoma	51 (2.8)	49 (2.8)	8 (1.5)	▲ (****)	26 (1.8)	74 (1.8)	26 (1.6)	3 (0.6)
Oregon †	49 (3.7)	51 (3.7)	16 (2.6)	2 (1.2)	22 (1.8)	78 (1.8)	37 (2.5)	7 (1.0)
Rhode Island	61 (2.0)	39 (2.0)	7 (1.3)	1 (0.5)	25 (1.2)	75 (1.2)	31 (1.3)	5 (0.8)
South Carolina	64 (2.3)	36 (2.3)	6 (1.1)	1 (0.3)	30 (2.0)	70 (2.0)	27 (1.7)	4 (0.6)
Tennessee	67 (2.9)	33 (2.9)	7 (1.2)	▲ (****)	36 (2.2)	64 (2.2)	23 (1.9)	4 (0.6)
Texas	47 (2.9)	53 (2.9)	11 (1.6)	▲ (0.3)	21 (2.5)	79 (2.5)	34 (2.0)	4 (0.8)
Utah	49 (2.9)	51 (2.9)	15 (1.8)	1 (0.7)	26 (1.3)	74 (1.3)	29 (1.3)	3 (0.6)
Vermont †	42 (3.2)	58 (3.2)	14 (2.1)	2 (0.9)	20 (1.8)	80 (1.8)	38 (1.7)	7 (0.7)
Virginia	54 (3.1)	46 (3.1)	8 (1.6)	1 (0.4)	26 (1.9)	74 (1.9)	31 (1.6)	6 (1.0)
West Virginia	52 (1.8)	48 (1.8)	8 (1.2)	▲ (****)	30 (1.7)	70 (1.7)	25 (1.4)	4 (0.6)
Wyoming	44 (2.2)	56 (2.2)	15 (1.5)	1 (0.7)	25 (1.6)	75 (1.6)	28 (1.4)	4 (0.7)
Other Jurisdictions								
American Samoa	93 (2.0)	7 (2.0)	1 (0.5)	▲ (****)	****(****)	****(****)	****(****)	****(****)
District of Columbia	84 (1.8)	16 (1.8)	2 (0.4)	▲ (****)	53 (4.5)	47 (4.5)	18 (2.6)	4 (1.8)
DDESS	41 (4.1)	59 (4.1)	16 (3.7)	2 (1.7)	29 (4.3)	71 (4.3)	31 (3.3)	8 (2.2)
DoDDS	38 (4.1)	62 (4.1)	18 (3.3)	2 (0.9)	27 (1.9)	73 (1.9)	27 (2.1)	5 (1.2)
Guam	88 (2.3)	12 (2.3)	1 (0.8)	▲ (****)	73 (1.8)	27 (1.8)	5 (1.0)	1 (0.3)

See footnotes at end of table. ▶

Table B.53: State Achievement Level Results by Free/Reduced-Price Lunch, Grade 8 (continued)

State percentages of students at or above mathematics achievement levels by eligibility for free/reduced-price lunch program for grade 8 public schools: 2000

Not available

	Below *Basic*	At or Above *Basic*	At or Above *Proficient*	*Advanced*
Nation	37 (2.7)	63 (2.7)	26 (2.3)	4 (1.0)
Alabama	40 (7.5) !	60 (7.5) !	21 (8.9) !	4 (****) !
Arizona †	31 (4.3) !	69 (4.3) !	24 (4.4) !	4 (1.7) !
Arkansas	41 (6.7) !	59 (6.7) !	20 (5.3) !	2 (****) !
California †	36 (5.0) !	64 (5.0) !	26 (5.6) !	5 (2.4) !
Connecticut	36 (8.4) !	64 (8.4) !	29 (5.7) !	6 (1.9) !
Georgia	45 (3.7)	55 (3.7)	17 (2.5)	2 (0.5)
Hawaii	38 (4.6)	62 (4.6)	22 (3.6)	3 (1.2)
Idaho †	23 (3.7)	77 (3.7)	29 (4.5)	3 (2.0)
Illinois †	30 (6.0) !	70 (6.0) !	25 (6.4) !	3 (2.3) !
Indiana †	29 (5.9) !	71 (5.9) !	26 (7.5) !	4 (2.7) !
Kansas †	22 (6.1) !	78 (6.1) !	36 (6.1) !	4 (1.5) !
Kentucky	****(****)	****(****)	****(****)	****(****)
Louisiana	52 (5.5) !	48 (5.5) !	10 (2.7) !	1 (0.4) !
Maine †	22 (4.2) !	78 (4.2) !	31 (3.7) !	7 (2.4) !
Maryland	43 (6.3) !	57 (6.3) !	25 (5.4) !	5 (2.5) !
Massachusetts	22 (7.0) !	78 (7.0) !	35 (7.0) !	6 (2.6) !
Michigan †	40 (9.7) !	60 (9.7) !	27 (7.1) !	4 (2.4) !
Minnesota †	20 (7.8) !	80 (7.8) !	50 (10.0) !	9 (4.3) !
Mississippi	57 (4.4) !	43 (4.4) !	9 (1.8) !	1 (****) !
Missouri	30 (8.5) !	70 (8.5) !	26 (6.2) !	4 (1.3) !
Montana †	19 (4.9)	81 (4.9)	37 (4.7)	6 (1.5)
Nebraska	****(****)	****(****)	****(****)	****(****)
Nevada	35 (5.9)	65 (5.9)	25 (5.3)	5 (2.6)
New Mexico	52 (3.1)	48 (3.1)	15 (2.0)	2 (0.6)
New York †	28 (6.2)	72 (6.2)	32 (5.4)	5 (2.1) !
North Carolina	39 (5.0) !	61 (5.0) !	21 (5.4) !	3 (2.1) !
North Dakota	23 (2.9)	77 (2.9)	31 (3.2)	4 (1.5)
Ohio	36 (7.3) !	64 (7.3) !	24 (6.9) !	3 (1.3) !
Oklahoma	29 (5.6) !	71 (5.6) !	21 (5.3) !	2 (1.4) !
Oregon †	23 (4.2) !	77 (4.2) !	35 (4.4) !	7 (2.1) !
Rhode Island	40 (5.9)	60 (5.9)	18 (5.0)	2 (0.9)
South Carolina	****(****)	****(****)	****(****)	****(****)
Tennessee	49 (5.7) !	51 (5.7) !	12 (4.1) !	1 (****)
Texas	30 (7.9) !	70 (7.9) !	26 (5.5) !	2 (1.0) !
Utah	38 (7.4)	62 (7.4)	24 (5.7)	5 (1.7)
Vermont †	25 (7.2) !	75 (7.2) !	32 (6.0) !	6 (2.1) !
Virginia	34 (9.8) !	66 (9.8) !	27 (7.6) !	5 (2.8) !
West Virginia	33 (4.3) !	67 (4.3) !	22 (4.0) !	4 (2.2) !
Wyoming	33 (10.9) !	67 (10.9) !	21 (6.4) !	4 (2.8) !
Other Jurisdictions				
American Samoa	****(****)	****(****)	****(****)	****(****)
District of Columbia	79 (3.0)	21 (3.0)	5 (1.1)	1 (0.5)
DDESS	31 (4.9)	69 (4.9)	32 (5.7)	8 (4.5)
DoDDS	29 (2.5)	71 (2.5)	29 (2.2)	5 (1.2)
Guam	****(****)	****(****)	****(****)	****(****)

Standard errors of the estimated percentages appear in parentheses.

! The nature of the sample does not allow accurate determination of the variability of the statistic.

(****) Standard error estimates cannot be accurately determined.

**** (****) Sample size is insufficient to permit a reliable estimate.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

▲ Percentage is between 0.0 and 0.5.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Table B.54: State Percentages of Students by Free/Reduced-Price Lunch, Grade 4

State percentages of students by eligibility for free/reduced-price lunch program for grade 4 public schools: 1996–2000

	Eligible		Not eligible		Info not available	
	1996	2000	1996	2000	1996	2000
Nation	34 (1.6)	35 (1.1)	52 (2.5)	52 (2.4)	13 (3.1)	13 (2.4)
Alabama	49 (2.1)	51 (2.3)	48 (2.2)	44 (2.4)	3 (1.5)	6 (2.0)
Arizona	36 (2.8)	40 (2.5)	44 (4.2)	49 (3.0)	20 (4.8)	11 (3.1)
Arkansas	45 (2.1)	51 (2.0)	52 (2.2)	47 (2.1)	3 (1.9)	2 (1.4)
California †	44 (2.8)	49 (3.4)	40 (3.1)	40 (3.3)	16 (3.7)	12 (3.3)
Connecticut	25 (1.4)	24 (2.1)	72 (2.2)	67 (2.6)	3 (1.8)	9 (2.3)
Georgia	44 (2.2)	42 (2.1)	49 (2.6)	45 (2.8)	7 (2.6)	13 (3.3)
Hawaii	40 (1.9)	46 (2.1)	57 (2.0)	49 (2.0)	3 (1.5)	5 (2.0)
Idaho †	—	41 (1.7)	—	52 (3.0)	—	7 (2.9)
Illinois †	—	37 (3.1)	—	52 (3.9)	—	12 (3.9)
Indiana †	29 (1.9)	25 (2.1)	69 (2.2)	65 (2.9)	2 (1.2)	10 (3.1)
Iowa †	31 (2.2)	26 (1.6)	64 (2.5)	69 (2.1)	5 (2.1)	5 (1.9)
Kansas †	—	34 (2.5)	—	62 (2.7)	—	4 (2.0)
Kentucky	47 (2.1)	47 (1.9)	51 (2.2)	48 (2.3)	3 (1.4)	5 (2.2)
Louisiana	58 (2.4)	53 (3.1)	32 (2.4)	32 (2.4)	10 (3.0)	14 (3.5)
Maine †	32 (1.7)	31 (1.3)	62 (2.5)	64 (1.8)	6 (2.4)	5 (1.5)
Maryland	32 (1.9)	32 (2.1)	64 (2.3)	58 (2.5)	4 (1.3)	10 (2.7)
Massachusetts	24 (2.4)	26 (2.2)	66 (3.2)	67 (2.5)	11 (2.6)	7 (2.4)
Michigan †	31 (2.1)	27 (2.4)	62 (2.9)	68 (2.5)	7 (2.9)	4 (2.0)
Minnesota †	22 (1.9)	27 (2.1)	65 (2.4)	68 (3.0)	13 (3.1)	6 (2.5)
Mississippi	64 (2.2)	58 (2.1)	35 (2.0)	32 (1.9)	1 (****)	10 (2.9)
Missouri	36 (2.0)	34 (1.9)	63 (2.1)	62 (2.5)	1 (0.6)	5 (2.1)
Montana †	35 (2.0)	31 (3.1)	60 (2.5)	53 (4.2)	5 (1.8)	16 (3.9)
Nebraska	33 (1.7)	34 (2.8)	57 (2.5)	61 (3.5)	10 (2.5)	6 (2.5)
Nevada	15 (2.3)	34 (2.1)	28 (3.6)	60 (2.4)	57 (4.8)	6 (2.0)
New Mexico	50 (3.0)	54 (3.1)	37 (2.7)	34 (2.8)	13 (2.7)	12 (3.4)
New York †	44 (2.0)	49 (2.6)	49 (3.0)	48 (3.0)	7 (2.6)	4 (1.9)
North Carolina	34 (1.5)	40 (2.2)	58 (2.2)	55 (2.5)	8 (2.2)	5 (1.1)
North Dakota	24 (1.3)	24 (1.7)	65 (2.4)	58 (2.4)	11 (2.4)	18 (2.6)
Ohio †	—	34 (2.4)	—	57 (2.8)	—	9 (2.8)
Oklahoma	—	49 (2.5)	—	45 (2.6)	—	5 (2.0)
Oregon †	31 (2.6)	35 (3.0)	60 (3.1)	58 (3.0)	9 (2.9)	8 (2.8)
Rhode Island	34 (2.3)	35 (1.9)	65 (2.4)	60 (2.1)	1 (****)	4 (1.8)
South Carolina	52 (1.7)	50 (2.1)	48 (1.7)	46 (2.1)	▲ (0.1)	4 (2.4)
Tennessee	36 (2.6)	41 (2.0)	59 (2.1)	57 (2.1)	5 (2.2)	2 (1.4)
Texas	43 (3.1)	43 (2.9)	52 (3.0)	48 (3.2)	6 (2.3)	9 (2.6)
Utah	27 (2.0)	31 (2.0)	60 (2.4)	64 (2.5)	13 (2.8)	6 (2.2)
Vermont †	26 (1.6)	26 (1.9)	65 (2.3)	66 (2.5)	9 (2.1)	8 (2.4)
Virginia	31 (1.8)	30 (2.2)	65 (2.4)	61 (2.9)	4 (1.7)	10 (2.9)
West Virginia	46 (1.7)	47 (2.1)	49 (1.9)	49 (2.2)	5 (2.2)	5 (1.9)
Wyoming	33 (1.5)	32 (2.1)	64 (2.0)	60 (3.0)	3 (1.4)	8 (2.6)
Other Jurisdictions						
American Samoa	—	100 (****)	—	0 (****)	—	0 (****)
District of Columbia	74 (0.6)	71 (1.3)	21 (0.5)	11 (0.6)	5 (0.3)	18 (1.5)
DDESS	35 (0.9)	38 (1.4)	38 (0.9)	49 (1.3)	27 (0.4)	13 (0.8)
DoDDS	12 (0.9)	20 (0.8)	36 (1.6)	49 (1.2)	52 (2.1)	30 (1.1)
Guam	35 (1.4)	56 (1.9)	59 (1.4)	39 (2.4)	6 (0.3)	5 (2.6)
Virgin Islands	—	100 (****)	—	0 (****)	—	0 (****)

Standard errors of the estimated percentages appear in parentheses.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

(****) Standard error estimates cannot be accurately determined.

— Indicates that the jurisdiction did not participate.

▲ Percentage is between 0.0 and 0.5.

NOTE: Percentages may not add to 100 due to rounding.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.55: State Percentages of Students by Free/Reduced-Price Lunch, Grade 8

State percentages of students by eligibility for free/reduced-price lunch program for grade 8 public schools: 1996–2000

	Eligible		Not eligible		Info not available	
	1996	2000	1996	2000	1996	2000
Nation	30 (1.5)	28 (1.0)	56 (2.6)	55 (1.8)	14 (3.1)	16 (2.1)
Alabama	39 (2.4)	39 (2.3)	59 (2.5)	52 (2.9)	2 (0.8)	9 (2.8)
Arizona †	27 (2.4)	31 (2.9)	50 (3.4)	54 (3.5)	23 (3.9)	15 (3.4)
Arkansas	32 (1.9)	38 (1.9)	60 (2.7)	55 (2.0)	7 (3.2)	7 (2.0)
California †	36 (2.5)	35 (3.2)	47 (3.5)	49 (4.3)	17 (3.2)	16 (4.2)
Connecticut	21 (2.2)	19 (2.7)	74 (2.4)	68 (2.7)	5 (1.7)	13 (2.8)
Georgia	32 (2.2)	29 (2.1)	54 (3.2)	49 (2.8)	14 (3.5)	22 (3.6)
Hawaii	30 (1.3)	38 (1.3)	65 (1.3)	52 (1.2)	5 (0.4)	10 (0.8)
Idaho †	—	29 (1.2)	—	62 (1.5)	—	9 (1.5)
Illinois †	—	30 (2.6)	—	65 (3.0)	—	5 (1.6)
Indiana †	23 (1.5)	18 (2.0)	77 (1.7)	71 (3.5)	1 (0.6)	11 (3.3)
Kansas †	—	24 (1.6)	—	64 (3.9)	—	11 (4.1)
Kentucky	34 (1.7)	40 (2.1)	58 (2.0)	58 (2.1)	8 (2.4)	1 (****)
Louisiana	48 (2.6)	50 (2.8)	44 (2.3)	37 (2.5)	8 (2.5)	14 (3.3)
Maine †	22 (1.2)	23 (1.6)	73 (2.0)	71 (2.0)	6 (2.1)	6 (1.9)
Maryland	25 (1.6)	22 (1.7)	70 (2.2)	63 (3.4)	5 (2.1)	15 (3.9)
Massachusetts	18 (1.3)	20 (1.7)	75 (2.3)	74 (2.4)	7 (2.3)	6 (1.7)
Michigan †	20 (1.9)	21 (1.7)	66 (2.8)	68 (3.1)	14 (3.2)	11 (3.1)
Minnesota †	20 (1.4)	21 (2.0)	65 (3.7)	72 (3.1)	15 (4.1)	7 (3.2)
Mississippi	53 (1.7)	46 (2.5)	42 (2.0)	43 (2.2)	5 (2.2)	12 (3.0)
Missouri	26 (1.3)	27 (1.6)	66 (2.5)	65 (2.5)	8 (3.0)	8 (2.5)
Montana †	25 (1.9)	25 (1.8)	59 (2.1)	55 (2.4)	16 (1.9)	20 (2.8)
Nebraska	27 (1.0)	28 (1.6)	69 (1.2)	69 (2.6)	5 (0.9)	3 (1.7)
Nevada	—	26 (0.9)	—	71 (0.9)	—	3 (0.3)
New Mexico	42 (1.7)	40 (2.1)	43 (2.0)	35 (2.3)	15 (1.8)	25 (2.9)
New York †	37 (2.5)	34 (2.7)	54 (2.8)	42 (4.4)	9 (2.7)	23 (4.6)
North Carolina	31 (1.9)	28 (1.5)	62 (2.4)	66 (1.9)	7 (2.2)	6 (1.8)
North Dakota	24 (1.3)	23 (1.3)	67 (1.5)	62 (1.7)	9 (1.6)	15 (1.7)
Ohio	—	16 (1.5)	—	74 (2.9)	—	10 (3.0)
Oklahoma	—	39 (2.2)	—	53 (2.3)	—	8 (2.1)
Oregon †	22 (1.7)	24 (1.9)	62 (2.3)	60 (3.2)	16 (2.7)	16 (3.8)
Rhode Island	26 (0.8)	28 (1.0)	70 (0.8)	66 (1.1)	4 (0.3)	5 (0.5)
South Carolina	44 (1.9)	42 (1.9)	55 (1.8)	55 (1.7)	1 (****)	2 (1.4)
Tennessee	27 (2.0)	33 (1.8)	64 (2.7)	63 (1.9)	8 (2.8)	4 (1.1)
Texas	37 (2.2)	41 (2.1)	57 (2.7)	53 (2.4)	6 (1.3)	6 (2.2)
Utah	20 (1.3)	22 (1.3)	70 (1.9)	67 (1.8)	10 (1.7)	10 (2.0)
Vermont †	19 (1.2)	19 (1.4)	73 (1.7)	71 (2.2)	8 (1.9)	9 (2.3)
Virginia	23 (1.9)	21 (1.4)	67 (3.0)	71 (2.4)	10 (3.1)	8 (2.6)
West Virginia	36 (1.3)	38 (2.1)	61 (1.7)	56 (2.2)	4 (1.7)	7 (2.0)
Wyoming	21 (0.8)	24 (1.1)	73 (0.8)	72 (1.4)	6 (0.6)	4 (1.2)
Other Jurisdictions						
American Samoa	—	96 (2.2)	—	0 (****)	—	4 (2.2)
District Of Columbia	55 (1.1)	60 (1.2)	30 (1.0)	21 (1.1)	15 (0.6)	19 (0.6)
DDESS	29 (1.8)	31 (2.0)	40 (1.8)	48 (1.8)	31 (1.5)	21 (0.8)
DoDDS	8 (0.5)	15 (0.8)	47 (1.0)	51 (1.1)	44 (1.0)	34 (0.8)
Guam	17 (1.3)	19 (1.3)	82 (1.4)	75 (1.6)	1 (0.3)	6 (0.7)

Standard errors of the estimated percentages appear in parentheses.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.

(****) Standard error estimates cannot be accurately determined.

— Indicates that the jurisdiction did not participate.

NOTE: Percentages may not add to 100 due to rounding.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.56: Data for Table 4.1 Comparison of Two Sets of National Scale Score Results

National average mathematics scale scores by type of results, grades 4, 8, and 12: 1996–2000

	Accommodation not permitted	Accommodation permitted
Grade 4		
1996	224 (0.9) *	224 (0.8) *
2000	228 (0.9)	226 (0.7)
Grade 8		
1996	272 (1.1) *	271 (0.9) *
2000	275 (0.8)	274 (0.7)
Grade 12		
1996	304 (1.0) *	302 (1.0) †
2000	301 (0.9)	300 (1.0)

Standard errors of the estimated scale scores appear in parentheses.
* Significantly different from 2000.
† Significantly different from the sample where accommodations were not permitted.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.57: Data for Table 4.2 Comparison of Two Sets of National Achievement Level Results

Percentage of students within each mathematics achievement level range and at or above achievement levels by type of results, grades 4, 8, and 12: 1996–2000

	Below *Basic*	At *Basic*	At *Proficient*	At *Advanced*	At or above *Basic*	At or above *Proficient*
Grade 4						
1996: Accommodations were						
not permitted	36 (1.2) *	43 (0.9)	19 (0.8) *	2 (0.3)	64 (1.2) *	21 (0.9) *
permitted	36 (1.1)	43 (1.0)	19 (0.8) *	2 (0.3)	64 (1.1)	21 (1.0) *
2000: Accommodations were						
not permitted	31 (1.1)	43 (0.8)	23 (0.9)	3 (0.3)	69 (1.1)	26 (1.1)
permitted	33 (1.1) †	42 (1.1)	22 (0.8)	3 (0.3)	67 (1.1) †	25 (0.9)
Grade 8						
1996: Accommodations were						
not permitted	38 (1.1) *	39 (1.0)	20 (0.8) *	4 (0.5)	62 (1.1) *	24 (1.1) *
permitted	39 (1.0) *	38 (1.0)	20 (0.8) *	4 (0.5)	61 (1.0) *	23 (0.9) *
2000: Accommodations were						
not permitted	34 (0.8)	38 (0.8)	22 (0.7)	5 (0.5)	66 (0.8)	27 (0.9)
permitted	35 (0.8)	38 (0.7)	22 (0.6)	5 (0.4)	65 (0.8)	27 (0.8)
Grade 12						
1996: Accommodations were						
not permitted	31 (1.3) *	53 (1.1) *	14 (0.9)	2 (0.3)	69 (1.3) *	16 (1.1)
permitted	34 (1.1) †	50 (0.7) †	14 (0.7)	2 (0.3)	66 (1.1) †	16 (0.9)
2000: Accommodations were						
not permitted	35 (1.1)	48 (0.9)	14 (0.8)	2 (0.3)	65 (1.1)	17 (0.9)
permitted	36 (1.1)	48 (1.0)	14 (0.7)	2 (0.4)	64 (1.1)	16 (0.9)

Standard errors of the estimated percentages appear in parentheses.
* Significantly different from 2000.
† Significantly different from the sample where accommodations were not permitted.
NOTE: Percentages within each mathematics achievement level range may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.58: Comparison of Two Sets of National Scale Score Results by Gender

National average mathematics scale scores by gender and type of results, grades 4, 8, and 12: 1996–2000

	Male		Female	
	Not permitted	*Permitted*	*Not Permitted*	*Permitted*
Grade 4				
1996	226 (1.1) *	225 (0.9) *	222 (1.0) *	224 (1.0)
2000	229 (1.0)	228 (0.8)	226 (0.9)	225 (0.8)
Grade 8				
1996	272 (1.4) *	272 (1.0) *	272 (1.1)	270 (1.0) *
2000	277 (0.9)	275 (0.8) †	274 (0.9)	273 (0.8)
Grade 12				
1996	305 (1.1)	303 (1.2)	303 (1.1) *	300 (1.2) †
2000	303 (1.1)	302 (1.2)	299 (0.9)	299 (1.0)

Standard errors of the estimated scale scores appear in parentheses.
* Significantly different from 2000.
† Significantly different from the sample where accommodations were not permitted.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.59: Comparison of Two Sets of National Achievement Level Results by Gender

Percentage of students within each mathematics achievement level range and at or above achievement levels by gender and type of results, grades 4, 8, and 12: 1996–2000

	Below *Basic*	At *Basic*	At *Proficient*	At *Advanced*	At or above *Basic*	At or above *Proficient*
Grade 4						
Male						
1996: Accommodations were						
not permitted	35 (1.6) *	41 (1.6)	21 (1.0) *	3 (0.4)	65 (1.6) *	24 (1.1) *
permitted	36 (1.1)	42 (1.3)	20 (1.0) *	3 (0.6)	64 (1.1)	22 (1.2) *
2000: Accommodations were						
not permitted	30 (1.1)	41 (1.0)	25 (1.0)	3 (0.4)	70 (1.1)	28 (1.2)
permitted	32 (1.2)	41 (1.2)	23 (1.0)	4 (0.4)	68 (1.2)	27 (1.1)
Female						
1996: Accommodations were						
not permitted	37 (1.6) *	44 (1.3)	17 (1.0) *	1 (0.3)	63 (1.6) *	19 (1.1) *
permitted	36 (1.3)	44 (1.3)	19 (1.3)	2 (0.3)	64 (1.3)	20 (1.3)
2000: Accommodations were						
not permitted	32 (1.2)	44 (0.9)	22 (1.1)	2 (0.3)	68 (1.2)	24 (1.2)
permitted	35 (1.4)	43 (1.4)	20 (1.0)	2 (0.3)	65 (1.4)	22 (1.1)
Grade 8						
Male						
1996: Accommodations were						
not permitted	38 (1.7) *	37 (1.8)	20 (1.2)	4 (0.7)	62 (1.7) *	25 (1.5) *
permitted	38 (1.2) *	37 (1.3)	20 (1.0)	4 (0.7)	62 (1.2) *	25 (1.2) *
2000: Accommodations were						
not permitted	33 (0.9)	37 (1.0)	24 (0.8)	6 (0.6)	67 (0.9)	29 (1.1)
permitted	35 (1.0)	37 (0.9)	23 (0.8)	6 (0.5)	65 (1.0)	28 (1.0)
Female						
1996: Accommodations were						
not permitted	37 (1.3)	41 (1.2)	19 (1.0)	3 (0.6)	63 (1.3)	23 (1.2)
permitted	39 (1.2) *	39 (1.1)	19 (0.9)	3 (0.6)	61 (1.2) *	22 (1.1) *
2000: Accommodations were						
not permitted	35 (1.0)	40 (0.8)	21 (0.8)	4 (0.5)	65 (1.0)	25 (1.0)
permitted	36 (1.0)	39 (0.9)	21 (0.8)	4 (0.5)	64 (1.0)	25 (0.9)
Grade 12						
Male						
1996: Accommodations were						
not permitted	30 (1.4) *	51 (1.3) *	16 (1.2)	3 (0.4)	70 (1.4) *	18 (1.3)
permitted	33 (1.4) †	49 (1.1)	15 (0.9)	3 (0.5)	67 (1.4) †	18 (1.0)
2000: Accommodations were						
not permitted	34 (1.3)	46 (1.1)	17 (0.8)	3 (0.5)	66 (1.3)	20 (1.0)
permitted	35 (1.3)	46 (1.3)	16 (0.9)	3 (0.5)	65 (1.3)	19 (1.1)
Female						
1996: Accommodations were						
not permitted	31 (1.5) *	54 (1.4) *	13 (1.1)	1 (0.3)	69 (1.5) *	14 (1.2)
permitted	35 (1.4) †	51 (0.9) †	13 (1.1)	1 (0.3)	65 (1.4) †	14 (1.1)
2000: Accommodations were						
not permitted	36 (1.2)	50 (1.1)	13 (1.1)	1 (0.3)	64 (1.2)	14 (1.1)
permitted	37 (1.4)	49 (1.5)	12 (0.9)	1 (0.4)	63 (1.4)	14 (1.0)

Standard errors of the estimated percentages appear in parentheses.
* Significantly different from 2000.
† Significantly different from the sample where accommodations were not permitted.
NOTE: Percentages within each mathematics achievement level range may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.60: Comparison of Two Sets of National Scale Score Results by Race/Ethnicity

National average mathematics scale scores by race/ethnicity and type of results, grades 4, 8, and 12: 1996–2000

	White		Black		Hispanic		Asian Pacific Islander		American Indian	
	Not permitted	*Permitted*	*Not permitted*	*Permitted*	*Not permitted*	*Permitted*	*Not permitted*	*Permitted*	*Not permitted*	*Permitted*
Grade 4										
1996	232 (0.9)	233 (0.9)	200 (2.3)	198 (1.4) *	206 (2.1)	207 (1.6)	232 (4.1)	236 (4.1)	216 (2.3)	213 (3.9)
2000	236 (1.0)	235 (0.8)	205 (1.6)	204 (1.2)	212 (1.5)	209 (1.4)	—	—	216 (2.1)	218 (2.3)
Grade 8										
1996	282 (1.2) *	281 (1.0) *	243 (2.0)	239 (1.7) *	251 (2.0)	250 (1.5)	—	—	264 (3.0) !	262 (4.4)
2000	286 (0.8)	284 (0.8)	247 (1.4)	245 (1.2)	253 (1.5)	252 (1.2)	289 (3.4)	289 (3.1)	255 (8.3) !	256 (4.7)
Grade 12										
1996	311 (1.0)	309 (1.2)	280 (2.2)	276 (1.6)	287 (1.8)	284 (1.8)	319 (4.8)	310 (2.3)	279 (8.9) !	**** (****)
2000	308 (1.0)	307 (1.1)	274 (1.9)	273 (2.0)	283 (2.1)	281 (1.9)	319 (2.8)	317 (3.3)	293 (4.4)	292 (3.9)

Standard errors of the estimated scale scores appear in parentheses.
* Significantly different from 2000.
! The nature of the sample does not allow accurate determination of the variability of the statistic.
**** (****) Sample size is insufficient to permit a reliable estimate.
— Special analyses raised concerns about the accuracy and precision of national grade 8 Asian/Pacific Islander results in 1996, and grade 4 Asian/Pacific Islander results in 2000. As a result, they are omitted from the body of this report. See appendix A for a more detailed discussion.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.61: Comparison of Two Sets of National Achievement Level Results by Race/Ethnicity

Percentage of students within each mathematics achievement level range and at or above achievement levels by race/ethnicity and type of results, grades 4, 8, and 12: 1996–2000

	Below *Basic*	At *Basic*	At *Proficient*	At *Advanced*	At or above *Basic*	At or above *Proficient*
Grade 4						
White						
1996: Accommodations were						
not permitted	24 (1.4)	48 (1.0)	25 (1.1) *	3 (0.4)	76 (1.4)	28 (1.2) *
permitted	23 (1.2)	49 (1.2)	25 (1.2)	3 (0.5)	77 (1.2)	28 (1.3)
2000: Accommodations were						
not permitted	20 (1.1)	46 (1.2)	30 (1.2)	3 (0.4)	80 (1.1)	34 (1.4)
permitted	22 (1.3)	46 (1.5)	29 (1.1)	3 (0.4)	78 (1.3)	32 (1.2)
Black						
1996: Accommodations were						
not permitted	68 (3.2)	27 (2.4)	5 (1.4)	▲ (0.1)	32 (3.2)	5 (1.4)
permitted	73 (2.0) *	24 (1.7) *	3 (0.6)	▲ (****)	27 (2.0) *	3 (0.6)
2000: Accommodations were						
not permitted	61 (2.5)	33 (2.2)	5 (0.9)	▲ (****)	39 (2.5)	5 (0.9)
permitted	63 (2.2)	33 (1.8)	4 (0.9)	▲ (****)	37 (2.2)	4 (0.8)
Hispanic						
1996: Accommodations were						
not permitted	59 (2.4)	34 (2.2)	7 (0.9)	▲ (****)	41 (2.4)	8 (1.0)
permitted	60 (2.2)	33 (2.0)	7 (1.1)	▲ (****)	40 (2.2)	7 (1.1)
2000: Accommodations were						
not permitted	52 (2.1)	38 (1.7)	10 (1.3)	1 (0.2)	48 (2.1)	10 (1.3)
permitted	55 (2.2)	36 (1.8)	8 (1.0)	▲ (0.2)	45 (2.2)	9 (1.1)
Asian/Pacific Islander						
1996: Accommodations were						
not permitted	27 (5.0)	47 (5.1)	21 (4.1)	5 (2.4)	73 (5.0)	26 (5.3)
permitted	25 (5.2)	42 (4.6)	27 (4.4)	7 (3.2)	75 (5.2)	33 (5.9)
2000: Accommodations were						
not permitted	—	—	—	—	—	—
permitted	—	—	—	—	—	—
American Indian						
1996: Accommodations were						
not permitted	48 (5.7)	44 (5.5)	7 (2.7)	1 (****)	52 (5.7)	8 (2.5)
permitted	49 (7.1)	40 (4.8)	11 (4.9)	▲ (****)	51 (7.1)	11 (5.0)
2000: Accommodations were						
not permitted	47 (5.8)	39 (6.2)	13 (2.7)	1 (****)	53 (5.8)	14 (2.9)
permitted	43 (4.0)	42 (3.9)	14 (3.3)	1 (****)	57 (4.0)	16 (3.3)

See footnotes at end of table. ▶

Table B.61: Comparison of Two Sets of National Achievement Level Results by Race/Ethnicity (continued)

Percentage of students within each mathematics achievement level range and at or above achievement levels by race/ethnicity and type of results, grades 4, 8, and 12: 1996–2000

	Below *Basic*	At *Basic*	At *Proficient*	At *Advanced*	At or above *Basic*	At or above *Proficient*
Grade 8						
White						
1996: Accommodations were						
not permitted	26 (1.3)	43 (1.2)	25 (1.0)	5 (0.7)	74 (1.3)	31 (1.4)
permitted	27 (1.3)	43 (1.4)	25 (1.1)	5 (0.6)	73 (1.3)	30 (1.2) *
2000: Accommodations were						
not permitted	23 (0.9)	43 (1.0)	28 (1.0)	7 (0.6)	77 (0.9)	35 (1.2)
permitted	24 (0.9)	42 (0.9)	28 (0.9)	6 (0.5)	76 (0.9)	34 (1.0)
Black						
1996: Accommodations were						
not permitted	72 (2.8)	24 (2.6)	4 (0.9)	▲ (****)	28 (2.8)	4 (0.9)
permitted	75 (1.8) *	21 (1.5)	3 (0.7)	▲ (****)	25 (1.8) *	3 (0.7)
2000: Accommodations were						
not permitted	68 (1.8)	27 (1.6)	5 (0.6)	▲ (0.2)	32 (1.8)	6 (0.6)
permitted	69 (1.5)	26 (1.4)	5 (0.6)	▲ (0.1)	31 (1.5)	5 (0.6)
Hispanic						
1996: Accommodations were						
not permitted	61 (2.5)	30 (2.4)	8 (1.4)	1 (0.6)	39 (2.5)	9 (1.6)
permitted	62 (1.9)	30 (1.6)	7 (1.2)	1 (0.4)	38 (1.9)	8 (1.1)
2000: Accommodations were						
not permitted	59 (1.9)	32 (1.4)	9 (0.8)	1 (0.3)	41 (1.9)	10 (0.9)
permitted	59 (1.6)	32 (1.3)	8 (0.7)	1 (0.2)	41 (1.6)	9 (0.7)
Asian/Pacific Islander						
1996: Accommodations were						
not permitted	—	—	—	—	—	—
permitted	—	—	—	—	—	—
2000: Accommodations were						
not permitted	24 (3.5)	35 (3.4)	29 (2.8)	12 (2.6)	76 (3.5)	41 (3.7)
permitted	24 (2.5)	36 (2.9)	29 (2.4)	11 (2.5)	76 (2.5)	40 (3.8)
American Indian						
1996: Accommodations were						
not permitted	49 (6.2) !	38 (7.0) !	11 (5.9) !	2 (****)	51 (6.2) !	13 (5.0) !
permitted	47 (7.0)	39 (7.4)	12 (4.8)	2 (****)	53 (7.0)	14 (5.1)
2000: Accommodations were						
not permitted	58 (9.6) !	34 (6.9) !	8 (3.8) !	▲ (****)	42 (9.6) !	9 (3.9) !
permitted	56 (7.1)	36 (4.5)	8 (4.7)	▲ (****)	44 (7.1)	8 (4.7)

See footnotes at end of table. ▶

Table B.61: Comparison of Two Sets of National Achievement Level Results by Race/Ethnicity (continued)

Percentage of students within each mathematics achievement level range and at or above achievement levels by race/ethnicity and type of results, grades 4, 8, and 12: 1996–2000

	Below *Basic*	At *Basic*	At *Proficient*	At *Advanced*	At or above *Basic*	At or above *Proficient*
Grade 12						
White						
1996: Accommodations were						
not permitted	21 (1.3)	59 (1.4) *	17 (1.1)	2 (0.4)	79 (1.3)	20 (1.3)
permitted	24 (1.3) †	56 (1.0)	17 (0.9)	3 (0.4)	76 (1.3) †	20 (1.1)
2000: Accommodations were						
not permitted	26 (1.2)	54 (1.2)	18 (1.1)	3 (0.4)	74 (1.2)	20 (1.2)
permitted	27 (1.3)	53 (1.1)	17 (0.9)	3 (0.5)	73 (1.3)	20 (1.1)
Black						
1996: Accommodations were						
not permitted	62 (3.3)	34 (2.7)	4 (1.0)	▲ (0.1)	38 (3.3)	4 (1.0)
permitted	66 (2.4)	31 (2.1)	3 (0.7)	▲ (****)	34 (2.4)	3 (0.7)
2000: Accommodations were						
not permitted	69 (2.6)	28 (2.4)	2 (0.6)	▲ (****)	31 (2.6)	3 (0.6)
permitted	70 (2.5)	28 (2.3)	2 (0.6)	▲ (****)	30 (2.5)	2 (0.6)
Hispanic						
1996: Accommodations were						
not permitted	50 (3.6)	44 (3.8)	6 (1.1)	▲ (****)	50 (3.6)	6 (1.1)
permitted	56 (2.7)	38 (2.4)	6 (1.1)	▲ (****)	44 (2.7)	6 (1.0)
2000: Accommodations were						
not permitted	56 (3.1)	39 (2.7)	4 (0.8)	▲ (0.1)	44 (3.1)	4 (0.7)
permitted	57 (2.6)	39 (2.2)	4 (0.9)	▲ (0.1)	43 (2.6)	4 (0.9)
Asian/Pacific Islander						
1996: Accommodations were						
not permitted	19 (4.3)	48 (4.6)	26 (4.9)	7 (2.8)	81 (4.3)	33 (6.3)
permitted	26 (2.6)	51 (3.3)	18 (2.9)	5 (1.6)	74 (2.6)	23 (3.0)
2000: Accommodations were						
not permitted	20 (2.6)	46 (3.1)	28 (3.2)	7 (2.5)	80 (2.6)	34 (3.8)
permitted	22 (2.9)	47 (4.0)	25 (3.5)	7 (3.5)	78 (2.9)	32 (4.7)
American Indian						
1996: Accommodations were						
not permitted	66 (16.0) !	31 (13.7) !	3 (****)	▲ (****)	34 (16.0) !	3 (****)
permitted	**** (****)	**** (****)	**** (****)	**** (****)	**** (****)	**** (****)
2000: Accommodations were						
not permitted	43 (5.7)	47 (7.9)	10 (4.8)	▲ (****)	57 (5.7)	10 (4.8)
permitted	46 (6.0)	44 (6.7)	9 (3.5)	▲ (****)	54 (6.0)	9 (3.4)

Standard errors of the estimated percentages appear in parentheses.
* Significantly different from 2000.
† Significantly different from the sample where accommodations were not permitted.
— Special analyses raised concerns about the accuracy and precision of national grade 8 Asian/Pacific Islander results in 1996, and grade 4 Asian/Pacific Islander results in 2000. As a result, they are omitted from the body of this report. See appendix A for a more detailed discussion.
! The nature of the sample does not allow accurate determination of the variability of the statistic.
(****) Standard error estimates cannot be accurately determined.
**** (****) Sample size is insufficient to permit a reliable estimate.
▲ Percentage is between 0.0 and 0.5.
NOTE: Percentages within each mathematics achievement level range may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.62: Data for Table 4.3 Comparison of Two Sets of State Scale Score Results, Grade 4

State average mathematics scale scores by type of results for grade 4 public schools: 2000

	Accommodations not permitted	Accommodations permitted
Nation	226 (1.0)	225 (0.8)
Alabama	218 (1.4)	217 (1.2)
Arizona	219 (1.4)	219 (1.3)
Arkansas	217 (1.1)	216 (1.1)
California †	214 (1.8)	213 (1.6)
Connecticut	234 (1.2)	234 (1.1)
Georgia	220 (1.1)	219 (1.1)
Hawaii	216 (1.1)	216 (1.0)
Idaho †	227 (1.2)	224 (1.4) *
Illinois †	225 (1.9)	223 (1.9)
Indiana †	234 (1.1)	233 (1.1)
Iowa †	233 (1.3)	231 (1.2)
Kansas †	232 (1.5)	232 (1.6)
Kentucky	221 (1.2)	219 (1.4)
Louisiana	218 (1.4)	218 (1.4)
Maine †	231 (0.9)	230 (1.0)
Maryland	222 (1.3)	222 (1.2)
Massachusetts	235 (1.1)	233 (1.2)
Michigan †	231 (1.4)	229 (1.6) *
Minnesota †	235 (1.3)	234 (1.3)
Mississippi	211 (1.1)	211 (1.1)
Missouri	229 (1.2)	228 (1.2)
Montana †	230 (1.8)	228 (1.7)
Nebraska	226 (1.7)	225 (1.8)
Nevada	220 (1.2)	220 (1.0)
New Mexico	214 (1.5)	213 (1.5)
New York †	227 (1.3)	225 (1.4)
North Carolina	232 (1.0)	230 (1.1) *
North Dakota	231 (0.9)	230 (1.2)
Ohio †	231 (1.3)	230 (1.5)
Oklahoma	225 (1.3)	224 (1.0)
Oregon †	227 (1.6)	224 (1.8) *
Rhode Island	225 (1.2)	224 (1.1)
South Carolina	220 (1.4)	220 (1.4)
Tennessee	220 (1.5)	220 (1.4)
Texas	233 (1.2)	231 (1.1)
Utah	227 (1.2)	227 (1.3)
Vermont †	232 (1.6)	232 (1.6)
Virginia	230 (1.3)	230 (1.0)
West Virginia	225 (1.2)	223 (1.3)
Wyoming	229 (1.3)	229 (1.1)
Other Jurisdictions		
American Samoa	157 (3.9)	152 (2.5)
District of Columbia	193 (1.2)	192 (1.1)
DDESS	228 (1.2)	228 (1.4)
DoDDS	228 (0.7)	226 (0.9)
Guam	184 (2.3)	184 (1.7)
Virgin Islands	183 (2.8)	181 (1.8)

Standard errors of the estimated scale scores appear in parentheses.
† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.
*Significantly different from the sample where accommodations were not permitted when examining only one jurisdiction or the nation.
DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.
DoDDS: Department of Defense Dependents Schools (Overseas).
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Table B.63: Data for Table 4.4 Comparison of Two Sets of State Scale Score Results, Grade 8

State average mathematics scale scores by type of results for grade 8 public schools: 2000

	Accommodations not permitted	Accommodations permitted
Nation	274 (0.8)	273 (0.8)
Alabama	262 (1.8)	264 (1.8)
Arizona †	271 (1.5)	269 (1.8)
Arkansas	261 (1.4)	257 (1.5) *
California †	262 (2.0)	260 (2.1)
Connecticut	282 (1.4)	281 (1.3)
Georgia	266 (1.3)	265 (1.2)
Hawaii	263 (1.3)	262 (1.4)
Idaho †	278 (1.3)	277 (1.0)
Illinois †	277 (1.6)	275 (1.7)
Indiana †	283 (1.4)	281 (1.4) *
Kansas †	284 (1.4)	283 (1.7)
Kentucky	272 (1.4)	270 (1.3) *
Louisiana	259 (1.5)	259 (1.5)
Maine †	284 (1.2)	281 (1.1) *
Maryland	276 (1.4)	272 (1.7) ‡
Massachusetts	283 (1.3)	279 (1.5) ‡
Michigan †	278 (1.6)	277 (1.9)
Minnesota †	288 (1.4)	287 (1.4)
Mississippi	254 (1.3)	254 (1.1)
Missouri	274 (1.5)	271 (1.5) ‡
Montana †	287 (1.2)	285 (1.4)
Nebraska	281 (1.1)	280 (1.2)
Nevada	268 (0.9)	265 (0.8) ‡
New Mexico	260 (1.7)	259 (1.3)
New York †	276 (2.1)	271 (2.2) ‡
North Carolina	280 (1.1)	276 (1.3) ‡
North Dakota	283 (1.1)	282 (1.1)
Ohio	283 (1.5)	281 (1.6) *
Oklahoma	272 (1.5)	270 (1.3)
Oregon †	281 (1.6)	280 (1.5)
Rhode Island	273 (1.1)	269 (1.3) *
South Carolina	266 (1.4)	265 (1.5)
Tennessee	263 (1.7)	262 (1.5)
Texas	275 (1.5)	273 (1.6)
Utah	275 (1.2)	274 (1.2) *
Vermont †	283 (1.1)	281 (1.5)
Virginia	277 (1.5)	275 (1.3)
West Virginia	271 (1.0)	266 (1.2) ‡
Wyoming	277 (1.2)	276 (1.0)
Other Jurisdictions		
American Samoa	195 (4.5)	192 (5.5)
District of Columbia	234 (2.2)	235 (1.1)
DDESS	277 (2.3)	274 (1.8)
DoDDS	278 (1.0)	278 (1.1)
Guam	233 (2.2)	234 (2.6)

Standard errors of the estimated scale scores appear in parentheses.
† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.
*Significantly different from the sample where accommodations were not permitted when examining only one jurisdiction or the nation.
‡ Significantly different from the sample where accommodations were not permitted when examining only one jurisdiction and when using a multiple comparison procedure based on all jurisdictions that participated both years.
DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.
DoDDS: Department of Defense Dependents Schools (Overseas).
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Table B.64: Data for Table 4.5 Comparison of Two Sets of State *Proficient* Level Results, Grade 4

Percentage of students at or above the *Proficient* level in mathematics by state and type of results for grade 4 public schools: 2000

	Accommodations not permitted	Accommodations permitted
Nation	25 (1.2)	23 (1.0)
Alabama	14 (1.3)	13 (1.4)
Arizona	17 (1.6)	16 (1.4)
Arkansas	13 (1.1)	14 (1.0)
California †	15 (1.4)	13 (1.3) *
Connecticut	32 (1.6)	31 (1.7)
Georgia	18 (1.1)	17 (1.1)
Hawaii	14 (1.0)	14 (1.1)
Idaho †	21 (1.6)	20 (1.5)
Illinois †	21 (2.5)	20 (2.3)
Indiana †	31 (1.6)	30 (1.6)
Iowa †	28 (1.9)	26 (1.4)
Kansas †	30 (2.1)	29 (1.9)
Kentucky	17 (1.2)	17 (1.1)
Louisiana	14 (1.4)	14 (1.3)
Maine †	25 (1.3)	23 (1.5)
Maryland	22 (1.4)	21 (1.3)
Massachusetts	33 (1.6)	31 (1.5)
Michigan †	29 (1.8)	28 (2.0)
Minnesota †	34 (1.8)	33 (1.8)
Mississippi	9 (0.9)	9 (0.9)
Missouri	23 (1.6)	23 (1.4)
Montana †	25 (2.5)	24 (2.1)
Nebraska	24 (1.9)	24 (2.0)
Nevada	16 (1.1)	16 (0.8)
New Mexico	12 (1.0)	12 (1.1)
New York †	22 (1.6)	21 (1.8)
North Carolina	28 (1.5)	25 (1.4) *
North Dakota	25 (1.3)	25 (1.5)
Ohio †	26 (2.1)	25 (2.1)
Oklahoma	16 (1.2)	16 (1.2)
Oregon †	23 (1.8)	23 (1.8)
Rhode Island	23 (1.3)	22 (1.2)
South Carolina	18 (1.2)	18 (1.3)
Tennessee	18 (1.5)	18 (1.4)
Texas	27 (1.8)	25 (1.8)
Utah	24 (1.3)	23 (1.4)
Vermont †	29 (2.2)	29 (2.2)
Virginia	25 (1.6)	24 (1.4)
West Virginia	18 (1.6)	17 (1.3)
Wyoming	25 (1.5)	25 (1.4)
Other Jurisdictions		
American Samoa	▲ (0.4)	▲ (0.3)
District of Columbia	6 (0.8)	5 (0.5)
DDESS	24 (1.8)	23 (1.9)
DoDDS	22 (1.1)	21 (1.5)
Guam	2 (0.6)	2 (0.6)
Virgin Islands	1 (0.6)	1 (0.7)

Standard errors of the estimated percentages appear in parentheses.
† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.
*Significantly different from the sample where accommodations were not permitted when examining only one jurisdiction or the nation.
▲ Percentage is between 0.0 and 0.5.
DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.
DoDDS: Department of Defense Dependents Schools (Overseas).
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Table B.65: Data for Table 4.6 Comparison of Two Sets of State *Proficient* Level Results, Grade 8

Percentage of students at or above the *Proficient* level in mathematics by state and type of results for grade 8 public schools: 2000

	Accommodations not permitted	Accommodations permitted
Nation	26 (1.0)	26 (0.9)
Alabama	16 (1.6)	16 (1.5)
Arizona †	21 (1.6)	20 (1.5)
Arkansas	14 (1.2)	13 (0.9)
California †	18 (1.6)	17 (1.8)
Connecticut	34 (1.5)	33 (1.3)
Georgia	19 (1.1)	19 (1.1)
Hawaii	16 (1.3)	16 (1.0)
Idaho †	27 (1.7)	26 (1.3)
Illinois †	27 (1.4)	26 (1.6)
Indiana †	31 (1.9)	29 (1.8)
Kansas †	34 (1.9)	34 (1.7)
Kentucky	21 (1.5)	20 (1.5)
Louisiana	12 (1.2)	11 (1.1)
Maine †	32 (1.4)	30 (1.5)
Maryland	29 (1.4)	27 (1.3) *
Massachusetts	32 (1.3)	30 (1.3)
Michigan †	28 (1.9)	28 (2.1)
Minnesota †	40 (1.6)	39 (1.7)
Mississippi	8 (0.7)	9 (0.8)
Missouri	22 (1.4)	21 (1.3)
Montana †	37 (1.6)	36 (1.5)
Nebraska	31 (1.6)	30 (1.6)
Nevada	20 (0.9)	18 (0.9)
New Mexico	13 (1.0)	12 (0.9)
New York †	26 (1.9)	24 (1.9)
North Carolina	30 (1.3)	27 (1.4) *
North Dakota	31 (1.5)	30 (1.3)
Ohio	31 (1.7)	30 (1.5)
Oklahoma	19 (1.2)	18 (1.1)
Oregon †	32 (1.9)	31 (1.7)
Rhode Island	24 (1.0)	22 (1.0)
South Carolina	18 (1.2)	17 (1.2)
Tennessee	17 (1.4)	16 (1.3)
Texas	24 (1.4)	24 (1.7)
Utah	26 (1.2)	25 (1.1)
Vermont †	32 (1.5)	31 (1.4)
Virginia	26 (1.5)	25 (1.3)
West Virginia	18 (0.9)	17 (1.0)
Wyoming	25 (1.1)	23 (1.0)
Other Jurisdictions		
American Samoa	1 (0.5)	1 (0.5)
District of Columbia	6 (0.8)	6 (0.6)
DDESS	27 (2.8)	24 (2.3)
DoDDS	27 (1.2)	27 (2.0)
Guam	4 (0.8)	4 (0.7)

Standard errors of the estimated percentages appear in parentheses.
† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation.
*Significantly different from the sample where accommodations were not permitted when examining only one jurisdiction or the nation.
DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.
DoDDS: Department of Defense Dependents Schools (Overseas).
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Table B.66: Data for Table 5.1 Teacher Certification

Percentage of fourth- and eighth-graders and average mathematics scale score by teachers' reports on area of certification: 1992–2000

Grade 4	1992	1996	2000
Elementary or middle/junior high school education (general)			
Yes	97 (0.6) * 220 (0.8)	95 (1.1) 225 (1.0)	95 (0.7) 228 (1.0)
No	3 (0.6) * 217 (3.8) !	5 (1.0) 218 (5.4) !	5 (0.7) 217 (2.9)
Not Offered	▲ (****) **** (****)	▲ (****) **** (****)	▲ (****) **** (****)
Elementary Mathematics			
Yes	— —	40 (3.2) * 225 (2.0)	30 (2.4) 228 (1.7)
No	— —	37 (3.1) * 222 (1.7)	49 (2.4) 228 (1.5)
Not Offered	— —	23 (2.5) 227 (2.1)	21 (1.8) 232 (1.7)
Middle/junior high school or secondary mathematics			
Yes	15 (2.3) 219 (2.7)	14 (2.3) 227 (4.0)	11 (1.2) 225 (2.9)
No	85 (2.3) 221 (1.1)	84 (2.4) 224 (1.1)	86 (1.4) 229 (1.1)
Not Offered	1 (0.4) * **** (****)	2 (0.7) 234 (4.6) !	3 (0.6) 233 (3.1)

Grade 8	1992	1996	2000
Elementary or middle/junior high school education (general)			
Yes	62 (2.8) 268 (1.2)	63 (3.3) 271 (1.8)	60 (2.2) 275 (1.1)
No	36 (2.8) 272 (2.2)	36 (3.3) 276 (2.0)	40 (2.2) 280 (1.5)
Not Offered	2 (0.8) 280 (5.0) !	1 (0.4) **** (****)	▲ (0.1) **** (****)
Elementary Mathematics			
Yes	— —	26 (3.7) 274 (3.0)	24 (2.0) 277 (1.8)
No	— —	65 (3.7) 275 (1.6)	67 (2.2) 279 (1.3)
Not Offered	— —	8 (1.8) 278 (3.8) !	9 (1.0) 277 (2.7)
Middle/junior high school or secondary math			
Yes	83 (1.8) 270 (1.3)	85 (1.8) * 276 (1.5)	78 (1.5) 281 (1.0)
No	17 (1.9) 266 (2.6)	14 (1.8) * 267 (3.6)	19 (1.4) 267 (1.7)
Not Offered	▲ (0.3) * **** (****)	1 (****) **** (****)	3 (0.6) 285 (7.5) !

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
* Significantly different from 2000.
! The nature of the sample does not allow accurate determination of the variability of the statistic.
(****) Standard error estimates cannot be accurately determined.
**** (****) Sample size is insufficient to permit a reliable estimate.
— Comparable data were not available.
▲ Percentage is between 0.0 and 0.5.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1996, and 2000 Mathematics Assessments.

Table B.67: Data for Table 5.2 Teachers' Undergraduate Major

Percentage of fourth- and eighth-graders and average mathematics scale score by teachers' reports on undergraduate major: 1996–2000

Grade 4	1996		2000	
	Yes	No	Yes	No
Education	44 (2.5) 227 (1.4)	56 (2.5) 222 (1.3)	38 (2.0) 228 (1.3)	62 (2.0) 227 (1.1)
Elementary education	79 (1.7) 226 (1.1)	21 (1.7) 218 (2.1)	75 (1.5) 228 (1.0)	25 (1.5) 226 (1.7)
Secondary education	4 (0.9) 228 (3.1) !	96 (0.9) 224 (1.0)	3 (0.6) 234 (4.6)	97 (0.6) 227 (1.0)
Mathematics	7 (1.3) 218 (3.8)	93 (1.3) 225 (1.0)	4 (0.8) 227 (3.9)	96 (0.8) 228 (1.0)
Mathematics education	6 (1.1) 232 (4.4)	94 (1.1) 224 (1.0)	4 (0.7) 233 (2.8)	96 (0.7) 227 (1.0)

Grade 8	1996		2000	
	Yes	No	Yes	No
Education	31 (2.9) 273 (2.2)	69 (2.9) 274 (1.5)	30 (1.8) 277 (1.3)	70 (1.8) 277 (1.1)
Elementary education	25 (2.9) 271 (2.9)	75 (2.9) 274 (1.4)	31 (1.8) 275 (1.4)	69 (1.8) 277 (1.0)
Secondary education	33 (3.2) 276 (2.2)	67 (3.2) 272 (1.4)	29 (1.9) 278 (1.6)	71 (1.9) 276 (1.0)
Mathematics	44 (2.8) 278 (2.1)	56 (2.8) 269 (1.6)	43 (2.3) 282 (1.1)	57 (2.3) 273 (1.1)
Mathematics education	22 (2.6) 273 (3.2)	78 (2.6) 273 (1.4)	26 (1.7) 281 (1.5)	74 (1.7) 275 (1.1)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
! The nature of the sample does not allow accurate determination of the variability of the statistic.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.68: Data for Table 5.3 Teachers' Preparedness

Percentage of fourth- and eighth-graders and average mathematics scale score by teachers' reports on how well prepared they were to teach certain topics: 2000

Grade 4	Very Well Prepared	Moderately Well Prepared	Not Very Well Prepared	Not Prepared
Number Sense	74 (1.4) 228 (1.0)	25 (1.4) 225 (1.9)	▲ (0.2) 218 (7.3) !	▲ (****) **** (****)
Measurement	62 (1.8) 229 (1.1)	36 (1.8) 226 (1.6)	2 (0.5) 226 (2.7) !	0 (****) **** (****)
Geometry	51 (2.3) 228 (1.2)	43 (2.3) 227 (1.6)	6 (0.9) 225 (3.5)	▲ (0.0) **** (****)
Data Analysis	34 (1.7) 229 (1.4)	46 (1.8) 227 (1.2)	17 (1.3) 226 (2.2)	3 (0.5) 228 (2.9)
Algebra	36 (2.0) 229 (1.3)	45 (2.1) 227 (1.3)	16 (1.6) 227 (2.3)	3 (0.5) 223 (3.7)

Grade 8	Very Well Prepared	Moderately Well Prepared	Not Very Well Prepared	Not Prepared
Number Sense	84 (1.4) 279 (0.9)	15 (1.4) 267 (2.9)	▲ (0.1) 269 (13.3) !	▲ (****) **** (****)
Measurement	74 (1.7) 279 (0.9)	24 (1.7) 272 (1.9)	2 (0.3) 265 (8.5) !	▲ (****) **** (****)
Geometry	64 (2.0) 280 (1.0)	32 (2.0) 274 (1.5)	4 (0.6) 258 (4.2)	▲ (0.1) **** (****)
Data Analysis	61 (1.8) 280 (1.1)	33 (1.8) 272 (1.6)	6 (0.8) 272 (3.6)	1 (0.2) 247 (9.7) !
Algebra	84 (1.4) 279 (0.9)	14 (1.3) 267 (2.8)	2 (0.5) 250 (5.2) !	▲ (0.1) **** (****)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
! The nature of the sample does not allow accurate determination of the variability of the statistic.
(****) Standard error estimates cannot be accurately determined.
**** (****) Sample size is insufficient to permit a reliable estimate.
▲ Percentage is between 0.0 and 0.5.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Table B.69: Data for Table 5.4 Teaching Experience

Percentage of fourth- and eighth-graders and average mathematics scale score by teachers' reports on the number of years of experience teaching mathematics: 1996–2000

Grade 4	1996	2000
Two years or less	11 (1.4) 221 (2.1)	15 (1.1) 224 (1.7)
Three to five years	15 (1.8) 218 (2.9)	17 (1.2) 228 (2.1)
Six to ten years	26 (1.9) * 227 (1.6)	18 (1.5) 226 (1.5)
Eleven to twenty-four years	33 (2.5) 224 (1.3)	32 (1.8) 228 (1.3)
Twenty-five years or more	15 (1.9) 229 (2.5)	18 (1.5) 231 (2.6)
Grade 8	**1996**	**2000**
Two years or less	13 (1.8) 267 (2.2)	18 (1.9) 270 (2.4)
Three to five years	13 (1.9) 271 (2.5)	16 (1.6) 277 (2.5)
Six to ten years	20 (2.4) 272 (2.8)	19 (1.4) 276 (2.0)
Eleven to twenty-four years	37 (3.5) 276 (1.8)	32 (1.8) 278 (1.4)
Twenty-five years or more	17 (2.5) 277 (4.3)	15 (1.5) 282 (2.5)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
* Significantly different from 2000.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.70: Data for Table 5.5 Teacher Familiarity with NCTM Standards

Percentage of fourth- and eighth-graders and average mathematics scale score by teachers' reports on their level of knowledge about the NCTM standards: 1996–2000

Grade 4	1996	2000
Very knowledgeable	5 (1.1) 236 (4.5)	6 (0.9) 234 (2.7)
Knowledgeable	17 (1.9) 223 (1.9)	16 (1.4) 227 (2.0)
Somewhat knowledgeable	32 (2.1) * 224 (1.5)	41 (2.2) 227 (1.3)
Little or no knowledge	46 (2.3) * 223 (1.5)	36 (2.1) 227 (1.3)
Grade 8	**1996**	**2000**
Very knowledgeable	16 (2.4) 282 (2.2)	22 (2.0) 282 (2.0)
Knowledgeable	32 (3.5) * 276 (2.1)	40 (1.8) 277 (1.3)
Somewhat knowledgeable	33 (2.9) * 270 (2.7)	25 (1.7) 278 (1.6)
Little or no knowledge	19 (2.4) * 267 (2.3)	13 (1.1) 265 (2.6)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
* Significantly different from 2000.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.71: Data for Table 5.6 Calculator Usage

Percentage of fourth- and eighth-graders and average mathematics scale score by teachers' reports on calculator usage: 1990–2000

Grade 4	1990	1992	1996	2000
How often do students use a calculator				
Everyday	—	1 (0.4) *	5 (0.9)	5 (1.0)
	—	209 (11.1) !	228 (4.7)	230 (5.1)
Weekly	—	15 (1.9)	28 (2.2)	21 (2.3)
	—	225 (3.0)	229 (1.7)	230 (2.1)
Monthly	—	32 (2.0)	42 (2.4)	37 (2.1)
	—	222 (1.5)	224 (1.4)	230 (1.3)
Never/Hardly Ever	—	51 (2.5) *	26 (2.4) *	37 (2.1)
	—	217 (1.2)	219 (2.0)	225 (1.4)
Do you provide instruction in the use of calculators				
Yes	—	62 (2.7) *	81 (1.9) *	75 (1.8)
	—	221 (1.3)	225 (1.0)	229 (1.2)
No	—	38 (2.7) *	19 (1.9) *	25 (1.8)
	—	216 (1.5)	219 (2.4)	227 (1.5)
Do you permit unrestricted use of calculators				
Yes	—	5 (1.1) *	13 (1.8)	12 (1.3)
	—	220 (5.6) !	225 (3.0)	229 (2.9)
No	—	95 (1.1) *	87 (1.8)	88 (1.3)
	—	219 (0.9)	224 (1.1)	228 (1.0)
Do you permit calculator use on tests				
Yes	2 (0.8) *	5 (1.1) *	10 (1.7)	11 (1.5)
	**** (****)	228 (4.2) !	223 (2.2)	228 (2.4)
No	98 (0.8) *	95 (1.1) *	90 (1.7)	89 (1.5)
	215 (1.1)	219 (0.9)	224 (1.0)	228 (1.1)

Grade 8	1990	1992	1996	2000
How often do students use a calculator				
Everyday	—	34 (2.7) *	55 (2.7)	48 (2.0)
	—	280 (1.7)	281 (1.7)	283 (1.3)
Weekly	—	22 (2.1)	21 (2.5)	23 (1.6)
	—	269 (2.2)	271 (3.0)	275 (1.9)
Monthly	—	21 (2.0) *	14 (2.1)	15 (1.2)
	—	259 (2.2)	263 (3.1)	267 (1.7)
Never/Hardly Ever	—	24 (2.4) *	9 (1.5)	14 (1.4)
	—	265 (1.9)	256 (3.9)	268 (2.6)
Do you provide instruction in the use of calculators				
Yes	—	—	83 (3.0)	80 (1.5)
	—	—	274 (1.2)	277 (0.8)
No	—	—	17 (3.0)	20 (1.5)
	—	—	273 (3.3)	274 (2.2)
Do you permit unrestricted use of calculators				
Yes	—	30 (2.3)	47 (2.9) *	33 (1.9)
	—	281 (2.2)	280 (1.9)	281 (1.7)
No	—	70 (2.3)	53 (2.9) *	67 (1.9)
	—	264 (1.3)	268 (1.7)	274 (1.0)
Do you permit calculator use on tests				
Yes	32 (4.1) *	48 (3.0) *	67 (2.6)	65 (1.9)
	272 (2.8)	276 (1.8)	280 (1.5)	281 (1.1)
No	68 (4.1) *	52 (3.0) *	33 (2.6)	35 (1.9)
	259 (1.7)	263 (1.4)	262 (1.9)	269 (1.6)

The percentage of students is listed first with the corresponding average scale score presented below. Standard errors of the estimated percentages and scale scores appear in parentheses.
* Significantly different from 2000.
! The nature of the sample does not allow accurate determination of the variability of the statistic.
**** (****) Sample size is insufficient to permit a reliable estimate.
NOTE: Percentages may not add to 100 due to rounding.
— Comparable data were not available.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.72: Data for Table 5.7 Availability of Computers

Percentage of students and their average mathematics scale scores by school reports on the availability of computers at grades 4, 8, and 12:1996–2000

Grade 4	1996		2000	
	Yes	No	Yes	No
Available at all times in classrooms	61 (3.6) *	39 (3.6) *	83 (2.2)	17 (2.2)
	226 (1.3)	221 (2.3)	228 (1.1)	225 (2.2)
Grouped in computer lab but available	78 (3.1)	22 (3.1)	83 (2.6)	17 (2.6)
	224 (1.5)	223 (2.4)	229 (1.1)	226 (2.3)
Available to bring to classrooms	42 (4.2) *	58 (4.2) *	27 (3.0)	73 (3.0)
	226 (1.8)	222 (1.7)	227 (2.1)	230 (1.2)

Grade 8	1996		2000	
	Yes	No	Yes	No
Available at all times in classrooms	30 (3.9) *	70 (3.9) *	52 (2.1)	48 (2.1)
	275 (2.9)	272 (1.4)	274 (1.2)	278 (1.6)
Grouped in computer lab but available	87 (2.7)	13 (2.7)	92 (1.4)	8 (1.4)
	273 (1.3)	271 (3.4)	277 (1.0)	275 (4.0)
Available to bring to classrooms	49 (4.7) *	51 (4.7) *	37 (2.6)	63 (2.6)
	274 (1.8)	272 (1.8)	276 (1.8)	276 (1.6)

Grade 12	1996		2000	
	Yes	No	Yes	No
Available at all times in classrooms	18 (2.7) *	82 (2.7) *	43 (3.5)	57 (3.5)
	304 (2.4)	304 (1.3)	301 (1.8)	302 (1.4)
Grouped in computer lab but available	97 (1.2)	3 (1.2)	95 (1.4)	5 (1.4)
	304 (1.1)	298 (4.8) !	302 (1.0)	287 (4.7) !
Available to bring to classrooms	47 (3.3) *	53 (3.3) *	36 (3.7)	64 (3.7)
	306 (1.8)	302 (1.4)	304 (1.8)	300 (1.4)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
* Significantly different from 2000.
! The nature of the sample does not allow accurate determination of the variability of the statistic.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.73: Data for Table 5.8 Instructional Use of Computers

Percentage of fourth- and eighth-graders and average mathematics scale score by teachers' reports on their primary use of computers for mathematics instruction: 1996–2000

Grade 4	1996	2000
Drill	27 (2.1) 223 (2.0)	24 (1.9) 229 (1.7)
Demonstrate new math topics	2 (0.6) 222 (7.5) !	3 (0.7) 234 (4.1) !
Play math learning games	41 (2.5) 226 (1.5)	42 (2.4) 228 (1.7)
Simulations and applications	6 (1.1) 225 (3.6)	5 (1.1) 230 (4.6) !
Not used	25 (2.6) 222 (2.8)	26 (1.7) 227 (1.8)

Grade 8	1996	2000
Drill	16 (2.2) 270 (4.2)	15 (1.8) 271 (2.6)
Demonstrate new math topics	4 (1.3) 280 (3.8) !	8 (1.1) 281 (2.8)
Play math learning games	13 (2.1) 267 (3.8)	14 (1.6) 271 (2.4)
Simulations and applications	12 (2.6) 281 (4.1) !	12 (1.2) 281 (2.5)
Not used	54 (3.5) 272 (1.3)	52 (2.4) 278 (1.3)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
! The nature of the sample does not allow accurate determination of the variability of the statistic.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.74: Data for Table 5.9 Eighth-Grade Algebra

Percentage of eighth-graders and average mathematics scale scores by school reports on whether or not an algebra course was offered to eighth-grade students for high school credit: 1996-2000

Grade 8	1996	2000
Yes	80 (3.6) 275 (1.4)	82 (2.1) 277 (1.0)
No	20 (3.6) 267 (2.7)	18 (2.1) 272 (3.6)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.75: Data for Table 5.10 Time on Mathematics Instruction

Percentage of fourth- and eighth-graders and average mathematics scale score by teachers' reports on the amount of instruction time spent on mathematics each week: 1992-2000

Grade 4	1992	1996	2000
Two and one-half hours or less	5 (0.8) 224 (3.2)	6 (1.1) 228 (2.4)	7 (0.9) 222 (3.0)
More than two and one-half hours but less than 4 hours	25 (1.8) 224 (1.9)	26 (2.3) 226 (1.7)	20 (1.8) 228 (2.0)
Four hours or more	71 (2.1) 217 (1.0)	68 (2.6) 223 (1.0)	73 (2.0) 229 (1.1)

Grade 8	1992	1996	2000
Two and one-half hours or less	13 (1.9) 270 (3.6)	20 (2.8) * 269 (2.6)	12 (1.6) 273 (3.6)
More than two and one-half hours but less than 4 hours	55 (2.6) 270 (1.4)	47 (3.1) 275 (1.7)	49 (2.0) 279 (1.3)
Four hours or more	32 (2.8) 268 (2.0)	33 (3.1) 274 (2.7)	40 (1.7) 274 (1.4)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
* Significantly different from 2000.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1996 and 2000 Mathematics Assessments.

Table B.76: Data for Table 5.11 Mathematics Homework Assigned

Percentage of fourth- and eighth-graders and average mathematics scale score by teachers' reports on the amount of mathematics homework assigned per day: 1992–2000

Grade 4	1992	1996	2000
None	6 (1.3) 222 (2.4) !	4 (0.8) 232 (3.8)	6 (1.4) 231 (3.5) !
15 Minutes	52 (1.8) 222 (1.3)	50 (2.3) 226 (1.4)	47 (2.1) 230 (1.3)
30 Minutes	37 (2.3) 218 (1.5)	40 (2.3) 222 (1.6)	40 (1.8) 227 (1.3)
45 Minutes	4 (0.9) 203 (4.7) !	4 (1.0) 214 (5.2) !	5 (0.8) 212 (3.1)
1 Hour	1 (0.4) **** (****)	1 (0.5) 206 (4.8) !	1 (0.2) 219 (6.9) !
More than 1 hour	▲ (0.3) **** (****)	1 (0.4) **** (****)	1 (0.3) **** (****)

Grade 8	1992	1996	2000
None	3 (0.7) 238 (5.1) !	2 (0.6) 241 (7.7) !	2 (0.6) 255 (7.1) !
15 Minutes	29 (2.0) 263 (1.7)	30 (2.5) 266 (2.2)	25 (1.7) 269 (1.7)
30 Minutes	49 (2.5) 269 (1.4)	54 (2.5) 276 (1.6)	55 (1.9) 276 (1.1)
45 Minutes	16 (1.9) 282 (3.3)	10 (1.1) * 284 (3.5)	15 (1.1) 290 (2.1)
1 Hour	4 (0.8) 289 (5.1) !	4 (0.8) 284 (3.7)	3 (0.5) 298 (5.6)
More than 1 hour	▲ (0.1) **** (****)	1 (0.2) 273 (14.6) !	▲ (0.1) **** (****)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
* Significantly different from 2000.
! The nature of the sample does not allow accurate determination of the variability of the statistic.
**** (****) Sample size is insufficient to permit a reliable estimate.
▲ Percentage is between 0.0 and 0.5.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1996 and 2000 Mathematics Assessments.

Table B.77: Data for Table 6.1 Classroom Activities

Percentage of students and average mathematics scale scores by students' reports on how often they do certain classroom activities at grades 4, 8, and 12: 1996–2000

Grade 4	1996	2000
Do math problems from textbook		
Everyday	57 (1.5) 227 (1.0)	56 (1.2) 230 (0.9)
Weekly	21 (1.0) 223 (1.5)	21 (0.7) 228 (1.3)
Monthly	6 (0.5) 221 (2.1)	7 (0.4) 230 (2.0)
Never/Hardly Ever	15 (1.0) 217 (2.2)	16 (0.7) 221 (1.6)
Talk with other students during class about how to solve problems		
Everyday	21 (0.8) 218 (1.5)	19 (0.7) 222 (1.5)
Weekly	18 (0.6) * 224 (1.5)	22 (0.6) 229 (1.3)
Monthly	12 (0.4) * 230 (1.4)	15 (0.5) 235 (1.2)
Never/Hardly Ever	49 (1.2) * 226 (0.8)	44 (0.9) 229 (0.9)
Use a calculator for mathematics		
Everyday	10 (0.6) 207 (1.8)	10 (0.6) 214 (1.7)
Weekly	23 (1.0) 225 (1.2)	20 (0.7) 228 (1.3)
Monthly	26 (0.8) 234 (1.0)	25 (0.9) 238 (1.0)
Never/Hardly Ever	41 (1.4) 222 (1.1)	45 (1.3) 228 (0.9)

Grade 8	1996	2000
Do math problems from textbook		
Everyday	76 (1.4) * 277 (1.2)	72 (1.1) 281 (0.9)
Weekly	15 (1.0) * 261 (2.0)	18 (0.9) 265 (1.5)
Monthly	3 (0.3) * 257 (3.8)	4 (0.3) 268 (2.6)
Never/Hardly Ever	7 (1.1) 256 (3.7)	6 (0.5) 255 (2.8)
Talk with other students during class about how to solve problems		
Everyday	31 (0.9) * 270 (1.6)	38 (0.8) 277 (0.9)
Weekly	17 (0.8) * 273 (1.7)	27 (0.6) 278 (1.1)
Monthly	13 (0.5) 274 (1.7)	13 (0.3) 279 (1.2)
Never/Hardly Ever	39 (1.0) * 273 (1.0)	22 (0.7) 269 (1.1)
Use a calculator for mathematics		
Everyday	48 (2.3) 280 (1.5)	48 (1.4) 282 (1.1)
Weekly	26 (1.3) 268 (1.3)	25 (0.7) 274 (0.9)
Monthly	14 (0.9) 267 (1.8)	13 (0.7) 272 (1.3)
Never/Hardly Ever	12 (1.0) 258 (2.2)	13 (0.9) 263 (1.5)

See footnotes at end of table. ▶

Table B.77: Data for Table 6.1 Classroom Activities (continued)

Percentage of students and average mathematics scale scores by students' reports on how often they do certain classroom activities at grades 4, 8, and 12: 1996–2000

Grade 12	1996	2000
Do math problems from textbook		
Everyday	71 (0.8) * 311 (1.0)	65 (1.1) 309 (0.8)
Weekly	10 (0.5) * 293 (1.9)	13 (0.5) 293 (2.3)
Monthly	3 (0.3) 284 (3.0)	4 (0.3) 286 (2.5)
Never/Hardly Ever	16 (0.7) * 286 (1.5)	18 (0.9) 283 (1.7)
Talk with other students during class about how to solve problems		
Everyday	23 (0.7) * 307 (1.3)	42 (0.9) 309 (0.9)
Weekly	15 (0.6) * 306 (1.9)	24 (0.6) 306 (1.4)
Monthly	13 (0.5) * 307 (1.5)	9 (0.4) 300 (1.7)
Never/Hardly Ever	50 (1.1) * 302 (1.0)	24 (0.8) 285 (1.2)
Use a calculator for mathematics		
Everyday	69 (0.9) 311 (1.1)	69 (1.0) 309 (0.8)
Weekly	15 (0.6) 294 (1.3)	14 (0.6) 289 (1.5)
Monthly	7 (0.4) 285 (2.1)	6 (0.4) 283 (2.4)
Never/Hardly Ever	9 (0.5) 283 (1.8)	11 (0.6) 279 (1.9)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
* Significantly different from 2000.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.78: Data for Table 6.2 Frequency of Calculator Use

Percentage of students and average mathematics scale scores by students' reports on reports on how often they use a calculator for mathematics activities at grades 4, 8, and 12: 1996–2000

Grade 4	1996	2000
Classwork		
Everyday	33 (1.0) * 208 (1.0)	24 (0.7) 210 (1.2)
Weekly	17 (1.2) 227 (1.6)	14 (0.7) 230 (1.6)
Monthly	17 (0.7) 241 (1.5)	17 (0.7) 240 (1.3)
Never/Hardly Ever	34 (1.3) * 232 (1.1)	44 (1.2) 235 (0.8)
Homework		
Everyday	30 (0.8) * 208 (1.2)	24 (0.6) 211 (1.2)
Weekly	16 (0.6) 223 (1.1)	16 (0.6) 222 (1.5)
Monthly	14 (0.4) * 236 (1.5)	15 (0.5) 238 (1.3)
Never/Hardly Ever	40 (1.0) * 234 (0.9)	45 (0.9) 238 (0.9)
Tests and Quizzes		
Everyday	5 (0.3) 198 (1.8)	4 (0.2) 202 (2.1)
Weekly	17 (0.8) * 210 (1.5)	15 (0.5) 213 (1.3)
Monthly	18 (0.8) * 220 (1.4)	13 (0.6) 222 (2.0)
Never/Hardly Ever	60 (1.0) * 233 (0.8)	68 (0.8) 236 (0.8)

Grade 8	1996	2000
Classwork		
Everyday	58 (1.7) * 271 (1.5)	44 (1.5) 279 (1.1)
Weekly	21 (0.8) * 275 (1.5)	25 (0.8) 276 (0.9)
Monthly	9 (0.7) * 277 (2.1)	12 (0.6) 275 (1.3)
Never/Hardly Ever	13 (0.9) * 269 (1.7)	18 (1.1) 268 (1.5)
Homework		
Everyday	52 (1.8) * 274 (1.7)	41 (1.4) 283 (1.0)
Weekly	24 (0.9) 271 (1.3)	26 (0.7) 274 (1.1)
Monthly	10 (0.7) * 275 (1.8)	13 (0.6) 275 (1.3)
Never/Hardly Ever	14 (0.8) * 266 (1.4)	21 (0.8) 265 (1.2)
Tests and Quizzes		
Always	—	24 (1.2) 292 (1.3)
Sometimes	—	45 (1.3) 274 (0.9)
Never	—	31 (1.6) 267 (1.3)

See footnotes at end of table. ▶

Table B.78: Data for Table 6.2 Frequency of Calculator Use (continued)

Percentage of students and average mathematics scale scores by students' reports on reports on how often they use a calculator for mathematics activities at grades 4, 8, and 12: 1996–2000

Grade 12	1996	2000
Classwork		
Everyday	68 (1.1) 309 (1.0)	68 (0.9) 308 (0.9)
Weekly	14 (0.7) 302 (1.8)	14 (0.5) 292 (1.7)
Monthly	4 (0.3) 290 (2.8)	3 (0.2) 286 (3.4)
Never/Hardly Ever	14 (0.7) 287 (1.5)	14 (0.8) 283 (1.9)
Homework		
Everyday	61 (1.2) 312 (1.0)	61 (1.2) 310 (0.8)
Weekly	16 (0.6) 296 (1.6)	15 (0.5) 293 (1.7)
Monthly	5 (0.4) 291 (2.6)	5 (0.4) 291 (2.7)
Never/Hardly Ever	18 (0.7) 287 (1.1)	19 (0.9) 283 (1.7)
Tests and Quizzes		
Always	—	58 (1.2) 309 (0.8)
Sometimes	—	29 (1.1) 296 (1.7)
Never	—	13 (0.7) 280 (1.8)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
* Significantly different from 2000.
— Comparable data were not available
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.79: Data for Table 6.3 Availability of a Calculator for Schoolwork

Percentage of students and average mathematics scale scores by fourth-grade students' reports on whether or not they have a calculator for schoolwork: 1992–2000

Grade 4	1992	1996	2000
Yes	46 (1.2) * 221 (0.9)	62 (1.5) * 227 (0.9)	55 (1.3) 231 (1.0)
No	54 (1.2) * 219 (0.8)	38 (1.5) * 225 (1.1)	45 (1.3) 227 (1.0)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
* Significantly different from 2000.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1996 and 2000 Mathematics Assessments.

Table B.80: Data for Table 6.4 Type of Calculator Used

Percentage of students and average mathematics scale scores by students' reports on whether or not they use a particular type of calculator at grades 8 and 12: 1996–2000

Grade 8	1996	2000
Scientific		
Yes	61 (2.1) * 277 (1.3)	67 (1.0) 279 (0.8)
No	39 (2.1) * 265 (1.3)	33 (1.0) 269 (1.2)
Graphing		
Yes	11 (1.1) * 275 (2.7)	18 (1.2) 286 (1.7)
No	89 (1.1) * 272 (1.1)	82 (1.2) 273 (0.7)
Symbol Manipulator		
Yes	—	9 (0.3) 259 (1.7)
No	—	91 (0.3) 277 (0.7)

Grade 12	1996	2000
Scientific		
Yes	70 (0.9) 305 (0.9)	68 (1.0) 299 (0.9)
No	30 (0.9) 303 (2.1)	32 (1.0) 306 (1.6)
Graphing		
Yes	51 (1.8) * 316 (1.1)	62 (1.7) 311 (1.1)
No	49 (1.8) * 292 (1.0)	38 (1.7) 286 (1.1)
Symbol Manipulator		
Yes	—	15 (0.6) 301 (2.2)
No	—	85 (0.6) 302 (0.8)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
* Significantly different from 2000.
— Comparable data were not available
NOTE: Percentages may not add to 100 due to rounding
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Mathematics Assessments.

Table B.81: Data for Table 6.5 Current Eighth-Grade Mathematics Course

Percentage of students and average mathematics scale scores by eighth-grade students' reports on what mathematics class they are currently taking: 2000

Grade 8	2000
All Students	
Eighth-grade mathematics	37 (1.5) 264 (1.4)
Prealgebra	31 (1.1) 270 (1.1)
First-year algebra	25 (0.9) 301 (1.1)
Geometry	2 (0.2) 295 (5.7)
Second-year algebra	1 (0.2) 291 (5.8)
Integrated or sequential math	2 (0.3) 296 (4.4)
Other math class	3 (0.3) 247 (3.6)
Male	
Eighth-grade mathematics	38 (1.4) 265 (1.6)
Prealgebra	29 (1.3) 272 (1.4)
First-year algebra	25 (1.0) 302 (1.2)
Geometry	2 (0.3) 296 (7.2)
Second-year algebra	2 (0.3) 293 (7.8)
Integrated or sequential math	2 (0.4) 298 (5.8)
Other math class	3 (0.3) 248 (4.4)
Female	
Eighth-grade mathematics	36 (1.6) 263 (1.4)
Prealgebra	32 (1.3) 268 (1.2)
First-year algebra	25 (1.1) 299 (1.3)
Geometry	1 (0.2) 294 (7.4)
Second-year algebra	1 (0.2) 287 (5.5)
Integrated or sequential math	2 (0.4) 293 (6.0)
Other math class	3 (0.4) 246 (4.7)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Table B.82: Data for Table 6.6 Twelfth-Grade Course-Taking Patterns

Percentage of students and average mathematics scale scores by twelfth-grade students' reports on mathematics courses taken since eighth grade: 2000

Grade 12	Not Taken	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
1. General mathematics	36 (1.2) 318 (1.0)	53 (1.2) 296 (0.9)	5 (0.4) 274 (2.5)	2 (0.2) 276 (3.9)	2 (0.3) 276 (3.3)	3 (0.3) 288 (3.0)
2. Business mathematics	80 (1.0) 306 (1.0)	2 (0.2) 285 (2.9)	4 (0.3) 280 (2.9)	3 (0.3) 283 (2.5)	4 (0.4) 291 (2.2)	7 (0.6) 289 (2.0)
3. Applied mathematics	82 (0.8) 307 (1.0)	4 (0.3) 294 (2.5)	5 (0.5) 276 (2.2)	3 (0.3) 278 (2.9)	3 (0.2) 280 (3.4)	3 (0.4) 290 (4.1)
4. Introduction to algebra	26 (1.0) 317 (1.5)	42 (1.1) 310 (0.9)	23 (0.9) 285 (1.2)	6 (0.4) 267 (1.9)	2 (0.3) 270 (3.3)	1 (0.2) 263 (3.1)
5. Algebra I	6 (0.5) 283 (4.1)	23 (1.0) 328 (1.2)	50 (1.4) 303 (0.8)	16 (1.0) 283 (1.5)	4 (0.3) 274 (2.5)	1 (0.2) 269 (4.3)
6. Geometry	12 (0.8) 271 (1.9)	2 (0.4) 339 (5.2)	20 (1.2) 330 (1.1)	44 (1.3) 306 (0.9)	16 (0.8) 291 (1.6)	5 (0.4) 280 (2.1)
7. Algebra II	20 (0.8) 276 (1.3)	1 (0.2) 306 (9.8) !	6 (0.6) 328 (2.9)	27 (1.1) 323 (1.2)	36 (1.1) 305 (1.0)	10 (0.7) 290 (1.6)
8. Trigonometry	74 (1.5) 299 (1.2)	▲ (0.1) **** (****)	▲ (0.1) 300 (12.2)	3 (0.5) 332 (3.7)	12 (0.9) 324 (1.5)	10 (0.7) 307 (1.7)
9. Precalculus	63 (1.4) 291 (0.9)	▲ (0.1) **** (****)	▲ (0.1) **** (****)	2 (0.5) 335 (5.2) !	18 (1.1) 336 (1.4)	17 (0.8) 318 (1.3)
10. Unified, integrated, or sequential mathematics	89 (1.1) 304 (1.0)	1 (0.3) 276 (6.1) !	2 (0.2) 281 (3.2)	2 (0.4) 303 (6.3)	4 (0.4) 304 (3.2)	3 (0.2) 307 (4.0)
11. Statistics	82 (1.2) 303 (0.9)	1 (0.2) 275 (3.6)	2 (0.2) 289 (5.7)	2 (0.3) 300 (5.3)	5 (0.4) 311 (2.7)	8 (0.8) 317 (3.3)
12. Discrete/finite mathematics	95 (0.4) 304 (1.0)	1 (0.1) 272 (6.2) !	1 (0.1) **** (****)	1 (0.1) 288 (9.4)	1 (0.2) 302 (8.2)	2 (0.3) 315 (4.2)
13. Calculus	82 (0.8) 297 (0.9)	▲ (0.1) **** (****)	▲ (0.1) **** (****)	▲ (0.1) **** (****)	2 (0.3) 329 (5.7)	16 (0.7) 342 (1.4)
14. Other	83 (0.7) 305 (1.1)	1 (0.2) 288 (5.8)	2 (0.2) 288 (4.7)	2 (0.2) 288 (3.7)	4 (0.3) 296 (3.2)	8 (0.6) 302 (1.8)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
**** (****) Sample size is insufficient to permit a reliable estimate.
! The nature of the sample does not allow accurate determination of the variability of the statistic.
▲ Percentage is between 0.0 and 0.5.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Table B.83: Data for Table 6.7 Mathematics Courses Taken at Grade 12 vs. Performance

Percentage of students and average mathematics scale scores by course groupings based on twelfth-grade students reports on courses taken since eighth grade: 2000

	Group I	Group II	Group III	Group IV
Grade 12	15 (0.6)	4 (0.4)	32 (0.9)	50 (1.1)
	275 (1.4)	282 (2.3)	294 (0.9)	318 (1.0)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Table B.84: Data for Table 6.8 Time Spent on Mathematics Homework

Percentage of students and average mathematics scale scores by students' reports on time spent per day on mathematics homework at grades 4, 8, and 12: 2000

Grade 4	2000
None	6 (0.5) 228 (2.6)
15 minutes	44 (0.8) 232 (0.9)
30 minutes	28 (0.6) 230 (1.0)
45 minutes	10 (0.4) 224 (1.4)
One hour	8 (0.3) 217 (1.7)
More than one hour	4 (0.2) 217 (2.1)

Grade 8	2000
None	9 (0.5) 265 (1.7)
15 minutes	32 (0.7) 280 (1.0)
30 minutes	34 (0.6) 277 (1.0)
45 minutes	14 (0.4) 278 (1.3)
One hour	8 (0.3) 274 (1.7)
More than one hour	3 (0.2) 271 (2.7)

Grade 12	2000
Not taking math this year	29 (1.1) 293 (1.2)
None	12 (0.7) 290 (2.0)
15 minutes	16 (0.7) 307 (1.4)
30 minutes	20 (0.7) 308 (1.5)
45 minutes	11 (0.4) 310 (1.6)
One hour	8 (0.5) 311 (1.5)
More than one hour	4 (0.3) 309 (2.5)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Table B.85: Data for Table 6.9 Time Spent Working at a Part-Time Job

Percentage of students and average mathematics scale scores by twelfth-grade students' reports on hours spent at a part-time job: 2000

Grade 12	2000
None	29 (0.8) 306 (1.4)
Less than six hours	5 (0.3) 312 (2.7)
Six to ten hours	10 (0.4) 308 (1.8)
Eleven to fifteen hours	12 (0.5) 308 (1.2)
Sixteen to twenty hours	17 (0.6) 305 (1.5)
Twenty-one to twenty-five hours	13 (0.6) 296 (1.6)
Twenty-six to thirty hours	8 (0.4) 292 (1.6)
More than thirty hours	6 (0.3) 287 (1.8)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 Mathematics Assessment.

Table B.86: Data for Table 6.10 Mathematics Preparedness at Grade 12

Percentage of students and average mathematics scale scores by students' reports on the amount of time spent watching television each day at grades 4, 8, and 12: 1990–2000

Grade 4	1990	1992	1996	2000
One hour or less	19 (0.8) * 213 (2.2)	21 (0.7) * 223 (1.4)	25 (1.1) * 225 (1.5)	28 (0.6) 230 (1.2)
Two or three hours	36 (1.1) * 220 (1.4)	36 (0.7) * 226 (0.9)	36 (0.7) * 230 (1.1)	39 (0.7) 233 (1.0)
Four hours or more	44 (1.3) * 208 (1.0)	43 (0.7) * 213 (0.8)	39 (1.0) * 217 (1.2)	33 (0.9) 219 (1.0)
Grade 8	**1990**	**1992**	**1996**	**2000**
One hour or less	13 (0.7) * 270 (2.2)	17 (0.5) * 279 (1.9)	18 (0.6) * 278 (2.3)	20 (0.5) 285 (1.5)
Two or three hours	44 (1.2) * 267 (1.4)	46 (0.5) 275 (1.0)	46 (0.9) 277 (0.9)	47 (0.5) 280 (0.9)
Four hours or more	43 (1.4) * 256 (1.3)	37 (0.7) * 256 (0.8)	37 (1.0) * 262 (1.1)	33 (0.5) 264 (0.8)
Grade 12	**1990**	**1992**	**1996**	**2000**
One hour or less	33 (1.2) 304 (1.4)	33 (0.8) * 309 (1.2)	34 (1.1) 314 (1.2)	36 (0.7) 310 (1.1)
Two or three hours	47 (1.1) 295 (1.4)	46 (0.8) 300 (0.9)	46 (0.9) 304 (1.2)	46 (0.6) 301 (0.9)
Four hours or more	20 (0.9) 278 (1.5)	20 (0.8) * 284 (1.2)	20 (0.6) * 288 (1.3)	18 (0.5) 285 (1.2)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
* Significantly different from 2000.
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Table B.87: Data for Table 6.11 Students' Attitudes Toward Mathematics

Percentage of students and average mathematics scale scores by students' reports on their attitudes toward mathematics at grades 4, 8, and 12: 1990-2000

Grade 4	1990	1992	1996	2000
I like Math				
Agree	70 (1.0) 215 (1.1)	71 (0.8) 222 (0.8)	69 (0.9) 226 (0.9)	70 (0.7) 231 (0.9)
Undecided	16 (0.8) 213 (1.8)	16 (0.6) 221 (1.2)	17 (0.6) 225 (1.8)	16 (0.6) 229 (1.2)
Disagree	14 (0.9) 204 (1.5)	12 (0.5) 209 (1.1)	14 (0.8) 219 (1.5)	14 (0.5) 221 (1.3)
Math is useful for solving problems				
Agree	63 (1.1) * 216 (1.3)	66 (1.0) * 224 (0.8)	69 (0.8) 229 (0.9)	71 (0.7) 234 (0.9)
Undecided	22 (0.9) * 213 (1.5)	21 (0.8) * 219 (1.2)	17 (0.7) 222 (1.4)	18 (0.6) 225 (1.2)
Disagree	14 (0.8) * 203 (1.6)	13 (0.5) * 208 (1.5)	14 (0.6) * 213 (1.9)	11 (0.4) 217 (1.4)
Math is mostly memorizing facts				
Agree	—	57 (1.0) * 218 (0.8)	54 (0.8) 221 (0.9)	52 (0.8) 225 (0.8)
Undecided	—	28 (0.8) 225 (1.2)	25 (0.6) * 228 (1.2)	27 (0.5) 233 (1.1)
Disagree	—	16 (0.6) * 224 (1.4)	21 (0.8) 235 (1.4)	21 (0.7) 240 (1.3)
Only one way to solve a problem				
Agree	—	—	17 (0.6) 207 (1.5)	16 (0.6) 212 (1.4)
Undecided	—	—	20 (0.7) 221 (1.5)	19 (0.6) 225 (1.1)
Disagree	—	—	63 (0.9) 232 (0.9)	65 (0.9) 236 (0.8)

See footnotes at end of table. ▶

Table B.87: Data for Table 6.11 Students' Attitudes Toward Mathematics (continued)

Percentage of students and average mathematics scale scores by students' reports on their attitudes toward mathematics at grades 4, 8, and 12: 1990–2000

Grade 8	1990	1992	1996	2000
I like Math				
Agree	57 (1.6) 267 (1.4)	57 (0.9) * 273 (1.0)	56 (1.1) 277 (1.2)	54 (0.6) 282 (0.9)
Undecided	22 (0.8) 261 (1.7)	20 (0.6) 268 (1.2)	21 (0.8) 271 (1.5)	21 (0.5) 277 (1.0)
Disagree	21 (1.3) * 254 (2.1)	23 (0.7) * 260 (1.6)	23 (0.7) * 263 (1.4)	26 (0.5) 267 (1.0)
Math is useful for solving problems				
Agree	76 (1.1) 266 (1.3)	81 (0.6) * 271 (0.9)	80 (0.7) * 275 (0.8)	75 (0.6) 279 (0.7)
Undecided	15 (0.8) 262 (2.1)	12 (0.4) * 269 (1.7)	12 (0.5) * 274 (2.6)	15 (0.4) 280 (1.7)
Disagree	9 (0.8) 245 (3.0)	7 (0.4) * 259 (2.1)	8 (0.4) * 259 (2.1)	10 (0.4) 269 (1.7)
Math is mostly memorizing facts				
Agree	—	44 (0.7) * 259 (0.8)	41 (0.8) * 263 (0.9)	37 (0.7) 268 (0.7)
Undecided	—	26 (0.6) * 273 (1.2)	28 (0.6) 275 (1.3)	28 (0.5) 278 (1.0)
Disagree	—	30 (0.7) * 283 (1.4)	31 (0.9) * 284 (1.6)	35 (0.6) 289 (1.1)
Only one way to solve a problem				
Agree	—	—	8 (0.5) 246 (2.2)	9 (0.4) 255 (1.6)
Undecided	—	—	14 (0.6) 264 (1.7)	13 (0.4) 268 (1.5)
Disagree	—	—	78 (0.8) 277 (0.9)	78 (0.6) 282 (0.7)

See footnotes at end of table. ▶

Table B.87: Data for Table 6.11 Students' Attitudes Toward Mathematics (continued)

Percentage of students and average mathematics scale scores by students' reports on their attitudes toward mathematics at grades 4, 8, and 12: 1990–2000

Grade 12	1990	1992	1996	2000
I like Math				
Agree	54 (1.4) * 304 (1.4)	51 (0.9) * 308 (1.1)	50 (0.8) * 313 (1.2)	47 (0.8) 312 (1.0)
Undecided	17 (0.7) 286 (2.0)	17 (0.6) 297 (1.5)	17 (0.6) 301 (1.5)	17 (0.5) 298 (1.5)
Disagree	29 (1.1) * 284 (1.3)	32 (0.7) * 288 (1.0)	33 (0.8) * 293 (1.1)	37 (0.7) 289 (1.1)
Math is useful for solving problems				
Agree	73 (1.1) * 298 (1.3)	71 (0.6) * 302 (0.9)	70 (0.8) * 307 (1.1)	61 (0.8) 305 (0.9)
Undecided	15 (0.8) * 289 (1.7)	18 (0.5) * 298 (1.3)	16 (0.6) * 301 (1.4)	19 (0.5) 302 (1.4)
Disagree	12 (0.7) * 286 (2.0)	12 (0.5) * 292 (1.4)	14 (0.6) * 296 (1.8)	19 (0.6) 292 (1.7)
Math is mostly memorizing facts				
Agree	—	41 (0.9) * 288 (1.0)	35 (0.9) 292 (1.0)	36 (0.8) 290 (1.0)
Undecided	—	20 (0.6) * 297 (1.1)	21 (0.5) 299 (1.2)	22 (0.6) 297 (1.2)
Disagree	—	39 (0.9) * 314 (1.0)	44 (1.0) 317 (1.2)	42 (0.8) 314 (1.1)
Only one way to solve a problem				
Agree	—	—	6 (0.4) 291 (2.2)	6 (0.3) 284 (2.6)
Undecided	—	—	12 (0.5) 290 (1.6)	12 (0.5) 288 (1.9)
Disagree	—	—	82 (0.7) 308 (1.0)	83 (0.6) 305 (0.9)
Would not study math if given choice				
Agree	—	—	31 (0.8) * 295 (1.1)	37 (0.8) 293 (1.1)
Undecided	—	—	22 (0.6) * 301 (1.3)	19 (0.6) 299 (1.2)
Disagree	—	—	47 (0.9) * 312 (1.1)	43 (0.8) 311 (1.1)

The percentage of students is listed first with the corresponding average scale score presented below.
Standard errors of the estimated percentages and scale scores appear in parentheses.
* Significantly different from 2000.
— Comparable data were not available
NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, and 2000 Mathematics Assessments.

Appendix C
State-Level Contextual Variables

To help better place results from the NAEP 2000 state assessment program into context, this appendix presents selected state-level data from sources other than NAEP. These data are taken from the *Digest of Education Statistics 2000.*

Appendix Focus

State
school system
characteristics

Appendix Contents

Table C.1a: School System Characteristics from Non-NAEP Sources

	Estimated total and school-age resident population: 1999 (estimates as of July 1)[1]		Enrollment in public elementary and secondary schools: Fall 1998[2]		
	Total, all ages (in thousands)	5- to 17-year olds (in thousands)	Total	Kindergarten through grade 8	Grades 9 to 12
Nation	272,691	51,257	46,534,687	33,343,787	13,190,900
Alabama	4,370	775	747,970	542,340	205,630
Alaska	620	147	135,373	96,979	38,394
Arizona	4,778	949	848,262	622,747	225,515
Arkansas	2,551	483	452,256	319,232	133,024
California	33,145	6,424	5,925,964	4,269,853	1,656,111
Colorado	4,056	777	699,135	501,449	197,686
Connecticut	3,282	610	544,698	399,381	145,317
Delaware	754	132	113,262	79,955	33,307
District of Columbia	519	68	71,889	56,712	15,177
Florida	15,111	2,618	2,337,633	1,704,024	633,609
Georgia	7,788	1,477	1,401,291	1,029,386	371,905
Hawaii	1,185	209	188,069	134,685	53,384
Idaho	1,252	258	244,722	168,604	76,118
Illinois	12,128	2,304	2,011,530	1,451,579	559,951
Indiana	5,943	1,115	988,094	696,832	291,262
Iowa	2,869	537	498,214	336,696	161,518
Kansas	2,654	515	472,353	327,474	144,879
Kentucky	3,961	706	655,687	464,567	191,120
Louisiana	4,372	876	768,734	558,473	210,261
Maine	1,253	223	210,503	150,860	59,643
Maryland	5,172	963	841,671	606,560	235,111
Massachusetts	6,175	1,076	962,317	704,624	257,693
Michigan	9,864	1,906	1,720,266	1,245,299	474,967
Minnesota	4,776	950	855,119	585,553	269,566
Mississippi	2,769	550	502,379	365,497	136,882
Missouri	5,468	1,036	912,445	650,545	261,900
Montana	883	171	159,988	109,535	50,453
Nebraska	1,666	329	291,140	199,754	91,386
Nevada	1,809	348	311,061	229,275	81,786
New Hampshire	1,201	231	204,713	146,722	57,991
New Jersey	8,143	1,460	1,268,996	936,428	332,568
New Mexico	1,740	364	328,753	232,485	96,268
New York	18,197	3,227	2,877,143	2,028,167	848,976
North Carolina	7,651	1,407	1,254,821	920,838	333,983
North Dakota	634	121	114,597	76,860	37,737
Ohio	11,257	2,104	1,842,559	1,301,438	541,121
Oklahoma	3,358	649	628,492	447,906	180,586
Oregon	3,316	608	542,809	379,770	163,039
Pennsylvania	11,994	2,140	1,816,414	1,267,226	549,188
Rhode Island	991	179	154,785	112,483	42,302
South Carolina	3,886	702	664,592	477,850	186,742
South Dakota	733	148	132,495	90,887	41,608
Tennessee	5,484	974	905,442	664,570	240,872
Texas	20,044	4,080	3,945,367	2,868,209	1,077,158
Utah	2,130	497	481,176	328,522	152,654
Vermont	594	107	105,120	73,257	31,863
Virginia	6,873	1,214	1,124,022	815,266	308,756
Washington	5,756	1,096	998,053	695,950	302,103
West Virginia	1,807	303	297,530	205,840	91,690
Wisconsin	5,250	1,016	879,542	600,703	278,839
Wyoming	480	96	95,241	63,940	31,301

[1] U.S. Department of Commerce, Bureau of Census, *Current Population Reports*, Series P-25, No. 1095 at the national level, CPH-L-74 (1990 data); and unpublished data.

[2] U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys.

Table C.1b: School System Characteristics from Non-NAEP Sources

	Poverty status of 5- to 17-year olds: 1998[1]		Number of children (birth to age 21) served under state-operated Individuals with Disabilities Education Act and Chapter 1of the Education Consolidation and Improvement Act Programs[2]	
	Number in Poverty (in thousands)	Percent in Poverty	1998-99 School Year	Percent Change: 1990-91 to 1998-99
Nation	9,167	17.8	6,055,343	27.2
Alabama	156	21.8	99,813	5.1
Alaska	13	9.0	17,712	20.1
Arizona	222	23.6	88,598	54.8
Arkansas	57	13.1	59,110	23.6
California	1,459	22.3	623,651	32.9
Colorado	93	12.5	75,037	31.4
Connecticut	82	13.4	76,740	18.9
Delaware	24	15.7	16,233	13.6
District of Columbia	33	46.0	8,162	29.8
Florida	474	20.5	345,171	46.3
Georgia	377	24.7	155,754	52.7
Hawaii	32	14.5	20,551	56.1
Idaho	50	17.4	27,553	25.1
Illinois	308	12.16	281,915	17.9
Indiana	140	12.6	146,559	27.8
Iowa	73	14.2	70,958	16.9
Kansas	59	13.26	58,425	29.2
Kentucky	118	16.7	87,973	10.8
Louisiana	244	29.8	95,245	29.3
Maine	27	12.0	34,294	22.5
Maryland	66	8.10	111,688	22.4
Massachusetts	163	15.0	168,964	9.3
Michigan	311	14.8	208,403	24.8
Minnesota	130	12.6	106,194	31.3
Mississippi	108	19.3	61,778	1.4
Missouri	136	14.4	131,565	29.0
Montana	42	21.2	18,797	9.7
Nebraska	54	14.8	43,400	32.5
Nevada	49	12.8	33,319	80.7
New Hampshire	34	13.3	27,502	39.9
New Jersey	194	13.2	210,114	15.9
New Mexico	101	23.5	52,113	44.6
New York	848	28.9	432,320	40.6
North Carolina	277	21.3	165,333	34.3
North Dakota	28	17.2	13,181	5.4
Ohio	339	16.0	230,155	12.0
Oklahoma	120	19.9	80,289	22.3
Oregon	121	19.4	69,919	26.8
Pennsylvania	382	18.0	227,771	3.8
Rhode Island	36	20.5	27,911	32.4
South Carolina	129	17.6	99,033	27.3
South Dakota	13	9.2	15,702	4.8
Tennessee	156	14.5	128,273	22.3
Texas	809	20.1	486,749	38.8
Utah	55	11.8	55,252	15.7
Vermont	13	12.2	12,709	3.6
Virginia	92	7.9	153,716	34.9
Washington	118	10.8	114,144	33.7
West Virginia	65	25.7	49,934	15.8
Wisconsin	109	11.5	116,328	33.8
Wyoming	13	13.0	13,333	19.0

[1] U.S. Department of Commerce, Bureau of the Census, *Decennial Census, Minority Economic Profiles,* unpublished data; and *Current Population Reports,* Series P-60, "Poverty in the United States," "Money Income of Households, Families, and Persons in the United States," and "Income, Poverty, and Valuation of Noncash Benefits," various years, and "Money Income in the U.S.: 1998," P60-201.

[2] U.S. Department of Education, Office of Special Education and Rehabilitative Services, *Annual Report to Congress on the Implementation of The Individuals with Disabilities Education Act,* various years, and unpublished tabulations.

Table C.1c: School System Characteristics from Non-NAEP Sources

	Elementary and secondary education expenditures per pupil: 1997-98[1]	Estimated annual salaries of teachers in public elementary and secondary schools by state: 1998-99[2]	Pupil-teacher ratios in public elementary and secondary schools: Fall 1998[3]
Nation	$6,189	$40,582	16.5 ‡
Alabama	4,849	35,820	15.7 ‡
Alaska	8,271	46,845	16.7
Arizona	4,595	35,025	20
Arkansas	4,708	32,350	16.2
California	5,644	45,400	21 ‡
Colorado	5,656	38,025	17.7
Connecticut	8,904	51,584	14
Delaware	7,420	43,164	16
District of Columbia	8,393	47,150	13.9
Florida	5,552	35,196	18.4
Georgia	5,647	39,675	15.8
Hawaii	5,858	40,377	17.7
Idaho	4,721	34,063	18.2
Illinois	6,242	45,569	16.5
Indiana	6,318	41,163	17
Iowa	5,998	34,927	15.2
Kansas	5,727	37,405	14.8
Kentucky	5,213	35,526	16.1
Louisiana	5,188	32,510	16.6
Maine	6,742	34,906	13.2
Maryland	7,034	42,526	16.9
Massachusetts	7,778	45,075	13.8
Michigan	7,050	48,207	18.5 ‡
Minnesota	6,388	39,458	16.9
Mississippi	4,288	29,530	16.1
Missouri	5,565	34,746	14.7
Montana	5,724	31,356	15.7
Nebraska	5,958	32,880	14.3
Nevada	5,295	38,883	18.9
New Hampshire	6,156	37,405	15.4
New Jersey	9,643	51,193	13.8
New Mexico	5,005	32,398	16.5
New York	8,852	49,437	14.6
North Carolina	5,257	36,098	15.8
North Dakota	5,056	28,976	14.4
Ohio	6,198	40,566	16.2
Oklahoma	5,033	31,149	15.4
Oregon	6,419	42,833	20
Pennsylvania	7,209	48,457	16.4
Rhode Island	7,928	45,650	13.9
South Carolina	5,320	34,506	15.2 ‡
South Dakota	4,669	28,552	14.3
Tennessee	4,937	36,500	15.3 ‡
Texas	5,444	35,041	15.2
Utah	3,969	32,950	22.4
Vermont	7,075	36,800	12.8
Virginia	6,067	37,475	14.2 ‡
Washington	6,040	38,692	20.1
West Virginia	6,323	34,244	14.2
Wisconsin	7,123	40,657	14.4
Wyoming	6,218	33,500	14.2

NOTE: Constant 1997-98 dollars based on the Consumer Price Index, prepared by the Bureau of Labor Statistics, U.S. Department of Labor, adjusted to a school year basis. These data do not reflect differences in inflation rates from state to state. Beginning in 1980-81, expenditures for state administration are excluded. Beginning in 1988-89, survey was expanded and coverage of state expenditures for public school districts was improved. Some data revised from previously published figures.

‡ Includes imputations for underreporting.

[1] U.S. Department of Education, National Center for Education Statistics, *Revenues and expenditures for public elementary and secondary schools, statistics of state school systems, and common core of data surveys.*

[2] National Education Association, *Estimates of School Statistics*; and unpublished data (© 2000 by the National Education Association. All rights reserved).

[3] U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys.

D Appendix D
Sample Items

The following pages present sample questions from the 1996 NAEP mathematics assessment. For questions in the constructed-response format, sample student responses are included. Three sample questions are provided at each grade level. Each question is accompanied by a brief description of the content tested by the question.

Appendix Focus

Sample questions with commentary

Appendix Contents

Grade 4 Sample Question 1:

N stands for the number of stamps John had. He gave 12 stamps to his sister. Which expression tells how many stamps John has now?

Ⓐ $N + 12$

● $N - 12$

Ⓒ $12 - N$

Ⓓ $12 \times N$

Sample question 1 is a multiple-choice question classified in the algebra and functions content strand. Young students are prepared for the abstract world of algebra by early exposure to concepts that help them make the transition from concrete numbers to abstract expressions. This question, which required students to recognize that *N* stands for the total number of stamps John had, puts the concept of a variable in a setting that fourth-graders can understand.

Grade 4 Sample Question 2:

Brett needs to cut a piece of string into four equal pieces without using a ruler or other measuring instrument.

Write directions to tell Brett how to do this.

Sample question 2 is a short constructed-response question classified in the measurement content strand. This question asks students to describe how to cut a piece of string into four equal pieces without using a ruler or other measuring instrument. The expected solution was to fold the string in half, cut it, then fold each of these two pieces in half and cut them. The question was scored using a three-point scoring guide ("Unsatisfactory," "Partial," or "Satisfactory"). A sample "Satisfactory" response is shown below.

Sample "Satisfactory" Response:

Write directions to tell Brett how to do this.

Fold it untell the makes two equal parts cut it. Then fold it again cut it.

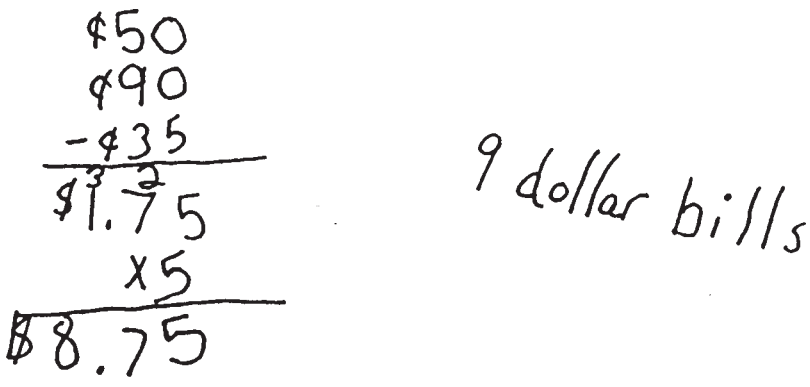
Grade 4 Sample Question 3:

Sam can purchase his lunch at school. Each day he wants to have juice that costs 50¢, a sandwich that costs 90¢, and fruit that costs 35¢. His mother has only $1.00 bills. What is the least number of $1.00 bills that his mother should give him so he will have enough money to buy lunch for 5 days?

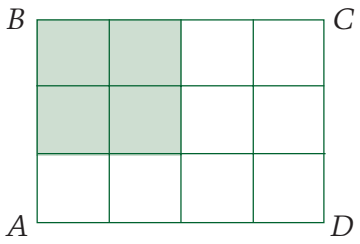
Sample question 3 is a short constructed-response question classified in the number sense, properties, and operations strand. Students were required to show their work. To answer the question satisfactorily, the student must complete three steps: 1) add the three amounts shown to get the total spent each day, 2) multiply by 5 to get the total needed for five days ($8.75), and 3) understand that nine $1.00 bills would be needed to satisfy the conditions stated in the question. This question was in a part of the assessment that permitted the use of a calculator, but it is evident from the work shown below that this student could answer the question without the use of a calculator.

A "Satisfactory" response to this question gives the correct answer of nine dollar bills.

Sample "Satisfactory" Response:



Grade 8 Sample Question 4:



In the figure above, what fraction of rectangle *ABCD* is shaded?

Ⓐ $\frac{1}{6}$

Ⓑ $\frac{1}{5}$

Ⓒ $\frac{1}{4}$

● $\frac{1}{3}$

Ⓔ $\frac{1}{2}$

Sample question 4 is a multiple-choice question classified in the number sense, properties, and operations strand. This question required students to recognize what fraction of a rectangle is shaded. Note that none of the numerators in the answer choices involves the number 4.

Grade 8 Sample Question 5:

A plumber charges customers $48 for each hour worked plus an additional $9 for travel. If h represents the number of hours worked, which of the following expressions could be used to calculate the plumber's total charge in dollars?

Ⓐ $48 + 9 + h$

Ⓑ $48 \times 9 \times h$

Ⓒ $48 + (9 \times h)$

Ⓓ $(48 \times 9) + h$

● $(48 \times h) + 9$

Sample question 5 is a multiple-choice question classified in the algebra and functions content strand. This question required students to translate a word problem into an algebraic expression. In a formal algebra class, students are expected to set up equations with expressions like the one in choice E (the correct answer) and then determine, for example, the value of h if the plumber's total charge was $297.

Grade 8 Sample Question 6:

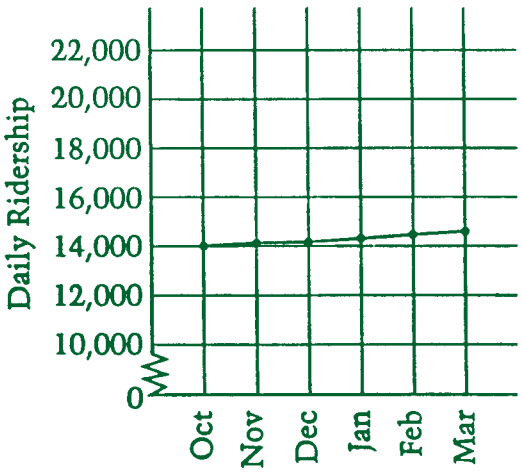
This question requires you to show your work and explain your reasoning. You may use drawings, words, and numbers in your explanation. Your answer should be clear enough so that another person could read it and understand your thinking. It is important that you show all of your work.

METRO RAIL COMPANY

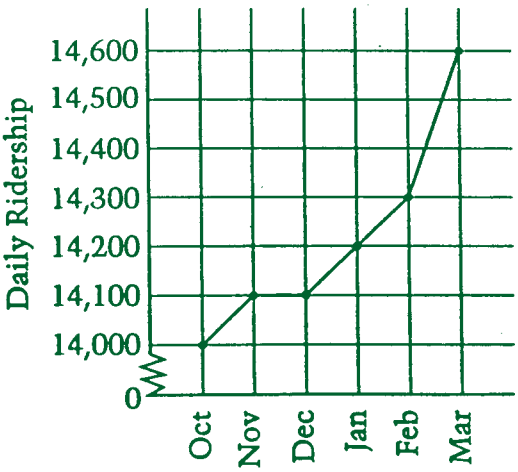
Month	Daily Ridership
October	14,000
November	14,100
December	14,100
January	14,200
February	14,300
March	14,600

The data in the table above has been correctly represented by both graphs shown below.

Graph A



Graph B



Which graph would be best to help convince others that the Metro Rail Company made a lot more money from ticket sales in March than in October?

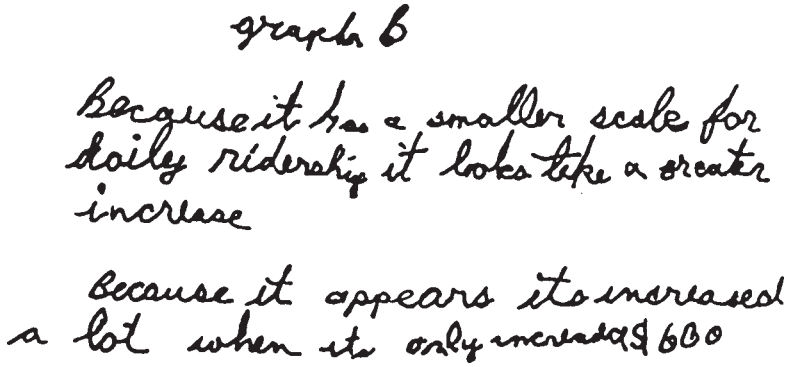
Explain your reason for making this selection.

Why might people who thought that there was little difference between October and March ticket sales consider the graph you chose to be misleading?

Sample question 6 is an extended constructed-response question classified in the data analysis, statistics, and probability strand. This question was one of the more difficult eighth-grade questions used in 1996. It required students to demonstrate skills that are both part of the junior high school mathematics curriculum and relevant to everyday life. It shows two accurately drawn graphs of the same data that appear to suggest very different conclusions. A complete answer to the question indicates ability to critically evaluate information presented in a graph. Students' responses were scored using a four-point scoring guide ("Unsatisfactory," "Partial," "Satisfactory," or "Complete"). A "Complete" response to this question received a score of 4 on the 4-point scale, while a "Satisfactory" response received a score of 3. Examples of both levels of response are shown below. Note that the sample "Complete" response appears to confuse 600 riders with $600, but it seems clear from the first part of the student's explanation that daily ridership was the focus.

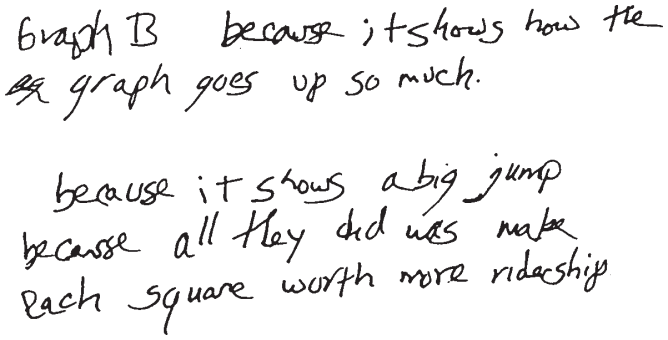
Sample "Complete" Response:

A "Complete" response to this question gives the correct response, Graph B, and provides a complete explanation.



Sample "Satisfactory" Response:

A "Satisfactory" response to this question gives the correct response, Graph B, but provides an incomplete but partially correct explanation.



Grade 12 Sample Question 7:

$4 \times \square = \square$ and $\square \times 3 = \square$

What number if placed in each box above would make both equations true?

- ● 0
- Ⓑ 1
- Ⓒ 2
- Ⓓ 3
- Ⓔ 4

Sample question 7 is a multiple-choice question classified in the algebra and functions strand. This question, a fairly easy one for twelfth-graders, required students to find a value that would make both equations true. To solve the problem, students could either use a formal algebraic solution process or simply substitute each of the choices until they found the correct answer.

Grade 12 Sample Question 8:

The two fair spinners shown above are part of a carnival game. A player wins a prize ony when both arrows land on black after each spinner has been spun once.

James thinks he has a 50-50 chance of winning. Do you agree?

Ⓐ Yes Ⓑ No

Justify your answer.

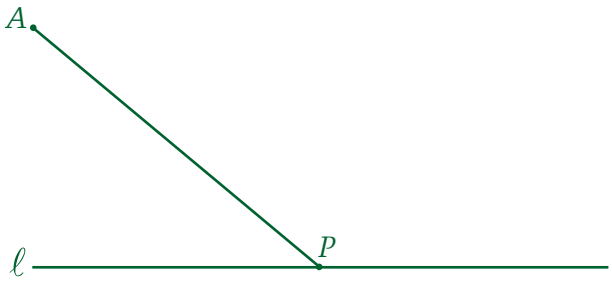
Sample question 8 is a short constructed-response question classified in the data, statistics, and probability strand. The question asks students to evaluate a person's chances of winning a game involving spinners. Students' responses were scored using a three-point scoring guide ("Unsatisfactory," "Partial," or "Satisfactory"). A "Satisfactory" answer is "No" because there are four equally likely outcomes: black, black; black, white; white, black; and white, white. Only black, black will win, so the actual chance of winning is 1 in 4 or 25 percent. No credit was given for a "No" response without any reasonable justification.

Sample "Satisfactory" Response:

He only has a 1/4 chance because you must multiply the 2 1/2 chances from each individual spinner.

Grade 12 Sample Question 9:

In the figure below, use the protractor to draw a line m through point P perpendicular to segment AP. In the answer space provided, give the measure of the smaller angle formed by lines ℓ and m.

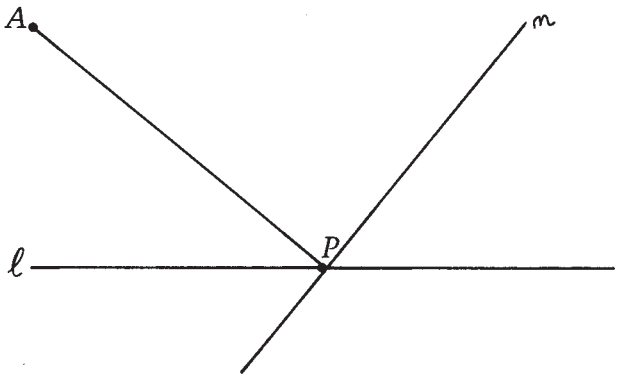


Answer: _____

Sample question 9 is a short constructed-response question classified in the geometry content strand. This question was scored as either "Incorrect" or "Correct," with no partial credit. In order to answer this question, students needed to draw a line perpendicular to the given line, and then measure one of the angles. This is an example of a NAEP question that requires students to use a tool, such as a protractor or ruler.

Sample "Satisfactory" Response

The following student's response received the highest score, Satisfactory. Both line m and the degree measure of the smaller angle are correct.



Answer: 50°

Appendix E
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