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ABSTRACT

This compendium presents eighth grade cross-state results of the National Assessment of Educational Progress (NAEP) 1996 state assessment in science along with national and regional results from the NAEP 1996 National Assessment in science without interpretations of the data. Tables of cross-state information for the variables discussed in the NAEP 1996 Science Report Card for the Nation and States and the NAEP 1996 Science State Report are included. This document is intended as a companion to the Science Report Card and the Science State Report. The results for the nation and regions of the country are based on the nationally and regionally representative samples of public and nonpublic school students assessed as part of the national NAEP program. Chapter 1 presents the results for the nation, the four regions, and the participating jurisdictions in the context of the overall average science scale scores and scale scores for the fields of science and the type of school. Chapter 2 presents scale score information for selected population subgroups. Chapters 3 through 7 contain results broken down by background information collected from students, teachers, and school characteristics. (DDR)

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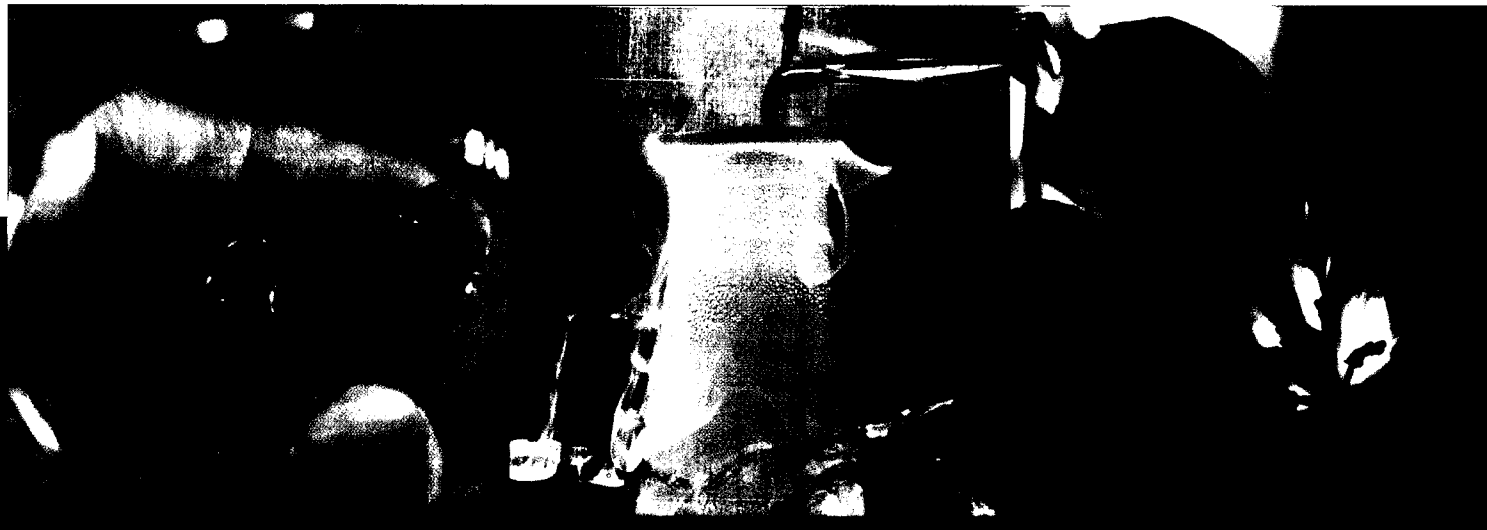
NAEP 1996 SCIENCE

Cross-State Data Compendium for the Grade 8 Assessment



Findings from the National Assessment of Educational Progress for the State Science Assessment

THE NATION'S REPORT CARD naep

U.S. Department of Education
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What is The Nation's Report Card?

THE NATION'S REPORT CARD, the National Assessment of Educational Progress (NAEP), is the only nationally representative and continuing assessment of what America's students know and can do in various subject areas. Since 1969, assessments have been conducted periodically in reading, mathematics, science, writing, history/geography, and other fields. By making objective information on student performance available to policymakers at the national, state, and local levels, NAEP is an integral part of our nation's evaluation of the condition and progress of education. Only information related to academic achievement is collected under this program. NAEP guarantees the privacy of individual students and their families.

NAEP is a congressionally mandated project of the National Center for Education Statistics, the U.S. Department of Education. The Commissioner of Education Statistics is responsible, by law, for carrying out the NAEP project through competitive awards to qualified organizations. NAEP reports directly to the Commissioner, who is also responsible for providing continuing reviews, including validation studies and solicitation of public comment, on NAEP's conduct and usefulness.

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The National Assessment Governing Board

NATIONAL CENTER FOR EDUCATION STATISTICS

NAEP 1996 Science Cross-State Data Compendium for the Grade 8 Assessment

Findings from the National Assessment of Educational Progress for the State Science Assessment

Kellie K. Keiser
Jennifer E. Nelson
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May 1998

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CHAPTER 5: Hands-On Science Tasks

CHAPTER 6: Influences Beyond School That Facilitate Learning Science

Introduction

The National Assessment of Educational Progress (NAEP) is a congressionally mandated project of the National Center for Education Statistics (NCES) that has, for more than a quarter of a century, continually collected and reported information on what American students know and can do. It is the nation's only ongoing, comparable, and representative assessment of student achievement. Its assessments are based on a national probability sample of public and nonpublic school students enrolled in grades 4, 8, or 12. Results are provided only for group performance. NAEP is forbidden by law to report results at an individual or school level. The assessment questions are written around a framework prepared for each content area — reading, writing, mathematics, science and others — that represents the consensus of groups of curriculum experts, educators, and members of the general public on what should be covered in such a test. In addition, students, their teachers, and their schools are asked to fill out questionnaires, to gather information on student demographics, teacher preparation, instructional practices, school policies, and out-of-school activities related to educational achievement.

In response to legislation passed by Congress in 1988, the NAEP program includes voluntary state-by-state assessments. This report presents grade 8 science results from the NAEP 1996 state assessment program. The state assessment program was initiated in 1990 on a trial basis with the assessment of mathematics achievement of eighth-grade students in public schools. The 1992 Trial State Assessment (TSA) assessed public school students in fourth- and eighth-grade mathematics and fourth-grade reading. In 1994, 44 jurisdictions participated in a fourth-grade reading assessment. Because of the positive evaluations of the 1990, 1992, and 1994 TSAs, the "trial" designation has been removed from the 1996 state-level NAEP assessment. The NAEP 1996 science state assessment program was comprised of a state-by-state science assessment of eighth-grade students enrolled in both public and nonpublic schools, with 47 jurisdictions participating in this assessment program.

Because the NAEP state assessments are voluntary, the participating jurisdictions have the final authority to release or withhold their results. In 1996 all jurisdictions gave permission to have their results released. To help ensure valid state-by-state results, the 1996 state assessment program continued the use of minimum school and student participation rate standards (see the Technical Appendix for details) for its reporting activities. Results are not reported for jurisdictions that failed to meet these standards. Three states — Nevada, New Hampshire, and New Jersey — did not meet the minimum school participation standards for public schools; therefore, their grade 8 public school results are not presented in this report. Several other states failed to meet a second set of more stringent participation rate guidelines

intended to alert the reader of the possibility of significant nonresponse bias. Results for these jurisdictions are included in the report and are noted in the relevant tables in the Technical Appendix. The participants included:

Figure 1.1 **Participating Jurisdictions in the NAEP 1996 State Assessment Program in Science, Grade 8**

THE NATION'S REPORT CARD naep

Alabama	Indiana	Nebraska	Texas
Alaska[b]	Iowa[b]	Nevada[a]	Utah
Arizona	Kentucky	New Hampshire[a]	Vermont[b]
Arkansas[b]	Louisiana	New Jersey[a]	Virginia
California	Maine	New Mexico	Washington
Colorado	Maryland[b]	New York[b]	West Virginia
Connecticut	Massachusetts	North Carolina	Wisconsin[b]
Delaware	Michigan[b]	North Dakota	Wyoming
District of Columbia	Minnesota	Oregon	DDESS
Florida	Mississippi	Rhode Island	DoDDS
Georgia	Missouri	South Carolina[b]	Guam
Hawaii	Montana[b]	Tennessee	

[a] Failed to meet the initial school participation rate of 70 percent for public schools; public school results not reported.

[b] Failed to meet one or more participation rate guidelines for public schools; public school results reported with appropriate notation.

This compendium presents eighth-grade cross-state results of the NAEP 1996 state assessment in science along with national and regional results from the NAEP 1996 National Assessment; no interpretations of the data are made in this document. It contains tables of cross-state information for the variables discussed in the *NAEP 1996 Science Report Card for the Nation and States* and the *NAEP 1996 Science State Report* and is intended to be used as a companion document to these reports. The results for the nation and the regions of the country are based on the nationally and regionally representative samples of public and nonpublic school students who were assessed as part of the national NAEP program. Using the regional and national results from the 1996 national NAEP program is necessary because of the voluntary nature of the state assessment program. Since not every state participated in the program, the aggregated data across states did not necessarily provide representative national and regional results. General information about the instrumentation, sampling, data collection, and analysis procedures for the state assessment program can be found in the NAEP 1996 individual state reports (Appendices A and C), in the Technical Appendix of this report, and in the Technical Report of the NAEP 1996 state assessment program in science.[1]

[1] Allen, N. L., Swinton, S. S., Isham, S. P., & Zelenak, C. A. (1997). *Technical report of the NAEP 1996 state assessment program in science.* Washington, DC: National Center for Education Statistics.

Chapter 1 presents the results for the nation, the four regions, and the participating jurisdictions in the context of the overall average science scale scores and scale scores for fields of science and type of school. Chapter 2 presents scale score information for selected population subgroups: gender, race/ethnicity, parents' highest education level, Title I participation and free/reduced-price lunch program eligibility.

Chapters 3 through 7 contain results by breakdowns of background information collected from the student, teacher, and school characteristics and policies questionnaires. In particular, school characteristics related to science instruction are examined in Chapter 3, and Chapter 4 reports on classroom practices related to science instruction. Chapter 5 reports on teacher and school activities related to the use of hands-on tasks in science instruction. Chapter 6 covers potential influences beyond school that facilitate learning science, and Chapter 7 pertains to teacher preparation.

How to Read the Tables in This Report

The title for each table indicates: (1) assessment year, grade, and school-type sample for which results are being presented; (2) the reported statistics (e.g. average scale scores or percentiles); and when appropriate, (3) the variables by which results are broken out. The abbreviation SS found in the column heading of the tables denotes average overall composite science scale score with the exception of Table 1.1, where it denotes the average overall scale score, as well as the scale scores for the indicated percentiles, and Table 1.2, where it denotes the average scale score for the fields of science. The standard error of the percentages and scale scores appears in parentheses and is abbreviated SE. The participating jurisdictions appear in the left margin, as follows: the nation and four regions of the United States; the participating states listed in alphabetical order; and other jurisdictions, including Department of Defense Domestic Dependent Elementary and Secondary Schools (DDESS), Department of Defense Dependents Schools (DoDDS), and Guam.

The results of the 1996 state assessment program provided in the report are based on state-level samples of eighth-grade public school students. The samples were selected based on a two-stage sample design selection of schools within participating states and selection of students within schools. The first-stage samples of schools were selected with probability proportional to the eighth-grade enrollments in the schools. Special procedures were used for states with many small schools, and for jurisdictions having a small number of schools. The national and regional results presented in this report are based on nationally representative probability samples of eighth-grade students. The sample was selected using a complex multistage sampling design involving the sampling of students from selected schools within selected geographic areas across the country.

Cautions in Interpretations

The reader is cautioned against making causal inferences related to population subgroup membership, background variables, effectiveness of public and nonpublic schools, and state educational systems. For example, differences observed among racial/ethnic subgroups can almost certainly be associated with a broad range of socioeconomic and educational factors not discussed in this report and possibly not addressed by the NAEP assessment program. Similarly, differences between public and nonpublic schools may be better understood after accounting for factors such as composition of the student body, parents' education levels, and parental interest. Finally, differences in science performance among states most likely reflect an interaction between the effectiveness of the educational programs within the state and the challenges posed by economic constraints and student demographic demands.

Chapter 1

Scale Scores for the Nation and the States

Overview

Chapter 1 contains the average overall science performance results of eighth grade students for the nation, each of the four regions, and each jurisdiction that participated in the 1996 state assessments in science.

Table 1.1 provides average overall science scale scores and selected percentiles for grade 8 students.

Table 1.2 represents the results by fields of science. The three fields of science are: Physical Science, Earth Science, and Life Science.

Table 1.3 presents overall science performance results for grade 8 public school, nonpublic school, and combined public and nonpublic school students.

TABLE 1.1 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Average Science Composite Scale Score and Selected Percentiles

THE NATION'S REPORT CARD — 1996 State Assessment

1996 NAEP grade 8 public school student science performance...	Average Mathematics Scale Score	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
JURISDICTIONS	SS (SE)	SS (SE)	SS (SE)	SS (SE)	SS (SE)	SS (SE)
Nation						
NATION	148 (0.9)	102 (1.6)	126 (1.3)	151 (0.9)	172 (1.1)	191 (1.3)
NORTHEAST	149 (2.9)	103 (4.8)	127 (4.5)	151 (3.0)	173 (4.0)	191 (3.0)
SOUTHEAST	141 (1.9)	96 (2.9)	118 (2.7)	143 (2.1)	165 (1.9)	183 (1.2)
CENTRAL	155 (2.7)	109 (3.4)	134 (6.0)	158 (3.8)	178 (2.7)	196 (2.3)
WEST	148 (2.2)	101 (3.3)	127 (3.1)	151 (2.0)	172 (1.7)	190 (3.7)
States						
ALABAMA	139 (1.6)	95 (2.3)	117 (1.5)	140 (1.8)	163 (1.8)	180 (1.8)
ALASKA†	153 (1.3)	111 (2.9)	133 (1.9)	156 (1.4)	175 (1.6)	192 (1.7)
ARIZONA	145 (1.6)	102 (2.9)	124 (2.3)	147 (1.7)	168 (1.7)	184 (2.5)
ARKANSAS†	144 (1.3)	100 (2.6)	123 (1.7)	147 (1.8)	168 (1.4)	184 (2.1)
CALIFORNIA	138 (1.7)	89 (1.6)	115 (3.3)	140 (1.9)	164 (1.8)	183 (1.4)
COLORADO	155 (0.9)	114 (1.9)	136 (1.2)	157 (1.0)	176 (1.4)	192 (0.9)
CONNECTICUT	155 (1.3)	110 (2.5)	135 (1.8)	158 (1.5)	179 (1.2)	195 (1.1)
DELAWARE	142 (0.8)	96 (2.9)	121 (1.8)	144 (0.9)	165 (0.8)	183 (0.9)
DISTRICT OF COLUMBIA	113 (0.7)	71 (3.2)	90 (1.8)	112 (1.0)	135 (1.4)	156 (1.7)
FLORIDA	142 (1.6)	98 (2.5)	120 (2.8)	144 (1.6)	166 (1.6)	184 (1.7)
GEORGIA	142 (1.4)	97 (2.8)	120 (1.4)	143 (1.4)	166 (1.9)	184 (1.7)
HAWAII	135 (0.7)	90 (1.9)	114 (1.5)	137 (0.9)	158 (0.9)	176 (1.5)
INDIANA	153 (1.4)	115 (2.0)	133 (1.6)	155 (1.2)	174 (1.7)	190 (1.9)
IOWA†	158 (1.2)	121 (1.2)	140 (1.5)	160 (1.0)	178 (1.0)	193 (0.7)
KENTUCKY	147 (1.2)	107 (2.7)	127 (1.6)	149 (1.3)	168 (1.1)	185 (1.2)
LOUISIANA	132 (1.6)	86 (2.4)	110 (2.1)	135 (1.4)	157 (2.2)	175 (2.7)
MAINE	163 (1.0)	128 (1.6)	145 (1.6)	164 (1.2)	182 (1.0)	196 (1.0)
MARYLAND†	145 (1.5)	99 (3.4)	123 (1.5)	148 (2.2)	170 (2.0)	189 (1.9)
MASSACHUSETTS	157 (1.4)	114 (2.6)	137 (2.5)	160 (2.0)	179 (1.0)	196 (1.3)
MICHIGAN†	153 (1.4)	111 (2.0)	133 (2.3)	156 (1.3)	176 (1.2)	192 (1.6)
MINNESOTA	159 (1.3)	121 (3.1)	140 (1.6)	161 (1.4)	179 (1.2)	194 (2.9)
MISSISSIPPI	133 (1.4)	91 (3.0)	111 (1.6)	134 (1.5)	155 (1.3)	174 (1.5)
MISSOURI	151 (1.2)	109 (2.7)	132 (1.8)	154 (1.1)	172 (1.2)	189 (1.6)
MONTANA†	162 (1.2)	127 (2.6)	146 (1.7)	164 (1.2)	180 (0.6)	194 (1.9)
NEBRASKA	157 (1.0)	118 (1.5)	139 (1.2)	159 (1.0)	178 (1.2)	193 (1.3)
NEW MEXICO	141 (1.0)	99 (1.0)	119 (1.7)	142 (1.3)	164 (1.3)	182 (1.7)
NEW YORK†	146 (1.6)	96 (2.9)	122 (2.5)	149 (2.0)	172 (1.4)	190 (1.3)
NORTH CAROLINA	147 (1.2)	104 (1.9)	125 (1.5)	148 (1.2)	169 (1.7)	187 (1.0)
NORTH DAKOTA	162 (0.8)	127 (1.3)	146 (1.5)	164 (0.7)	181 (1.1)	195 (1.0)
OREGON	155 (1.6)	115 (3.3)	136 (2.3)	157 (1.4)	176 (1.2)	192 (1.4)
RHODE ISLAND	149 (0.8)	108 (1.4)	129 (0.9)	150 (1.0)	171 (1.2)	189 (1.1)
SOUTH CAROLINA†	139 (1.5)	96 (2.2)	116 (1.9)	139 (1.8)	161 (1.9)	180 (1.9)
TENNESSEE	143 (1.8)	98 (3.4)	121 (2.3)	146 (1.8)	167 (1.2)	185 (2.1)
TEXAS	145 (1.8)	102 (2.5)	123 (2.6)	147 (1.7)	169 (1.7)	185 (1.6)
UTAH	156 (0.8)	120 (2.0)	138 (1.3)	158 (0.7)	175 (1.1)	190 (1.2)
VERMONT†	157 (1.0)	119 (2.2)	139 (1.5)	158 (1.2)	177 (1.4)	193 (2.3)
VIRGINIA	149 (1.6)	106 (3.1)	128 (2.6)	151 (2.8)	172 (1.8)	190 (2.1)
WASHINGTON	150 (1.3)	108 (2.3)	130 (2.2)	152 (1.5)	172 (1.6)	189 (1.4)
WEST VIRGINIA	147 (0.9)	112 (2.1)	129 (1.5)	148 (1.2)	166 (1.0)	182 (1.1)
WISCONSIN†	160 (1.7)	120 (2.8)	141 (1.9)	162 (1.6)	181 (1.0)	196 (1.0)
WYOMING	158 (0.6)	122 (1.3)	140 (0.8)	158 (0.8)	176 (0.8)	192 (0.8)
Other Jurisdictions						
DDESS	153 (1.1)	117 (2.4)	135 (1.5)	153 (1.6)	172 (1.9)	188 (2.1)
DoDDS	155 (0.7)	118 (0.9)	137 (1.4)	157 (0.9)	175 (1.0)	190 (0.9)
GUAM	120 (1.1)	74 (2.2)	96 (1.9)	121 (1.8)	146 (2.2)	165 (1.8)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 1.2 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Average Science Scale Scores by Fields of Science

THE NATION'S REPORT CARD — 1996 State Assessment

Field of science...	Physical Science	Earth Science	Life Science
JURISDICTIONS	SS (SE)	SS (SE)	SS (SE)
Nation			
NATION	149 (1.0)	149 (1.0)	148 (1.1)
NORTHEAST	149 (2.2)	146 (3.1)	152 (3.8)
SOUTHEAST	141 (2.2)	142 (2.2)	141 (2.0)
CENTRAL	157 (3.5)	156 (2.9)	154 (2.4)
WEST	148 (2.1)	149 (2.1)	147 (2.6)
States			
ALABAMA	138 (1.8)	138 (1.9)	139 (1.6)
ALASKA†	153 (1.5)	154 (1.3)	152 (1.3)
ARIZONA	144 (1.7)	145 (1.7)	145 (1.6)
ARKANSAS†	144 (1.5)	144 (1.3)	145 (1.6)
CALIFORNIA	137 (2.0)	139 (1.7)	138 (1.9)
COLORADO	155 (1.1)	156 (1.0)	153 (1.2)
CONNECTICUT	155 (1.3)	155 (1.5)	155 (1.5)
DELAWARE	142 (0.9)	142 (0.9)	141 (1.0)
DISTRICT OF COLUMBIA	112 (0.9)	112 (0.9)	114 (0.8)
FLORIDA	143 (1.7)	142 (1.9)	142 (1.7)
GEORGIA	140 (1.7)	142 (1.7)	143 (1.5)
HAWAII	135 (0.7)	135 (1.0)	135 (0.9)
INDIANA	154 (1.3)	153 (1.6)	153 (1.7)
IOWA†	159 (1.2)	160 (1.3)	156 (1.5)
KENTUCKY	146 (1.4)	148 (1.4)	148 (1.3)
LOUISIANA	131 (2.1)	132 (1.6)	134 (1.5)
MAINE	165 (1.4)	164 (1.1)	161 (1.2)
MARYLAND†	145 (1.6)	145 (1.8)	146 (1.6)
MASSACHUSETTS	157 (1.4)	156 (1.6)	157 (1.5)
MICHIGAN†	154 (1.6)	153 (1.7)	152 (1.5)
MINNESOTA	159 (1.4)	159 (1.5)	158 (1.4)
MISSISSIPPI	132 (1.6)	134 (1.6)	133 (1.6)
MISSOURI	151 (1.4)	152 (1.4)	151 (1.4)
MONTANA†	163 (1.2)	162 (1.3)	161 (1.5)
NEBRASKA	158 (1.1)	159 (1.1)	156 (1.3)
NEW MEXICO	142 (1.0)	142 (1.2)	140 (1.0)
NEW YORK†	146 (1.9)	144 (1.6)	147 (1.7)
NORTH CAROLINA	147 (1.3)	147 (1.2)	146 (1.4)
NORTH DAKOTA	162 (0.8)	163 (0.9)	162 (1.0)
OREGON	155 (1.6)	156 (1.6)	154 (1.8)
RHODE ISLAND	150 (0.8)	150 (1.1)	148 (0.9)
SOUTH CAROLINA†	138 (1.8)	139 (1.9)	139 (1.6)
TENNESSEE	143 (2.0)	143 (1.9)	144 (1.9)
TEXAS	145 (2.0)	147 (1.9)	144 (1.8)
UTAH	157 (1.0)	156 (0.9)	155 (1.1)
VERMONT†	159 (1.0)	157 (0.9)	156 (1.3)
VIRGINIA	150 (1.9)	148 (1.8)	150 (1.6)
WASHINGTON	150 (1.5)	150 (1.3)	148 (1.8)
WEST VIRGINIA	147 (1.3)	147 (0.9)	147 (1.2)
WISCONSIN†	160 (1.8)	161 (1.6)	159 (1.9)
WYOMING	159 (0.7)	157 (0.8)	156 (0.9)
Other Jurisdictions			
DDESS	152 (1.3)	154 (1.2)	153 (1.4)
DoDDS	155 (0.7)	156 (1.0)	154 (1.0)
GUAM	120 (1.1)	121 (1.4)	120 (1.2)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 1.3 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Students in Public, Nonpublic, and Combined Schools
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
BREAKDOWNS BY: Type of School

THE NATION'S REPORT CARD — 1996 State Assessment

Type of school...	Public Schools		Nonpublic Schools		All Schools	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	89 (1.4)	148 (0.9)	11 (1.4)	162 (2.5)	100 (...)	150 (0.9)
NORTHEAST	79 (5.1)	149 (2.9)	21 (5.1)	160 (4.9)!	100 (...)	151 (2.6)
SOUTHEAST	92 (2.3)	141 (1.9)	8 (2.3)	164 (3.6)!	100 (...)	143 (1.9)
CENTRAL	88 (2.8)	155 (2.7)	12 (2.8)	163 (2.0)!	100 (...)	156 (2.5)
WEST	94 (1.5)	148 (2.2)	6 (1.5)	165 (6.0)!	100 (...)	149 (2.2)
States						
ARKANSAS†	96 (1.1)	144 (1.3)	4 (1.1)	167 (4.4)!	100 (...)	145 (1.3)
CALIFORNIA†	92 (1.0)	138 (1.7)	8 (1.0)	161 (4.3)	100 (...)	140 (1.6)
GEORGIA	94 (1.8)	142 (1.4)	6 (1.8)	166 (5.2)!	100 (...)	143 (1.4)
IOWA†	91 (1.4)	158 (1.2)	9 (1.4)	167 (3.2)	100 (...)	159 (1.0)
KENTUCKY†	91 (1.3)	147 (1.2)	9 (1.3)	159 (3.7)	100 (...)	148 (1.1)
LOUISIANA†	83 (1.8)	132 (1.6)	17 (1.8)	156 (3.2)	100 (...)	136 (1.6)
MASSACHUSETTS†	85 (1.4)	157 (1.4)	15 (1.4)	161 (3.3)	100 (...)	157 (1.4)
MICHIGAN†	88 (1.0)	153 (1.4)	12 (1.0)	158 (4.0)	100 (...)	154 (1.4)
MINNESOTA†	92 (1.0)	159 (1.3)	8 (1.0)	166 (2.4)	100 (...)	159 (1.2)
MISSOURI	88 (1.7)	151 (1.2)	12 (1.7)	167 (4.2)	100 (...)	153 (1.2)
MONTANA	95 (1.1)	162 (1.2)	5 (1.1)	158 (8.6)!	100 (...)	162 (1.2)
NEBRASKA†	89 (1.4)	157 (1.0)	11 (1.4)	165 (2.5)	100 (...)	158 (1.0)
NEVADA	— (—)¤	— (—)¤	5 (1.2)	159 (7.0)!	— (—)¤	— (—)¤
NEW HAMPSHIRE	— (—)¤	— (—)¤	7 (1.3)	176 (3.6)	— (—)¤	— (—)¤
NEW MEXICO	93 (1.4)	141 (1.0)	7 (1.4)	164 (6.6)!	100 (...)	142 (1.4)
NEW YORK†	84 (1.5)	146 (1.6)	16 (1.5)	149 (4.7)	100 (...)	146 (1.4)
NORTH DAKOTA†	94 (1.4)	162 (0.8)	6 (1.4)	168 (4.5)!	100 (...)	162 (0.8)
TEXAS†	95 (0.8)	145 (1.8)	5 (0.8)	176 (9.2)	100 (...)	147 (1.8)
VERMONT†	95 (0.8)	157 (1.0)	5 (0.8)	168 (4.6)	100 (...)	158 (0.9)
WASHINGTON	93 (1.1)	150 (1.3)	7 (1.1)	165 (6.0)	100 (...)	151 (1.3)
Other Jurisdictions						
GUAM†	80 (0.8)	120 (1.1)	20 (0.8)	147 (1.8)	100 (...)	125 (0.9)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.
¤ Nevada and New Hampshire did not satisfy the 1996 public school participation rates necessary for reporting results (see Appendix A).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

Chapter 2

Scale Scores by Population Subgroups

Overview

Results for the nation and participating jurisdictions are provided in Chapter 2 for various population subgroups. This includes classifications by gender, race/ethnicity, parents' education level, Title I participation, and eligibility for the free/reduced-price lunch component of the National School Lunch Program (NSLP). There is one table for each of these demographic categories, presented in the order listed above.

The Title I legislation provides funds to state and local educational agencies to support projects aimed at assisting economically disadvantaged students attending public and nonpublic schools.[1] This information was first collected at the student level for the NAEP assessment in 1996. In previous NAEP assessments, principals and other school administrators were asked to report the percentage of students in their schools who received Title I services. Therefore, comparable results are not available from previous assessments.

The free/reduced-price lunch component of the NSLP is offered through the United States Department of Agriculture (USDA). Eligibility for this program is determined through the USDA's Income Eligibility Guidelines. NAEP first collected information on student-level eligibility for this federally funded program in 1996. Therefore, results are not available from previous assessments.

[1] As a result of the Elementary and Secondary Education Act reauthorized by Congress in 1994, the federal program formerly know as Chapter 1 was renamed Title I.

TABLE 2.1

1996 Science Assessment

THE NATION'S REPORT CARD 1996 State Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

BREAKDOWNS BY: Gender

What is your gender?	Male		Female	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation				
NATION	51 (1.2)	149 (1.1)	49 (1.2)	148 (1.2)
NORTHEAST	51 (4.5)	149 (2.5)	49 (4.5)	149 (5.2)
SOUTHEAST	49 (0.8)	142 (2.1)	51 (0.8)	140 (1.9)
CENTRAL	53 (2.1)	158 (3.1)	47 (2.1)	153 (2.8)
WEST	51 (1.7)	147 (2.2)	49 (1.7)	149 (2.6)
States				
ALABAMA	49 (0.9)	138 (2.0)	51 (0.9)	139 (1.7)
ALASKA†	50 (1.6)	155 (1.5)	50 (1.6)	150 (1.8)
ARIZONA	50 (1.1)	147 (1.8)	50 (1.1)	143 (1.7)
ARKANSAS†	50 (1.3)	147 (1.8)	50 (1.3)	142 (1.5)
CALIFORNIA	49 (0.9)	140 (2.0)	51 (0.9)	136 (1.9)
COLORADO	50 (1.1)	156 (1.2)	50 (1.1)	153 (1.1)
CONNECTICUT	49 (0.9)	156 (1.4)	51 (0.9)	155 (1.5)
DELAWARE	51 (1.2)	143 (1.4)	49 (1.2)	140 (1.0)
DISTRICT OF COLUMBIA	49 (1.3)	113 (1.2)	51 (1.3)	113 (1.4)
FLORIDA	53 (0.9)	144 (1.6)	47 (0.9)	140 (2.0)
GEORGIA	50 (1.0)	144 (1.8)	50 (1.0)	139 (1.5)
HAWAII	52 (1.3)	135 (1.0)	48 (1.3)	135 (1.0)
INDIANA	50 (1.1)	154 (1.7)	50 (1.1)	152 (1.5)
IOWA†	50 (1.1)	159 (1.3)	50 (1.1)	157 (1.4)
KENTUCKY	50 (1.3)	148 (1.5)	50 (1.3)	147 (1.3)
LOUISIANA	50 (1.0)	136 (1.9)	50 (1.0)	129 (1.7)
MAINE	48 (1.0)	165 (1.2)	52 (1.0)	161 (1.2)
MARYLAND†	51 (1.2)	146 (1.9)	49 (1.2)	145 (1.5)
MASSACHUSETTS	52 (1.0)	159 (1.7)	48 (1.0)	154 (1.5)
MICHIGAN†	50 (1.2)	156 (1.6)	50 (1.2)	150 (1.7)
MINNESOTA	50 (1.1)	161 (1.4)	50 (1.1)	157 (1.5)
MISSISSIPPI	50 (1.1)	134 (1.8)	50 (1.1)	132 (1.3)
MISSOURI	51 (1.1)	152 (1.3)	49 (1.1)	150 (1.3)
MONTANA†	49 (1.5)	164 (1.7)	51 (1.5)	160 (1.3)
NEBRASKA	50 (0.9)	160 (1.2)	50 (0.9)	155 (1.3)
NEW MEXICO	50 (1.0)	143 (1.3)	50 (1.0)	139 (1.1)
NEW YORK†	50 (1.0)	148 (2.5)	50 (1.0)	143 (1.3)
NORTH CAROLINA	50 (1.0)	149 (1.5)	50 (1.0)	145 (1.3)
NORTH DAKOTA	52 (0.9)	163 (0.9)	48 (0.9)	161 (0.9)
OREGON	49 (1.2)	157 (2.0)	51 (1.2)	153 (1.5)
RHODE ISLAND	50 (1.3)	150 (1.1)	50 (1.3)	148 (1.2)
SOUTH CAROLINA†	49 (1.1)	141 (1.9)	51 (1.1)	136 (1.5)
TENNESSEE	52 (1.3)	144 (2.0)	48 (1.3)	142 (2.1)
TEXAS	50 (1.1)	147 (1.6)	50 (1.1)	143 (2.4)
UTAH	48 (1.0)	159 (1.2)	52 (1.0)	154 (0.8)
VERMONT†	49 (1.4)	158 (1.3)	51 (1.4)	156 (1.1)
VIRGINIA	51 (1.1)	150 (1.7)	49 (1.1)	148 (1.7)
WASHINGTON	51 (1.0)	152 (1.6)	49 (1.0)	147 (1.4)
WEST VIRGINIA	51 (0.9)	148 (1.3)	49 (0.9)	147 (1.1)
WISCONSIN†	49 (1.2)	161 (1.9)	51 (1.2)	158 (1.7)
WYOMING	52 (1.1)	159 (1.0)	48 (1.1)	156 (0.9)
Other Jurisdictions				
DDESS	51 (1.9)	157 (1.6)	49 (1.9)	149 (1.6)
DoDDS	49 (1.0)	157 (1.1)	51 (1.0)	154 (0.9)
GUAM	50 (1.4)	120 (1.6)	50 (1.4)	120 (1.6)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 2.2 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
BREAKDOWNS BY: Race/Ethnicity

THE NATION'S REPORT CARD — 1996 State Assessment

Which best describes your race or your ethnic background?	White		Black		Hispanic		Asian/ Pacific Islander		American Indian	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation										
NATION	68 (0.4)	159 (1.1)	15 (0.3)	120 (1.2)	12 (0.3)	127 (1.8)	2 (0.3)	150 (3.3)	2 (0.3)	148 (4.2)
NORTHEAST	62 (5.5)	162 (2.6)	25 (3.8)	122 (1.9)!	10 (3.8)	132 (5.0)!	2 (0.8)	... (...)	2 (0.5)	... (...)
SOUTHEAST	65 (3.8)	153 (1.2)	26 (3.3)	116 (1.8)	8 (1.3)	126 (4.2)	1 (0.3)	... (...)	1 (0.4)	... (...)
CENTRAL	82 (1.9)	161 (2.9)	9 (1.9)	118 (5.5)!	5 (1.1)	129 (3.9)!	1 (0.5)	... (...)	2 (0.6)	... (...)
WEST	65 (2.9)	158 (2.0)	6 (1.3)	127 (2.5)!	21 (2.3)	127 (2.6)	4 (0.8)	147 (3.1)	2 (0.9)	152 (5.0)!
States										
ALABAMA	61 (1.9)	151 (1.5)	33 (1.9)	117 (1.8)	4 (0.4)	107 (7.6)	1 (0.3)	... (...)	2 (0.4)	... (...)
ALASKA†	66 (1.6)	162 (1.2)	4 (0.6)	... (...)	7 (0.8)	137 (4.6)	7 (1.0)	152 (3.8)	16 (1.4)	129 (3.4)
ARIZONA	57 (1.9)	157 (1.3)	4 (0.6)	124 (3.3)	31 (1.6)	129 (2.1)	2 (0.4)	... (...)	6 (1.5)	121 (8.6)!
ARKANSAS†	73 (1.9)	154 (1.5)	20 (1.7)	116 (2.5)	4 (0.6)	122 (5.8)	1 (0.4)	... (...)	1 (0.3)	... (...)
CALIFORNIA	38 (2.1)	156 (1.7)	7 (1.0)	121 (3.4)	39 (1.8)	121 (1.9)	13 (1.4)	148 (3.6)	2 (0.3)	... (...)
COLORADO	70 (1.3)	162 (0.8)	5 (0.8)	142 (2.2)	20 (1.2)	135 (2.3)	3 (0.5)	155 (4.8)	3 (0.4)	142 (4.3)
CONNECTICUT	75 (1.4)	165 (1.0)	10 (1.3)	121 (4.4)	11 (0.9)	122 (2.6)	3 (0.4)	163 (3.7)	1 (0.2)	... (...)
DELAWARE	64 (1.2)	152 (0.8)	26 (1.0)	122 (1.8)	7 (0.7)	116 (4.1)	2 (0.3)	... (...)	2 (0.3)	... (...)
DISTRICT OF COLUMBIA	3 (0.3)	... (...)	83 (0.9)	112 (0.9)	11 (0.8)	98 (3.3)	1 (0.4)	... (...)	1 (0.2)	... (...)
FLORIDA	55 (2.1)	155 (1.5)	20 (2.0)	119 (2.7)	22 (2.0)	129 (2.2)	2 (0.4)	... (...)	1 (0.2)	... (...)
GEORGIA	56 (2.3)	155 (1.2)	36 (2.4)	122 (1.4)	5 (0.4)	128 (4.2)	2 (0.4)	... (...)	1 (0.3)	... (...)
HAWAII	17 (0.7)	146 (1.8)	3 (0.4)	128 (4.4)	22 (0.8)	121 (1.8)	54 (1.3)	138 (1.1)	2 (0.3)	... (...)
INDIANA	81 (1.8)	158 (1.3)	11 (1.4)	125 (3.3)	5 (0.7)	139 (2.1)	1 (0.2)	... (...)	2 (0.4)	... (...)
IOWA†	91 (1.0)	160 (1.1)	3 (0.6)	131 (3.6)	3 (0.5)	140 (4.6)	2 (0.3)	... (...)	1 (0.2)	... (...)
KENTUCKY	86 (0.9)	151 (1.1)	9 (0.8)	127 (2.7)	3 (0.4)	113 (6.2)	1 (0.2)	... (...)	1 (0.2)	... (...)
LOUISIANA	55 (1.8)	148 (1.3)	37 (1.7)	113 (2.1)	6 (0.6)	104 (5.7)	1 (0.3)	... (...)	1 (0.3)	... (...)
MAINE	92 (0.7)	164 (0.9)	1 (0.2)	... (...)	3 (0.5)	141 (4.6)	1 (0.3)	... (...)	2 (0.3)	... (...)
MARYLAND†	56 (2.0)	160 (1.4)	32 (2.1)	124 (1.4)	6 (0.6)	121 (4.1)	4 (0.6)	161 (3.6)	2 (0.3)	... (...)
MASSACHUSETTS	81 (1.7)	163 (1.2)	6 (1.0)	126 (3.3)	8 (0.7)	126 (3.9)	4 (0.8)	152 (7.3)!	1 (0.2)	... (...)
MICHIGAN†	76 (2.0)	161 (1.4)	15 (1.9)	122 (2.4)	4 (0.4)	134 (4.9)	2 (0.5)	... (...)	2 (0.3)	... (...)
MINNESOTA	86 (1.9)	162 (1.2)	4 (0.8)	130 (4.4)!	4 (0.6)	134 (5.3)	4 (0.9)	152 (9.7)!	2 (0.5)	... (...)
MISSISSIPPI	50 (2.1)	149 (1.2)	44 (1.9)	119 (1.4)	6 (0.6)	105 (3.8)	0 (0.1)	... (...)	1 (0.2)	... (...)
MISSOURI	78 (1.5)	158 (1.0)	13 (1.3)	120 (2.8)	5 (0.6)	130 (5.0)	1 (0.3)	... (...)	2 (0.4)	... (...)
MONTANA†	83 (1.9)	166 (0.9)	1 (0.1)	... (...)	5 (0.5)	147 (2.7)	1 (0.2)	... (...)	10 (1.7)	139 (2.7)
NEBRASKA	85 (1.2)	161 (0.9)	5 (0.6)	130 (3.1)	7 (0.9)	134 (3.1)	1 (0.2)	... (...)	2 (0.3)	... (...)
NEW MEXICO	38 (1.5)	159 (1.0)	3 (0.4)	... (...)	51 (1.5)	130 (1.1)	1 (0.2)	... (...)	8 (0.6)	126 (2.4)
NEW YORK†	60 (2.6)	161 (1.4)	17 (2.0)	120 (1.9)	16 (1.2)	116 (2.7)	5 (0.9)	155 (5.4)	2 (0.5)	... (...)
NORTH CAROLINA	65 (2.0)	157 (1.1)	27 (1.3)	126 (1.4)	4 (0.5)	123 (3.6)	1 (0.3)	... (...)	3 (1.4)	136 (4.1)!
NORTH DAKOTA	92 (0.8)	164 (0.8)	1 (0.2)	... (...)	4 (0.4)	137 (4.5)	1 (0.2)	... (...)	3 (0.7)	137 (6.9)!
OREGON	82 (1.5)	158 (1.4)	2 (0.5)	... (...)	8 (1.0)	133 (3.7)	4 (0.5)	157 (3.3)	4 (0.8)	142 (7.9)
RHODE ISLAND	77 (0.8)	155 (0.9)	5 (0.5)	130 (2.8)	12 (0.5)	118 (1.8)	4 (0.4)	142 (3.1)	1 (0.2)	... (...)
SOUTH CAROLINA†	51 (1.9)	153 (1.6)	40 (1.9)	122 (1.6)	6 (0.6)	122 (4.1)	1 (0.3)	... (...)	2 (0.3)	... (...)
TENNESSEE	77 (1.5)	151 (1.7)	17 (1.5)	117 (3.1)	3 (0.5)	104 (6.2)	1 (0.2)	... (...)	1 (0.3)	... (...)
TEXAS	48 (1.9)	161 (1.2)	12 (1.3)	127 (2.4)	36 (2.1)	129 (2.7)	3 (0.5)	157 (3.6)	1 (0.2)	... (...)
UTAH	87 (1.0)	159 (0.7)	1 (0.2)	... (...)	8 (0.7)	133 (2.9)	3 (0.4)	143 (3.2)	1 (0.3)	... (...)
VERMONT†	90 (0.9)	159 (0.9)	1 (0.3)	... (...)	4 (0.5)	136 (3.4)	1 (0.3)	... (...)	3 (0.5)	... (...)
VIRGINIA	64 (2.0)	158 (1.4)	24 (1.9)	126 (2.3)	5 (0.6)	132 (4.2)	5 (0.6)	165 (3.2)	1 (0.3)	... (...)
WASHINGTON	74 (1.9)	156 (1.1)	4 (0.7)	127 (4.2)	10 (1.1)	125 (3.5)	7 (0.9)	149 (3.3)	4 (0.6)	130 (4.3)
WEST VIRGINIA	90 (0.7)	149 (0.9)	4 (0.5)	127 (3.2)	3 (0.3)	122 (4.3)	1 (0.2)	... (...)	2 (0.3)	... (...)
WISCONSIN†	83 (1.5)	165 (1.1)	6 (1.1)	115 (5.3)	6 (0.7)	141 (4.6)	2 (0.4)	... (...)	2 (0.5)	... (...)
WYOMING	84 (0.8)	161 (0.6)	1 (0.2)	... (...)	11 (0.6)	140 (1.9)	1 (0.2)	... (...)	4 (0.4)	138 (2.5)
Other Jurisdictions										
DDESS	47 (1.7)	162 (1.7)	22 (1.5)	137 (2.5)	24 (1.3)	149 (2.4)	3 (0.9)	... (...)	2 (0.5)	... (...)
DoDDS	45 (0.9)	164 (1.2)	19 (0.8)	140 (1.2)	17 (0.8)	146 (1.6)	14 (0.7)	156 (1.4)	2 (0.3)	... (...)
GUAM	8 (0.9)	138 (4.6)	3 (0.6)	... (...)	19 (1.3)	106 (2.9)	69 (1.6)	122 (1.4)	0 (0.2)	... (...)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 2.3

1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

BREAKDOWNS BY: Parents' Education Level

THE NATION'S REPORT CARD naep 1996 State Assessment

What is the highest level of education either your mother or father obtained?	Did Not Finish High School		High School Graduate		Some Education After High School		College Graduate		I Don't Know	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation										
NATION	7 (0.5)	131 (2.0)	21 (1.0)	140 (1.5)	20 (0.7)	155 (1.2)	42 (1.3)	157 (1.3)	10 (0.6)	133 (2.6)
NORTHEAST	5 (1.4)	... (...)	23 (3.6)	148 (3.6)	19 (1.3)	152 (3.8)	42 (2.4)	154 (4.7)	10 (2.4)	138 (10.3)!
SOUTHEAST	10 (0.6)	133 (2.6)	26 (2.0)	134 (2.9)	19 (1.5)	147 (2.3)	37 (2.1)	150 (2.0)	8 (0.7)	124 (3.1)
CENTRAL	5 (0.8)	... (...)	20 (1.8)	143 (3.2)	21 (1.8)	163 (3.6)	45 (3.0)	163 (2.6)	9 (1.1)	144 (4.8)
WEST	7 (0.9)	127 (3.6)	18 (0.9)	138 (2.1)	21 (1.6)	156 (1.9)	44 (2.3)	159 (2.7)	10 (0.9)	127 (2.9)
States										
ALABAMA	8 (0.7)	130 (3.0)	25 (1.0)	129 (2.0)	18 (0.9)	145 (1.7)	42 (1.9)	147 (2.3)	8 (0.7)	122 (2.7)
ALASKA†	4 (0.7)	... (...)	15 (1.2)	141 (3.1)	24 (1.3)	155 (1.5)	46 (1.4)	163 (1.3)	11 (1.0)	132 (4.1)
ARIZONA	9 (0.8)	121 (3.1)	17 (1.2)	136 (2.1)	22 (1.0)	151 (1.7)	40 (1.8)	158 (1.4)	12 (0.9)	128 (2.6)
ARKANSAS†	9 (1.0)	129 (3.3)	25 (1.2)	136 (1.9)	24 (1.1)	150 (1.9)	33 (1.7)	154 (2.0)	10 (0.7)	133 (4.2)
CALIFORNIA	10 (0.9)	118 (2.7)	17 (1.1)	129 (2.5)	16 (0.9)	144 (2.0)	40 (1.9)	153 (2.0)	17 (1.1)	118 (2.8)
COLORADO	5 (0.5)	133 (3.9)	16 (0.9)	142 (1.9)	20 (1.0)	157 (1.6)	51 (1.5)	163 (0.9)	8 (0.6)	136 (2.3)
CONNECTICUT	5 (0.5)	129 (3.8)	18 (1.0)	140 (2.3)	18 (0.8)	155 (1.7)	52 (1.4)	167 (1.2)	9 (0.5)	132 (2.9)
DELAWARE	5 (0.6)	121 (4.5)	26 (1.1)	135 (1.8)	20 (1.0)	146 (1.4)	41 (1.2)	151 (1.4)	9 (0.8)	122 (4.9)
DISTRICT OF COLUMBIA	6 (0.6)	106 (3.1)	27 (1.1)	107 (1.8)	16 (0.7)	120 (2.5)	37 (1.2)	121 (1.6)	14 (1.0)	100 (2.2)
FLORIDA	7 (0.7)	127 (3.4)	19 (1.1)	132 (2.3)	21 (1.1)	148 (1.5)	42 (1.4)	150 (2.0)	11 (0.8)	127 (2.5)
GEORGIA	8 (0.7)	127 (2.4)	24 (1.3)	129 (2.1)	19 (1.0)	145 (1.6)	43 (2.0)	153 (2.2)	7 (0.5)	128 (2.8)
HAWAII	4 (0.4)	119 (5.3)	24 (1.0)	120 (2.3)	18 (0.9)	139 (1.9)	39 (0.9)	147 (1.1)	15 (1.0)	129 (1.9)
INDIANA	5 (0.5)	139 (2.9)	27 (1.1)	144 (1.9)	21 (1.2)	156 (1.7)	41 (1.9)	162 (1.9)	6 (0.6)	135 (3.8)
IOWA†	4 (0.5)	141 (3.4)	20 (1.0)	150 (1.5)	20 (0.8)	160 (1.7)	48 (1.5)	165 (1.2)	8 (0.7)	141 (3.5)
KENTUCKY	11 (0.6)	130 (2.1)	27 (1.1)	143 (1.5)	23 (1.0)	151 (1.6)	32 (1.5)	158 (1.8)	8 (0.5)	134 (2.6)
LOUISIANA	9 (0.6)	123 (3.1)	29 (1.1)	128 (1.9)	20 (0.8)	141 (2.1)	35 (1.5)	136 (2.3)	8 (0.6)	124 (3.0)
MAINE	4 (0.6)	141 (2.9)	20 (1.1)	153 (1.5)	22 (1.1)	164 (1.7)	48 (1.5)	171 (1.1)	6 (0.6)	148 (2.6)
MARYLAND†	5 (0.5)	126 (3.6)	20 (1.2)	136 (2.0)	18 (0.8)	147 (2.0)	48 (1.7)	153 (2.0)	8 (0.6)	134 (2.6)
MASSACHUSETTS	4 (0.5)	134 (4.7)	17 (1.0)	145 (2.4)	16 (0.9)	156 (2.0)	56 (1.8)	166 (1.3)	8 (0.7)	134 (2.8)
MICHIGAN†	4 (0.5)	137 (5.3)	20 (1.0)	144 (2.0)	21 (1.1)	156 (1.6)	46 (1.7)	161 (1.7)	9 (0.7)	135 (3.2)
MINNESOTA	3 (0.3)	137 (4.5)	18 (1.1)	151 (1.8)	22 (1.1)	161 (1.7)	50 (1.8)	165 (1.4)	7 (0.6)	142 (3.9)
MISSISSIPPI	8 (0.6)	125 (2.5)	24 (0.9)	126 (1.9)	16 (0.7)	142 (1.8)	42 (1.3)	138 (1.9)	10 (0.5)	119 (2.6)
MISSOURI	7 (0.6)	136 (2.8)	25 (1.1)	144 (1.6)	21 (1.0)	156 (1.4)	39 (1.5)	159 (1.3)	7 (0.6)	135 (3.2)
MONTANA†	5 (0.5)	139 (3.1)	19 (1.4)	155 (2.2)	22 (0.8)	164 (1.5)	48 (1.4)	168 (1.3)	6 (0.6)	147 (3.6)
NEBRASKA	4 (0.5)	133 (2.8)	20 (0.9)	148 (1.8)	18 (0.8)	161 (1.5)	50 (1.1)	165 (1.2)	8 (0.6)	136 (2.8)
NEW MEXICO	9 (0.7)	119 (2.4)	21 (0.9)	131 (1.8)	20 (0.6)	147 (1.5)	39 (1.2)	154 (1.2)	10 (0.7)	125 (2.3)
NEW YORK†	6 (0.7)	123 (5.4)	16 (0.9)	138 (3.6)	19 (1.1)	147 (2.0)	49 (1.4)	157 (1.7)	11 (0.8)	124 (2.4)
NORTH CAROLINA	7 (0.5)	126 (2.6)	22 (1.1)	134 (1.7)	21 (0.8)	150 (1.7)	42 (1.5)	158 (1.4)	8 (0.7)	133 (2.3)
NORTH DAKOTA	3 (0.4)	148 (3.7)	16 (0.8)	157 (1.9)	18 (0.8)	160 (1.6)	57 (1.0)	167 (0.9)	6 (0.6)	146 (3.5)
OREGON	6 (0.7)	137 (3.1)	16 (1.0)	143 (2.0)	22 (1.0)	157 (1.5)	47 (1.6)	164 (1.7)	9 (0.9)	135 (4.1)
RHODE ISLAND	8 (0.6)	123 (2.7)	17 (0.9)	141 (1.9)	18 (0.9)	154 (1.8)	45 (1.3)	160 (1.0)	12 (0.8)	130 (2.6)
SOUTH CAROLINA†	7 (0.7)	125 (3.7)	26 (1.3)	127 (1.8)	17 (1.0)	145 (2.1)	41 (1.5)	148 (2.1)	9 (0.7)	127 (3.0)
TENNESSEE	10 (0.8)	127 (2.4)	28 (1.4)	135 (2.2)	21 (0.9)	149 (2.2)	36 (1.9)	154 (2.2)	6 (0.6)	129 (3.6)
TEXAS	13 (0.9)	128 (2.0)	19 (1.0)	137 (2.4)	19 (1.0)	152 (1.8)	39 (1.5)	157 (1.5)	10 (0.8)	125 (3.3)
UTAH	2 (0.4)	129 (5.9)	15 (0.9)	147 (1.5)	20 (0.8)	156 (1.5)	54 (1.0)	162 (0.8)	8 (0.4)	138 (1.9)
VERMONT†	5 (0.6)	132 (4.3)	23 (1.3)	146 (1.5)	17 (0.9)	157 (1.8)	50 (1.4)	167 (1.1)	6 (0.6)	143 (3.4)
VIRGINIA	7 (0.7)	127 (2.8)	20 (1.1)	136 (2.1)	18 (0.7)	152 (1.9)	47 (1.6)	161 (1.9)	8 (0.8)	137 (3.5)
WASHINGTON	6 (0.8)	128 (4.2)	15 (0.9)	141 (2.3)	21 (0.7)	154 (1.7)	48 (1.6)	158 (1.4)	11 (0.9)	133 (3.2)
WEST VIRGINIA	9 (0.6)	130 (2.3)	29 (1.1)	142 (1.2)	21 (0.8)	152 (1.3)	33 (1.0)	156 (1.3)	7 (0.5)	134 (2.8)
WISCONSIN†	4 (0.4)	140 (4.3)	23 (1.3)	155 (2.3)	24 (1.0)	161 (1.8)	40 (1.7)	169 (1.6)	8 (0.7)	138 (3.6)
WYOMING	5 (0.4)	139 (2.7)	18 (0.7)	150 (1.3)	23 (1.0)	159 (1.3)	46 (1.0)	165 (0.9)	8 (0.6)	143 (3.1)
Other Jurisdictions										
DDESS	3 (0.8)	... (...)	15 (1.5)	142 (3.0)	24 (1.5)	153 (2.0)	51 (2.3)	158 (1.7)	7 (1.2)	... (...)
DoDDS	1 (0.2)	... (...)	12 (0.8)	144 (1.9)	23 (0.8)	159 (1.3)	53 (1.0)	158 (1.0)	10 (0.7)	146 (2.0)
GUAM	7 (0.9)	106 (3.6)	28 (1.6)	113 (2.0)	17 (0.9)	130 (2.4)	34 (1.5)	128 (2.1)	14 (1.3)	110 (3.3)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

... Characteristics of the sample do not permit a reliable estimate.

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 2.4 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
BREAKDOWNS BY: Title I Participation

THE NATION'S REPORT CARD — 1996 State Assessment

Title I participation...	Participated		Did Not Participate	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation				
NATION	13 (2.3)	127 (4.9)	87 (2.3)	152 (1.2)
NORTHEAST	15 (8.5)	132 (20.3)!	85 (8.5)	152 (3.7)
SOUTHEAST	13 (3.0)	113 (3.3)!	87 (3.0)	145 (2.0)
CENTRAL	8 (2.7)	120 (6.7)!	92 (2.7)	159 (3.3)
WEST	15 (4.3)	134 (6.6)!	85 (4.3)	151 (2.2)
States				
ALABAMA	16 (2.5)	117 (3.3)	84 (2.5)	143 (1.7)
ALASKA†	4 (1.8)	... (...)	96 (1.8)	155 (1.2)
ARIZONA	16 (2.5)	125 (4.2)	84 (2.5)	149 (1.7)
ARKANSAS†	17 (2.3)	124 (3.3)	83 (2.3)	148 (1.6)
CALIFORNIA	26 (3.2)	112 (2.6)	74 (3.2)	147 (1.6)
COLORADO	2 (0.6)	... (...)	98 (0.6)	155 (0.8)
CONNECTICUT	4 (1.1)	127 (3.6)!	96 (1.1)	156 (1.4)
DELAWARE	0 (0.1)	... (...)	100 (0.1)	142 (0.8)
DISTRICT OF COLUMBIA	15 (0.7)	101 (2.9)	85 (0.7)	115 (0.8)
FLORIDA	9 (2.8)	115 (5.5)!	91 (2.8)	145 (1.4)
GEORGIA	11 (1.3)	115 (4.5)	89 (1.3)	145 (1.6)
HAWAII	8 (0.5)	111 (1.8)	92 (0.5)	137 (0.8)
INDIANA	2 (0.7)	... (...)	98 (0.7)	154 (1.3)
IOWA†	1 (0.4)	... (...)	99 (0.4)	158 (1.2)
KENTUCKY	20 (2.3)	132 (2.1)	80 (2.3)	151 (1.3)
LOUISIANA	14 (2.4)	119 (4.0)	86 (2.4)	135 (1.7)
MAINE	4 (0.8)	143 (2.7)	96 (0.8)	164 (1.0)
MARYLAND†	2 (0.8)	... (...)	98 (0.8)	146 (1.4)
MASSACHUSETTS	11 (1.8)	125 (3.8)	89 (1.8)	161 (1.5)
MICHIGAN†	15 (1.9)	129 (4.7)	85 (1.9)	157 (1.6)
MINNESOTA	3 (0.7)	131 (5.7)!	97 (0.7)	159 (1.4)
MISSISSIPPI	33 (3.0)	120 (2.1)	67 (3.0)	139 (1.6)
MISSOURI	8 (1.4)	116 (5.2)	92 (1.4)	154 (1.0)
MONTANA†	9 (1.1)	137 (2.7)	91 (1.1)	164 (1.3)
NEBRASKA	2 (0.7)	... (...)	98 (0.7)	158 (1.0)
NEW MEXICO	15 (1.7)	117 (2.2)	85 (1.7)	145 (0.9)
NEW YORK†	16 (2.6)	115 (3.2)	84 (2.6)	152 (1.8)
NORTH CAROLINA	6 (2.0)	123 (4.1)!	94 (2.0)	148 (1.2)
NORTH DAKOTA	6 (0.8)	129 (3.1)	94 (0.8)	164 (0.7)
OREGON	4 (0.9)	128 (4.3)	96 (0.9)	156 (1.5)
RHODE ISLAND	9 (0.5)	115 (2.0)	91 (0.5)	152 (0.8)
SOUTH CAROLINA†	8 (2.7)	123 (3.9)!	92 (2.7)	140 (1.5)
TENNESSEE	5 (2.0)	112 (7.0)!	95 (2.0)	145 (1.9)
TEXAS	22 (2.8)	124 (2.1)	78 (2.8)	151 (2.2)
UTAH	3 (0.6)	121 (4.5)	97 (0.6)	157 (0.8)
VERMONT†	6 (0.8)	131 (3.1)	94 (0.8)	159 (0.9)
VIRGINIA	1 (0.4)	... (...)	99 (0.4)	150 (1.6)
WASHINGTON	8 (1.4)	128 (5.4)	92 (1.4)	151 (1.2)
WEST VIRGINIA	8 (1.6)	125 (3.2)!	92 (1.6)	149 (0.9)
WISCONSIN†	9 (2.3)	120 (5.8)!	91 (2.3)	164 (1.1)
WYOMING	4 (0.4)	135 (2.0)	96 (0.4)	158 (0.7)
Other Jurisdictions				
DDESS	0 (...)	... (...)	100 (...)	153 (1.1)
DoDDS	2 (0.3)	... (...)	98 (0.3)	155 (0.7)
GUAM	0 (...)	... (...)	100 (...)	120 (1.1)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 2.5 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
BREAKDOWNS BY: Free/Reduced-Price Lunch Program Eligibility

THE NATION'S REPORT CARD 1996 State Assessment

Free/reduced-price lunch program eligibility...	Eligible		Not Eligible		Information Not Available	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	29 (1.6)	133 (1.7)	51 (3.6)	155 (1.3)	20 (4.4)	154 (3.6)!
NORTHEAST	43 (3.0)	138 (3.0)	56 (3.2)	158 (4.2)	1 (0.4)	... (...)
SOUTHEAST	32 (4.3)	122 (2.0)	41 (7.5)	150 (1.6)!	26 (9.9)	152 (3.4)!
CENTRAL	20 (3.5)	137 (4.9)	62 (7.4)	160 (3.2)	18 (9.5)	159 (5.7)!
WEST	25 (3.1)	134 (3.2)	47 (6.9)	152 (1.7)	28 (8.6)	154 (7.6)!
States						
ALABAMA	39 (1.9)	121 (1.9)	58 (2.0)	150 (1.7)	3 (1.2)	151 (9.3)!
ALASKA†	20 (1.6)	131 (3.7)	34 (1.4)	157 (1.7)	47 (1.8)	159 (1.8)
ARIZONA	28 (2.5)	127 (2.8)	52 (3.7)	155 (1.7)	20 (3.9)	144 (2.0)
ARKANSAS†	33 (1.8)	128 (1.7)	60 (2.8)	152 (1.3)	6 (3.1)	155 (9.0)!
CALIFORNIA	36 (2.6)	120 (2.0)	47 (3.0)	152 (2.0)	17 (3.1)	137 (4.0)
COLORADO	24 (1.8)	137 (1.9)	65 (2.5)	160 (1.0)	11 (2.5)	157 (3.1)!
CONNECTICUT	21 (1.5)	127 (3.3)	74 (2.1)	163 (1.1)	5 (1.6)	154 (10.9)!
DELAWARE	22 (1.1)	119 (2.3)	56 (1.0)	152 (0.9)	22 (0.4)	137 (1.4)
DISTRICT OF COLUMBIA	55 (1.2)	107 (1.2)	30 (0.9)	124 (1.8)	15 (0.8)	114 (2.3)
FLORIDA	39 (1.9)	127 (1.9)	53 (2.9)	154 (1.5)	8 (2.6)	138 (5.0)!
GEORGIA	32 (2.3)	124 (1.6)	54 (2.7)	151 (1.6)	14 (3.5)	146 (5.7)!
HAWAII	29 (1.0)	125 (1.7)	66 (1.0)	141 (0.9)	5 (0.3)	115 (2.1)
INDIANA	21 (1.5)	136 (2.3)	79 (1.6)	158 (1.3)	1 (0.3)	... (...)
IOWA†	21 (1.3)	144 (1.9)	73 (2.4)	162 (1.2)	6 (2.2)	155 (2.7)!
KENTUCKY	34 (2.1)	135 (1.6)	59 (2.3)	155 (1.3)	7 (2.5)	142 (3.3)!
LOUISIANA	48 (2.1)	121 (1.9)	45 (1.9)	145 (1.5)	7 (2.0)	128 (7.5)!
MAINE	24 (1.3)	152 (1.7)	71 (1.8)	167 (1.0)	5 (1.8)	164 (3.4)!
MARYLAND†	26 (1.9)	122 (2.1)	69 (2.6)	154 (1.7)	5 (2.2)	143 (6.6)!
MASSACHUSETTS	18 (1.5)	133 (1.8)	73 (3.0)	164 (1.2)	9 (2.8)	149 (6.8)!
MICHIGAN†	19 (1.8)	139 (1.9)	66 (3.8)	159 (1.5)	14 (4.2)	144 (8.3)!
MINNESOTA	20 (1.5)	145 (2.4)	64 (3.1)	162 (1.1)	16 (3.1)	162 (5.0)
MISSISSIPPI	52 (1.9)	121 (1.5)	42 (2.0)	148 (1.5)	6 (2.5)	134 (5.6)!
MISSOURI	27 (1.6)	138 (1.9)	65 (2.6)	157 (1.0)	8 (2.7)	144 (8.0)!
MONTANA†	25 (1.8)	150 (2.0)	60 (2.8)	166 (1.2)	16 (2.8)	165 (1.9)
NEBRASKA	27 (1.6)	144 (1.6)	69 (1.8)	162 (0.9)	5 (1.0)	161 (5.3)!
NEW MEXICO	41 (1.5)	130 (1.5)	43 (1.9)	151 (1.1)	16 (1.5)	143 (2.4)
NEW YORK†	37 (2.3)	124 (1.9)	54 (2.8)	159 (1.8)	9 (2.6)	153 (7.1)!
NORTH CAROLINA	31 (1.8)	128 (1.4)	62 (2.1)	156 (1.2)	8 (2.4)	144 (3.4)!
NORTH DAKOTA	20 (1.1)	157 (1.5)	70 (1.7)	165 (0.7)	10 (1.6)	155 (3.6)
OREGON	23 (1.5)	145 (2.0)	64 (3.0)	159 (1.5)	13 (3.0)	151 (5.6)!
RHODE ISLAND	25 (0.8)	131 (1.4)	71 (0.7)	157 (0.9)	4 (0.2)	125 (3.1)
SOUTH CAROLINA†	45 (2.2)	126 (1.8)	54 (2.0)	149 (1.4)	1 (...)	... (...)
TENNESSEE	28 (2.3)	125 (2.4)	64 (2.5)	151 (2.0)	8 (2.3)	144 (5.3)!
TEXAS	37 (2.2)	130 (1.7)	56 (2.6)	157 (1.3)	6 (2.0)	127 (15.1)!
UTAH	20 (1.3)	149 (1.7)	69 (1.7)	158 (0.9)	11 (1.6)	157 (2.0)
VERMONT†	20 (1.1)	146 (2.1)	73 (1.7)	160 (0.9)	7 (1.8)	157 (2.9)!
VIRGINIA	21 (1.7)	125 (2.2)	67 (2.8)	157 (1.6)	12 (3.0)	150 (4.5)!
WASHINGTON	24 (1.6)	135 (2.1)	73 (2.1)	154 (1.2)	3 (1.5)	155 (3.7)!
WEST VIRGINIA	35 (1.5)	138 (1.3)	61 (2.0)	152 (1.0)	4 (1.9)	151 (4.8)!
WISCONSIN†	21 (2.0)	140 (3.5)	65 (4.0)	166 (1.2)	14 (4.0)	161 (3.8)!
WYOMING	20 (0.8)	148 (1.2)	75 (0.8)	160 (0.8)	5 (0.4)	155 (4.8)
Other Jurisdictions						
DDESS	24 (1.9)	148 (2.0)	43 (1.9)	158 (1.8)	33 (0.8)	150 (2.1)
DoDDS	7 (0.5)	146 (2.4)	49 (0.7)	156 (0.9)	44 (0.4)	156 (1.1)
GUAM	18 (1.2)	101 (2.2)	81 (1.3)	125 (1.1)	1 (0.2)	... (...)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

Chapter 3

School Characteristics Related to Science Instruction

Overview

NAEP collected information on school programs and conditions, instructional practices, and resource availability. Such characteristics have been associated with students' success in science.

The variables reported in Chapter 3 reflect information from the questionnaires completed by principals and teachers of the public school students in the NAEP 1996 science assessment. Principals were asked whether science receives special emphasis in school-wide goals and objectives, how much instruction a typical eighth-grade student receives in science, if the school uses parents as aides in classrooms, and the degree to which student absenteeism is a problem in their school. Teachers were asked about the availability of instructional materials and curriculum specialists.

In all cases, analyses are done at the student level. School and teacher-reported results are given in terms of the percentage of students who attend schools or who have teachers reporting particular practices.

TABLE 3.1 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
SCHOOLS' REPORTS ON: Their Focus on Science

THE NATION'S REPORT CARD — 1996 State Assessment

Is this a school with a special focus on science?	Yes		No	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation				
NATION	8 (2.7)	137 (5.0)!	92 (2.7)	150 (1.1)
NORTHEAST	5 (...)	... (...)	95 (...)	152 (2.6)
SOUTHEAST	18 (8.4)	... (...)	82 (8.4)	141 (1.8)
CENTRAL	2 (...)	... (...)	98 (...)	157 (3.3)
WEST	8 (3.9)	137 (4.9)!	92 (3.9)	150 (2.4)
States				
ALABAMA	2 (1.4)	... (...)	98 (1.4)	140 (1.8)
ALASKA†	2 (0.1)	... (...)	98 (0.1)	151 (1.5)
ARIZONA	1 (...)	... (...)	99 (...)	146 (1.8)
ARKANSAS†	6 (2.8)	151 (6.0)!	94 (2.8)	145 (1.8)
CALIFORNIA	7 (2.4)	135 (5.7)!	93 (2.4)	137 (1.9)
COLORADO	0 (...)	... (...)	100 (...)	154 (1.0)
CONNECTICUT	2 (0.1)	... (...)	98 (0.1)	157 (1.9)
DELAWARE	4 (0.2)	... (...)	96 (0.2)	141 (0.9)
DISTRICT OF COLUMBIA	24 (1.1)	110 (1.9)	76 (1.1)	113 (1.2)
FLORIDA	5 (2.9)	... (...)	95 (2.9)	141 (1.5)
GEORGIA	3 (1.4)	... (...)	97 (1.4)	141 (1.7)
HAWAII	4 (0.2)	... (...)	96 (0.2)	137 (0.8)
INDIANA	1 (...)	... (...)	99 (...)	154 (1.5)
IOWA†	3 (...)	... (...)	97 (...)	158 (1.2)
KENTUCKY	9 (3.1)	142 (5.2)!	91 (3.1)	148 (1.3)
LOUISIANA	4 (1.7)	129 (18.4)!	96 (1.7)	133 (1.9)
MAINE	2 (1.2)	... (...)	98 (1.2)	163 (1.0)
MARYLAND†	14 (2.4)	126 (3.5)	86 (2.4)	149 (1.7)
MASSACHUSETTS	6 (2.7)	139 (9.0)!	94 (2.7)	159 (1.7)
MICHIGAN†	7 (3.1)	126 (3.7)!	93 (3.1)	155 (1.9)
MINNESOTA	4 (...)	... (...)	96 (...)	158 (1.2)
MISSISSIPPI	3 (1.7)	145 (13.2)!	97 (1.7)	133 (1.4)
MISSOURI	2 (...)	... (...)	98 (...)	152 (1.4)
MONTANA†	2 (1.2)	... (...)	98 (1.2)	162 (1.3)
NEBRASKA	2 (1.0)	... (...)	98 (1.0)	158 (1.1)
NEW MEXICO	2 (1.4)	... (...)	98 (1.4)	142 (1.0)
NEW YORK†	9 (3.0)	123 (4.0)!	91 (3.0)	149 (2.3)
NORTH CAROLINA	3 (1.6)	... (...)	97 (1.6)	147 (1.2)
NORTH DAKOTA	2 (0.9)	... (...)	98 (0.9)	162 (0.8)
OREGON	3 (1.8)	... (...)	97 (1.8)	155 (1.6)
RHODE ISLAND	3 (0.2)	... (...)	97 (0.2)	151 (0.8)
SOUTH CAROLINA†	4 (1.8)	... (...)	96 (1.8)	138 (1.6)
TENNESSEE	6 (2.6)	144 (16.2)!	94 (2.6)	144 (1.9)
TEXAS	2 (...)	... (...)	98 (...)	147 (2.0)
UTAH	3 (0.1)	... (...)	97 (0.1)	155 (0.9)
VERMONT†	0 (...)	... (...)	100 (...)	157 (0.9)
VIRGINIA	4 (1.9)	... (...)	96 (1.9)	150 (1.5)
WASHINGTON	5 (2.4)	143 (15.4)!	95 (2.4)	150 (1.4)
WEST VIRGINIA	3 (1.3)	... (...)	97 (1.3)	147 (1.0)
WISCONSIN†	2 (...)	... (...)	98 (...)	160 (1.8)
WYOMING	0 (0.1)	... (...)	100 (0.1)	157 (0.7)
Other Jurisdictions				
DDESS	0 (...)	... (...)	100 (...)	152 (1.3)
DoDDS	8 (0.3)	... (...)	92 (0.3)	155 (0.8)
GUAM	0 (...)	... (...)	100 (...)	119 (1.3)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 3.2 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
SCHOOLS' REPORTS ON: The Identification of Science as a Priority

THE NATION'S REPORT CARD — 1996 State Assessment

Has your school identified science as a priority in the last two years?	Yes		No	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation				
NATION	43 (6.8)	147 (3.3)	57 (6.8)	151 (1.7)
NORTHEAST	59 (23.1)	143 (8.3)!	41 (23.1)	... (...)
SOUTHEAST	49 (11.2)	140 (3.5)!	51 (11.2)	142 (3.2)!
CENTRAL	35 (12.7)	157 (4.9)!	65 (12.7)	159 (3.6)!
WEST	36 (10.0)	150 (8.1)!	64 (10.0)	149 (1.9)
States				
ALABAMA	39 (6.1)	137 (3.0)	61 (6.1)	141 (2.5)
ALASKA†	37 (2.7)	151 (3.1)	63 (2.7)	151 (2.0)
ARIZONA	47 (5.3)	146 (2.5)	53 (5.3)	146 (2.6)
ARKANSAS†	45 (6.7)	143 (2.4)	55 (6.7)	145 (2.9)
CALIFORNIA	57 (5.8)	140 (2.9)	43 (5.8)	134 (3.2)
COLORADO	30 (4.5)	151 (2.6)	70 (4.5)	155 (1.3)
CONNECTICUT	37 (5.2)	164 (2.2)	63 (5.2)	152 (2.6)
DELAWARE	37 (0.4)	136 (0.9)	63 (0.4)	143 (1.2)
DISTRICT OF COLUMBIA	79 (0.6)	113 (1.1)	21 (0.6)	110 (1.9)
FLORIDA	55 (4.9)	141 (3.0)	45 (4.9)	143 (2.4)
GEORGIA	51 (5.9)	144 (2.4)	49 (5.9)	139 (2.5)
HAWAII	36 (0.5)	134 (1.2)	64 (0.5)	138 (1.1)
INDIANA	30 (5.6)	154 (2.7)	70 (5.6)	153 (1.8)
IOWA†	18 (4.2)	158 (2.0)!	82 (4.2)	158 (1.3)
KENTUCKY	75 (4.9)	147 (1.7)	25 (4.9)	149 (3.2)!
LOUISIANA	43 (5.4)	129 (3.0)	57 (5.4)	135 (3.0)
MAINE	41 (4.4)	165 (1.5)	59 (4.4)	162 (1.3)
MARYLAND†	49 (6.5)	142 (3.4)	51 (6.5)	151 (3.1)
MASSACHUSETTS	44 (4.9)	157 (2.5)	56 (4.9)	158 (2.3)
MICHIGAN†	63 (5.4)	151 (2.8)	37 (5.4)	156 (2.7)
MINNESOTA	30 (5.2)	162 (2.9)	70 (5.2)	157 (1.5)
MISSISSIPPI	39 (5.0)	133 (2.4)	61 (5.0)	135 (1.9)
MISSOURI	37 (4.9)	147 (3.6)	63 (4.9)	152 (1.9)
MONTANA†	25 (3.5)	165 (2.3)	75 (3.5)	161 (1.5)
NEBRASKA	27 (2.5)	153 (1.8)	73 (2.5)	160 (1.1)
NEW MEXICO	53 (3.2)	141 (1.4)	47 (3.2)	145 (1.5)
NEW YORK†	49 (6.9)	138 (4.0)	51 (6.9)	156 (2.8)
NORTH CAROLINA	35 (5.5)	147 (2.5)	65 (5.5)	147 (1.5)
NORTH DAKOTA	19 (2.5)	161 (1.8)	81 (2.5)	163 (0.9)
OREGON	36 (5.0)	161 (2.4)	64 (5.0)	150 (2.1)
RHODE ISLAND	31 (0.5)	155 (1.4)	69 (0.5)	146 (1.0)
SOUTH CAROLINA†	55 (6.2)	139 (2.0)	45 (6.2)	139 (2.5)
TENNESSEE	45 (5.3)	141 (2.9)	55 (5.3)	146 (2.3)
TEXAS	36 (5.3)	146 (2.6)	64 (5.3)	148 (3.2)
UTAH	43 (2.9)	158 (1.2)	57 (2.9)	154 (1.5)
VERMONT†	35 (3.0)	158 (1.4)	65 (3.0)	157 (1.3)
VIRGINIA	44 (4.9)	152 (2.7)	56 (4.9)	147 (1.9)
WASHINGTON	44 (5.4)	151 (2.4)	56 (5.4)	149 (2.1)
WEST VIRGINIA	45 (4.9)	147 (1.6)	55 (4.9)	147 (1.1)
WISCONSIN†	21 (4.5)	154 (3.6)!	79 (4.5)	162 (1.9)
WYOMING	26 (0.5)	159 (1.1)	74 (0.5)	157 (0.8)
Other Jurisdictions				
DDESS	62 (1.1)	155 (1.8)	38 (1.1)	147 (2.6)
DoDDS	50 (0.5)	156 (1.0)	50 (0.5)	154 (1.2)
GUAM	50 (0.7)	115 (1.6)	50 (0.7)	122 (1.8)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 3.3 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
SCHOOLS' REPORTS ON: District or State Science Curriculum Standards

THE NATION'S REPORT CARD — 1996 State Assessment

Does your district or state have a curriculum in science that your school is expected to follow?	Yes		No	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation				
NATION	94 (2.0)	149 (1.0)	6 (2.0)	151 (5.7)!
NORTHEAST	100 (...)	150 (3.1)	0 (...)	... (...)
SOUTHEAST	100 (...)	141 (1.8)	0 (...)	... (...)
CENTRAL	80 (8.9)	156 (3.7)	20 (8.9)	155 (6.9)!
WEST	96 (2.1)	150 (2.3)	4 (2.1)	... (...)
States				
ALABAMA	99 (...)	139 (1.7)	1 (...)	... (...)
ALASKA†	95 (2.3)	152 (1.5)	5 (2.3)	... (...)
ARIZONA	93 (3.6)	146 (1.8)	7 (3.6)	... (...)
ARKANSAS†	94 (...)	145 (1.8)	6 (...)	... (...)
CALIFORNIA	95 (2.1)	137 (1.8)	5 (2.1)	143 (7.0)!
COLORADO	93 (2.3)	154 (1.0)	7 (2.3)	159 (3.1)!
CONNECTICUT	88 (3.0)	156 (2.1)	12 (3.0)	160 (3.8)!
DELAWARE	90 (0.4)	141 (0.9)	10 (0.4)	148 (2.8)
DISTRICT OF COLUMBIA	100 (...)	112 (0.9)	0 (...)	... (...)
FLORIDA	97 (1.9)	142 (1.7)	3 (1.9)	... (...)
GEORGIA	93 (2.7)	142 (1.7)	7 (2.7)	132 (6.2)!
HAWAII	89 (0.2)	136 (0.8)	11 (0.2)	136 (1.7)
INDIANA	89 (3.5)	153 (1.7)	11 (3.5)	159 (3.7)!
IOWA†	76 (4.2)	157 (1.3)	24 (4.2)	160 (2.4)
KENTUCKY	71 (5.4)	148 (1.5)	29 (5.4)	146 (3.1)
LOUISIANA	98 (1.4)	134 (1.8)	2 (1.4)	... (...)
MAINE	78 (2.7)	163 (1.2)	22 (2.7)	162 (1.6)
MARYLAND†	97 (1.7)	146 (1.6)	3 (1.7)	... (...)
MASSACHUSETTS	85 (3.4)	155 (1.9)	15 (3.4)	168 (4.3)!
MICHIGAN†	94 (2.8)	153 (1.9)	6 (2.8)	157 (4.9)!
MINNESOTA	65 (5.8)	160 (1.9)	35 (5.8)	157 (2.2)
MISSISSIPPI	95 (2.0)	134 (1.5)	5 (2.0)	129 (4.0)!
MISSOURI	86 (3.7)	151 (1.7)	14 (3.7)	150 (5.3)!
MONTANA†	87 (3.2)	162 (1.4)	13 (3.2)	160 (2.1)!
NEBRASKA	70 (3.3)	158 (1.1)	30 (3.3)	157 (2.1)
NEW MEXICO	96 (1.2)	142 (1.1)	4 (1.2)	... (...)
NEW YORK†	93 (3.3)	148 (2.1)	7 (3.3)	141 (14.2)!
NORTH CAROLINA	98 (1.2)	147 (1.3)	2 (1.2)	... (...)
NORTH DAKOTA	82 (2.6)	162 (0.7)	18 (2.6)	164 (2.5)
OREGON	93 (2.4)	154 (1.7)	7 (2.4)	163 (7.2)!
RHODE ISLAND	88 (0.3)	149 (0.9)	12 (0.3)	156 (1.6)
SOUTH CAROLINA†	84 (3.7)	140 (1.6)	16 (3.7)	132 (3.9)!
TENNESSEE	98 (...)	144 (2.0)	2 (...)	... (...)
TEXAS	91 (3.6)	147 (2.2)	9 (3.6)	142 (6.0)!
UTAH	100 (...)	156 (0.9)	0 (...)	... (...)
VERMONT†	77 (3.1)	157 (1.1)	23 (3.1)	158 (2.0)
VIRGINIA	98 (...)	149 (1.5)	2 (...)	... (...)
WASHINGTON	82 (4.2)	150 (1.5)	18 (4.2)	150 (4.7)!
WEST VIRGINIA	98 (...)	147 (1.0)	2 (...)	... (...)
WISCONSIN†	86 (4.0)	161 (1.9)	14 (4.0)	157 (6.1)!
WYOMING	90 (0.3)	157 (0.7)	10 (0.3)	157 (1.8)
Other Jurisdictions				
DDESS	87 (0.6)	152 (1.4)	13 (0.6)	151 (3.8)
DoDDS	97 (0.2)	155 (0.8)	3 (0.2)	... (...)
GUAM	77 (0.7)	119 (1.4)	23 (0.7)	117 (2.2)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 3.4 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
SCHOOLS' REPORTS ON: Frequency of Science Instruction

THE NATION'S REPORT CARD 1996 State Assessment

How often does a typical eighth-grade student in your school receive instruction in science?	Not Taught or Twice a Week or Less		Three or Four Times a Week		Every Day	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	0 (...)	... (...)	8 (2.7)	147 (4.8)!	92 (2.7)	150 (1.2)
NORTHEAST	2 (...)	... (...)	5 (...)	... (...)	93 (...)	153 (3.2)
SOUTHEAST	0 (...)	... (...)	1 (...)	... (...)	99 (...)	142 (1.8)
CENTRAL	0 (...)	... (...)	1 (...)	... (...)	99 (...)	157 (3.3)
WEST	0 (...)	... (...)	18 (7.7)	... (...)	82 (7.7)	149 (3.4)
States						
ALABAMA	2 (1.6)	... (...)	0 (...)	... (...)	98 (1.6)	139 (1.8)
ALASKA†	1 (...)	... (...)	23 (2.7)	150 (3.9)	75 (2.8)	152 (1.9)
ARIZONA	2 (1.2)	... (...)	4 (2.3)	... (...)	94 (2.6)	146 (1.9)
ARKANSAS†	0 (...)	... (...)	1 (...)	... (...)	99 (...)	145 (1.7)
CALIFORNIA	5 (2.5)	... (...)	8 (3.1)	137 (6.0)!	87 (3.9)	137 (2.0)
COLORADO	0 (...)	... (...)	3 (1.2)	... (...)	97 (1.2)	154 (1.1)
CONNECTICUT	2 (...)	... (...)	1 (...)	... (...)	97 (...)	157 (1.4)
DELAWARE	0 (...)	... (...)	0 (...)	... (...)	100 (...)	142 (0.8)
DISTRICT OF COLUMBIA	10 (0.7)	... (...)	11 (1.0)	106 (3.0)	79 (1.1)	114 (1.0)
FLORIDA	2 (...)	... (...)	9 (3.5)	126 (2.4)!	89 (4.0)	144 (1.9)
GEORGIA	0 (...)	... (...)	1 (...)	... (...)	99 (...)	142 (1.6)
HAWAII	31 (0.4)	139 (1.3)	35 (0.5)	136 (1.6)	34 (0.5)	133 (1.4)
INDIANA	1 (...)	... (...)	0 (...)	... (...)	99 (...)	154 (1.5)
IOWA†	0 (...)	... (...)	3 (1.7)	... (...)	97 (1.7)	158 (1.2)
KENTUCKY	1 (...)	... (...)	4 (2.1)	... (...)	96 (2.2)	147 (1.5)
LOUISIANA	0 (...)	... (...)	0 (...)	... (...)	100 (...)	133 (1.6)
MAINE	0 (...)	... (...)	14 (3.0)	164 (3.3)!	86 (3.0)	163 (1.0)
MARYLAND†	0 (...)	... (...)	4 (2.3)	... (...)	96 (2.3)	146 (1.7)
MASSACHUSETTS	1 (...)	... (...)	3 (1.7)	... (...)	96 (1.9)	157 (1.7)
MICHIGAN†	0 (...)	... (...)	0 (...)	... (...)	100 (...)	153 (1.7)
MINNESOTA	5 (2.6)	... (...)	9 (3.1)	158 (4.2)!	87 (4.0)	160 (1.5)
MISSISSIPPI	0 (...)	... (...)	7 (3.2)	129 (4.9)!	93 (3.2)	134 (1.6)
MISSOURI	1 (...)	... (...)	15 (4.0)	147 (4.5)!	84 (3.9)	151 (1.4)
MONTANA†	0 (...)	... (...)	1 (...)	... (...)	98 (...)	162 (1.3)
NEBRASKA	1 (0.2)	... (...)	2 (1.3)	... (...)	96 (1.3)	158 (1.1)
NEW MEXICO	5 (0.2)	... (...)	0 (...)	... (...)	95 (0.2)	142 (1.1)
NEW YORK†	0 (...)	... (...)	6 (3.1)	139 (14.3)!	94 (3.1)	147 (2.3)
NORTH CAROLINA	3 (1.7)	... (...)	3 (1.8)	... (...)	94 (2.5)	146 (1.4)
NORTH DAKOTA	0 (...)	... (...)	1 (...)	... (...)	99 (0.7)	163 (0.8)
OREGON	0 (...)	... (...)	17 (3.9)	154 (2.8)!	83 (3.9)	155 (2.0)
RHODE ISLAND	0 (...)	... (...)	2 (0.1)	... (...)	98 (0.1)	149 (0.8)
SOUTH CAROLINA†	0 (...)	... (...)	5 (2.2)	... (...)	95 (2.2)	139 (1.6)
TENNESSEE	3 (2.3)	... (...)	0 (...)	... (...)	97 (2.3)	144 (2.0)
TEXAS	1 (...)	... (...)	22 (4.3)	136 (6.6)!	77 (4.5)	149 (1.6)
UTAH	2 (0.1)	... (...)	5 (1.1)	... (...)	93 (1.1)	156 (1.0)
VERMONT†	0 (...)	... (...)	16 (2.4)	158 (1.7)	84 (2.4)	157 (1.0)
VIRGINIA	0 (...)	... (...)	8 (2.7)	144 (3.3)!	92 (2.7)	150 (1.6)
WASHINGTON	9 (3.0)	148 (4.2)!	9 (3.2)	146 (5.2)!	82 (4.2)	150 (1.5)
WEST VIRGINIA	1 (0.1)	... (...)	1 (...)	... (...)	98 (1.0)	147 (0.9)
WISCONSIN†	0 (...)	... (...)	0 (...)	... (...)	100 (...)	160 (1.7)
WYOMING	0 (...)	... (...)	0 (...)	... (...)	100 (...)	158 (0.7)
Other Jurisdictions						
DDESS	0 (...)	... (...)	0 (...)	... (...)	100 (...)	152 (1.3)
DoDDS	0 (...)	... (...)	6 (0.4)	159 (2.0)	94 (0.4)	155 (0.8)
GUAM	0 (...)	... (...)	0 (...)	... (...)	100 (...)	119 (1.3)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 3.5 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
TEACHERS' REPORTS ON: Availability of Resources

THE NATION'S REPORT CARD 1996 State Assessment

How well are you provided with instructional materials and the resources you need to teach?	I Get Some or None of the Resources I Need		I Get Most of the Resources I Need		I Get All of the Resources I Need	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	37 (4.1)	144 (2.0)	52 (4.1)	153 (2.1)	11 (3.1)	154 (5.4)!
NORTHEAST	44 (9.9)	141 (5.9)!	41 (12.0)	... (...)	14 (...)	... (...)
SOUTHEAST	47 (9.5)	143 (3.6)!	39 (7.0)	143 (3.1)!	14 (5.2)	139 (4.9)!
CENTRAL	18 (7.7)	148 (6.7)!	73 (7.3)	160 (4.5)	9 (5.5)	... (...)
WEST	39 (7.0)	146 (3.0)	54 (7.1)	152 (3.8)!	7 (3.0)	... (...)
States						
ALABAMA	60 (4.9)	136 (2.5)	35 (4.9)	141 (3.4)	5 (1.9)	146 (10.7)!
ALASKA†	44 (2.9)	147 (3.2)	48 (2.9)	155 (1.7)	8 (2.0)	149 (4.3)!
ARIZONA	49 (5.1)	143 (2.7)	46 (4.9)	146 (2.5)	5 (1.3)	153 (3.9)!
ARKANSAS†	41 (4.9)	142 (3.1)	44 (4.8)	147 (2.0)	15 (4.1)	144 (4.5)!
CALIFORNIA	46 (4.1)	136 (2.6)	44 (3.9)	142 (2.6)	11 (2.5)	148 (6.2)!
COLORADO	30 (3.6)	153 (2.0)	63 (3.8)	156 (1.6)	7 (1.5)	153 (3.2)!
CONNECTICUT	38 (3.7)	147 (3.0)	54 (3.9)	161 (1.4)	8 (1.8)	169 (3.4)!
DELAWARE	61 (1.0)	142 (1.2)	34 (1.0)	142 (1.7)	5 (0.5)	137 (6.1)
DISTRICT OF COLUMBIA	92 (0.7)	110 (1.0)	8 (0.7)	115 (3.0)	0 (...)	... (...)
FLORIDA	45 (4.5)	141 (2.4)	46 (4.1)	142 (2.3)	9 (2.1)	143 (7.0)!
GEORGIA	41 (3.2)	136 (2.4)	43 (3.3)	147 (2.1)	17 (2.9)	144 (3.6)
HAWAII	63 (1.2)	139 (1.4)	33 (1.1)	133 (2.5)	4 (0.4)	... (...)
INDIANA	35 (4.5)	149 (2.4)	57 (4.3)	155 (1.8)	7 (2.0)	166 (2.5)!
IOWA†	22 (3.4)	155 (2.8)	75 (3.7)	159 (1.3)	3 (1.5)	167 (3.6)!
KENTUCKY	24 (4.3)	150 (2.4)	56 (5.1)	147 (2.4)	19 (4.2)	150 (3.1)!
LOUISIANA	60 (3.9)	131 (2.1)	33 (3.8)	138 (2.8)	7 (2.5)	136 (8.9)!
MAINE	47 (3.8)	161 (1.6)	45 (3.8)	164 (1.3)	8 (2.5)	170 (2.1)!
MARYLAND†	47 (4.8)	143 (2.6)	43 (4.4)	150 (2.4)	10 (2.3)	142 (6.8)!
MASSACHUSETTS	49 (3.8)	153 (2.0)	43 (3.9)	160 (2.4)	7 (1.9)	168 (5.2)!
MICHIGAN†	34 (4.6)	151 (2.9)	61 (4.6)	158 (2.0)	5 (1.5)	162 (5.3)!
MINNESOTA	37 (5.1)	156 (2.9)	52 (4.7)	161 (1.4)	11 (3.1)	164 (2.8)!
MISSISSIPPI	47 (4.7)	134 (2.4)	43 (4.5)	135 (2.4)	10 (2.4)	138 (2.6)!
MISSOURI	36 (4.1)	151 (2.1)	53 (3.7)	154 (1.7)	11 (2.5)	153 (4.3)!
MONTANA†	31 (4.0)	161 (1.8)	59 (4.3)	164 (1.1)	10 (3.8)	158 (5.6)!
NEBRASKA	20 (2.6)	155 (1.3)	67 (2.8)	158 (1.3)	13 (1.5)	162 (2.3)
NEW MEXICO	54 (2.3)	142 (1.3)	37 (2.4)	146 (1.5)	10 (2.4)	145 (2.3)!
NEW YORK†	39 (4.4)	138 (3.4)	50 (3.6)	153 (2.7)	11 (3.2)	164 (3.3)!
NORTH CAROLINA	55 (4.4)	145 (1.7)	42 (4.2)	149 (1.4)	4 (1.2)	145 (4.4)!
NORTH DAKOTA	32 (2.8)	160 (1.4)	60 (2.7)	163 (1.0)	8 (1.4)	166 (1.9)
OREGON	48 (4.7)	155 (2.2)	47 (4.2)	157 (2.0)	5 (1.7)	157 (4.7)!
RHODE ISLAND	54 (1.0)	148 (1.2)	37 (1.1)	151 (1.2)	9 (0.4)	156 (2.0)
SOUTH CAROLINA†	48 (4.8)	136 (2.2)	43 (4.4)	141 (2.1)	9 (2.5)	145 (5.9)!
TENNESSEE	52 (5.3)	141 (2.4)	39 (5.0)	150 (2.7)	8 (2.3)	148 (4.2)!
TEXAS	29 (3.4)	138 (2.5)	50 (3.6)	148 (1.5)	21 (3.4)	154 (2.8)
UTAH	43 (2.8)	152 (1.3)	47 (2.6)	159 (1.1)	10 (2.6)	158 (3.3)!
VERMONT†	43 (3.0)	156 (1.4)	50 (3.0)	158 (1.6)	7 (0.9)	158 (4.8)
VIRGINIA	35 (3.2)	144 (2.9)	56 (3.2)	153 (2.2)	9 (1.6)	153 (6.0)
WASHINGTON	38 (4.1)	148 (2.7)	53 (4.5)	152 (1.8)	9 (2.0)	153 (4.3)!
WEST VIRGINIA	55 (4.1)	149 (1.5)	40 (3.8)	146 (1.6)	5 (1.6)	145 (3.2)!
WISCONSIN†	41 (5.2)	161 (2.5)	51 (5.4)	162 (2.3)	7 (2.2)	155 (5.8)!
WYOMING	29 (0.7)	156 (1.2)	65 (0.8)	159 (0.8)	6 (0.3)	167 (2.6)
Other Jurisdictions						
DDESS	44 (1.6)	153 (1.7)	51 (1.6)	148 (1.7)	5 (0.2)	... (...)
DoDDS	24 (1.0)	153 (1.6)	59 (1.3)	156 (1.0)	17 (0.8)	156 (1.6)
GUAM	81 (1.0)	118 (1.4)	19 (1.0)	124 (3.6)	0 (...)	... (...)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 3.6 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

TEACHERS' REPORTS ON: Availability of Curriculum Specialists to Help or Advise

THE NATION'S REPORT CARD — 1996 State Assessment

Is there a curriculum specialist available to help or advise you in science?	Yes		No	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation				
NATION	43 (3.9)	148 (2.7)	57 (3.9)	152 (1.5)
NORTHEAST	27 (8.2)	... (...)	73 (8.2)	156 (4.0)
SOUTHEAST	58 (8.0)	142 (3.1)	42 (8.0)	144 (2.6)!
CENTRAL	52 (10.7)	157 (3.6)!	48 (10.7)	159 (5.1)!
WEST	35 (6.3)	151 (7.6)!	65 (6.3)	149 (2.0)
States				
ALABAMA	44 (4.8)	136 (3.4)	56 (4.8)	140 (2.5)
ALASKA†	46 (2.9)	153 (1.9)	54 (2.9)	149 (2.1)
ARIZONA	50 (4.8)	145 (2.3)	50 (4.8)	145 (2.5)
ARKANSAS†	30 (3.8)	140 (3.1)	70 (3.8)	146 (1.5)
CALIFORNIA	43 (4.4)	138 (2.9)	57 (4.4)	141 (2.3)
COLORADO	46 (3.8)	153 (1.7)	54 (3.8)	157 (1.5)
CONNECTICUT	46 (3.9)	157 (1.8)	54 (3.9)	156 (2.4)
DELAWARE	44 (0.9)	142 (1.6)	56 (0.9)	141 (1.4)
DISTRICT OF COLUMBIA	57 (1.7)	109 (1.4)	43 (1.7)	113 (1.4)
FLORIDA	65 (3.3)	142 (1.8)	35 (3.3)	140 (2.5)
GEORGIA	69 (3.3)	142 (1.9)	31 (3.3)	142 (2.6)
HAWAII	49 (1.0)	135 (2.0)	51 (1.0)	137 (1.7)
INDIANA	27 (4.0)	152 (2.8)	73 (4.0)	155 (1.6)
IOWA†	57 (5.1)	159 (1.5)	43 (5.1)	158 (2.2)
KENTUCKY	48 (3.9)	148 (2.5)	52 (3.9)	149 (1.4)
LOUISIANA	64 (4.7)	134 (2.6)	36 (4.7)	133 (3.3)
MAINE	23 (3.6)	167 (1.5)	77 (3.6)	162 (1.2)
MARYLAND†	73 (4.1)	143 (1.8)	27 (4.1)	154 (3.3)
MASSACHUSETTS	45 (4.9)	157 (2.6)	55 (4.9)	157 (2.2)
MICHIGAN†	47 (4.2)	154 (2.4)	53 (4.2)	158 (1.7)
MINNESOTA	31 (4.3)	160 (2.0)	69 (4.3)	159 (1.8)
MISSISSIPPI	43 (4.5)	134 (2.1)	57 (4.5)	135 (2.0)
MISSOURI	33 (4.3)	152 (2.1)	67 (4.3)	153 (1.6)
MONTANA†	27 (3.8)	162 (2.1)	73 (3.8)	163 (1.5)
NEBRASKA	40 (3.0)	154 (1.7)	60 (3.0)	161 (1.1)
NEW MEXICO	27 (2.1)	145 (1.8)	73 (2.1)	143 (1.3)
NEW YORK†	35 (4.4)	143 (4.1)	65 (4.4)	152 (2.4)
NORTH CAROLINA	62 (3.6)	146 (1.6)	38 (3.6)	147 (2.0)
NORTH DAKOTA	20 (1.9)	164 (1.3)	80 (1.9)	162 (0.9)
OREGON	23 (3.7)	155 (2.5)	77 (3.7)	156 (2.0)
RHODE ISLAND	27 (1.0)	149 (1.6)	73 (1.0)	151 (1.0)
SOUTH CAROLINA†	56 (4.5)	139 (1.8)	44 (4.5)	139 (2.5)
TENNESSEE	37 (4.2)	141 (3.2)	63 (4.2)	147 (2.1)
TEXAS	57 (4.0)	148 (1.9)	43 (4.0)	146 (2.4)
UTAH	67 (2.8)	156 (0.9)	33 (2.8)	156 (1.8)
VERMONT†	14 (2.0)	159 (2.2)	86 (2.0)	157 (1.1)
VIRGINIA	63 (4.0)	154 (2.1)	37 (4.0)	143 (2.6)
WASHINGTON	32 (4.7)	152 (1.9)	68 (4.7)	149 (1.8)
WEST VIRGINIA	61 (3.9)	147 (1.2)	39 (3.9)	147 (1.4)
WISCONSIN†	39 (4.2)	156 (3.0)	61 (4.2)	165 (1.7)
WYOMING	28 (1.0)	160 (1.4)	72 (1.0)	158 (0.7)
Other Jurisdictions				
DDESS	42 (1.8)	149 (1.9)	58 (1.8)	154 (1.6)
DoDDS	41 (1.3)	155 (1.2)	59 (1.3)	155 (1.0)
GUAM	44 (1.3)	121 (1.8)	56 (1.3)	117 (2.0)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

... Characteristics of the sample do not permit a reliable estimate.

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 3.7 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

SCHOOLS' REPORTS ON: Involving Parents as Aides in Classrooms

THE NATION'S REPORT CARD — 1996 State Assessment

Does your school use parents as aides in classrooms?	No		Yes, Occasionally		Yes, Routinely	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	43 (6.0)	146 (2.4)	46 (6.3)	150 (2.7)	11 (3.6)	152 (6.9)!
NORTHEAST	64 (19.8)	152 (5.2)!	26 (...)	... (...)	11 (7.4)	... (...)
SOUTHEAST	44 (9.1)	138 (3.2)!	42 (10.7)	138 (3.6)!	14 (7.8)	... (...)
CENTRAL	38 (13.0)	153 (3.5)!	43 (13.4)	157 (5.0)!	19 (8.6)	164 (5.5)!
WEST	30 (6.1)	141 (2.4)!	65 (7.0)	151 (3.4)	5 (...)	... (...)
States						
ALABAMA	47 (5.6)	141 (2.8)	49 (6.0)	138 (2.4)	4 (2.4)	... (...)
ALASKA†	9 (3.0)	126 (7.1)!	62 (2.8)	151 (2.5)	28 (2.0)	159 (2.1)
ARIZONA	23 (5.9)	147 (5.8)!	63 (6.0)	145 (2.5)	14 (3.9)	146 (4.6)!
ARKANSAS†	57 (6.1)	144 (2.8)	40 (6.2)	146 (2.7)	3 (2.0)	... (...)
CALIFORNIA	28 (4.5)	135 (5.0)	56 (5.4)	136 (2.5)	16 (4.3)	143 (6.6)!
COLORADO	13 (3.1)	144 (5.2)!	57 (4.4)	154 (1.4)	29 (4.5)	158 (1.9)
CONNECTICUT	47 (5.4)	160 (1.9)	51 (5.7)	152 (3.5)	2 (...)	... (...)
DELAWARE	48 (0.5)	140 (1.3)	41 (0.4)	144 (1.6)	11 (0.2)	... (...)
DISTRICT OF COLUMBIA	48 (1.1)*	116 (1.7)	34 (0.9)*	111 (1.5)	18 (1.5)*	98 (3.6)
FLORIDA	24 (5.0)	135 (3.3)!	59 (5.2)	144 (2.4)	16 (3.6)	151 (6.0)!
GEORGIA	48 (5.5)	137 (2.6)	45 (5.4)	143 (2.9)	7 (2.9)	155 (4.3)!
HAWAII	41 (0.5)	135 (1.5)	56 (0.5)	136 (1.1)	3 (0.2)	... (...)
INDIANA	47 (6.3)	152 (1.9)	44 (5.9)	157 (2.2)	9 (3.0)	157 (4.1)!
IOWA†	37 (4.9)	159 (2.2)	57 (4.7)	157 (1.5)	7 (2.5)	157 (2.9)!
KENTUCKY	32 (4.9)	147 (2.6)	56 (5.2)	147 (2.6)	12 (3.3)	147 (1.9)!
LOUISIANA	38 (4.9)	135 (3.1)	52 (5.0)	129 (2.8)	9 (2.7)	146 (4.4)!
MAINE	17 (2.6)	163 (2.5)	71 (4.0)	163 (1.0)	12 (2.9)	162 (3.4)!
MARYLAND†	19 (4.7)	143 (5.7)!	70 (5.4)	146 (2.0)	11 (3.4)	152 (7.8)!
MASSACHUSETTS	53 (6.0)	153 (2.4)	43 (6.0)	162 (2.8)	4 (2.1)	... (...)
MICHIGAN†	37 (5.9)	150 (3.7)	57 (6.1)	155 (2.6)	6 (2.9)	148 (9.7)!
MINNESOTA	29 (4.6)	158 (3.6)	55 (4.9)	161 (1.6)	16 (3.8)	155 (4.0)!
MISSISSIPPI	55 (5.3)	133 (2.0)	41 (4.9)	131 (2.5)	5 (2.8)	... (...)
MISSOURI	45 (5.2)	146 (2.8)	47 (5.1)	153 (2.4)	8 (3.2)	155 (5.7)!
MONTANA†	49 (3.9)	162 (1.7)	41 (4.3)	162 (1.8)	10 (3.5)	161 (4.9)!
NEBRASKA	53 (3.1)	158 (1.4)	44 (3.0)	158 (1.3)	3 (0.9)	... (...)
NEW MEXICO	40 (3.9)	138 (1.5)	52 (3.6)	144 (1.7)	7 (1.4)	152 (4.1)!
NEW YORK†	68 (6.9)	146 (2.8)	23 (6.8)	151 (6.2)!	9 (4.0)	150 (9.5)!
NORTH CAROLINA	38 (4.6)	145 (2.5)	50 (5.0)	146 (1.7)	12 (2.8)	153 (4.6)!
NORTH DAKOTA	63 (2.6)	164 (1.1)	30 (2.3)	162 (1.6)	7 (1.4)	155 (4.8)
OREGON	10 (3.3)	148 (5.7)!	59 (5.3)	153 (2.3)	31 (4.6)	160 (1.9)
RHODE ISLAND	71 (0.6)	149 (1.1)	24 (0.5)	148 (1.1)	4 (0.3)	... (...)
SOUTH CAROLINA†	36 (5.9)	138 (2.7)	52 (5.6)	141 (2.1)	12 (4.1)	133 (5.3)!
TENNESSEE	33 (5.5)	143 (3.5)	62 (5.5)	144 (2.4)	5 (2.2)	... (...)
TEXAS	38 (5.2)	145 (5.2)	56 (5.7)	149 (2.1)	6 (3.0)	138 (5.3)!
UTAH	32 (3.6)	154 (1.7)	56 (3.2)	156 (1.1)	12 (2.7)	157 (2.0)!
VERMONT†	35 (2.0)	157 (1.6)	53 (2.1)	158 (1.3)	13 (1.2)	155 (2.7)
VIRGINIA	30 (4.2)	143 (3.4)	61 (4.2)	153 (2.2)	9 (2.9)	147 (4.5)!
WASHINGTON	8 (2.9)	146 (4.8)!	76 (5.0)	152 (1.7)	16 (4.5)	142 (3.6)!
WEST VIRGINIA	35 (5.3)	146 (1.5)	40 (5.4)	147 (1.9)	25 (4.2)	148 (2.6)
WISCONSIN†	35 (5.6)	159 (3.5)	57 (5.8)	161 (1.9)	8 (3.1)	166 (1.9)!
WYOMING	29 (0.5)	156 (1.3)	64 (0.8)	159 (0.8)	7 (0.7)	153 (1.7)
Other Jurisdictions						
DDESS	5 (0.2)	... (...)	71 (0.8)	150 (1.4)	24 (0.8)	151 (3.1)
DoDDS	18 (0.3)	150 (2.0)	59 (0.8)	154 (1.0)	23 (0.8)	161 (1.4)
GUAM	100 (...)	119 (1.3)	0 (...)	... (...)	0 (...)	... (...)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

... Characteristics of the sample do not permit a reliable estimate.

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

* Interpret with caution — more than 15 percent of the respondents did not answer this question.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 3.8 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
SCHOOLS' REPORTS ON: Student Absenteeism

THE NATION'S REPORT CARD — 1996 State Assessment

To what degree is student absenteeism a problem in your school?	Not a Problem		A Minor Problem		A Moderate to Serious Problem	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	28 (4.8)	156 (3.1)	50 (4.9)	149 (1.5)	22 (3.7)	140 (3.0)
NORTHEAST	67 (11.6)	... (...)	21 (10.6)	... (...)	12 (7.0)	... (...)
SOUTHEAST	7 (3.9)	... (...)	56 (6.4)	144 (3.0)	37 (6.0)	138 (2.5)!
CENTRAL	30 (11.2)	162 (4.9)!	49 (12.5)	154 (4.3)!	21 (11.5)	... (...)
WEST	16 (8.5)	164 (10.4)!	65 (8.5)	149 (1.7)	19 (5.7)	138 (7.9)!
States						
ALABAMA	20 (4.5)	147 (4.4)!	51 (6.2)	139 (3.1)	29 (5.0)	136 (3.6)
ALASKA†	25 (1.9)	156 (3.1)	54 (3.0)	153 (2.5)	21 (2.9)	139 (5.8)
ARIZONA	11 (3.2)	161 (5.5)!	49 (5.8)	150 (2.4)	40 (5.4)	136 (3.1)
ARKANSAS†	13 (4.0)	151 (3.2)!	53 (6.2)	146 (2.5)	34 (6.5)	141 (3.3)!
CALIFORNIA	24 (4.3)	145 (4.4)	47 (5.0)	142 (2.5)	29 (4.6)	123 (4.0)
COLORADO	27 (4.5)	159 (2.1)	52 (4.9)	156 (1.6)	22 (3.8)	144 (2.6)
CONNECTICUT	28 (5.0)	168 (2.0)	57 (5.4)	153 (2.9)	16 (3.2)	147 (4.2)!
DELAWARE	34 (0.4)	142 (1.3)	40 (0.4)	142 (1.3)	26 (0.4)	141 (2.0)
DISTRICT OF COLUMBIA	22 (1.1)	141 (2.5)	56 (0.9)	108 (1.3)	22 (0.8)	96 (1.9)
FLORIDA	27 (5.0)	148 (4.1)!	33 (4.7)	148 (2.5)	40 (5.2)	133 (2.9)
GEORGIA	15 (4.2)	146 (5.3)!	47 (6.0)	146 (2.7)	38 (5.8)	134 (2.6)
HAWAII	8 (0.2)	... (...)	56 (0.5)	136 (1.0)	37 (0.5)	133 (1.7)
INDIANA	40 (5.9)	159 (1.8)	45 (5.6)	152 (2.2)	15 (3.8)	147 (4.1)!
IOWA†	25 (5.2)	159 (2.7)!	56 (5.9)	161 (1.5)	19 (4.5)	149 (2.4)!
KENTUCKY	21 (4.9)	157 (3.3)!	45 (5.5)	147 (1.8)	34 (5.1)	142 (2.1)
LOUISIANA	19 (3.9)	133 (4.5)!	48 (5.3)	140 (1.9)	33 (4.5)	121 (3.9)
MAINE	31 (3.8)	165 (1.8)	52 (4.3)	161 (1.4)	17 (3.3)	165 (2.5)
MARYLAND†	16 (5.2)	161 (3.6)!	45 (5.7)	152 (2.1)	39 (4.8)	132 (2.8)
MASSACHUSETTS	28 (5.1)	162 (3.5)	62 (5.7)	157 (2.2)	9 (2.5)	145 (4.1)!
MICHIGAN†	30 (5.1)	166 (2.1)	38 (5.6)	158 (2.7)	32 (5.4)	136 (3.8)
MINNESOTA	30 (5.8)	164 (2.7)!	52 (6.3)	160 (1.8)	18 (4.5)	148 (2.7)!
MISSISSIPPI	7 (2.5)	138 (8.4)!	52 (5.1)	135 (2.0)	41 (4.9)	131 (2.6)
MISSOURI	21 (4.6)	153 (2.9)!	50 (5.1)	156 (1.4)	29 (4.4)	140 (3.8)
MONTANA†	24 (3.2)	163 (2.1)	47 (3.7)	166 (1.1)	29 (3.8)	155 (2.9)
NEBRASKA	29 (3.2)	161 (1.5)	55 (3.4)	156 (1.4)	16 (2.6)	156 (2.4)
NEW MEXICO	9 (2.4)	162 (1.8)!	38 (4.0)	145 (1.8)	53 (3.8)	137 (1.5)
NEW YORK†	37 (5.4)	154 (3.5)	50 (5.2)	146 (3.3)	13 (3.9)	128 (8.8)!
NORTH CAROLINA	12 (3.2)	156 (4.0)!	49 (4.4)	148 (1.6)	38 (5.0)	143 (2.1)
NORTH DAKOTA	32 (2.6)	162 (1.5)	62 (2.7)	163 (0.8)	6 (1.4)	158 (5.8)!
OREGON	16 (3.8)	160 (2.5)!	45 (5.2)	158 (2.0)	40 (4.6)	149 (2.8)
RHODE ISLAND	45 (0.5)	150 (1.3)	48 (0.5)	149 (1.0)	7 (0.4)	... (...)
SOUTH CAROLINA†	22 (5.2)	141 (4.0)!	40 (5.9)	144 (1.9)	38 (5.7)	132 (2.7)
TENNESSEE	16 (3.8)	157 (4.3)!	41 (5.4)	142 (2.7)	43 (5.4)	141 (2.5)
TEXAS	24 (4.8)	161 (2.7)!	47 (6.0)	146 (3.7)	29 (5.0)	135 (2.3)
UTAH	10 (2.2)	160 (1.8)!	67 (3.5)	159 (1.2)	23 (3.2)	146 (2.3)
VERMONT†	35 (2.7)	162 (1.8)	52 (2.6)	156 (1.2)	13 (2.0)	149 (1.6)
VIRGINIA	29 (4.4)	156 (3.1)	47 (4.7)	151 (2.1)	24 (4.3)	138 (3.0)
WASHINGTON	15 (4.3)	155 (3.0)!	52 (5.4)	151 (2.0)	33 (4.9)	146 (3.4)
WEST VIRGINIA	21 (3.9)	147 (1.8)	51 (4.5)	149 (1.4)	28 (4.6)	144 (2.0)
WISCONSIN†	32 (5.2)	167 (1.8)	51 (6.1)	161 (2.1)	17 (4.2)	144 (4.6)!
WYOMING	11 (0.6)	157 (1.9)	67 (1.0)	157 (0.9)	22 (0.8)	159 (1.5)
Other Jurisdictions						
DDESS	17 (0.8)	160 (2.5)	83 (0.8)	150 (1.5)	0 (...)	... (...)
DoDDS	55 (0.4)	156 (1.3)	35 (0.4)	155 (1.5)	10 (0.3)	154 (1.7)
GUAM	0 (...)*	... (...)	34 (0.7)*	126 (2.7)	66 (0.7)*	120 (1.5)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.
* Interpret with caution — more than 15 percent of the respondents did not answer this question.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

Chapter 4

Classroom Practices Related to Science Instruction

Overview

NAEP collected information about instructional approaches and strategies used in the classroom by surveying students and their teachers about specific activities employed. For several tables, student- and teacher-reported results are presented for similar questions, discussion of science in the news, amount of time spent on homework and computer use. Some discrepancies may exist between student- and teacher-reported percentages. No attempt is made to offer conclusive reasons for these discrepancies.

As with all NAEP results, the unit of analysis is the student. Therefore, teacher background question results are reported in terms of the students whose teachers report particular instructional practices.

TABLE 4.1

1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

TEACHERS' REPORTS ON: Time Spent on Earth Science

THE NATION'S REPORT CARD naep 1996 State Assessment

How much time do you spend on the area of earth science in this class?	None		A Little		Some		A Lot	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation								
NATION	7 (1.8)*	153 (4.4)!	11 (3.1)*	153 (5.6)!	41 (5.0)*	151 (2.1)	41 (5.6)*	149 (2.9)
NORTHEAST	24 (6.1)*	... (...)	25 (9.4)*	... (...)	14 (9.0)*	... (...)	36 (12.6)*	153 (3.8)!
SOUTHEAST	6 (2.8)*	... (...)	9 (4.6)*	... (...)	45 (9.1)*	147 (2.6)!	40 (6.4)*	138 (3.4)
CENTRAL	1 (...)	... (...)	13 (5.7)	153 (4.9)!	45 (12.1)	162 (5.3)!	41 (12.8)	156 (4.9)!
WEST	4 (2.0)	... (...)	5 (2.8)	... (...)	48 (9.5)	149 (2.6)	44 (10.7)	151 (7.3)!
States								
ALABAMA	0 (...)	... (...)	1 (0.3)	... (...)	18 (2.8)	134 (4.5)	81 (2.9)	140 (1.9)
ALASKA†	5 (2.0)*	... (...)	7 (0.8)*	161 (2.3)	42 (3.3)*	148 (2.5)	45 (3.3)*	154 (2.9)
ARIZONA	8 (2.3)*	157 (4.2)!	22 (4.1)*	149 (2.4)	38 (4.7)*	143 (2.6)	31 (4.5)*	143 (4.0)
ARKANSAS†	1 (...)	... (...)	0 (...)	... (...)	10 (2.0)	139 (6.8)	89 (2.3)	144 (1.6)
CALIFORNIA	3 (1.0)	... (...)	15 (3.2)	149 (3.7)!	43 (4.8)	140 (2.1)	40 (4.4)	137 (3.2)
COLORADO	14 (3.1)*	152 (3.5)!	20 (3.7)*	159 (3.4)	31 (4.4)*	152 (2.7)	35 (5.4)*	159 (1.8)
CONNECTICUT	19 (3.9)*	160 (3.2)!	23 (4.1)*	162 (3.3)	30 (4.2)*	161 (2.5)	28 (3.7)*	152 (3.7)
DELAWARE	4 (0.2)	... (...)	11 (0.9)	142 (2.9)	17 (1.1)	131 (4.0)	69 (0.7)	145 (1.3)
DISTRICT OF COLUMBIA	23 (1.4)*	101 (1.7)	44 (1.7)*	117 (2.0)	25 (1.3)*	104 (3.2)	7 (0.7)*	... (...)
FLORIDA	11 (2.6)*	148 (4.5)!	16 (3.6)*	142 (3.1)!	49 (4.1)*	141 (3.0)	25 (3.7)*	140 (3.7)
GEORGIA	0 (...)	... (...)	0 (0.2)	... (...)	3 (1.2)	145 (7.4)!	97 (1.2)	143 (1.6)
HAWAII	1 (0.2)	... (...)	5 (0.3)	... (...)	15 (0.7)	132 (4.1)	79 (0.8)	137 (1.7)
INDIANA	14 (3.2)*	155 (3.3)!	14 (4.2)*	157 (3.9)!	40 (5.1)*	148 (3.0)	31 (4.6)*	161 (1.9)
IOWA†	6 (2.5)*	158 (6.1)!	13 (3.0)*	165 (2.9)!	26 (4.3)*	157 (2.2)	55 (5.2)*	160 (1.6)
KENTUCKY	1 (0.7)	... (...)	2 (1.0)	... (...)	23 (3.5)	148 (1.7)	74 (3.7)	149 (1.8)
LOUISIANA	4 (1.4)	134 (6.0)!	2 (1.1)	... (...)	5 (2.1)	130 (4.9)!	89 (2.8)	133 (1.7)
MAINE	21 (3.3)*	163 (2.2)	20 (3.6)*	164 (2.9)	35 (3.9)*	162 (1.9)	24 (4.3)*	166 (1.6)
MARYLAND†	9 (2.4)*	139 (5.4)!	13 (3.5)*	150 (6.3)!	26 (3.7)*	141 (4.2)	52 (4.6)*	155 (2.2)
MASSACHUSETTS	13 (3.8)*	159 (2.8)!	22 (4.3)*	165 (3.8)!	26 (3.6)*	147 (3.1)	39 (5.8)*	161 (3.0)
MICHIGAN†	16 (3.2)*	163 (2.4)!	19 (3.5)*	154 (4.2)!	30 (4.2)*	152 (3.3)	35 (5.1)*	158 (1.9)
MINNESOTA	5 (3.2)	172 (14.2)!	8 (2.8)	167 (3.2)!	4 (1.6)	149 (6.6)!	84 (4.5)	158 (1.4)
MISSISSIPPI	6 (1.9)*	136 (3.0)!	15 (2.5)*	129 (4.7)	59 (4.0)*	138 (1.9)	20 (3.3)*	131 (2.6)
MISSOURI	2 (...)	... (...)	9 (2.8)	155 (4.3)!	39 (4.1)	151 (1.9)	50 (4.7)	153 (2.1)
MONTANA†	32 (4.7)*	163 (2.1)	27 (3.6)*	163 (3.2)	24 (4.1)*	164 (1.9)	16 (4.1)*	158 (5.0)!
NEBRASKA	8 (1.5)*	161 (1.9)	19 (2.6)*	152 (3.0)	20 (2.3)*	156 (1.7)	53 (3.4)*	161 (1.5)
NEW MEXICO	2 (0.3)*	... (...)	13 (1.1)*	144 (2.2)	16 (2.0)*	141 (2.4)	69 (2.2)*	144 (1.5)
NEW YORK†	27 (5.5)*	148 (6.9)!	24 (5.0)*	160 (3.4)!	10 (3.6)*	145 (6.8)!	38 (5.6)*	138 (4.3)
NORTH CAROLINA	1 (...)	... (...)	1 (0.9)	... (...)	50 (4.1)	146 (1.7)	48 (4.1)	148 (1.5)
NORTH DAKOTA	1 (...)	... (...)	3 (1.2)	... (...)	2 (1.1)	167 (3.8)!	94 (1.9)	162 (0.9)
OREGON	9 (2.7)	156 (2.3)!	11 (2.8)	164 (3.4)!	31 (4.1)	156 (3.1)	49 (5.0)	154 (2.3)
RHODE ISLAND	13 (1.0)*	156 (2.1)	20 (0.9)*	149 (2.1)	29 (0.6)*	146 (1.5)	38 (0.8)*	150 (1.5)
SOUTH CAROLINA†	2 (1.3)	... (...)	2 (0.9)	... (...)	7 (2.7)	125 (4.3)!	89 (3.3)	139 (1.6)
TENNESSEE	3 (1.0)	... (...)	5 (1.8)	151 (5.2)!	51 (4.9)	142 (2.2)	41 (5.0)	147 (3.3)
TEXAS	0 (...)	... (...)	1 (0.4)	... (...)	17 (2.6)	142 (3.7)	82 (2.6)	149 (1.4)
UTAH	11 (1.2)*	151 (2.3)	11 (1.8)*	157 (2.8)	14 (2.2)*	157 (2.2)	64 (3.1)*	156 (1.2)
VERMONT†	16 (3.6)*	154 (4.2)!	32 (2.3)*	160 (1.8)	33 (3.1)*	157 (1.9)	19 (1.9)*	155 (2.4)
VIRGINIA	38 (4.1)*	150 (2.4)	42 (4.6)*	148 (2.9)	13 (2.9)*	148 (5.9)!	7 (3.0)*	150 (7.6)!
WASHINGTON	11 (2.7)*	147 (4.3)!	10 (2.5)*	152 (3.7)!	32 (4.8)*	149 (3.1)	47 (4.7)*	152 (2.1)
WEST VIRGINIA	0 (...)	... (...)	1 (...)	... (...)	59 (4.1)	149 (1.2)	39 (4.0)	145 (1.7)
WISCONSIN†	10 (2.7)*	168 (2.4)!	14 (3.7)*	164 (3.0)!	18 (4.2)*	149 (7.4)!	58 (5.2)*	163 (2.2)
WYOMING	15 (1.2)*	160 (1.8)	23 (0.8)*	160 (1.5)	23 (1.1)*	162 (1.7)	38 (0.8)*	160 (1.2)
Other Jurisdictions								
DDESS	0 (...)	... (...)	13 (1.0)	151 (3.2)	8 (1.1)	... (...)	79 (1.0)	152 (1.4)
DoDDS	0 (...)	... (...)	1 (0.0)	... (...)	55 (0.8)	157 (1.0)	44 (0.7)	153 (1.0)
GUAM	0 (...)	... (...)	0 (...)	... (...)	0 (...)	... (...)	100 (...)	119 (1.3)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

... Characteristics of the sample do not permit a reliable estimate.

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

* Interpret with caution — more than 15 percent of the respondents did not answer this question.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 4.2

1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

TEACHERS' REPORTS ON: Time Spent on Physical Science

THE NATION'S REPORT CARD 1996 State Assessment

How much time do you spend on the area of physical science in this class?	None		A Little		Some		A Lot	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation								
NATION	3 (1.2)*	141 (9.5)!	12 (3.6)*	152 (4.4)!	36 (4.9)*	152 (2.8)	49 (4.9)*	151 (1.8)
NORTHEAST	9 (5.1)*	... (...)	3 (2.2)*	... (...)	17 (10.3)*	... (...)	71 (10.1)*	161 (5.0)
SOUTHEAST	0 (...)*	... (...)	9 (2.7)*	... (...)	41 (7.9)*	149 (2.9)!	50 (7.8)*	142 (2.5)!
CENTRAL	0 (...)	... (...)	16 (...)	... (...)	49 (13.3)	158 (5.2)!	35 (9.8)	156 (4.3)!
WEST	3 (2.2)	... (...)	16 (4.7)	154 (4.0)!	33 (7.6)	152 (4.2)!	48 (9.1)	146 (2.6)!
States								
ALABAMA	10 (3.0)	143 (5.9)!	22 (3.2)	137 (3.8)	55 (4.5)	136 (2.6)	13 (3.8)	144 (5.5)!
ALASKA†	3 (1.5)*	... (...)	10 (2.9)*	130 (13.2)!	28 (3.7)*	152 (3.2)	59 (3.2)*	153 (1.8)
ARIZONA	8 (2.1)*	162 (8.1)!	12 (2.7)*	141 (4.4)!	30 (4.5)*	144 (3.2)	50 (4.7)*	143 (2.7)
ARKANSAS†	5 (2.3)	143 (6.1)!	43 (5.6)	144 (2.3)	35 (4.7)	142 (4.1)	16 (5.0)	154 (4.4)!
CALIFORNIA	1 (1.0)	... (...)	2 (1.0)	... (...)	39 (4.2)	140 (2.7)	57 (4.2)	141 (2.1)
COLORADO	3 (1.1)*	... (...)	6 (2.2)*	151 (4.4)!	26 (3.7)*	154 (3.3)	65 (4.5)*	156 (1.3)
CONNECTICUT	6 (2.1)*	148 (10.1)!	6 (1.8)*	160 (4.1)!	24 (4.0)*	162 (2.4)	64 (4.2)*	160 (2.0)
DELAWARE	6 (0.5)	130 (4.2)	24 (1.1)	139 (2.9)	35 (1.3)	138 (2.4)	35 (1.1)	139 (2.3)
DISTRICT OF COLUMBIA	0 (...)*	... (...)	7 (1.3)*	... (...)	16 (0.7)*	103 (2.4)	77 (1.3)*	112 (1.0)
FLORIDA	3 (1.1)*	... (...)	4 (1.3)*	147 (6.3)!	34 (3.7)*	139 (3.2)	59 (3.8)*	143 (1.9)
GEORGIA	15 (2.8)	139 (5.0)!	33 (3.5)	141 (3.1)	42 (3.8)	144 (2.4)	9 (2.1)	143 (5.8)!
HAWAII	6 (0.5)	... (...)	21 (1.4)	141 (4.3)	52 (1.5)	133 (2.2)	21 (1.4)	143 (3.5)
INDIANA	0 (...)*	... (...)	5 (1.7)*	152 (4.3)!	33 (4.5)*	151 (3.4)	62 (4.8)*	155 (1.6)
IOWA†	4 (2.4)*	... (...)	12 (3.4)*	162 (3.1)!	30 (4.5)*	158 (1.5)	54 (5.2)*	158 (2.0)
KENTUCKY	5 (2.0)	154 (10.0)!	13 (3.0)	142 (3.6)!	53 (4.6)	147 (1.4)	28 (4.6)	152 (2.0)
LOUISIANA	12 (3.3)	140 (3.1)!	43 (5.6)	131 (3.8)	27 (5.2)	136 (3.6)!	19 (3.8)	144 (2.2)!
MAINE	1 (0.1)*	... (...)	9 (2.7)*	158 (2.4)!	29 (3.4)*	165 (1.5)	61 (4.4)*	163 (1.5)
MARYLAND†	5 (2.7)*	155 (5.4)!	5 (1.6)*	156 (7.7)!	32 (3.2)*	147 (2.4)	58 (4.5)*	142 (2.6)
MASSACHUSETTS	5 (1.7)*	166 (5.9)!	12 (2.8)*	159 (6.5)!	29 (3.9)*	150 (3.0)	54 (5.4)*	161 (2.2)
MICHIGAN†	4 (1.6)*	163 (5.8)!	8 (2.7)*	158 (4.0)!	28 (3.9)*	152 (3.0)	61 (4.4)*	158 (1.9)
MINNESOTA	13 (3.4)	151 (4.4)!	37 (4.7)	158 (2.4)	30 (4.5)	159 (2.1)	20 (5.6)	167 (3.9)!
MISSISSIPPI	0 (...)*	... (...)	2 (0.9)*	... (...)	45 (4.5)*	136 (2.4)	53 (4.5)*	134 (2.1)
MISSOURI	2 (1.2)	... (...)	15 (3.2)	150 (2.5)!	39 (4.9)	154 (2.1)	43 (4.9)	153 (1.9)
MONTANA†	1 (...)*	... (...)	6 (2.8)*	159 (1.6)!	12 (3.2)*	158 (5.7)!	81 (4.0)*	163 (1.3)
NEBRASKA	7 (1.8)*	156 (4.2)!	18 (3.2)*	162 (2.5)	31 (3.5)*	159 (1.5)	45 (3.5)*	154 (1.5)
NEW MEXICO	4 (0.9)*	... (...)	19 (1.3)*	139 (2.8)	40 (2.8)*	142 (2.0)	37 (2.7)*	148 (1.8)
NEW YORK†	4 (1.5)*	137 (8.5)!	6 (2.0)*	153 (7.6)!	17 (4.0)*	143 (6.4)!	73 (4.6)*	155 (3.5)
NORTH CAROLINA	0 (...)	... (...)	3 (1.2)	154 (4.2)!	42 (4.1)	145 (2.0)	54 (4.4)	148 (1.6)
NORTH DAKOTA	18 (3.6)	162 (2.0)!	50 (4.0)	162 (1.8)	30 (3.0)	162 (2.0)	2 (1.1)	... (...)
OREGON	3 (1.5)	... (...)	22 (4.4)	154 (3.0)!	38 (4.5)	155 (3.0)	36 (4.2)	158 (2.6)
RHODE ISLAND	4 (0.3)*	158 (4.3)	16 (0.8)*	153 (2.1)	30 (0.7)*	149 (1.8)	49 (0.7)*	149 (1.1)
SOUTH CAROLINA†	12 (2.6)	129 (5.3)!	27 (4.0)	140 (3.2)	45 (4.6)	139 (2.5)	16 (4.2)	138 (4.2)!
TENNESSEE	1 (0.7)	... (...)	8 (2.3)	143 (7.8)!	45 (4.9)	140 (2.7)	46 (4.7)	151 (2.7)
TEXAS	6 (1.7)	138 (4.5)!	31 (4.0)	153 (2.6)	51 (4.1)	145 (2.2)	11 (2.7)	145 (5.3)!
UTAH	5 (1.4)*	151 (4.6)!	5 (1.4)*	159 (4.2)!	15 (2.4)*	158 (2.3)	75 (1.9)*	156 (1.0)
VERMONT†	7 (1.5)*	154 (3.6)!	4 (1.4)*	168 (5.4)!	20 (3.1)*	157 (2.3)	69 (3.4)*	156 (1.3)
VIRGINIA	1 (...)*	... (...)	1 (0.6)*	... (...)	2 (0.7)*	... (...)	96 (1.0)*	149 (1.9)
WASHINGTON	5 (2.1)*	... (...)	19 (4.4)*	149 (3.5)!	32 (4.5)*	150 (2.1)	44 (5.1)*	149 (2.8)
WEST VIRGINIA	0 (...)	... (...)	5 (1.0)	144 (2.8)!	60 (3.8)	148 (1.1)	35 (3.7)	147 (2.1)
WISCONSIN†	6 (2.1)*	163 (3.2)!	24 (5.0)*	162 (2.9)!	26 (4.8)*	152 (5.3)	43 (5.6)*	164 (1.9)
WYOMING	6 (1.1)*	160 (2.9)	16 (0.5)*	161 (2.1)	36 (1.1)*	159 (1.0)	43 (1.0)*	158 (0.8)
Other Jurisdictions								
DDESS	6 (0.6)	... (...)	24 (1.1)	154 (2.1)	26 (1.5)	145 (2.6)	44 (1.2)	156 (1.9)
DoDDS	0 (...)	... (...)	4 (0.3)	... (...)	62 (1.0)	157 (0.9)	34 (1.0)	155 (1.0)
GUAM	2 (0.5)	... (...)	27 (0.9)	118 (2.2)	71 (0.9)	120 (1.9)	0 (...)	... (...)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

... Characteristics of the sample do not permit a reliable estimate.

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

* Interpret with caution — more than 15 percent of the respondents did not answer this question.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 4.3

1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

TEACHERS' REPORTS ON: Time Spent on Life Science

THE NATION'S REPORT CARD naep 1996 State Assessment

How much time do you spend on the area of life science in this class?	None		A Little		Some		A Lot	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation								
NATION	17 (5.1)*	155 (5.0)!	22 (4.1)*	152 (3.5)	41 (6.1)*	149 (2.5)	19 (4.7)*	147 (2.7)!
NORTHEAST	55 (15.3)*	... (...)	17 (8.6)*	... (...)	14 (...)*	... (...)	13 (8.2)*	... (...)
SOUTHEAST	12 (5.7)*	151 (2.9)!	23 (7.5)*	144 (2.7)!	51 (11.9)*	147 (3.6)!	14 (4.2)*	140 (4.0)!
CENTRAL	13 (...)	... (...)	23 (8.3)	162 (5.2)!	48 (14.3)	156 (5.2)!	16 (7.6)	158 (5.4)!
WEST	7 (2.7)	151 (9.3)!	24 (8.1)	155 (7.7)!	42 (8.8)	150 (2.8)!	27 (10.0)	144 (3.4)!
States								
ALABAMA	16 (3.9)	147 (4.0)!	30 (4.3)	139 (3.2)	43 (4.0)	133 (3.3)	11 (2.5)	139 (6.3)!
ALASKA†	8 (1.5)*	150 (4.9)	29 (3.5)*	152 (5.4)	38 (3.6)*	146 (2.2)	25 (3.1)*	151 (4.3)
ARIZONA	9 (2.2)*	148 (9.5)!	16 (3.1)*	147 (2.6)!	32 (3.7)*	146 (2.8)	43 (4.8)*	144 (2.8)
ARKANSAS†	13 (4.2)	147 (5.4)!	49 (6.2)	147 (2.7)	32 (5.2)	140 (4.3)	6 (2.2)	136 (5.3)!
CALIFORNIA	9 (2.3)	134 (6.6)!	21 (3.8)	138 (3.8)	40 (4.1)	140 (2.6)	30 (4.3)	146 (3.5)
COLORADO	20 (3.4)*	156 (2.9)	29 (4.4)*	160 (1.6)	25 (3.3)*	150 (2.3)	26 (3.4)*	149 (3.1)
CONNECTICUT	17 (3.2)*	158 (4.8)	24 (3.4)*	161 (3.7)	32 (4.2)*	161 (2.7)	27 (4.7)*	151 (4.0)
DELAWARE	34 (0.8)	143 (1.8)	33 (1.4)	135 (1.9)	26 (1.1)	141 (3.2)	6 (0.6)	121 (4.9)
DISTRICT OF COLUMBIA	29 (1.6)*	111 (2.1)	20 (1.2)*	119 (2.4)	19 (1.0)*	108 (3.2)	31 (1.7)*	107 (2.7)
FLORIDA	13 (2.6)*	151 (3.7)	26 (3.6)*	139 (3.6)	47 (4.1)*	140 (2.9)	15 (3.4)*	142 (3.4)!
GEORGIA	34 (4.0)	140 (3.4)	50 (4.1)	143 (2.2)	11 (2.8)	142 (5.1)!	5 (1.9)	153 (7.2)!
HAWAII	28 (1.0)	141 (3.9)	39 (1.5)	135 (2.4)	25 (1.2)	134 (4.1)	8 (1.1)	... (...)
INDIANA	22 (4.1)*	154 (2.7)	20 (3.8)*	158 (2.8)	36 (4.8)*	150 (3.4)	22 (5.3)*	157 (4.2)!
IOWA†	14 (3.8)*	160 (2.9)!	35 (5.4)*	158 (2.3)	29 (4.5)*	159 (2.3)	22 (4.5)*	162 (2.7)!
KENTUCKY	21 (3.9)	153 (3.5)	33 (5.3)	150 (1.9)	35 (4.3)	146 (1.8)	11 (2.9)	141 (5.6)!
LOUISIANA	31 (6.5)	131 (4.2)!	36 (6.0)	137 (3.8)	24 (5.2)	138 (4.1)!	9 (3.6)	121 (17.4)!
MAINE	20 (3.0)*	162 (1.8)	24 (4.2)*	164 (2.9)	33 (3.9)*	163 (1.7)	23 (2.6)*	166 (2.2)
MARYLAND†	28 (5.4)*	145 (3.7)!	25 (4.9)*	152 (3.7)	38 (4.4)*	145 (2.8)	9 (2.6)	140 (5.3)!
MASSACHUSETTS	24 (4.8)*	167 (3.6)!	27 (4.5)*	159 (2.7)	25 (4.4)*	151 (3.2)	24 (4.9)*	147 (4.6)!
MICHIGAN†	20 (3.3)*	160 (1.9)	28 (3.5)*	159 (2.4)	33 (3.6)*	154 (3.1)	20 (3.9)*	150 (3.5)!
MINNESOTA	27 (5.4)	161 (4.3)!	46 (5.5)	161 (2.0)	19 (3.5)	156 (2.6)	9 (3.2)	157 (6.5)!
MISSISSIPPI	7 (2.2)*	136 (2.6)!	12 (2.1)*	130 (4.5)	59 (4.0)*	136 (2.2)	23 (3.4)*	135 (2.9)
MISSOURI	5 (2.1)	153 (5.7)!	20 (3.8)	154 (3.5)	46 (4.9)	152 (1.7)	29 (4.1)	152 (2.0)
MONTANA†	32 (4.9)*	163 (2.0)	36 (4.8)*	164 (2.6)	19 (4.6)*	160 (4.6)!	13 (4.5)*	157 (3.7)!
NEBRASKA	21 (3.3)*	157 (3.5)	45 (3.6)*	159 (1.5)	17 (2.5)*	155 (1.9)	17 (3.2)*	160 (2.8)
NEW MEXICO	24 (1.9)*	142 (2.0)	31 (2.1)*	144 (1.5)	24 (2.2)*	139 (2.7)	20 (3.0)*	144 (3.0)
NEW YORK†	35 (6.3)*	147 (5.9)!	32 (4.8)*	155 (4.3)	16 (3.8)*	152 (4.2)!	17 (5.1)*	142 (9.4)!
NORTH CAROLINA	5 (1.8)	150 (4.7)!	19 (2.9)	148 (2.2)	62 (3.6)	147 (1.6)	13 (2.6)	149 (3.3)!
NORTH DAKOTA	26 (3.7)	161 (2.2)	46 (3.8)	162 (2.1)	19 (2.8)	167 (1.8)	10 (2.7)	162 (2.2)!
OREGON	14 (2.9)	154 (4.0)!	29 (4.4)	156 (2.7)	31 (4.4)	155 (3.2)	25 (4.6)	157 (3.9)!
RHODE ISLAND	21 (1.0)*	154 (2.0)	31 (1.2)*	151 (1.7)	25 (0.8)*	146 (2.2)	22 (0.8)*	149 (2.1)
SOUTH CAROLINA†	28 (3.7)	138 (3.3)	47 (4.3)	141 (2.3)	22 (4.1)	131 (3.6)!	2 (1.3)	... (...)
TENNESSEE	3 (1.2)	... (...)	18 (3.7)	154 (3.5)!	46 (4.5)	142 (2.6)	34 (4.4)	144 (3.4)
TEXAS	10 (2.2)	150 (5.2)!	43 (3.5)	148 (2.2)	37 (3.7)	145 (3.0)	10 (2.6)	145 (4.1)!
UTAH	41 (3.7)*	153 (1.7)	39 (3.7)*	158 (1.4)	15 (2.8)*	157 (2.5)	4 (1.9)*	... (...)
VERMONT†	23 (3.4)*	153 (3.1)	29 (2.7)*	158 (1.9)	27 (3.5)*	159 (2.3)	22 (2.9)*	158 (2.5)
VIRGINIA	51 (4.4)*	153 (2.4)	37 (4.4)*	148 (3.2)	11 (3.5)*	134 (4.1)!	1 (0.3)*	... (...)
WASHINGTON	17 (3.9)*	147 (2.9)!	22 (4.0)*	150 (3.7)	34 (4.8)*	152 (2.0)	27 (4.9)*	150 (3.5)!
WEST VIRGINIA	2 (1.0)	... (...)	9 (1.8)	148 (4.0)!	68 (3.5)	148 (1.2)	22 (3.6)	144 (2.7)
WISCONSIN†	16 (3.9)*	166 (2.8)!	36 (4.9)*	163 (3.2)	25 (4.7)*	152 (5.5)!	23 (4.9)*	159 (4.1)!
WYOMING	13 (0.5)*	159 (1.9)	29 (0.7)*	160 (1.3)	28 (0.9)*	160 (1.3)	31 (1.0)*	158 (1.6)
Other Jurisdictions								
DDESS	24 (1.0)	159 (3.2)	26 (1.6)	148 (2.3)	29 (1.6)	148 (2.2)	22 (0.9)	153 (3.1)
DoDDS	4 (0.1)	... (...)	7 (0.5)	154 (2.3)	52 (1.1)	156 (1.1)	36 (1.1)	156 (1.2)
GUAM	27 (0.8)	107 (2.9)	20 (1.6)	130 (3.3)	53 (1.5)	121 (2.1)	0 (...)	... (...)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

... Characteristics of the sample do not permit a reliable estimate.

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

* Interpret with caution — more than 15 percent of the respondents did not answer this question.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 4.4 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
STUDENTS' REPORTS ON: Their Current Science Course

THE NATION'S REPORT CARD 1996 State Assessment

Which best describes the science course you are taking?	I Am Not Taking Science This Year		Life Science		Physical Science	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	3 (0.9)	120 (3.0)!	12 (1.5)	133 (3.5)	25 (2.6)	154 (1.6)
NORTHEAST	8 (4.4)	... (...)	9 (1.6)	126 (5.0)!	55 (5.5)	160 (4.2)
SOUTHEAST	2 (0.4)	... (...)	11 (1.5)	122 (2.9)!	27 (4.8)	146 (3.0)!
CENTRAL	1 (0.3)	... (...)	13 (4.7)	144 (6.9)!	13 (3.6)	152 (4.1)!
WEST	4 (0.4)	117 (6.7)	14 (2.8)	135 (4.1)!	16 (4.9)	150 (2.4)!
States						
ALABAMA	1 (0.3)	... (...)	12 (0.9)	121 (2.6)	3 (0.4)	116 (7.0)
ALASKA†	5 (0.7)	... (...)	10 (1.6)	132 (5.9)	21 (1.6)	159 (2.0)
ARIZONA	5 (0.9)	125 (6.3)!	19 (1.8)	144 (3.0)	14 (1.9)	143 (3.0)
ARKANSAS†	1 (0.4)	... (...)	11 (1.0)	134 (3.3)	7 (1.4)	137 (6.0)!
CALIFORNIA	5 (1.4)	114 (5.5)!	13 (1.7)	138 (4.6)	18 (1.7)	137 (2.8)
COLORADO	2 (0.3)	... (...)	11 (1.2)	145 (2.7)	31 (2.8)	159 (1.4)
CONNECTICUT	2 (0.3)	... (...)	14 (1.3)	139 (2.9)	32 (2.6)	163 (2.1)
DELAWARE	2 (0.5)	... (...)	13 (0.9)	126 (2.6)	10 (0.7)	140 (3.3)
DISTRICT OF COLUMBIA	4 (0.5)	... (...)	13 (0.8)	106 (2.7)	42 (1.1)	117 (1.6)
FLORIDA	2 (0.3)	... (...)	13 (1.2)	133 (2.8)	38 (3.2)	149 (2.5)
GEORGIA	2 (0.3)	... (...)	12 (1.0)	129 (2.8)	5 (0.8)	134 (5.3)
HAWAII	46 (1.0)	135 (1.1)	8 (0.6)	120 (3.4)	7 (0.5)	127 (3.9)
INDIANA	3 (0.3)	... (...)	8 (1.0)	139 (2.5)	21 (3.1)	156 (2.1)
IOWA†	2 (0.7)	... (...)	13 (1.6)	151 (2.8)	20 (2.9)	160 (2.9)
KENTUCKY	2 (0.4)	... (...)	16 (1.1)	133 (2.2)	9 (1.5)	147 (3.9)
LOUISIANA	2 (0.4)	... (...)	17 (1.7)	122 (3.0)	9 (1.7)	131 (3.6)
MAINE	2 (0.4)	... (...)	11 (1.1)	157 (2.4)	33 (2.7)	167 (1.8)
MARYLAND†	2 (0.3)	... (...)	11 (1.1)	130 (3.0)	33 (2.8)	146 (2.4)
MASSACHUSETTS	2 (0.8)	... (...)	14 (2.0)	142 (2.7)	29 (3.5)	162 (2.3)
MICHIGAN†	2 (0.5)	... (...)	9 (1.1)	137 (4.0)	30 (3.3)	161 (2.2)
MINNESOTA	2 (0.4)	... (...)	13 (1.9)	146 (4.0)	12 (3.0)	166 (5.1)!
MISSISSIPPI	2 (0.4)	... (...)	7 (0.9)	126 (4.0)	36 (2.8)	130 (2.0)
MISSOURI	2 (0.4)	... (...)	15 (1.5)	140 (2.5)	13 (1.9)	150 (2.6)
MONTANA†	1 (0.4)	... (...)	10 (1.1)	153 (2.9)	58 (2.8)	166 (1.3)
NEBRASKA	2 (0.4)	... (...)	13 (1.8)	151 (3.0)	23 (2.1)	155 (1.9)
NEW MEXICO	3 (0.5)	... (...)	14 (1.1)	126 (1.9)	15 (1.4)	144 (2.0)
NEW YORK†	2 (0.5)	... (...)	13 (1.3)	134 (4.4)	38 (3.2)	156 (3.8)
NORTH CAROLINA	3 (0.4)	121 (4.9)	5 (0.5)	122 (3.5)	12 (1.2)	143 (2.7)
NORTH DAKOTA	1 (0.3)	... (...)	11 (1.4)	151 (2.5)	2 (0.3)	... (...)
OREGON	4 (0.9)	133 (6.0)!	17 (2.0)	150 (3.5)	20 (2.4)	159 (2.1)
RHODE ISLAND	2 (0.3)	... (...)	11 (0.8)	134 (2.9)	29 (0.8)	152 (1.4)
SOUTH CAROLINA†	1 (0.3)	... (...)	14 (1.0)	125 (1.9)	8 (1.8)	139 (4.3)!
TENNESSEE	4 (0.4)	112 (4.8)	7 (0.8)	126 (3.8)	11 (1.4)	145 (5.4)
TEXAS	1 (0.2)	... (...)	14 (1.0)	136 (2.4)	5 (0.8)	131 (3.8)
UTAH	4 (0.6)	135 (3.5)	8 (0.9)	145 (3.1)	40 (2.2)	157 (1.1)
VERMONT†	2 (0.4)	... (...)	13 (1.7)	152 (3.2)	35 (2.4)	163 (1.6)
VIRGINIA	1 (0.2)	... (...)	9 (0.6)	131 (2.8)	72 (1.5)	153 (1.7)
WASHINGTON	7 (1.1)	134 (3.8)	17 (2.2)	144 (2.6)	15 (2.6)	153 (3.1)
WEST VIRGINIA	3 (0.4)	130 (4.7)	9 (0.8)	136 (2.1)	6 (0.6)	143 (2.9)
WISCONSIN†	2 (0.4)	... (...)	11 (1.6)	149 (3.7)	18 (3.0)	159 (2.5)
WYOMING	9 (0.5)	145 (3.0)	17 (0.8)	158 (1.3)	29 (0.9)	159 (1.0)
Other Jurisdictions						
DDESS	1 (0.5)	... (...)	10 (1.2)	... (...)	20 (1.4)	157 (3.2)
DoDDS	2 (0.3)	... (...)	9 (0.7)	144 (2.9)	6 (0.5)	152 (3.8)
GUAM	5 (0.7)	... (...)	16 (1.4)	110 (2.7)	4 (0.7)	... (...)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 4.4 *(continued)* **1996 Science Assessment**

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

STUDENTS' REPORTS ON: Their Current Science Course

THE NATION'S REPORT CARD 1996 State Assessment

Which best describes the science course you are taking?	Earth Science		General Science		Integrated Science	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	23 (3.1)	148 (3.6)	19 (1.5)	156 (1.7)	17 (1.8)	156 (1.6)
NORTHEAST	15 (7.0)	140 (4.5)!	6 (1.4)	... (...)	6 (2.6)	... (...)
SOUTHEAST	23 (4.2)	137 (3.5)!	16 (3.2)	145 (3.7)!	21 (4.9)	153 (2.2)!
CENTRAL	31 (7.5)	153 (5.1)!	25 (4.7)	165 (3.1)	17 (3.1)	166 (3.6)
WEST	23 (6.2)	153 (8.8)!	24 (2.4)	157 (1.9)	20 (3.3)	152 (2.5)
States						
ALABAMA	58 (2.8)	143 (1.9)	4 (0.7)	137 (5.6)	21 (2.6)	143 (2.4)
ALASKA†	24 (1.9)	154 (2.7)	21 (1.7)	161 (2.2)	20 (1.5)	161 (2.0)
ARIZONA	16 (2.0)	144 (4.4)	27 (2.3)	150 (2.4)	20 (1.3)	155 (2.3)
ARKANSAS†	71 (2.4)	148 (1.6)	4 (0.7)	146 (5.4)	6 (1.1)	150 (3.5)
CALIFORNIA	19 (1.7)	129 (3.2)	25 (1.8)	150 (2.0)	21 (1.3)	148 (2.3)
COLORADO	17 (2.3)	158 (2.8)	20 (1.4)	154 (1.7)	19 (1.4)	155 (2.0)
CONNECTICUT	15 (1.7)	148 (2.4)	23 (1.8)	162 (1.9)	14 (1.3)	160 (2.9)
DELAWARE	53 (1.1)	151 (1.2)	13 (0.7)	137 (2.3)	8 (0.6)	143 (3.0)
DISTRICT OF COLUMBIA	7 (0.8)	90 (3.2)	27 (0.9)	128 (1.7)	8 (0.6)	119 (3.0)
FLORIDA	14 (1.8)	140 (2.7)	20 (1.7)	140 (2.6)	13 (1.4)	149 (4.2)
GEORGIA	72 (1.6)	147 (1.7)	3 (0.4)	138 (4.3)	7 (1.2)	147 (4.4)
HAWAII	32 (1.0)	140 (1.5)	4 (0.4)	142 (4.2)	3 (0.3)	... (...)
INDIANA	16 (1.9)	151 (3.2)	32 (2.6)	156 (1.8)	19 (1.4)	157 (2.4)
IOWA†	30 (3.3)	161 (1.6)	23 (2.3)	159 (1.9)	13 (1.4)	159 (2.5)
KENTUCKY	44 (2.6)	153 (1.8)	16 (1.3)	152 (1.8)	13 (1.1)	154 (2.0)
LOUISIANA	66 (2.4)	139 (1.8)	3 (0.4)	126 (6.3)	2 (0.4)	... (...)
MAINE	14 (2.5)	164 (2.4)	24 (1.4)	163 (1.7)	16 (1.1)	165 (1.6)
MARYLAND†	28 (3.0)	156 (2.5)	15 (1.4)	148 (2.6)	11 (1.0)	149 (3.1)
MASSACHUSETTS	27 (3.4)	162 (3.0)	15 (1.6)	159 (2.7)	13 (1.3)	157 (2.6)
MICHIGAN†	19 (2.6)	152 (2.7)	26 (2.5)	155 (2.2)	14 (1.2)	157 (2.0)
MINNESOTA	61 (3.8)	162 (1.3)	8 (1.6)	162 (2.9)	4 (0.7)	163 (3.5)
MISSISSIPPI	13 (1.2)	122 (2.8)	12 (1.0)	143 (2.7)	30 (2.4)	141 (2.0)
MISSOURI	28 (3.0)	154 (1.9)	27 (2.1)	158 (1.7)	15 (1.2)	158 (1.8)
MONTANA†	14 (2.8)	156 (3.9)	11 (1.6)	164 (2.1)	5 (0.7)	160 (2.9)
NEBRASKA	39 (3.0)	162 (1.4)	14 (1.7)	159 (1.7)	9 (0.8)	160 (2.3)
NEW MEXICO	46 (1.9)	145 (1.5)	12 (0.8)	146 (1.7)	11 (1.0)	149 (2.3)
NEW YORK†	26 (2.9)	145 (2.9)	13 (1.8)	152 (4.4)	7 (1.0)	144 (4.5)
NORTH CAROLINA	15 (1.2)	136 (2.1)	26 (1.1)	153 (1.5)	38 (1.4)	153 (1.4)
NORTH DAKOTA	84 (1.5)	165 (0.8)	2 (0.5)	... (...)	1 (0.3)	... (...)
OREGON	27 (3.3)	158 (2.2)	17 (1.7)	156 (2.1)	15 (1.3)	156 (2.9)
RHODE ISLAND	30 (1.0)	151 (1.5)	18 (0.9)	152 (1.6)	10 (0.7)	156 (2.5)
SOUTH CAROLINA†	69 (1.8)	143 (1.8)	4 (0.9)	137 (4.2)!	4 (0.6)	133 (4.6)
TENNESSEE	10 (1.1)	130 (3.4)	51 (2.0)	148 (2.0)	17 (1.4)	153 (2.1)
TEXAS	61 (2.6)	150 (1.5)	9 (1.1)	153 (4.2)	9 (1.0)	149 (3.1)
UTAH	36 (1.9)	158 (1.1)	5 (0.7)	161 (3.0)	7 (0.6)	160 (3.3)
VERMONT†	11 (1.2)	149 (2.8)	21 (1.6)	156 (2.0)	17 (1.3)	162 (2.3)
VIRGINIA	6 (1.3)	145 (3.6)!	7 (0.8)	156 (2.9)	5 (0.8)	148 (4.7)
WASHINGTON	32 (3.1)	151 (2.1)	16 (1.9)	156 (2.3)	13 (1.7)	154 (2.3)
WEST VIRGINIA	19 (1.3)	138 (2.0)	37 (1.2)	153 (1.1)	26 (1.2)	155 (1.3)
WISCONSIN†	37 (3.5)	164 (2.1)	20 (1.9)	165 (1.8)	12 (1.3)	161 (3.2)
WYOMING	23 (0.7)	162 (1.3)	12 (0.6)	155 (2.1)	10 (0.7)	160 (1.5)
Other Jurisdictions						
DDESS	40 (1.9)	153 (1.9)	9 (1.3)	... (...)	20 (1.5)	156 (3.0)
DoDDS	15 (0.8)	152 (1.7)	37 (1.1)	159 (1.4)	32 (1.1)	159 (0.8)
GUAM	58 (1.6)	127 (1.7)	8 (0.9)	128 (3.7)	9 (1.2)	123 (3.6)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

... Characteristics of the sample do not permit a reliable estimate.

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 4.5 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
STUDENTS' REPORTS ON: Time Spent Studying Science in School

THE NATION'S REPORT CARD 1996 State Assessment

About how often do you study science in school?	Never		Less than Once a Week		One or Two Times A Week		Three or Four Times a Week		Every Day	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation										
NATION	4 (0.5)	126 (3.2)	4 (0.3)	136 (3.0)	7 (0.8)	138 (2.6)	13 (1.9)	146 (2.2)	71 (2.7)	153 (1.3)
NORTHEAST	6 (2.5)	... (...)	6 (1.1)	... (...)	8 (1.3)	... (...)	18 (4.2)	145 (4.7)!	62 (4.9)	155 (4.7)
SOUTHEAST	4 (0.7)	116 (5.7)	4 (0.4)	128 (4.8)	8 (0.9)	133 (4.8)	10 (0.8)	138 (2.5)	75 (1.9)	145 (2.1)
CENTRAL	3 (0.6)	... (...)	5 (0.7)	... (...)	6 (1.2)	141 (6.4)!	10 (1.1)	145 (4.4)	77 (2.1)	160 (2.8)
WEST	4 (0.4)	133 (4.7)	3 (0.4)	132 (7.2)	8 (1.9)	140 (4.7)!	16 (5.2)	151 (3.8)!	70 (7.6)	151 (3.4)
States										
ALABAMA	2 (0.4)	... (...)	3 (0.4)	... (...)	6 (0.5)	121 (4.7)	7 (0.6)	132 (2.8)	82 (1.0)	142 (1.6)
ALASKA†	3 (0.6)	... (...)	3 (0.9)	... (...)	6 (0.7)	139 (4.7)	28 (1.8)	158 (2.3)	60 (2.1)	155 (1.6)
ARIZONA	3 (0.9)	138 (4.1)!	4 (0.5)	134 (5.0)	5 (0.6)	139 (3.0)	9 (1.1)	146 (4.1)	78 (1.8)	147 (1.5)
ARKANSAS†	2 (0.3)	... (...)	3 (0.4)	... (...)	6 (0.6)	133 (3.4)	8 (0.9)	141 (4.1)	81 (1.4)	147 (1.5)
CALIFORNIA	4 (1.1)	125 (6.2)!	3 (0.4)	117 (7.3)	7 (0.9)	129 (4.2)	14 (2.0)	142 (3.3)	72 (2.8)	141 (1.8)
COLORADO	2 (0.3)	... (...)	2 (0.3)	... (...)	6 (0.9)	144 (3.4)	13 (1.6)	158 (2.4)	78 (1.9)	156 (0.9)
CONNECTICUT	3 (0.4)	... (...)	3 (0.4)	139 (4.7)	5 (0.4)	138 (3.9)	7 (0.7)	145 (3.2)	82 (1.0)	159 (1.2)
DELAWARE	4 (0.6)	117 (5.9)	4 (0.6)	124 (5.2)	8 (0.8)	133 (3.5)	11 (0.6)	141 (2.6)	73 (1.1)	146 (0.9)
DISTRICT OF COLUMBIA	4 (0.5)	... (...)	4 (0.6)	102 (5.2)	11 (0.9)	106 (2.5)	19 (1.1)	116 (1.9)	62 (1.4)	116 (1.1)
FLORIDA	3 (0.4)	124 (5.0)	4 (0.5)	132 (3.9)	7 (0.7)	129 (2.7)	13 (1.9)	139 (2.8)	73 (2.4)	146 (1.8)
GEORGIA	2 (0.3)	... (...)	3 (0.3)	120 (5.8)	6 (0.6)	125 (2.7)	11 (1.1)	132 (2.6)	78 (1.5)	146 (1.5)
HAWAII	38 (0.9)	134 (1.1)	10 (0.7)	127 (3.1)	7 (0.6)	129 (3.7)	20 (0.9)	139 (1.8)	25 (0.8)	139 (2.0)
INDIANA	2 (0.3)	... (...)	3 (0.4)	139 (4.5)	5 (0.6)	140 (3.5)	8 (0.9)	146 (2.4)	81 (1.5)	156 (1.4)
IOWA†	3 (0.6)	... (...)	4 (0.4)	145 (4.2)	6 (0.6)	146 (3.8)	9 (1.1)	157 (2.6)	79 (1.6)	161 (1.1)
KENTUCKY	2 (0.4)	... (...)	2 (0.3)	... (...)	5 (0.7)	139 (2.6)	13 (2.1)	146 (2.8)	77 (2.4)	150 (1.5)
LOUISIANA	4 (0.5)	114 (5.4)	4 (0.4)	120 (5.5)	11 (0.7)	126 (3.0)	10 (0.7)	126 (3.6)	72 (1.2)	137 (1.4)
MAINE	2 (0.3)	... (...)	2 (0.3)	... (...)	5 (0.5)	149 (3.2)	18 (2.4)	166 (2.0)	73 (2.6)	165 (1.1)
MARYLAND†	3 (0.4)	135 (4.8)	3 (0.4)	136 (4.2)	7 (0.7)	128 (3.3)	8 (1.3)	144 (5.9)	78 (1.7)	148 (1.5)
MASSACHUSETTS	3 (0.6)	146 (7.2)!	2 (0.3)	... (...)	5 (0.5)	142 (3.1)	10 (1.6)	144 (4.4)	79 (1.8)	161 (1.3)
MICHIGAN†	2 (0.3)	... (...)	3 (0.4)	... (...)	6 (0.6)	146 (3.5)	7 (0.8)	144 (3.0)	82 (1.2)	156 (1.4)
MINNESOTA	4 (0.7)	142 (3.2)	4 (0.5)	145 (4.3)	7 (0.5)	151 (2.8)	12 (1.8)	159 (2.3)	73 (2.1)	162 (1.5)
MISSISSIPPI	3 (0.4)	115 (3.5)	5 (0.5)	117 (4.3)	10 (0.8)	121 (2.5)	13 (1.3)	133 (2.5)	70 (1.7)	137 (1.5)
MISSOURI	2 (0.4)	... (...)	3 (0.3)	... (...)	7 (0.9)	147 (3.3)	17 (2.5)	153 (2.6)	71 (2.9)	153 (1.3)
MONTANA†	2 (0.4)	... (...)	2 (0.3)	... (...)	6 (0.6)	158 (3.1)	7 (0.9)	157 (3.3)	84 (1.2)	164 (1.2)
NEBRASKA	3 (0.4)	129 (4.6)	3 (0.4)	146 (4.7)	5 (0.5)	146 (4.3)	6 (0.8)	154 (4.4)	83 (1.3)	160 (0.9)
NEW MEXICO	3 (0.4)	124 (4.3)	3 (0.5)	125 (3.7)	5 (0.5)	123 (3.5)	9 (0.6)	136 (2.8)	80 (0.7)	144 (1.0)
NEW YORK†	3 (0.5)	... (...)	3 (0.6)	... (...)	9 (0.8)	137 (4.0)	14 (2.4)	140 (4.7)	69 (2.9)	151 (1.7)
NORTH CAROLINA	3 (0.5)	126 (4.8)	2 (0.3)	134 (5.0)	6 (0.6)	138 (3.1)	9 (1.2)	143 (2.5)	79 (1.7)	149 (1.2)
NORTH DAKOTA	3 (0.4)	146 (4.2)	4 (0.5)	159 (3.0)	8 (0.6)	152 (2.9)	8 (0.6)	158 (2.1)	77 (1.1)	165 (0.8)
OREGON	4 (0.6)	133 (5.6)	2 (0.6)	... (...)	8 (1.4)	150 (2.6)	20 (2.5)	152 (2.5)	66 (2.9)	158 (1.6)
RHODE ISLAND	4 (0.4)	135 (3.7)	3 (0.5)	138 (5.2)	6 (0.5)	135 (3.3)	8 (0.6)	144 (2.7)	78 (0.9)	152 (1.0)
SOUTH CAROLINA†	3 (0.4)	... (...)	4 (0.4)	127 (3.6)	11 (1.0)	126 (2.4)	14 (1.7)	139 (3.1)	69 (2.7)	142 (1.7)
TENNESSEE	3 (0.5)	108 (7.9)	3 (0.4)	... (...)	5 (0.7)	141 (4.1)	10 (1.5)	140 (4.4)	78 (1.8)	146 (1.7)
TEXAS	3 (0.4)	135 (5.3)	3 (0.4)	134 (4.7)	10 (1.2)	138 (3.2)	19 (2.4)	145 (2.9)	65 (3.2)	149 (1.5)
UTAH	5 (0.7)	146 (3.3)	3 (0.7)	149 (3.4)!	5 (0.4)	141 (2.9)	10 (0.6)	149 (2.0)	77 (1.1)	159 (0.9)
VERMONT†	2 (0.4)	... (...)	3 (0.4)	... (...)	7 (0.6)	143 (3.1)	20 (1.7)	158 (1.7)	68 (1.7)	160 (1.0)
VIRGINIA	4 (0.4)	129 (3.9)	4 (0.4)	137 (2.9)	8 (0.7)	140 (3.0)	12 (1.9)	149 (2.8)	72 (2.1)	153 (1.6)
WASHINGTON	8 (1.0)	135 (3.2)	3 (0.4)	129 (3.3)	6 (0.7)	143 (3.5)	10 (1.4)	151 (4.5)	72 (2.0)	153 (1.4)
WEST VIRGINIA	3 (0.4)	125 (4.5)	3 (0.3)	134 (3.4)	4 (0.5)	136 (3.6)	5 (0.5)	142 (2.5)	85 (0.8)	149 (0.8)
WISCONSIN†	3 (0.4)	... (...)	4 (0.4)	147 (3.9)	6 (0.5)	151 (3.4)	8 (0.8)	152 (4.1)	81 (1.2)	163 (1.6)
WYOMING	10 (0.7)	141 (2.9)	3 (0.4)	149 (2.8)	4 (0.6)	148 (3.3)	7 (0.5)	151 (1.8)	76 (1.0)	161 (0.7)
Other Jurisdictions										
DDESS	2 (0.6)	... (...)	3 (0.6)	... (...)	9 (1.0)	... (...)	7 (1.1)	... (...)	79 (1.5)	155 (1.4)
DoDDS	2 (0.4)	... (...)	4 (0.4)	145 (3.4)	6 (0.5)	146 (2.6)	13 (0.6)	158 (1.7)	74 (0.8)	157 (0.8)
GUAM	3 (0.5)	... (...)	4 (0.6)	... (...)	7 (0.9)	103 (5.2)	10 (0.8)	119 (4.0)	76 (1.4)	124 (1.4)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 4.6 — 1996 Science Assessment

THE NATION'S REPORT CARD — 1996 State Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

TEACHERS' REPORTS ON: Instructional Emphasis on Knowing Science Facts and Terminology

In your plans for science instruction during the year, about how much emphasis will you give to knowing science facts and terminology as an objective for your students?

JURISDICTIONS	Little or No Emphasis		Moderate Emphasis		Heavy Emphasis	
	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	5 (2.3)	154 (4.0)!	57 (3.4)	153 (1.4)	38 (3.9)	145 (2.6)
NORTHEAST	3 (...)	... (...)	56 (10.0)	159 (4.8)	42 (11.2)	145 (6.4)!
SOUTHEAST	0 (...)	... (...)	47 (6.8)	144 (2.5)!	52 (6.8)	141 (2.9)
CENTRAL	7 (...)	... (...)	68 (8.7)	161 (2.7)	25 (7.7)	150 (7.5)!
WEST	8 (5.9)	156 (2.5)!	56 (5.1)	149 (2.6)	36 (7.3)	149 (6.7)!
States						
ALABAMA	1 (...)	... (...)	31 (4.5)	138 (3.3)	68 (4.6)	138 (2.6)
ALASKA†	6 (0.4)	... (...)	67 (3.0)	152 (2.4)	26 (2.9)	148 (4.3)
ARIZONA	9 (3.4)	148 (4.5)!	67 (4.6)	145 (2.1)	24 (4.1)	144 (3.7)
ARKANSAS†	0 (...)	... (...)	36 (4.1)	146 (2.7)	64 (4.1)	143 (1.8)
CALIFORNIA	5 (1.4)	137 (4.1)!	72 (3.2)	140 (2.0)	23 (3.0)	138 (4.2)
COLORADO	4 (1.5)	152 (2.9)!	69 (3.3)	157 (1.3)	27 (3.0)	151 (2.4)
CONNECTICUT	3 (1.0)	167 (3.3)!	72 (3.1)	158 (1.7)	25 (3.0)	150 (3.0)
DELAWARE	5 (0.5)	136 (3.9)	55 (0.9)	141 (1.6)	40 (1.0)	144 (1.3)
DISTRICT OF COLUMBIA	0 (...)	... (...)	45 (1.5)	113 (1.5)	55 (1.5)	108 (1.0)
FLORIDA	5 (2.0)	129 (11.9)!	51 (2.9)	144 (2.1)	44 (3.2)	141 (1.9)
GEORGIA	1 (...)	... (...)	48 (3.1)	143 (1.8)	51 (3.3)	142 (2.3)
HAWAII	0 (...)	... (...)	64 (1.2)	135 (1.2)	36 (1.2)	138 (2.7)
INDIANA	4 (1.3)	152 (5.2)!	57 (4.6)	155 (1.9)	40 (4.5)	153 (2.5)
IOWA†	4 (1.4)	159 (5.9)!	66 (4.3)	159 (1.3)	31 (4.1)	157 (2.5)
KENTUCKY	3 (1.7)	... (...)	59 (4.0)	149 (1.8)	38 (4.5)	146 (1.9)
LOUISIANA	1 (0.9)	... (...)	39 (4.7)	134 (2.5)	60 (4.8)	133 (2.4)
MAINE	4 (1.4)	166 (3.9)!	69 (3.6)	163 (1.2)	27 (3.2)	164 (2.0)
MARYLAND†	4 (1.4)	164 (4.4)!	63 (3.9)	146 (2.2)	33 (3.7)	142 (2.5)
MASSACHUSETTS	4 (1.3)	152 (9.3)!	59 (3.4)	155 (1.9)	37 (3.5)	160 (2.1)
MICHIGAN†	2 (1.1)	... (...)	60 (3.8)	158 (1.9)	38 (3.8)	153 (2.2)
MINNESOTA	5 (1.3)	153 (5.1)!	68 (4.4)	159 (1.5)	27 (4.6)	160 (3.2)
MISSISSIPPI	2 (0.9)	... (...)	37 (4.3)	137 (2.3)	62 (4.3)	133 (2.0)
MISSOURI	1 (0.6)	... (...)	64 (3.7)	154 (1.6)	35 (3.6)	150 (2.2)
MONTANA†	4 (1.8)	... (...)	63 (3.5)	161 (1.5)	33 (3.1)	163 (1.8)
NEBRASKA	3 (0.1)	... (...)	61 (3.4)	157 (1.3)	37 (3.4)	160 (1.4)
NEW MEXICO	2 (0.2)	... (...)	53 (3.1)	144 (1.4)	45 (3.1)	143 (1.9)
NEW YORK†	5 (2.3)	155 (8.2)!	53 (4.8)	149 (3.4)	42 (4.5)	147 (2.6)
NORTH CAROLINA	2 (0.8)	... (...)	59 (3.2)	148 (1.4)	38 (3.1)	144 (1.7)
NORTH DAKOTA	1 (...)	... (...)	43 (2.7)	163 (1.0)	56 (2.8)	162 (1.2)
OREGON	5 (1.4)	157 (5.0)!	65 (3.3)	156 (1.9)	30 (3.2)	157 (3.2)
RHODE ISLAND	4 (0.5)	136 (4.4)	60 (1.0)	148 (1.2)	36 (0.8)	153 (1.2)
SOUTH CAROLINA†	1 (0.6)	... (...)	42 (3.9)	141 (2.6)	57 (3.9)	137 (2.1)
TENNESSEE	2 (...)	... (...)	31 (4.0)	148 (2.8)	67 (4.1)	143 (2.2)
TEXAS	4 (1.5)	153 (7.8)!	50 (3.9)	146 (2.2)	45 (3.8)	147 (1.7)
UTAH	5 (1.8)	153 (6.1)!	61 (3.0)	158 (1.0)	34 (2.8)	154 (1.4)
VERMONT†	4 (1.3)	159 (1.5)!	64 (2.3)	159 (1.2)	31 (2.3)	154 (2.1)
VIRGINIA	2 (0.8)	... (...)	53 (3.6)	153 (2.0)	45 (3.6)	145 (2.3)
WASHINGTON	8 (2.8)	153 (6.5)!	75 (3.9)	150 (1.6)	17 (3.2)	149 (3.1)!
WEST VIRGINIA	4 (1.0)	155 (4.6)!	60 (3.6)	147 (1.4)	36 (3.6)	147 (1.5)
WISCONSIN†	5 (2.1)	158 (8.9)!	61 (4.6)	160 (2.0)	34 (4.4)	162 (3.0)
WYOMING	5 (0.3)	159 (2.9)	54 (1.0)	159 (0.9)	41 (1.1)	158 (0.9)
Other Jurisdictions						
DDESS	11 (0.8)	... (...)	61 (1.7)	156 (1.5)	27 (1.6)	145 (2.9)
DoDDS	4 (0.3)	... (...)	62 (1.3)	157 (0.9)	35 (1.2)	151 (1.2)
GUAM	0 (...)	... (...)	34 (1.4)	123 (2.2)	66 (1.4)	117 (1.5)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

... Characteristics of the sample do not permit a reliable estimate.

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 4.7 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
TEACHERS' REPORTS ON: Instructional Emphasis on Understanding Key Science Concepts

THE NATION'S REPORT CARD — 1996 State Assessment

In your plans for science instruction during the year, about how much emphasis will you give to understanding key science concepts as an objective for your students?

JURISDICTIONS	Little or No Emphasis		Moderate Emphasis		Heavy Emphasis	
	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	0 (...)	... (...)	11 (2.4)	143 (2.4)!	89 (2.5)	151 (1.2)
NORTHEAST	1 (...)	... (...)	12 (6.4)	... (...)	86 (6.9)	154 (3.5)
SOUTHEAST	0 (...)	... (...)	18 (8.3)	144 (3.3)!	82 (8.3)	142 (2.4)
CENTRAL	0 (...)	... (...)	9 (2.3)	... (...)	91 (2.3)	159 (3.5)
WEST	0 (...)	... (...)	7 (2.0)	143 (3.2)!	93 (2.0)	150 (2.7)
States						
ALABAMA	0 (...)	... (...)	9 (2.3)	141 (4.5)!	91 (2.3)	138 (1.8)
ALASKA†	0 (...)	... (...)	25 (2.9)	148 (5.2)	75 (2.9)	152 (1.9)
ARIZONA	0 (...)	... (...)	19 (3.3)	148 (3.0)	81 (3.3)	145 (1.8)
ARKANSAS†	0 (...)	... (...)	9 (2.7)	127 (3.8)!	91 (2.7)	146 (1.5)
CALIFORNIA	0 (...)	... (...)	15 (2.6)	136 (3.2)	85 (2.6)	140 (2.0)
COLORADO	0 (...)	... (...)	13 (2.2)	150 (2.9)	87 (2.2)	156 (1.2)
CONNECTICUT	0 (...)	... (...)	14 (2.5)	152 (3.2)	86 (2.5)	157 (1.7)
DELAWARE	0 (...)	... (...)	10 (0.8)	132 (2.6)	90 (0.8)	143 (0.9)
DISTRICT OF COLUMBIA	3 (0.3)	... (...)	10 (1.1)	107 (3.2)	88 (1.1)	111 (1.0)
FLORIDA	0 (...)	... (...)	16 (2.3)	138 (3.3)	84 (2.3)	142 (1.6)
GEORGIA	0 (...)	... (...)	10 (2.0)	139 (3.8)!	90 (2.0)	142 (1.7)
HAWAII	0 (...)	... (...)	19 (0.8)	140 (2.5)	81 (0.8)	135 (1.5)
INDIANA	0 (...)	... (...)	14 (2.8)	150 (2.9)!	86 (2.8)	155 (1.6)
IOWA†	0 (...)	... (...)	19 (4.7)	155 (2.4)!	81 (4.7)	159 (1.4)
KENTUCKY	0 (...)	... (...)	12 (2.5)	150 (4.5)!	88 (2.5)	148 (1.3)
LOUISIANA	0 (...)	... (...)	11 (2.6)	132 (4.1)!	89 (2.6)	134 (1.8)
MAINE	0 (...)	... (...)	21 (3.4)	161 (2.1)	79 (3.4)	163 (1.2)
MARYLAND†	0 (...)	... (...)	12 (2.5)	138 (3.2)!	88 (2.5)	147 (1.8)
MASSACHUSETTS	0 (...)	... (...)	13 (2.0)	150 (5.4)	87 (2.0)	158 (1.5)
MICHIGAN†	0 (...)	... (...)	8 (2.3)	150 (4.3)!	92 (2.3)	157 (1.5)
MINNESOTA	0 (...)	... (...)	10 (2.4)	151 (5.4)!	90 (2.4)	160 (1.4)
MISSISSIPPI	0 (...)	... (...)	14 (2.9)	130 (4.1)!	86 (2.9)	135 (1.6)
MISSOURI	0 (...)	... (...)	12 (2.2)	153 (2.7)	88 (2.2)	153 (1.2)
MONTANA†	0 (...)	... (...)	14 (2.6)	161 (2.3)	86 (2.6)	163 (1.4)
NEBRASKA	0 (...)	... (...)	16 (2.2)	156 (2.0)	84 (2.2)	158 (1.1)
NEW MEXICO	0 (...)	... (...)	13 (1.8)	141 (3.6)	87 (1.8)	144 (1.1)
NEW YORK†	1 (...)	... (...)	10 (2.3)	146 (6.1)!	90 (2.5)	148 (2.2)
NORTH CAROLINA	0 (...)	... (...)	16 (3.1)	146 (3.3)	84 (3.1)	147 (1.2)
NORTH DAKOTA	0 (...)	... (...)	17 (2.5)	159 (2.3)	83 (2.5)	163 (0.9)
OREGON	0 (...)	... (...)	22 (3.6)	150 (3.4)	78 (3.6)	157 (1.8)
RHODE ISLAND	0 (...)	... (...)	18 (0.8)	149 (1.8)	82 (0.8)	150 (0.9)
SOUTH CAROLINA†	0 (...)	... (...)	16 (3.2)	136 (3.9)!	84 (3.2)	139 (1.8)
TENNESSEE	0 (...)	... (...)	17 (3.2)	141 (3.7)	83 (3.2)	146 (1.9)
TEXAS	0 (...)	... (...)	14 (2.6)	147 (2.8)	86 (2.6)	147 (1.5)
UTAH	0 (...)	... (...)	13 (2.2)	161 (2.3)	87 (2.2)	155 (0.8)
VERMONT†	1 (...)	... (...)	25 (2.2)	158 (2.0)	75 (2.2)	157 (1.2)
VIRGINIA	0 (...)	... (...)	11 (2.2)	148 (4.2)!	89 (2.2)	150 (1.8)
WASHINGTON	1 (...)	... (...)	12 (2.7)	145 (3.6)!	87 (2.8)	151 (1.6)
WEST VIRGINIA	0 (...)	... (...)	16 (2.9)	146 (3.3)	84 (2.9)	147 (1.1)
WISCONSIN†	0 (...)	... (...)	12 (2.9)	152 (5.4)!	88 (2.9)	162 (1.9)
WYOMING	0 (...)	... (...)	10 (0.5)	151 (2.2)	90 (0.5)	160 (0.6)
Other Jurisdictions						
DDESS	0 (...)	... (...)	0 (...)	... (...)	100 (...)	152 (1.2)
DoDDS	0 (...)	... (...)	8 (0.3)	158 (2.3)	92 (0.3)	155 (0.8)
GUAM	0 (...)	... (...)	21 (0.6)	108 (2.9)	79 (0.6)	122 (1.5)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 4.8 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
TEACHERS' REPORTS ON: Instructional Emphasis on Developing Science Problem-Solving Skills

THE NATION'S REPORT CARD 1996 State Assessment

In your plans for science instruction during the year, about how much emphasis will you give to developing science problem-solving skills as an objective for your students?	Little or No Emphasis		Moderate Emphasis		Heavy Emphasis	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	3 (1.6)	140 (20.9)!	28 (3.7)	148 (3.4)	69 (4.3)	152 (1.3)
NORTHEAST	4 (2.2)	... (...)	37 (12.1)	... (...)	59 (12.4)	152 (3.3)!
SOUTHEAST	1 (...)	... (...)	34 (6.0)	139 (4.6)!	65 (6.1)	145 (2.2)
CENTRAL	7 (...)	... (...)	20 (7.1)	148 (6.2)!	73 (12.1)	160 (4.1)
WEST	0 (...)	... (...)	25 (4.8)	149 (7.0)!	74 (4.7)	150 (2.0)
States						
ALABAMA	1 (0.6)	... (...)	43 (4.1)	138 (3.1)	56 (4.2)	138 (2.1)
ALASKA†	2 (...)	... (...)	35 (3.3)	149 (2.7)	62 (3.2)	153 (2.5)
ARIZONA	0 (...)	... (...)	30 (4.3)	143 (3.4)	70 (4.3)	146 (1.8)
ARKANSAS†	2 (1.1)	... (...)	43 (4.2)	141 (2.3)	55 (4.2)	147 (1.8)
CALIFORNIA	1 (0.4)	... (...)	28 (3.1)	132 (3.0)	72 (2.9)	142 (2.2)
COLORADO	2 (1.0)	... (...)	22 (3.3)	153 (2.8)	76 (3.4)	155 (1.3)
CONNECTICUT	1 (...)	... (...)	24 (3.7)	154 (3.1)	76 (3.7)	157 (1.4)
DELAWARE	0 (0.0)	... (...)	30 (1.0)	138 (2.1)	70 (1.0)	143 (1.1)
DISTRICT OF COLUMBIA	0 (...)	... (...)	24 (0.9)	106 (1.7)	76 (0.9)	112 (1.1)
FLORIDA	1 (0.3)	... (...)	27 (3.0)	141 (2.8)	73 (3.0)	142 (1.8)
GEORGIA	1 (0.3)	... (...)	31 (2.9)	138 (2.1)	68 (2.9)	144 (1.9)
HAWAII	5 (0.4)	... (...)	24 (1.2)	133 (2.3)	71 (1.2)	138 (1.5)
INDIANA	1 (0.4)	... (...)	35 (4.4)	152 (2.4)	64 (4.4)	155 (1.7)
IOWA†	0 (...)	... (...)	34 (4.3)	156 (1.8)	66 (4.3)	160 (1.5)
KENTUCKY	0 (...)	... (...)	24 (3.5)	150 (2.4)	76 (3.5)	148 (1.6)
LOUISIANA	2 (1.2)	... (...)	38 (3.4)	133 (2.7)	60 (3.3)	135 (1.9)
MAINE	1 (0.6)	... (...)	33 (3.6)	161 (1.7)	66 (3.7)	164 (1.3)
MARYLAND†	1 (...)	... (...)	23 (3.8)	145 (4.1)	76 (3.8)	147 (2.1)
MASSACHUSETTS	1 (0.9)	... (...)	28 (3.2)	159 (2.8)	70 (3.3)	157 (1.7)
MICHIGAN†	1 (0.7)	... (...)	30 (4.5)	157 (1.9)	69 (4.6)	156 (2.0)
MINNESOTA	1 (...)	... (...)	38 (4.5)	160 (2.0)	61 (4.5)	159 (1.7)
MISSISSIPPI	2 (1.0)	... (...)	39 (4.0)	132 (2.5)	59 (3.9)	135 (2.0)
MISSOURI	1 (...)	... (...)	32 (3.9)	151 (1.8)	67 (4.0)	153 (1.5)
MONTANA†	1 (...)	... (...)	31 (4.2)	161 (1.8)	69 (4.2)	163 (1.6)
NEBRASKA	2 (1.2)	... (...)	35 (3.0)	160 (1.1)	63 (3.0)	157 (1.4)
NEW MEXICO	0 (0.2)	... (...)	33 (1.7)	140 (1.8)	66 (1.7)	146 (1.2)
NEW YORK†	4 (2.3)	153 (9.1)!	33 (4.4)	147 (2.8)	62 (4.9)	149 (2.8)
NORTH CAROLINA	1 (0.8)	... (...)	23 (3.2)	144 (2.4)	75 (3.2)	148 (1.2)
NORTH DAKOTA	3 (0.8)	... (...)	48 (3.5)	162 (0.9)	49 (3.5)	163 (1.5)
OREGON	0 (...)	... (...)	37 (3.9)	153 (2.5)	63 (3.8)	157 (1.8)
RHODE ISLAND	0 (0.2)	... (...)	36 (1.0)	149 (1.6)	63 (1.0)	150 (0.8)
SOUTH CAROLINA†	0 (...)	... (...)	34 (4.0)	134 (2.8)	66 (4.0)	141 (1.9)
TENNESSEE	2 (1.4)	... (...)	41 (4.5)	143 (2.1)	56 (4.6)	147 (2.3)
TEXAS	0 (0.3)	... (...)	26 (3.2)	147 (2.3)	73 (3.1)	147 (1.8)
UTAH	1 (...)	... (...)	38 (2.4)	155 (1.4)	60 (2.2)	157 (1.1)
VERMONT†	1 (...)	... (...)	29 (2.8)	154 (2.1)	70 (2.9)	159 (1.2)
VIRGINIA	0 (...)	... (...)	21 (2.7)	144 (2.6)	79 (2.7)	151 (2.0)
WASHINGTON	2 (1.1)	... (...)	20 (3.5)	150 (3.2)	78 (3.6)	151 (1.7)
WEST VIRGINIA	2 (1.2)	... (...)	24 (3.2)	145 (2.5)	74 (3.2)	148 (1.1)
WISCONSIN†	4 (1.4)	158 (5.8)!	25 (3.7)	159 (2.8)	71 (3.8)	161 (2.1)
WYOMING	0 (0.0)	... (...)	33 (0.9)	156 (1.3)	67 (0.9)	160 (0.8)
Other Jurisdictions						
DDESS	0 (...)	... (...)	22 (1.0)	148 (2.9)	78 (1.0)	153 (1.3)
DoDDS	2 (0.2)	... (...)	26 (0.7)	153 (1.5)	72 (0.7)	156 (0.9)
GUAM	21 (0.6)	107 (2.9)	7 (1.0)	... (...)	72 (1.2)	121 (1.6)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 4.9 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

TEACHERS' REPORTS ON: Instructional Emphasis on Effectively Communicating Science Ideas

THE NATION'S REPORT CARD — 1996 State Assessment

In your plans for science instruction during the year, about how much emphasis will you give to knowing how to communicate ideas in science effectively as an objective for your students?

JURISDICTIONS	Little or No Emphasis		Moderate Emphasis		Heavy Emphasis	
	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	16 (3.3)	151 (2.7)!	42 (4.3)	149 (2.3)	42 (4.4)	151 (1.5)
NORTHEAST	8 (3.2)	... (...)	44 (12.2)	152 (6.1)!	48 (11.5)	154 (4.5)!
SOUTHEAST	4 (1.4)	... (...)	56 (8.2)	142 (2.6)!	40 (8.3)	144 (3.4)!
CENTRAL	27 (10.4)	152 (5.9)!	38 (9.0)	157 (3.1)!	35 (10.2)	163 (4.5)!
WEST	21 (5.9)	152 (2.3)!	33 (5.8)	150 (7.1)!	46 (6.4)	148 (2.4)
States						
ALABAMA	5 (1.8)	142 (7.5)!	56 (3.9)	137 (2.1)	39 (3.8)	140 (2.9)
ALASKA†	11 (2.2)	141 (6.5)!	55 (3.0)	150 (2.5)	34 (2.2)	155 (2.5)
ARIZONA	6 (1.7)	146 (4.4)!	52 (4.0)	146 (2.4)	42 (4.2)	144 (2.4)
ARKANSAS†	11 (3.0)	142 (5.6)!	60 (4.1)	143 (1.8)	29 (4.3)	149 (3.2)
CALIFORNIA	8 (1.5)	135 (3.6)	48 (3.8)	139 (2.1)	44 (3.8)	141 (3.0)
COLORADO	7 (1.6)	153 (3.0)!	51 (3.9)	155 (1.7)	43 (3.8)	155 (1.7)
CONNECTICUT	8 (1.9)	149 (6.3)!	50 (4.2)	156 (2.0)	42 (4.0)	158 (2.3)
DELAWARE	8 (0.5)	132 (4.1)	57 (1.0)	143 (1.1)	35 (1.0)	142 (2.0)
DISTRICT OF COLUMBIA	0 (...)	... (...)	53 (1.3)	107 (1.3)	47 (1.3)	115 (1.3)
FLORIDA	6 (1.6)	142 (6.6)!	57 (3.4)	141 (1.5)	37 (3.4)	143 (3.4)
GEORGIA	6 (1.7)	137 (5.0)!	55 (3.7)	143 (1.8)	39 (3.4)	142 (2.6)
HAWAII	6 (1.1)	149 (4.1)	62 (1.2)	133 (1.8)	31 (0.9)	139 (1.6)
INDIANA	11 (2.6)	151 (4.2)!	56 (4.3)	156 (1.7)	33 (4.5)	151 (3.0)
IOWA†	8 (2.4)	157 (2.5)!	67 (4.5)	158 (1.4)	25 (4.1)	160 (2.6)
KENTUCKY	1 (0.7)	... (...)	56 (4.3)	149 (1.9)	43 (4.3)	148 (1.8)
LOUISIANA	8 (2.0)	134 (7.9)!	55 (3.7)	135 (1.9)	37 (3.9)	131 (3.5)
MAINE	7 (1.8)	166 (3.0)!	54 (4.0)	163 (1.3)	38 (4.1)	163 (1.7)
MARYLAND†	6 (2.1)	146 (5.6)!	48 (3.7)	148 (2.5)	46 (3.3)	144 (2.5)
MASSACHUSETTS	6 (1.4)	150 (6.0)!	46 (4.2)	157 (2.4)	48 (4.1)	158 (2.1)
MICHIGAN†	5 (1.6)	155 (5.6)!	51 (3.9)	156 (1.9)	44 (4.2)	157 (2.5)
MINNESOTA	12 (2.6)	161 (3.2)!	57 (4.1)	160 (1.9)	31 (3.7)	156 (1.6)
MISSISSIPPI	6 (1.9)	135 (4.5)!	54 (4.7)	134 (1.9)	40 (4.3)	134 (2.5)
MISSOURI	9 (2.7)	152 (2.8)!	61 (4.5)	152 (1.7)	30 (3.9)	155 (1.9)
MONTANA†	7 (2.6)	162 (2.6)!	57 (3.8)	162 (1.9)	35 (2.8)	164 (1.4)
NEBRASKA	13 (1.8)	165 (1.9)	54 (3.3)	157 (1.4)	33 (2.7)	157 (1.8)
NEW MEXICO	11 (1.8)	142 (2.7)	48 (2.5)	143 (1.4)	41 (3.1)	146 (1.3)
NEW YORK†	9 (2.5)	160 (5.5)!	56 (3.4)	148 (2.6)	35 (3.6)	146 (3.1)
NORTH CAROLINA	7 (2.0)	151 (3.8)!	49 (3.5)	146 (1.6)	45 (3.4)	147 (1.6)
NORTH DAKOTA	17 (2.1)	163 (1.9)	64 (2.7)	162 (1.1)	19 (2.6)	163 (2.2)
OREGON	13 (2.5)	153 (2.9)!	60 (4.2)	155 (2.1)	27 (4.0)	159 (2.2)
RHODE ISLAND	10 (0.7)	146 (2.4)	54 (0.9)	152 (1.2)	36 (0.9)	148 (1.1)
SOUTH CAROLINA†	6 (1.6)	139 (7.4)!	47 (3.9)	137 (2.2)	47 (4.1)	140 (2.1)
TENNESSEE	6 (2.2)	148 (4.2)!	60 (4.3)	142 (1.9)	34 (4.0)	148 (3.3)
TEXAS	7 (1.7)	144 (6.2)!	54 (4.3)	147 (1.6)	39 (4.3)	147 (2.4)
UTAH	17 (1.7)	157 (2.0)	55 (2.7)	155 (1.2)	28 (2.2)	158 (1.5)
VERMONT†	2 (0.3)	... (...)	51 (2.9)	156 (1.6)	48 (2.9)	158 (1.4)
VIRGINIA	5 (1.7)	148 (5.8)!	46 (3.3)	148 (1.8)	49 (3.5)	151 (2.8)
WASHINGTON	5 (2.0)	150 (5.1)!	52 (4.6)	149 (2.0)	42 (4.9)	152 (2.2)
WEST VIRGINIA	7 (2.2)	141 (5.8)!	57 (3.5)	147 (1.3)	35 (3.4)	149 (1.6)
WISCONSIN†	13 (2.9)	161 (3.3)!	56 (4.7)	161 (2.4)	32 (4.3)	160 (3.4)
WYOMING	5 (0.2)	151 (2.1)	57 (0.8)	159 (0.9)	38 (0.7)	159 (1.1)
Other Jurisdictions						
DDESS	6 (0.6)	... (...)	56 (1.5)	152 (1.6)	37 (1.5)	151 (2.0)
DoDDS	14 (0.8)	156 (1.5)	46 (1.1)	154 (1.1)	40 (1.1)	156 (1.1)
GUAM	21 (0.6)	108 (2.9)	44 (1.3)	118 (1.9)	34 (1.2)	127 (2.5)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

... Characteristics of the sample do not permit a reliable estimate.

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 4.10

1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

TEACHERS' REPORTS ON: Time Spent on the Discussion of Science in the News

THE NATION'S REPORT CARD 1996 State Assessment

How often do you discuss science in the news with your students?	Never or Hardly Ever		Once or Twice a Month		Once or Twice a Week		Almost Every Day	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation								
NATION	8 (2.6)	155 (7.6)!	44 (4.9)	150 (2.1)	33 (2.9)	149 (2.0)	16 (4.9)	153 (3.8)!
NORTHEAST	17 (10.4)	... (...)	37 (12.5)	149 (4.4)!	19 (7.9)	142 (7.9)!	27 (18.7)	... (...)
SOUTHEAST	0 (0.2)	... (...)	56 (9.5)	142 (2.5)!	27 (5.0)	139 (3.7)	16 (8.3)	153 (1.9)!
CENTRAL	5 (2.4)	... (...)	35 (8.6)	156 (3.8)!	56 (7.2)	157 (3.9)	4 (...)	... (...)
WEST	9 (4.6)	143 (2.4)!	46 (8.9)	153 (4.8)!	29 (5.4)	148 (4.1)!	16 (7.7)	146 (3.7)!
States								
ALABAMA	3 (1.2)	... (...)	28 (3.6)	141 (2.8)	54 (3.7)	139 (2.9)	15 (3.5)	131 (4.8)!
ALASKA†	12 (2.5)	133 (7.9)!	43 (2.6)	150 (2.7)	30 (2.5)	157 (1.9)	16 (1.3)	154 (2.9)
ARIZONA	7 (1.8)	144 (3.5)!	42 (4.2)	146 (3.3)	43 (4.2)	144 (2.3)	9 (2.1)	145 (4.1)!
ARKANSAS†	3 (1.4)	... (...)	32 (4.4)	138 (3.4)	49 (4.5)	148 (2.3)	15 (3.8)	147 (4.9)!
CALIFORNIA	10 (1.8)	142 (3.5)	41 (3.7)	142 (2.8)	42 (3.5)	136 (3.3)	7 (1.6)	141 (4.3)!
COLORADO	7 (1.9)	147 (3.7)!	46 (4.2)	155 (1.8)	40 (3.9)	155 (1.8)	7 (1.6)	159 (2.3)!
CONNECTICUT	6 (1.8)	148 (7.5)!	46 (4.0)	156 (2.0)	41 (4.2)	157 (3.3)	7 (1.9)	159 (3.3)!
DELAWARE	10 (0.4)	138 (2.8)	48 (0.9)	141 (1.4)	35 (1.0)	141 (2.0)	8 (0.5)	150 (2.1)
DISTRICT OF COLUMBIA	1 (0.1)	... (...)	45 (1.3)	106 (1.6)	41 (1.2)	116 (1.3)	13 (1.0)	109 (2.4)
FLORIDA	9 (2.2)	139 (6.2)!	38 (3.2)	142 (2.0)	40 (3.4)	142 (2.3)	13 (2.4)	142 (6.2)!
GEORGIA	3 (0.9)	129 (10.6)!	31 (2.7)	142 (2.4)	48 (3.1)	143 (2.3)	19 (2.8)	142 (2.8)
HAWAII	6 (1.0)	... (...)	25 (0.9)	129 (3.2)	56 (1.1)	136 (1.4)	13 (0.7)	148 (4.4)
INDIANA	6 (1.9)	145 (8.6)!	38 (4.6)	155 (2.4)	45 (5.3)	154 (2.2)	12 (3.6)	156 (3.9)!
IOWA†	2 (1.1)	... (...)	44 (4.9)	159 (1.8)	45 (5.0)	159 (1.6)	9 (2.3)	157 (3.2)!
KENTUCKY	3 (1.3)	... (...)	39 (4.1)	149 (2.3)	41 (4.1)	147 (1.3)	17 (3.1)	146 (4.0)
LOUISIANA	7 (2.0)	129 (7.2)!	31 (3.5)	137 (2.7)	41 (3.9)	132 (2.6)	21 (3.4)	133 (4.3)
MAINE	8 (2.0)	162 (3.1)!	52 (3.3)	163 (1.4)	35 (3.4)	164 (1.9)	5 (1.6)	152 (4.9)!
MARYLAND†	11 (3.1)	145 (7.5)!	43 (3.6)	144 (2.5)	38 (4.1)	149 (2.4)	7 (2.2)	143 (8.1)!
MASSACHUSETTS	6 (1.7)	150 (6.8)!	47 (3.7)	159 (2.0)	32 (3.4)	156 (3.0)	15 (2.8)	154 (3.6)
MICHIGAN†	9 (2.4)	154 (5.7)!	45 (3.9)	156 (2.2)	38 (3.5)	158 (2.3)	8 (2.5)	155 (4.1)!
MINNESOTA	7 (2.2)	159 (3.8)!	39 (4.1)	162 (2.1)	46 (4.3)	158 (1.7)	9 (2.6)	155 (6.0)!
MISSISSIPPI	7 (1.9)	125 (5.1)!	40 (4.1)	135 (2.0)	43 (4.7)	137 (2.2)	11 (2.9)	131 (5.0)!
MISSOURI	9 (2.0)	157 (4.0)!	42 (4.5)	152 (2.2)	43 (4.2)	153 (1.6)	7 (2.1)	150 (5.6)!
MONTANA†	6 (2.6)	162 (3.5)!	41 (3.9)	162 (1.4)	44 (5.2)	162 (2.2)	8 (2.1)	169 (2.9)!
NEBRASKA	6 (2.0)	148 (5.8)!	49 (3.3)	159 (1.0)	38 (3.7)	158 (1.5)	7 (1.7)	158 (3.5)!
NEW MEXICO	8 (0.8)	139 (2.5)	35 (2.1)	141 (1.9)	43 (2.7)	146 (1.4)	14 (1.9)	146 (2.9)
NEW YORK†	9 (2.5)	150 (4.6)!	39 (4.2)	144 (3.3)	45 (3.5)	152 (2.3)	7 (1.5)	143 (7.9)!
NORTH CAROLINA	6 (1.6)	146 (5.5)!	35 (3.7)	146 (2.0)	46 (3.7)	146 (1.6)	13 (2.3)	149 (2.3)
NORTH DAKOTA	3 (1.2)	150 (11.8)!	33 (3.2)	164 (1.5)	56 (2.9)	162 (1.1)	8 (2.1)	160 (3.8)!
OREGON	5 (1.9)	149 (6.8)!	49 (4.2)	152 (2.4)	38 (4.9)	160 (1.9)	8 (3.1)	157 (4.9)!
RHODE ISLAND	6 (0.5)	148 (3.4)	46 (1.1)	149 (1.2)	31 (1.1)	149 (1.5)	17 (0.7)	157 (1.7)
SOUTH CAROLINA†	4 (1.7)	121 (6.3)!	28 (3.9)	142 (2.4)	49 (4.1)	139 (2.4)	19 (3.2)	138 (3.3)
TENNESSEE	6 (2.0)	144 (6.1)!	31 (4.2)	142 (2.9)	45 (4.5)	149 (2.6)	18 (4.2)	143 (2.1)!
TEXAS	4 (1.1)	131 (6.9)!	42 (3.4)	145 (1.7)	41 (3.6)	151 (2.0)	12 (2.7)	142 (3.8)!
UTAH	7 (0.8)	158 (2.4)	44 (2.9)	158 (1.3)	43 (2.6)	155 (1.3)	6 (1.3)	153 (3.6)!
VERMONT†	7 (0.6)	158 (2.8)	55 (2.9)	158 (1.2)	36 (3.0)	157 (2.3)	2 (0.5)	... (...)
VIRGINIA	13 (2.0)	142 (3.3)	42 (2.9)	154 (1.8)	40 (3.5)	147 (3.3)	5 (1.5)	150 (3.8)!
WASHINGTON	8 (2.2)	145 (5.8)!	37 (4.3)	150 (2.7)	41 (4.4)	151 (2.1)	14 (3.4)	154 (2.8)!
WEST VIRGINIA	6 (1.5)	149 (4.0)!	36 (3.8)	149 (1.3)	43 (4.0)	148 (1.5)	15 (2.9)	143 (3.6)
WISCONSIN†	6 (1.7)	155 (6.4)!	36 (4.4)	163 (2.1)	48 (4.4)	161 (2.2)	10 (2.7)	151 (6.9)!
WYOMING	9 (0.4)	151 (1.9)	50 (0.9)	159 (0.8)	34 (0.9)	161 (1.2)	7 (0.3)	156 (2.7)
Other Jurisdictions								
DDESS	0 (...)	... (...)	41 (1.9)	156 (2.3)	43 (1.6)	149 (1.7)	16 (1.6)	150 (3.7)
DoDDS	5 (0.3)	... (...)	50 (1.1)	154 (1.1)	38 (1.0)	156 (1.1)	8 (0.7)	160 (2.2)
GUAM	6 (0.9)	... (...)	19 (1.5)	126 (2.9)	75 (1.0)	116 (1.6)	0 (...)	... (...)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

... Characteristics of the sample do not permit a reliable estimate.

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 4.11

1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

STUDENTS' REPORTS ON: Time Spent on the Discussion of Science in the News

THE NATION'S REPORT CARD naep 1996 State Assessment

How often does your teacher discuss science in the news with you?	Never or Hardly Ever		Once or Twice a Month		Once or Twice a Week		Almost Every Day	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation								
NATION	44 (1.3)	144 (1.2)	22 (1.1)	155 (1.9)	22 (0.9)	154 (1.8)	11 (1.1)	147 (2.8)
NORTHEAST	43 (3.5)	145 (4.3)	21 (4.5)	153 (8.6)	22 (2.0)	153 (5.9)	14 (5.5)	153 (7.7)!
SOUTHEAST	44 (2.0)	135 (2.2)	24 (1.3)	151 (2.5)	22 (1.3)	146 (2.5)	10 (0.8)	138 (3.7)
CENTRAL	41 (2.7)	148 (2.1)	23 (1.7)	160 (2.9)	24 (2.4)	165 (3.2)	12 (1.8)	154 (6.5)
WEST	47 (2.2)	147 (2.4)	22 (1.1)	157 (2.3)	21 (1.5)	151 (2.7)	10 (0.8)	141 (2.9)
States								
ALABAMA	43 (1.2)	133 (1.6)	23 (1.1)	145 (2.7)	21 (0.9)	145 (2.3)	13 (0.8)	138 (2.6)
ALASKA†	40 (1.4)	146 (2.1)	24 (1.4)	157 (1.9)	26 (1.4)	158 (2.8)	10 (0.8)	157 (2.9)
ARIZONA	46 (1.6)	145 (1.7)	24 (1.0)	149 (2.3)	21 (1.1)	148 (2.2)	9 (0.9)	138 (3.6)
ARKANSAS†	45 (1.5)	139 (1.7)	21 (1.2)	149 (2.5)	23 (1.3)	151 (2.4)	11 (1.0)	147 (2.7)
CALIFORNIA	45 (1.4)	136 (2.0)	22 (0.9)	145 (2.3)	24 (1.3)	139 (3.2)	9 (0.6)	139 (3.6)
COLORADO	41 (1.4)	152 (1.3)	28 (1.1)	158 (1.1)	22 (1.0)	158 (1.4)	10 (0.8)	148 (3.0)
CONNECTICUT	42 (1.4)	149 (1.6)	25 (1.0)	164 (1.4)	23 (1.0)	162 (1.8)	9 (0.6)	152 (3.2)
DELAWARE	44 (1.4)	138 (1.2)	23 (1.3)	151 (2.0)	23 (0.9)	145 (1.8)	10 (0.8)	138 (3.0)
DISTRICT OF COLUMBIA	51 (1.4)	112 (1.1)	17 (0.9)	121 (2.5)	20 (1.2)	118 (2.3)	12 (0.9)	111 (2.9)
FLORIDA	45 (1.5)	140 (1.7)	22 (0.9)	147 (2.1)	23 (1.2)	146 (3.0)	10 (0.8)	139 (3.1)
GEORGIA	41 (1.3)	136 (1.8)	23 (1.0)	149 (2.1)	23 (0.9)	149 (2.0)	13 (0.8)	137 (2.6)
HAWAII	50 (0.9)	133 (1.1)	23 (1.0)	139 (1.7)	18 (0.8)	136 (1.9)	9 (0.6)	139 (2.6)
INDIANA	45 (1.4)	148 (1.6)	26 (1.1)	161 (2.0)	20 (0.9)	157 (1.8)	9 (0.6)	152 (2.4)
IOWA†	40 (1.7)	154 (1.7)	29 (1.2)	164 (1.5)	23 (1.2)	161 (1.6)	8 (0.8)	157 (3.1)
KENTUCKY	41 (1.1)	144 (1.3)	25 (0.9)	152 (1.6)	23 (1.2)	153 (1.9)	10 (0.7)	144 (2.2)
LOUISIANA	51 (1.5)	129 (1.6)	18 (0.9)	144 (2.3)	19 (0.9)	135 (2.5)	12 (0.7)	133 (2.7)
MAINE	40 (1.3)	160 (1.6)	27 (1.0)	166 (1.5)	24 (0.9)	167 (1.4)	9 (0.8)	163 (2.2)
MARYLAND†	42 (1.5)	142 (1.8)	26 (1.0)	154 (2.3)	22 (1.3)	150 (2.3)	10 (0.7)	138 (3.9)
MASSACHUSETTS	36 (1.3)	151 (1.8)	27 (1.3)	164 (1.8)	26 (1.2)	161 (1.9)	11 (1.0)	154 (3.2)
MICHIGAN†	44 (1.4)	150 (1.7)	27 (1.1)	161 (2.0)	21 (1.0)	155 (2.3)	8 (0.7)	149 (2.9)
MINNESOTA	40 (1.6)	155 (1.7)	27 (1.0)	164 (1.5)	24 (0.8)	161 (1.8)	10 (1.2)	158 (2.9)
MISSISSIPPI	52 (1.4)	131 (1.6)	18 (0.9)	140 (2.1)	19 (0.9)	138 (2.1)	11 (0.7)	126 (2.7)
MISSOURI	45 (1.8)	149 (1.3)	25 (1.2)	158 (1.8)	20 (1.1)	154 (1.9)	9 (0.7)	147 (2.8)
MONTANA†	45 (1.8)	160 (1.5)	24 (0.9)	166 (1.7)	22 (1.6)	164 (2.1)	9 (0.8)	157 (2.8)
NEBRASKA	41 (1.3)	153 (1.2)	26 (1.0)	161 (1.3)	23 (0.9)	162 (1.6)	10 (0.7)	158 (2.1)
NEW MEXICO	48 (1.3)	138 (1.3)	22 (0.9)	145 (1.6)	20 (0.8)	146 (1.8)	10 (0.6)	139 (3.2)
NEW YORK†	45 (1.7)	142 (1.9)	24 (1.2)	157 (1.8)	21 (1.4)	149 (3.1)	10 (1.1)	142 (3.1)
NORTH CAROLINA	38 (1.4)	140 (1.5)	23 (1.1)	153 (1.4)	26 (1.0)	152 (1.5)	13 (0.8)	144 (2.5)
NORTH DAKOTA	40 (1.2)	156 (1.2)	27 (1.0)	167 (1.4)	23 (1.0)	167 (1.3)	10 (0.7)	163 (2.2)
OREGON	43 (1.5)	150 (1.7)	28 (0.9)	160 (1.8)	21 (1.1)	160 (1.9)	8 (0.8)	155 (3.2)
RHODE ISLAND	46 (1.0)	143 (1.0)	23 (1.0)	157 (1.8)	22 (1.1)	154 (1.8)	10 (0.6)	149 (2.9)
SOUTH CAROLINA†	42 (1.5)	134 (1.7)	20 (0.8)	144 (2.2)	24 (1.1)	144 (2.1)	14 (0.9)	137 (3.0)
TENNESSEE	46 (1.4)	141 (1.9)	24 (0.9)	148 (2.3)	21 (1.0)	147 (2.5)	9 (0.8)	141 (3.4)
TEXAS	47 (1.7)	142 (1.8)	23 (1.1)	152 (2.0)	20 (1.2)	151 (1.7)	10 (0.9)	144 (3.2)
UTAH	42 (1.2)	151 (1.2)	27 (0.9)	158 (1.1)	23 (0.7)	162 (1.5)	8 (0.6)	159 (2.4)
VERMONT†	47 (1.6)	153 (1.1)	26 (1.3)	165 (1.7)	20 (1.3)	161 (2.2)	7 (0.8)	153 (3.5)
VIRGINIA	50 (1.4)	146 (1.8)	22 (0.9)	157 (2.0)	20 (0.9)	156 (2.1)	8 (0.8)	145 (3.3)
WASHINGTON	46 (1.2)	146 (1.6)	25 (0.9)	154 (1.7)	20 (0.9)	156 (2.1)	8 (0.8)	150 (2.6)
WEST VIRGINIA	44 (1.2)	144 (1.3)	23 (0.9)	151 (1.6)	23 (0.8)	152 (1.3)	10 (0.8)	145 (2.5)
WISCONSIN†	40 (1.5)	158 (1.7)	28 (1.1)	165 (2.0)	22 (0.9)	161 (2.1)	10 (1.2)	156 (3.3)
WYOMING	46 (0.9)	152 (0.8)	23 (0.9)	163 (1.2)	21 (0.8)	163 (1.4)	10 (0.6)	159 (2.2)
Other Jurisdictions								
DDESS	40 (2.0)	152 (2.0)	21 (1.5)	156 (2.9)	29 (1.8)	154 (2.4)	11 (1.2)	150 (3.6)
DoDDS	43 (0.9)	151 (1.1)	23 (0.9)	159 (1.7)	22 (0.9)	162 (1.1)	11 (0.6)	153 (1.7)
GUAM	46 (1.5)	119 (1.6)	24 (1.6)	128 (2.4)	23 (1.4)	121 (2.2)	7 (0.9)	106 (5.7)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 4.12 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
TEACHERS' REPORTS ON: Expected Time Spent on Homework

THE NATION'S REPORT CARD — 1996 State Assessment

About how much time do you expect a student in this class to spend doing homework each week?

JURISDICTIONS	None		One Half Hour		One Hour		Two Hours		More than Two Hours	
	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation										
NATION	2 (0.8)	134 (4.5)!	12 (2.3)	142 (3.3)!	42 (4.1)	152 (2.1)	28 (4.4)	152 (3.0)	15 (4.8)	156 (3.9)!
NORTHEAST	4 (1.9)	... (...)	13 (5.3)	134 (9.5)!	35 (11.1)	154 (3.5)!	19 (...)	... (...)	30 (20.3)	... (...)
SOUTHEAST	1 (...)	... (...)	12 (4.0)	137 (4.0)!	46 (6.1)	142 (2.8)!	24 (5.6)	144 (5.9)!	17 (5.7)	150 (4.9)!
CENTRAL	2 (1.5)	... (...)	6 (3.4)	160 (10.4)!	40 (8.7)	158 (3.4)!	39 (8.3)	157 (5.9)!	12 (7.9)	... (...)
WEST	3 (1.4)	139 (4.0)!	15 (4.6)	144 (3.4)!	46 (6.4)	154 (5.2)	29 (6.7)	148 (3.3)!	6 (2.7)	151 (3.9)!
States										
ALABAMA	1 (...)	... (...)	11 (1.8)	127 (6.7)	31 (4.2)	141 (3.3)	35 (3.7)	144 (3.0)	22 (4.0)	133 (3.2)
ALASKA†	4 (0.8)	... (...)	12 (3.0)	127 (7.7)!	35 (3.7)	154 (2.3)	35 (2.5)	154 (2.3)	14 (1.4)	154 (3.6)
ARIZONA	9 (2.8)	126 (8.6)!	24 (4.5)	142 (3.5)!	36 (3.6)	150 (3.0)	24 (3.4)	146 (2.7)	7 (1.9)	151 (4.1)!
ARKANSAS†	2 (1.1)	... (...)	7 (2.1)	136 (6.3)!	44 (4.1)	145 (2.3)	31 (4.6)	145 (3.2)	16 (3.5)	151 (5.3)!
CALIFORNIA	4 (1.1)	128 (5.6)!	12 (2.7)	135 (6.6)!	38 (3.2)	141 (2.9)	34 (3.3)	139 (2.8)	12 (2.4)	143 (5.2)
COLORADO	5 (1.8)	155 (3.7)!	13 (2.7)	148 (3.5)!	33 (3.3)	154 (2.1)	37 (3.7)	158 (2.3)	11 (2.3)	154 (4.6)!
CONNECTICUT	0 (0.1)	... (...)	4 (1.3)	161 (7.3)!	15 (2.6)	151 (3.9)	53 (3.4)	157 (2.0)	28 (3.1)	163 (3.1)
DELAWARE	4 (0.4)	138 (3.7)	15 (0.7)	139 (2.0)	43 (0.9)	140 (1.7)	30 (1.1)	142 (2.7)	8 (0.5)	151 (2.6)
DISTRICT OF COLUMBIA	0 (...)	... (...)	4 (0.5)	... (...)	23 (1.6)	109 (2.2)	28 (1.4)	110 (1.9)	45 (1.7)	112 (1.3)
FLORIDA	7 (2.1)	133 (4.9)!	19 (2.7)	140 (3.9)	32 (3.1)	138 (2.9)	29 (3.0)	146 (2.1)	14 (2.1)	149 (3.8)
GEORGIA	1 (0.8)	... (...)	10 (2.1)	138 (3.7)!	35 (3.3)	143 (2.4)	39 (2.8)	144 (2.1)	14 (2.6)	144 (4.3)
HAWAII	2 (0.3)	... (...)	10 (1.0)	138 (3.1)	42 (1.4)	133 (2.0)	32 (1.1)	137 (2.5)	13 (0.6)	140 (2.9)
INDIANA	4 (2.0)	158 (2.8)!	12 (2.8)	154 (4.3)!	36 (4.9)	153 (2.2)	35 (4.8)	157 (2.0)	13 (2.9)	148 (5.0)!
IOWA†	2 (1.1)	... (...)	12 (3.0)	156 (3.1)!	39 (5.2)	160 (1.9)	37 (4.6)	159 (1.8)	10 (2.6)	156 (3.8)!
KENTUCKY	1 (0.5)	... (...)	8 (2.2)	145 (4.1)!	44 (4.6)	147 (1.6)	35 (4.5)	149 (1.5)	12 (3.6)	154 (8.7)!
LOUISIANA	4 (1.6)	133 (7.3)!	12 (2.5)	136 (4.6)!	39 (4.0)	134 (2.8)	32 (3.6)	136 (3.0)	13 (3.6)	127 (5.4)!
MAINE	0 (0.1)	... (...)	3 (1.2)	171 (4.4)!	33 (3.7)	163 (1.8)	47 (3.8)	164 (1.2)	16 (3.8)	164 (2.2)!
MARYLAND†	0 (0.1)	... (...)	18 (3.6)	149 (4.8)!	34 (3.9)	146 (3.3)	38 (3.5)	151 (2.1)	11 (1.6)	139 (5.5)
MASSACHUSETTS	0 (...)	... (...)	4 (1.4)	159 (13.3)!	22 (3.1)	154 (3.8)	43 (4.2)	155 (2.2)	32 (4.3)	161 (2.9)
MICHIGAN†	2 (1.3)	... (...)	11 (3.0)	151 (4.9)!	35 (3.7)	153 (2.3)	39 (4.0)	164 (2.0)	13 (2.5)	150 (3.9)
MINNESOTA	1 (0.4)	... (...)	11 (3.0)	157 (3.3)!	37 (4.0)	160 (1.4)	39 (4.3)	158 (2.2)	12 (3.0)	162 (6.5)!
MISSISSIPPI	2 (0.7)	... (...)	14 (3.0)	138 (5.4)!	36 (3.6)	137 (1.7)	35 (3.5)	135 (2.2)	13 (2.9)	126 (5.1)!
MISSOURI	1 (0.5)	... (...)	8 (2.1)	153 (4.1)!	45 (4.6)	151 (2.1)	29 (3.9)	153 (2.1)	17 (3.3)	157 (2.3)
MONTANA†	2 (0.6)	... (...)	12 (1.9)	160 (2.5)	34 (4.2)	163 (1.5)	42 (3.6)	164 (1.8)	11 (3.5)	155 (5.5)!
NEBRASKA	7 (0.9)	152 (1.3)	12 (2.0)	160 (2.0)	39 (3.3)	158 (1.9)	30 (2.7)	159 (1.7)	12 (3.0)	158 (2.3)!
NEW MEXICO	5 (1.9)	143 (3.6)!	16 (2.2)	142 (2.8)	35 (3.1)	142 (1.6)	32 (2.2)	145 (2.0)	12 (1.8)	151 (2.0)
NEW YORK†	0 (...)	... (...)	9 (3.1)	126 (8.1)!	30 (4.0)	152 (3.0)	39 (3.8)	153 (2.9)	21 (3.6)	148 (4.2)
NORTH CAROLINA	3 (1.1)	... (...)	13 (2.5)	148 (3.5)	36 (3.5)	144 (1.8)	37 (3.7)	148 (2.2)	12 (2.2)	150 (2.8)
NORTH DAKOTA	0 (...)	... (...)	6 (1.5)	166 (2.9)!	29 (3.0)	163 (1.5)	49 (2.8)	162 (1.4)	16 (2.2)	162 (1.7)
OREGON	6 (1.8)	155 (4.0)!	22 (3.9)	151 (3.5)	49 (4.2)	158 (2.2)	19 (3.3)	157 (2.5)	4 (2.1)	153 (3.9)!
RHODE ISLAND	1 (0.2)	... (...)	3 (0.4)	... (...)	27 (0.8)	148 (1.8)	50 (1.1)	151 (1.1)	19 (0.9)	155 (1.8)
SOUTH CAROLINA†	1 (0.7)	... (...)	11 (2.5)	125 (3.7)!	32 (4.0)	140 (2.7)	41 (4.1)	140 (2.4)	15 (2.6)	142 (3.0)
TENNESSEE	0 (0.2)	... (...)	7 (2.4)	135 (8.3)!	28 (3.8)	145 (2.7)	46 (3.9)	146 (2.7)	18 (3.5)	147 (4.6)
TEXAS	6 (1.8)	142 (6.2)!	26 (3.0)	140 (2.3)	37 (3.1)	151 (2.0)	25 (3.0)	149 (2.1)	7 (1.7)	152 (7.7)!
UTAH	7 (1.3)	152 (2.7)	12 (2.2)	155 (2.1)	43 (2.2)	156 (1.4)	29 (2.2)	156 (1.5)	10 (1.2)	163 (2.1)
VERMONT†	1 (0.8)	... (...)	14 (1.8)	155 (2.8)	25 (2.2)	159 (1.7)	50 (2.8)	156 (1.7)	9 (1.5)	159 (2.9)
VIRGINIA	1 (0.6)	... (...)	7 (1.7)	145 (4.9)!	33 (3.5)	149 (2.4)	45 (3.6)	150 (2.8)	14 (2.3)	151 (3.9)
WASHINGTON	6 (1.7)	154 (3.2)!	17 (3.5)	145 (3.6)!	45 (4.4)	152 (2.4)	26 (4.2)	148 (2.4)	7 (1.7)	164 (3.4)!
WEST VIRGINIA	6 (1.4)	148 (5.4)!	22 (2.6)	145 (1.7)	49 (3.5)	147 (1.6)	20 (2.9)	149 (2.0)	3 (1.0)	154 (6.5)!
WISCONSIN†	1 (0.3)	... (...)	12 (2.4)	155 (3.8)!	44 (4.7)	160 (3.0)	36 (5.2)	163 (2.1)	7 (1.9)	168 (4.0)!
WYOMING	5 (0.4)	159 (4.0)	19 (0.6)	156 (2.0)	42 (1.2)	158 (0.9)	29 (1.1)	162 (1.3)	4 (0.3)	164 (2.5)
Other Jurisdictions										
DDESS	11 (1.1)	... (...)	1 (0.7)	... (...)	21 (1.0)	152 (2.8)	49 (1.9)	149 (1.7)	18 (1.2)	160 (2.2)
DoDDS	0 (...)	... (...)	11 (0.3)	149 (2.9)	28 (0.9)	155 (1.2)	50 (0.9)	156 (1.0)	11 (0.8)	159 (2.3)
GUAM	0 (...)	... (...)	0 (...)	... (...)	50 (1.7)	117 (2.0)	34 (1.0)	118 (1.8)	15 (1.4)	129 (3.1)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessments.

TABLE 4.13 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
STUDENTS' REPORTS ON: Time Spent on Homework

THE NATION'S REPORT CARD 1996 State Assessment

If you are taking science this year, about how much time do you spend doing science homework each week?	I Am Not Taking a Science Course This Year		None		One Half Hour		One Hour	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation								
NATION	4 (0.9)	127 (3.1)!	22 (1.5)	147 (1.6)	40 (1.4)	151 (1.1)	19 (0.7)	148 (1.6)
NORTHEAST	8 (4.3)	122 (3.7)!	10 (2.2)	141 (7.7)!	36 (5.0)	147 (3.6)	21 (1.6)	154 (5.9)
SOUTHEAST	3 (0.4)	... (...)	23 (2.3)	140 (2.7)	44 (1.5)	144 (2.4)	19 (1.2)	139 (2.9)
CENTRAL	2 (0.7)	... (...)	24 (3.8)	153 (4.2)	41 (2.7)	158 (2.9)	18 (1.9)	157 (3.5)
WEST	4 (0.7)	136 (5.8)!	28 (3.2)	148 (2.1)	37 (2.5)	152 (2.7)	18 (1.1)	144 (2.5)
States								
ALABAMA	3 (0.4)	... (...)	20 (1.5)	138 (1.8)	43 (1.0)	140 (1.9)	19 (0.7)	136 (2.8)
ALASKA†	5 (0.9)	... (...)	18 (1.4)	149 (2.9)	40 (2.0)	157 (1.7)	22 (1.5)	152 (2.5)
ARIZONA	6 (0.9)	132 (5.0)	28 (1.8)	149 (2.3)	37 (1.3)	148 (1.5)	17 (1.1)	143 (2.7)
ARKANSAS†	2 (0.4)	... (...)	22 (1.9)	146 (2.4)	40 (1.2)	146 (2.0)	20 (1.2)	141 (2.1)
CALIFORNIA	4 (0.7)	122 (4.6)	15 (1.1)	131 (2.5)	42 (1.3)	143 (1.9)	22 (1.2)	135 (2.7)
COLORADO	2 (0.3)	... (...)	21 (1.7)	153 (1.7)	41 (1.1)	153 (1.0)	18 (0.9)	156 (2.2)
CONNECTICUT	2 (0.3)	... (...)	9 (1.0)	142 (3.2)	45 (1.3)	154 (1.5)	20 (0.9)	156 (2.3)
DELAWARE	3 (0.5)	... (...)	25 (1.2)	141 (2.2)	45 (1.3)	144 (1.2)	15 (0.9)	144 (2.8)
DISTRICT OF COLUMBIA	3 (0.3)	... (...)	15 (0.9)	104 (2.8)	41 (1.3)	117 (1.0)	24 (1.2)	117 (1.8)
FLORIDA	3 (0.5)	... (...)	24 (1.7)	144 (2.2)	41 (1.3)	143 (1.6)	18 (1.0)	144 (2.6)
GEORGIA	2 (0.4)	... (...)	16 (1.0)	143 (2.3)	46 (0.9)	145 (1.6)	21 (0.9)	139 (2.2)
HAWAII	42 (0.8)	137 (1.1)	14 (0.7)	128 (2.5)	26 (0.8)	136 (1.5)	11 (0.8)	134 (2.5)
INDIANA	2 (0.3)	... (...)	21 (1.8)	152 (2.1)	40 (1.5)	153 (1.7)	20 (1.3)	154 (2.4)
IOWA†	2 (0.5)	... (...)	19 (1.5)	158 (1.8)	42 (1.3)	158 (1.3)	22 (1.1)	161 (1.7)
KENTUCKY	3 (0.4)	126 (3.3)	22 (1.3)	145 (1.6)	40 (1.1)	150 (1.6)	21 (0.9)	146 (2.2)
LOUISIANA	3 (0.4)	100 (6.6)	22 (1.3)	136 (2.6)	42 (1.3)	134 (1.5)	19 (0.8)	130 (2.6)
MAINE	2 (0.5)	... (...)	11 (0.8)	157 (2.0)	38 (1.4)	163 (1.3)	24 (1.0)	166 (1.6)
MARYLAND†	2 (0.4)	... (...)	14 (1.5)	142 (3.2)	51 (1.2)	147 (1.5)	20 (0.9)	145 (3.0)
MASSACHUSETTS	3 (0.7)	... (...)	9 (1.0)	152 (5.0)	44 (1.5)	156 (1.6)	20 (0.9)	158 (1.7)
MICHIGAN†	2 (0.3)	... (...)	22 (1.9)	154 (1.8)	38 (1.2)	153 (1.7)	22 (1.2)	153 (2.1)
MINNESOTA	3 (0.5)	139 (5.8)	21 (1.6)	157 (2.2)	41 (1.6)	160 (1.2)	20 (1.2)	158 (1.9)
MISSISSIPPI	2 (0.5)	... (...)	23 (1.4)	135 (2.0)	43 (1.2)	135 (1.7)	20 (0.9)	128 (2.2)
MISSOURI	3 (0.3)	124 (4.9)	19 (1.4)	151 (2.0)	40 (1.3)	154 (1.4)	20 (1.1)	151 (2.1)
MONTANA†	1 (0.4)	... (...)	19 (2.1)	162 (2.3)	41 (1.5)	163 (1.6)	21 (1.3)	163 (1.6)
NEBRASKA	2 (0.4)	... (...)	20 (1.4)	157 (1.5)	40 (1.3)	159 (1.5)	21 (0.8)	157 (1.3)
NEW MEXICO	4 (0.4)	115 (4.7)	27 (1.3)	142 (1.6)	37 (1.2)	144 (1.4)	18 (0.8)	140 (1.8)
NEW YORK†	2 (0.4)	... (...)	10 (1.4)	145 (5.8)	45 (1.4)	147 (1.9)	21 (0.9)	145 (2.3)
NORTH CAROLINA	3 (0.5)	129 (4.5)	18 (1.5)	146 (1.8)	47 (1.2)	149 (1.1)	19 (0.9)	145 (1.9)
NORTH DAKOTA	1 (0.2)	... (...)	15 (0.9)	161 (2.6)	42 (1.0)	164 (1.1)	23 (0.9)	161 (1.5)
OREGON	4 (0.9)	144 (4.2)!	25 (1.9)	153 (2.4)	39 (1.4)	157 (1.8)	18 (0.9)	157 (1.8)
RHODE ISLAND	3 (0.4)	... (...)	14 (0.8)	140 (2.0)	47 (1.2)	149 (1.1)	20 (0.9)	152 (2.0)
SOUTH CAROLINA†	2 (0.5)	... (...)	19 (1.6)	140 (2.3)	46 (1.3)	140 (1.6)	19 (1.0)	136 (2.4)
TENNESSEE	4 (0.4)	119 (4.1)	15 (1.1)	142 (2.4)	41 (1.2)	146 (1.8)	20 (1.0)	142 (2.8)
TEXAS	2 (0.3)	... (...)	28 (1.6)	144 (2.1)	41 (1.3)	149 (1.8)	17 (0.9)	144 (1.9)
UTAH	5 (0.7)	142 (3.7)	22 (1.2)	155 (1.5)	42 (1.0)	157 (1.2)	17 (0.9)	159 (1.5)
VERMONT†	2 (0.5)	... (...)	14 (1.6)	155 (2.3)	42 (1.2)	156 (1.4)	21 (1.0)	160 (1.4)
VIRGINIA	2 (0.3)	... (...)	17 (1.3)	144 (2.5)	48 (1.0)	151 (1.8)	18 (1.0)	150 (2.2)
WASHINGTON	7 (1.0)	139 (3.3)	26 (1.5)	149 (1.7)	37 (1.2)	153 (1.6)	16 (1.0)	149 (2.6)
WEST VIRGINIA	3 (0.4)	134 (4.2)	32 (1.6)	148 (1.3)	37 (1.1)	149 (1.2)	16 (0.8)	145 (1.6)
WISCONSIN†	2 (0.3)	... (...)	20 (1.6)	161 (2.4)	44 (1.3)	161 (1.4)	19 (1.1)	160 (2.4)
WYOMING	9 (0.6)	146 (2.9)	22 (0.9)	155 (1.2)	36 (0.8)	161 (1.2)	19 (0.8)	159 (1.5)
Other Jurisdictions								
DDESS	2 (0.4)	... (...)	21 (1.6)	149 (2.8)	45 (1.8)	151 (1.7)	17 (1.5)	157 (2.5)
DoDDS	2 (0.3)	... (...)	12 (0.6)	157 (2.1)	45 (1.2)	154 (1.1)	22 (0.9)	155 (1.2)
GUAM	5 (0.7)	... (...)	23 (1.3)	123 (3.0)	40 (1.8)	122 (2.0)	19 (1.3)	119 (2.6)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 4.13 (continued) 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
STUDENTS' REPORTS ON: Time Spent on Homework

THE NATION'S REPORT CARD 1996 State Assessment

If you are taking science this year, about how much time do you spend doing science homework each week?	Two Hours		Three Hours		More than Three Hours	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	8 (0.5)	156 (2.7)	3 (0.4)	157 (3.1)	4 (0.4)	152 (3.5)
NORTHEAST	14 (1.6)	163 (4.4)	5 (0.6)	... (...)	6 (1.5)	... (...)
SOUTHEAST	6 (0.6)	144 (3.9)	2 (0.3)	... (...)	3 (0.3)	... (...)
CENTRAL	7 (1.2)	158 (6.1)	4 (0.9)	... (...)	3 (0.6)	... (...)
WEST	7 (0.8)	155 (7.7)	3 (0.7)	162 (7.2)!	4 (0.5)	140 (6.7)
States						
ALABAMA	8 (0.9)	147 (4.3)	3 (0.5)	143 (4.8)	4 (0.5)	143 (4.7)
ALASKA†	8 (0.7)	157 (4.3)	4 (0.5)	166 (3.4)	3 (0.5)	... (...)
ARIZONA	7 (0.7)	152 (4.2)	2 (0.4)	... (...)	3 (0.6)	... (...)
ARKANSAS†	8 (0.8)	149 (2.8)	4 (0.6)	147 (4.0)	4 (0.5)	148 (4.1)
CALIFORNIA	9 (0.7)	148 (3.9)	4 (0.5)	148 (4.6)	4 (0.5)	139 (4.9)
COLORADO	10 (0.8)	163 (2.3)	4 (0.5)	162 (3.8)	4 (0.4)	157 (3.3)
CONNECTICUT	13 (0.7)	169 (1.8)	6 (0.4)	167 (3.4)	5 (0.5)	159 (3.5)
DELAWARE	7 (0.6)	146 (3.6)	2 (0.3)	... (...)	3 (0.4)	... (...)
DISTRICT OF COLUMBIA	10 (0.8)	115 (3.1)	3 (0.5)	... (...)	5 (0.4)	120 (4.0)
FLORIDA	8 (0.7)	145 (3.9)	3 (0.4)	151 (4.9)	4 (0.5)	144 (5.3)
GEORGIA	8 (0.6)	140 (3.2)	4 (0.5)	141 (5.7)	3 (0.4)	147 (4.0)
HAWAII	3 (0.4)	144 (3.7)	2 (0.3)	... (...)	2 (0.3)	... (...)
INDIANA	9 (0.7)	161 (2.9)	4 (0.4)	160 (3.1)	3 (0.5)	149 (4.0)
IOWA†	9 (0.9)	160 (3.5)	3 (0.4)	... (...)	3 (0.4)	156 (3.5)
KENTUCKY	8 (0.6)	151 (2.4)	3 (0.4)	157 (4.0)	3 (0.4)	148 (5.8)
LOUISIANA	7 (0.5)	134 (3.2)	3 (0.4)	130 (5.4)	4 (0.4)	132 (5.3)
MAINE	13 (0.9)	169 (2.3)	6 (0.5)	165 (2.2)	6 (0.7)	158 (3.6)
MARYLAND†	8 (0.7)	153 (3.2)	3 (0.4)	... (...)	3 (0.4)	... (...)
MASSACHUSETTS	13 (1.0)	165 (1.9)	6 (0.7)	162 (3.0)	5 (0.4)	160 (3.1)
MICHIGAN†	9 (0.7)	162 (2.3)	5 (0.6)	160 (3.7)	3 (0.4)	148 (4.0)
MINNESOTA	8 (1.0)	164 (4.2)	4 (0.5)	166 (4.9)	3 (0.4)	153 (4.3)
MISSISSIPPI	6 (0.6)	136 (3.8)	3 (0.4)	135 (3.5)	3 (0.3)	137 (4.6)
MISSOURI	9 (0.8)	153 (2.5)	4 (0.4)	158 (3.1)	4 (0.4)	149 (3.1)
MONTANA†	9 (0.6)	164 (2.5)	5 (0.6)	163 (3.4)	4 (0.5)	153 (3.3)
NEBRASKA	8 (0.7)	163 (3.1)	4 (0.5)	160 (3.5)	5 (0.5)	153 (2.1)
NEW MEXICO	7 (0.5)	145 (3.3)	3 (0.4)	147 (4.6)	3 (0.3)	136 (4.2)
NEW YORK†	11 (0.9)	155 (3.7)	5 (0.6)	161 (3.9)	5 (0.7)	149 (5.0)
NORTH CAROLINA	7 (0.7)	146 (3.1)	3 (0.3)	158 (3.8)	3 (0.4)	145 (4.5)
NORTH DAKOTA	11 (0.6)	163 (1.9)	5 (0.4)	161 (3.0)	4 (0.4)	157 (3.0)
OREGON	8 (0.7)	158 (3.2)	3 (0.4)	165 (5.3)	3 (0.4)	150 (5.6)
RHODE ISLAND	10 (0.7)	156 (2.5)	4 (0.5)	160 (2.7)	3 (0.4)	154 (3.9)
SOUTH CAROLINA†	8 (0.6)	143 (3.8)	3 (0.3)	... (...)	4 (0.4)	137 (5.7)
TENNESSEE	11 (0.8)	147 (3.0)	5 (0.6)	145 (6.3)	4 (0.6)	144 (5.0)
TEXAS	7 (0.6)	146 (2.7)	3 (0.4)	143 (4.7)	2 (0.3)	... (...)
UTAH	9 (0.8)	158 (1.9)	2 (0.3)	162 (3.8)	2 (0.3)	153 (4.7)
VERMONT†	11 (0.8)	163 (2.3)	5 (0.5)	166 (2.8)	4 (0.4)	159 (3.7)
VIRGINIA	9 (0.6)	156 (2.8)	4 (0.4)	162 (3.8)	3 (0.5)	153 (4.5)
WASHINGTON	7 (0.7)	156 (2.8)	3 (0.3)	155 (4.1)	3 (0.4)	142 (4.6)
WEST VIRGINIA	6 (0.5)	152 (2.7)	3 (0.3)	144 (4.0)	3 (0.4)	145 (4.2)
WISCONSIN†	9 (0.7)	161 (3.2)	4 (0.5)	168 (3.4)	3 (0.4)	156 (4.0)
WYOMING	7 (0.5)	160 (1.9)	3 (0.3)	159 (3.1)	4 (0.3)	160 (2.7)
Other Jurisdictions						
DDESS	9 (1.2)	... (...)	2 (0.5)	... (...)	4 (0.7)	... (...)
DoDDS	9 (0.7)	162 (1.8)	5 (0.5)	161 (2.4)	6 (0.5)	157 (2.6)
GUAM	6 (0.8)	... (...)	3 (0.6)	... (...)	5 (0.8)	... (...)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 4.14

1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

STUDENTS' REPORTS ON: Using Computers at Home

THE NATION'S REPORT CARD 1996 State Assessment

How often do you use a computer at home for schoolwork?	There Is No Computer at Home		Never or Hardly Ever		Once or Twice a Month		Once or Twice a Week		Almost Every Day	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation										
NATION	36 (1.2)	143 (1.0)	17 (0.9)	144 (1.6)	15 (0.5)	160 (1.8)	17 (1.1)	157 (1.9)	15 (0.7)	154 (1.9)
NORTHEAST	41 (3.6)	149 (2.1)	16 (2.8)	143 (5.4)!	13 (0.9)	158 (7.5)	15 (4.3)	153 (5.6)!	15 (2.2)	155 (4.3)
SOUTHEAST	43 (1.5)	138 (2.3)	16 (0.9)	137 (3.0)	13 (0.7)	153 (3.2)	16 (0.8)	149 (2.5)	12 (1.4)	143 (2.8)
CENTRAL	32 (2.8)	148 (2.0)	18 (1.6)	151 (4.2)	17 (1.4)	166 (3.9)	18 (2.0)	163 (4.4)	16 (1.2)	162 (3.4)
WEST	32 (1.8)	139 (1.9)	18 (1.8)	144 (2.4)	17 (1.3)	160 (2.2)	18 (1.6)	159 (3.4)	15 (1.1)	154 (3.7)
States										
ALABAMA	43 (1.6)	134 (1.5)	18 (1.0)	140 (2.3)	13 (0.9)	148 (2.7)	14 (0.9)	145 (3.0)	11 (0.9)	143 (2.9)
ALASKA†	25 (1.4)	142 (2.8)	14 (0.9)	152 (1.9)	18 (1.2)	161 (2.2)	24 (1.2)	161 (2.4)	19 (1.1)	159 (2.1)
ARIZONA	39 (1.5)	136 (1.8)	17 (1.1)	145 (2.0)	17 (1.0)	158 (2.1)	15 (1.0)	156 (2.0)	12 (1.0)	153 (2.8)
ARKANSAS†	45 (1.5)	140 (1.6)	19 (0.9)	145 (1.8)	13 (1.0)	154 (3.5)	13 (0.9)	151 (2.8)	11 (0.8)	147 (2.6)
CALIFORNIA	36 (1.7)	128 (1.7)	13 (0.8)	132 (3.5)	16 (0.9)	147 (2.6)	19 (1.1)	149 (2.9)	17 (1.0)	154 (2.6)
COLORADO	28 (1.0)	144 (1.6)	13 (0.8)	151 (2.2)	20 (0.8)	159 (1.4)	23 (0.9)	163 (1.5)	16 (0.9)	163 (1.5)
CONNECTICUT	26 (1.1)	141 (2.0)	13 (0.9)	146 (2.2)	17 (0.8)	162 (2.0)	24 (1.0)	167 (1.5)	20 (0.8)	164 (1.8)
DELAWARE	34 (1.3)	133 (1.9)	18 (0.9)	140 (2.3)	18 (1.0)	148 (2.1)	16 (0.9)	152 (2.5)	14 (0.8)	152 (2.7)
DISTRICT OF COLUMBIA	38 (1.5)*	111 (1.4)	17 (1.1)*	108 (2.5)	15 (0.9)*	117 (2.4)	17 (1.1)*	124 (2.5)	13 (1.1)*	121 (4.0)
FLORIDA	37 (1.6)	136 (1.8)	18 (0.8)	143 (2.6)	16 (0.9)	155 (2.1)	16 (0.8)	150 (2.4)	14 (1.4)	145 (3.6)
GEORGIA	36 (1.4)	135 (1.5)	19 (0.9)	139 (2.3)	17 (1.0)	152 (2.3)	17 (0.9)	149 (2.5)	11 (0.6)	146 (2.7)
HAWAII	37 (1.2)	131 (1.5)	18 (0.9)	135 (2.1)	17 (1.0)	145 (1.9)	16 (0.8)	140 (2.2)	12 (0.7)	138 (2.8)
INDIANA	36 (1.2)	146 (1.4)	18 (1.0)	151 (2.3)	15 (0.8)	158 (2.1)	17 (1.0)	165 (2.3)	14 (1.0)	158 (2.8)
IOWA†	35 (1.3)	152 (1.4)	14 (0.8)	151 (2.2)	19 (1.2)	166 (1.5)	19 (1.2)	169 (1.8)	13 (0.9)	159 (2.4)
KENTUCKY	42 (1.3)	143 (1.3)	13 (0.6)	143 (1.8)	14 (0.9)	151 (2.9)	17 (1.0)	156 (2.0)	14 (0.8)	155 (3.1)
LOUISIANA	45 (1.3)	131 (1.6)	19 (0.8)	132 (2.4)	13 (0.9)	144 (2.9)	11 (0.7)	136 (3.3)	11 (0.8)	133 (3.0)
MAINE	29 (1.3)	156 (1.3)	12 (0.8)	157 (2.1)	15 (0.8)	166 (1.7)	22 (1.1)	169 (1.7)	23 (1.4)	170 (1.8)
MARYLAND†	30 (1.5)	135 (1.9)	17 (1.0)	144 (1.7)	20 (1.0)	158 (1.9)	19 (1.1)	157 (2.5)	14 (1.0)	152 (2.9)
MASSACHUSETTS	26 (1.4)	145 (2.0)	12 (0.7)	149 (2.8)	17 (0.9)	162 (1.9)	25 (1.0)	167 (1.9)	20 (1.0)	164 (2.1)
MICHIGAN†	32 (1.6)	144 (1.6)	15 (1.0)	149 (2.5)	18 (1.1)	162 (1.9)	20 (1.1)	161 (2.5)	15 (1.1)	161 (2.4)
MINNESOTA	31 (1.3)	152 (1.7)	16 (1.0)	156 (2.3)	21 (0.8)	164 (1.8)	20 (1.0)	166 (1.7)	12 (0.9)	164 (2.2)
MISSISSIPPI	50 (1.3)	130 (1.4)	18 (0.9)	136 (2.0)	11 (0.7)	146 (3.0)	11 (0.7)	137 (2.3)	10 (0.8)	132 (3.1)
MISSOURI	39 (1.3)	147 (1.4)	19 (0.9)	148 (2.0)	16 (0.9)	162 (1.7)	16 (1.0)	158 (2.1)	11 (0.8)	154 (2.2)
MONTANA†	33 (1.5)	155 (2.0)	16 (0.9)	161 (2.0)	20 (0.9)	169 (1.4)	19 (1.0)	167 (2.0)	13 (1.0)	166 (2.4)
NEBRASKA	31 (1.2)	151 (1.4)	16 (0.8)	154 (1.7)	20 (0.8)	166 (1.7)	20 (0.9)	163 (1.7)	13 (0.7)	161 (2.5)
NEW MEXICO	41 (1.2)	132 (1.4)	17 (0.7)	142 (1.9)	14 (0.9)	153 (2.3)	17 (0.7)	152 (1.7)	12 (0.9)	148 (2.2)
NEW YORK†	35 (1.5)	137 (1.9)	13 (0.7)	140 (2.4)	16 (1.0)	161 (2.3)	19 (1.1)	156 (2.3)	17 (1.3)	157 (2.6)
NORTH CAROLINA	37 (1.6)	138 (1.2)	17 (0.7)	143 (1.6)	15 (0.9)	161 (1.9)	18 (1.0)	156 (1.7)	13 (0.6)	153 (2.1)
NORTH DAKOTA	34 (1.2)	158 (1.2)	18 (0.9)	164 (2.1)	21 (0.9)	166 (1.4)	17 (0.8)	165 (1.5)	10 (0.7)	164 (2.3)
OREGON	28 (1.2)	147 (1.8)	14 (0.9)	150 (2.4)	19 (0.9)	160 (2.1)	22 (1.3)	163 (1.6)	16 (1.0)	160 (2.3)
RHODE ISLAND	32 (0.9)	139 (1.3)	15 (0.8)	144 (1.7)	18 (0.8)	160 (1.7)	20 (0.9)	158 (1.7)	15 (0.9)	157 (2.0)
SOUTH CAROLINA†	42 (1.3)	133 (1.6)	18 (0.9)	135 (2.1)	13 (0.9)	152 (2.5)	14 (1.0)	149 (3.1)	13 (0.8)	140 (2.5)
TENNESSEE	41 (1.3)	138 (1.5)	18 (0.8)	144 (2.5)	16 (0.9)	155 (2.3)	13 (0.8)	151 (3.6)	11 (0.9)	146 (3.3)
TEXAS	39 (1.5)	136 (1.6)	19 (0.9)	144 (2.3)	14 (0.9)	160 (2.3)	16 (0.7)	157 (1.6)	12 (0.9)	155 (2.4)
UTAH	19 (0.9)	144 (1.9)	17 (1.0)	148 (1.7)	25 (0.9)	162 (1.2)	26 (1.0)	163 (1.2)	13 (0.6)	162 (1.3)
VERMONT†	27 (1.3)	148 (1.5)	13 (0.9)	154 (2.3)	15 (1.0)	160 (2.1)	23 (1.2)	166 (1.6)	22 (0.8)	163 (1.9)
VIRGINIA	32 (1.3)	139 (1.7)	17 (0.9)	147 (2.6)	18 (1.0)	160 (2.1)	19 (0.9)	160 (2.3)	14 (0.8)	157 (2.2)
WASHINGTON	27 (1.2)	140 (1.9)	16 (0.8)	145 (1.9)	20 (0.9)	159 (1.7)	20 (1.0)	160 (2.0)	17 (0.8)	152 (2.0)
WEST VIRGINIA	42 (1.0)	143 (1.1)	19 (0.8)	147 (1.7)	14 (0.8)	155 (1.7)	14 (0.7)	152 (2.0)	11 (0.7)	151 (2.3)
WISCONSIN†	36 (1.7)	153 (2.1)	14 (1.0)	154 (2.3)	18 (0.9)	167 (2.3)	18 (1.0)	169 (1.6)	13 (0.9)	164 (2.6)
WYOMING	29 (0.9)	150 (1.1)	16 (0.8)	156 (1.3)	21 (0.7)	164 (1.3)	21 (0.8)	164 (1.4)	14 (0.7)	160 (1.7)
Other Jurisdictions										
DDESS	26 (2.0)	146 (2.3)	16 (1.5)	148 (2.8)	19 (1.5)	162 (2.3)	21 (1.8)	157 (2.5)	17 (1.5)	157 (3.3)
DoDDS	18 (0.8)	148 (1.8)	19 (0.8)	152 (1.4)	23 (1.0)	161 (1.4)	23 (1.0)	160 (2.0)	17 (0.8)	158 (1.4)
GUAM	45 (1.8)	122 (1.6)	17 (1.4)	118 (3.6)	11 (1.3)	123 (4.6)	16 (1.0)	120 (3.5)	10 (1.2)	133 (4.8)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

* Interpret with caution — more than 15 percent of the respondents did not answer this question.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 4.15 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
TEACHERS' REPORTS ON: The Availability of Computers

THE NATION'S REPORT CARD 1996 State Assessment

Which best describes the availability of computers for use by your science students?	None Available		One Within the Classroom		Two or Three Within the Classroom	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	17 (3.4)	149 (5.6)!	22 (4.8)	149 (3.2)!	9 (4.6)	156 (7.2)!
NORTHEAST	4 (1.6)	... (...)	12 (...)	... (...)	22 (...)	... (...)
SOUTHEAST	19 (5.4)	135 (4.9)!	31 (8.1)	140 (2.6)!	5 (2.3)	146 (4.5)!
CENTRAL	27 (11.0)	157 (7.5)!	22 (11.0)	154 (4.7)!	5 (3.8)	... (...)
WEST	15 (5.2)	157 (14.5)!	21 (4.8)	149 (3.3)!	8 (4.5)	... (...)
States						
ALABAMA	29 (3.6)	140 (2.6)	23 (3.4)	139 (3.0)	12 (3.3)	133 (4.7)!
ALASKA†	7 (1.4)	... (...)	34 (1.5)	155 (2.2)	7 (2.0)	140 (4.4)!
ARIZONA	21 (4.2)	145 (3.2)	27 (4.5)	144 (4.7)	5 (2.3)	145 (10.9)!
ARKANSAS†	44 (5.1)	146 (2.2)	25 (3.8)	148 (2.2)	2 (...)	... (...)
CALIFORNIA	18 (3.2)	133 (4.8)	26 (3.1)	142 (2.8)	16 (3.3)	143 (5.9)!
COLORADO	13 (2.4)	153 (2.7)	21 (3.5)	154 (2.8)	3 (1.6)	... (...)
CONNECTICUT	17 (3.0)	141 (4.8)	24 (3.6)	159 (3.4)	3 (1.7)	... (...)
DELAWARE	38 (0.9)	140 (1.3)	14 (0.7)	143 (2.6)	6 (0.5)	144 (3.2)
DISTRICT OF COLUMBIA	14 (1.3)	107 (3.7)	8 (0.3)	... (...)	16 (0.8)	118 (2.0)
FLORIDA	19 (3.5)	135 (3.5)	30 (4.1)	142 (2.5)	11 (2.8)	147 (4.6)!
GEORGIA	13 (2.6)	143 (4.7)!	35 (3.9)	143 (2.5)	6 (1.6)	142 (6.2)!
HAWAII	9 (0.7)	141 (6.3)	45 (1.2)	135 (1.5)	13 (0.7)	131 (5.8)
INDIANA	15 (3.8)	143 (4.9)!	17 (3.8)	159 (3.2)!	1 (1.0)	... (...)
IOWA†	9 (2.7)	156 (3.0)!	34 (5.0)	155 (2.3)	6 (2.0)	166 (4.2)!
KENTUCKY	7 (2.1)	152 (7.1)!	29 (4.3)	148 (2.0)	10 (2.7)	147 (4.8)!
LOUISIANA	47 (4.5)	132 (2.6)	19 (3.0)	138 (3.2)	2 (1.3)	... (...)
MAINE	9 (2.2)	163 (3.3)!	29 (3.9)	163 (1.9)	5 (1.9)	160 (3.8)!
MARYLAND†	7 (1.9)	144 (6.4)!	14 (3.5)	143 (6.9)!	2 (1.1)	... (...)
MASSACHUSETTS	16 (3.0)	152 (4.1)	27 (3.9)	159 (3.6)	4 (1.7)	167 (5.8)!
MICHIGAN†	24 (4.2)	152 (3.2)	16 (3.7)	157 (3.0)!	1 (0.5)	... (...)
MINNESOTA	10 (3.0)	153 (3.3)!	24 (4.1)	158 (1.9)	1 (0.8)	... (...)
MISSISSIPPI	50 (4.3)	136 (1.8)	17 (3.2)	138 (4.0)	2 (1.1)	... (...)
MISSOURI	15 (3.0)	153 (2.9)!	24 (3.8)	154 (2.5)	9 (2.8)	144 (6.8)!
MONTANA†	8 (2.6)	162 (1.8)!	26 (3.5)	163 (3.1)	5 (1.8)	164 (7.2)!
NEBRASKA	7 (1.3)	149 (3.4)	35 (3.5)	159 (1.4)	5 (1.6)	163 (3.1)!
NEW MEXICO	23 (2.3)	138 (2.3)	25 (2.5)	145 (2.3)	5 (0.7)	137 (2.7)
NEW YORK†	26 (4.6)	145 (4.5)!	10 (2.9)	159 (6.1)!	6 (2.6)	152 (5.4)!
NORTH CAROLINA	13 (2.7)	144 (4.1)!	15 (3.2)	149 (2.8)!	7 (2.4)	145 (2.3)!
NORTH DAKOTA	12 (1.5)	166 (2.9)	29 (2.8)	162 (1.4)	5 (1.3)	161 (2.4)!
OREGON	10 (2.8)	156 (3.6)!	32 (4.5)	155 (2.5)	7 (2.2)	158 (4.6)!
RHODE ISLAND	13 (0.7)	146 (2.7)	10 (0.7)	153 (3.0)	5 (0.5)	151 (4.0)
SOUTH CAROLINA†	31 (3.9)	135 (3.1)	20 (3.6)	142 (3.5)	4 (1.5)	144 (6.9)!
TENNESSEE	24 (4.0)	139 (3.4)	20 (4.1)	146 (5.2)!	6 (2.3)	142 (4.0)!
TEXAS	21 (3.4)	142 (2.8)	30 (4.7)	142 (3.2)	5 (1.4)	143 (4.6)!
UTAH	32 (2.1)	155 (1.8)	18 (1.9)	156 (2.0)	4 (1.4)	157 (6.9)!
VERMONT†	9 (2.0)	159 (3.5)!	33 (2.9)	157 (2.0)	9 (1.6)	157 (2.3)
VIRGINIA	10 (2.2)	139 (3.6)!	20 (2.8)	146 (2.8)	8 (2.2)	138 (8.9)!
WASHINGTON	11 (2.4)	146 (4.0)!	30 (4.3)	150 (1.9)	9 (2.7)	153 (2.6)!
WEST VIRGINIA	23 (3.6)	144 (2.0)	20 (3.4)	150 (2.3)	8 (2.1)	151 (2.0)!
WISCONSIN†	9 (2.6)	157 (3.8)!	29 (4.9)	166 (1.7)	7 (3.1)	169 (5.8)!
WYOMING	9 (0.6)*	154 (2.5)	29 (1.0)*	160 (1.4)	12 (0.6)*	160 (2.2)
Other Jurisdictions						
DDESS	0 (...)	... (...)	14 (0.7)	166 (3.7)	21 (1.5)	149 (2.9)
DoDDS	18 (0.7)	150 (1.9)	25 (1.0)	156 (1.4)	23 (0.9)	158 (1.5)
GUAM	44 (1.1)	122 (2.1)	19 (1.0)	122 (2.5)	0 (...)	... (...)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.
* Interpret with caution — more than 15 percent of the respondents did not answer this question.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 4.15 (continued) 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
TEACHERS' REPORTS ON: The Availability of Computers

THE NATION'S REPORT CARD 1996 State Assessment

Which best describes the availability of computers for use by your science students?	Four or More Within the Classroom		Available in a Computer Laboratory but Difficult to Access or Schedule		Available in a Computer Laboratory and Easy to Access or Schedule	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	7 (3.0)	159 (2.8)!	32 (4.9)	149 (2.1)	13 (2.6)	148 (2.4)
NORTHEAST	0 (...)	... (...)	50 (12.0)	145 (5.9)!	12 (5.5)	... (...)
SOUTHEAST	0 (...)	... (...)	39 (10.1)	148 (2.5)!	6 (3.0)	138 (5.7)!
CENTRAL	7 (...)	... (...)	21 (7.4)	162 (6.3)!	18 (8.8)	... (...)
WEST	16 (7.4)	159 (3.5)!	24 (8.9)	147 (3.9)!	15 (3.6)	146 (4.2)!
States						
ALABAMA	3 (2.0)	118 (30.8)!	27 (4.5)	140 (4.5)	5 (1.7)	128 (4.5)!
ALASKA†	7 (2.1)	142 (5.2)!	37 (3.6)	151 (4.6)	7 (2.4)	150 (3.7)!
ARIZONA	4 (1.8)	... (...)	28 (3.5)	144 (2.1)	15 (3.5)	153 (4.3)!
ARKANSAS†	2 (0.9)	... (...)	22 (5.9)	142 (4.7)!	6 (1.9)	135 (7.2)!
CALIFORNIA	6 (2.1)	146 (5.1)!	23 (3.2)	137 (3.8)	11 (2.9)	140 (5.9)!
COLORADO	1 (0.4)	... (...)	47 (3.5)	157 (1.9)	14 (2.4)	148 (3.8)
CONNECTICUT	4 (2.0)	... (...)	38 (3.6)	160 (1.9)	15 (2.6)	163 (3.0)
DELAWARE	3 (0.2)	151 (3.6)	29 (1.0)	141 (2.4)	9 (0.5)	140 (2.7)
DISTRICT OF COLUMBIA	26 (0.9)	119 (1.6)	23 (0.8)	102 (1.6)	14 (0.5)	107 (3.0)
FLORIDA	8 (2.4)	143 (6.8)!	23 (3.1)	140 (3.4)	9 (1.9)	147 (5.0)!
GEORGIA	2 (0.9)	... (...)	32 (3.5)	140 (2.8)	12 (2.5)	143 (4.8)!
HAWAII	9 (0.7)	158 (2.6)	17 (1.0)	129 (3.4)	8 (0.9)	... (...)
INDIANA	5 (2.2)	145 (5.9)!	38 (5.2)	157 (1.8)	23 (3.3)	154 (2.2)
IOWA†	2 (1.4)	... (...)	39 (5.2)	160 (2.0)	11 (2.8)	165 (2.9)!
KENTUCKY	1 (...)	... (...)	36 (4.5)	149 (2.7)	17 (3.3)	146 (2.7)!
LOUISIANA	1 (0.7)	... (...)	19 (3.1)	138 (3.5)	12 (3.0)	134 (5.7)!
MAINE	1 (...)	... (...)	44 (4.3)	162 (1.8)	11 (1.8)	165 (3.5)
MARYLAND†	2 (0.9)	... (...)	51 (4.6)	144 (2.3)	24 (4.3)	152 (3.9)
MASSACHUSETTS	6 (1.1)	139 (7.0)!	34 (4.1)	156 (2.6)	14 (3.1)	159 (3.9)!
MICHIGAN†	2 (...)	... (...)	39 (4.7)	155 (2.1)	19 (4.2)	160 (4.0)!
MINNESOTA	1 (...)	... (...)	47 (4.0)	159 (2.0)	17 (3.3)	163 (2.8)
MISSISSIPPI	0 (...)	... (...)	20 (3.5)	134 (3.9)	9 (2.8)	124 (3.4)!
MISSOURI	1 (...)	... (...)	39 (4.2)	155 (1.8)	12 (2.9)	149 (3.2)!
MONTANA†	7 (3.0)	154 (4.0)!	40 (4.6)	161 (2.2)	14 (1.7)	167 (1.8)
NEBRASKA	5 (1.3)	163 (4.6)!	33 (3.2)	161 (1.6)	16 (2.4)	153 (2.3)
NEW MEXICO	3 (0.8)	... (...)	33 (2.5)	147 (1.6)	10 (1.3)	147 (2.6)
NEW YORK†	4 (2.1)	... (...)	35 (4.8)	147 (4.1)	19 (3.5)	146 (5.2)
NORTH CAROLINA	4 (1.4)	135 (6.0)!	43 (3.9)	148 (1.7)	19 (3.2)	145 (2.3)
NORTH DAKOTA	3 (0.7)	... (...)	36 (2.6)	160 (1.7)	16 (1.9)	166 (1.3)
OREGON	2 (1.3)	... (...)	39 (4.5)	154 (2.4)	11 (2.7)	157 (3.8)!
RHODE ISLAND	6 (0.5)	157 (2.9)	47 (0.9)	151 (1.3)	19 (0.7)	144 (2.1)
SOUTH CAROLINA†	2 (1.0)	... (...)	30 (4.3)	139 (2.1)	12 (2.3)	137 (4.4)
TENNESSEE	22 (4.1)	146 (2.9)	18 (3.2)	147 (3.5)	9 (2.4)	148 (7.6)!
TEXAS	7 (2.3)	146 (7.3)!	27 (3.5)	150 (2.6)	10 (2.1)	155 (4.6)!
UTAH	4 (0.9)	159 (4.2)!	30 (1.9)	155 (1.6)	12 (2.2)	161 (2.6)
VERMONT†	7 (1.8)	162 (3.9)!	35 (2.3)	155 (1.6)	8 (3.0)	150 (6.7)!
VIRGINIA	2 (1.3)	... (...)	42 (4.0)	155 (1.8)	18 (3.0)	153 (4.3)
WASHINGTON	7 (2.8)	155 (10.1)!	28 (4.1)	149 (2.2)	15 (3.6)	150 (4.6)!
WEST VIRGINIA	7 (1.7)	143 (7.4)!	35 (3.7)	147 (1.7)	9 (2.0)	148 (3.2)!
WISCONSIN†	0 (...)	... (...)	40 (4.9)	159 (2.6)	15 (3.6)	158 (5.5)!
WYOMING	15 (0.5)*	154 (2.4)	25 (1.1)*	159 (1.4)	11 (0.5)*	157 (1.7)
Other Jurisdictions						
DDESS	24 (1.6)	148 (2.2)	37 (1.2)	153 (2.2)	3 (0.7)	... (...)
DoDDS	13 (0.5)	160 (2.3)	8 (0.7)	155 (2.7)	13 (0.4)	154 (1.8)
GUAM	0 (...)	... (...)	37 (1.4)	114 (2.4)	0 (...)	... (...)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.
* Interpret with caution — more than 15 percent of the respondents did not answer this question.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 4.16 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
TEACHERS' REPORTS ON: The Use of Computers for Instruction in Science

THE NATION'S REPORT CARD 1996 State Assessment

How do you use computers for instruction in science?	Drill and Practice		Playing Science/Learning Games		Simulations and Modeling	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	8 (4.4)	155 (6.8)!	20 (3.8)	150 (3.9)	26 (5.5)	153 (2.4)!
NORTHEAST	22 (...)	... (...)	23 (12.1)	... (...)	31 (19.2)	... (...)
SOUTHEAST	6 (2.2)	134 (7.4)!	11 (4.8)	132 (4.6)!	13 (5.4)	137 (2.9)!
CENTRAL	3 (...)	... (...)	22 (8.9)	154 (4.6)!	20 (7.6)	161 (2.0)!
WEST	6 (3.0)	... (...)	23 (5.9)	150 (3.4)!	37 (8.5)	152 (2.2)!
States						
ALABAMA	14 (3.3)	138 (4.7)!	23 (3.9)	133 (4.8)	19 (3.8)	145 (6.6)!
ALASKA†	5 (2.1)	... (...)	17 (1.8)	153 (2.9)	23 (2.1)	154 (2.2)
ARIZONA	5 (1.7)	133 (12.3)!	18 (3.4)	138 (4.9)!	24 (3.3)	143 (3.6)
ARKANSAS†	10 (3.4)	140 (8.0)!	11 (2.8)	140 (6.9)!	8 (2.5)	137 (4.8)!
CALIFORNIA	6 (1.8)	144 (8.9)!	19 (3.2)	142 (4.6)	32 (3.8)	143 (3.9)
COLORADO	6 (1.9)	153 (7.2)!	20 (3.5)	154 (2.7)	30 (3.6)	155 (2.0)
CONNECTICUT	6 (1.7)	163 (2.1)!	13 (2.4)	153 (4.4)	19 (3.0)	162 (2.3)
DELAWARE	5 (0.4)	150 (3.6)	22 (0.8)	144 (2.1)	13 (0.6)	147 (2.8)
DISTRICT OF COLUMBIA	31 (1.2)	113 (1.1)	34 (0.9)	108 (1.2)	12 (0.8)	113 (2.1)
FLORIDA	7 (1.6)	148 (5.2)!	29 (3.4)	147 (2.4)	22 (2.7)	147 (3.2)
GEORGIA	8 (1.8)	140 (3.4)!	21 (2.6)	146 (2.6)	20 (2.8)	144 (4.2)
HAWAII	3 (0.4)	... (...)	24 (0.8)	136 (2.7)	12 (0.7)	149 (1.7)
INDIANA	11 (2.9)	154 (4.1)!	18 (2.8)	154 (4.4)	20 (3.3)	155 (3.9)
IOWA†	11 (3.3)	159 (3.2)!	26 (5.1)	158 (2.4)!	28 (5.0)	158 (2.3)
KENTUCKY	6 (1.4)	140 (5.5)!	17 (2.6)	146 (2.4)	18 (3.1)	144 (3.0)
LOUISIANA	12 (3.0)	137 (4.2)!	16 (2.7)	135 (5.1)	15 (2.9)	137 (5.4)
MAINE	4 (1.1)	166 (2.0)!	12 (2.9)	159 (2.5)!	13 (2.6)	162 (3.0)!
MARYLAND†	13 (3.6)	147 (5.6)!	27 (4.5)	150 (3.6)	30 (4.6)	153 (2.9)
MASSACHUSETTS	4 (1.5)	149 (4.9)!	7 (1.7)	152 (5.9)!	17 (2.8)	160 (4.0)
MICHIGAN†	7 (2.4)	155 (6.4)!	10 (2.6)	152 (4.2)!	12 (2.8)	157 (4.1)!
MINNESOTA	7 (3.0)	167 (8.1)!	16 (3.5)	163 (4.5)!	30 (4.5)	162 (2.9)
MISSISSIPPI	6 (2.3)	127 (6.2)!	8 (2.3)	141 (6.8)!	6 (2.2)	136 (5.2)!
MISSOURI	5 (1.9)	152 (8.2)!	18 (3.0)	154 (2.2)	24 (3.7)	152 (2.2)
MONTANA†	11 (2.7)	165 (2.7)!	14 (1.9)	162 (3.0)	25 (3.8)	164 (2.5)
NEBRASKA	5 (1.6)	157 (3.6)!	21 (2.8)	158 (2.1)	32 (2.7)	160 (2.1)
NEW MEXICO	4 (0.2)	147 (4.4)	20 (1.4)	144 (2.4)	21 (2.0)	148 (1.9)
NEW YORK†	11 (2.4)	149 (5.1)!	12 (3.0)	145 (4.5)!	12 (3.1)	148 (7.7)!
NORTH CAROLINA	7 (1.9)	140 (3.0)!	27 (3.0)	145 (1.7)	17 (2.8)	150 (2.6)
NORTH DAKOTA	8 (1.4)	157 (4.5)	20 (2.5)	159 (2.6)	29 (2.7)	164 (1.3)
OREGON	4 (1.0)	155 (3.5)!	19 (3.4)	154 (3.0)	23 (4.1)	155 (2.9)
RHODE ISLAND	13 (0.6)	149 (2.4)	18 (0.7)	146 (2.0)	22 (1.0)	148 (1.5)
SOUTH CAROLINA†	10 (2.6)	142 (3.8)!	22 (3.4)	139 (2.8)	14 (3.0)	141 (4.8)!
TENNESSEE	13 (2.6)	142 (4.3)	29 (4.3)	145 (3.4)	24 (3.9)	149 (3.3)
TEXAS	10 (2.7)	149 (5.5)!	20 (3.4)	148 (3.8)	25 (3.3)	154 (3.2)
UTAH	4 (0.6)	153 (4.0)	9 (1.5)	160 (2.8)	20 (2.1)	158 (2.0)
VERMONT†	1 (0.9)	... (...)	13 (2.3)	157 (2.3)	18 (2.6)	157 (2.5)
VIRGINIA	13 (2.7)	142 (6.3)!	19 (2.9)	148 (4.0)	17 (2.4)	154 (3.3)
WASHINGTON	3 (1.4)	156 (3.5)!	19 (4.0)	154 (3.2)	25 (4.0)	155 (2.5)
WEST VIRGINIA	12 (2.4)	148 (4.2)!	16 (2.9)	145 (2.6)	20 (2.7)	149 (2.3)
WISCONSIN†	4 (1.5)	164 (5.1)!	15 (3.3)	155 (3.9)!	22 (4.0)	162 (2.3)
WYOMING	14 (0.7)	164 (1.7)	29 (1.0)	160 (1.3)	44 (0.9)	162 (0.9)
Other Jurisdictions						
DDESS	10 (0.9)	... (...)	31 (1.1)	150 (2.4)	23 (1.7)	149 (2.4)
DoDDS	3 (0.4)	... (...)	21 (0.7)	157 (1.6)	14 (0.3)	158 (1.6)
GUAM	12 (0.9)	120 (2.6)	0 (...)	... (...)	7 (1.1)	... (...)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 4.16 (continued) 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
TEACHERS' REPORTS ON: The Use of Computers for Instruction in Science

THE NATION'S REPORT CARD 1996 State Assessment

How do you use computers for instruction in science?	Data Analysis and Other Applications		Word Processing		I Do Not Use Computers for Science Instruction	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	20 (3.5)	149 (1.6)	22 (3.5)	152 (2.2)	46 (4.2)	149 (2.1)
NORTHEAST	14 (6.1)	... (...)	21 (11.9)	... (...)	35 (9.2)	145 (5.9)!
SOUTHEAST	20 (5.2)	144 (3.5)!	23 (4.7)	146 (3.0)!	63 (5.4)	142 (3.1)
CENTRAL	29 (10.3)	159 (2.2)!	27 (8.5)	166 (4.1)!	50 (11.1)	156 (4.1)!
WEST	18 (6.1)	147 (2.3)!	18 (4.4)	143 (6.1)!	38 (6.3)	153 (4.6)
States						
ALABAMA	7 (1.8)	132 (9.1)!	16 (2.6)	141 (3.5)	54 (3.9)	139 (2.2)
ALASKA†	25 (1.5)	155 (1.8)	46 (1.9)	156 (1.5)	36 (2.2)	143 (3.5)
ARIZONA	25 (4.2)	143 (4.0)!	29 (4.1)	142 (3.6)	46 (4.6)	148 (2.1)
ARKANSAS†	10 (3.8)	143 (8.4)!	12 (2.8)	149 (3.7)!	66 (4.3)	146 (2.0)
CALIFORNIA	30 (3.6)	146 (3.2)	36 (3.5)	143 (3.2)	39 (3.9)	135 (2.2)
COLORADO	26 (3.7)	157 (3.0)	38 (3.6)	157 (1.9)	32 (3.7)	152 (2.0)
CONNECTICUT	31 (3.3)	166 (2.0)	29 (3.1)	161 (2.3)	45 (3.7)	150 (2.9)
DELAWARE	13 (0.7)	152 (2.6)	13 (0.6)	150 (3.1)	68 (0.9)	140 (1.0)
DISTRICT OF COLUMBIA	41 (1.0)	113 (1.3)	32 (1.5)	111 (1.6)	23 (1.4)	109 (2.3)
FLORIDA	25 (3.8)	148 (3.5)	32 (3.4)	148 (2.6)	41 (4.1)	137 (2.7)
GEORGIA	18 (2.4)	149 (2.6)	28 (3.3)	146 (2.6)	44 (3.9)	140 (2.1)
HAWAII	22 (0.8)	139 (2.2)	41 (1.1)	137 (1.5)	45 (1.1)	135 (2.3)
INDIANA	23 (3.8)	157 (2.8)	30 (4.5)	156 (2.9)	48 (5.1)	152 (2.0)
IOWA†	22 (4.0)	159 (2.2)	36 (4.5)	160 (1.8)	37 (5.0)	156 (1.7)
KENTUCKY	33 (3.6)	150 (1.7)	47 (4.6)	147 (2.0)	30 (4.2)	151 (2.9)
LOUISIANA	11 (2.0)	144 (4.7)	11 (2.3)	139 (5.1)	67 (3.4)	133 (2.1)
MAINE	31 (3.6)	165 (1.7)	52 (3.7)	165 (1.4)	32 (3.5)	162 (1.8)
MARYLAND†	36 (4.2)	154 (3.0)	29 (4.6)	151 (2.6)	36 (4.1)	141 (3.0)
MASSACHUSETTS	27 (4.1)	161 (3.4)	30 (4.2)	158 (3.1)	49 (4.0)	154 (1.8)
MICHIGAN†	13 (3.3)	164 (3.3)!	27 (4.7)	162 (2.3)	53 (5.0)	154 (2.0)
MINNESOTA	19 (2.9)	162 (1.8)	28 (3.3)	160 (1.4)	39 (4.2)	156 (2.3)
MISSISSIPPI	11 (2.5)	132 (3.6)!	9 (2.8)	139 (6.7)!	73 (4.1)	135 (1.6)
MISSOURI	20 (3.7)	152 (3.3)	25 (4.0)	151 (3.0)	47 (3.9)	151 (1.6)
MONTANA†	31 (4.2)	162 (1.9)	39 (4.0)	164 (1.7)	37 (4.1)	161 (2.4)
NEBRASKA	26 (3.4)	159 (1.3)	42 (3.5)	160 (1.4)	30 (2.6)	154 (1.2)
NEW MEXICO	16 (1.8)	147 (2.9)	21 (2.7)	148 (2.3)	48 (2.4)	141 (1.4)
NEW YORK†	20 (4.3)	153 (3.3)!	23 (3.6)	148 (3.4)	51 (4.0)	148 (2.9)
NORTH CAROLINA	33 (3.7)	151 (1.6)	34 (3.6)	149 (1.7)	33 (3.7)	145 (2.3)
NORTH DAKOTA	20 (2.0)	161 (2.1)	37 (2.9)	160 (1.7)	31 (2.8)	162 (1.7)
OREGON	26 (4.3)	159 (2.5)	45 (4.7)	158 (1.8)	36 (4.6)	154 (2.9)
RHODE ISLAND	24 (0.8)	154 (1.5)	22 (0.9)	151 (1.4)	44 (1.0)	149 (1.3)
SOUTH CAROLINA†	8 (1.7)	144 (3.0)!	21 (3.4)	145 (2.4)	54 (3.9)	138 (2.1)
TENNESSEE	19 (3.3)	143 (3.8)	23 (4.1)	145 (3.2)	44 (4.8)	142 (2.4)
TEXAS	21 (3.5)	148 (3.2)	31 (3.8)	146 (2.7)	43 (4.2)	146 (1.8)
UTAH	13 (2.0)	159 (3.0)	21 (2.1)	158 (1.8)	58 (2.0)	155 (1.2)
VERMONT†	39 (3.1)	160 (1.5)	47 (3.1)	158 (1.3)	35 (2.9)	156 (2.0)
VIRGINIA	24 (2.8)	160 (2.9)	29 (3.2)	152 (2.8)	43 (3.8)	148 (2.1)
WASHINGTON	25 (3.9)	151 (3.3)	42 (4.1)	153 (2.4)	38 (3.6)	148 (2.2)
WEST VIRGINIA	14 (2.6)	153 (2.3)	18 (2.6)	149 (2.0)	55 (3.4)	145 (1.4)
WISCONSIN†	20 (3.8)	162 (3.1)	29 (4.5)	162 (2.5)	41 (4.5)	161 (3.3)
WYOMING	42 (0.9)	161 (1.0)	44 (0.8)	159 (1.0)	20 (0.7)	157 (1.5)
Other Jurisdictions						
DDESS	38 (1.3)	145 (2.0)	23 (1.6)	154 (2.7)	23 (1.4)	153 (2.3)
DoDDS	30 (1.0)	158 (1.3)	46 (0.9)	157 (0.9)	38 (0.8)	152 (1.4)
GUAM	21 (1.1)	118 (2.7)	34 (0.9)	112 (2.1)	58 (1.3)	124 (1.8)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 4.17

1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

TEACHERS' REPORTS ON: The Frequency of Computer Use

THE NATION'S REPORT CARD 1996 State Assessment

How often do your students use a computer for science?	Never or Hardly Ever		Once or Twice a Month		Once or Twice a Week		Almost Every Day	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation								
NATION	62 (4.3)	150 (1.8)	31 (4.0)	151 (2.2)	7 (2.4)	156 (4.0)!	0 (0.3)	... (...)
NORTHEAST	37 (9.0)	144 (5.8)!	59 (10.3)	157 (5.2)!	4 (...)	... (...)	0 (...)	... (...)
SOUTHEAST	74 (6.5)	144 (2.6)	20 (5.4)	136 (3.8)!	6 (3.1)	142 (3.9)!	0 (...)	... (...)
CENTRAL	77 (7.4)	155 (3.6)	13 (4.8)	167 (6.5)!	10 (...)	... (...)	0 (...)	... (...)
WEST	59 (8.6)	152 (3.9)!	33 (8.0)	145 (1.9)!	7 (4.1)	158 (7.4)!	1 (0.8)	... (...)
States								
ALABAMA	66 (4.3)	138 (2.0)	26 (3.8)	137 (5.2)	6 (2.1)	144 (8.0)!	2 (1.2)	... (...)
ALASKA†	65 (2.0)	149 (2.0)	24 (2.2)	154 (2.6)	9 (1.7)	153 (3.0)	2 (0.2)	... (...)
ARIZONA	67 (4.3)	146 (1.8)	21 (3.6)	149 (4.0)	8 (2.6)	132 (10.1)!	4 (2.6)	... (...)
ARKANSAS†	76 (4.1)	144 (1.8)	19 (3.0)	148 (3.5)	5 (2.1)	126 (8.9)!	0 (...)	... (...)
CALIFORNIA	57 (3.6)	137 (1.8)	31 (3.5)	141 (3.6)	10 (2.5)	145 (6.8)!	2 (1.4)	... (...)
COLORADO	55 (4.2)	155 (1.5)	38 (3.8)	156 (2.1)	6 (1.5)	153 (4.9)!	0 (0.2)	... (...)
CONNECTICUT	68 (3.4)	153 (2.2)	24 (3.3)	160 (2.8)	7 (2.0)	168 (2.6)!	1 (...)	... (...)
DELAWARE	68 (0.9)	140 (1.1)	26 (0.7)	145 (2.2)	3 (0.5)	... (...)	3 (0.3)	... (...)
DISTRICT OF COLUMBIA	36 (1.1)	108 (1.9)	20 (0.7)	97 (1.6)	31 (0.9)	120 (1.4)	13 (0.6)	113 (2.2)
FLORIDA	58 (3.8)	139 (2.3)	26 (3.5)	146 (3.0)	11 (1.9)	145 (4.9)	5 (1.9)	150 (4.4)!
GEORGIA	62 (4.1)	140 (1.9)	30 (3.6)	144 (2.9)	5 (1.4)	147 (5.0)!	3 (0.8)	154 (4.6)!
HAWAII	60 (1.1)	135 (1.9)	26 (1.1)	134 (2.2)	13 (0.5)	141 (1.8)	2 (0.2)	... (...)
INDIANA	62 (5.1)	153 (1.7)	30 (4.9)	157 (2.8)	7 (2.9)	154 (4.2)!	2 (...)	... (...)
IOWA†	57 (4.3)	158 (1.7)	28 (4.2)	161 (1.9)	12 (2.8)	157 (4.4)!	3 (...)	... (...)
KENTUCKY	51 (4.4)	150 (1.9)	35 (4.2)	146 (1.9)	12 (2.9)	148 (4.2)!	2 (0.8)	... (...)
LOUISIANA	74 (3.2)	132 (2.0)	15 (2.7)	133 (3.8)	8 (2.1)	144 (4.4)!	3 (1.2)	141 (4.9)!
MAINE	55 (4.1)	163 (1.3)	37 (4.0)	163 (1.5)	6 (2.2)	166 (4.7)!	2 (0.5)	... (...)
MARYLAND†	56 (3.6)	144 (2.0)	35 (4.2)	149 (3.4)	6 (2.1)	150 (6.4)!	2 (...)	... (...)
MASSACHUSETTS	61 (4.1)	157 (1.8)	28 (4.0)	160 (3.2)	8 (2.3)	150 (5.6)!	3 (1.6)	... (...)
MICHIGAN†	74 (4.2)	154 (1.4)	22 (3.8)	164 (2.9)	4 (1.7)	151 (9.7)!	0 (...)	... (...)
MINNESOTA	65 (4.1)	158 (2.0)	31 (4.0)	162 (1.7)	3 (1.1)	153 (9.7)!	0 (0.2)	... (...)
MISSISSIPPI	77 (3.6)	136 (1.7)	17 (3.1)	133 (3.2)	4 (1.9)	117 (6.5)!	1 (...)	... (...)
MISSOURI	66 (4.1)	154 (1.1)	28 (3.6)	151 (2.9)	6 (2.2)	139 (4.5)!	0 (...)	... (...)
MONTANA†	61 (4.8)	162 (1.5)	32 (4.8)	162 (2.1)	7 (1.6)	164 (2.5)!	0 (...)	... (...)
NEBRASKA	54 (3.7)	158 (1.4)	39 (3.5)	158 (1.7)	6 (1.8)	158 (2.9)!	1 (0.1)	... (...)
NEW MEXICO	70 (1.8)	142 (1.3)	25 (1.6)	148 (2.1)	6 (1.1)	146 (2.9)	0 (...)	... (...)
NEW YORK†	67 (4.5)	150 (2.3)	27 (4.6)	144 (5.5)!	6 (1.7)	154 (8.7)!	1 (...)	... (...)
NORTH CAROLINA	51 (4.6)	145 (1.8)	42 (4.6)	149 (1.5)	6 (1.9)	143 (5.0)!	1 (0.5)	... (...)
NORTH DAKOTA	63 (3.3)	162 (1.1)	34 (3.1)	163 (1.2)	3 (0.8)	... (...)	0 (...)	... (...)
OREGON	56 (4.7)	153 (2.2)	32 (3.9)	161 (2.0)	9 (2.3)	149 (6.1)!	3 (...)	... (...)
RHODE ISLAND	50 (0.9)	148 (1.2)	37 (0.8)	149 (1.3)	13 (0.7)	158 (1.7)	1 (0.0)	... (...)
SOUTH CAROLINA†	68 (4.0)	137 (2.0)	27 (3.5)	141 (2.8)	5 (1.9)	143 (4.3)!	0 (...)	... (...)
TENNESSEE	58 (4.1)	143 (2.3)	21 (3.0)	147 (4.0)	16 (3.5)	150 (3.1)!	6 (1.8)	140 (4.8)!
TEXAS	65 (4.0)	147 (1.7)	23 (3.3)	147 (3.1)	8 (2.0)	146 (5.5)!	4 (1.5)	148 (9.6)!
UTAH	77 (2.2)	155 (0.9)	20 (2.1)	159 (2.1)	2 (1.0)	... (...)	0 (0.1)	... (...)
VERMONT†	50 (2.8)	157 (1.2)	36 (2.8)	155 (2.0)	11 (2.0)	165 (2.3)	3 (1.2)	... (...)
VIRGINIA	63 (3.7)	150 (1.7)	28 (3.4)	156 (2.8)	5 (1.4)	140 (6.3)!	4 (2.3)	... (...)
WASHINGTON	59 (4.2)	149 (1.7)	28 (3.8)	152 (2.8)	9 (2.1)	159 (2.5)!	3 (1.9)	... (...)
WEST VIRGINIA	79 (2.5)	148 (1.0)	16 (2.5)	148 (3.0)	2 (1.1)	... (...)	2 (1.1)	... (...)
WISCONSIN†	69 (4.2)	161 (2.1)	25 (3.9)	159 (3.9)	6 (2.0)	160 (5.6)!	0 (...)	... (...)
WYOMING	47 (1.1)	157 (0.9)	34 (0.9)	161 (1.0)	7 (0.6)	165 (2.2)	12 (0.3)	156 (2.1)
Other Jurisdictions								
DDESS	48 (1.3)	154 (2.1)	17 (1.5)	144 (2.7)	14 (0.8)	150 (3.2)	21 (0.9)	153 (3.1)
DoDDS	59 (0.9)	154 (1.0)	31 (0.9)	155 (1.1)	9 (0.7)	166 (2.3)	1 (0.2)	... (...)
GUAM	80 (1.1)	119 (1.5)	7 (1.1)	... (...)	0 (...)	... (...)	12 (0.9)	120 (2.6)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

... Characteristics of the sample do not permit a reliable estimate.

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 4.18

1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

STUDENTS' REPORTS ON: The Frequency of Computer Use

THE NATION'S REPORT CARD naep 1996 State Assessment

How often do you use a computer for science?	Never or Hardly Ever		Once or Twice a Month		Once or Twice a Week		Almost Every Day	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation								
NATION	67 (1.8)	150 (1.1)	18 (1.1)	154 (1.9)	10 (1.0)	145 (2.9)	5 (0.5)	135 (3.6)
NORTHEAST	68 (4.4)	150 (2.7)	16 (3.8)	156 (7.4)!	10 (2.7)	148 (10.6)!	7 (2.0)	... (...)
SOUTHEAST	66 (3.2)	142 (2.2)	19 (1.9)	147 (3.1)	11 (1.4)	138 (4.5)	5 (0.7)	127 (4.0)
CENTRAL	69 (3.6)	155 (2.9)	17 (2.1)	165 (4.4)	10 (2.0)	155 (5.3)!	5 (0.9)	... (...)
WEST	68 (2.9)	151 (2.4)	19 (1.4)	152 (1.9)	10 (1.6)	142 (4.7)	3 (0.6)	122 (6.1)
States								
ALABAMA	72 (2.1)	141 (1.7)	14 (1.3)	141 (3.1)	8 (0.7)	134 (3.4)	6 (0.7)	126 (5.9)
ALASKA†	64 (1.4)	153 (1.7)	20 (1.4)	158 (2.3)	11 (0.9)	150 (3.6)	5 (0.7)	152 (4.3)
ARIZONA	66 (2.4)	149 (1.4)	19 (1.3)	147 (2.5)	9 (1.1)	135 (4.3)	5 (1.3)	128 (5.2)!
ARKANSAS†	74 (2.5)	146 (1.6)	13 (1.7)	149 (3.6)	9 (1.1)	139 (4.7)	4 (0.7)	136 (5.6)
CALIFORNIA	64 (2.3)	139 (1.6)	21 (1.6)	143 (3.6)	11 (0.9)	139 (3.6)	4 (0.6)	137 (4.0)
COLORADO	66 (1.9)	156 (1.2)	21 (1.3)	156 (1.4)	10 (0.8)	152 (2.7)	3 (0.3)	147 (4.3)
CONNECTICUT	68 (1.8)	157 (1.3)	17 (1.0)	158 (2.6)	9 (0.9)	151 (3.3)	5 (0.9)	147 (4.1)
DELAWARE	70 (1.0)	143 (1.0)	13 (0.8)	145 (2.8)	12 (0.7)	141 (2.4)	5 (0.5)	131 (4.5)
DISTRICT OF COLUMBIA	54 (1.3)	115 (1.1)	20 (1.1)	123 (2.3)	16 (0.9)	113 (2.8)	10 (0.9)	107 (3.0)
FLORIDA	68 (1.9)	145 (1.5)	16 (1.2)	145 (3.3)	10 (0.9)	128 (3.1)	6 (0.7)	141 (5.3)
GEORGIA	67 (1.8)	145 (1.6)	17 (1.4)	144 (2.6)	11 (0.8)	135 (2.9)	6 (0.6)	122 (3.5)
HAWAII	70 (0.8)	138 (0.8)	16 (0.8)	131 (2.3)	9 (0.5)	130 (3.0)	5 (0.7)	128 (4.6)
INDIANA	69 (2.3)	153 (1.4)	19 (1.6)	157 (2.9)	9 (0.7)	154 (3.2)	4 (1.2)	146 (4.7)!
IOWA†	67 (2.3)	158 (1.2)	20 (1.5)	165 (2.0)	8 (1.2)	157 (3.0)	5 (1.4)	148 (3.8)!
KENTUCKY	59 (2.0)	150 (1.3)	23 (1.3)	149 (2.0)	12 (1.0)	144 (2.6)	6 (0.7)	139 (3.7)
LOUISIANA	73 (1.8)	135 (1.5)	12 (0.9)	137 (2.9)	9 (1.0)	130 (3.9)	6 (0.8)	123 (4.2)
MAINE	61 (2.1)	162 (1.3)	24 (1.5)	167 (1.4)	11 (1.2)	162 (2.6)	4 (0.6)	160 (4.1)
MARYLAND†	68 (2.5)	148 (1.4)	20 (1.8)	150 (3.0)	9 (0.8)	135 (3.2)	4 (0.5)	132 (5.6)
MASSACHUSETTS	70 (2.3)	157 (1.5)	17 (1.5)	162 (2.5)	9 (1.0)	158 (3.9)	4 (0.6)	147 (3.7)
MICHIGAN†	73 (1.9)	154 (1.3)	15 (1.1)	159 (2.8)	8 (0.8)	152 (3.0)	4 (0.9)	144 (3.9)!
MINNESOTA	65 (2.2)	160 (1.4)	22 (1.5)	163 (1.7)	10 (1.0)	153 (2.5)	3 (0.5)	147 (6.2)
MISSISSIPPI	80 (1.3)	136 (1.4)	9 (0.9)	130 (3.1)	7 (0.6)	122 (3.8)	4 (0.4)	114 (4.0)
MISSOURI	69 (1.9)	152 (1.3)	17 (1.2)	156 (1.9)	9 (1.1)	147 (3.3)	5 (0.4)	146 (4.2)
MONTANA†	63 (2.0)	162 (1.5)	25 (1.3)	165 (1.8)	9 (1.1)	159 (2.9)	3 (0.4)	156 (4.1)
NEBRASKA	64 (1.6)	158 (1.2)	22 (1.3)	161 (1.7)	10 (0.7)	153 (2.5)	4 (0.5)	151 (5.0)
NEW MEXICO	69 (1.4)	143 (1.1)	17 (0.9)	142 (2.1)	10 (0.7)	138 (2.7)	4 (0.5)	130 (4.3)
NEW YORK†	69 (2.1)	148 (1.8)	18 (1.6)	151 (2.9)	8 (0.8)	142 (4.6)	5 (0.7)	143 (5.4)
NORTH CAROLINA	62 (2.0)	148 (1.4)	22 (1.3)	152 (1.6)	11 (1.1)	140 (2.0)	5 (0.5)	134 (3.4)
NORTH DAKOTA	66 (1.4)	163 (1.0)	21 (1.1)	163 (1.3)	11 (0.9)	158 (2.5)	3 (0.4)	152 (5.6)
OREGON	68 (1.7)	155 (1.6)	19 (1.1)	160 (2.2)	10 (1.1)	151 (3.0)	3 (0.6)	145 (7.6)
RHODE ISLAND	64 (1.0)	150 (1.0)	21 (1.0)	153 (1.6)	11 (0.7)	143 (2.9)	4 (0.4)	138 (3.9)
SOUTH CAROLINA†	73 (1.3)	141 (1.5)	13 (0.8)	144 (2.8)	9 (0.8)	130 (3.0)	5 (0.5)	125 (3.8)
TENNESSEE	63 (2.3)	144 (1.8)	17 (1.1)	148 (2.6)	11 (1.1)	145 (2.8)	8 (0.9)	134 (4.3)
TEXAS	71 (2.2)	147 (1.6)	14 (1.1)	154 (2.6)	9 (0.8)	141 (2.7)	7 (1.3)	140 (5.1)
UTAH	74 (1.2)	156 (0.8)	16 (0.8)	158 (1.7)	8 (0.7)	156 (2.4)	3 (0.3)	157 (3.2)
VERMONT†	56 (2.1)	158 (1.1)	25 (1.3)	160 (1.8)	12 (1.1)	157 (2.7)	8 (1.1)	154 (3.4)
VIRGINIA	70 (2.0)	150 (1.3)	18 (1.4)	157 (3.1)	8 (0.9)	145 (3.5)	4 (0.5)	132 (4.2)
WASHINGTON	67 (2.1)	151 (1.1)	18 (1.2)	155 (2.5)	10 (1.0)	150 (3.0)	4 (1.0)	138 (4.7)!
WEST VIRGINIA	74 (1.6)	149 (0.9)	14 (1.1)	149 (2.0)	7 (0.7)	141 (2.4)	5 (0.6)	141 (4.3)
WISCONSIN†	67 (2.1)	161 (1.6)	21 (1.3)	162 (2.3)	9 (1.1)	159 (2.3)	3 (0.5)	142 (5.5)
WYOMING	57 (1.1)	156 (0.7)	25 (0.9)	161 (1.4)	11 (0.7)	156 (2.0)	7 (0.4)	158 (2.3)
Other Jurisdictions								
DDESS	57 (2.1)	153 (1.5)	21 (1.5)	155 (2.7)	13 (1.4)	148 (4.1)	8 (1.0)	... (...)
DoDDS	68 (1.0)	154 (1.0)	17 (0.8)	160 (1.7)	10 (0.7)	160 (2.0)	5 (0.5)	151 (3.8)
GUAM	61 (1.6)	125 (1.6)	12 (1.3)	114 (3.4)	19 (1.1)	120 (2.7)	9 (1.1)	104 (4.1)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

... Characteristics of the sample do not permit a reliable estimate.

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

Chapter 5

Hands-On Science Tasks

Overview

NAEP collected information related to the use of hands-on science tasks in science instruction from both teachers and students. Average science scale scores and percentages are given for several teacher-reported results such as emphasis on developing laboratory skills and techniques as well as emphasis on developing data analysis skills.

For several of the tables, student- and teacher-reported results are presented for similar questions. Results of this kind are presented for frequency of science demonstrations in the classroom, frequency of hands-on activities or investigations, and whether or not long-term projects are a part of the curriculum. Some discrepancies may exist between student- and teacher-reported percentages. No attempt is made to offer conclusive reasons for these discrepancies.

TABLE 5.1 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

TEACHERS' REPORTS ON: Emphasis on Developing Laboratory Skills and Techniques

THE NATION'S REPORT CARD — 1996 State Assessment

In your plans for science instruction during the year, about how much emphasis will you give to developing laboratory skills and techniques as an objective for your students?

JURISDICTIONS	Little or No Emphasis		Moderate Emphasis		Heavy Emphasis	
	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	13 (2.5)	135 (3.6)!	44 (4.7)	152 (2.0)	42 (4.5)	153 (2.1)
NORTHEAST	15 (3.6)	139 (8.4)!	46 (14.0)	153 (9.1)!	39 (12.7)	... (...)
SOUTHEAST	12 (4.1)	124 (5.3)!	48 (7.6)	145 (2.7)	40 (6.5)	144 (1.9)!
CENTRAL	23 (8.6)	139 (4.0)!	43 (10.2)	165 (6.1)!	34 (9.2)	161 (2.6)!
WEST	7 (2.1)	135 (5.3)!	41 (9.5)	149 (2.9)!	52 (9.0)	152 (4.9)!
States						
ALABAMA	29 (3.7)	138 (3.0)	52 (3.8)	136 (2.1)	19 (3.3)	145 (5.2)
ALASKA†	13 (2.4)	129 (6.5)	33 (3.0)	152 (3.1)	54 (2.1)	155 (1.6)
ARIZONA	17 (2.5)	135 (4.5)	42 (3.7)	146 (2.5)	41 (4.5)	148 (2.2)
ARKANSAS†	26 (4.0)	138 (3.4)	56 (5.3)	145 (2.0)	17 (3.5)	153 (3.0)
CALIFORNIA	7 (1.7)	128 (5.5)!	48 (3.5)	136 (2.1)	44 (3.5)	145 (2.6)
COLORADO	6 (1.6)	146 (4.1)!	43 (4.0)	155 (2.2)	52 (4.2)	156 (1.3)
CONNECTICUT	10 (2.5)	138 (6.5)!	36 (3.5)	155 (3.5)	54 (3.2)	160 (1.5)
DELAWARE	17 (0.8)	137 (3.0)	46 (0.9)	141 (1.6)	37 (0.6)	144 (1.4)
DISTRICT OF COLUMBIA	5 (0.4)	... (...)	52 (1.3)	111 (1.2)	42 (1.3)	112 (1.5)
FLORIDA	14 (2.4)	140 (2.7)	45 (3.4)	138 (2.6)	41 (3.4)	146 (2.1)
GEORGIA	21 (2.9)	135 (2.3)	54 (3.5)	143 (2.3)	26 (2.9)	146 (2.6)
HAWAII	15 (0.7)	127 (3.9)	55 (1.2)	136 (1.7)	30 (1.1)	141 (1.6)
INDIANA	11 (2.5)	150 (3.6)!	52 (4.7)	154 (1.8)	37 (4.6)	154 (2.3)
IOWA†	11 (2.6)	154 (2.1)!	55 (4.9)	160 (1.7)	35 (4.6)	158 (2.1)
KENTUCKY	11 (3.1)	148 (4.2)!	48 (4.5)	148 (1.7)	41 (4.0)	149 (2.7)
LOUISIANA	28 (4.4)	129 (3.7)	53 (4.6)	135 (2.7)	18 (3.4)	138 (4.1)
MAINE	6 (2.0)	162 (3.4)!	45 (3.8)	161 (1.5)	49 (4.1)	165 (1.3)
MARYLAND†	3 (1.2)	134 (12.0)!	44 (4.5)	142 (2.4)	53 (4.4)	150 (2.5)
MASSACHUSETTS	10 (2.4)	144 (5.8)!	39 (4.4)	154 (3.0)	51 (4.5)	161 (1.6)
MICHIGAN†	8 (2.4)	153 (3.1)!	42 (5.1)	154 (2.5)	50 (5.5)	158 (2.1)
MINNESOTA	12 (3.2)	162 (3.5)!	44 (4.3)	159 (1.8)	43 (4.6)	158 (2.4)
MISSISSIPPI	21 (3.0)	129 (2.9)	55 (3.8)	136 (2.1)	24 (3.4)	135 (2.9)
MISSOURI	22 (4.0)	151 (2.4)	44 (3.7)	150 (1.8)	34 (4.1)	157 (2.0)
MONTANA†	6 (2.5)	162 (3.0)!	47 (4.4)	162 (1.5)	48 (4.8)	163 (1.9)
NEBRASKA	11 (2.1)	160 (3.1)	45 (3.4)	160 (1.6)	44 (3.5)	156 (1.2)
NEW MEXICO	16 (1.6)	136 (2.6)	47 (2.3)	144 (1.2)	36 (2.2)	147 (1.4)
NEW YORK†	10 (2.6)	133 (7.8)!	42 (4.3)	147 (2.9)	47 (4.5)	153 (2.5)
NORTH CAROLINA	13 (2.6)	144 (3.0)!	44 (3.9)	145 (1.4)	43 (4.1)	149 (1.9)
NORTH DAKOTA	18 (3.2)	161 (2.1)	55 (3.0)	163 (1.1)	27 (2.1)	162 (1.5)
OREGON	13 (3.2)	148 (4.3)!	50 (4.1)	157 (2.1)	37 (4.0)	157 (2.2)
RHODE ISLAND	8 (0.6)	137 (3.3)	47 (1.0)	149 (1.2)	45 (1.0)	153 (1.1)
SOUTH CAROLINA†	14 (2.6)	133 (3.6)	55 (3.6)	138 (1.9)	31 (4.1)	143 (2.5)
TENNESSEE	30 (4.6)	141 (3.1)	49 (4.9)	146 (2.7)	21 (3.5)	148 (2.7)
TEXAS	8 (2.3)	155 (5.3)!	47 (4.0)	146 (1.8)	44 (3.8)	145 (2.2)
UTAH	25 (2.5)	153 (1.7)	50 (2.2)	156 (1.2)	25 (2.5)	160 (1.6)
VERMONT†	6 (1.4)	154 (3.1)!	35 (3.0)	157 (1.6)	60 (3.2)	158 (1.5)
VIRGINIA	4 (1.6)	131 (6.8)!	31 (3.4)	147 (2.0)	65 (3.5)	152 (2.4)
WASHINGTON	10 (2.8)	147 (4.9)!	46 (4.3)	150 (1.8)	44 (4.7)	151 (2.4)
WEST VIRGINIA	5 (2.0)	146 (4.4)!	41 (4.1)	146 (1.4)	54 (4.4)	149 (1.4)
WISCONSIN†	8 (2.7)	155 (7.8)!	45 (5.4)	160 (2.6)	47 (5.3)	163 (2.3)
WYOMING	3 (0.3)	157 (6.5)	56 (1.0)	159 (0.9)	41 (1.0)	159 (0.8)
Other Jurisdictions						
DDESS	18 (1.1)	148 (4.1)	46 (1.8)	152 (1.7)	37 (1.7)	154 (1.9)
DoDDS	3 (0.6)	... (...)	53 (0.9)	154 (1.0)	44 (0.8)	156 (1.2)
GUAM	21 (0.6)	107 (2.9)	52 (0.8)	122 (1.9)	27 (0.8)	123 (2.2)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

... Characteristics of the sample do not permit a reliable estimate.

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 5.2 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

TEACHERS' REPORTS ON: Emphasis on Developing Data Analysis Skills

THE NATION'S REPORT CARD 1996 State Assessment

In your plans for science instruction during the year, about how much emphasis will you give to developing data analysis skills as an objective for your students?	Little or No Emphasis		Moderate Emphasis		Heavy Emphasis	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	11 (2.7)	139 (5.5)!	65 (5.3)	151 (1.6)	24 (4.3)	153 (3.0)
NORTHEAST	10 (4.6)	139 (5.1)!	64 (22.6)	153 (5.1)!	26 (...)	... (...)
SOUTHEAST	18 (3.7)	133 (5.0)!	51 (5.0)	144 (2.7)	30 (4.0)	145 (3.1)
CENTRAL	15 (9.9)	150 (13.5)!	64 (9.5)	156 (3.7)!	21 (5.8)	167 (3.4)!
WEST	4 (1.9)	136 (4.1)!	75 (4.4)	150 (2.3)	20 (4.0)	150 (5.2)!
States						
ALABAMA	16 (3.0)	140 (3.2)	58 (4.6)	138 (2.0)	26 (3.7)	138 (4.4)
ALASKA†	17 (1.6)	145 (3.8)	57 (2.3)	149 (2.1)	26 (1.4)	158 (2.2)
ARIZONA	15 (3.0)	142 (5.7)!	50 (4.1)	148 (2.4)	35 (4.6)	142 (2.8)
ARKANSAS†	19 (3.6)	136 (4.2)	65 (5.4)	146 (1.9)	16 (3.9)	148 (5.0)!
CALIFORNIA	11 (2.1)	133 (4.8)	66 (3.6)	139 (2.3)	23 (3.2)	144 (3.3)
COLORADO	13 (2.3)	152 (2.8)	53 (3.7)	153 (1.9)	34 (3.4)	158 (2.0)
CONNECTICUT	8 (2.0)	135 (6.6)!	51 (4.5)	157 (2.0)	41 (4.0)	160 (1.8)
DELAWARE	21 (0.8)	136 (2.3)	55 (1.1)	142 (1.2)	24 (0.8)	144 (2.1)
DISTRICT OF COLUMBIA	4 (0.6)	... (...)	50 (1.6)	108 (1.4)	46 (1.5)	114 (1.6)
FLORIDA	12 (2.3)	142 (3.6)	62 (3.3)	141 (1.7)	26 (3.0)	143 (3.3)
GEORGIA	15 (2.5)	141 (3.9)	63 (3.1)	141 (1.7)	22 (2.5)	147 (3.5)
HAWAII	14 (0.7)	131 (4.9)	60 (1.2)	136 (1.6)	26 (1.0)	137 (1.8)
INDIANA	19 (3.5)	146 (3.8)	54 (4.1)	155 (1.9)	27 (3.9)	157 (2.8)
IOWA†	12 (2.8)	156 (3.0)!	65 (4.3)	158 (1.6)	23 (3.5)	162 (2.0)
KENTUCKY	13 (3.1)	144 (3.4)!	52 (4.5)	147 (1.9)	35 (4.0)	152 (2.2)
LOUISIANA	22 (3.9)	132 (3.9)	58 (3.9)	135 (2.3)	19 (2.6)	132 (3.3)
MAINE	12 (2.2)	164 (2.1)	56 (4.2)	164 (1.2)	33 (4.2)	161 (1.8)
MARYLAND†	10 (2.5)	136 (4.8)!	54 (3.4)	147 (2.4)	36 (3.6)	148 (2.8)
MASSACHUSETTS	10 (2.3)	147 (4.6)!	58 (4.3)	157 (2.0)	32 (4.1)	160 (3.0)
MICHIGAN†	13 (3.4)	153 (3.3)!	52 (4.2)	159 (1.7)	35 (3.9)	153 (3.0)
MINNESOTA	14 (3.7)	161 (3.6)!	66 (4.6)	159 (1.7)	20 (3.7)	158 (2.5)
MISSISSIPPI	19 (3.0)	137 (2.7)	60 (3.9)	134 (1.9)	22 (3.4)	132 (3.1)
MISSOURI	20 (3.4)	149 (2.3)	55 (4.3)	152 (1.3)	25 (4.0)	158 (2.9)
MONTANA†	9 (2.0)	162 (3.5)!	65 (4.0)	162 (1.4)	26 (3.6)	164 (2.6)
NEBRASKA	17 (2.5)	161 (1.8)	57 (3.5)	157 (1.4)	26 (3.0)	159 (1.6)
NEW MEXICO	18 (1.3)	138 (1.9)	54 (2.1)	143 (1.3)	28 (1.7)	149 (2.2)
NEW YORK†	12 (2.9)	147 (6.4)!	56 (5.2)	146 (3.4)	32 (4.7)	153 (3.5)
NORTH CAROLINA	9 (2.0)	145 (3.7)!	54 (3.8)	146 (1.5)	37 (3.9)	149 (1.9)
NORTH DAKOTA	27 (3.3)	160 (1.2)	59 (3.4)	162 (1.1)	14 (1.9)	166 (2.6)
OREGON	19 (3.4)	156 (2.8)	57 (4.0)	155 (2.2)	24 (3.4)	158 (2.4)
RHODE ISLAND	12 (0.7)	144 (2.6)	58 (1.0)	149 (1.0)	31 (0.9)	154 (1.4)
SOUTH CAROLINA†	13 (2.8)	132 (5.4)!	55 (4.3)	138 (1.8)	32 (4.2)	142 (2.6)
TENNESSEE	29 (4.3)	139 (3.2)	59 (4.5)	148 (1.9)	12 (2.8)	144 (5.5)!
TEXAS	11 (2.1)	151 (5.5)	56 (3.7)	147 (1.7)	33 (3.7)	145 (2.3)
UTAH	23 (2.2)	153 (2.0)	60 (2.6)	156 (1.0)	17 (2.1)	160 (2.1)
VERMONT†	4 (0.9)	150 (5.3)!	53 (2.9)	155 (1.3)	43 (2.9)	161 (1.4)
VIRGINIA	9 (2.2)	142 (3.4)!	51 (3.4)	148 (1.9)	40 (3.6)	153 (2.9)
WASHINGTON	20 (3.3)	146 (2.9)	45 (5.0)	150 (2.3)	35 (5.1)	154 (2.3)
WEST VIRGINIA	8 (2.3)	144 (3.0)!	55 (3.5)	147 (1.4)	37 (3.4)	148 (1.4)
WISCONSIN†	10 (2.8)	154 (6.1)!	66 (4.7)	161 (2.0)	24 (4.3)	163 (2.9)
WYOMING	8 (0.3)	157 (2.4)	58 (0.8)	157 (0.9)	34 (0.8)	161 (1.2)
Other Jurisdictions						
DDESS	6 (0.6)	... (...)	54 (1.7)	149 (1.7)	40 (1.6)	155 (1.9)
DoDDS	16 (0.8)	152 (1.7)	52 (1.2)	156 (1.1)	32 (1.1)	156 (1.2)
GUAM	7 (1.0)	... (...)	70 (1.3)	117 (1.5)	24 (0.9)	121 (2.8)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

... Characteristics of the sample do not permit a reliable estimate.

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 5.3

1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

TEACHERS' REPORTS ON: The Frequency of Science Demonstrations

THE NATION'S REPORT CARD naep 1996 State Assessment

How often do you do a science demonstration for your students?	Never or Hardly Ever		Once or Twice a Month		Once or Twice a Week		Almost Every Day	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation								
NATION	2 (0.8)	149 (11.6)!	39 (4.1)	150 (2.0)	49 (3.5)	152 (1.9)	10 (2.3)	144 (2.0)!
NORTHEAST	3 (...)	... (...)	16 (7.1)	... (...)	73 (5.6)	155 (5.0)	8 (4.6)	... (...)
SOUTHEAST	2 (1.0)	... (...)	41 (7.3)	142 (3.8)!	43 (5.2)	142 (2.1)	15 (3.9)	148 (2.6)!
CENTRAL	2 (...)	... (...)	55 (8.8)	154 (4.2)!	41 (8.0)	161 (3.2)	1 (...)	... (...)
WEST	1 (0.7)	... (...)	40 (6.9)	151 (1.6)!	44 (5.3)	151 (5.6)	15 (6.0)	144 (2.4)!
States								
ALABAMA	7 (1.8)	144 (7.0)!	33 (3.6)	138 (2.8)	57 (3.8)	139 (2.6)	3 (1.4)	118 (12.4)!
ALASKA†	5 (1.3)	... (...)	37 (2.8)	147 (3.1)	45 (2.2)	154 (1.8)	13 (3.0)	157 (4.2)!
ARIZONA	5 (1.7)	140 (9.6)!	25 (4.0)	150 (3.8)	60 (3.9)	142 (1.8)	10 (3.2)	151 (3.5)!
ARKANSAS†	7 (2.2)	131 (6.1)!	37 (6.2)	141 (3.2)	52 (6.1)	148 (2.1)	4 (1.4)	149 (4.2)!
CALIFORNIA	4 (1.4)	140 (8.0)!	31 (3.2)	136 (2.5)	54 (3.6)	139 (2.5)	11 (2.6)	150 (3.2)!
COLORADO	5 (1.8)	148 (4.6)!	30 (3.5)	153 (2.1)	58 (3.9)	156 (1.2)	7 (2.2)	160 (4.2)!
CONNECTICUT	6 (2.3)	153 (4.9)!	31 (3.2)	148 (2.5)	52 (3.7)	159 (2.4)	11 (2.2)	166 (2.7)!
DELAWARE	9 (0.5)	132 (3.9)	38 (0.9)	143 (1.6)	45 (0.9)	142 (1.4)	8 (0.5)	143 (3.8)
DISTRICT OF COLUMBIA	5 (1.4)	... (...)	39 (1.5)	110 (1.7)	51 (1.5)	112 (1.0)	6 (0.3)	... (...)
FLORIDA	2 (0.7)	... (...)	33 (3.4)	139 (2.6)	55 (3.4)	142 (2.0)	9 (2.1)	146 (4.7)!
GEORGIA	4 (1.2)	123 (7.7)!	28 (2.6)	140 (2.3)	57 (2.9)	144 (2.0)	10 (2.2)	146 (3.8)!
HAWAII	1 (0.3)	... (...)	39 (1.0)	135 (2.6)	55 (1.0)	137 (1.6)	5 (0.6)	... (...)
INDIANA	4 (1.7)	144 (15.8)!	32 (4.4)	150 (2.4)	58 (4.2)	156 (1.5)	6 (1.9)	163 (3.4)!
IOWA†	7 (2.3)	162 (3.6)!	30 (4.7)	160 (2.3)	54 (5.1)	158 (1.8)	9 (2.7)	158 (2.7)!
KENTUCKY	4 (1.5)	149 (7.6)!	40 (3.7)	147 (1.3)	48 (4.2)	150 (2.2)	8 (2.7)	145 (6.8)!
LOUISIANA	7 (2.0)	135 (4.7)!	40 (3.8)	134 (3.2)	43 (3.6)	133 (2.4)	10 (2.6)	133 (6.1)!
MAINE	5 (1.8)	166 (4.4)!	34 (3.9)	162 (1.9)	54 (4.0)	163 (1.1)	8 (1.9)	162 (3.1)!
MARYLAND†	6 (2.1)	155 (8.9)!	27 (3.0)	145 (3.0)	55 (3.5)	145 (2.3)	12 (2.7)	145 (4.4)!
MASSACHUSETTS	5 (1.0)	166 (7.0)!	35 (3.7)	158 (2.4)	47 (3.5)	155 (2.2)	13 (2.4)	160 (3.8)
MICHIGAN†	2 (0.9)	... (...)	29 (4.3)	155 (2.7)	58 (4.4)	157 (1.8)	11 (2.7)	156 (6.1)!
MINNESOTA	6 (2.2)	153 (5.8)!	32 (4.4)	160 (1.9)	55 (4.4)	159 (1.9)	7 (1.8)	161 (4.9)!
MISSISSIPPI	5 (1.7)	126 (4.9)!	28 (3.5)	134 (2.6)	58 (3.8)	135 (2.0)	9 (2.1)	137 (3.0)!
MISSOURI	5 (1.7)	152 (6.3)!	36 (3.9)	155 (1.7)	55 (4.0)	152 (1.8)	4 (1.4)	151 (3.7)!
MONTANA†	3 (1.5)	... (...)	27 (4.3)	161 (2.2)	60 (4.5)	162 (1.4)	10 (1.0)	168 (2.7)
NEBRASKA	7 (1.6)	163 (2.1)!	26 (3.1)	159 (1.2)	59 (3.7)	157 (1.4)	9 (2.0)	158 (3.7)!
NEW MEXICO	8 (0.9)	133 (2.8)	38 (2.7)	143 (1.9)	47 (2.8)	146 (1.1)	7 (1.3)	145 (4.7)
NEW YORK†	3 (1.3)	... (...)	27 (4.9)	150 (3.9)!	55 (5.5)	146 (2.6)	14 (3.8)	158 (4.6)!
NORTH CAROLINA	2 (1.0)	152 (5.0)!	37 (4.1)	147 (2.1)	51 (3.9)	147 (1.6)	10 (2.5)	143 (3.2)!
NORTH DAKOTA	5 (1.6)	165 (3.1)!	51 (3.2)	160 (1.0)	36 (3.1)	164 (1.4)	8 (0.6)	165 (3.7)
OREGON	2 (0.9)	... (...)	34 (4.0)	153 (2.4)	58 (3.7)	157 (2.0)	5 (2.1)	154 (8.9)!
RHODE ISLAND	6 (0.5)	161 (2.4)	32 (1.0)	142 (1.4)	54 (1.0)	152 (1.1)	8 (0.5)	161 (2.3)
SOUTH CAROLINA†	5 (2.3)	142 (9.7)!	34 (3.8)	138 (2.4)	53 (4.4)	138 (2.0)	7 (1.7)	145 (5.6)!
TENNESSEE	10 (2.6)	144 (4.7)!	41 (4.1)	141 (2.6)	45 (4.4)	148 (2.1)	5 (2.2)	150 (8.9)!
TEXAS	2 (0.7)	... (...)	33 (4.0)	148 (2.1)	58 (3.8)	147 (1.9)	8 (1.4)	143 (4.3)
UTAH	1 (0.4)	... (...)	17 (1.8)	152 (2.3)	58 (2.0)	157 (1.1)	24 (1.8)	158 (1.6)
VERMONT†	5 (1.6)	160 (5.1)!	29 (2.7)	159 (1.8)	60 (3.3)	157 (1.4)	6 (1.3)	153 (4.5)!
VIRGINIA	4 (1.3)	148 (5.9)!	26 (2.9)	151 (2.9)	58 (3.3)	148 (2.2)	13 (2.3)	154 (4.2)
WASHINGTON	5 (2.1)	161 (7.3)!	30 (4.1)	151 (2.4)	56 (4.6)	148 (2.2)	9 (2.4)	155 (2.9)!
WEST VIRGINIA	4 (1.5)	146 (4.6)!	31 (3.5)	150 (1.6)	56 (3.9)	146 (1.4)	10 (2.1)	150 (3.0)!
WISCONSIN†	6 (2.0)	149 (6.1)!	37 (4.8)	161 (2.8)	51 (4.6)	161 (2.3)	7 (2.6)	163 (4.2)!
WYOMING	8 (0.5)	154 (2.8)	24 (1.0)	157 (1.2)	58 (1.0)	160 (0.8)	11 (0.4)	161 (1.7)
Other Jurisdictions								
DDESS	6 (0.6)	... (...)	41 (1.4)	156 (1.9)	47 (1.4)	147 (2.0)	7 (0.6)	... (...)
DoDDS	2 (0.1)	... (...)	15 (0.8)	156 (1.9)	72 (0.8)	155 (0.9)	11 (0.9)	158 (2.6)
GUAM	23 (0.8)	105 (2.9)	16 (1.4)	129 (3.4)	37 (1.5)	124 (2.3)	24 (0.7)	117 (2.2)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

... Characteristics of the sample do not permit a reliable estimate.

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 5.4

1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

STUDENTS' REPORTS ON: The Frequency of Science Demonstrations

THE NATION'S REPORT CARD 1996 State Assessment

How often does your teacher do a science demonstration?	Never or Hardly Ever		Once or Twice a Month		Once or Twice a Week		Almost Every Day	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation								
NATION	30 (1.3)	141 (1.5)	29 (1.1)	151 (1.3)	28 (1.2)	156 (1.4)	14 (0.9)	153 (2.0)
NORTHEAST	28 (3.0)	141 (3.1)	28 (3.5)	152 (2.6)	33 (4.5)	156 (4.1)	12 (1.9)	153 (7.0)!
SOUTHEAST	31 (2.8)	133 (2.7)	31 (1.7)	144 (2.3)	26 (1.7)	149 (2.4)	12 (1.6)	145 (2.2)
CENTRAL	31 (1.8)	147 (2.6)	28 (2.3)	157 (3.1)	26 (1.8)	162 (3.7)	15 (1.9)	163 (5.1)
WEST	30 (2.5)	141 (2.9)	29 (1.7)	152 (2.8)	27 (1.5)	155 (2.6)	15 (1.6)	150 (3.4)
States								
ALABAMA	37 (1.9)	135 (1.9)	32 (1.5)	145 (2.3)	20 (1.1)	141 (2.8)	10 (0.8)	135 (3.2)
ALASKA†	23 (1.5)	141 (3.0)	27 (1.4)	154 (2.5)	32 (1.6)	160 (1.8)	18 (1.2)	157 (2.4)
ARIZONA	26 (1.3)	140 (1.9)	30 (1.7)	150 (2.0)	31 (1.4)	150 (2.0)	13 (1.1)	143 (1.9)
ARKANSAS†	39 (2.8)	142 (2.0)	29 (1.3)	148 (2.2)	22 (1.9)	145 (2.1)	10 (1.0)	149 (2.9)
CALIFORNIA	24 (1.8)	133 (2.1)	27 (1.2)	137 (2.5)	33 (1.7)	145 (2.4)	17 (1.3)	143 (3.1)
COLORADO	22 (1.2)	147 (1.6)	29 (1.2)	155 (1.5)	33 (1.1)	161 (1.2)	16 (1.1)	156 (2.1)
CONNECTICUT	23 (1.1)	143 (2.1)	29 (1.1)	158 (1.6)	32 (1.0)	162 (1.6)	16 (1.1)	158 (2.6)
DELAWARE	30 (0.8)	137 (1.8)	29 (1.1)	147 (1.4)	28 (1.3)	146 (1.8)	13 (1.0)	142 (2.6)
DISTRICT OF COLUMBIA	34 (1.2)	108 (1.6)	27 (1.1)	123 (1.9)	26 (1.1)	117 (1.8)	13 (0.9)	112 (3.1)
FLORIDA	35 (1.6)	138 (1.8)	28 (1.1)	145 (1.7)	25 (1.4)	148 (2.1)	12 (0.8)	145 (2.9)
GEORGIA	30 (1.2)	135 (2.0)	34 (1.2)	145 (1.9)	25 (1.1)	149 (2.1)	11 (0.7)	137 (2.6)
HAWAII	49 (1.0)	132 (1.2)	22 (1.0)	137 (1.9)	20 (0.9)	141 (2.1)	9 (0.6)	140 (2.7)
INDIANA	29 (1.5)	143 (2.0)	30 (1.3)	156 (1.5)	30 (1.3)	160 (1.9)	12 (1.1)	154 (2.3)
IOWA†	26 (1.4)	149 (2.1)	31 (1.4)	162 (1.4)	30 (1.2)	163 (1.6)	13 (1.3)	159 (2.2)
KENTUCKY	29 (1.4)	144 (1.4)	33 (1.0)	151 (1.5)	26 (1.1)	151 (2.2)	13 (1.0)	147 (2.9)
LOUISIANA	40 (1.8)	130 (1.9)	28 (1.0)	136 (2.4)	22 (1.1)	138 (2.0)	10 (1.0)	132 (3.1)
MAINE	17 (1.0)	156 (2.4)	30 (1.3)	162 (1.4)	35 (1.3)	167 (1.5)	18 (1.3)	164 (1.6)
MARYLAND†	24 (1.4)	140 (2.5)	30 (1.5)	147 (2.2)	31 (1.3)	151 (1.8)	16 (1.3)	150 (3.0)
MASSACHUSETTS	21 (1.4)	146 (1.9)	25 (1.3)	159 (1.8)	35 (1.1)	162 (1.6)	19 (1.4)	161 (2.2)
MICHIGAN†	24 (1.7)	144 (2.2)	28 (1.6)	156 (1.8)	32 (1.4)	161 (1.6)	16 (1.6)	156 (2.4)
MINNESOTA	24 (1.0)	150 (2.1)	28 (1.1)	160 (1.4)	33 (1.3)	164 (1.7)	15 (1.2)	162 (2.2)
MISSISSIPPI	32 (1.1)	129 (1.7)	31 (1.0)	138 (1.7)	25 (0.9)	135 (1.6)	12 (0.9)	128 (2.8)
MISSOURI	30 (1.4)	145 (1.5)	30 (1.3)	154 (1.5)	28 (1.2)	157 (1.6)	12 (0.8)	151 (2.1)
MONTANA†	23 (1.4)	156 (1.9)	25 (1.8)	159 (1.7)	35 (1.2)	168 (1.4)	17 (1.4)	164 (2.3)
NEBRASKA	24 (1.2)	152 (2.3)	28 (0.9)	157 (1.3)	33 (1.1)	164 (1.3)	15 (0.8)	157 (2.1)
NEW MEXICO	34 (1.2)	138 (1.6)	29 (1.1)	143 (1.7)	26 (1.0)	144 (1.9)	12 (0.7)	143 (2.2)
NEW YORK†	27 (1.6)	137 (2.3)	26 (1.2)	150 (2.3)	29 (1.7)	157 (2.1)	18 (1.6)	148 (3.1)
NORTH CAROLINA	27 (1.5)	139 (1.8)	30 (1.2)	148 (1.6)	29 (1.4)	153 (1.4)	15 (1.0)	148 (1.8)
NORTH DAKOTA	34 (1.2)	155 (1.5)	30 (1.1)	165 (1.1)	26 (1.0)	169 (1.3)	9 (0.7)	162 (2.0)
OREGON	28 (1.5)	144 (2.1)	28 (1.1)	160 (1.8)	30 (1.1)	160 (1.4)	14 (1.1)	157 (2.7)
RHODE ISLAND	27 (0.9)	140 (1.3)	28 (1.0)	150 (1.3)	31 (1.1)	156 (1.4)	14 (0.9)	152 (2.1)
SOUTH CAROLINA†	34 (1.4)	134 (2.0)	30 (1.1)	142 (1.8)	23 (1.1)	144 (2.5)	13 (0.9)	138 (2.6)
TENNESSEE	37 (1.8)	140 (1.9)	31 (1.4)	146 (2.3)	23 (1.2)	148 (2.8)	9 (0.8)	143 (3.5)
TEXAS	30 (1.3)	139 (2.1)	31 (1.1)	151 (1.6)	27 (0.9)	150 (1.7)	12 (0.8)	148 (2.0)
UTAH	23 (1.2)	144 (1.7)	28 (1.0)	157 (1.5)	34 (1.1)	163 (1.1)	16 (0.8)	160 (1.9)
VERMONT†	21 (1.1)	148 (1.9)	29 (1.5)	159 (1.3)	34 (1.3)	164 (1.3)	16 (1.1)	156 (2.2)
VIRGINIA	25 (1.3)	137 (2.1)	26 (1.3)	151 (2.1)	31 (1.2)	159 (1.7)	18 (1.1)	152 (2.4)
WASHINGTON	29 (1.4)	143 (1.8)	29 (1.1)	152 (2.1)	27 (0.9)	157 (1.6)	15 (1.2)	153 (1.9)
WEST VIRGINIA	30 (1.3)	141 (1.4)	28 (1.3)	147 (1.3)	28 (0.9)	153 (1.4)	14 (1.0)	150 (1.7)
WISCONSIN†	27 (1.5)	153 (1.9)	27 (1.4)	158 (2.0)	30 (1.3)	168 (2.0)	16 (1.5)	164 (2.0)
WYOMING	31 (0.7)	149 (1.2)	27 (0.8)	160 (1.3)	30 (0.8)	163 (1.1)	12 (0.6)	162 (1.6)
Other Jurisdictions								
DDESS	27 (2.0)	152 (2.2)	30 (1.8)	152 (2.5)	28 (1.9)	156 (2.4)	16 (1.2)	153 (2.7)
DoDDS	27 (0.9)	150 (1.2)	27 (1.0)	156 (1.4)	31 (1.1)	160 (1.2)	15 (0.7)	155 (1.8)
GUAM	35 (1.5)	122 (1.9)	34 (1.6)	125 (2.0)	22 (1.4)	119 (3.2)	9 (1.0)	108 (4.4)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 5.5

1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

TEACHERS' REPORTS ON: The Frequency of Hands-On Activities or Investigations in Science

THE NATION'S REPORT CARD 1996 State Assessment

How often do your students do hands-on activities or investigations in science?	Never or Hardly Ever		Once or Twice a Month		Once or Twice a Week		Almost Every Day	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation								
NATION	1 (0.6)	119 (4.0)!	16 (2.4)	140 (3.4)	64 (3.5)	153 (1.5)	19 (3.2)	152 (2.2)
NORTHEAST	2 (...)	... (...)	14 (3.9)	... (...)	76 (5.1)	156 (3.9)	8 (5.2)	... (...)
SOUTHEAST	2 (1.4)	... (...)	39 (7.7)	140 (4.0)!	43 (6.2)	146 (2.0)!	15 (5.1)	146 (4.0)!
CENTRAL	1 (...)	... (...)	10 (4.4)	150 (10.8)!	65 (7.6)	159 (3.8)	24 (7.8)	162 (3.2)!
WEST	1 (0.2)	... (...)	5 (1.9)	129 (5.5)!	70 (7.0)	151 (3.4)	25 (6.5)	150 (2.2)!
States								
ALABAMA	16 (3.3)	141 (2.5)!	37 (4.0)	134 (4.0)	41 (4.1)	142 (2.9)	6 (2.1)	131 (8.8)!
ALASKA†	1 (...)	... (...)	22 (3.2)	138 (6.4)	51 (3.0)	155 (1.5)	27 (2.6)	154 (2.2)
ARIZONA	0 (...)	... (...)	16 (2.5)	140 (2.5)	55 (4.2)	147 (2.0)	29 (4.2)	144 (3.5)
ARKANSAS†	14 (4.0)	139 (5.6)!	42 (5.0)	143 (2.4)	39 (5.2)	144 (2.9)	5 (1.4)	156 (5.9)!
CALIFORNIA	1 (0.4)	... (...)	15 (2.6)	132 (4.4)	57 (3.8)	137 (2.2)	28 (3.8)	150 (3.2)
COLORADO	1 (0.5)	... (...)	12 (2.6)	145 (2.7)!	56 (3.7)	155 (1.5)	32 (3.3)	158 (1.5)
CONNECTICUT	6 (2.2)	136 (11.1)!	20 (3.1)	148 (3.2)	50 (4.6)	159 (3.2)	25 (3.2)	162 (2.0)
DELAWARE	9 (0.6)	128 (3.7)	28 (0.7)	144 (1.8)	49 (1.0)	142 (1.3)	14 (0.8)	144 (3.3)
DISTRICT OF COLUMBIA	7 (1.5)	109 (5.3)!	26 (1.3)	110 (1.9)	52 (1.5)	111 (1.2)	15 (0.7)	113 (2.4)
FLORIDA	6 (1.2)	140 (3.9)	30 (3.8)	135 (3.0)	52 (3.8)	145 (2.2)	12 (2.0)	146 (4.1)
GEORGIA	7 (1.4)	128 (6.9)!	36 (3.3)	139 (2.2)	49 (3.1)	145 (2.1)	9 (2.1)	151 (5.4)!
HAWAII	3 (0.3)	... (...)	21 (0.8)	130 (3.2)	66 (0.9)	136 (1.4)	9 (0.6)	151 (3.7)
INDIANA	1 (...)	... (...)	24 (4.0)	149 (2.7)	55 (4.1)	156 (1.9)	19 (3.8)	159 (2.5)
IOWA†	1 (...)	... (...)	20 (3.9)	158 (2.2)	56 (5.3)	159 (1.8)	23 (3.8)	158 (2.1)
KENTUCKY	1 (...)	... (...)	33 (4.3)	147 (1.5)	49 (4.8)	148 (2.4)	17 (3.3)	150 (2.6)
LOUISIANA	19 (4.1)	130 (4.5)!	32 (3.3)	132 (2.7)	38 (4.0)	133 (3.0)	12 (2.9)	143 (4.4)!
MAINE	0 (...)	... (...)	20 (3.2)	162 (1.9)	49 (4.0)	164 (1.5)	31 (3.6)	162 (1.6)
MARYLAND†	1 (0.6)	... (...)	15 (2.6)	139 (3.6)	62 (3.8)	147 (2.0)	21 (3.7)	151 (4.7)
MASSACHUSETTS	4 (1.6)	141 (8.2)!	15 (3.1)	147 (4.3)!	53 (4.7)	157 (2.2)	28 (4.2)	166 (2.4)
MICHIGAN†	0 (...)	... (...)	25 (3.8)	155 (2.2)	55 (4.6)	156 (2.1)	19 (3.8)	159 (3.1)
MINNESOTA	2 (1.3)	... (...)	14 (3.7)	162 (3.5)!	58 (4.8)	160 (1.9)	27 (4.5)	156 (2.1)
MISSISSIPPI	9 (2.5)	131 (3.6)!	29 (3.5)	136 (3.3)	51 (4.0)	134 (2.0)	10 (2.0)	136 (3.1)!
MISSOURI	10 (2.5)	151 (3.4)!	26 (4.0)	152 (2.0)	49 (4.8)	153 (2.1)	16 (3.2)	152 (2.8)!
MONTANA†	1 (...)	... (...)	20 (3.5)	158 (3.7)	56 (4.6)	163 (1.4)	23 (4.5)	165 (2.3)!
NEBRASKA	3 (1.2)	163 (3.6)!	8 (1.8)	166 (3.1)!	66 (3.3)	157 (1.3)	23 (2.9)	158 (1.9)
NEW MEXICO	2 (0.5)	... (...)	23 (2.3)	140 (2.0)	58 (2.5)	146 (1.2)	17 (1.9)	143 (2.5)
NEW YORK†	3 (1.2)	116 (4.6)!	27 (5.4)	141 (4.3)!	55 (5.8)	152 (3.0)	15 (3.8)	156 (4.6)!
NORTH CAROLINA	3 (1.1)	141 (4.2)!	24 (3.5)	144 (2.6)	59 (3.8)	148 (1.5)	14 (2.6)	150 (2.9)
NORTH DAKOTA	2 (0.5)	... (...)	38 (3.1)	161 (1.3)	55 (3.1)	164 (1.0)	5 (2.0)	169 (2.4)!
OREGON	1 (0.7)	... (...)	17 (3.2)	148 (4.3)	62 (4.6)	157 (1.8)	20 (3.7)	156 (2.9)
RHODE ISLAND	3 (0.2)	149 (4.6)	20 (0.8)	147 (2.0)	48 (1.0)	146 (1.2)	28 (0.8)	158 (1.3)
SOUTH CAROLINA†	4 (1.8)	132 (4.5)!	33 (4.2)	131 (2.9)	49 (3.5)	142 (1.8)	14 (2.9)	146 (3.2)!
TENNESSEE	14 (3.1)	132 (5.0)!	47 (3.8)	148 (2.5)	30 (3.8)	144 (2.3)	8 (2.8)	147 (3.8)!
TEXAS	1 (...)	... (...)	20 (3.1)	148 (3.2)	58 (3.2)	146 (1.7)	21 (2.7)	147 (2.9)
UTAH	5 (0.5)	150 (5.4)	28 (2.0)	153 (1.4)	53 (1.9)	158 (1.1)	14 (1.4)	159 (2.4)
VERMONT†	1 (...)	... (...)	15 (2.1)	157 (2.2)	48 (2.6)	156 (1.8)	36 (2.8)	159 (1.6)
VIRGINIA	2 (0.9)	... (...)	12 (2.1)	138 (2.6)	59 (3.8)	149 (2.2)	27 (3.6)	156 (4.1)
WASHINGTON	0 (...)	... (...)	18 (3.3)	147 (3.7)	53 (4.0)	150 (1.9)	29 (3.9)	154 (2.1)
WEST VIRGINIA	2 (1.3)	... (...)	13 (2.0)	149 (2.2)	52 (3.9)	147 (1.5)	33 (3.7)	148 (2.0)
WISCONSIN†	3 (1.5)	... (...)	15 (3.2)	156 (3.8)!	57 (4.4)	161 (2.5)	25 (3.9)	163 (2.4)
WYOMING	0 (...)	... (...)	13 (0.7)	156 (1.9)	63 (1.0)	158 (0.9)	25 (1.1)	162 (1.3)
Other Jurisdictions								
DDESS	3 (0.7)	... (...)	14 (0.9)	151 (4.5)	58 (1.3)	152 (1.6)	24 (1.2)	156 (2.1)
DoDDS	0 (0.1)	... (...)	14 (0.5)	156 (1.9)	64 (0.9)	155 (0.9)	22 (0.7)	155 (1.4)
GUAM	2 (0.5)	... (...)	43 (1.3)	120 (2.0)	43 (1.4)	120 (2.1)	12 (0.9)	120 (2.6)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

... Characteristics of the sample do not permit a reliable estimate.

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 5.6

1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

STUDENTS' REPORTS ON: The Frequency of Hands-On Activities or Investigations in Science

THE NATION'S REPORT CARD 1996 State Assessment

How often do you do hands-on activities or investigations in science?	Never or Hardly Ever		Once or Twice a Month		Once or Twice a Week		Almost Every Day	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation								
NATION	18 (1.1)	134 (1.2)	32 (1.5)	152 (1.5)	33 (1.3)	155 (1.2)	18 (1.1)	151 (1.5)
NORTHEAST	15 (1.6)	132 (3.5)	30 (1.2)	153 (2.6)	38 (2.7)	157 (3.4)	17 (2.3)	147 (4.7)
SOUTHEAST	22 (3.0)	128 (2.2)	32 (3.1)	146 (2.7)	28 (2.3)	147 (1.8)	17 (3.1)	146 (2.9)!
CENTRAL	16 (2.5)	138 (2.8)	31 (3.5)	158 (3.2)	34 (3.4)	161 (3.3)	19 (2.6)	159 (3.6)
WEST	17 (1.7)	137 (2.4)	34 (2.8)	152 (3.3)	32 (1.8)	153 (2.6)	17 (1.6)	150 (2.7)
States								
ALABAMA	34 (2.2)	134 (2.1)	34 (1.7)	146 (1.7)	21 (1.0)	143 (2.6)	12 (0.9)	130 (2.7)
ALASKA†	15 (1.1)	132 (4.0)	25 (1.1)	153 (2.1)	33 (1.5)	160 (1.9)	27 (1.7)	156 (2.7)
ARIZONA	17 (1.6)	133 (2.4)	31 (1.5)	148 (1.6)	34 (1.7)	151 (2.1)	18 (1.7)	145 (2.1)
ARKANSAS†	32 (2.3)	140 (2.5)	39 (1.5)	150 (2.2)	19 (1.6)	146 (2.9)	10 (1.4)	140 (2.9)
CALIFORNIA	16 (1.5)	121 (2.2)	30 (1.8)	138 (2.0)	33 (1.6)	143 (2.4)	21 (2.1)	149 (3.6)
COLORADO	9 (0.8)	139 (2.0)	25 (1.5)	153 (1.4)	41 (1.5)	158 (1.4)	25 (1.8)	158 (1.5)
CONNECTICUT	13 (0.9)	138 (2.7)	29 (1.6)	155 (1.8)	35 (1.1)	163 (1.6)	22 (1.5)	157 (2.5)
DELAWARE	22 (1.1)	129 (2.6)	33 (1.2)	148 (1.6)	28 (1.1)	147 (1.3)	17 (1.0)	142 (2.7)
DISTRICT OF COLUMBIA	25 (1.1)	108 (1.6)	31 (1.0)	122 (1.6)	30 (1.3)	115 (2.1)	14 (1.0)	111 (2.3)
FLORIDA	24 (2.3)	136 (2.0)	36 (1.7)	145 (1.6)	29 (1.8)	147 (2.4)	11 (0.9)	140 (3.8)
GEORGIA	23 (1.5)	132 (2.2)	38 (1.2)	148 (1.6)	27 (1.2)	144 (2.2)	12 (0.9)	136 (2.7)
HAWAII	38 (1.0)	131 (1.3)	27 (1.1)	138 (1.3)	25 (1.1)	139 (1.7)	10 (0.6)	140 (2.8)
INDIANA	16 (1.3)	138 (2.3)	35 (1.7)	155 (1.5)	30 (1.4)	158 (1.7)	19 (2.1)	157 (2.5)
IOWA†	13 (1.3)	145 (2.2)	34 (2.0)	158 (1.2)	37 (1.8)	162 (1.7)	16 (1.9)	160 (2.3)
KENTUCKY	19 (1.5)	138 (1.5)	36 (1.6)	151 (1.3)	28 (1.3)	150 (1.7)	16 (1.6)	148 (3.6)
LOUISIANA	34 (2.0)	127 (2.2)	31 (1.5)	140 (1.7)	22 (1.4)	136 (2.0)	13 (1.4)	130 (4.0)
MAINE	9 (1.1)	150 (2.7)	31 (1.5)	163 (1.5)	37 (1.6)	166 (1.3)	23 (1.7)	164 (1.5)
MARYLAND†	16 (1.1)	126 (2.7)	32 (1.6)	151 (1.8)	34 (1.3)	149 (2.3)	18 (1.9)	151 (2.9)
MASSACHUSETTS	15 (1.3)	139 (2.5)	25 (1.6)	157 (1.8)	35 (1.7)	162 (1.7)	25 (2.2)	163 (1.8)
MICHIGAN†	15 (1.6)	140 (2.4)	30 (2.1)	156 (1.5)	34 (1.8)	157 (1.7)	21 (2.6)	156 (2.5)
MINNESOTA	13 (1.3)	146 (2.6)	34 (1.9)	160 (1.9)	36 (1.5)	163 (1.3)	17 (1.7)	160 (2.7)
MISSISSIPPI	30 (1.6)	129 (2.0)	34 (1.2)	140 (1.6)	23 (1.3)	132 (2.0)	12 (1.1)	127 (2.2)
MISSOURI	19 (2.0)	144 (2.4)	36 (1.4)	153 (1.4)	31 (1.4)	156 (1.7)	14 (1.3)	151 (2.5)
MONTANA†	9 (1.5)	142 (2.3)	36 (2.0)	163 (1.1)	38 (1.6)	166 (1.4)	18 (2.1)	163 (2.3)
NEBRASKA	12 (1.0)	145 (2.6)	32 (1.4)	158 (1.6)	36 (1.2)	162 (1.3)	19 (1.5)	158 (1.8)
NEW MEXICO	22 (1.0)	132 (1.7)	35 (1.2)	145 (1.1)	30 (1.4)	146 (1.7)	13 (0.7)	142 (2.3)
NEW YORK†	20 (1.6)	128 (2.6)	32 (1.8)	147 (2.2)	31 (1.9)	158 (2.0)	17 (2.2)	152 (3.3)
NORTH CAROLINA	16 (1.4)	136 (2.1)	33 (1.4)	150 (1.6)	34 (1.4)	151 (1.5)	17 (1.2)	144 (1.8)
NORTH DAKOTA	20 (1.2)	152 (1.7)	46 (1.1)	165 (1.3)	26 (1.3)	166 (1.2)	8 (0.6)	158 (2.7)
OREGON	14 (1.1)	139 (3.0)	32 (1.6)	155 (1.6)	35 (1.6)	161 (1.6)	18 (1.6)	157 (2.9)
RHODE ISLAND	17 (0.9)	134 (1.7)	33 (0.9)	151 (1.3)	31 (1.1)	152 (1.4)	19 (0.8)	155 (1.8)
SOUTH CAROLINA†	22 (1.7)	131 (2.5)	34 (1.4)	145 (1.9)	28 (1.4)	141 (1.6)	16 (1.3)	136 (2.5)
TENNESSEE	33 (2.2)	139 (2.1)	38 (1.8)	150 (2.0)	20 (1.3)	140 (2.7)	10 (1.1)	141 (5.8)
TEXAS	18 (1.0)	133 (2.6)	36 (1.3)	148 (1.8)	32 (1.4)	152 (1.6)	15 (1.0)	147 (2.3)
UTAH	20 (1.1)	145 (1.7)	34 (1.1)	157 (1.1)	32 (1.0)	161 (1.3)	14 (0.9)	160 (1.9)
VERMONT†	10 (1.0)	142 (2.1)	26 (1.4)	159 (1.4)	36 (1.3)	160 (1.6)	27 (1.8)	159 (2.1)
VIRGINIA	14 (1.3)	131 (2.6)	32 (1.8)	149 (2.1)	31 (1.3)	156 (1.6)	23 (1.9)	156 (2.6)
WASHINGTON	17 (1.2)	137 (2.8)	32 (1.9)	151 (1.7)	31 (1.4)	156 (1.3)	20 (1.7)	153 (1.9)
WEST VIRGINIA	15 (1.2)	142 (2.1)	32 (1.5)	150 (1.2)	33 (1.0)	148 (1.3)	21 (1.4)	147 (1.5)
WISCONSIN†	13 (1.5)	148 (4.0)	28 (1.9)	159 (1.8)	35 (2.1)	165 (2.0)	24 (2.4)	162 (1.6)
WYOMING	16 (0.9)	144 (1.8)	28 (1.3)	157 (1.2)	37 (0.8)	162 (0.9)	20 (0.8)	161 (1.2)
Other Jurisdictions								
DDESS	12 (1.5)	144 (3.3)	39 (1.9)	154 (1.8)	32 (1.9)	151 (2.0)	17 (1.4)	162 (2.5)
DoDDS	12 (0.7)	146 (2.1)	30 (1.0)	158 (1.3)	39 (1.1)	159 (1.2)	19 (1.0)	152 (1.4)
GUAM	32 (1.6)	119 (1.9)	35 (1.7)	129 (2.1)	23 (1.5)	118 (2.6)	9 (1.1)	104 (4.7)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 5.7

1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

TEACHERS' REPORTS ON: The Assignment of Long-Term Science Projects

THE NATION'S REPORT CARD naep 1996 State Assessment

Do you ever assign individual or group science projects or investigations in school that take a week or more?	Yes		No	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation				
NATION	82 (2.6)	151 (1.3)	18 (2.6)	147 (3.4)
NORTHEAST	80 (7.3)	153 (4.4)	20 (7.3)	150 (6.3)!
SOUTHEAST	70 (7.2)	143 (1.9)	30 (7.2)	143 (5.0)!
CENTRAL	85 (4.6)	158 (3.7)	15 (4.6)	156 (6.0)!
WEST	90 (3.4)	151 (2.6)	10 (3.4)	141 (4.6)!
States				
ALABAMA	83 (3.8)	138 (2.1)	17 (3.8)	138 (3.9)!
ALASKA†	83 (2.4)	153 (2.0)	17 (2.4)	140 (5.9)
ARIZONA	85 (3.3)	145 (1.7)	15 (3.3)	146 (4.8)!
ARKANSAS†	71 (4.8)	145 (1.7)	29 (4.8)	142 (3.8)
CALIFORNIA	90 (1.8)	140 (1.9)	10 (1.8)	131 (4.2)
COLORADO	89 (2.3)	156 (1.2)	11 (2.3)	150 (3.7)!
CONNECTICUT	89 (1.9)	156 (1.4)	11 (1.9)	157 (4.5)
DELAWARE	75 (0.8)	141 (1.1)	25 (0.8)	142 (1.4)
DISTRICT OF COLUMBIA	97 (0.2)	111 (1.0)	3 (0.2)	... (...)
FLORIDA	85 (2.4)	142 (1.7)	15 (2.4)	138 (2.5)
GEORGIA	79 (3.0)	144 (1.9)	21 (3.0)	136 (2.5)
HAWAII	86 (0.6)	136 (1.3)	14 (0.6)	139 (4.3)
INDIANA	72 (4.3)	156 (1.8)	28 (4.3)	149 (2.4)
IOWA†	81 (3.7)	158 (1.4)	19 (3.7)	161 (2.4)!
KENTUCKY	87 (2.3)	148 (1.7)	13 (2.3)	150 (3.2)
LOUISIANA	70 (4.3)	133 (2.2)	30 (4.3)	136 (3.0)
MAINE	88 (2.8)	163 (1.1)	12 (2.8)	160 (2.0)!
MARYLAND†	83 (3.2)	148 (1.8)	17 (3.2)	137 (4.9)
MASSACHUSETTS	82 (2.6)	157 (1.7)	18 (2.6)	159 (2.8)
MICHIGAN†	82 (2.8)	157 (1.7)	18 (2.8)	154 (2.6)
MINNESOTA	82 (3.7)	160 (1.5)	18 (3.7)	157 (2.5)!
MISSISSIPPI	79 (3.5)	134 (1.8)	21 (3.5)	135 (2.2)
MISSOURI	79 (3.4)	154 (1.4)	21 (3.4)	149 (2.5)
MONTANA†	79 (4.1)	163 (1.4)	21 (4.1)	160 (2.4)
NEBRASKA	77 (2.3)	157 (1.2)	23 (2.3)	162 (1.7)
NEW MEXICO	79 (1.4)	145 (0.8)	21 (1.4)	139 (3.1)
NEW YORK†	77 (4.5)	149 (2.3)	23 (4.5)	151 (6.1)!
NORTH CAROLINA	83 (3.0)	146 (1.3)	17 (3.0)	148 (2.5)
NORTH DAKOTA	67 (2.6)	163 (0.8)	33 (2.6)	160 (1.6)
OREGON	90 (2.2)	155 (1.8)	10 (2.2)	161 (3.1)!
RHODE ISLAND	80 (0.8)	151 (0.9)	20 (0.8)	149 (1.8)
SOUTH CAROLINA†	86 (3.1)	139 (1.7)	14 (3.1)	136 (4.3)!
TENNESSEE	78 (4.3)	146 (1.9)	22 (4.3)	141 (4.0)
TEXAS	77 (3.4)	146 (1.6)	23 (3.4)	150 (2.5)
UTAH	70 (3.1)	157 (1.1)	30 (3.1)	154 (2.0)
VERMONT†	94 (0.7)	157 (1.1)	6 (0.7)	157 (4.0)
VIRGINIA	87 (2.5)	150 (1.8)	13 (2.5)	146 (4.1)!
WASHINGTON	88 (2.8)	151 (1.7)	12 (2.8)	142 (3.2)!
WEST VIRGINIA	72 (4.2)	147 (1.2)	28 (4.2)	148 (1.6)
WISCONSIN†	84 (3.2)	161 (2.2)	16 (3.2)	161 (2.9)!
WYOMING	76 (1.0)	160 (0.7)	24 (1.0)	155 (1.4)
Other Jurisdictions				
DDESS	86 (1.0)	153 (1.2)	14 (1.0)	145 (5.2)
DoDDS	76 (0.5)	157 (0.7)	24 (0.5)	150 (2.1)
GUAM	100 (...)	119 (1.3)	0 (...)	... (...)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

... Characteristics of the sample do not permit a reliable estimate.

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 5.8 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
STUDENTS' REPORTS ON: Working on Long-Term Science Projects

THE NATION'S REPORT CARD 1996 State Assessment

Do you ever do individual or group science projects or investigations in school that take a week or more?	Yes		No	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation				
NATION	63 (2.8)	151 (1.3)	37 (2.8)	146 (1.7)
NORTHEAST	60 (12.7)	149 (5.0)!	40 (12.7)	151 (4.8)!
SOUTHEAST	62 (3.6)	145 (2.1)	38 (3.6)	136 (2.6)
CENTRAL	58 (3.2)	158 (3.0)	42 (3.2)	152 (3.3)
WEST	69 (2.5)	151 (2.2)	31 (2.5)	144 (3.3)
States				
ALABAMA	58 (2.3)	140 (2.1)	42 (2.3)	138 (1.7)
ALASKA†	73 (1.4)	155 (1.3)	27 (1.4)	148 (2.4)
ARIZONA	68 (1.9)	146 (1.4)	32 (1.9)	145 (2.0)
ARKANSAS†	46 (3.0)	146 (1.9)	54 (3.0)	144 (1.8)
CALIFORNIA	71 (1.7)	142 (1.9)	29 (1.7)	131 (2.0)
COLORADO	71 (1.9)	156 (0.9)	29 (1.9)	152 (1.8)
CONNECTICUT	68 (1.7)	158 (1.2)	32 (1.7)	151 (2.3)
DELAWARE	63 (1.2)	143 (1.2)	37 (1.2)	141 (1.6)
DISTRICT OF COLUMBIA	77 (1.1)	116 (0.9)	23 (1.1)	109 (1.9)
FLORIDA	63 (2.1)	143 (2.0)	37 (2.1)	142 (2.1)
GEORGIA	62 (1.8)	144 (1.6)	38 (1.8)	138 (2.0)
HAWAII	55 (1.2)	136 (1.1)	45 (1.2)	135 (1.4)
INDIANA	58 (1.8)	156 (1.6)	42 (1.8)	150 (1.8)
IOWA†	67 (2.5)	160 (1.3)	33 (2.5)	156 (1.6)
KENTUCKY	67 (1.5)	149 (1.4)	33 (1.5)	145 (1.5)
LOUISIANA	50 (2.1)	133 (2.1)	50 (2.1)	132 (1.6)
MAINE	77 (1.8)	165 (0.9)	23 (1.8)	158 (1.8)
MARYLAND†	68 (2.0)	147 (1.7)	32 (2.0)	143 (2.2)
MASSACHUSETTS	69 (1.9)	158 (1.5)	31 (1.9)	155 (2.0)
MICHIGAN†	63 (2.4)	155 (1.5)	37 (2.4)	151 (2.1)
MINNESOTA	62 (2.3)	161 (1.6)	38 (2.3)	156 (1.6)
MISSISSIPPI	52 (2.2)	131 (1.5)	48 (2.2)	135 (1.8)
MISSOURI	57 (2.4)	152 (1.3)	43 (2.4)	151 (1.6)
MONTANA†	63 (2.3)	163 (1.2)	37 (2.3)	161 (2.0)
NEBRASKA	62 (1.8)	158 (1.2)	38 (1.8)	158 (1.5)
NEW MEXICO	62 (1.4)	143 (1.3)	38 (1.4)	139 (1.4)
NEW YORK†	60 (2.5)	148 (2.0)	40 (2.5)	146 (2.4)
NORTH CAROLINA	63 (1.8)	147 (1.2)	37 (1.8)	146 (1.6)
NORTH DAKOTA	57 (1.5)	164 (0.9)	43 (1.5)	160 (1.3)
OREGON	72 (1.7)	156 (1.6)	28 (1.7)	151 (2.0)
RHODE ISLAND	65 (1.0)	150 (1.0)	35 (1.0)	147 (1.2)
SOUTH CAROLINA†	70 (1.6)	140 (1.6)	30 (1.6)	136 (2.0)
TENNESSEE	53 (2.4)	147 (2.0)	47 (2.4)	141 (2.2)
TEXAS	63 (2.1)	147 (1.5)	37 (2.1)	145 (1.8)
UTAH	53 (1.4)	157 (1.1)	47 (1.4)	155 (1.2)
VERMONT†	81 (1.1)	158 (1.1)	19 (1.1)	155 (2.1)
VIRGINIA	65 (1.6)	151 (1.7)	35 (1.6)	148 (2.0)
WASHINGTON	68 (2.2)	152 (1.8)	32 (2.2)	146 (1.4)
WEST VIRGINIA	54 (1.7)	148 (1.1)	46 (1.7)	147 (1.2)
WISCONSIN†	65 (2.4)	160 (1.7)	35 (2.4)	162 (2.0)
WYOMING	59 (0.8)	159 (0.8)	41 (0.8)	155 (1.1)
Other Jurisdictions				
DDESS	68 (1.9)	154 (1.3)	32 (1.9)	152 (2.0)
DoDDS	61 (1.0)	156 (0.8)	39 (1.0)	154 (1.3)
GUAM	74 (1.6)	122 (1.4)	26 (1.6)	115 (2.6)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 5.9

1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

STUDENTS' REPORTS ON: The Frequency of Independent Science Investigations

THE NATION'S REPORT CARD 1996 State Assessment

When you study science in school, how often do you design and carry out your own science investigations?	Never or Hardly Ever		Once or Twice a Month		Once or Twice a Week		Almost Every Day	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation								
NATION	63 (1.1)	151 (1.0)	23 (0.8)	151 (1.3)	10 (0.6)	142 (2.3)	5 (0.4)	137 (2.5)
NORTHEAST	64 (1.6)	153 (3.4)	21 (1.7)	148 (3.8)	10 (2.1)	138 (7.6)!	5 (0.9)	... (...)
SOUTHEAST	61 (3.2)	141 (2.1)	23 (2.4)	147 (2.0)	11 (1.0)	140 (2.9)	5 (0.5)	132 (6.0)
CENTRAL	64 (2.4)	157 (2.3)	21 (1.4)	158 (4.5)	9 (1.0)	153 (5.5)	6 (1.1)	143 (3.7)
WEST	62 (1.5)	151 (2.4)	25 (1.2)	152 (2.2)	9 (0.8)	137 (2.9)	4 (0.8)	128 (4.1)
States								
ALABAMA	69 (1.0)	141 (1.7)	19 (0.8)	139 (2.7)	8 (0.6)	130 (4.0)	3 (0.4)	120 (4.8)
ALASKA†	59 (1.2)	152 (1.7)	24 (1.0)	157 (2.5)	12 (0.7)	152 (3.4)	5 (0.7)	146 (4.6)
ARIZONA	62 (1.6)	147 (1.5)	22 (1.0)	151 (2.0)	10 (0.9)	141 (3.2)	6 (0.8)	128 (5.1)
ARKANSAS†	69 (1.5)	145 (1.4)	19 (1.1)	149 (2.4)	7 (0.8)	143 (4.4)	4 (0.5)	133 (5.3)
CALIFORNIA	58 (1.3)	140 (1.7)	26 (0.9)	141 (2.5)	11 (0.9)	134 (3.2)	5 (0.5)	136 (5.5)
COLORADO	60 (1.5)	154 (1.0)	26 (1.0)	158 (1.2)	9 (0.7)	155 (1.9)	5 (0.5)	144 (4.9)
CONNECTICUT	63 (1.2)	156 (1.2)	23 (1.0)	159 (1.8)	9 (0.5)	156 (3.5)	5 (0.6)	142 (6.4)
DELAWARE	67 (1.1)	143 (1.0)	20 (0.8)	145 (2.4)	9 (0.6)	139 (2.9)	5 (0.6)	124 (3.7)
DISTRICT OF COLUMBIA	59 (1.3)	117 (1.1)	20 (1.1)	120 (2.2)	13 (1.0)	103 (2.5)	8 (0.6)	106 (3.3)
FLORIDA	68 (1.4)	145 (1.5)	20 (0.9)	143 (3.1)	8 (0.7)	134 (3.7)	4 (0.5)	125 (4.5)
GEORGIA	66 (1.2)	144 (1.6)	20 (0.9)	147 (2.1)	9 (0.7)	127 (3.1)	5 (0.5)	122 (4.3)
HAWAII	66 (1.0)	136 (0.9)	20 (0.9)	137 (1.7)	9 (0.7)	128 (2.7)	5 (0.5)	132 (4.9)
INDIANA	68 (1.3)	153 (1.5)	20 (0.8)	158 (1.8)	8 (0.7)	148 (3.1)	5 (0.7)	143 (3.2)
IOWA†	67 (1.3)	157 (1.2)	22 (1.0)	162 (1.9)	7 (0.6)	160 (2.7)	3 (0.5)	... (...)
KENTUCKY	61 (1.4)	149 (1.3)	26 (1.1)	150 (1.9)	8 (0.6)	143 (2.7)	5 (0.5)	134 (4.3)
LOUISIANA	68 (1.2)	135 (1.4)	20 (0.9)	136 (2.2)	7 (0.5)	127 (4.3)	5 (0.5)	122 (3.8)
MAINE	61 (1.2)	162 (1.1)	26 (0.9)	168 (1.6)	9 (0.6)	160 (2.1)	4 (0.5)	158 (4.2)
MARYLAND†	66 (1.5)	148 (1.6)	21 (1.1)	151 (2.3)	9 (0.7)	135 (3.0)	4 (0.6)	129 (4.3)
MASSACHUSETTS	63 (1.5)	158 (1.5)	23 (1.1)	161 (1.8)	9 (0.9)	150 (3.2)	4 (0.6)	146 (4.3)
MICHIGAN†	60 (2.1)	155 (1.5)	25 (1.5)	156 (2.3)	9 (0.9)	148 (3.0)	6 (0.7)	144 (3.1)
MINNESOTA	67 (1.3)	159 (1.3)	22 (1.0)	161 (1.8)	8 (0.7)	157 (3.0)	3 (0.4)	145 (4.9)
MISSISSIPPI	67 (1.2)	136 (1.5)	19 (1.0)	135 (2.0)	8 (0.6)	119 (3.5)	5 (0.4)	116 (3.7)
MISSOURI	68 (1.4)	153 (1.2)	20 (1.1)	155 (1.7)	7 (0.6)	144 (3.2)	5 (0.5)	143 (3.9)
MONTANA†	68 (1.4)	162 (1.4)	21 (1.2)	165 (1.7)	7 (0.7)	154 (3.1)	3 (0.4)	159 (4.1)
NEBRASKA	67 (1.3)	158 (1.1)	22 (1.1)	160 (1.6)	8 (0.7)	153 (3.4)	4 (0.5)	147 (4.0)
NEW MEXICO	67 (1.1)	144 (0.9)	22 (1.0)	140 (2.3)	7 (0.6)	133 (3.0)	5 (0.4)	128 (3.8)
NEW YORK†	67 (1.9)	150 (1.4)	20 (1.5)	150 (2.9)	9 (0.7)	132 (3.9)	5 (0.6)	137 (5.6)
NORTH CAROLINA	60 (1.4)	148 (1.2)	25 (1.2)	152 (1.6)	10 (0.6)	139 (2.4)	6 (0.5)	135 (3.2)
NORTH DAKOTA	73 (0.8)	163 (1.0)	19 (0.9)	163 (1.4)	6 (0.5)	157 (3.2)	2 (0.4)	... (...)
OREGON	64 (1.1)	154 (1.6)	24 (1.0)	160 (1.6)	8 (0.7)	154 (3.1)	3 (0.5)	145 (5.7)
RHODE ISLAND	70 (1.0)	150 (1.0)	19 (0.8)	151 (1.7)	7 (0.6)	142 (2.9)	4 (0.4)	146 (3.1)
SOUTH CAROLINA†	61 (1.6)	141 (1.6)	22 (1.1)	141 (2.2)	10 (0.8)	131 (3.3)	7 (0.5)	130 (2.8)
TENNESSEE	69 (1.4)	145 (1.7)	19 (1.2)	149 (3.0)	8 (0.8)	135 (4.8)	4 (0.5)	117 (6.7)
TEXAS	67 (1.3)	147 (1.5)	20 (0.8)	151 (1.7)	8 (0.7)	141 (3.1)	4 (0.5)	132 (3.9)
UTAH	66 (1.2)	155 (0.9)	22 (0.9)	160 (1.4)	9 (0.7)	157 (2.5)	3 (0.4)	150 (3.9)
VERMONT†	59 (1.3)	158 (1.0)	27 (1.1)	160 (1.6)	10 (0.7)	158 (2.7)	4 (0.5)	144 (5.0)
VIRGINIA	67 (1.0)	150 (1.5)	21 (0.8)	155 (2.3)	8 (0.6)	141 (3.4)	4 (0.4)	145 (4.1)
WASHINGTON	68 (1.3)	150 (1.2)	20 (1.0)	156 (2.0)	8 (0.6)	147 (3.0)	4 (0.4)	143 (3.5)
WEST VIRGINIA	65 (1.2)	148 (0.9)	21 (0.9)	149 (1.4)	9 (0.8)	146 (2.5)	5 (0.5)	139 (2.6)
WISCONSIN†	68 (1.4)	162 (1.5)	21 (1.1)	162 (2.1)	8 (0.7)	154 (3.2)	3 (0.4)	142 (4.7)
WYOMING	67 (0.8)	157 (0.7)	20 (0.7)	161 (1.4)	9 (0.6)	154 (2.3)	4 (0.4)	154 (2.7)
Other Jurisdictions								
DDESS	63 (1.9)	153 (1.3)	23 (1.7)	156 (2.7)	7 (1.1)	... (...)	7 (1.1)	... (...)
DoDDS	66 (1.1)	157 (0.9)	21 (0.9)	157 (1.6)	9 (0.6)	150 (1.9)	5 (0.5)	145 (3.1)
GUAM	63 (1.5)	124 (1.5)	20 (1.1)	123 (2.8)	11 (1.0)	106 (3.3)	6 (0.8)	... (...)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

... Characteristics of the sample do not permit a reliable estimate.

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

Chapter 6

Influences Beyond School That Facilitate Learning Science

Overview

Chapter 6 contains tables which present the results for a number of variables related to out-of-school influences on science learning and attitudes. It presents results about students' responses to questions concerning the home environment and students' attitudes about learning and using science. Students' attitudes and beliefs about science can be a contributing factor affecting the skills they will acquire and their decisions about studying science in future years.

NAEP also considered principals' responses to questions about parental involvement in the school. Parental involvement is increasingly sought in the school and principals were asked to characterize parental support for student achievement within their schools.

Students were asked about how frequently they discuss their studies with someone at home, the number and type of literacy materials in their home, their television viewing habits, and the number of times that they changed schools since first grade. They were asked about the usefulness of science for solving everyday problems and if they agreed that science is mostly memorizing facts.

TABLE 6.1

1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

STUDENTS' REPORTS ON: Discussing Studies at Home

THE NATION'S REPORT CARD 1996 State Assessment

How often do you discuss things you have studied in school with someone at home?	Never or Hardly Ever		Once or Twice a Month		Once or Twice a Week		Almost Every Day	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation								
NATION	21 (0.8)	141 (1.5)	9 (0.4)	149 (1.6)	28 (1.0)	151 (1.3)	41 (1.1)	153 (1.2)
NORTHEAST	22 (2.1)	146 (2.4)	10 (1.1)	158 (4.4)	24 (2.5)	147 (6.0)	44 (3.2)	153 (2.5)
SOUTHEAST	23 (1.3)	132 (2.6)	10 (0.6)	143 (3.3)	29 (1.5)	146 (2.2)	38 (1.0)	145 (1.8)
CENTRAL	22 (1.7)	147 (3.9)	7 (0.8)	153 (5.3)	29 (1.9)	159 (3.1)	41 (2.4)	160 (3.0)
WEST	19 (0.9)	141 (2.6)	9 (1.0)	147 (2.8)	29 (1.8)	151 (2.2)	43 (1.8)	153 (2.9)
States								
ALABAMA	22 (0.9)	134 (2.0)	9 (0.7)	134 (3.5)	28 (1.1)	139 (2.0)	42 (1.2)	144 (2.0)
ALASKA†	21 (1.1)	144 (2.6)	10 (0.9)	151 (2.7)	26 (1.2)	157 (2.2)	43 (1.5)	159 (1.8)
ARIZONA	20 (0.9)	138 (2.2)	9 (0.7)	142 (3.2)	29 (1.2)	148 (1.8)	42 (1.5)	150 (1.7)
ARKANSAS†	23 (1.3)	139 (2.6)	11 (0.7)	144 (2.6)	25 (1.2)	145 (2.5)	42 (1.6)	149 (1.6)
CALIFORNIA	17 (0.9)	129 (2.8)	12 (0.7)	136 (3.0)	29 (1.0)	141 (2.0)	43 (1.4)	145 (2.0)
COLORADO	16 (0.9)	148 (1.8)	10 (0.7)	151 (2.3)	29 (1.0)	156 (1.4)	45 (1.1)	159 (1.2)
CONNECTICUT	19 (0.9)	145 (2.0)	10 (0.6)	149 (2.0)	29 (1.1)	157 (1.7)	43 (1.2)	161 (1.3)
DELAWARE	22 (0.9)	133 (1.7)	11 (0.6)	141 (2.4)	29 (1.1)	144 (1.6)	37 (1.1)	148 (1.5)
DISTRICT OF COLUMBIA	18 (0.8)	107 (2.0)	9 (0.7)	113 (3.1)	28 (1.3)	115 (1.9)	44 (1.4)	118 (1.4)
FLORIDA	21 (1.0)	139 (2.2)	11 (0.7)	140 (3.4)	30 (1.2)	143 (1.8)	38 (1.1)	147 (2.0)
GEORGIA	19 (0.9)	136 (2.2)	10 (0.8)	141 (3.2)	30 (1.0)	142 (2.0)	41 (1.1)	146 (1.7)
HAWAII	24 (1.0)	131 (1.6)	12 (0.7)	137 (2.0)	27 (1.3)	133 (1.7)	37 (0.9)	141 (1.5)
INDIANA	20 (1.0)	144 (2.0)	10 (0.8)	151 (2.8)	27 (1.1)	153 (1.9)	43 (1.5)	159 (1.6)
IOWA†	21 (1.2)	150 (1.7)	10 (0.6)	155 (2.4)	31 (1.2)	161 (1.4)	37 (1.2)	163 (1.5)
KENTUCKY	21 (1.0)	140 (1.5)	10 (0.7)	151 (2.6)	29 (0.9)	149 (1.7)	40 (1.1)	151 (1.5)
LOUISIANA	24 (1.1)	132 (2.0)	11 (0.6)	134 (2.9)	26 (0.9)	134 (1.8)	39 (1.1)	134 (2.1)
MAINE	18 (0.9)	155 (1.8)	9 (0.7)	162 (2.3)	29 (1.0)	165 (1.4)	44 (1.2)	166 (1.2)
MARYLAND†	18 (0.7)	142 (2.4)	12 (1.0)	144 (2.8)	30 (0.8)	149 (1.9)	40 (1.1)	150 (1.9)
MASSACHUSETTS	16 (0.9)	146 (2.5)	11 (0.6)	153 (2.0)	29 (1.0)	160 (2.2)	45 (1.4)	161 (1.6)
MICHIGAN†	18 (1.0)	147 (1.7)	11 (0.8)	153 (2.5)	29 (1.0)	156 (2.1)	42 (1.3)	156 (1.7)
MINNESOTA	19 (1.0)	154 (1.9)	11 (0.6)	156 (2.8)	30 (1.1)	160 (1.6)	39 (1.2)	162 (1.4)
MISSISSIPPI	21 (0.8)	132 (1.9)	9 (0.5)	132 (2.8)	27 (0.9)	134 (1.7)	42 (1.1)	135 (1.7)
MISSOURI	21 (1.3)	144 (1.7)	11 (0.7)	152 (2.3)	29 (1.2)	155 (1.4)	39 (1.1)	154 (1.6)
MONTANA†	19 (1.0)	156 (2.3)	11 (0.8)	165 (2.0)	28 (1.4)	163 (1.6)	43 (1.6)	164 (1.5)
NEBRASKA	19 (0.9)	148 (1.9)	11 (0.7)	152 (2.2)	28 (0.8)	161 (1.6)	41 (0.9)	162 (1.1)
NEW MEXICO	21 (1.0)	133 (1.5)	10 (0.8)	140 (2.8)	26 (0.8)	142 (1.5)	43 (1.1)	147 (1.5)
NEW YORK†	20 (1.1)	143 (1.9)	9 (0.7)	142 (4.0)	27 (1.2)	150 (2.3)	44 (1.7)	151 (1.8)
NORTH CAROLINA	17 (0.8)	138 (2.0)	9 (0.6)	146 (2.0)	30 (1.1)	149 (1.4)	44 (1.1)	150 (1.5)
NORTH DAKOTA	22 (0.9)	154 (1.4)	13 (0.7)	162 (2.0)	31 (0.9)	164 (1.1)	35 (0.9)	166 (1.2)
OREGON	17 (0.9)	144 (2.2)	11 (0.8)	155 (2.5)	30 (1.0)	155 (2.1)	42 (1.4)	161 (1.6)
RHODE ISLAND	22 (1.2)	139 (1.9)	11 (0.6)	150 (2.0)	29 (1.0)	151 (1.6)	38 (1.2)	155 (1.3)
SOUTH CAROLINA†	20 (1.1)	135 (2.3)	10 (0.8)	137 (3.0)	28 (1.1)	138 (1.9)	42 (1.3)	142 (1.7)
TENNESSEE	20 (0.8)	135 (2.6)	12 (0.7)	145 (3.1)	33 (1.0)	146 (2.7)	35 (1.2)	148 (1.8)
TEXAS	23 (1.0)	141 (2.2)	9 (0.6)	139 (2.4)	26 (0.9)	149 (1.8)	42 (1.2)	150 (1.7)
UTAH	14 (0.7)	146 (1.8)	11 (0.6)	148 (1.9)	28 (0.9)	158 (1.3)	47 (0.9)	160 (1.1)
VERMONT†	16 (1.0)	147 (2.4)	10 (0.8)	155 (2.5)	29 (1.1)	159 (1.4)	44 (1.5)	162 (1.5)
VIRGINIA	21 (0.8)	138 (2.1)	10 (0.7)	148 (2.8)	27 (0.9)	154 (1.6)	42 (1.1)	155 (1.4)
WASHINGTON	22 (1.2)	140 (1.7)	10 (0.6)	142 (2.5)	27 (0.9)	155 (1.9)	41 (1.2)	155 (1.5)
WEST VIRGINIA	22 (0.9)	141 (1.8)	10 (0.6)	143 (1.7)	27 (0.8)	149 (1.5)	42 (1.0)	151 (1.1)
WISCONSIN†	20 (1.0)	154 (2.3)	13 (0.7)	160 (2.3)	29 (0.9)	161 (2.1)	37 (0.9)	164 (1.9)
WYOMING	22 (0.9)	149 (1.5)	9 (0.7)	154 (2.0)	25 (1.1)	159 (1.2)	44 (0.9)	163 (1.1)
Other Jurisdictions								
DDESS	20 (1.4)	150 (2.7)	8 (1.1)	... (...)	28 (1.7)	156 (2.2)	43 (2.2)	154 (1.8)
DoDDS	20 (0.8)	153 (1.2)	9 (0.6)	155 (2.4)	24 (1.0)	155 (1.7)	47 (1.0)	159 (1.2)
GUAM	24 (1.5)	118 (2.5)	13 (1.2)	123 (3.8)	32 (1.6)	122 (2.2)	31 (1.7)	125 (2.2)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

... Characteristics of the sample do not permit a reliable estimate.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 6.2 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
STUDENTS' REPORTS ON: Literacy Materials in the Home

THE NATION'S REPORT CARD — 1996 State Assessment

How many of the following types of reading materials are in your home: more than 25 books; an encyclopedia; a newspaper; magazines?	Zero to Two		Three		Four	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	24 (0.7)	132 (1.2)	29 (0.8)	149 (1.0)	47 (1.1)	158 (1.2)
NORTHEAST	23 (1.5)	136 (3.8)	28 (3.5)	150 (2.8)	48 (4.4)	155 (3.5)
SOUTHEAST	29 (1.6)	126 (2.6)	30 (0.7)	143 (2.1)	42 (1.8)	151 (1.7)
CENTRAL	27 (2.4)	145 (3.3)	50 (2.2)	162 (3.2)	23 (2.0)	153 (3.0)
WEST	26 (1.9)	131 (2.3)	31 (1.2)	149 (1.6)	43 (2.5)	160 (2.2)
States						
ALABAMA	26 (1.1)	124 (2.5)	31 (1.3)	139 (1.7)	43 (1.5)	147 (1.9)
ALASKA†	24 (1.4)	133 (3.2)	27 (1.4)	154 (1.6)	49 (1.5)	162 (1.1)
ARIZONA	31 (1.7)	131 (1.9)	29 (1.1)	147 (1.8)	40 (1.6)	157 (1.3)
ARKANSAS†	24 (1.3)	131 (2.1)	30 (1.0)	141 (1.9)	46 (1.6)	154 (1.4)
CALIFORNIA	37 (1.6)	120 (1.8)	26 (1.1)	139 (2.1)	38 (1.4)	156 (1.8)
COLORADO	19 (1.0)	138 (2.0)	27 (1.0)	152 (1.7)	54 (1.3)	162 (0.9)
CONNECTICUT	18 (1.0)	131 (1.7)	24 (1.0)	149 (1.7)	58 (1.2)	166 (1.3)
DELAWARE	24 (0.8)	125 (1.6)	30 (1.1)	141 (1.7)	46 (1.1)	152 (0.9)
DISTRICT OF COLUMBIA	30 (0.9)	105 (1.4)	33 (1.1)	111 (1.6)	38 (1.4)	123 (1.6)
FLORIDA	29 (1.6)	129 (2.1)	30 (1.0)	140 (1.8)	41 (1.7)	154 (1.7)
GEORGIA	25 (1.1)	129 (1.8)	30 (1.0)	139 (1.9)	45 (1.4)	151 (1.6)
HAWAII	34 (1.0)	122 (1.4)	31 (1.0)	135 (1.5)	36 (1.0)	147 (1.2)
INDIANA	20 (1.3)	138 (2.0)	28 (1.0)	150 (1.4)	52 (1.6)	161 (1.6)
IOWA†	15 (1.0)	143 (2.2)	28 (1.1)	155 (1.5)	57 (1.4)	164 (1.2)
KENTUCKY	24 (0.8)	134 (1.7)	30 (0.9)	145 (1.4)	46 (1.3)	156 (1.5)
LOUISIANA	29 (1.1)	121 (2.1)	32 (0.9)	132 (1.8)	39 (1.1)	141 (1.9)
MAINE	16 (0.9)	149 (2.1)	28 (1.1)	159 (1.6)	56 (1.3)	169 (1.1)
MARYLAND†	21 (1.3)	129 (2.1)	29 (1.2)	139 (2.0)	50 (1.5)	157 (1.7)
MASSACHUSETTS	16 (1.2)	136 (3.4)	23 (0.9)	152 (1.7)	60 (1.3)	165 (1.2)
MICHIGAN†	20 (1.0)	138 (2.4)	29 (1.0)	150 (1.6)	51 (1.4)	162 (1.6)
MINNESOTA	16 (0.9)	142 (2.9)	26 (1.0)	156 (1.6)	59 (1.1)	165 (1.3)
MISSISSIPPI	27 (1.0)	121 (2.1)	32 (1.1)	133 (1.9)	41 (1.4)	142 (1.3)
MISSOURI	22 (1.0)	138 (1.9)	30 (0.9)	153 (1.6)	48 (1.1)	157 (1.2)
MONTANA†	17 (1.0)	153 (2.0)	30 (1.1)	159 (1.7)	53 (1.2)	167 (1.3)
NEBRASKA	17 (0.9)	140 (2.0)	26 (0.9)	155 (1.6)	58 (1.1)	164 (1.0)
NEW MEXICO	32 (1.3)	128 (1.4)	30 (1.0)	142 (1.1)	38 (1.1)	153 (1.2)
NEW YORK†	23 (1.3)	125 (2.8)	26 (1.1)	148 (1.9)	51 (1.3)	156 (1.5)
NORTH CAROLINA	24 (1.1)	131 (1.5)	29 (0.9)	144 (1.5)	47 (1.4)	157 (1.2)
NORTH DAKOTA	13 (0.6)	149 (1.6)	28 (1.0)	159 (1.5)	59 (1.0)	167 (0.9)
OREGON	22 (1.4)	140 (2.4)	28 (1.0)	154 (1.7)	50 (1.7)	162 (1.3)
RHODE ISLAND	24 (0.9)	128 (1.1)	27 (1.0)	149 (1.5)	48 (1.1)	160 (1.0)
SOUTH CAROLINA†	26 (1.2)	128 (1.9)	31 (1.0)	136 (1.7)	43 (1.4)	148 (1.7)
TENNESSEE	24 (1.2)	128 (1.9)	27 (0.9)	141 (2.5)	49 (1.6)	153 (1.8)
TEXAS	32 (1.5)	128 (1.8)	26 (1.0)	146 (2.0)	42 (1.5)	159 (1.4)
UTAH	17 (0.8)	140 (1.9)	28 (0.8)	156 (1.3)	55 (0.9)	161 (0.8)
VERMONT†	14 (1.0)	142 (2.6)	25 (1.1)	155 (1.6)	61 (1.2)	162 (1.0)
VIRGINIA	21 (1.3)	132 (1.6)	28 (0.9)	146 (1.7)	52 (1.6)	159 (1.6)
WASHINGTON	25 (1.1)	135 (2.0)	29 (1.1)	150 (1.9)	47 (1.2)	158 (1.3)
WEST VIRGINIA	23 (1.1)	136 (1.7)	31 (0.9)	146 (1.3)	46 (0.9)	154 (1.0)
WISCONSIN†	18 (1.4)	142 (3.2)	27 (1.0)	158 (2.1)	55 (1.5)	167 (1.1)
WYOMING	17 (0.9)	145 (1.7)	30 (0.9)	156 (1.2)	52 (0.9)	163 (0.8)
Other Jurisdictions						
DDESS	18 (1.5)	145 (3.2)	29 (1.9)	150 (2.3)	53 (2.1)	157 (1.9)
DoDDS	19 (0.9)	146 (1.8)	32 (1.1)	155 (1.5)	50 (1.1)	159 (1.0)
GUAM	40 (1.5)	108 (1.8)	31 (1.5)	127 (2.2)	30 (1.5)	130 (2.1)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 6.3

1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

STUDENTS' REPORTS ON: Television Viewing Habits

THE NATION'S REPORT CARD 1996 State Assessment

How much television do you usually watch each day?	One Hour or Less		Two to Three Hours		Four to Five Hours		Six Hours or More	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation								
NATION	19 (1.0)	156 (2.0)	40 (1.3)	154 (1.2)	24 (0.6)	148 (1.0)	17 (0.7)	130 (1.1)
NORTHEAST	20 (4.6)	161 (6.1)!	34 (4.8)	154 (2.3)	27 (1.3)	148 (2.8)	18 (2.1)	132 (3.5)
SOUTHEAST	14 (0.8)	143 (3.1)	36 (1.8)	148 (1.9)	28 (1.2)	147 (2.0)	22 (1.6)	123 (2.1)
CENTRAL	20 (1.7)	163 (3.6)	44 (2.4)	160 (3.0)	22 (1.6)	154 (3.1)	15 (1.4)	134 (3.3)
WEST	21 (1.1)	155 (3.1)	44 (1.5)	152 (2.4)	21 (1.1)	146 (2.2)	15 (1.3)	134 (2.1)
States								
ALABAMA	13 (1.0)	143 (3.0)	37 (1.3)	145 (1.9)	26 (1.0)	138 (2.1)	24 (1.2)	127 (2.1)
ALASKA†	24 (1.2)	157 (3.4)	45 (1.9)	154 (1.6)	19 (1.2)	153 (2.5)	12 (0.7)	142 (2.5)
ARIZONA	20 (0.9)	150 (2.1)	45 (1.0)	150 (1.5)	21 (0.9)	142 (1.9)	14 (1.0)	132 (2.8)
ARKANSAS†	13 (0.9)	147 (3.6)	40 (1.4)	151 (1.3)	26 (1.2)	147 (1.9)	21 (1.2)	128 (2.2)
CALIFORNIA	17 (1.0)	147 (3.7)	45 (1.2)	140 (1.9)	25 (1.1)	135 (2.0)	13 (0.9)	127 (3.1)
COLORADO	24 (0.9)	160 (1.5)	46 (1.1)	157 (1.0)	20 (0.9)	151 (1.9)	10 (0.7)	141 (2.3)
CONNECTICUT	20 (0.9)	165 (2.3)	44 (0.9)	161 (1.2)	21 (0.9)	149 (1.7)	14 (0.9)	134 (2.4)
DELAWARE	12 (0.8)	147 (2.7)	38 (1.2)	148 (1.2)	27 (1.2)	146 (1.4)	23 (1.2)	125 (2.3)
DISTRICT OF COLUMBIA	11 (0.7)	119 (3.2)	27 (1.2)	118 (2.2)	25 (1.2)	117 (1.4)	38 (1.1)	107 (1.3)
FLORIDA	15 (0.8)	143 (3.0)	40 (1.3)	149 (1.9)	27 (1.1)	142 (1.6)	18 (1.4)	130 (2.3)
GEORGIA	14 (0.8)	151 (2.6)	38 (1.1)	148 (1.6)	26 (1.0)	141 (1.8)	22 (1.0)	126 (1.7)
HAWAII	18 (1.0)	134 (2.0)	40 (1.1)	140 (1.3)	23 (1.1)	138 (1.4)	19 (0.8)	124 (1.6)
INDIANA	16 (0.7)	164 (2.1)	45 (1.1)	158 (1.5)	24 (1.0)	150 (1.6)	14 (1.0)	132 (2.5)
IOWA†	16 (1.0)	166 (2.1)	50 (1.3)	160 (1.3)	23 (1.1)	157 (1.4)	10 (0.8)	141 (2.9)
KENTUCKY	13 (1.1)	149 (3.4)	43 (1.2)	152 (1.4)	26 (1.0)	148 (1.6)	18 (1.3)	136 (2.2)
LOUISIANA	12 (0.6)	135 (2.9)	34 (1.1)	139 (1.9)	27 (0.9)	138 (1.9)	27 (1.0)	120 (2.0)
MAINE	24 (1.2)	169 (1.9)	46 (1.2)	164 (1.1)	20 (1.1)	159 (1.4)	10 (0.7)	151 (2.4)
MARYLAND†	13 (0.9)	156 (2.9)	38 (1.3)	153 (1.8)	27 (1.0)	144 (1.7)	21 (1.1)	128 (1.8)
MASSACHUSETTS	21 (1.4)	170 (1.8)	47 (1.4)	159 (1.3)	21 (1.0)	152 (2.0)	11 (0.9)	136 (3.1)
MICHIGAN†	17 (1.1)	162 (3.4)	45 (1.3)	158 (1.3)	23 (1.3)	150 (1.7)	15 (1.1)	137 (2.8)
MINNESOTA	22 (1.1)	165 (2.0)	49 (1.3)	161 (1.2)	19 (0.8)	154 (2.1)	9 (0.9)	143 (2.9)
MISSISSIPPI	12 (0.8)	133 (2.6)	32 (1.0)	140 (2.0)	27 (1.0)	137 (1.6)	29 (1.1)	123 (1.9)
MISSOURI	14 (0.8)	156 (2.1)	43 (1.1)	156 (1.3)	28 (1.1)	150 (1.4)	15 (0.9)	138 (2.0)
MONTANA†	23 (1.0)	167 (1.8)	49 (1.3)	164 (1.3)	19 (1.0)	158 (1.9)	9 (0.7)	148 (3.5)
NEBRASKA	18 (0.9)	164 (1.9)	50 (1.0)	161 (1.0)	23 (0.9)	153 (1.8)	9 (0.6)	136 (2.5)
NEW MEXICO	19 (0.9)	143 (2.3)	44 (1.2)	144 (1.2)	23 (1.0)	139 (1.5)	14 (0.8)	135 (2.0)
NEW YORK†	16 (1.0)	152 (2.4)	44 (1.6)	154 (1.9)	24 (1.3)	144 (2.4)	16 (1.0)	127 (2.5)
NORTH CAROLINA	14 (0.8)	157 (2.5)	41 (1.2)	152 (1.3)	27 (1.0)	145 (1.4)	18 (0.9)	129 (2.1)
NORTH DAKOTA	18 (0.9)	166 (1.7)	52 (1.0)	164 (1.2)	22 (0.9)	160 (1.3)	8 (0.5)	149 (2.2)
OREGON	24 (1.0)	162 (1.7)	46 (1.2)	157 (1.6)	18 (1.0)	151 (2.3)	12 (1.0)	139 (3.0)
RHODE ISLAND	15 (0.8)	154 (2.0)	47 (1.1)	154 (1.0)	24 (1.0)	147 (1.6)	14 (0.7)	132 (2.0)
SOUTH CAROLINA†	12 (0.9)	149 (2.7)	34 (1.0)	145 (1.9)	25 (1.0)	140 (1.8)	28 (1.3)	125 (1.8)
TENNESSEE	13 (0.8)	140 (3.1)	42 (1.2)	151 (1.9)	26 (1.1)	144 (1.8)	19 (1.2)	128 (2.4)
TEXAS	15 (1.1)	150 (3.2)	42 (1.2)	151 (1.5)	25 (1.1)	145 (1.8)	17 (1.0)	131 (2.5)
UTAH	31 (1.1)	161 (1.1)	48 (1.2)	158 (1.0)	14 (0.6)	150 (1.5)	7 (0.6)	135 (2.8)
VERMONT†	23 (1.2)	165 (1.7)	49 (1.5)	159 (1.3)	19 (0.9)	153 (1.7)	9 (1.1)	141 (3.1)
VIRGINIA	15 (1.0)	160 (2.5)	41 (1.0)	156 (1.5)	24 (1.2)	147 (1.7)	20 (1.0)	132 (2.0)
WASHINGTON	22 (1.2)	156 (1.9)	45 (1.2)	152 (1.3)	21 (1.0)	147 (2.1)	11 (0.8)	135 (2.4)
WEST VIRGINIA	12 (0.7)	147 (2.1)	44 (1.1)	152 (1.1)	25 (1.0)	147 (1.5)	19 (1.0)	138 (1.8)
WISCONSIN†	18 (1.1)	167 (2.1)	47 (1.1)	164 (1.4)	23 (1.0)	158 (1.9)	11 (1.0)	139 (3.5)
WYOMING	24 (1.0)	164 (1.1)	46 (1.1)	159 (0.9)	20 (0.8)	153 (1.4)	10 (0.7)	143 (2.1)
Other Jurisdictions								
DDESS	15 (1.4)	161 (3.2)	37 (2.0)	157 (1.9)	28 (1.7)	153 (1.8)	19 (1.7)	139 (3.0)
DoDDS	17 (0.7)	161 (2.0)	44 (1.2)	159 (1.0)	24 (1.0)	153 (1.6)	15 (0.8)	142 (1.6)
GUAM	21 (1.2)	108 (3.1)	39 (1.6)	123 (1.9)	22 (1.6)	128 (2.4)	18 (1.3)	119 (2.5)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 6.4 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
SCHOOLS' REPORTS ON: Parental Support

THE NATION'S REPORT CARD — 1996 State Assessment

How would you characterize parental support for student achievement within your school?	Somewhat to Very Negative		Somewhat Positive		Very Positive	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	7 (2.6)	154 (2.1)!	61 (5.6)	148 (1.4)	31 (4.7)	151 (3.3)
NORTHEAST	15 (9.4)	... (...)	60 (13.6)	157 (5.8)!	25 (10.4)	131 (4.7)!
SOUTHEAST	0 (...)	... (...)	67 (6.3)	137 (2.3)	33 (6.3)	151 (3.4)!
CENTRAL	10 (6.0)	... (...)	55 (13.4)	154 (3.9)!	34 (11.9)	160 (6.3)!
WEST	6 (3.3)	... (...)	62 (10.3)	147 (2.4)	32 (8.5)	153 (7.1)!
States						
ALABAMA	14 (3.8)	124 (5.4)!	69 (4.5)	139 (2.1)	18 (3.5)	154 (5.2)!
ALASKA†	3 (1.5)	... (...)	51 (3.0)	146 (2.4)	46 (2.8)	158 (2.0)
ARIZONA	6 (2.6)	... (...)	51 (5.6)	140 (2.1)	44 (5.5)	154 (2.3)
ARKANSAS†	10 (3.6)	133 (8.6)!	60 (6.0)	144 (2.5)	30 (5.1)	150 (3.4)
CALIFORNIA	7 (2.8)	135 (5.0)!	53 (4.5)	133 (2.3)	39 (4.5)	143 (3.0)
COLORADO	8 (2.0)	139 (2.9)!	44 (4.5)	150 (1.9)	48 (4.4)	161 (1.2)
CONNECTICUT	3 (1.5)	... (...)	59 (4.6)	151 (2.7)	38 (4.6)	165 (1.7)
DELAWARE	3 (0.1)	... (...)	68 (0.4)	142 (1.1)	28 (0.4)	142 (1.3)
DISTRICT OF COLUMBIA	19 (0.6)	98 (1.8)	52 (0.9)	108 (1.4)	28 (0.7)	130 (2.0)
FLORIDA	10 (3.8)	130 (4.9)!	56 (4.8)	138 (1.8)	34 (4.6)	152 (3.3)
GEORGIA	10 (2.8)	119 (4.9)!	63 (5.7)	141 (2.0)	27 (5.6)	151 (4.0)!
HAWAII	5 (0.2)	... (...)	80 (0.3)	137 (0.9)	14 (0.3)	138 (1.6)
INDIANA	6 (2.5)	140 (9.3)!	52 (6.1)	151 (1.7)	41 (5.6)	159 (2.0)
IOWA†	2 (...)	... (...)	70 (5.2)	156 (1.4)	28 (5.0)	163 (1.5)
KENTUCKY	10 (3.2)	146 (2.1)!	69 (4.7)	146 (1.5)	20 (4.1)	154 (4.9)!
LOUISIANA	25 (4.6)	127 (4.3)!	54 (5.0)	133 (2.4)	21 (4.2)	139 (4.1)!
MAINE	7 (2.6)	160 (4.3)!	70 (3.5)	162 (1.1)	23 (3.2)	166 (2.2)
MARYLAND†	5 (2.3)	... (...)	67 (6.4)	143 (2.2)	28 (6.2)	154 (3.5)!
MASSACHUSETTS	5 (2.1)	148 (2.9)!	61 (5.0)	152 (2.2)	34 (4.7)	168 (2.8)
MICHIGAN†	7 (3.2)	142 (9.4)!	59 (5.7)	150 (2.4)	34 (5.5)	159 (4.8)
MINNESOTA	5 (2.4)	140 (8.2)!	47 (5.4)	158 (1.8)	48 (5.0)	162 (1.8)
MISSISSIPPI	15 (3.6)	127 (2.7)!	67 (4.7)	133 (1.9)	18 (3.4)	140 (3.8)
MISSOURI	9 (3.1)	137 (6.2)!	65 (5.0)	151 (1.9)	25 (4.7)	154 (3.1)
MONTANA†	7 (3.0)	144 (7.4)!	58 (4.9)	162 (1.2)	35 (4.0)	165 (1.4)
NEBRASKA	3 (1.2)	159 (3.3)!	59 (3.4)	157 (1.3)	38 (3.2)	158 (1.8)
NEW MEXICO	12 (2.0)	135 (2.7)	60 (3.5)	139 (1.5)	28 (2.7)	153 (1.5)
NEW YORK†	3 (1.9)	... (...)	65 (6.4)	146 (3.0)	31 (6.3)	152 (4.2)!
NORTH CAROLINA	11 (3.5)	134 (3.0)!	71 (4.9)	147 (1.2)	18 (4.3)	153 (3.4)!
NORTH DAKOTA	2 (1.5)	... (...)	52 (2.6)	162 (1.1)	45 (2.8)	162 (1.2)
OREGON	10 (3.2)	144 (3.6)!	56 (4.8)	153 (2.4)	34 (4.6)	161 (2.1)
RHODE ISLAND	7 (0.4)	... (...)	67 (0.6)	148 (0.9)	26 (0.5)	157 (2.0)
SOUTH CAROLINA†	12 (3.9)	126 (3.6)!	64 (5.9)	139 (2.0)	23 (4.9)	145 (2.6)!
TENNESSEE	7 (2.7)	130 (8.1)!	69 (5.0)	141 (1.9)	25 (4.7)	156 (3.6)
TEXAS	8 (3.2)	118 (12.8)!	60 (5.0)	144 (1.6)	32 (5.1)	158 (2.9)
UTAH	4 (1.5)	... (...)	57 (3.7)	154 (1.2)	39 (3.7)	160 (1.2)
VERMONT†	5 (2.0)	... (...)	63 (2.7)	154 (1.2)	32 (2.3)	163 (1.7)
VIRGINIA	1 (...)	... (...)	61 (4.4)	144 (1.5)	38 (4.4)	160 (2.4)
WASHINGTON	13 (3.6)	136 (4.5)!	47 (4.8)	149 (1.9)	40 (4.4)	156 (2.1)
WEST VIRGINIA	11 (3.1)	146 (2.0)!	66 (4.6)	146 (1.3)	23 (3.7)	150 (1.8)
WISCONSIN†	5 (2.5)	153 (8.3)!	59 (6.1)	158 (2.4)	36 (6.0)	165 (2.1)
WYOMING	5 (0.1)	... (...)	74 (0.7)	157 (0.8)	21 (0.7)	158 (1.1)
Other Jurisdictions						
DDESS	0 (...)	... (...)	52 (1.0)	147 (1.6)	48 (1.0)	157 (2.1)
DoDDS	1 (0.3)	... (...)	67 (0.6)	152 (1.0)	32 (0.6)	161 (1.2)
GUAM	44 (0.8)*	119 (2.2)	56 (0.8)*	125 (1.5)	0 (...)*	... (...)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.
* Interpret with caution — more than 15 percent of the respondents did not answer this question.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 6.5 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
STUDENTS' REPORTS ON: Mobility

THE NATION'S REPORT CARD — 1996 State Assessment

Since you started first grade, how many times have you changed schools, not counting when you were promoted to the next grade?

JURISDICTIONS	None		One		Two	
	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	44 (1.2)	153 (1.3)	19 (0.8)	154 (1.4)	10 (0.4)	145 (1.4)
NORTHEAST	51 (4.2)	156 (3.0)	18 (2.9)	152 (2.9)!	10 (1.3)	146 (4.8)
SOUTHEAST	44 (2.7)	145 (2.7)	18 (0.9)	148 (2.6)	11 (0.8)	140 (3.1)
CENTRAL	48 (2.6)	160 (3.7)	22 (2.2)	159 (2.9)	10 (0.7)	152 (3.0)
WEST	37 (1.3)	152 (2.4)	20 (0.8)	154 (2.9)	10 (0.7)	144 (3.0)
States						
ALABAMA	44 (1.4)	140 (1.8)	22 (0.8)	141 (2.5)	9 (0.7)	136 (3.6)
ALASKA†	31 (1.3)	154 (2.6)	18 (1.3)	154 (2.8)	11 (1.1)	157 (2.2)
ARIZONA	31 (1.3)	146 (1.9)	21 (1.2)	152 (2.2)	11 (0.6)	143 (2.9)
ARKANSAS†	46 (1.7)	145 (1.7)	18 (1.1)	150 (2.2)	8 (0.5)	140 (3.5)
CALIFORNIA	35 (1.7)	142 (2.3)	21 (1.1)	145 (3.4)	11 (0.6)	137 (3.2)
COLORADO	34 (1.3)	159 (1.3)	20 (0.7)	158 (1.6)	12 (0.7)	152 (2.0)
CONNECTICUT	51 (1.4)	162 (1.1)	21 (0.9)	156 (2.1)	9 (0.7)	143 (2.8)
DELAWARE	40 (1.2)	148 (1.5)	20 (1.2)	147 (1.9)	9 (0.7)	135 (3.2)
DISTRICT OF COLUMBIA	37 (1.4)	118 (1.4)	20 (0.9)	115 (2.3)	12 (0.9)	109 (2.1)
FLORIDA	29 (1.2)	141 (1.8)	21 (1.1)	148 (2.7)	12 (0.8)	141 (4.4)
GEORGIA	37 (1.3)	143 (1.9)	20 (0.9)	146 (2.2)	11 (0.7)	140 (2.5)
HAWAII	44 (1.2)	135 (1.2)	20 (0.9)	136 (1.8)	10 (0.8)	135 (3.0)
INDIANA	47 (1.4)	157 (1.5)	20 (1.0)	153 (2.0)	9 (0.7)	150 (3.0)
IOWA†	52 (1.6)	162 (1.3)	20 (1.3)	159 (1.8)	9 (0.8)	152 (3.8)
KENTUCKY	47 (1.6)	150 (1.4)	18 (0.9)	150 (3.0)	9 (0.6)	149 (2.4)
LOUISIANA	42 (1.4)	134 (1.7)	18 (0.9)	133 (2.3)	10 (0.6)	137 (2.8)
MAINE	53 (1.1)	166 (1.1)	18 (1.0)	166 (1.9)	8 (0.6)	159 (2.6)
MARYLAND†	38 (1.5)	152 (2.0)	22 (1.0)	149 (2.3)	12 (0.7)	144 (2.8)
MASSACHUSETTS	52 (1.4)	162 (1.3)	20 (0.9)	159 (1.9)	9 (0.6)	148 (3.3)
MICHIGAN†	47 (1.3)	158 (1.6)	21 (1.4)	157 (1.9)	9 (0.8)	146 (3.7)
MINNESOTA	50 (1.6)	163 (1.3)	21 (1.1)	160 (2.1)	9 (0.8)	156 (2.9)
MISSISSIPPI	50 (1.2)	133 (1.6)	18 (0.7)	133 (2.5)	8 (0.7)	133 (3.3)
MISSOURI	42 (1.1)	156 (1.2)	21 (0.8)	156 (1.9)	10 (0.7)	148 (3.0)
MONTANA†	43 (1.5)	166 (1.7)	19 (1.0)	163 (1.9)	10 (0.7)	161 (2.3)
NEBRASKA	49 (1.2)	161 (1.0)	19 (0.8)	161 (1.9)	10 (0.6)	153 (2.4)
NEW MEXICO	37 (1.4)	141 (1.5)	21 (0.9)	142 (1.6)	11 (0.6)	141 (2.4)
NEW YORK†	54 (2.1)	151 (1.6)	20 (1.2)	151 (2.2)	8 (0.8)	136 (4.4)
NORTH CAROLINA	39 (1.4)	149 (1.5)	21 (1.2)	150 (2.0)	10 (0.7)	146 (2.9)
NORTH DAKOTA	55 (1.1)	165 (1.0)	18 (0.9)	164 (1.7)	7 (0.5)	156 (2.7)
OREGON	37 (1.3)	159 (1.7)	21 (1.0)	157 (1.9)	11 (0.7)	152 (3.2)
RHODE ISLAND	47 (1.1)	153 (1.1)	21 (1.0)	153 (1.7)	10 (0.6)	141 (2.9)
SOUTH CAROLINA†	44 (1.4)	139 (1.9)	18 (0.7)	141 (2.6)	9 (0.6)	136 (3.1)
TENNESSEE	43 (1.6)	147 (1.6)	20 (0.9)	145 (3.2)	11 (0.7)	142 (3.2)
TEXAS	35 (1.1)	147 (1.6)	17 (0.7)	153 (1.9)	13 (0.7)	143 (2.4)
UTAH	44 (1.1)	159 (1.0)	20 (0.8)	159 (1.4)	10 (0.7)	153 (2.4)
VERMONT†	54 (1.3)	161 (1.0)	19 (0.8)	159 (1.6)	7 (0.7)	155 (4.1)
VIRGINIA	41 (1.7)	150 (1.8)	20 (1.0)	155 (2.2)	11 (0.7)	151 (3.1)
WASHINGTON	37 (1.5)	153 (1.9)	21 (0.9)	154 (1.8)	11 (0.7)	150 (2.8)
WEST VIRGINIA	51 (1.2)	149 (1.1)	18 (0.7)	147 (1.5)	8 (0.6)	147 (2.8)
WISCONSIN†	49 (1.6)	165 (1.3)	21 (0.9)	161 (1.6)	8 (0.5)	158 (3.0)
WYOMING	42 (0.9)	161 (0.9)	19 (0.7)	162 (1.4)	9 (0.5)	156 (2.3)
Other Jurisdictions						
DDESS	10 (1.3)	... (...)	7 (1.1)	... (...)	8 (1.2)	... (...)
DoDDS	6 (0.5)	151 (3.2)	10 (0.6)	155 (2.0)	10 (0.6)	153 (2.3)
GUAM	43 (1.6)	118 (1.8)	17 (1.3)	122 (2.6)	10 (1.0)	125 (3.4)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.
! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 6.5 *(continued)* **1996 Science Assessment**

POPULATION: 1996 Grade 8 Public School Students

REPORTED STATISTICS: Percentage of Students and Average Science Scale Score

STUDENTS' REPORTS ON: Mobility

THE NATION'S REPORT CARD 1996 State Assessment

Since you started first grade, how many times have you changed schools, not counting when you were promoted to the next grade?	Three		Four or Five		Six or More	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	11 (0.6)	141 (2.3)	10 (0.5)	142 (1.7)	6 (0.3)	141 (2.0)
NORTHEAST	9 (1.8)	142 (6.2)!	8 (1.3)	130 (3.9)	4 (0.6)	... (...)
SOUTHEAST	11 (0.9)	131 (2.1)	11 (0.7)	135 (2.7)	6 (0.6)	138 (3.4)
CENTRAL	8 (0.8)	145 (4.3)	8 (1.2)	147 (3.5)	5 (0.8)	... (...)
WEST	14 (1.2)	145 (4.6)	12 (0.8)	149 (2.9)	7 (0.6)	140 (3.4)
States						
ALABAMA	9 (0.7)	138 (3.5)	10 (0.7)	140 (3.0)	6 (0.6)	133 (3.2)
ALASKA†	13 (1.0)	154 (2.8)	16 (0.9)	151 (2.4)	11 (0.8)	151 (2.8)
ARIZONA	13 (1.0)	141 (2.8)	16 (0.9)	148 (2.3)	7 (0.7)	138 (3.5)
ARKANSAS†	11 (0.9)	145 (2.7)	11 (0.7)	142 (2.9)	7 (0.7)	138 (3.9)
CALIFORNIA	14 (0.9)	134 (2.7)	13 (0.7)	134 (3.0)	6 (0.6)	135 (4.0)
COLORADO	11 (0.6)	153 (1.9)	14 (0.7)	148 (2.0)	8 (0.5)	152 (2.4)
CONNECTICUT	7 (0.4)	141 (3.4)	8 (0.6)	147 (3.3)	4 (0.4)	138 (5.4)
DELAWARE	11 (0.8)	134 (3.3)	14 (0.8)	137 (2.7)	6 (0.5)	124 (4.1)
DISTRICT OF COLUMBIA	13 (0.9)	108 (2.8)	13 (0.9)	114 (2.1)	5 (0.6)	113 (4.0)
FLORIDA	15 (0.9)	142 (3.2)	16 (0.8)	141 (1.7)	7 (0.5)	142 (3.5)
GEORGIA	11 (0.7)	144 (2.9)	13 (1.0)	140 (2.9)	7 (0.6)	135 (3.0)
HAWAII	10 (0.6)	138 (2.6)	11 (0.7)	136 (2.9)	5 (0.5)	135 (4.3)
INDIANA	9 (0.7)	149 (2.6)	9 (0.8)	146 (2.9)	5 (0.4)	151 (3.3)
IOWA†	8 (0.7)	149 (2.9)	7 (0.6)	153 (2.9)	4 (0.4)	151 (3.5)
KENTUCKY	9 (0.6)	147 (2.4)	10 (0.7)	140 (2.5)	7 (0.7)	137 (3.1)
LOUISIANA	11 (0.6)	134 (3.0)	12 (0.7)	130 (2.6)	6 (0.7)	130 (3.9)
MAINE	8 (0.5)	160 (2.3)	8 (0.6)	155 (3.2)	6 (0.4)	148 (3.5)
MARYLAND†	11 (0.7)	140 (2.8)	11 (0.8)	139 (2.2)	5 (0.5)	134 (3.9)
MASSACHUSETTS	8 (0.7)	148 (3.4)	8 (0.5)	148 (3.1)	3 (0.4)	138 (4.2)
MICHIGAN†	9 (0.8)	149 (2.7)	9 (0.6)	141 (2.7)	4 (0.5)	142 (4.0)
MINNESOTA	9 (0.7)	151 (3.3)	7 (0.6)	151 (3.0)	4 (0.4)	150 (3.9)
MISSISSIPPI	9 (0.7)	133 (2.8)	9 (0.6)	136 (2.6)	5 (0.5)	130 (4.0)
MISSOURI	10 (0.7)	146 (2.1)	11 (0.6)	145 (2.0)	7 (0.7)	139 (3.4)
MONTANA†	11 (0.7)	156 (2.4)	11 (0.8)	158 (2.3)	6 (0.7)	155 (3.4)
NEBRASKA	9 (0.6)	152 (2.3)	9 (0.5)	152 (3.0)	5 (0.4)	139 (2.8)
NEW MEXICO	12 (0.7)	141 (2.4)	13 (0.8)	145 (2.0)	7 (0.7)	141 (2.8)
NEW YORK†	8 (0.7)	134 (3.2)	7 (0.8)	140 (3.6)	4 (0.6)	... (...)
NORTH CAROLINA	11 (0.6)	145 (1.8)	12 (0.8)	142 (2.2)	6 (0.5)	140 (3.2)
NORTH DAKOTA	8 (0.6)	157 (2.5)	8 (0.7)	157 (2.7)	4 (0.4)	150 (4.2)
OREGON	10 (0.7)	150 (3.1)	13 (0.7)	153 (2.5)	8 (0.6)	147 (3.2)
RHODE ISLAND	10 (0.8)	142 (2.4)	8 (0.6)	145 (2.5)	4 (0.4)	134 (4.0)
SOUTH CAROLINA†	10 (0.8)	137 (2.7)	11 (0.6)	141 (2.6)	8 (0.8)	138 (3.4)
TENNESSEE	10 (0.6)	139 (3.1)	10 (0.7)	141 (3.0)	6 (0.7)	135 (3.3)
TEXAS	13 (0.7)	143 (2.6)	14 (1.0)	144 (2.6)	8 (0.8)	145 (2.8)
UTAH	10 (0.6)	154 (2.1)	11 (0.6)	153 (2.2)	5 (0.4)	144 (4.0)
VERMONT†	9 (0.7)	151 (3.4)	7 (0.7)	150 (3.8)	4 (0.4)	140 (4.2)
VIRGINIA	12 (0.6)	146 (2.6)	11 (0.7)	149 (3.2)	5 (0.7)	145 (3.1)
WASHINGTON	11 (0.8)	146 (2.3)	12 (0.9)	145 (2.3)	9 (0.7)	143 (2.7)
WEST VIRGINIA	9 (0.7)	144 (2.1)	10 (0.7)	145 (2.0)	4 (0.4)	138 (3.2)
WISCONSIN†	10 (0.8)	149 (3.8)	8 (0.7)	146 (3.8)	4 (0.4)	147 (3.2)
WYOMING	11 (0.8)	154 (1.7)	12 (0.6)	154 (1.8)	7 (0.5)	145 (2.2)
Other Jurisdictions						
DDESS	15 (1.4)	158 (2.6)	37 (1.6)	154 (1.8)	23 (1.9)	152 (2.4)
DoDDS	20 (1.1)	154 (1.5)	34 (1.0)	158 (1.3)	20 (0.9)	157 (1.9)
GUAM	12 (1.0)	124 (3.8)	12 (1.0)	133 (3.9)	7 (0.7)	... (...)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

... Characteristics of the sample do not permit a reliable estimate.

! Interpret with caution — the nature of the sample does not allow accurate determination of the variability of this statistic.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 6.6 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
STUDENTS' REPORTS ON: The Usefulness of Science

THE NATION'S REPORT CARD 1996 State Assessment

To what degree do you agree with the statement: "Science is useful for solving everyday problems?"	Disagree		Not Sure		Agree	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	25 (1.0)	139 (1.5)	35 (0.7)	150 (0.9)	40 (1.1)	155 (1.1)
NORTHEAST	20 (2.3)	142 (5.0)	34 (2.4)	150 (3.1)	46 (2.7)	152 (2.9)
SOUTHEAST	25 (1.4)	132 (2.7)	37 (1.0)	142 (2.0)	38 (1.9)	147 (1.9)
CENTRAL	24 (3.0)	141 (3.1)	33 (1.3)	154 (2.3)	43 (3.1)	165 (2.6)
WEST	28 (1.6)	140 (2.9)	35 (1.3)	152 (2.0)	37 (1.4)	153 (3.0)
States						
ALABAMA	24 (1.0)	131 (2.2)	35 (1.2)	140 (2.2)	41 (1.2)	142 (1.8)
ALASKA†	25 (1.3)	143 (2.8)	37 (1.5)	153 (2.0)	38 (1.4)	160 (1.6)
ARIZONA	24 (1.1)	140 (1.9)	40 (1.3)	144 (1.7)	37 (1.2)	152 (2.2)
ARKANSAS†	21 (1.1)	134 (1.9)	38 (1.2)	144 (1.9)	41 (1.2)	150 (1.6)
CALIFORNIA	27 (1.1)	132 (2.2)	38 (1.1)	138 (2.2)	36 (1.1)	144 (2.3)
COLORADO	26 (1.1)	146 (1.6)	37 (1.0)	155 (1.2)	37 (0.9)	161 (1.2)
CONNECTICUT	26 (1.1)	146 (1.9)	33 (1.0)	153 (1.4)	41 (1.0)	164 (1.5)
DELAWARE	25 (1.0)	133 (1.9)	36 (1.1)	145 (1.5)	39 (1.2)	146 (1.6)
DISTRICT OF COLUMBIA	22 (1.1)	105 (1.9)	30 (1.4)	110 (1.2)	48 (1.4)	120 (1.1)
FLORIDA	26 (1.0)	138 (1.8)	37 (1.1)	143 (2.2)	36 (1.3)	146 (1.9)
GEORGIA	24 (1.2)	136 (2.3)	37 (1.0)	142 (1.7)	40 (1.4)	145 (1.7)
HAWAII	19 (1.0)	125 (2.2)	42 (1.2)	134 (1.1)	39 (1.3)	141 (1.5)
INDIANA	24 (1.2)	143 (1.8)	37 (1.1)	151 (1.6)	39 (1.6)	161 (1.6)
IOWA†	22 (1.0)	148 (1.8)	38 (1.1)	157 (1.6)	40 (1.7)	166 (1.2)
KENTUCKY	21 (0.8)	139 (1.6)	36 (1.0)	147 (1.8)	43 (1.1)	152 (1.5)
LOUISIANA	27 (1.1)	127 (1.9)	34 (1.0)	134 (2.0)	40 (1.2)	136 (2.1)
MAINE	21 (0.7)	153 (1.9)	36 (1.2)	161 (1.3)	43 (1.2)	169 (1.3)
MARYLAND†	23 (1.2)	138 (2.0)	35 (1.2)	145 (1.8)	42 (1.3)	150 (2.0)
MASSACHUSETTS	21 (1.1)	146 (2.0)	35 (1.0)	156 (1.6)	43 (1.1)	164 (1.6)
MICHIGAN†	22 (1.2)	143 (1.8)	37 (1.1)	154 (1.6)	41 (1.5)	159 (1.9)
MINNESOTA	22 (1.3)	147 (1.7)	37 (1.1)	157 (1.7)	41 (1.5)	167 (1.4)
MISSISSIPPI	25 (1.0)	127 (1.7)	33 (1.0)	136 (2.0)	41 (1.2)	135 (1.5)
MISSOURI	25 (1.2)	145 (1.8)	35 (1.0)	151 (1.5)	39 (1.2)	156 (1.3)
MONTANA†	21 (1.3)	155 (1.8)	36 (0.8)	161 (1.9)	43 (1.3)	167 (1.3)
NEBRASKA	20 (0.9)	147 (1.6)	37 (1.2)	157 (1.3)	43 (1.2)	163 (1.2)
NEW MEXICO	23 (0.9)	132 (2.1)	37 (1.0)	139 (1.4)	40 (1.2)	149 (1.4)
NEW YORK†	27 (1.1)	139 (2.0)	33 (1.3)	147 (1.9)	40 (1.6)	152 (2.3)
NORTH CAROLINA	23 (0.8)	140 (1.6)	35 (1.1)	147 (1.6)	43 (1.4)	151 (1.4)
NORTH DAKOTA	21 (0.9)	151 (1.6)	33 (1.1)	161 (1.4)	45 (1.2)	168 (1.2)
OREGON	26 (1.0)	146 (2.3)	36 (1.0)	154 (1.9)	38 (1.1)	162 (1.7)
RHODE ISLAND	28 (1.0)	143 (1.4)	36 (0.9)	147 (1.2)	36 (1.1)	156 (1.2)
SOUTH CAROLINA†	23 (1.4)	130 (1.8)	33 (1.1)	140 (1.9)	44 (1.8)	142 (1.8)
TENNESSEE	24 (1.1)	136 (2.5)	37 (1.2)	142 (1.8)	40 (1.3)	150 (1.9)
TEXAS	24 (0.9)	141 (2.1)	38 (1.0)	145 (1.6)	38 (1.3)	151 (1.7)
UTAH	21 (0.8)	147 (1.6)	35 (1.0)	154 (1.4)	44 (1.2)	162 (1.1)
VERMONT†	23 (1.2)	149 (1.6)	34 (1.4)	154 (1.3)	44 (1.3)	164 (1.5)
VIRGINIA	26 (1.1)	141 (1.8)	34 (1.0)	150 (1.7)	40 (1.4)	156 (1.6)
WASHINGTON	28 (1.4)	140 (1.6)	34 (1.1)	150 (1.5)	37 (1.2)	158 (1.9)
WEST VIRGINIA	22 (0.9)	138 (1.6)	36 (0.9)	147 (1.2)	42 (1.1)	153 (1.0)
WISCONSIN†	23 (1.3)	153 (2.2)	35 (1.2)	159 (1.5)	41 (1.7)	166 (1.9)
WYOMING	25 (0.7)	148 (1.3)	35 (0.9)	157 (1.1)	40 (0.9)	165 (1.0)
Other Jurisdictions						
DDESS	24 (1.7)	149 (2.5)	37 (1.9)	151 (1.9)	39 (1.6)	157 (2.0)
DoDDS	27 (0.8)	151 (1.2)	39 (1.0)	155 (1.1)	34 (1.1)	159 (1.2)
GUAM	22 (1.5)	113 (2.5)	45 (1.8)	119 (1.9)	33 (1.3)	127 (2.2)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 6.7 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students and Average Science Scale Score
STUDENTS' REPORTS ON: Their Views that Learning Science is Mostly Memorizing

THE NATION'S REPORT CARD — 1996 State Assessment

To what degree do you agree with the statement: "Learning science is mostly memorizing?"	Disagree		Not Sure		Agree	
JURISDICTIONS	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)	PCT (SE)	SS (SE)
Nation						
NATION	30 (0.8)	150 (1.3)	37 (0.5)	148 (1.1)	33 (0.9)	149 (1.1)
NORTHEAST	32 (3.0)	151 (3.9)	33 (1.4)	150 (3.3)	35 (3.3)	148 (3.1)
SOUTHEAST	29 (1.8)	143 (2.5)	38 (1.3)	141 (2.0)	33 (1.4)	141 (2.3)
CENTRAL	30 (1.7)	155 (3.3)	38 (1.3)	155 (2.6)	32 (1.8)	156 (3.1)
WEST	30 (0.8)	150 (2.4)	39 (0.6)	147 (2.5)	31 (0.9)	150 (2.3)
States						
ALABAMA	25 (1.1)	140 (2.1)	33 (1.1)	134 (2.0)	41 (1.1)	142 (1.9)
ALASKA†	29 (1.3)	156 (2.1)	42 (1.2)	152 (1.4)	29 (1.4)	151 (2.7)
ARIZONA	28 (1.2)	150 (2.4)	40 (1.5)	142 (1.8)	33 (1.7)	147 (1.9)
ARKANSAS†	25 (1.0)	143 (2.2)	37 (1.1)	143 (1.7)	39 (1.1)	147 (1.8)
CALIFORNIA	28 (1.3)	142 (1.7)	37 (1.1)	137 (2.3)	34 (1.2)	138 (2.2)
COLORADO	29 (1.2)	156 (1.5)	41 (1.1)	153 (1.4)	30 (1.1)	156 (1.3)
CONNECTICUT	36 (1.1)	162 (1.4)	34 (1.1)	153 (1.6)	30 (1.2)	151 (1.9)
DELAWARE	31 (1.3)	141 (1.8)	37 (1.3)	142 (1.1)	32 (1.3)	144 (1.4)
DISTRICT OF COLUMBIA	25 (1.2)	116 (2.0)	35 (1.0)	111 (1.8)	39 (1.2)	115 (1.3)
FLORIDA	26 (1.1)	144 (2.4)	35 (1.1)	140 (2.0)	39 (1.3)	144 (1.8)
GEORGIA	26 (0.8)	145 (2.0)	36 (1.0)	139 (2.0)	39 (1.1)	142 (1.5)
HAWAII	27 (0.8)	137 (1.8)	47 (1.1)	133 (1.2)	25 (0.9)	136 (1.5)
INDIANA	30 (1.5)	152 (2.3)	37 (1.2)	154 (1.4)	33 (1.4)	153 (1.6)
IOWA†	30 (1.3)	158 (1.8)	40 (0.9)	157 (1.3)	30 (1.2)	161 (1.5)
KENTUCKY	28 (1.0)	149 (1.8)	39 (1.1)	145 (1.9)	33 (1.2)	149 (1.4)
LOUISIANA	29 (0.9)	132 (2.1)	31 (1.0)	134 (1.8)	40 (1.2)	133 (1.8)
MAINE	38 (1.3)	166 (1.6)	36 (1.1)	161 (1.2)	26 (1.0)	162 (1.4)
MARYLAND†	32 (1.3)	150 (2.6)	34 (1.5)	143 (1.9)	34 (1.3)	144 (1.7)
MASSACHUSETTS	38 (1.3)	165 (1.7)	34 (1.2)	153 (1.8)	28 (1.1)	152 (1.8)
MICHIGAN†	32 (1.1)	157 (2.0)	38 (0.9)	153 (1.6)	31 (1.1)	151 (1.8)
MINNESOTA	33 (1.0)	159 (1.7)	39 (1.2)	157 (1.7)	28 (1.2)	161 (1.6)
MISSISSIPPI	27 (1.1)	137 (1.7)	32 (1.2)	132 (2.1)	42 (1.3)	131 (1.7)
MISSOURI	29 (1.1)	151 (1.7)	38 (1.2)	152 (1.5)	34 (1.0)	152 (1.5)
MONTANA†	33 (1.4)	165 (1.4)	35 (1.2)	159 (2.0)	32 (1.2)	163 (1.4)
NEBRASKA	31 (1.2)	159 (1.7)	38 (1.3)	156 (1.2)	32 (1.1)	159 (1.3)
NEW MEXICO	29 (1.1)	142 (1.4)	40 (1.2)	139 (1.5)	31 (1.1)	144 (1.4)
NEW YORK†	32 (1.7)	150 (1.9)	35 (1.2)	147 (2.1)	33 (1.6)	142 (2.5)
NORTH CAROLINA	30 (1.0)	150 (1.7)	33 (1.0)	145 (1.5)	37 (1.0)	146 (1.4)
NORTH DAKOTA	32 (1.0)	163 (1.3)	34 (1.3)	160 (1.4)	34 (1.1)	163 (1.2)
OREGON	32 (1.3)	156 (2.1)	38 (1.1)	151 (1.8)	31 (1.4)	158 (1.6)
RHODE ISLAND	33 (1.1)	152 (1.4)	37 (1.2)	147 (1.4)	30 (1.2)	149 (1.4)
SOUTH CAROLINA†	28 (1.0)	140 (2.0)	33 (1.1)	134 (2.1)	39 (1.1)	142 (1.9)
TENNESSEE	27 (1.3)	145 (2.5)	36 (1.0)	141 (1.9)	37 (1.0)	146 (1.8)
TEXAS	31 (1.1)	149 (2.1)	37 (1.1)	144 (1.6)	32 (1.1)	146 (1.7)
UTAH	30 (0.8)	156 (1.4)	39 (1.0)	155 (1.2)	31 (0.9)	157 (1.0)
VERMONT†	35 (1.3)	161 (1.5)	37 (1.1)	155 (1.4)	27 (1.4)	155 (1.9)
VIRGINIA	30 (1.1)	148 (2.0)	35 (1.0)	150 (1.8)	34 (1.0)	151 (1.7)
WASHINGTON	34 (1.1)	150 (1.8)	38 (1.0)	148 (1.6)	29 (1.1)	153 (1.8)
WEST VIRGINIA	32 (0.8)	149 (1.3)	37 (0.9)	146 (1.5)	31 (1.0)	148 (1.0)
WISCONSIN†	32 (1.0)	161 (1.9)	42 (1.1)	159 (1.7)	27 (1.1)	161 (2.1)
WYOMING	33 (1.0)	155 (1.5)	35 (1.1)	158 (1.1)	31 (0.9)	159 (1.0)
Other Jurisdictions						
DDESS	33 (1.9)	156 (2.2)	34 (1.8)	150 (1.9)	33 (2.2)	153 (2.1)
DoDDS	30 (0.9)	157 (1.3)	37 (1.0)	154 (1.0)	33 (1.0)	155 (1.3)
GUAM	20 (1.4)	124 (2.6)	45 (1.6)	120 (1.9)	35 (1.3)	119 (2.1)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

Chapter 7

Teacher Preparation

Overview

Chapter 7 provides data from questionnaires completed by science teachers regarding their background and training, including their experience, certification, undergraduate and graduate course work in science and recent courses that they have taken in science or science education. Teachers were asked about their professional development activities in the use of technology and science instruction techniques as well as membership in professional organizations. Such data provide insight into the academic preparation of the instructors who teach science to the students who were assessed.

The teachers' responses were linked to their students, and the data reported are the percentages of students taught by teachers with particular characteristics.

TABLE 7.1 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students
TEACHERS' REPORTS ON: Their Highest Academic Degree

THE NATION'S REPORT CARD 1996 State Assessment

What is the highest academic degree you hold?	Bachelor's Degree	Master's Degree	Educational Specialist's or Professional Diploma	Doctorate or Professional Degree
JURISDICTIONS	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)
Nation				
NATION	55 (4.2)	34 (4.0)	9 (3.4)	1 (0.5)
NORTHEAST	56 (13.2)	39 (13.2)	3 (2.0)	1 (0.5)
SOUTHEAST	45 (7.0)	37 (5.8)	15 (9.2)	3 (1.6)
CENTRAL	47 (10.9)	33 (8.6)	20 (11.1)	0 (...)
WEST	67 (5.9)	31 (5.9)	2 (1.2)	0 (...)
States				
ALABAMA	46 (4.4)	46 (4.3)	8 (2.3)	0 (...)
ALASKA†	59 (2.4)	37 (2.4)	2 (0.3)	2 (0.5)
ARIZONA	57 (5.0)	39 (4.8)	4 (1.6)	0 (...)
ARKANSAS†	70 (4.7)	28 (4.6)	2 (...)	1 (...)
CALIFORNIA	68 (3.5)	25 (3.4)	5 (1.5)	2 (1.0)
COLORADO	45 (3.5)	48 (3.7)	5 (1.8)	2 (1.1)
CONNECTICUT	23 (3.5)	50 (3.9)	26 (3.0)	1 (0.3)
DELAWARE	51 (0.9)	38 (1.0)	8 (0.6)	2 (0.1)
DISTRICT OF COLUMBIA	27 (1.2)	56 (1.4)	14 (0.9)	2 (0.6)
FLORIDA	63 (3.7)	32 (3.5)	4 (1.3)	1 (0.5)
GEORGIA	55 (3.8)	36 (3.6)	9 (2.2)	0 (...)
HAWAII	70 (0.9)	11 (0.6)	18 (0.7)	0 (...)
INDIANA	39 (4.7)	55 (4.8)	6 (1.9)	0 (...)
IOWA†	56 (5.4)	42 (5.4)	2 (0.8)	1 (0.2)
KENTUCKY	34 (4.2)	46 (4.4)	20 (3.2)	0 (...)
LOUISIANA	66 (4.3)	21 (3.1)	13 (3.6)	0 (...)
MAINE	67 (3.8)	23 (2.9)	9 (2.9)	0 (...)
MARYLAND†	51 (4.3)	42 (4.1)	5 (1.8)	2 (1.3)
MASSACHUSETTS	39 (3.9)	49 (4.4)	11 (2.5)	2 (0.9)
MICHIGAN†	55 (3.5)	38 (3.5)	7 (2.4)	0 (...)
MINNESOTA	53 (4.0)	40 (4.3)	3 (1.0)	4 (...)
MISSISSIPPI	65 (4.2)	30 (4.3)	5 (1.6)	0 (...)
MISSOURI	52 (4.1)	43 (4.0)	4 (1.4)	0 (...)
MONTANA†	71 (3.2)	28 (3.1)	0 (...)	1 (0.2)
NEBRASKA	58 (3.7)	39 (3.4)	3 (1.2)	0 (...)
NEW MEXICO	56 (2.3)	40 (2.1)	3 (0.6)	0 (...)
NEW YORK†	25 (2.9)	64 (3.2)	10 (2.5)	1 (0.6)
NORTH CAROLINA	62 (3.5)	35 (3.5)	2 (0.9)	1 (...)
NORTH DAKOTA	88 (1.8)	10 (1.3)	2 (...)	0 (...)
OREGON	48 (4.2)	45 (3.9)	7 (2.4)	0 (...)
RHODE ISLAND	50 (1.1)	46 (1.1)	4 (0.3)	0 (...)
SOUTH CAROLINA†	52 (4.1)	30 (4.2)	17 (2.8)	1 (...)
TENNESSEE	59 (4.5)	34 (4.3)	7 (2.2)	0 (...)
TEXAS	77 (2.7)	20 (2.6)	1 (0.7)	1 (0.7)
UTAH	71 (2.6)	24 (2.5)	2 (0.4)	3 (0.4)
VERMONT†	57 (2.9)	33 (2.1)	5 (1.8)	4 (0.7)
VIRGINIA	58 (3.4)	37 (3.3)	4 (1.1)	1 (0.4)
WASHINGTON	51 (3.7)	47 (3.8)	3 (1.2)	0 (...)
WEST VIRGINIA	53 (3.7)	33 (3.6)	13 (2.4)	1 (...)
WISCONSIN†	57 (4.1)	38 (4.2)	4 (1.7)	0 (...)
WYOMING	61 (1.1)	32 (0.9)	6 (0.3)	1 (...)
Other Jurisdictions				
DDESS	37 (1.5)	52 (1.4)	11 (0.8)	0 (...)
DoDDS	37 (0.7)	54 (0.8)	5 (0.2)	5 (0.2)
GUAM	100 (...)	0 (...)	0 (...)	0 (...)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 7.2 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students
TEACHERS' REPORTS ON: Their Undergraduate Majors

THE NATION'S REPORT CARD 1996 State Assessment

What were your undergraduate major fields of study?	Education	Secondary Education	Science Education	Life Science	Physical Science	Earth Science	Other
JURISDICTIONS	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)
Nation							
NATION	38 (3.7)	41 (4.5)	36 (4.2)	43 (5.1)	19 (5.0)	22 (4.1)	35 (4.7)
NORTHEAST	22 (7.1)	47 (11.0)	44 (8.4)	46 (19.0)	27 (···)	21 (10.3)	41 (10.6)
SOUTHEAST	54 (6.7)	34 (6.4)	31 (7.7)	35 (4.3)	22 (5.3)	20 (5.6)	33 (5.9)
CENTRAL	48 (10.5)	50 (8.3)	39 (7.8)	36 (11.3)	15 (4.8)	27 (9.9)	33 (8.6)
WEST	29 (4.2)	36 (8.5)	33 (8.4)	51 (5.7)	16 (6.8)	20 (6.7)	35 (10.4)
States							
ALABAMA	40 (4.5)	64 (3.4)	39 (4.2)	50 (4.3)	24 (3.8)	23 (3.7)	35 (4.5)
ALASKA†	36 (2.6)	34 (3.3)	25 (2.8)	53 (2.6)	24 (1.4)	20 (2.4)	24 (2.7)
ARIZONA	52 (5.0)	43 (4.4)	26 (4.5)	38 (5.2)	13 (2.6)	12 (3.0)	42 (3.9)
ARKANSAS†	39 (4.0)	50 (4.3)	39 (5.4)	35 (5.4)	16 (3.9)	24 (4.4)	43 (5.8)
CALIFORNIA	25 (3.7)	15 (2.5)	17 (2.8)	53 (3.5)	29 (3.5)	17 (2.9)	40 (3.0)
COLORADO	40 (3.6)	42 (3.8)	32 (3.2)	53 (3.8)	24 (2.7)	21 (3.1)	30 (2.9)
CONNECTICUT	49 (3.4)	26 (3.4)	34 (3.8)	37 (3.6)	17 (2.9)	14 (2.6)	31 (2.8)
DELAWARE	47 (0.9)	36 (0.9)	40 (0.8)	37 (0.9)	17 (0.6)	39 (0.8)	30 (0.9)
DISTRICT OF COLUMBIA	32 (1.0)	36 (0.9)	34 (1.3)	43 (1.3)	26 (1.0)	17 (0.5)	33 (1.3)
FLORIDA	44 (3.7)	25 (2.8)	33 (3.3)	34 (2.9)	16 (2.4)	12 (2.1)	42 (3.1)
GEORGIA	60 (2.6)	20 (2.5)	29 (3.1)	23 (2.5)	5 (1.4)	10 (1.9)	33 (3.1)
HAWAII	22 (1.1)	31 (1.2)	26 (1.0)	39 (1.2)	28 (0.8)	36 (0.8)	34 (1.0)
INDIANA	54 (4.7)	46 (4.1)	48 (4.8)	37 (4.1)	18 (3.4)	20 (3.9)	27 (4.1)
IOWA†	50 (4.5)	53 (4.4)	42 (4.4)	44 (5.2)	24 (4.3)	21 (3.5)	34 (4.5)
KENTUCKY	67 (4.5)	30 (3.4)	35 (5.0)	34 (4.1)	20 (3.8)	23 (4.1)	34 (3.8)
LOUISIANA	63 (4.6)	28 (4.0)	18 (2.8)	16 (3.7)	12 (3.6)	9 (1.9)	34 (4.5)
MAINE	49 (4.0)	19 (3.1)	30 (4.2)	38 (3.1)	21 (3.1)	15 (2.4)	31 (3.5)
MARYLAND†	38 (4.1)	34 (4.0)	33 (3.9)	44 (4.1)	21 (3.4)	19 (3.6)	25 (3.6)
MASSACHUSETTS	38 (4.6)	19 (2.6)	32 (2.8)	34 (3.8)	19 (3.2)	24 (3.3)	34 (3.7)
MICHIGAN†	52 (4.3)	44 (4.2)	44 (4.3)	42 (4.6)	22 (3.9)	11 (2.5)	30 (3.6)
MINNESOTA	35 (4.0)	47 (4.2)	50 (4.5)	56 (5.2)	25 (3.6)	37 (3.9)	23 (3.7)
MISSISSIPPI	52 (3.7)	32 (3.8)	37 (3.1)	26 (3.7)	17 (3.4)	13 (2.5)	28 (3.4)
MISSOURI	66 (3.7)	50 (4.8)	43 (3.8)	34 (4.1)	17 (3.2)	29 (4.4)	40 (4.1)
MONTANA†	47 (4.3)	42 (4.4)	42 (3.9)	56 (3.0)	35 (3.8)	25 (3.7)	32 (3.7)
NEBRASKA	54 (3.4)	53 (3.4)	55 (3.6)	48 (3.3)	29 (3.3)	22 (3.1)	34 (3.1)
NEW MEXICO	49 (2.8)	40 (2.0)	33 (1.8)	38 (1.9)	12 (1.4)	24 (2.5)	41 (2.1)
NEW YORK†	29 (4.4)	34 (4.3)	25 (4.0)	56 (4.7)	25 (3.7)	24 (3.9)	20 (3.3)
NORTH CAROLINA	55 (3.7)	28 (3.5)	35 (3.4)	32 (3.2)	13 (2.4)	11 (2.2)	40 (3.5)
NORTH DAKOTA	50 (3.0)	47 (2.8)	51 (3.3)	40 (2.9)	17 (2.8)	32 (2.5)	31 (3.2)
OREGON	45 (4.2)	35 (3.9)	39 (4.5)	41 (4.4)	18 (3.1)	24 (3.7)	33 (3.1)
RHODE ISLAND	43 (1.2)	44 (1.1)	40 (1.0)	43 (1.1)	26 (0.8)	22 (0.5)	37 (1.2)
SOUTH CAROLINA†	49 (3.9)	30 (3.9)	39 (3.5)	22 (3.5)	10 (2.1)	14 (2.6)	35 (3.8)
TENNESSEE	63 (4.7)	39 (4.7)	28 (4.1)	34 (4.6)	16 (2.9)	17 (3.6)	37 (4.4)
TEXAS	37 (2.9)	34 (3.1)	35 (3.4)	43 (3.3)	13 (2.5)	37 (3.6)	46 (3.4)
UTAH	37 (2.5)	53 (2.7)	40 (2.7)	43 (3.0)	37 (2.1)	36 (1.6)	31 (3.2)
VERMONT†	35 (2.9)	39 (2.8)	34 (3.5)	53 (3.0)	16 (1.1)	15 (1.9)	33 (2.8)
VIRGINIA	33 (3.1)	24 (3.0)	27 (2.8)	44 (3.5)	19 (2.2)	9 (1.9)	40 (3.9)
WASHINGTON	48 (3.7)	31 (3.9)	33 (3.6)	50 (4.8)	23 (4.0)	23 (3.7)	43 (4.7)
WEST VIRGINIA	58 (4.0)	43 (4.2)	62 (3.6)	46 (4.1)	34 (3.8)	36 (4.1)	27 (3.5)
WISCONSIN†	63 (4.3)	32 (3.9)	29 (4.5)	34 (4.6)	19 (3.6)	20 (3.8)	22 (3.1)
WYOMING	60 (1.0)	67 (1.0)	61 (1.1)	68 (1.1)	40 (1.1)	28 (0.8)	34 (1.0)
Other Jurisdictions							
DDESS	48 (1.7)	36 (1.8)	52 (1.3)	34 (1.0)	14 (0.8)	17 (1.0)	34 (1.4)
DoDDS	30 (1.3)	41 (1.1)	27 (1.0)	46 (0.9)	21 (0.9)	16 (0.6)	39 (0.8)
GUAM	67 (1.2)	81 (1.1)	85 (1.3)	41 (1.1)	11 (0.3)	52 (1.1)	46 (1.6)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
··· Characteristics of the sample do not permit a reliable estimate.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 7.3 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students
TEACHERS' REPORTS ON: Their Graduate Majors

THE NATION'S REPORT CARD 1996 State Assessment

What were your graduate major fields of study?	Education	Secondary Education	Science Education	Life Science	Physical Science	Earth Science	Other	No Graduate Study
JURISDICTIONS	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)
Nation								
NATION	27 (3.8)	26 (3.4)	28 (5.0)	10 (1.8)	5 (1.5)	9 (2.4)	42 (4.5)	13 (2.4)
NORTHEAST	26 (5.4)	51 (9.0)	41 (20.4)	6 (3.7)	3 (···)	23 (10.5)	29 (10.3)	4 (···)
SOUTHEAST	22 (4.5)	17 (5.8)	19 (5.5)	9 (3.1)	6 (3.1)	5 (2.3)	35 (9.2)	27 (6.0)
CENTRAL	19 (8.7)	25 (7.1)	38 (9.0)	14 (4.5)	8 (4.3)	5 (···)	59 (9.4)	9 (5.4)
WEST	36 (7.9)	17 (4.8)	20 (4.8)	9 (3.2)	3 (1.2)	6 (2.5)	44 (5.8)	11 (3.5)
States								
ALABAMA	31 (3.7)	37 (4.2)	26 (3.8)	23 (3.5)	9 (2.7)	11 (3.2)	31 (4.4)	18 (3.1)
ALASKA†	27 (2.3)	16 (1.3)	23 (1.2)	13 (1.6)	10 (0.9)	9 (1.4)	50 (3.0)	13 (2.0)
ARIZONA	39 (4.3)	22 (4.0)	22 (4.5)	15 (3.3)	4 (2.4)	4 (1.4)	51 (4.3)	16 (3.5)
ARKANSAS†	25 (3.8)	25 (3.6)	23 (3.9)	17 (4.0)	7 (2.4)	17 (3.9)	41 (5.4)	25 (3.7)
CALIFORNIA	45 (3.8)	29 (3.1)	24 (3.6)	21 (3.0)	12 (3.3)	7 (2.1)	35 (3.1)	12 (2.4)
COLORADO	26 (3.5)	19 (2.8)	20 (3.0)	16 (2.6)	9 (1.8)	10 (2.5)	45 (4.1)	18 (2.6)
CONNECTICUT	44 (3.9)	14 (2.7)	37 (3.7)	22 (3.1)	13 (2.9)	11 (2.6)	39 (3.8)	3 (1.5)
DELAWARE	25 (0.9)	22 (0.6)	25 (0.8)	11 (0.6)	7 (0.6)	17 (0.7)	36 (0.9)	20 (0.8)
DISTRICT OF COLUMBIA	32 (1.1)	37 (1.0)	27 (1.1)	22 (0.8)	14 (0.6)	11 (0.5)	48 (1.4)	3 (0.2)
FLORIDA	25 (3.2)	15 (2.3)	30 (3.2)	10 (1.7)	7 (1.3)	6 (1.2)	46 (3.5)	23 (3.0)
GEORGIA	40 (3.2)	12 (2.1)	24 (2.9)	5 (1.5)	3 (1.1)	8 (1.7)	31 (3.1)	27 (3.5)
HAWAII	36 (0.9)	26 (1.0)	26 (0.8)	12 (0.7)	5 (0.6)	15 (0.8)	32 (0.9)	28 (1.1)
INDIANA	42 (5.0)	43 (3.8)	28 (4.4)	23 (3.5)	10 (3.1)	16 (3.7)	24 (4.0)	21 (3.3)
IOWA†	30 (4.4)	19 (3.9)	40 (4.1)	16 (3.6)	10 (2.7)	18 (3.3)	38 (5.3)	18 (3.6)
KENTUCKY	56 (4.0)	20 (3.3)	29 (3.6)	7 (1.4)	4 (1.5)	8 (2.3)	34 (4.1)	8 (2.4)
LOUISIANA	31 (4.1)	16 (3.4)	19 (2.9)	6 (1.6)	4 (1.3)	8 (2.0)	42 (4.2)	23 (3.6)
MAINE	29 (3.2)	10 (2.0)	20 (2.8)	11 (2.4)	8 (1.9)	7 (1.8)	34 (3.7)	30 (3.2)
MARYLAND†	30 (4.4)	21 (3.3)	31 (3.6)	11 (2.4)	7 (2.2)	14 (3.3)	45 (4.1)	15 (2.9)
MASSACHUSETTS	40 (4.5)	19 (3.7)	29 (4.2)	13 (2.7)	13 (2.6)	11 (2.3)	44 (3.8)	14 (2.4)
MICHIGAN†	30 (3.0)	15 (2.7)	33 (4.4)	13 (3.3)	10 (2.3)	5 (1.5)	45 (4.5)	13 (2.5)
MINNESOTA	32 (4.1)	26 (3.9)	35 (4.3)	16 (3.1)	12 (3.8)	24 (3.2)	32 (4.7)	20 (3.3)
MISSISSIPPI	30 (4.0)	16 (2.8)	24 (3.4)	12 (2.1)	9 (2.5)	4 (1.6)	22 (3.1)	28 (3.6)
MISSOURI	30 (4.2)	23 (3.6)	25 (3.8)	8 (2.1)	5 (1.8)	13 (3.2)	47 (4.4)	17 (3.4)
MONTANA†	25 (2.7)	15 (3.0)	31 (4.2)	19 (3.3)	9 (1.3)	6 (1.4)	27 (3.2)	30 (4.2)
NEBRASKA	22 (2.8)	24 (2.9)	39 (3.3)	20 (2.7)	17 (2.2)	13 (2.7)	32 (3.0)	21 (2.4)
NEW MEXICO	26 (2.4)	23 (1.7)	20 (1.5)	12 (1.9)	6 (1.3)	10 (1.4)	51 (2.7)	18 (1.8)
NEW YORK†	34 (3.8)	33 (4.0)	39 (5.1)	27 (4.6)	18 (3.4)	17 (3.3)	33 (4.0)	4 (1.4)
NORTH CAROLINA	30 (3.3)	9 (1.7)	31 (3.5)	10 (2.2)	5 (1.5)	5 (1.4)	26 (3.0)	38 (3.7)
NORTH DAKOTA	17 (2.4)	14 (1.4)	26 (2.6)	14 (2.5)	11 (2.1)	12 (2.2)	34 (2.9)	38 (2.8)
OREGON	48 (4.2)	31 (3.4)	40 (4.3)	17 (3.4)	6 (1.9)	23 (3.6)	35 (3.8)	7 (2.2)
RHODE ISLAND	38 (0.9)	28 (0.8)	31 (1.0)	21 (0.6)	18 (0.6)	11 (0.5)	38 (1.1)	13 (0.7)
SOUTH CAROLINA†	42 (3.4)	16 (2.7)	28 (3.9)	13 (3.1)	6 (1.9)	17 (3.1)	40 (4.2)	17 (2.9)
TENNESSEE	36 (4.5)	17 (3.4)	13 (2.8)	5 (1.6)	5 (1.7)	6 (1.9)	51 (5.4)	26 (4.2)
TEXAS	20 (3.1)	14 (2.4)	18 (2.8)	11 (2.2)	4 (1.4)	22 (3.3)	44 (3.6)	28 (3.0)
UTAH	24 (1.9)	21 (2.0)	17 (1.6)	14 (1.8)	15 (1.7)	17 (1.8)	36 (2.5)	29 (2.5)
VERMONT†	40 (2.5)	23 (1.9)	26 (3.2)	15 (2.4)	10 (1.1)	10 (1.9)	43 (3.1)	8 (1.2)
VIRGINIA	28 (2.9)	14 (2.2)	29 (2.9)	13 (2.1)	13 (2.5)	11 (2.4)	38 (3.1)	19 (2.3)
WASHINGTON	39 (4.3)	21 (3.5)	25 (3.5)	10 (2.1)	7 (1.7)	10 (2.9)	49 (4.4)	17 (3.0)
WEST VIRGINIA	40 (3.6)	22 (3.0)	30 (3.0)	13 (2.7)	7 (1.9)	10 (2.4)	57 (3.9)	7 (1.7)
WISCONSIN†	39 (4.4)	9 (2.1)	19 (3.5)	10 (2.4)	11 (3.2)	13 (3.6)	42 (4.4)	19 (3.7)
WYOMING	37 (0.8)	30 (0.9)	30 (1.0)	29 (0.9)	16 (0.8)	20 (0.8)	41 (1.2)	11 (0.7)
Other Jurisdictions								
DDESS	50 (1.1)	0 (···)	16 (1.3)	3 (0.7)	10 (1.0)	10 (1.0)	31 (1.4)	24 (0.9)
DoDDS	37 (1.0)	16 (1.0)	20 (0.6)	23 (0.8)	9 (0.8)	20 (0.6)	54 (1.2)	3 (0.7)
GUAM	14 (1.0)	48 (0.7)	20 (1.4)	8 (1.1)	0 (···)	12 (0.9)	64 (1.1)	6 (0.9)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
··· Characteristics of the sample do not permit a reliable estimate.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 7.4 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students
TEACHERS' REPORTS ON: Their Teaching Certification in Their Main Assignment Field

THE NATION'S REPORT CARD naep 1996 State Assessment

What type of teaching certification do you have in this state in your main assignment field?	I Don't Have a Certificate in My Main Assignment Field	Certification by an Accreditation Body Other Than the State	Temporary, Provisional, or Emergency State Certification	Probationary State Certificate (Initial Certificate)	Regular or Standard State Certificate	Advanced Professional Certificate
JURISDICTIONS	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)
Nation						
NATION	1 (0.5)	0 (···)	4 (1.3)	3 (1.3)	79 (3.5)	13 (3.0)
NORTHEAST	2 (···)	2 (···)	5 (2.7)	7 (4.6)	80 (5.4)	5 (···)
SOUTHEAST	2 (1.3)	0 (···)	2 (···)	3 (1.5)	62 (7.4)	32 (6.7)
CENTRAL	0 (···)	0 (···)	3 (2.2)	3 (···)	80 (10.0)	14 (9.8)
WEST	1 (···)	0 (···)	5 (2.9)	1 (···)	89 (4.7)	4 (···)
States						
ALABAMA	1 (0.6)	0 (···)	0 (···)	0 (···)	58 (4.7)	40 (4.8)
ALASKA†	1 (···)	0 (···)	0 (0.2)	2 (0.9)	91 (1.3)	6 (1.2)
ARIZONA	3 (2.1)	0 (···)	5 (2.0)	6 (2.2)	77 (3.3)	7 (2.0)
ARKANSAS†	2 (1.1)	0 (···)	1 (0.5)	1 (···)	92 (2.4)	5 (1.9)
CALIFORNIA	3 (1.6)	0 (···)	9 (1.9)	6 (1.7)	70 (3.8)	12 (2.5)
COLORADO	2 (1.0)	0 (···)	4 (1.3)	8 (2.1)	74 (3.2)	13 (2.0)
CONNECTICUT	2 (1.5)	0 (···)	7 (2.1)	4 (1.2)	76 (3.4)	10 (2.1)
DELAWARE	2 (0.4)	3 (0.3)	8 (0.5)	4 (0.5)	66 (1.0)	18 (0.8)
DISTRICT OF COLUMBIA	0 (···)	0 (···)	6 (1.5)	0 (···)	73 (1.4)	20 (0.9)
FLORIDA	1 (0.5)	0 (···)	15 (2.3)	3 (1.1)	67 (3.3)	14 (2.6)
GEORGIA	0 (···)	0 (···)	2 (0.8)	1 (···)	66 (3.5)	31 (3.5)
HAWAII	4 (0.7)	3 (0.2)	1 (0.4)	17 (0.7)	42 (1.0)	34 (1.1)
INDIANA	1 (···)	0 (···)	1 (0.7)	3 (1.5)	66 (3.7)	30 (3.7)
IOWA†	1 (···)	0 (···)	2 (0.8)	3 (1.4)	61 (5.1)	34 (4.9)
KENTUCKY	0 (···)	0 (···)	6 (2.3)	2 (1.2)	77 (3.6)	14 (2.6)
LOUISIANA	3 (1.1)	0 (···)	12 (3.0)	4 (1.7)	60 (4.4)	21 (4.4)
MAINE	0 (···)	0 (···)	5 (1.5)	8 (2.3)	76 (3.2)	11 (2.6)
MARYLAND†	0 (···)	0 (···)	7 (2.4)	4 (1.4)	26 (4.3)	62 (4.5)
MASSACHUSETTS	5 (1.3)	1 (···)	2 (0.8)	0 (···)	88 (2.4)	5 (1.7)
MICHIGAN†	3 (1.3)	0 (···)	13 (2.8)	10 (2.5)	60 (4.3)	15 (2.6)
MINNESOTA	0 (···)	0 (···)	1 (···)	4 (1.4)	85 (3.0)	10 (2.5)
MISSISSIPPI	1 (0.8)	0 (···)	6 (2.1)	2 (1.3)	74 (3.7)	17 (2.8)
MISSOURI	0 (···)	0 (···)	7 (2.2)	6 (1.7)	75 (3.7)	12 (2.7)
MONTANA†	0 (···)	0 (···)	8 (1.8)	1 (0.1)	78 (2.6)	13 (1.9)
NEBRASKA	0 (0.0)	0 (···)	3 (0.7)	4 (1.0)	77 (3.0)	16 (2.8)
NEW MEXICO	1 (0.1)	0 (0.0)	3 (0.4)	1 (0.8)	79 (1.3)	15 (1.6)
NEW YORK†	1 (0.7)	1 (0.5)	10 (2.2)	5 (1.6)	76 (3.1)	6 (1.7)
NORTH CAROLINA	1 (0.7)	0 (···)	4 (1.6)	9 (1.8)	63 (3.2)	23 (3.0)
NORTH DAKOTA	1 (···)	0 (···)	0 (···)	2 (0.3)	91 (1.3)	7 (1.1)
OREGON	3 (1.3)	0 (···)	0 (···)	7 (2.0)	82 (3.0)	8 (2.2)
RHODE ISLAND	0 (···)	0 (···)	9 (0.5)	10 (0.7)	44 (1.0)	38 (1.0)
SOUTH CAROLINA†	2 (1.0)	0 (···)	5 (1.9)	1 (···)	61 (4.1)	31 (3.8)
TENNESSEE	0 (···)	0 (···)	1 (···)	6 (2.0)	75 (4.3)	18 (4.0)
TEXAS	1 (0.5)	0 (···)	7 (2.0)	3 (1.1)	83 (3.2)	7 (2.1)
UTAH	1 (0.1)	0 (···)	3 (0.9)	14 (2.1)	72 (2.5)	9 (1.8)
VERMONT†	0 (···)	0 (···)	0 (···)	7 (0.7)	78 (2.5)	15 (2.4)
VIRGINIA	1 (0.5)	0 (···)	2 (1.1)	3 (1.0)	62 (3.2)	32 (3.1)
WASHINGTON	0 (···)	0 (···)	1 (···)	6 (1.5)	80 (3.3)	13 (2.9)
WEST VIRGINIA	1 (0.4)	0 (···)	2 (0.9)	3 (0.9)	63 (3.5)	31 (3.5)
WISCONSIN†	0 (···)	0 (···)	1 (···)	0 (···)	89 (2.9)	10 (2.8)
WYOMING	0 (···)	0 (···)	2 (0.1)	1 (0.1)	81 (1.0)	17 (1.1)
Other Jurisdictions						
DDESS	9 (0.8)	0 (···)	0 (···)	6 (0.8)	37 (1.9)	48 (1.8)
DoDDS	1 (0.1)	8 (0.4)	1 (···)	0 (···)	77 (0.9)	12 (0.6)
GUAM	0 (···)	6 (0.9)	0 (···)	0 (···)	86 (1.4)	8 (1.1)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
··· Characteristics of the sample do not permit a reliable estimate.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 7.5 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students
TEACHERS' REPORTS ON: Their Teaching Certification Recognized by Their State

THE NATION'S REPORT CARD 1996 State Assessment

Do you have teaching certification in any of the following areas that is recognized by the state in which you teach?	Elementary or Middle/Junior High School Educotion	Elementary Science	Middle/Junior High School or Secondory School	Other
JURISDICTIONS	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)
Notion				
NATION	66 (5.9)	25 (4.3)	95 (1.6)	51 (6.3)
NORTHEAST	63 (21.2)	15 (4.9)	96 (...)	25 (11.1)
SOUTHEAST	68 (7.1)	11 (4.4)	89 (5.0)	62 (7.0)
CENTRAL	52 (11.4)	21 (10.1)	97 (...)	58 (14.8)
WEST	77 (5.6)	45 (10.1)	97 (1.2)	59 (9.6)
States				
ALABAMA	49 (6.3)	13 (4.0)	93 (2.1)	44 (6.1)
ALASKA†	57 (3.0)	7 (1.2)	80 (2.5)	28 (3.7)
ARIZONA	74 (4.1)	14 (3.6)	71 (4.9)	43 (6.3)
ARKANSAS†	73 (4.6)	11 (3.6)	97 (1.7)	62 (6.5)
CALIFORNIA	61 (3.8)	44 (4.2)	87 (2.1)	43 (5.0)
COLORADO	46 (3.9)	10 (2.7)	89 (2.3)	35 (5.1)
CONNECTICUT	71 (3.7)	18 (3.7)	81 (3.0)	30 (5.2)
DELAWARE	58 (1.3)	17 (1.1)	86 (0.9)	34 (1.8)
DISTRICT OF COLUMBIA	74 (1.5)	15 (1.1)	99 (...)	55 (3.3)
FLORIDA	69 (3.5)	18 (3.4)	91 (1.8)	58 (4.7)
GEORGIA	87 (2.1)	11 (2.6)	61 (3.6)	30 (3.7)
HAWAII	46 (1.5)	6 (1.6)	84 (1.0)	17 (1.1)
INDIANA	61 (4.4)	27 (5.7)	93 (2.7)	38 (6.5)
IOWA†	64 (5.8)	21 (4.5)	88 (2.6)	47 (6.5)
KENTUCKY	74 (3.8)	22 (3.9)	82 (3.2)	59 (6.8)
LOUISIANA	75 (3.7)	29 (5.4)	63 (4.6)	43 (5.9)
MAINE	73 (3.9)	25 (4.2)	80 (3.0)	37 (5.9)
MARYLAND†	53 (4.6)	24 (4.3)	84 (2.5)	34 (5.1)
MASSACHUSETTS	62 (4.9)	14 (4.1)	91 (2.0)	52 (5.7)
MICHIGAN†	72 (4.5)	37 (5.2)	87 (4.2)	35 (5.2)
MINNESOTA	52 (5.4)	8 (2.5)	98 (1.4)	29 (6.0)
MISSISSIPPI	78 (4.0)	16 (3.3)	80 (4.1)	33 (6.4)
MISSOURI	64 (4.2)	21 (3.8)	94 (2.2)	51 (5.4)
MONTANA†	48 (3.2)	13 (2.5)	84 (4.5)	17 (4.5)
NEBRASKA	52 (4.0)	9 (2.1)	95 (1.6)	36 (4.6)
NEW MEXICO	59 (2.6)	20 (2.3)	83 (2.2)	50 (3.6)
NEW YORK†	57 (3.8)	14 (3.7)	92 (1.2)	27 (4.3)
NORTH CAROLINA	71 (4.0)	37 (4.7)	86 (2.6)	64 (5.1)
NORTH DAKOTA	49 (3.5)	9 (2.1)	92 (1.5)	23 (2.2)
OREGON	56 (3.6)	21 (5.0)	85 (2.7)	43 (5.3)
RHODE ISLAND	55 (1.4)	8 (0.6)	99 (0.3)	50 (1.3)
SOUTH CAROLINA†	72 (3.9)	28 (4.8)	82 (3.4)	49 (6.0)
TENNESSEE	76 (4.0)	30 (4.9)	86 (3.2)	51 (6.6)
TEXAS	55 (3.7)	19 (3.2)	91 (2.1)	47 (4.9)
UTAH	53 (3.0)	7 (1.9)	95 (0.8)	35 (3.7)
VERMONT†	38 (2.7)	17 (3.9)	93 (1.3)	39 (5.4)
VIRGINIA	61 (4.3)	22 (3.1)	89 (2.2)	41 (4.8)
WASHINGTON	80 (3.5)	47 (5.7)	87 (3.3)	54 (6.7)
WEST VIRGINIA	73 (3.3)	26 (3.9)	94 (1.8)	47 (5.4)
WISCONSIN†	69 (4.7)	33 (4.8)	81 (4.0)	40 (5.3)
WYOMING	71 (0.8)	11 (1.0)	94 (0.6)	44 (1.6)
Other Jurisdictions				
DDESS	83 (1.2)	19 (1.7)	83 (1.1)	48 (1.8)
DoDDS	71 (1.0)	32 (1.0)	99 (0.1)	77 (1.2)
GUAM	82 (0.6)	0 (...)	86 (1.0)	2 (...)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 7.6 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students
TEACHERS' REPORTS ON: Their Total Number of Years Teaching Experience

THE NATION'S REPORT CARD 1996 State Assessment

Counting this year, how many years in total have you taught at either the elementary or secondary level?	2 Years or Less	3 to 5 Years	6 to 10 Years	11 to 24 Years	25 Years or More
JURISDICTIONS	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)
Nation					
NATION	9 (2.2)	9 (1.7)	22 (3.2)	36 (4.1)	24 (3.2)
NORTHEAST	4 (2.4)	3 (1.2)	6 (2.1)	35 (8.2)	52 (9.3)
SOUTHEAST	14 (3.5)	11 (3.8)	20 (7.0)	38 (5.9)	17 (3.8)
CENTRAL	13 (7.9)	9 (4.3)	16 (6.6)	36 (11.2)	26 (9.4)
WEST	7 (2.6)	11 (3.3)	36 (7.4)	37 (6.6)	10 (3.6)
States					
ALABAMA	8 (2.1)	24 (4.0)	16 (3.2)	39 (4.5)	14 (3.2)
ALASKA†	15 (1.7)	20 (2.3)	24 (3.1)	30 (1.6)	11 (2.5)
ARIZONA	18 (3.1)	21 (3.5)	19 (3.4)	28 (4.0)	15 (3.2)
ARKANSAS†	9 (2.4)	10 (2.3)	16 (2.7)	53 (4.2)	11 (3.4)
CALIFORNIA	10 (2.1)	15 (2.7)	24 (3.2)	31 (3.7)	19 (3.1)
COLORADO	12 (2.6)	18 (2.8)	21 (2.4)	32 (3.4)	17 (3.3)
CONNECTICUT	7 (2.0)	8 (2.0)	10 (2.1)	38 (3.7)	38 (3.8)
DELAWARE	18 (0.8)	17 (0.7)	15 (0.7)	22 (0.8)	29 (0.6)
DISTRICT OF COLUMBIA	4 (0.6)	5 (0.7)	22 (1.5)	53 (1.6)	15 (0.7)
FLORIDA	13 (2.0)	13 (2.5)	21 (3.4)	36 (3.6)	17 (3.2)
GEORGIA	13 (2.2)	15 (2.4)	26 (2.6)	35 (3.4)	10 (1.7)
HAWAII	27 (1.2)	19 (0.7)	22 (0.7)	19 (0.7)	13 (0.6)
INDIANA	12 (2.5)	12 (2.8)	16 (3.6)	35 (3.8)	25 (2.8)
IOWA†	6 (1.7)	8 (2.4)	15 (3.3)	41 (5.1)	30 (4.8)
KENTUCKY	11 (2.9)	20 (3.4)	25 (3.8)	31 (4.0)	13 (2.8)
LOUISIANA	12 (2.5)	15 (3.0)	19 (3.3)	40 (4.3)	14 (3.4)
MAINE	11 (2.4)	8 (1.9)	16 (2.7)	34 (4.0)	30 (3.6)
MARYLAND†	14 (3.0)	16 (3.3)	16 (3.2)	38 (4.1)	15 (2.4)
MASSACHUSETTS	7 (1.6)	8 (1.5)	13 (2.8)	36 (3.9)	37 (3.8)
MICHIGAN†	11 (2.5)	15 (3.3)	11 (2.6)	30 (4.3)	33 (4.1)
MINNESOTA	11 (1.8)	17 (3.1)	18 (2.8)	26 (4.1)	29 (3.9)
MISSISSIPPI	13 (3.1)	17 (3.1)	11 (2.4)	40 (3.9)	19 (3.1)
MISSOURI	11 (2.3)	17 (3.2)	19 (3.6)	41 (4.5)	12 (2.3)
MONTANA†	11 (3.2)	20 (2.8)	20 (3.6)	29 (3.4)	20 (3.4)
NEBRASKA	5 (0.7)	21 (2.5)	19 (2.4)	30 (3.3)	25 (2.8)
NEW MEXICO	14 (1.7)	15 (1.3)	28 (2.2)	32 (1.9)	11 (1.5)
NEW YORK†	9 (2.3)	8 (1.7)	21 (4.0)	30 (4.6)	32 (3.9)
NORTH CAROLINA	15 (2.6)	11 (2.0)	16 (2.7)	45 (4.0)	13 (2.4)
NORTH DAKOTA	8 (1.5)	12 (1.6)	21 (2.0)	48 (3.0)	12 (1.6)
OREGON	6 (1.8)	9 (2.1)	24 (3.8)	45 (3.6)	16 (3.1)
RHODE ISLAND	5 (0.6)	19 (1.0)	12 (0.4)	41 (1.1)	22 (0.9)
SOUTH CAROLINA†	17 (2.9)	11 (2.4)	13 (3.0)	44 (4.1)	15 (3.0)
TENNESSEE	7 (2.3)	18 (3.8)	24 (3.5)	38 (4.4)	14 (2.7)
TEXAS	15 (2.4)	19 (2.4)	19 (3.0)	35 (3.4)	12 (2.5)
UTAH	19 (2.0)	23 (1.8)	27 (2.8)	21 (2.3)	10 (1.9)
VERMONT†	13 (0.9)	18 (2.1)	19 (2.7)	33 (3.2)	17 (2.4)
VIRGINIA	11 (1.8)	15 (3.0)	14 (2.2)	44 (4.0)	16 (2.6)
WASHINGTON	10 (2.1)	18 (3.0)	22 (3.2)	36 (4.3)	14 (2.9)
WEST VIRGINIA	2 (0.8)	8 (2.4)	26 (3.4)	44 (3.9)	20 (2.6)
WISCONSIN†	10 (2.7)	9 (2.0)	18 (3.0)	39 (4.5)	24 (4.2)
WYOMING	6 (0.3)	13 (0.7)	29 (0.8)	35 (0.8)	17 (0.8)
Other Jurisdictions					
DDESS	15 (1.1)	7 (1.1)	41 (1.7)	17 (1.5)	20 (1.0)
DoDDS	3 (0.7)	12 (0.5)	3 (0.3)	67 (1.0)	16 (0.7)
GUAM	33 (0.7)	1 (0.3)	6 (0.9)	29 (1.5)	31 (1.3)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 7.7 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students
TEACHERS' REPORTS ON: Their Number of Years of Science Teaching Experience

THE NATION'S REPORT CARD — 1996 State Assessment

Counting this year, how many years in total have you taught science?	2 Years or Less	3 to 5 Years	6 to 10 Years	11 to 24 Years	25 Years or More
JURISDICTIONS	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)
Nation					
NATION	13 (2.4)	11 (2.2)	30 (3.2)	26 (3.4)	20 (3.0)
NORTHEAST	7 (3.5)	8 (4.8)	12 (2.9)	20 (7.7)	52 (9.3)
SOUTHEAST	18 (3.5)	13 (3.4)	28 (7.7)	33 (8.0)	9 (2.0)
CENTRAL	19 (8.5)	3 (2.2)	29 (7.9)	24 (7.0)	25 (9.3)
WEST	9 (2.7)	16 (4.6)	44 (7.1)	25 (4.8)	5 (3.2)
States					
ALABAMA	12 (2.5)	23 (3.8)	23 (3.8)	35 (4.6)	7 (2.0)
ALASKA†	17 (1.9)	24 (3.1)	25 (2.8)	27 (2.8)	7 (0.6)
ARIZONA	28 (3.4)	19 (3.4)	22 (4.0)	26 (3.6)	6 (1.8)
ARKANSAS†	13 (2.9)	11 (2.3)	25 (4.3)	44 (4.4)	7 (2.5)
CALIFORNIA	15 (2.4)	21 (3.4)	21 (3.2)	34 (3.9)	10 (2.6)
COLORADO	17 (3.2)	22 (3.3)	20 (2.8)	28 (3.3)	13 (2.8)
CONNECTICUT	12 (2.6)	11 (2.1)	13 (2.6)	34 (3.5)	29 (3.9)
DELAWARE	20 (0.9)	22 (0.9)	9 (0.7)	21 (0.8)	28 (0.6)
DISTRICT OF COLUMBIA	11 (1.5)	6 (0.5)	23 (1.1)	47 (1.5)	13 (0.5)
FLORIDA	16 (2.1)	17 (2.7)	27 (3.7)	29 (3.5)	12 (3.0)
GEORGIA	20 (2.4)	19 (3.0)	28 (2.7)	26 (3.0)	7 (1.4)
HAWAII	33 (1.2)	15 (0.6)	20 (0.8)	19 (0.7)	12 (0.6)
INDIANA	14 (2.5)	11 (2.7)	19 (3.9)	34 (4.2)	23 (2.7)
IOWA†	9 (2.4)	14 (2.8)	13 (3.4)	38 (5.2)	26 (4.8)
KENTUCKY	14 (3.2)	26 (3.5)	26 (3.9)	28 (3.7)	6 (1.7)
LOUISIANA	20 (2.8)	17 (3.3)	23 (3.2)	32 (3.9)	9 (3.0)
MAINE	15 (2.7)	12 (2.2)	19 (3.2)	30 (3.8)	25 (3.4)
MARYLAND†	17 (3.3)	19 (3.8)	14 (2.4)	39 (4.1)	10 (2.0)
MASSACHUSETTS	12 (2.0)	8 (1.7)	16 (3.2)	32 (3.9)	33 (3.8)
MICHIGAN†	17 (3.4)	13 (2.9)	17 (3.0)	26 (3.4)	26 (3.6)
MINNESOTA	14 (2.4)	17 (2.8)	15 (2.9)	26 (4.2)	28 (3.8)
MISSISSIPPI	16 (3.2)	20 (3.5)	16 (3.1)	39 (4.1)	10 (2.2)
MISSOURI	15 (2.9)	18 (3.2)	21 (3.9)	37 (4.2)	8 (2.3)
MONTANA†	12 (3.3)	22 (2.8)	20 (3.6)	30 (3.4)	16 (3.4)
NEBRASKA	5 (0.5)	21 (2.3)	23 (2.7)	30 (3.2)	21 (2.9)
NEW MEXICO	16 (1.8)	24 (2.0)	24 (2.4)	30 (2.0)	6 (1.2)
NEW YORK†	12 (2.6)	7 (1.6)	21 (4.1)	32 (4.4)	29 (3.6)
NORTH CAROLINA	20 (3.1)	14 (2.3)	21 (3.2)	38 (4.1)	7 (2.0)
NORTH DAKOTA	11 (1.8)	11 (1.4)	23 (2.1)	44 (3.1)	12 (1.6)
OREGON	12 (2.4)	12 (2.8)	28 (4.2)	35 (4.2)	14 (3.4)
RHODE ISLAND	13 (0.8)	13 (0.8)	18 (0.6)	34 (1.0)	22 (0.9)
SOUTH CAROLINA†	19 (3.1)	16 (2.9)	16 (2.8)	39 (3.6)	11 (2.8)
TENNESSEE	11 (2.8)	21 (3.8)	29 (4.0)	30 (4.5)	8 (1.9)
TEXAS	19 (2.8)	19 (2.3)	22 (3.0)	35 (3.4)	6 (1.8)
UTAH	20 (2.1)	25 (2.1)	28 (2.8)	20 (2.1)	6 (1.5)
VERMONT†	18 (1.2)	19 (3.0)	18 (1.9)	31 (3.0)	14 (2.2)
VIRGINIA	13 (2.0)	18 (3.2)	16 (2.3)	40 (3.7)	13 (2.1)
WASHINGTON	14 (2.3)	18 (2.9)	28 (3.6)	29 (3.6)	11 (2.7)
WEST VIRGINIA	8 (2.1)	10 (2.1)	26 (3.1)	43 (4.1)	13 (2.4)
WISCONSIN†	15 (3.1)	9 (1.8)	20 (3.0)	37 (3.9)	19 (3.7)
WYOMING	8 (0.6)	16 (0.5)	27 (0.8)	37 (0.8)	13 (0.9)
Other Jurisdictions					
DDESS	15 (1.1)	9 (1.3)	41 (1.7)	22 (1.6)	13 (0.9)
DoDDS	11 (0.7)	14 (0.7)	9 (0.2)	58 (0.8)	7 (0.3)
GUAM	33 (0.7)	1 (0.3)	16 (0.4)	43 (1.1)	8 (1.1)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 7.8 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students
TEACHERS' REPORTS ON: Recent Course Taking in Science or Science Education

THE NATION'S REPORT CARD — 1996 State Assessment

During the last two years, how many college or university courses have you taken in science or science education?	None	One	Two	Three or More
JURISDICTIONS	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)
Nation				
NATION	59 (3.4)	14 (2.8)	11 (2.4)	16 (2.8)
NORTHEAST	72 (5.3)	15 (5.6)	5 (2.9)	8 (2.8)
SOUTHEAST	54 (7.0)	16 (3.1)	19 (5.2)	11 (2.8)
CENTRAL	61 (9.0)	7 (3.8)	15 (6.7)	18 (5.3)
WEST	54 (6.3)	17 (7.1)	7 (3.2)	22 (7.0)
States				
ALABAMA	61 (4.1)	17 (3.5)	8 (2.1)	15 (2.8)
ALASKA†	44 (2.7)	9 (1.0)	26 (2.2)	21 (1.6)
ARIZONA	48 (3.9)	12 (3.0)	18 (3.5)	22 (4.0)
ARKANSAS†	64 (4.6)	16 (3.2)	17 (3.6)	4 (1.3)
CALIFORNIA	54 (4.0)	16 (2.9)	11 (2.0)	19 (3.1)
COLORADO	34 (3.4)	17 (2.7)	15 (2.4)	33 (3.8)
CONNECTICUT	74 (2.8)	8 (2.1)	8 (1.7)	11 (2.2)
DELAWARE	48 (1.0)	8 (0.5)	15 (0.7)	29 (1.0)
DISTRICT OF COLUMBIA	17 (1.4)	12 (1.1)	19 (1.1)	52 (1.6)
FLORIDA	55 (3.3)	21 (2.6)	9 (1.7)	14 (2.5)
GEORGIA	64 (2.9)	14 (1.7)	8 (1.7)	14 (2.3)
HAWAII	22 (1.0)	28 (1.2)	16 (0.7)	34 (1.0)
INDIANA	68 (4.4)	16 (3.4)	8 (2.9)	8 (2.3)
IOWA†	52 (4.9)	16 (2.8)	10 (2.2)	22 (4.1)
KENTUCKY	61 (4.0)	18 (3.2)	6 (1.5)	16 (3.4)
LOUISIANA	56 (3.8)	13 (2.8)	15 (2.6)	15 (2.0)
MAINE	59 (3.6)	22 (2.7)	10 (2.2)	8 (2.3)
MARYLAND†	47 (4.5)	15 (3.3)	19 (3.3)	19 (3.0)
MASSACHUSETTS	55 (3.9)	19 (3.3)	13 (2.3)	14 (3.0)
MICHIGAN†	67 (4.0)	10 (2.4)	9 (2.3)	13 (2.7)
MINNESOTA	58 (4.2)	14 (3.2)	9 (2.2)	20 (3.4)
MISSISSIPPI	58 (4.6)	15 (3.7)	10 (2.5)	17 (3.3)
MISSOURI	42 (3.9)	16 (2.9)	22 (3.4)	20 (3.3)
MONTANA†	39 (4.3)	20 (4.4)	21 (2.8)	20 (3.8)
NEBRASKA	50 (3.8)	20 (2.8)	13 (2.8)	17 (2.5)
NEW MEXICO	57 (1.7)	16 (1.9)	12 (1.8)	15 (1.2)
NEW YORK†	69 (4.5)	8 (2.2)	8 (2.3)	14 (3.4)
NORTH CAROLINA	65 (3.8)	16 (2.9)	6 (1.6)	13 (2.5)
NORTH DAKOTA	27 (2.2)	21 (2.2)	15 (1.6)	36 (2.2)
OREGON	49 (4.7)	15 (3.5)	13 (3.1)	23 (3.8)
RHODE ISLAND	42 (1.0)	19 (0.9)	21 (0.8)	18 (0.8)
SOUTH CAROLINA†	31 (3.7)	21 (2.8)	23 (3.7)	24 (3.0)
TENNESSEE	69 (4.6)	15 (4.0)	8 (2.1)	7 (2.0)
TEXAS	74 (3.4)	9 (2.0)	6 (1.6)	11 (1.9)
UTAH	38 (2.4)	9 (1.3)	16 (1.7)	37 (2.4)
VERMONT†	38 (3.2)	27 (2.9)	19 (2.3)	16 (1.4)
VIRGINIA	42 (3.0)	28 (3.2)	14 (2.6)	16 (2.5)
WASHINGTON	44 (4.6)	15 (3.0)	14 (2.9)	26 (3.7)
WEST VIRGINIA	46 (3.9)	22 (3.7)	17 (3.0)	15 (2.0)
WISCONSIN†	43 (4.4)	22 (4.0)	13 (2.9)	21 (3.9)
WYOMING	29 (0.7)	24 (1.1)	17 (0.6)	29 (0.8)
Other Jurisdictions				
DDESS	53 (1.4)	31 (1.8)	0 (...)	16 (1.2)
DoDDS	42 (1.2)	18 (1.3)	14 (0.6)	26 (0.7)
GUAM	10 (1.1)	26 (0.7)	52 (1.2)	12 (0.9)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 7.9 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students
TEACHERS' REPORTS ON: Professional Development Activities in Science or Science Education

THE NATION'S REPORT CARD 1996 State Assessment

During the past two years, have you taken courses or participated in professional development activities in any of the following?	Methods of Teaching Science	Biology/Life Science	Chemistry	Physics	Earth Science
JURISDICTIONS	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)
Nation					
NATION	12 (2.2)	14 (2.7)	6 (1.7)	8 (1.8)	9 (2.0)
NORTHEAST	8 (3.8)	5 (2.3)	4 (2.5)	0 (...)	4 (2.1)
SOUTHEAST	16 (5.1)	15 (5.2)	13 (5.0)	18 (5.1)	16 (5.2)
CENTRAL	13 (6.0)	12 (4.8)	3 (...)	4 (...)	7 (3.8)
WEST	12 (2.9)	20 (6.6)	6 (2.8)	10 (3.0)	9 (3.6)
States					
ALABAMA	12 (2.7)	12 (2.9)	5 (1.6)	3 (1.2)	8 (2.3)
ALASKA†	14 (1.6)	10 (1.8)	2 (1.2)	6 (1.3)	4 (1.4)
ARIZONA	22 (3.8)	15 (3.0)	8 (2.1)	10 (2.8)	11 (2.3)
ARKANSAS†	12 (3.0)	13 (3.2)	6 (1.7)	4 (1.9)	10 (2.9)
CALIFORNIA	16 (3.2)	14 (2.5)	6 (1.5)	8 (1.6)	9 (2.0)
COLORADO	23 (3.7)	19 (2.6)	15 (2.9)	10 (2.0)	21 (2.9)
CONNECTICUT	9 (2.3)	7 (1.8)	5 (1.5)	5 (2.0)	7 (2.0)
DELAWARE	20 (0.9)	21 (0.7)	6 (0.4)	5 (0.4)	24 (1.0)
DISTRICT OF COLUMBIA	32 (1.7)	26 (1.3)	3 (0.2)	11 (0.5)	7 (1.2)
FLORIDA	16 (2.7)	11 (2.2)	8 (1.8)	5 (1.2)	8 (1.6)
GEORGIA	21 (2.6)	6 (1.4)	4 (1.1)	8 (1.7)	9 (1.8)
HAWAII	29 (1.0)	11 (0.8)	8 (0.5)	12 (0.6)	23 (0.9)
INDIANA	19 (4.3)	10 (2.7)	7 (2.5)	6 (2.0)	9 (2.5)
IOWA†	19 (3.9)	13 (3.1)	6 (2.4)	7 (2.3)	18 (3.9)
KENTUCKY	20 (3.3)	9 (2.7)	6 (2.1)	9 (2.7)	15 (3.1)
LOUISIANA	24 (3.4)	14 (2.2)	12 (2.4)	10 (2.2)	16 (2.7)
MAINE	14 (2.8)	6 (2.1)	4 (1.7)	4 (1.8)	2 (1.1)
MARYLAND†	16 (2.9)	16 (2.7)	12 (2.8)	13 (2.6)	15 (3.1)
MASSACHUSETTS	18 (3.2)	12 (2.9)	6 (1.8)	6 (1.9)	6 (1.8)
MICHIGAN†	15 (2.6)	11 (2.9)	7 (2.5)	7 (1.7)	10 (2.7)
MINNESOTA	19 (3.0)	15 (3.1)	5 (1.8)	5 (1.9)	12 (2.1)
MISSISSIPPI	17 (3.1)	17 (3.4)	11 (3.1)	7 (2.0)	9 (2.6)
MISSOURI	18 (3.1)	13 (2.6)	5 (1.5)	15 (2.8)	14 (2.8)
MONTANA†	15 (3.3)	13 (3.5)	8 (2.6)	6 (1.7)	12 (3.2)
NEBRASKA	16 (2.3)	10 (1.6)	12 (2.2)	7 (1.6)	10 (2.3)
NEW MEXICO	16 (1.9)	16 (1.2)	6 (1.3)	5 (1.1)	14 (1.5)
NEW YORK†	11 (2.5)	11 (2.9)	7 (2.2)	6 (1.7)	8 (2.1)
NORTH CAROLINA	15 (2.8)	8 (2.0)	5 (1.6)	7 (1.8)	7 (1.9)
NORTH DAKOTA	12 (1.9)	15 (1.5)	9 (0.9)	9 (1.5)	16 (2.2)
OREGON	19 (3.8)	14 (2.6)	4 (1.7)	8 (2.7)	16 (3.4)
RHODE ISLAND	15 (0.7)	19 (0.8)	6 (0.6)	11 (0.7)	11 (0.7)
SOUTH CAROLINA†	29 (4.0)	20 (3.6)	12 (2.7)	10 (2.5)	23 (3.6)
TENNESSEE	15 (2.9)	10 (2.7)	6 (2.3)	5 (1.8)	6 (2.1)
TEXAS	9 (2.1)	8 (1.9)	8 (2.0)	4 (1.0)	9 (1.9)
UTAH	25 (2.8)	17 (1.7)	16 (2.0)	22 (2.2)	20 (2.4)
VERMONT†	31 (3.0)	17 (2.7)	6 (1.0)	11 (3.1)	12 (1.7)
VIRGINIA	18 (2.7)	8 (1.7)	7 (1.6)	17 (2.3)	8 (1.4)
WASHINGTON	17 (3.4)	13 (2.9)	6 (1.7)	7 (2.2)	13 (3.3)
WEST VIRGINIA	24 (3.5)	9 (2.3)	10 (2.5)	8 (2.1)	17 (2.6)
WISCONSIN†	20 (3.8)	9 (2.5)	6 (2.3)	7 (2.3)	11 (2.9)
WYOMING	24 (0.6)	16 (1.1)	7 (1.0)	9 (0.3)	9 (0.5)
Other Jurisdictions					
DDESS	32 (1.7)	25 (1.4)	0 (...)	9 (0.8)	38 (1.7)
DoDDS	23 (0.5)	13 (0.5)	8 (0.4)	9 (0.4)	23 (0.7)
GUAM	35 (0.9)	29 (1.1)	0 (...)	0 (...)	29 (1.1)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 7.10 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students
TEACHERS' REPORTS ON: Professional Development in Technical Areas Related to Science

THE NATION'S REPORT CARD 1996 State Assessment

During the past five years, have you taken courses or participated in professional development activities in any of the following?	Use of Computers for Data Acquisition	Use of Computers for Data Analysis	Use of Multimedia for Science Education	Laboratory Management or Safety	Integrated Science Instruction
JURISDICTIONS	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)
Nation					
NATION	50 (4.6)	54 (4.4)	54 (4.5)	28 (3.8)	46 (4.2)
NORTHEAST	66 (9.6)	67 (10.2)	30 (11.2)	37 (10.1)	16 (4.6)
SOUTHEAST	57 (6.2)	48 (6.2)	58 (7.9)	30 (8.2)	49 (6.6)
CENTRAL	45 (10.8)	53 (8.5)	50 (10.3)	15 (9.3)	34 (11.2)
WEST	40 (7.7)	52 (8.3)	68 (6.2)	30 (5.3)	70 (7.2)
States					
ALABAMA	49 (4.2)	43 (3.9)	50 (3.9)	31 (4.3)	61 (3.9)
ALASKA†	47 (2.9)	56 (3.1)	52 (2.7)	26 (2.1)	54 (2.7)
ARIZONA	45 (4.5)	46 (4.0)	53 (4.6)	20 (3.6)	41 (4.4)
ARKANSAS†	38 (5.0)	22 (4.0)	27 (3.6)	18 (3.5)	43 (5.3)
CALIFORNIA	50 (4.0)	45 (3.3)	62 (3.5)	22 (3.2)	57 (3.8)
COLORADO	56 (3.5)	52 (3.9)	51 (3.3)	25 (3.9)	38 (2.7)
CONNECTICUT	54 (3.5)	53 (3.5)	49 (3.6)	38 (3.7)	48 (4.0)
DELAWARE	37 (1.1)	36 (0.9)	46 (0.9)	12 (0.8)	35 (1.0)
DISTRICT OF COLUMBIA	64 (1.0)	59 (1.1)	54 (1.0)	28 (1.3)	57 (1.4)
FLORIDA	58 (3.5)	57 (3.5)	62 (3.6)	35 (2.9)	52 (3.1)
GEORGIA	47 (3.5)	48 (3.1)	54 (3.2)	20 (2.8)	38 (3.2)
HAWAII	41 (1.1)	45 (1.2)	58 (1.1)	32 (1.2)	62 (1.1)
INDIANA	41 (4.5)	47 (5.0)	42 (4.7)	16 (3.2)	42 (5.2)
IOWA†	55 (4.6)	57 (5.2)	51 (4.9)	19 (3.3)	50 (4.6)
KENTUCKY	61 (4.0)	69 (3.7)	62 (4.1)	28 (3.3)	51 (4.4)
LOUISIANA	37 (4.2)	31 (3.9)	39 (4.5)	23 (3.2)	37 (3.9)
MAINE	39 (3.3)	47 (3.7)	30 (3.9)	21 (2.7)	30 (3.5)
MARYLAND†	58 (4.3)	54 (4.0)	46 (4.1)	26 (3.7)	42 (3.7)
MASSACHUSETTS	46 (4.0)	49 (4.2)	41 (4.1)	24 (3.6)	43 (3.9)
MICHIGAN†	39 (4.1)	37 (4.2)	39 (4.3)	15 (2.4)	42 (4.3)
MINNESOTA	50 (4.7)	49 (4.2)	50 (4.3)	28 (4.0)	35 (4.1)
MISSISSIPPI	34 (4.0)	32 (4.4)	31 (3.2)	23 (3.6)	60 (4.3)
MISSOURI	51 (4.1)	46 (4.1)	57 (4.4)	20 (3.3)	45 (4.3)
MONTANA†	57 (3.8)	48 (3.7)	35 (3.6)	22 (3.4)	31 (3.7)
NEBRASKA	56 (3.6)	48 (3.2)	52 (3.0)	27 (3.0)	39 (3.9)
NEW MEXICO	44 (2.9)	48 (2.2)	45 (2.1)	22 (1.6)	39 (2.6)
NEW YORK†	50 (4.3)	45 (4.6)	49 (4.1)	25 (4.2)	24 (3.7)
NORTH CAROLINA	51 (4.1)	67 (3.6)	52 (3.7)	22 (3.1)	51 (3.8)
NORTH DAKOTA	49 (2.7)	48 (2.8)	53 (3.4)	28 (3.1)	30 (2.5)
OREGON	38 (4.3)	34 (3.9)	43 (4.0)	23 (4.2)	41 (4.0)
RHODE ISLAND	45 (1.1)	43 (1.0)	38 (1.1)	13 (0.5)	36 (0.9)
SOUTH CAROLINA†	35 (3.7)	32 (3.8)	44 (4.1)	20 (2.7)	42 (4.3)
TENNESSEE	50 (4.3)	48 (4.5)	53 (4.6)	28 (4.3)	36 (4.5)
TEXAS	50 (3.4)	51 (3.6)	56 (3.7)	33 (3.6)	61 (3.3)
UTAH	50 (2.3)	43 (2.2)	50 (2.4)	30 (3.2)	39 (2.9)
VERMONT†	49 (2.8)	63 (2.8)	50 (3.1)	14 (2.1)	47 (2.6)
VIRGINIA	58 (3.5)	55 (3.4)	58 (3.9)	28 (3.9)	37 (3.6)
WASHINGTON	48 (4.9)	54 (4.6)	60 (4.1)	28 (4.0)	47 (4.5)
WEST VIRGINIA	44 (3.8)	30 (3.4)	56 (3.8)	31 (3.1)	78 (2.9)
WISCONSIN†	38 (4.2)	43 (4.6)	30 (4.1)	22 (3.4)	25 (4.1)
WYOMING	70 (0.8)	55 (1.1)	57 (0.9)	22 (1.1)	40 (0.9)
Other Jurisdictions					
DDESS	58 (1.9)	69 (1.4)	62 (1.6)	13 (0.9)	22 (1.3)
DoDDS	65 (1.2)	53 (0.9)	36 (1.1)	28 (0.6)	41 (1.1)
GUAM	58 (1.5)	75 (1.0)	74 (0.9)	11 (0.3)	24 (0.9)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 7.11 — 1996 Science Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students
TEACHERS' REPORTS ON: Time Spent on Professional Development in Science

THE NATION'S REPORT CARD — 1996 State Assessment

During the last year, how much time in total have you spent in professional development workshops or seminars in science or science education?	None	Less than Six Hours	6 to 15 Hours	16 to 35 Hours	More than 35 Hours
JURISDICTIONS	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)	PCT (SE)
Nation					
NATION	8 (2.5)	16 (4.2)	19 (2.7)	26 (4.1)	31 (3.5)
NORTHEAST	30 (12.3)	26 (...)	14 (5.9)	23 (11.8)	6 (2.6)
SOUTHEAST	4 (1.5)	19 (6.9)	28 (5.0)	29 (8.8)	19 (3.5)
CENTRAL	3 (2.3)	14 (4.4)	16 (5.8)	25 (8.8)	42 (8.7)
WEST	2 (1.2)	7 (2.1)	19 (5.9)	26 (6.3)	46 (7.7)
States					
ALABAMA	4 (1.6)	10 (2.5)	29 (3.7)	23 (3.7)	34 (3.9)
ALASKA†	12 (2.6)	18 (2.4)	20 (3.0)	17 (1.7)	33 (2.0)
ARIZONA	10 (2.8)	23 (3.5)	23 (3.6)	17 (3.1)	27 (4.0)
ARKANSAS†	7 (2.3)	18 (3.9)	22 (4.2)	24 (4.3)	29 (4.5)
CALIFORNIA	4 (1.1)	10 (2.4)	23 (3.5)	19 (3.0)	44 (3.5)
COLORADO	8 (1.6)	19 (3.1)	29 (3.4)	21 (3.2)	23 (3.1)
CONNECTICUT	3 (1.5)	11 (2.1)	34 (3.5)	27 (3.3)	24 (3.4)
DELAWARE	7 (0.5)	18 (0.6)	29 (0.9)	24 (0.9)	21 (0.8)
DISTRICT OF COLUMBIA	1 (0.0)	8 (1.3)	36 (1.4)	19 (0.9)	36 (1.3)
FLORIDA	3 (1.0)	11 (3.1)	24 (3.1)	25 (2.9)	36 (3.5)
GEORGIA	7 (1.7)	22 (2.5)	30 (2.7)	20 (2.6)	21 (2.9)
HAWAII	11 (0.8)	10 (0.7)	24 (0.9)	10 (0.6)	46 (1.2)
INDIANA	8 (2.4)	20 (3.9)	34 (4.4)	20 (3.9)	19 (3.5)
IOWA†	11 (3.0)	17 (3.5)	26 (3.9)	22 (3.6)	24 (5.0)
KENTUCKY	3 (1.2)	10 (2.6)	24 (4.1)	28 (3.4)	35 (3.8)
LOUISIANA	8 (1.9)	19 (3.4)	33 (3.7)	14 (2.7)	26 (3.8)
MAINE	5 (2.1)	16 (2.7)	31 (3.4)	19 (2.9)	29 (3.5)
MARYLAND†	5 (1.6)	20 (3.2)	28 (3.9)	20 (3.4)	27 (3.6)
MASSACHUSETTS	8 (2.6)	7 (1.8)	19 (2.8)	26 (4.0)	41 (4.6)
MICHIGAN†	7 (1.9)	18 (3.0)	35 (3.9)	22 (3.2)	19 (3.9)
MINNESOTA	7 (2.6)	16 (2.7)	23 (3.1)	22 (3.7)	32 (4.3)
MISSISSIPPI	9 (2.0)	18 (3.6)	32 (3.7)	26 (3.7)	16 (2.6)
MISSOURI	3 (1.4)	12 (2.3)	28 (4.0)	30 (3.4)	27 (4.1)
MONTANA†	4 (1.2)	12 (3.1)	30 (2.4)	24 (2.7)	29 (3.4)
NEBRASKA	7 (2.3)	19 (2.1)	31 (3.3)	15 (2.7)	27 (3.2)
NEW MEXICO	19 (1.8)	17 (1.7)	28 (2.0)	16 (2.3)	20 (1.6)
NEW YORK†	13 (3.5)	14 (2.8)	32 (4.6)	17 (2.9)	24 (3.9)
NORTH CAROLINA	10 (2.2)	13 (2.5)	33 (3.5)	25 (3.2)	19 (3.4)
NORTH DAKOTA	7 (2.3)	28 (1.8)	27 (2.8)	16 (2.0)	22 (2.3)
OREGON	9 (2.7)	12 (2.6)	32 (4.1)	24 (3.3)	23 (3.4)
RHODE ISLAND	7 (0.6)	19 (0.9)	25 (0.9)	26 (1.0)	24 (0.7)
SOUTH CAROLINA†	9 (2.2)	19 (3.6)	23 (3.4)	22 (3.6)	27 (3.5)
TENNESSEE	10 (2.2)	16 (3.2)	35 (4.7)	21 (4.2)	19 (3.8)
TEXAS	4 (1.3)	9 (2.0)	30 (3.5)	32 (3.4)	25 (3.5)
UTAH	7 (2.1)	18 (1.6)	32 (2.0)	22 (1.9)	21 (1.5)
VERMONT†	8 (2.2)	13 (1.9)	18 (1.7)	15 (2.3)	45 (3.1)
VIRGINIA	6 (1.5)	16 (2.5)	37 (3.3)	19 (2.6)	22 (2.9)
WASHINGTON	12 (2.4)	12 (2.7)	20 (3.3)	23 (4.0)	33 (4.4)
WEST VIRGINIA	4 (1.7)	9 (2.4)	27 (3.2)	25 (3.7)	34 (3.7)
WISCONSIN†	9 (2.4)	15 (2.3)	24 (3.3)	20 (2.9)	34 (4.1)
WYOMING	2 (0.1)	18 (1.0)	30 (0.8)	22 (0.7)	27 (0.8)
Other Jurisdictions					
DDESS	7 (1.0)	30 (1.3)	32 (1.4)	11 (0.6)	19 (1.2)
DoDDS	24 (1.2)	13 (0.8)	31 (0.7)	6 (0.3)	26 (1.1)
GUAM	10 (1.1)	45 (0.7)	45 (1.2)	0 (0.2)	0 (...)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).
... Characteristics of the sample do not permit a reliable estimate.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

TABLE 7.12

1996 Mathematics Assessment

POPULATION: 1996 Grade 8 Public School Students
REPORTED STATISTICS: Percentage of Students
TEACHERS' REPORTS ON: Membership in Professional Organizations

THE NATION'S REPORT CARD 1996 State Assessment

Do you belong to one or more professional organizations related to science?	Yes	No
JURISDICTIONS	PCT (SE)	PCT (SE)
Nation		
NATION	57 (4.5)	43 (4.5)
NORTHEAST	57 (14.1)	43 (14.1)
SOUTHEAST	52 (9.0)	48 (9.0)
CENTRAL	75 (7.3)	25 (7.3)
WEST	48 (5.9)	52 (5.9)
States		
ALABAMA	46 (4.0)	54 (4.0)
ALASKA†	56 (2.7)	44 (2.7)
ARIZONA	49 (3.6)	51 (3.6)
ARKANSAS†	41 (4.6)	59 (4.6)
CALIFORNIA	54 (3.1)	46 (3.1)
COLORADO	44 (3.8)	56 (3.8)
CONNECTICUT	46 (3.2)	54 (3.2)
DELAWARE	59 (0.8)	41 (0.8)
DISTRICT OF COLUMBIA	81 (1.1)	19 (1.1)
FLORIDA	45 (3.1)	55 (3.1)
GEORGIA	46 (4.2)	54 (4.2)
HAWAII	41 (1.1)	59 (1.1)
INDIANA	62 (4.6)	38 (4.6)
IOWA†	47 (4.4)	53 (4.4)
KENTUCKY	60 (4.1)	40 (4.1)
LOUISIANA	54 (3.7)	46 (3.7)
MAINE	42 (4.2)	58 (4.2)
MARYLAND†	50 (4.8)	50 (4.8)
MASSACHUSETTS	56 (3.4)	44 (3.4)
MICHIGAN†	60 (4.5)	40 (4.5)
MINNESOTA	62 (4.9)	38 (4.9)
MISSISSIPPI	41 (4.3)	59 (4.3)
MISSOURI	50 (4.7)	50 (4.7)
MONTANA†	52 (3.3)	48 (3.3)
NEBRASKA	53 (3.5)	47 (3.5)
NEW MEXICO	38 (2.5)	62 (2.5)
NEW YORK†	56 (4.7)	44 (4.7)
NORTH CAROLINA	52 (3.4)	48 (3.4)
NORTH DAKOTA	49 (3.7)	51 (3.7)
OREGON	52 (4.3)	48 (4.3)
RHODE ISLAND	58 (1.0)	42 (1.0)
SOUTH CAROLINA†	62 (4.0)	38 (4.0)
TENNESSEE	40 (4.3)	60 (4.3)
TEXAS	52 (3.5)	48 (3.5)
UTAH	69 (2.1)	31 (2.1)
VERMONT†	51 (2.4)	49 (2.4)
VIRGINIA	52 (2.9)	48 (2.9)
WASHINGTON	52 (4.6)	48 (4.6)
WEST VIRGINIA	49 (3.8)	51 (3.8)
WISCONSIN†	48 (5.6)	52 (5.6)
WYOMING	58 (1.0)	42 (1.0)
Other Jurisdictions		
DDESS	57 (1.9)	43 (1.9)
DoDDS	39 (1.3)	61 (1.3)
GUAM	41 (1.2)	59 (1.2)

† State or other jurisdiction did not satisfy one or more of the 1996 school participation rate guidelines for the school sample(s) presented in this table (see Appendix A).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

Technical Appendix

Introduction

Conducting a large-scale assessment such as the National Assessment of Educational Progress (NAEP) entails the successful coordination of numerous projects, committees, procedures, and tasks. This appendix provides an overview of the NAEP 1996 science assessment's primary components: framework, instrument development, administration, scoring, and analysis. A more extensive review of the procedures and methods used in the science assessment will be included in two technical reports: *NAEP 1996 Technical Report* and *Technical Report of the NAEP 1996 State Assessment Program in Science.*

The NAEP 1996 Science Assessment

The science framework for the 1996 National Assessment of Educational Progress was produced under the auspices of the National Assessment Governing Board through a consensus process managed by the Council of Chief State School Officers, who worked with the National Center for Improving Science Education and the American Institutes for Research. The framework was developed over a ten-month period between October 1990 and August 1991. The following factors guided the process for developing consensus on the science framework:[1]

- The active participation of individuals such as curriculum specialists, science teachers, science supervisors, state assessment developers, administrators, individuals from business and industry, government officials, and parents;
- The representation of what is considered essential learning in science, and the recommendation of innovative assessment techniques to probe the critical abilities and content areas; and
- The recognition of the lack of agreement on a common scope of instruction and sequence, components of scientific literacy, important outcomes of learning, and the nature of overarching themes in science.

[1] National Assessment Governing Board. (1995). *Science framework for the 1996 National Assessment of Educational Progress.* Washington, DC: Author.

While maintaining some conceptual continuity with the NAEP 1990 science assessment, the 1996 framework takes into account the current reforms in science education, as well as documents such as the science framework used for the 1991 International Assessment of Educational Progress. In addition, the Framework Steering Committee recommended that a variety of strategies be used for assessing students' performance. These included:

- Performance tasks that allow students to manipulate physical objects and draw scientific understanding from the materials before them,
- Constructed-response questions that provide insights into students' levels of understanding and ability to communicate in the sciences as well as their ability to generate, rather than simply recognize, information related to scientific concepts and their interconnections, and
- Multiple-choice questions that probe students' conceptual understanding and ability to connect ideas in a scientifically sound way.

Percentage of Assessment Time by Major Dimensions of Framework

The framework for the 1996 science assessment can be represented as a matrix with two dimensions represented by three fields of science (earth, physical, and life) and three elements of knowing and doing science (conceptual understanding, scientific investigation, and practical reasoning). In addition, there are two overarching domains that describe science, nature of science and themes. Figures A.1a, A.1b, and A.1c describe, respectively, the fields of science, the elements of knowing and doing, and the overarching domains that guided the development of the 1996 science assessment.

Figure A.1a

Descriptions of the Three Fields of Science

THE NATION'S REPORT CARD 1996 State Assessment

Earth Science

The earth science content assessed centers on objects and events that are relatively accessible or visible. The concepts and topics covered are solid Earth (lithosphere), water (hydrosphere), air (atmosphere), and the Earth in space. The solid Earth consists of composition; forces that alter its surface; the formation, characteristics and uses of rocks; the changes and uses of soil; natural resources used by humankind; and natural forces within the Earth. Concepts and topics related to water consist of the water cycle; the nature of oceans and their effects on water and climate; and the location of water, its distribution, characteristics, and effect of and influence on human activity. The air is broken down into composition and structure of the atmosphere (including energy transfer); the nature of weather; common weather hazards; and air quality and climate. The Earth in space consists of setting of the Earth in the solar system; the setting and evolution of the solar system in the universe; tools and technology that are used to gather information about space; apparent daily motions of the Sun, the Moon, the planets and the stars; rotation of the Earth about its axis, and the Earth's revolution around the Sun; and tilt of the Earth's axis that produces seasonal variations in the climate.

Physical Science

The physical science component relates to basic knowledge and understanding concerning the structure of the universe as well as the physical principles that operate within it. The major sub-topics probed are matter and its transformations, energy and its transformations, and the motion of things. Matter and its transformations are described by diversity of materials (classification and types and the particulate nature of matter); temperature and states of matter; properties and uses of material (modifying properties, synthesis of materials with new properties); and resource management. Energy and its transformations involve different forms of energy; energy transformations in living systems, natural physical systems, and artificial systems constructed by humans; and energy sources and use, including distribution, energy conversion, and energy costs and depletion. Motion is broken down into an understanding of frames of reference; force and changes in position and motion; action and reaction; vibrations and waves as motion; general wave behavior; electromagnetic radiation; and the interactions of electromagnetic radiation with matter.

Life Science

The fundamental goal of life science is to attempt to understand and explain the nature and function of living things. The major concepts assessed in life science are change and evolution, cells and their functions (not at grade 4), organisms, and ecology. Change and evolution includes diversity of life on Earth; genetic variation within a species; theories of adaptation and natural selection; and changes in diversity over time. Cells and their functions consists of information transfer; energy transfer for the construction of proteins; and communication among cells. Organisms are described by reproduction, growth and development; life cycles; and functions and interactions of systems within organisms. The topic of ecology centers on the interdependence of life—populations, communities, and ecosystems.

SOURCE: National Assessment Governing Board. (1995). *Science framework for the 1996 National Assessment of Educational Progress.* Washington, DC: Author.

Figure A.1b **Descriptions of Knowing and Doing Science**

THE NATION'S REPORT CARD 1996 State Assessment

Conceptual Understanding

Conceptual understanding includes the body of scientific knowledge that students draw upon when conducting a scientific investigation or engaging in practical reasoning. Essential scientific concepts involve a variety of information including facts and events the student learns from science instruction and experiences with the natural environment and scientific concepts, principles, laws, and theories that scientists use to explain and predict observations of the natural world.

Scientific Investigation

Scientific investigation probes students' abilities to use the tools of science, including both cognitive and laboratory tools. Students should be able to acquire new information, plan appropriate investigations, use a variety of scientific tools, and communicate the results of their investigations.

Practical Reasoning

Practical reasoning probes students' ability to use and apply science understanding in new, real-world applications.

SOURCE: National Assessment Governing Board. (1995). *Science framework for the 1996 National Assessment of Educational Progress.* Washington, DC: Author.

Figure A.1c **Description of Overarching Domains**

THE NATION'S REPORT CARD 1996 State Assessment

The Nature of Science

The nature of science incorporates the historical development of science and technology, the habits of mind that characterize these fields, and methods of inquiry and problem-solving. It also encompasses the nature of technology that includes issues of design, application of science to real-world problems, and trade-offs or compromises that need to be made.

Themes

Themes are the "big ideas" of science that transcend the various scientific disciplines and enable students to consider problems with global implications. The NAEP science assessment focuses on three themes: systems, models, and patterns of change.

- Systems are complete, predictable cycles, structures or processes occurring in natural phenomena. Students should understand that a system is an artificial construction created to represent, or explain a natural occurrence. Students should be able to identify and define the system boundaries, identify the components and their interrelationships and note the inputs and outputs to the system.
- Models of objects and events in nature are ways to understand complex or abstract phenomena. As such they have limits and involve simplifying assumptions but also possess generalizability and often predictive power. Students need to be able to distinguish the idealized model from the phenomenon itself and to understand the limitations and simplified assumptions that underlie scientific models.
- Patterns of change involve students' recognition of patterns of similarity and differences, and recognize how these patterns change over time. In addition, students should have a store of common types of patterns and transfer their understanding of a familiar pattern of change to a new and unfamiliar one.

SOURCE: National Assessment Governing Board. (1995). *Science framework for the 1996 National Assessment of Educational Progress.* Washington, DC: Author.

Table A.1 summarizes the distribution of assessment time for grade 8 for the three fields of science (earth, physical, and life), the three elements of knowing and doing science (conceptual understanding, scientific investigation, and practical reasoning) as well as the two overarching domains that describe science (nature of science and themes). The three fields of science provide the basis for the content area scales. Care was taken to insure congruence between the percentages used in the assessment (actual) and those indicated in the assessment specifications (recommended). A number of the questions that assess each of the fields of science and each of the ways of knowing and doing science also probe the nature of science and themes (systems, models, and patterns of change). Actual and recommended percentages of assessment time for these two overarching domains are also presented in the table.

Table A.1 **Distribution of Assessment Time for Grade 8**

THE NATION'S REPORT CARD 1996 State Assessment

	Actual	Recommended*
Fields of Science		
Earth	30%	30%
Physical	30%	30%
Life	40%	40%
Knowing and Doing Science		
Conceputual Understanding	45%	45%
Scientific Investigation	29%	30%
Practical Reasoning	26%	25%
Nature of Science	21%	≥15%
Themes	49%	50%

* National Assessment Governing Board. (1995). *Science framework for the 1996 National Assessment of Educational Progress*. Washington, DC: Author.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

The Assessment Design

Each student in the assessment received a booklet containing six sections. Three of the sections were blocks[2] of cognitive questions that assessed the knowledge and skills outlined in the framework. The other three sections were sets of background questions. Two of the three cognitive sections contained only paper-and-pencil questions, and the third section consisted of a hands-on task with related paper-and-pencil questions. Students at grade 8 were allowed 30 minutes to complete each cognitive section.

There were 15 different sections or blocks of cognitive questions usually consisting of both multiple-choice and constructed-response questions. Each student's booklet contained three of these blocks of cognitive questions. Short constructed-response questions required a few words or a sentence or two for an answer (e.g., briefly stating how nutrients move from the digestive system to the tissue) while extended constructed-response questions generally required a paragraph or more (e.g., outlining an experiment to test the effect of increasing the amount of available food on the rate of increase of the hydra population). Some extended constructed-response questions also required diagrams, graphs, or calculations. It was expected that students could adequately answer the short constructed-response questions in about two to three minutes and the extended constructed-response questions in about five minutes.

Other features were built into the blocks of questions. Four of the blocks were hands-on tasks where students were given a set of equipment and asked to conduct an investigation and answer questions relating to the investigation. Every student conducted a hands-on task that was always presented as the third cognitive section. A second feature was the inclusion of theme blocks — one assessing systems, one assessing models, and one assessing patterns of change. For example, students were shown a simplified model of part of the solar system with a brief description, and then asked a number of questions based on this scenario. Theme blocks were placed randomly in the student booklets, but not in every booklet. No student received more than one theme block.

Each booklet in the assessment also included three sets of student background questions. The first, consisting of general background questions, asked students about their race/ethnicity, mother's and father's level of education, reading materials in the home, homework, and school attendance. The second, consisting of science background questions, asked students questions about their classroom learning activities such as hands-on exercises, courses taken, use of specialized resources such as computers, and views on the utility and value of science. (Students were given five minutes to complete each of these sets of questions.) The third set contained five questions about students' motivation to do well on the assessment, their perception of the difficulty of the assessment, and their familiarity with the types of cognitive questions asked; this section took three minutes or less to complete.

[2] "Blocks" are collections of questions grouped, in part, according to the amount of time required to answer them.

The data in Table A.2 reflect the number of questions by type and by grade level for the 1996 national NAEP assessment. The assessment pool for grade 8 contained 194 questions — 74 multiple-choice (MC), 100 short constructed-response (SCR), and 20 extended constructed response (ECR). Of the 74 MC items, 9 were administered to grades 4 and 8 and 21 were administered to grades 8 and 12, leaving 44 of the multiple-choice items unique to the grade 8 assessment. Similarly, there were also some SCR items that were common between the different grades. Of the 100 SCR items, 16 were common between grades 4 and 8, and 26 were common between grades 8 and 12. The grade 8 assessment had 58 unique short constructed-response items. Likewise, there were also ECR items that were common between the different grades. Four of the ECR items were common between grades 4 and 8, and 3 were common between grades 8 and 12, thus leaving 13 of the extended constructed-response items unique to the grade 8 assessment.

Using information gathered from the field test, the booklets were carefully constructed to balance time requirements for the question types in each block. More information on the design of the assessment is presented in the forthcoming *NAEP 1996 Technical Report.*

Table A.2 **Distribution of Questions by Type**

THE NATION'S REPORT CARD 1996 State Assessment

	Grade 8		
	Multiple-Choice	Short Constructed-Resonse	Extended Constructed-Resonse
Grades 4 & 8 Overlap	9	16	4
Grade 8 Only	44	58	13
Grades 8 & 12 Overlap	21	26	3
TOTAL by Grade	74	100	20

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

In addition to the student assessment booklets, three other instruments provided data relating to the assessment: a teacher questionnaire, a school characteristics and policy questionnaire, and a questionnaire designed to gather information about students with disabilities (SD) and limited English proficient (LEP) students.

The teacher questionnaire was administered to the science teachers of the 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 focused on the teacher's background related to science; and the third section focused on classroom information about science 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.

The SD/LEP student questionnaire was completed by a school staff member knowledgeable about those students who were selected to participate in the assessment and who were identified as (1) having an Individual Education Plan (IEP) or equivalent plan (for reasons other than being gifted or talented) or (2) being limited English proficient (LEP). A questionnaire was completed for each SD/LEP student sampled regardless of whether the student participated in the assessment. Each questionnaire took approximately five minutes to complete and asked about the student and the special programs in which he or she participated.

National and State Samples

The national and regional results presented in this report are based on nationally representative probability samples of eighth-grade students. The samples were selected using a complex multistage sampling 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
3. Selection of students within the 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. In addition, NAEP oversamples nonpublic schools and schools in which more than 15 percent of the student population is non-White. Sampling weights adjust for disproportionate representation due to such oversampling.

Table A.3 provides a summary of the weighted and unweighted student sample sizes for the grade 8 national NAEP 1996 science assessment. The numbers reported include public and nonpublic school students.

Table A.3 **National School and Student Sample Sizes for the NAEP 1996 Science Assessment**

THE NATION'S REPORT CARD 1996 State Assessment

	Number of Schools	Unweighted Student Sample Size	Weighted Student Sample Size
Grade 8	202	7,774	3,568,034

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

The results of the 1996 state assessment program in science provided in this report are based on state-level samples of eighth-grade students. The samples of both public and nonpublic school eighth-grade students were selected based on a two-stage sample design that entailed selecting schools within participating jurisdictions and selecting students within schools. The first-stage samples of schools were selected with a probability proportional to the eighth-grade enrollment in those schools. Special procedures were used for jurisdictions that had many small schools and for jurisdictions that had a small number of schools. In addition, each jurisdiction was provided with a list of substitute schools. For each sampled school, a substitute school was designated that was matched as closely as possible to the characteristics of the sampled school. States were permitted to replace a sampled school that refused to participate with its designated substitute school.

As with the national samples, the jurisdiction samples were weighted to allow for valid inferences about the populations of interest. Tables A.4a and A.4b contain, for public and nonpublic schools respectively, the unweighted numbers of participating schools and students as well as weighted school and student participation rates. Two weighted school participation rates are provided for each jurisdiction. 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 student enrolled. This rate included both participating and nonparticipating schools.

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 substituted. The denominator is the same as that for the weighted participation rate for the initial sample. This statement means that for a given jurisdiction, the weighted participation rate after substitution is at least as great as the weighted participation rate before substitution.

Also presented in Tables A.4a and A.4b are the weighted percentages of students who participated after make-up sessions were completed. This rate reflects the percentage of the eligible student population from participating schools within the jurisdiction, and this percentage represents the students who participated in the assessment in either an initial session or a make-up session. The numerator of this rate is the sum, across all assessed students, of the number of students represented by each selected student who was eligible to participate, including students who did not participate.

Table A.4a

NAEP 1996 School and Student Participation Rates by Jurisdiction: Grade 8, Public Schools

THE NATION'S REPORT CARD naep 1996 State Assessment

	Weighted School Participation Rate		Total Number of Schools Participating	Weighted Student Participation Rate	Total Number of Students Assessed
	Before Substitutes	After Substitutes			
Nation	**80**	**80**	**128**	**93**	**6,376**
Alabama	84	90	96	93	2,186
Alaska ‡	93	93	55	82	1,517
Arizona	87	87	94	90	2,151
Arkansas ‡	70	71	76	92	1,858
California	83	94	101	92	2,292
Colorado	100	100	108	91	2,514
Connecticut	100	100	102	93	2,489
Delaware	100	100	30	89	1,903
District of Columbia	100	100	33	85	1,700
Florida	100	100	105	90	2,353
Georgia	99	99	100	92	2,470
Hawaii	100	100	51	90	2,153
Indiana	87	90	96	92	2,313
Iowa ‡	73	83	91	94	2,172
Kentucky	87	92	100	94	2,459
Louisiana	100	100	111	90	2,615
Maine	91	91	95	92	2,254
Maryland ‡	86	86	89	89	2,092
Massachusetts	92	92	98	91	2,287
Michigan ‡	70	87	92	90	2,186
Minnesota	86	88	95	92	2,383
Mississippi	89	95	103	92	2,469
Missouri	93	96	105	92	2,389
Montana ‡	70	76	79	92	2,029
Nebraska	99	100	120	92	2,724
Nevada ‡	37	38	28	92	964
New Hampshire ‡	66	68	64	90	1,710
New Jersey ‡	63	64	67	93	1,573
New Mexico	100	100	90	90	2,377
New York ‡	70	78	82	90	1,876
North Carolina	100	100	107	91	2,616
North Dakota	80	93	108	94	2,489
Oregon	86	92	100	89	2,275
Rhode Island	90	90	43	89	2,087
South Carolina ‡	86	87	91	90	2,162
Tennessee	92	92	99	91	2,287
Texas	91	96	102	92	2,300
Utah	100	100	94	90	2,715
Vermont ‡	74	75	78	93	1,914
Virginia	100	100	106	90	2,552
Washington	94	95	105	90	2,501
West Virginia	100	100	105	93	2,602
Wisconsin ‡	78	78	90	90	2,148
Wyoming	100	100	67	93	2,619
DDESS	100	100	11	95	602
DoDDS	100	100	58	93	2,223
Guam	100	100	6	90	930

National results are based on the national assessment sample, not on aggregated state assessment program samples.

‡ Indicates that the jurisdiction did not satisfy one or more of the guidelines for public school participation rates.

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 Science Assessment.

Table A.4b

NAEP 1996 School and Student Participation Rates by Jurisdiction: Grade 8, Nonpublic Schools

THE NATION'S REPORT CARD 1996 State Assessment

	Weighted School Participation Rate		Total Number of Schools Participating	Weighted Student Participation Rate	Total Number of Students Assessed
	Before Substitutes	After Substitutes			
Nation	**77**	**77**	**81**	**97**	**1,398**
Alabama ‡	60	60	10	95	144
Arkansas ‡	74	74	6	99	89
Califarnia ‡	80	80	14	96	206
Cannecticut ‡	63	65	20	96	263
Delaware ‡	42	44	13	96	313
District af Calumbia ‡	52	52	19	95	259
Geargia	88	88	9	96	232
Iawa	94	94	14	96	246
Kentucky ‡	82	82	13	97	260
Lauisiana ‡	75	75	21	96	424
Maryland ‡	61	64	19	94	322
Massachusetts ‡	75	77	21	94	335
Michigan ‡	80	87	21	97	332
Minnesata ‡	84	84	19	94	247
Missauri	94	100	24	95	365
Mantana	93	97	13	93	154
Nebraska ‡	78	84	20	96	333
Nevada	90	90	8	91	133
New Hampshire ‡	83	83	12	95	179
New Jersey ‡	62	64	20	96	287
New Mexica	95	95	13	95	230
New Yark ‡	84	87	28	97	514
Narth Dakata ‡	70	78	10	93	160
Oregan ‡	26	26	4	86	54
Rhade Island ‡	68	68	22	96	340
Sauth Caralina ‡	69	69	8	95	138
Texas ‡	79	79	7	98	130
Utah ‡	64	64	4	93	93
Vermant ‡	72	80	10	91	115
Washingtan	86	86	11	95	215
Wiscansin ‡	65	69	27	96	380
Wyaming ‡	92	92	6	94	47
Guam ‡	79	79	8	94	198

National results are based on the national assessment sample, not an aggregated state assessment program samples.

‡ Indicates that the jurisdiction did not satisfy one or more of the guidelines for nonpublic school participation rates.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

Participation Rate Guidelines

In carrying out the 1996 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.

Three states (Nevada, New Hampshire, and New Jersey) failed to meet the initial public school participation rate of 70 percent. For these states, results for eighth-grade public school students are not reported in this or any report of NAEP 1996 science findings. Several other jurisdictions whose results were published received a notation to indicate possible nonresponse bias.

A jurisdiction has its nonpublic school results published in this report and in other reports that include all state-level results if its weighted participation rate for the initial sample of nonpublic schools is greater than or equal to 70 percent AND it meets minimum sample size requirements. Twelve jurisdictions failed to meet one or both of these guidelines at grade 8: Alabama, Connecticut, Delaware, the District of Columbia, Maryland, New Jersey, Oregon, Rhode Island, South Carolina, Utah, Wisconsin, and Wyoming. As with public schools, several other jurisdictions whose nonpublic school results were published received a notation to indicate possible nonresponse bias.

NCES standards require weighted school participation rates before substitution of at least 85 percent to guard against potential bias due to school nonresponse. The NCES standards do not explicitly address the use of substitute schools to replace initially selected schools that declined to participate in the assessment. However, considerable technical consideration has been 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 the possibility of bias because of the nonparticipation of initially selected schools. Thus, for the weighted school participation rates that included substitute schools, the guideline was set at 90 percent. This is expressed in the following guideline:

> *A jurisdiction will receive a notation if its 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.*

Seven jurisdictions did not meet this guideline for public schools at grade 8: Arkansas, Iowa, Michigan, Montana, New York, Vermont, and Wisconsin. Fourteen jurisdictions did not meet this guideline for nonpublic schools at grade 8: Arkansas, California, Guam, Kentucky, Louisiana, Massachusetts, Michigan, Minnesota, Nebraska, New Hampshire, New York, North Dakota, Texas, and Vermont.

To help ensure adequate sample representation for each jurisdiction participating in the 1996 state assessment program, NAEP provided substitutes for nonparticipating public and nonpublic schools. (When possible, a substitute school was provided for each initially selected school that declined participation.) For jurisdictions that used substitute schools, the assessment results were based on the student data from all schools participating from both the original sample and the list of substitutes (unless an initial school and its substitute eventually participated, in which case only the data from the initial school were used). For jurisdictions that did not use substitute schools, the participation rates were based on participating schools from the original sample.

The NCES standards specify that attention should be given to the representativeness of the sample coverage. Thus, inadequate representation of an important segment of a jurisdiction's population is of concern, regardless of the overall participation rate. At grade 8, Maryland and South Carolina (for public schools) failed to meet this NCES guideline.

> *A jurisdiction that is not already receiving a notation for problematic overall school or student participation rates will receive a notation if the sampled students within participating 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 student sample. Student groups from which a jurisdiction needed minimum levels of participation were determined by the age of the students, 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). In addition, for public schools, classes of schools were determined by school level of urbanization, minority enrollment, and median household income of the area in which the school is located. For nonpublic schools, classes of schools were determined by type and location of schools.*

This guideline addresses the concern that if nonparticipating schools were concentrated within a particular class of schools, the potential for substantial bias remained, even though the overall level of school participation appeared to be satisfactory. Nonresponse adjustment cells for schools were formed within each jurisdiction, and the schools within each cell were similar in terms of minority enrollment, degree of urbanization, and/or median household income for public schools, and school type and location for nonpublic schools, as appropriate for each jurisdiction. If more than 5 percent (weighted) of the sample schools (after substitution) were nonparticipants from a single adjustment cell, then the potential for nonresponse bias was too great.

In one state (Alaska), the public school student participation rate for grade 8 fell below the NCES-prescribed criterion of 85 percent. No other notations related to student participation rates appear in NAEP 1996 science reports.

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

It is NAEP's intent to assess all selected students. 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 are described in Chapter 4 of the *NAEP 1996 Science Report Card for the Nation and the States.* Participation information for the SD and LEP populations for the reporting samples is presented in Tables A.5a and A.5b.

Table A.5a

NAEP 1996 Reporting Sample SD and LEP Participation Rates: Grade 8, Public Schools

THE NATION'S REPORT CARD 1996 State Assessment

	Total Percentage of Students — SD and LEP		Percentage of Students — SD		Percentage of Students — LEP	
	Identified	Excluded	Identified	Excluded	Identified	Excluded
Nation	**14**	**5**	**10**	**4**	**4**	**2**
Alabama	11	7	11	7	0	0
Alaska	16	5	13	4	5	1
Arizona	16	6	9	5	7	2
Arkansas	11	7	10	6	1	1
California	21	9	8	4	14	6
Colorado	12	7	10	5	3	3
Connecticut	15	9	13	8	2	2
Delaware	11	2	10	2	1	1
District of Columbia	12	9	10	7	3	2
Florida	18	10	15	8	4	2
Georgia	11	6	10	5	1	1
Hawaii	11	5	9	4	2	1
Indiana	11	6	11	6	1	0
Iowa	15	6	14	5	1	0
Kentucky	9	4	9	4	0	0
Louisiana	11	6	10	6	0	0
Maine	13	7	13	7	1	0
Maryland	11	5	10	5	2	1
Massachusetts	18	8	15	6	3	2
Michigan	10	5	9	5	1	0
Minnesota	12	4	11	4	2	1
Mississippi	10	6	10	6	0	0
Missouri	13	6	13	6	1	0
Montana	9	3	9	3	0	0
Nebraska	12	4	11	4	1	0
New Mexico	20	9	15	7	7	3
New York	16	9	8	4	8	5
North Carolina	9	5	9	5	1	1
North Dakota	7	2	7	2	0	0
Oregon	12	5	9	4	3	2
Rhode Island	17	7	13	5	5	2
South Carolina	10	6	10	6	0	0
Tennessee	12	4	12	4	1	1
Texas	18	8	11	6	8	3
Utah	9	4	8	4	1	1
Vermont	14	6	13	5	1	1
Virginia	13	7	10	6	4	1
Washington	11	4	8	3	3	1
West Virginia	13	7	13	7	0	0
Wisconsin	12	8	11	7	2	1
Wyoming	11	5	10	4	1	0
DDESS	10	7	8	5	3	3
DoDDS	8	3	6	2	2	1
Guam	11	8	7	5	5	3

National results are based on the national assessment sample, not on aggregated state assessment program samples.

SD = Students with Disabilities (the term previously used was IEP).

LEP = Limited English Proficient Students.

To be excluded, a student was supposed to be classified as SD or as LEP and judged incapable of participating in the assessment.
A student reported as belonging to both SD and LEP classifications is counted once in the overall rate (first column), once in the overall excluded rate (second column), and separately in the remaining columns.

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 Science Assessment.

Table A.5b

NAEP 1996 Reporting Sample SD and LEP Participation Rates: Grade 8, Nonpublic Schools

THE NATION'S REPORT CARD 1996 State Assessment

	Total Percentage of Students — SD and LEP		Percentage of Students — SD		Percentage of Students — LEP	
	Identified	Excluded	Identified	Excluded	Identified	Excluded
Nation	**3**	**0**	**2**	**0**	**0**	**0**
Arkansas	2	0	2	0	0	0
California	1	0	1	0	0	0
Georgia	0	0	0	0	0	0
Iowa	1	0	1	0	0	0
Kentucky	0	0	0	0	0	0
Louisiana	5	1	5	1	0	0
Massachusetts	5	2	1	0	4	2
Michigan	4	2	3	0	2	2
Minnesota	0	0	0	0	0	0
Missouri	5	0	5	0	0	0
Montana	13	1	1	1	12	0
Nebraska	2	0	1	0	0	0
Nevada	2	2	2	2	0	0
New Hampshire	0	0	0	0	0	0
New Mexico	4	0	4	0	0	0
New York	2	1	2	1	0	0
North Dakota	15	1	6	1	10	1
Texas	4	0	4	0	0	0
Vermont	1	1	0	0	1	1
Washington	1	0	0	0	1	0
Guam	0	0	0	0	0	0

National results are based on the national assessment sample, not on aggregated state assessment program samples.

SD = Students with Disabilities (the term previously used was IEP).

LEP = Limited English Proficient Students.

To be excluded, a student was supposed to be classified as SD or as LEP and judged incapable of participating in the assessment.
A student reported as belonging to both SD and LEP classifications is counted once in the overall rate (first column), once in the overall excluded rate (second column), and separately in the remaining columns.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 Science Assessment.

Scoring

Materials from the 1996 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 (ETS). Each constructed-response question had a unique scoring guide that defined the criteria used to evaluate students' responses. The extended constructed-response questions were evaluated with four- or five-level guides, while the short constructed-response questions were rated according to two- or three-level guides.

For the national and state science assessments, more than 4.1 million constructed responses were scored. This number includes rescoring to monitor inter-rater reliability. The overall percentage of agreement for the 1996 national reliability sample was 94 percent at grade 8.

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 and state samples reflected the probability of selection for each student as a result of the sampling design, adjusted for nonresponse. Through stratification, the weighting assured that the representation of certain subpopulations corresponded to figures from the U.S. Census and the Current Population Survey.[3]

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 responses at the end of a block (i.e., missing responses following 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.

Item response theory (IRT) was used to estimate average science scale scores for the nation, for various subgroups of interest within the nation, and for the jurisdictions. 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 — for example, those defined by characteristics such as gender and race/ethnicity.

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[3] For additional information about the use of weighting procedures in NAEP, see Johnson, E. G. (1989). Considerations and techniques for the analysis of NAEP data. *Journal of Educational Statistics, 14*(4), 303-334.

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 science scale are based on the plausible values. They estimate values that would have been obtained had individual scale scores been observed — that is, had each student responded to a sufficient number of cognitive questions so his or her individual scores could be precisely estimated.[4]

Three distinct scales were created at each grade to summarize students' abilities in the three defined fields of science: earth, physical, and life. The scales summarize student performance across all three question types in the assessment (multiple-choice, short constructed-response, and extended constructed-response).

The 1996 science assessment was developed using a new framework. Because it was not appropriate to compare results from the 1996 assessment to those of previous NAEP science assessments, no attempt was made to link or align scores on the new assessment to those of previous assessments. Therefore, it was necessary to establish a new scale for reporting. NAEP assessments developed earlier (such as the 1994 reading assessment) were developed with a cross-grade framework, in which the trait being measured is conceptualized as cumulative across the grades of the assessment. Accordingly, a single 0-to-500 scale was established for all three grades in each of these assessments.

In 1993, the National Assessment Governing Board (NAGB) determined that future NAEP assessments should be developed using within-grade frameworks. This removes the constraint that the trait being measured is cumulative. It also means that there is no need for overlap of questions across grades. Consistent with this view, NAGB also declared that scaling be performed within-grade. Any questions which happened to be the same across grades in the assessment were scaled separately for each grade, thus making it possible for common questions to function differently in the separate grades. The NAEP 1994 history and geography assessments were developed and scaled within-grade. After scaling, the scales were aligned so that grade 8 had a higher mean than grade 4, and grade 12 had a higher mean than grade 8. The results were reported on a final 0-to-500 scale that looked similar to those used in reading, in spite of the differences in development and scaling. This definition of the reporting scale was the source of potential confusion and misinterpretation.

Therefore, for the NAEP 1996 science assessment — which was also developed and scaled using within-grade procedures — a new reporting metric was adopted. The results are

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[4] For theoretical and empirical justification of the procedures employed, see Mislevy, R. J. (1991). Randomization-based inference about latent variables from complex samples. *Psychometrika, 56,* 177-196.

For computational details, see Johnson, E. G., & Zwick, R. (1990). *Focusing the new design: The NAEP 1988 technical report* (No. 19-TR-20). Princeton, NJ: Educational Testing Service, National Assessment of Educational Progress, and Johnson, E. G., & Allen, N. L. (1992). *The NAEP 1990 technical report* (No. 21-TR-20). Princeton, NJ: Educational Testing Service, National Assessment of Educational Progress.

reported on 0-to-300 scales and the means for each of the grades are identical. For each grade, the mean for each field of science was set at 150 and the standard deviation was 35. Constraining the mean and standard deviation of the scales to 150 and 35 also constrained, to some degree, the locations of the percentiles for the total group of students at each grade. However, within-grade comparisons of percentiles across subgroups can still provide valuable comparative information. The reporting metric was developed using data from the national assessment program, and the results for the state assessment program were linked to these scales.

In addition to the plausible values for each scale, a composite of the three fields of science scales was created as a measure of overall science performance. This composite was a weighted average of the plausible values for the three science scales, in which the weights were proportional to the relative importance assigned to each field of science in the assessment framework.

In producing the science 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 correct or incorrect 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.[5] 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 science scale is composed of three types of questions: multiple-choice questions, constructed-response questions scored dichotomously as correct or incorrect, and constructed-response questions scored according to a partial-credit model. One query about the scale concerns the amount of information contributed by each type of question. Unfortunately, there is no simple answer for the NAEP science assessment, due to the complex procedures used to form the composite science scale.

The information provided by a given question is determined by the IRT model used to scale the question and is a function of its item parameters.[6] Thus, the answer to the query, "How much information do the different types of questions provide?" will differ for each level of science performance. When considering the composite science scale, the answer is even more complicated. The science data are scaled separately by the three fields of science. The composite scale is a weighted combination of these scales. IRT information functions are only strictly comparable when they are derived from the same calibration. Because the composite scale is based on three separate calibrations, there is no direct way to compare the information provided by the questions on the composite scale.

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

[6] 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.

Muraki, E. (1993). Information functions of the generalized partial credit model. *Applied Psychological Measurement, 17*(4), 351-362.

NAEP Reporting Groups

In this report, results are provided for groups of students defined by shared characteristics — region of the country, gender, race/ethnicity, parental education, type of school, participation in Title I programs, and eligibility for the free/reduced-price school lunch program. As described later in this appendix, results are reported for subpopulations only when sufficient numbers of students are assessed and adequate school representation criteria are met. For public school students, the minimum requirement is 62 students in a particular subgroup from at least 5 primary sampling units (PSUs).[7] For nonpublic school students, the minimum requirement is 62 students from at least 6 different schools for the state assessment program or from at least 5 PSUs for the national assessment. 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 are reported for four regions of the nation: Northeast, Southeast, Central, and West. Figure A.2 shows how states are subdivided into these 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.

Regional results are based on national assessment samples, not on aggregated state assessment program samples. Thus, the regional results are based on a sample that is different and separate from that used to report the state results.

Figure A.2 **Regions of the Country**

THE NATION'S REPORT CARD 1996 State Assessment

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 Washington, DC metropolitan area is included in the Northeast region; the remainder of the state is included in the Southeast region.

[7] 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.

Gender

Results are reported separately for males and females.

Race/Ethnicity

The race/ethnicity variable is derived from two questions asked of students and, where necessary, school records, and it is used to compare the performance of race/ethnicity subgroups. 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, or 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") and provided illegible information or information that could not be classified, or who did not respond at all, race/ethnicity was assigned as determined by school records.[8]

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.

[8] The procedure for assigning race/ethnicity was modified for Hawaii. For details, see Allen, N. L., Swinton, S. S., Isham, S. P., & Zelenak, C. A. (1997). *Technical report of the NAEP 1996 state assessment program in science.* Washington, DC: National Center for Education Statistics.

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.

Parents' Highest Level of Education

The variable representing the level of parental education is derived from responses to two questions from the set of general student background questions. Students were asked to indicate the extent of their mother's education.

How far in school did your mother go?

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

Students were asked a similar question about their father's education level.

How far in school did your father go?

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

The information was combined into one parental education reporting variable through the following process. If a student indicated the extent of education for only one parent, that level was included in the data. If a student indicated the extent of education for both parents, the higher of the two levels was included in the data. If a student did not know the level of education for both parents or did not know the level for one parent and did not respond for the other, the parental education level was classified as "I don't know." (Nationally, 9 percent of eighth graders reported that they did not know the education level of either of their parents.) If the student did not respond for either parent, the student was recorded as having provided no response. Approximately 2 percent of the students provided no response.

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. 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. (A separate sample for DDESS was included as a jurisdiction in the state assessment.)

Students from the overseas Department of Defense Schools (DoDDS) and from the five U.S. Territories (American Samoa, Guam, Northern Marianas, Puerto Rico, and the Virgin Islands) are not included in NAEP national assessment samples. These jurisdictions are eligible, however, to participate in NAEP's state assessment program. Two of these jurisdictions, DoDDS and Guam, as well as DDESS schools, participated as separate jurisdictions, in the 1996 state NAEP program.

Title I Participation

Based on available school records, students were classified either as currently participating in a Title I program or receiving Title I services, or as not receiving such services. The classification applies only to the school year when the assessment was administered (i.e., the 1995-96 school year) and is not based on participation in previous years. If the school did not offer any Title I programs or services, all students in that school were classified as not participating.

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 1995-96 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."

Cautions in Interpretations

As described earlier, the NAEP science 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 NAEP 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.

Guidelines for Analysis and Reporting

This report describes science performance of eighth-graders and examines the results for various groups of students within this population (e.g., those who have certain demographic characteristics or who responded to a specific background question in a particular way). It also examines the results for individual demographic groups and individual background questions. However, it does not include an analysis of the relationships among combinations of these subpopulations or background questions.

Estimating Variability

Because the statistics presented in this report are estimates of group and subgroup performance based on samples of students rather than the values that could be calculated if every student in the nation answered every question, the degree of uncertainty associated with the estimates should be taken into account. 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 information that can be observed without error. However, because each student typically responds to only a few questions within any content area, the scale score for any single student would be imprecise. In this case, plausible values technology 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.[9]

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 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 1996 Technical Report.*

The reader is reminded that, like 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

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

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 data collecting, data processing, and sampling, and in 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

Because the percentages of students in these subpopulations and their average scale scores are based on samples rather than on the entire population of eighth-graders in the nation or a jurisdiction, the numbers reported are estimates. As such, they are subject to a measure of uncertainty, reflected in the standard error of the estimate. When the percentages or average scale scores of certain groups are compared, the standard errors should be taken into account, and observed similarities or differences should not be relied on solely. Therefore, the comparisons discussed relating to the assessment are based on statistical tests that consider the magnitude of the difference among the averages or percentages and the standard errors of those statistics.

The results from the sample, taking into account the uncertainty associated with all samples, are used to make inferences about the population. Using confidence intervals based on the standard errors provides a way to make inferences about the population averages and percentages in a manner that reflects the uncertainty associated with the sample estimates. An estimated sample average scale score ± 2 standard errors approximates a 95 percent confidence interval for the corresponding population quantity. This statement means that one can conclude at the 95 percent confidence level that the average performance of the entire population of interest (e.g., all eighth-grade students in public schools in a jurisdiction) is within ± 2 standard errors of the sample average.

As an example, suppose that the average science scale score of the students in a particular group was 156 with a standard error of 1.2. A 95 percent confidence interval for the population quantity would be as follows:

Average ± 2 standard errors
156 ± 2 x 1.2
156 ± 2.4
153.6, 158.4

Thus, one can conclude at the 95 percent level of confidence that the average scale score for the entire population of students in that group is between 153.6 and 158.4.

Similar confidence intervals can be constructed for percentages, if the percentages are not extremely large or extremely small. For extreme percentages, confidence intervals constructed in the above manner may not be appropriate, and accurate confidence intervals can be constructed only by using procedures that are quite complicated.

Extreme percentages, defined by both the magnitude of the percentage and the size of the sample from which it was derived, should be interpreted with caution. (The forthcoming *NAEP 1996 Technical Report* contains a more complete discussion of extreme percentages.)

Analyzing Group Differences in Averages and Percentages

The statistical tests determine whether the evidence, based on the data from the groups in the sample, is strong enough to indicate 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. If the evidence is not sufficiently strong (i.e., the difference is not statistically significant), the averages or percentages are described as being not significantly different, regardless of whether the sample averages or percentages appear to be approximately the same or widely discrepant.

Again, 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.

$$\text{Standard Error of the Difference} = SE_{A-B} = \sqrt{SE_A^2 + SE_B^2}$$

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 ± 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.

Group	Average Scale Score	Standard Error
A	118	0.9
B	116	1.1

As an example, to determine whether the average science 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:

The difference between the estimates of the average scale scores of Groups A and B is two points (118 - 116). 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

Difference $\pm$ 2 standard errors of the difference

$2 \pm 2 \times 1.4$

2 ± 2.8

-0.8, 4.8

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

The procedures described in this 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 significance is being performed. 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 must be made to the methods described in the previous section. One such procedure, the Bonferroni method, was used in the analyses of the 1996 assessment to adjust the confidence intervals for the differences among groups when sets of comparisons were considered.[10] Thus, the confidence intervals for these sets of comparisons are more conservative than those described on the previous pages.

For example, most of the multiple comparisons in the *NAEP 1996 Science Report Card for the Nation and the States* pertain to relatively small sets or families of comparisons. For discussions concerning comparisons of parents' level of education, six comparisons were conducted — that is, all pairs of the four parental education levels were compared. In these situations, Bonferroni procedures were appropriate. However, for the cross-state comparisons with a large family of comparisons, the False Discovery Rate (FDR) procedure[11] was used to control the certainty level.

Unlike the Bonferroni procedure, which controls 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, Bonferroni procedures are considered conservative for large families of comparisons.[12] Therefore, the FDR procedure is more suitable for cross-state comparisons. A detailed description of the Bonferroni and FDR procedures appears in the *NAEP 1996 Technical Report* and *Technical Report of the NAEP 1996 State Assessment Program in Science.*

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[10] Miller, R. G. (1966). *Simultaneous statistical inference.* New York: McGraw-Hill.

[11] Benjamini, Y., & Hochberg, Y. (1994). Controlling the false discovery rate: A practical and powerful approach to multiple testing. *Journal of the Royal Statistical Society, Series B, 57*(1), 289-300.

[12] 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.

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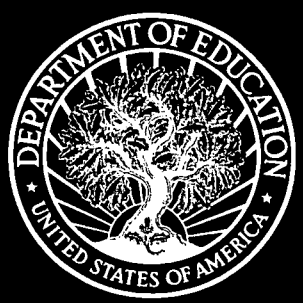

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