

State-Level Data on State Science-Mathematics Indicators from the 2003-04 School Year

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Appendix

Data Sources and Computations

Data Sources

National Assessment of Educational Progress (NAEP)

The National Assessment of Educational Progress (NAEP) is a congressionally mandated project of the National Center for Education Statistics (NCES), which has collected and reported information for more than 25 years on what U.S. students know and what they can do. It is the nation's only ongoing, comparable, and representative assessment of student achievement. Its assessments are given to scientific samples of youths attending both public and private schools and enrolled in grades 4, 8, or 12. The assessment questions are written within a framework prepared for each content area (reading, writing, math, science, and others) that represents the consensus of groups of curriculum experts, educators, members of the general public, and user groups on what should be covered on such a test. Reporting includes means and distributions of scores, as well as more descriptive information about the meaning of different points on the NAEP scale.

NAEP's 2003 mathematics assessment included nearly 343,000 grades 4 and 8 students attending approximately 12,800 schools across the nation, and the 2000 science assessment included 240,000 students. The assessment itself was forward looking, comprising several hundred questions at each of the grades assessed. Consistent with the standards of the National Council of Teachers of Mathematics (NCTM) and the National Research Council (NRC) for science, many of the questions required students to construct their responses, and some questions asked for explanations of their reasoning. For various portions of the assessment, mathematical and scientific tools and laboratory materials were supplied, including scientific calculators, protractor/rulers, and geometric shapes.

Nationally representative samples of students attending both public and private schools were assessed at grades 4, 8, and 12. In 2003, samples of grades 4 and 8 students attending public schools were assessed in math in all states (as required under No Child Left Behind Act of 2001) and in six jurisdictions.

Advanced Placement Examination (AP)

The advanced placement (AP) program, a cooperative educational endeavor, is based on the premise that college-level material can be taught successfully to able and well-prepared secondary school students. Participating colleges, in turn, grant credit or appropriate placement to students who have done well on the AP examinations. Approximately 60 percent of the nation's 17,000 high schools offer some college-level AP coursework, and more than 1.1 million students participate in the AP program each year. Use by both schools and students has grown steadily in recent years.

Appendix

In response to increased interest in the AP program, the College Board produces, as part of its reporting process, a series of tables reflecting student participation in the 2004 AP examinations. A more detailed understanding of AP trends and related information can be found on the College Board's website (<http://apcentral.collegeboard.com/>).

The College Board annually publishes summary reports for the nation and for each of the 50 states. The reports give tables with the number of students taking examinations and the number receiving each grade: 1 = no recommendation, 2 = possibly qualified, 3 = qualified, 4 = well qualified, 5 = extremely well qualified.

State Data

State departments of education report to CCSSO aggregated totals on course enrollments and teacher characteristics in science and mathematics. Data are collected by states through state management information systems. The state totals for public schools are aggregated and reported to CCSSO using common data definitions and reporting forms (CCSSO, 2003). The data refer to the status of students and teachers on or about October 1. Each state's data codes for course enrollments and teacher assignments are cross-walked by CCSSO staff using the course taxonomy and common data category definitions developed by CCSSO with the states (see Appendix).

For the science and mathematics indicators from the 2003–04 school year, 37 states, the District of Columbia, DoDEA, Guam, and the Virgin Islands reported some state-collected data. Data on science and mathematics teachers were reported by 38 states, and course enrollments were reported by 31 states.

Computation of Estimated Proportion of High School Students Taking Selected Mathematics and Science Courses by Graduation

The percentages shown in Tables 1.1 and 1.3 for each course are statistical estimates of course-taking of high school students by the time they graduate, based on total course enrollments in grades 9–12 as of fall 2003 divided by the estimated number of students in a grade cohort during four years of high school.

Synthetic cohort statistics have been used previously in education. For example, a synthetic high school dropout statistic has been estimated, based on the sum of the percentages of students who dropped out at each grade, for grades 9–12 (Kominski, 1993). Cross-sectional data on dropouts by grade are used to estimate a true dropout rate over a four-year period of high school. A true dropout rate requires tracking the status of the same group of students (cohort) through four years of high school. If only cross-sectional data are available, the synthetic cohort statistic provides an estimate of the high school dropout rate.

The science and mathematics indicators project desired a synthetic cohort statistic of the proportion of graduates in a state who took a given course (e.g., biology 1). Since most states do not collect data by grade, the approach used in computing a synthetic dropout statistic had to be revised. First, the numerator is the total number of students in grades 9–12 who took a given course (e.g., biology, first year) in fall 2003. Second, the denominator is an estimate of the number of students in a cohort of students summed over a four-year period of high school. For each state, the size of the cohort of students who have some probability of taking a given course (e.g., biology 1) during four years of high school is estimated by the state student membership in each grade (for grades 9–12), weighted by the regional percentage of students who took the course at each grade level, and computed by summing the weighted memberships for each grade (grades 9–12). The state student memberships by grade were obtained from the 2002–03 Common Core of Data (NCES), and the regional percentages were obtained from the 2000 National Transcript Study (Perkins, et al., 2004).

The computation of the science/mathematics course-taking synthetic cohort statistic can be summarized as follows, using the example of biology 1:

$$\text{Estimated proportion of students taking biology 1 in state A} = \frac{\text{Biology 1 enrollment, grades 9–12 (reported by state A)}}{\text{Estimated number of students in cohort in grades 9–12}}$$

(from CCD and regional weights based on NAEP transcript study)

$$\text{Estimated students in cohort} = (M9 \times \text{Bio } 1/9) + (M10 \times \text{Bio } 1/10) + (M11 \times \text{Bio } 1/11) + (M12 \times \text{Bio } 1/12)$$

Where M9 is the student membership for grade 9
(from Common Core of Data, NCES)

(Four regions designated by Westat: Northeast, North Central, South Central, and West)

Bio 1/9 is the percentage of 2000 graduates in state A's region who took biology 1 in grade 9
(from Westat, Inc. transcript data files)

Appendix

The estimated percentages of students taking a course by graduation, based on state data, can be compared with rates based on student transcripts from studies conducted by NCES. For example, national estimates of course-taking from 1997–98 aggregated state data provided the following figures: biology 92 percent, chemistry 54 percent, and physics 24 percent (Blank & Langesen, 1999). The 1998 national transcript study provided these figures: biology 93 percent, chemistry 61 percent, and physics 29 percent. In mathematics, state aggregate data provided the following figures: geometry 72 percent, algebra 2 63 percent, trigonometry/precalculus 39 percent, and calculus 12 percent. The national transcript study provided these figures: geometry 75 percent, algebra 2 58 percent, trigonometry/precalculus 36 percent, and calculus 18 percent. (Algebra 1 is not compared because transcript studies generally do not include grade 8 enrollments. State data showed more than 95 percent of students taking algebra 1 by graduation, whereas the transcript study reported 63 percent.)

Thus, the comparison of rates by the two data collection methods shows that transcript data generally produce slightly higher rates of course-taking. One reason for the difference is that CCSSO/state data were reported only during first semester, while the transcript data count all courses taken whether they are year-long, first-semester, or second-semester courses. The transcript study rates have a small standard error (1 to 2 percent), and CCSSO estimates from state data include some error introduced by imputation for missing states. The CCSSO data from states could also be compared to student self-reported data from NAEP assessments in science and mathematics. However, comparisons of self-reported versus transcript data show that self-reported data often have slightly inflated rates of course-taking.

Variability is added to the state estimates through the weighted student membership based on regional weights. Since the weights are not state-specific, each estimate has variability. For this reason, estimates above 95 percent of students cannot be made with precision, and enrollments at this level are shown as “95+” percent.

Course enrollment rates are based on enrollments as of fall 2003. Some states collect data on student course-taking for fall and spring semesters. The state comparisons are based on cross-sectional data collected as of October 1. The indicator does not account for course-taking in spring semester courses.

Imputation for nonreporting states of the estimated proportion of high school graduates taking selected mathematics and science courses. In 2003–04, 31 states reported course enrollment data to CCSSO. To obtain a national total for the estimated proportion of graduates taking selected mathematics and science courses, the state proportions were imputed using the following formula:

$$\text{Estimated proportion of students taking biology 1 in nonreporting state B} = \frac{[\text{Reg. avg. \% taking biology 1 (9–12) x state B student membership (9–12)}]}{\text{Sum of estimated numbers of students in cohort in grades 9–12}} \\ (\text{from CCD and regional weights based on NAEP transcript study, as above})$$

Where reg. avg. % taking biology 1 is the average (mean) percent of students taking biology 1 among the reporting states in state B's region

Imputation for nonreporting states of the number of teachers per field (mathematics, biology, chemistry, etc.).

Imputed number of
teacher of mathematics
in state C = $\frac{\text{State student membership (9-12)}}{\text{Regional ratio students/teacher}}$ x Regional ratio of mathematics teachers
to total teachers (9-12)

Regional ratio
students/teacher = $\frac{\text{State student membership (9-12)}}{\text{State total teachers (9-12)}}$ Average for states in region

Regional ratio
mathematics teachers
to total teachers = $\frac{\text{State mathematics teachers (9-12)}}{\text{State total teachers (9-12)}}$ Average for states in region

Appendix

Directory of State Course Titles by Reporting Categories

State Science and Mathematics Indicators (Fall 2003) CCSSO INDICATORS

Science Course Categories

State Course Titles (from state data forms)

Grades 7-8

General Science, 7-8

General Science 7, 8

Life Science, 7-8

Life Science 7, 8

Earth Science, 7-8

Earth Science 7, 8

Physical Science, 7-8

Physical Science 7, 8

Integrated/Coordinated Science, 7-8

Science I, II; SS&C; Project 2061;

Integrated Science 7, 8;

Earth/Life/Physical Science 7, 8;

Coordinated Science 7, 8

Other Science, 7-8

Other science courses for grades 7 or 8 listed under the "Science" category on state data collection form

Grades 9-12

Biology, 1st Year

Biology I; General; College Prep.;

Regents; Introductory; BSCS I

Biology, 1st Year, Applied

Basic Biology; Applied; Life Science;

Biomedical Ed.; Animal Science;

Horticulture Sci.; Bio. Science; Health

Science; Nutrition; Man & Disease;

Agricul. Science; Fundamentals of

Biology

Biology, 2nd Year, Advanced Placement
Advanced Placement Biology

Biology, 2nd Year, Advanced

Biology II; Advanced; College;

Psychobiology; Physiology; Anatomy;

Microbiology; Genetics; Cell Biology;

Embryology; Molecular Biology;

Invertebrate/Vertebrate Biology; BSCS II

Biology, 2nd Year, Other

Zoology; Botany; Biomedical Careers;

Field Biology; Ecology; Marine Biology;

Other Biological Sciences

Chemistry, 1st Year

Chemistry I; General; Introductory;

Regents

Chemistry, 1st Year, Applied

Applied Chemistry; Consumer

Chemistry; Technical Chemistry;

Practical Chemistry; Chemistry in the

Community

Chemistry, 2nd Year, Advanced Placement

Advanced Placement Chemistry

Chemistry, 2nd Year, Advanced

Chemistry II; Advanced; College;

Organic; Inorganic; Physical;

Biochemistry; Analytical

Physics, 1st Year

Physics I; General; Regents;

Introductory

Physics, 1st Year, Applied

Applied Physics; Electronics; Radiation

Physics; Practical Physics;

Applied/Conceptual Physics; Electricity

Physics, 2nd Year, Advanced Placement

Advanced Placement Physics

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Physics, 2nd Year, Advanced

Physics II; Advanced; College; Nuclear Physics; Atomic Physics

Earth Science, 1st Year

Earth Science; Earth-Space Science; Regents Earth Science; Space Science; (courses that are generally taught at grade 9 and at introductory level)

Earth Science, 1st Year, Applied

Applied Earth Science; Fundamentals of Earth Science; Soil Science

Earth Science, 2nd Year, Advanced/Other

Advanced Earth Science; Earth Science II; Oceanography; Aquatic Science; Marine Science; Astronomy; Geology; Meteorology (courses that are generally taught at grade 10, 11, or 12 and at higher level than Earth Science, 1st Year)

General Science

General Science; Basic; Introductory; Consumer Science

Physical Science

Physical Science; Interaction of Matter and Energy; Applied Physical Science

Integrated/Coordinated Science

Science III, IV; SS&C; Project 2061; Integrated Science 9, 10; Unified; Comprehensive Ideas of Investigations in Science; Life/Physical Science; Earth/Life/Physical Science; Coordinated Science

Environmental Science

Environmental Science; Environmental Education

Technology (taught as science course)

Principles of Technology I, II; Science/Technology/Society; Tech. Prep. Science; Biotechnology; Histological Technology

Other Science

Science/Math; Engineering; Bioengineering; Special Interests Science; Energy; Research Topics; Laboratory Management; Aerospace Science; Aviation; Other science courses for grades 9-12 listed under the "Science" category on state data collection form

Mathematics Course Categories

State Course Titles (from state data forms)

Grades 7-8

Remedial Math, Grade 7

Remedial Math 7

Math, Grade 7, Regular

Math 7; Math Grade 7 Regular

Math, Grade 7, Accelerated

Accelerated Math 7; Pre-algebra; Honors Math 7; Enriched Math 7

Remedial Math, Grade 8

Remedial Math 8

Math, Grade 8, Regular

Math 8; Math Grade 8 Regular

Math, Grade 8, Accelerated

Accelerated Math 8; Pre-algebra; Honors Math 8; Enriched Math 8

Math, Grades 7-8, Algebra 1

Algebra 1; Beginning Algebra; Elementary Algebra

Integrated Middle Grades Math, Gds 7-8

Integrated Math 7 or 8; Connected Math 7 or 8

Grades 9-12

Review Mathematics

Level 1

General Math 1; Basic Math; Math 9; Remedial Math; Developmental;

Level 1 (continued)

H.S. Arithmetic; Math Comp Test;
Comprehensive Math; Terminal Math

Level 2

General Math 2; Vocational Math;
Consumer; Technical; Business;
Shop; Math 10; Career Math; Practical
Math; Essential Math; Cultural Math

Level 3

General Math 3; Math 11;
Intermediate Math

Level 4

General Math 4; Math 12;
Mathematics of Consumer Economics

Informal Mathematics*Level 1*

Pre-algebra; Introductory Algebra;
Basic; Applications; Algebra 1A (first
year of two-year sequence for Algebra
1); Math A; Applied Math 1

Level 2

Basic Geometry; Informal Geometry;
Practical Geometry; Applied Math 2

Level 3

Applied Math 3, 4

Formal Mathematics*Level 1*

Algebra 1; Elementary; Beginning;
Unified Math I; Integrated Math 1;
Algebra 1B (second year of two-year
sequence for Algebra 1); Math B

Level 2

Geometry; Plane Geometry; Solid
Geometry; Integrated Math 2; Unified
Math II; Math C

Level 3

Algebra 2; Intermediate Algebra;
Algebra and Trigonometry; Advanced
Algebra; Algebra and Analytic
Geometry; Integrated Math 3; Unified
Math III

Level 4

Trigonometry; College Algebra;
Algebra 3; Pre-calculus;
Analytic/Advanced Geometry;
Trigonometry and Analytic/Solid
Geometry; Advanced Math Topics;
Intro. to College Math; Number
Theory; Math IV; College Prep Sr.
Math; Elem. Functions; Finite Math;
Math Analysis; Numerical Analysis;
Discrete Math; Probability; Statistics

Level 5

Calculus and Analytic Geometry;
Calculus; Abstract Algebra;
Differential Equations; Multivariate
Calculus; Linear Algebra; Theory of
Equations; Vectors/Matrix Algebra

Level 5, Advanced Placement

Advanced Placement Calculus (AB,
BC); Advanced Placement Statistics

Other Mathematics, 9-12

Used only if state has a code for
"Other Mathematics"

Section I: 2003-04 Data Referenced in Report

Table 1.1**Minority and Female Students Taking Advanced Placement Examinations in Mathematics and Science, 2004; Change 1996 to 2004 in Minority Participation**

State	AP CALCULUS			AP SCIENCE		
	% Minority Students Taking AP Calculus, '04	% Change 1996 to '04 Minority	% Female Students Taking Exam, 04	% Minority Students Taking AP Science, '04	% Change 1996 to '04 Minority	% Female Students Taking Exam, 04
Hawaii	77	0	50	74	-2	49
California	53	+1	48	54	+5	48
Texas	40	+5	47	41	+5	45
New Mexico	37	+7	45	35	+9	45
Dist. of Columbia	33	+6	45	30	+6	45
Florida	32	+3	46	35	+3	48
Nevada	32	+9	48	32	+12	50
New Jersey	31	+1	43	33	+3	46
Georgia	28	+9	48	31	+7	47
NATION	28	+3	46	30	+4	47
Maryland	27	+3	46	34	+3	46
New York	27	+1	49	25	0	49
Arizona	25	+5	46	27	+5	45
Louisiana	24	+2	48	22	0	48
Oklahoma	24	+2	47	24	0	45
Washington	24	+3	46	22	+5	46
Virginia	23	+2	47	26	0	50
Illinois	23	-1	46	29	+2	44
Delaware	23	+5	46	24	+9	48
South Carolina	19	0	49	17	-1	51
Alabama	19	-1	44	18	-2	45
Massachusetts	19	+1	45	22	+6	46
Connecticut	18	+1	42	19	-10	46
North Carolina	18	+5	48	18	+3	50
Mississippi	18	+4	45	24	+7	48
Arkansas	18	+4	45	18	+12	51
Oregon	18	+4	45	20	+4	42
Tennessee	17	0	46	21	+1	46
Kansas	17	+4	45	19	+1	45
Michigan	16	+1	45	18	0	47
New Hampshire	15	+2	42	16	+5	44
Alaska	15	+1	41	20	+4	45
Colorado	14	0	46	18	+3	47
Pennsylvania	13	0	42	14	0	44
Rhode Island	12	+2	43	8	-4	50
Missouri	12	-5	44	14	-1	44
West Virginia	11	+3	42	15	+8	47
Ohio	11	-1	44	15	0	46
Indiana	11	+1	45	14	+4	46
Minnesota	10	+2	45	15	+5	46
Iowa	10	+3	41	12	+3	43
Nebraska	10	+4	45	9	+2	46
Wyoming	9	+3	39	8	+2	49
Kentucky	8	+1	46	8	+1	50
Maine	8	+5	38	6	+3	46
Utah	8	+3	41	10	+4	39
Wisconsin	8	0	44	9	+1	47
Vermont	8	+1	43	8	+4	51
Idaho	8	+2	38	9	+5	40
North Dakota	5	-1	43	6	-2	47
Montana	4	0	41	5	+3	42
South Dakota	4	+4	47	6	+2	43

Note: State totals include public and private schools. Minority students = sum of black, Hispanic, Asian/Pacific Islander, American Indian, etc.

% AP Science = Students taking AP Biology, Chemistry, or Physics.

Source: The College Board, Advanced Placement Program, National and 50 States Summary Reports, New York, 2004. Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 1.2**Students Taking Advanced Placement Examinations in Mathematics and Science, 2004;
Trends 1996 to 2004**

State	AP CALCULUS			AP SCIENCE*		
	% of Grade 12 Students Taking Exam, 2004	% Receiving Qualified Score	Change 1996 to '04 % of Grade 12	% of Grade 12 Students Taking Exam, 2004	% Receiving Qualified Score	Change 1996 to '04 % of Grade 12
Dist. of Columbia	18	69	+7	27	67	+12
Maryland	12	71	+4	14	63	+5
New York	12	63	+2	16	65	+3
Delaware	12	71	+4	15	61	+5
Massachusetts	11	72	+3	13	69	+4
Virginia	10	63	+3	10	58	+3
New Jersey	10	70	+2	14	68	+4
North Carolina	10	61	+3	9	57	+2
Connecticut	10	74	+3	14	74	+5
California	9	65	+3	12	56	+4
Utah	9	72	+2	8	63	-1
Hawaii	9	67	+2	13	68	+5
Florida	8	59	+2	11	48	+3
Colorado	8	65	+3	9	62	+4
New Hampshire	8	70	+1	8	65	+2
Vermont	8	68	+4	9	62	+3
Maine	8	56	+4	8	59	+3
Indiana	7	44	+2	7	45	+1
Illinois	7	74	+2	8	71	+2
NATION	7	64	+2	8	60	+3
South Carolina	7	65	0	8	57	+1
Georgia	7	60	+3	9	57	+5
Texas	7	52	+4	6	51	+3
Wisconsin	7	70	+3	7	64	+4
Pennsylvania	6	67	+2	7	63	+3
Ohio	6	64	+3	6	64	+3
Minnesota	6	65	+2	4	60	+2
Michigan	6	67	+2	7	66	+2
Washington	6	65	+3	6	63	+4
Kentucky	6	50	+3	7	42	+4
New Mexico	6	50	+2	5	45	+2
Rhode Island	6	62	+2	7	60	+3
Nevada	6	66	+2	7	54	+3
South Dakota	5	61	+3	5	62	+3
Alaska	5	68	+1	5	63	+1
Tennessee	5	66	+1	6	65	+3
Oklahoma	5	50	+3	7	46	+5
Arizona	4	61	+1	4	54	0
Oregon	4	69	+2	4	68	+2
West Virginia	4	48	+2	4	53	+2
Arkansas	4	43	+2	5	40	+3
Idaho	4	72	+2	5	66	+3
Missouri	3	69	+1	4	67	+2
Montana	3	56	+2	3	69	+1
Iowa	3	68	+1	3	68	+1
Wyoming	3	56	0	4	51	+3
Kansas	3	73	+1	2	62	+1
North Dakota	2	75	+1	2	59	+1
Alabama	2	61	-1	4	60	+1
Louisiana	2	50	+1	2	55	+1
Nebraska	2	55	+1	2	57	+1
Mississippi	2	45	0	2	43	0

*AP Science = students taking AP Biology, Chemistry, or Physics.

Note: State totals include public and private schools.

Source: The College Board, Advanced Placement Program, National and 50 States Summary Reports, New York, 2004.
Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 1.3**Students Taking Advanced Placement (AP) Exams in Mathematics and Science, 2004**

State	AP CALCULUS		AP BIOLOGY		AP CHEMISTRY		AP PHYSICS	
	Total Taking Exam	% of Grade 12	Total Taking Exam	% of Grade 12	Total Taking Exam	% of Grade 12	Total Taking Exam	% of Grade 12
Alabama	1,106	2	738	2	416	1	524	1
Alaska	444	5	209	2	131	1	110	1
Arizona	2,521	4	949	2	738	1	815	1
Arkansas	1,089	4	616	2	528	2	270	1
California	35,759	9	19,940	5	11,779	3	13,618	4
Colorado	3,813	8	1,481	3	1,348	3	1,287	3
Connecticut	3,472	10	2,209	6	1,283	4	1,538	4
Delaware	840	12	499	7	282	4	293	4
Dist. of Columbia	527	18	365	12	179	6	257	9
Florida	11,374	8	6,800	5	4,133	3	4,236	3
Georgia	5,614	7	2,591	3	2,035	3	2,135	3
Hawaii	947	9	529	5	356	3	482	5
Idaho	621	4	401	2	191	1	249	1
Illinois	10,186	7	4,221	3	3,265	2	3,858	3
Indiana	4,808	7	1,824	3	1,761	3	1,145	2
Iowa	1,116	3	446	1	285	1	283	1
Kansas	911	3	225	1	321	1	126	0.4
Kentucky	2,330	6	1,413	4	633	2	530	1
Louisiana	1,000	2	437	1	198	0.5	249	1
Maine	1,104	8	536	4	199	1	316	2
Maryland	6,579	12	3,182	6	2,150	4	2,387	4
Massachusetts	6,732	11	3,577	6	1,955	3	2,639	4
Michigan	6,913	6	3,422	3	2,926	3	1,927	2
Minnesota	4,611	6	1,458	2	693	1	877	1
Mississippi	512	2	251	1	150	1	152	1
Missouri	2,052	3	957	2	759	1	767	1
Montana	369	3	217	2	76	1	53	0.5
Nebraska	496	2	235	1	101	0.5	94	0.4
Nevada	1,000	6	501	3	464	3	275	2
New Hampshire	1,158	8	423	3	330	2	324	2
New Jersey	8,076	10	5,082	6	3,296	4	3,454	4
New Mexico	1,135	6	408	2	291	2	304	2
New York	18,658	12	11,763	7	5,163	3	8,005	5
North Carolina	7,194	10	3,263	4	1,903	3	1,677	2
North Dakota	213	2	125	1	55	1	30	0.3
Ohio	7,991	6	3,121	2	2,715	2	2,203	2
Oklahoma	1,819	5	1,085	3	820	2	638	2
Oregon	1,570	4	574	1	475	1	531	1
Pennsylvania	8,146	6	3,637	3	2,970	2	2,905	2
Rhode Island	588	6	400	4	209	2	119	1
South Carolina	2,716	7	1,576	4	711	2	617	2
South Dakota	501	5	244	2	154	2	129	1
Tennessee	2,576	5	1,418	3	973	2	971	2
Texas	16,910	7	5,784	2	3,955	2	5,377	2
Utah	3,196	9	1,359	4	776	2	701	2
Vermont	593	8	444	6	120	2	116	2
Virginia	7,695	10	3,576	5	1,868	2	2,050	3
Washington	4,504	6	1,681	2	1,203	2	1,122	2
West Virginia	687	4	288	2	266	1	108	1
Wisconsin	4,691	7	2,304	3	1,374	2	941	1
Wyoming	199	3	104	2	70	1	74	1
NATION	219,662	7	108,888	4	69,032	2	73,888	2

Note: State totals include public and private schools.

Source: The College Board, Advanced Placement Program, National and 50 States Summary Reports, New York, 2004.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 1.4**Minority Students Taking Advanced Placement Examinations in Mathematics and Science, 2004**

State	AP CALCULUS					AP SCIENCE				
	% American Indian	% Asian	% African-American	% Hispanic	% Minority Students Taking AP Calculus	% American Indian	% Asian	% African-American	% Hispanic	% Minority Students Taking AP Science
Alabama	1	11	6	1	19	0.3	10	6	1	18
Alaska	2	10	1	2	15	3	13	1	2	20
Arizona	2	12	1	10	25	1	14	2	10	27
Arkansas	1	8	6	3	18	1	7	8	2	18
California	0.3	38	2	13	53	0.3	39	2	12	54
Colorado	0.4	8	1	5	14	0.5	9	2	6	18
Connecticut	0.1	13	3	2	18	0.2	13	3	3	19
Delaware	0.1	17	4	2	23	1	16	5	2	24
Dist. of Columbia	0	9	20	4	33	0.2	10	17	3	30
Florida	0.3	10	6	16	32	0.3	11	7	17	35
Georgia	0.3	13	13	2	28	0.3	16	13	2	31
Hawaii	0.3	76	1	1	77	0.4	71	1	2	74
Idaho	0.3	5	0.3	2	8	0.2	6	1	2	9
Illinois	0.1	16	2	4	23	0.1	21	4	5	29
Indiana	0.1	6	3	2	11	0.2	9	2	2	14
Iowa	0	8	0.4	1	10	0.1	10	1	1	12
Kansas	0.2	14	1	1	17	1	16	1	1	19
Kentucky	0.3	5	3	1	8	0.2	5	3	1	8
Louisiana	0.3	10	11	3	24	0.3	12	9	1	22
Maine	0.4	6	1	1	8	0.2	5	0.5	0.5	6
Maryland	0.3	18	7	2	27	0.3	20	10	3	34
Massachusetts	0.1	15	2	2	19	0.2	17	3	2	22
Michigan	0.4	10	4	1	16	0.4	14	3	2	18
Minnesota	0.2	8	1	1	10	0.2	12	2	1	15
Mississippi	0	5	13	0.2	18	0.2	5	17	1	24
Missouri	0.2	8	2	1	12	0.1	11	2	1	14
Montana	1	3	0.3	1	4	1	2	0.3	1	5
Nebraska	0.4	6	2	2	10	0.2	4	2	3	9
Nevada	1	20	3	8	32	1	21	2	9	32
New Hampshire	0.3	13	1	1	15	0	13	2	1	16
New Jersey	0.1	24	3	4	31	0.1	25	3	5	33
New Mexico	4	6	1	27	37	4	6	1	23	35
New York	0.2	18	4	5	27	0.2	16	5	5	25
North Carolina	1	8	8	2	18	1	9	7	2	18
North Dakota	0.5	3	0	1	5	0	5	0.5	0.5	6
Ohio	0.2	7	3	1	11	0.1	10	4	1	15
Oklahoma	8	10	3	3	24	7	10	4	3	24
Oregon	1	14	1	2	18	1	17	0.3	2	20
Pennsylvania	0.1	10	2	1	13	0.1	11	2	1	14
Rhode Island	0.2	7	3	2	12	0	6	1	1	8
South Carolina	0.4	6	11	1	19	1	8	7	2	17
South Dakota	1	3	0.4	0.2	4	1	4	1	1	6
Tennessee	0.1	8	8	1	17	0.1	12	7	2	21
Texas	0.3	15	5	21	40	0.4	19	5	17	41
Utah	0.2	5	0.3	2	8	0.5	7	0.3	2	10
Vermont	0.2	7	0	1	8	0	5	1	2	8
Virginia	0.3	16	5	3	23	0.3	18	5	3	26
Washington	1	20	1	2	24	0.5	18	1	3	22
West Virginia	0.3	9	1	1	11	0.3	13	0.5	1	15
Wisconsin	0.3	5	1	1	8	0.4	6	1	2	9
Wyoming	1	4	1	3	9	1	3	0	4	8
NATION	0.4	17	4	7	28	0.4	19	4	6	30

Note: State totals include public and private schools. Minority students = sum of African-American, Hispanic, Asian/Pacific Islander, American Indian, etc.

% AP Science = Students taking AP Biology, Chemistry, or Physics.

Source: The College Board, Advanced Placement Program, National and 50 States Summary Reports, New York, 2004.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 1.5
Percent of Public School Students by Race/Ethnicity, by State, 2002–03

State	% White	% Black	% Hispanic	% Asian	% American Indian	% Total Minority
Alabama	60.2	36.3	1.8	0.9	0.8	39.8
Alaska	59.4	4.7	3.7	6.3	25.9	40.6
Arizona	50.0	4.8	36.5	2.1	6.6	50.0
Arkansas	70.5	23.2	4.8	1.0	0.5	29.5
California	34.0	8.3	45.5	11.3	0.9	66.0
Colorado	65.7	5.7	24.3	3.0	1.2	34.3
Connecticut	69.0	13.6	14.1	3.0	0.3	31.0
Delaware	58.4	31.4	7.2	2.6	0.3	41.6
District of Columbia	4.3	83.7	10.4	1.6	0.1	95.7
DoDEA	58.1	22.1	10.0	8.9	1.0	41.9
Florida	51.6	24.7	21.4	2.0	0.3	48.4
Georgia	53.0	38.2	6.2	2.5	0.2	47.0
Guam	—	—	—	—	—	—
Hawaii	20.4	2.4	4.6	72.2	0.5	79.6
Idaho	85.9	0.8	10.9	1.2	1.2	14.1
Illinois	58.3	21.1	16.9	3.5	0.2	41.7
Indiana	82.2	12.2	4.3	1.0	0.3	17.8
Iowa	89.0	4.3	4.4	1.8	0.5	11.0
Kansas	76.8	9.1	10.4	2.3	1.4	23.2
Kentucky	86.9	10.8	1.4	0.8	0.2	13.1
Louisiana	48.5	47.8	1.7	1.3	0.7	51.5
Maine	95.9	1.6	0.7	1.1	0.7	4.1
Maryland	51.5	37.5	5.8	4.7	0.4	48.5
Massachusetts	75.1	8.8	11.2	4.6	0.3	24.9
Michigan	72.4	20.3	3.8	2.0	1.5	27.6
Minnesota	81.1	7.4	4.2	5.3	2.1	18.9
Mississippi	47.3	50.9	1.0	0.7	0.2	52.7
Missouri	77.9	18.2	2.3	1.3	0.3	22.1
Montana	85.4	0.7	2.0	1.1	10.9	14.6
Nebraska	80.6	7.0	9.2	1.6	1.6	19.4
Nevada	52.7	10.5	28.7	6.4	1.7	47.3
New Hampshire	94.4	1.5	2.2	1.6	0.3	5.6
New Jersey	58.6	17.8	16.6	6.8	0.2	41.4
New Mexico	33.6	2.4	51.7	1.1	11.2	66.4
New York	54.2	20.0	19.0	6.3	0.4	45.8
North Carolina	59.2	31.4	5.9	2.0	1.5	40.8
North Dakota	88.6	1.1	1.3	0.9	8.1	11.4
Ohio	79.7	16.9	2.0	1.2	0.1	20.3
Oklahoma	62.6	10.9	7.0	1.5	17.9	37.4
Oregon	78.1	3.0	12.5	4.2	2.2	21.9
Pennsylvania	77.1	15.5	5.2	2.2	0.1	22.9
Puerto Rico	0.0	0.0	100.0	0.0	0.0	100.0
Rhode Island	72.2	8.4	15.6	3.3	0.5	27.8
South Carolina	54.4	41.5	2.7	1.1	0.3	45.6
South Dakota	85.3	1.5	1.6	1.0	10.6	14.7
Tennessee	71.3	24.8	2.4	1.2	0.2	28.7
Texas	39.8	14.3	42.7	2.9	0.3	60.2
Utah	84.1	1.1	10.4	2.9	1.5	15.9
Vermont	95.8	1.3	0.7	1.6	0.6	4.2
Virgin Islands	0.7	84.7	14.1	0.2	0.2	99.3
Virginia	61.8	27.2	6.2	4.5	0.3	38.2
Washington	72.6	5.6	11.6	7.6	2.6	27.4
West Virginia	94.4	4.5	0.5	0.6	0.1	5.6
Wisconsin	79.5	10.4	5.4	3.3	1.5	20.5
Wyoming	86.7	1.3	7.7	0.9	3.3	13.3
NATION	58.7	17.1	18.8	4.3	1.2	41.3

— Not available.

Source: NCES, Common Core of Data, Fall 2002.

Council of Chief State School Officers, Division of State Services and Technical Assistance, Washington, DC, 2005.

Table 1.6**High School Teachers with Main Assignment in Mathematics or Science, 1996 and 2004**

State	MAIN ASSIGNMENT TEACHERS			
	Number 9-12 Math		Number 9-12 Science	
	2004	1996	2004	1996
Alabama	—	1,453	—	1,200
Alaska	319	—	253	—
Arizona	—	—	—	—
Arkansas	—	719	—	645
California	11,144	7,324	6,163	4,908
Colorado	1,791	1,271	1,637	1,138
Connecticut	1,588	1,300	1,702	1,070
Delaware	270	206	255	213
District of Columbia	—	306	—	222
DoDEA	—	—	—	—
Florida	5,006	—	3,576	—
Georgia	3,315	—	2,913	—
Guam	53	—	44	—
Hawaii	—	586	—	315
Idaho	283	418	335	327
Illinois	4,302	3,908	3,959	3,381
Indiana	2,271	2,061	1,966	1,866
Iowa	—	—	—	—
Kansas	—	—	—	—
Kentucky	—	1,461	—	1,196
Louisiana	1,199	1,456	859	1,085
Maine	—	—	—	—
Maryland	—	—	—	—
Massachusetts	—	2,318	—	2,217
Michigan	—	—	—	—
Minnesota	1,835	1,491	1,534	1,170
Mississippi	1,230	972	1,909	816
Missouri	2,101	1,884	1,899	1,618
Montana	—	390	—	210
Nebraska	1,031	1,085	665	615
Nevada	639	—	699	—
New Hampshire	—	—	—	—
New Jersey	4,318	—	3,591	—
New Mexico	803	597	374	425
New York	—	6,054	—	9,553
North Carolina	3,204	2,421	2,432	2,077
North Dakota	327	331	205	186
Ohio	5,602	3,611	4,423	3,035
Oklahoma	1,940	1,735	1,370	1,257
Oregon	—	980	—	905
Pennsylvania	6,369	6,301	6,036	5,980
Puerto Rico	—	1,727	—	1,164
Rhode Island	—	694	—	421
South Carolina	—	—	—	—
South Dakota	320	360	177	225
Tennessee	1,907	1,820	2,365	1,292
Texas	10,496	7,654	7,720	8,806
Utah	669	962	488	791
Vermont	—	—	—	—
Virgin Islands	55	—	39	—
Virginia	3,191	—	2,774	—
Washington	—	—	—	—
West Virginia	1,161	389	1,728	367
Wisconsin	2,262	1,923	2,124	1,877
Wyoming	241	231	222	207
NATION	117,613	93,326	97,926	84,127

— Data not available. Main Assignment = 50% or more time assigned to subject.

Science = sum biology, chemistry, physics, earth science, general science, physical science, integrated science.

Texas: methodology change; Virgin Islands: partial data (science).

1996 data: District of Columbia (1993-94 data), Minnesota (1994-95 data), Pennsylvania: grades 7-12.

National totals include imputation for nonreporting states (except for Integrated Science).

Source: State Departments of Education, Data on Public Schools, 2003-04.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 1.7**Middle Grades Teachers with Main Assignment in Mathematics or Science, 1996 and 2004**

State	MAIN ASSIGNMENT TEACHERS			
	Number 7-8 Math		Number 7-8 Science	
	2004	1996	2004	1996
Alabama	—	954	—	909
Alaska	223	—	209	—
Arizona	—	—	—	—
Arkansas	617	—	—	—
California	5,674	3,901	5,877	3,751
Colorado	1,056	942	1,009	871
Connecticut	931	715	913	693
Delaware	170	143	151	134
District of Columbia	—	272	—	130
DoDEA	—	—	—	—
Florida	3,132	—	2,883	—
Georgia	2,522	—	1,980	—
Guam	46	—	42	—
Hawaii	—	84	—	82
Idaho	272	193	235	212
Illinois	1,465	1,257	1,336	1,157
Indiana	1,332	1,206	1,238	1,182
Iowa	—	—	—	—
Kansas	—	—	—	—
Kentucky	—	877	—	808
Louisiana	399	451	462	396
Maine	—	—	—	—
Maryland	—	—	—	—
Massachusetts	—	1,321	—	1,224
Michigan	—	—	—	—
Minnesota	950	534	826	515
Mississippi	910	678	113	604
Missouri	1,178	983	1,172	977
Montana	—	170	—	162
Nebraska	95	193	96	173
Nevada	491	—	380	—
New Hampshire	—	—	—	—
New Jersey	—	—	—	—
New Mexico	468	335	335	224
New York	—	4,489	—	3,593
North Carolina	894	1,103	1,378	1,171
North Dakota	234	140	122	133
Ohio	4,195	1,864	260	1,758
Oklahoma	656	725	666	733
Oregon	—	600	—	552
Pennsylvania	—	—	—	—
Puerto Rico	—	1,309	—	717
Rhode Island	—	234	—	243
South Carolina	—	—	—	—
South Dakota	221	161	159	163
Tennessee	1,458	1,082	1,384	1,062
Texas	—	6,277	—	4,333
Utah	711	240	548	183
Vermont	—	—	—	—
Virgin Islands	37	—	36	—
Virginia	1,957	—	1,695	—
Washington	—	—	—	—
West Virginia	963	413	725	296
Wisconsin	1,091	1,140	1,019	1,070
Wyoming	130	129	111	129
NATION	63,573	53,921	53,933	45,987

— Data not available; Main Assignment = 50% or more time assigned to subject.

Virgin Islands: partial data (science).

Source: State Departments of Education, Data on Public Schools, 2003-04.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 1.8
Percent Female Taking Higher-Level Mathematics Courses, 2004

PERCENT FEMALE

State	Algebra 1/ Integrated Math 1	Geometry/ Integrated Math 2	Algebra 2/ Integrated Math 3	Trigonometry/ Pre-Calculus	Calculus	Calculus AP
	% 2004	% 2004	% 2004	% 2004	% 2004	% 2004
Arkansas	48	52	53	55	54	50
California	48	52	38	53	50	50
District of Columbia	49	55	56	56	—	52
DoDEA	48	51	52	51	—	47
Florida	48	52	53	54	52	50
Guam	50	54	54	56	—	54
Idaho	48	52	53	51	48	44
Iowa	50	51	52	50	49	45
Michigan	49	52	52	52	50	48
Mississippi	51	53	57	56	54	49
Nevada	52	53	54	51	47	53
New Mexico	48	51	52	53	51	48
North Carolina	50	52	56	57	57	55
North Dakota	46	48	50	51	53	—
Ohio	48	50	51	51	50	46
Pennsylvania	49	51	51	51	50	44
South Carolina	52	54	54	55	—	50
South Dakota	48	51	53	54	55	47
Texas	47	49	51	49	42	50
Utah	46	48	51	50	47	45
Virgin Islands	—	—	—	—	—	47
West Virginia	47	53	53	53	47	43
Wisconsin	48	51	53	52	46	52
Wyoming	48	51	51	53	47	47

— Data not available.

Source: State Departments of Education, Data on Public Schools, 2003-04.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 1.9
Percent Female Taking Higher-Level Science Courses, 2004

PERCENT FEMALE

State	Chemistry % 2004	Physics % 2004
Arkansas	54	48
California	54	45
District of Columbia	55	55
DoDEA	52	48
Florida	54	48
Guam	52	56
Idaho	52	40
Iowa	54	44
Michigan	52	45
Mississippi	57	51
Nevada	53	45
New Mexico	50	42
North Carolina	58	48
North Dakota	53	42
Ohio	53	41
Pennsylvania	53	47
South Carolina	54	49
South Dakota	54	44
Texas	52	51
Utah	51	40
Virgin Islands	—	48
West Virginia	53	25
Wisconsin	55	46
Wyoming	53	39

— Data not available. Virgin Islands: partial data.

Source: State Departments of Education, Data on Public Schools, 2003-04.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 1.10**Percentage of Students Who Reported Taking Algebra 1 in Grade 8 by Race/Ethnicity, 2003 NAEP**

State	All Students	White	Black	Hispanic	Asian/ Pacific Islander	American Indian
Alabama	17	17	16	#	*	*
Alaska	#	#	#	#	#	#
Arizona	22	28	18	15	*	17
Arkansas	18	19	13	13	*	*
California	46	51	39	40	50	*
Colorado	27	30	27	17	36	*
Connecticut	31	35	24	14	39	*
Delaware	21	26	12	12	*	*
District of Columbia	16	*	14	15	*	*
DoDEA/DDESS	27	32	16	27	*	*
DoDEA/DoDDS	35	39	28	34	33	*
Florida	28	34	20	17	54	*
Georgia	27	32	19	23	31	*
Hawaii	17	23	*	14	16	*
Idaho	28	30	*	14	*	*
Illinois	23	27	19	12	38	*
Indiana	24	26	17	10	*	#
Iowa	19	21	6	8	*	*
Kansas	28	30	15	21	26	*
Kentucky	20	21	12	*	*	*
Louisiana	11	12	9	*	*	*
Maine	21	21	*	*	*	#
Maryland	32	38	20	24	49	*
Massachusetts	33	36	22	14	51	#
Michigan	21	25	11	14	*	*
Minnesota	22	24	16	9	22	*
Mississippi	16	20	11	*	*	#
Missouri	26	27	16	*	*	*
Montana	20	20	*	*	*	19
Nebraska	28	29	22	16	*	*
Nevada	32	34	29	24	45	*
New Hampshire	27	28	*	*	*	#
New Jersey	26	32	13	14	34	*
New Mexico	20	29	11	17	*	7
New York	9	11	5	6	6	*
North Carolina	29	34	22	16	38	5
North Dakota	18	19	*	*	*	13
Ohio	23	25	17	10	*	*
Oklahoma	25	27	20	22	*	22
Oregon	25	26	22	14	31	*
Pennsylvania	31	34	17	21	*	#
Rhode Island	31	33	28	21	42	*
South Carolina	24	31	14	*	*	*
South Dakota	24	25	*	*	*	15
Tennessee	20	23	11	*	*	*
Texas	25	30	14	20	61	*
Utah	40	42	*	22	44	*
Vermont	20	20	*	*	*	*
Virginia	28	32	18	18	41	*
Washington	20	21	11	15	25	10
West Virginia	25	26	14	*	*	#
Wisconsin	22	24	10	17	13	*
Wyoming	25	26	*	15	*	8
NATION	27	29	17	24	39	17

Percentage rounds to zero; * Sample size is insufficient to permit a reliable estimate.

Caution: Standard error per group varies from 2 to 5%.

Source: NCES, National Assessment of Educational Progress (NAEP) 2003 Mathematics Assessments.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2006.

Section II: Course Enrollment Data, 7-8, 9-12

Table 2.1

Grades 7-8 Mathematics Course Enrollments as a Percent of Students in Grades 7-8, 2004

	Grade 7				Grade 8					Grades 7-8	
	Student Membership (Grade 7)	Remedial Math % gd. 7	Regular Math % gd. 7	Accelerated Math % gd. 7	Student Membership (Grade 8)	Remedial Math % gd. 8	Regular Math % gd. 8	Accelerated Math % gd. 8	Algebra 1 Math % gd. 8	Student Membership (Grades 7-8)	Integrated Middle Grades Math % 7-8
Alabama	61,950	—	—	—	57,576	—	—	—	—	119,526	—
Alaska	11,203	—	—	—	10,840	—	—	—	—	22,043	—
Arizona	73,453	—	—	—	69,841	—	—	—	—	143,294	—
Arkansas	36,894	—	0	0	36,102	—	0	0	16	72,996	0.1
California	500,138	0	0	0	473,553	0	0	0	0	973,691	0
Colorado	58,973	—	—	—	57,664	—	—	—	—	116,637	—
Connecticut	45,882	—	—	—	44,422	—	—	—	—	90,304	—
Delaware	9,602	—	—	—	9,961	—	—	—	—	19,563	—
District of Columbia	5,144	33	63	23	4,605	3	—	55	0	9,749	1
DoDEA	7,487	1	82	3	6,769	1	57	5	31	14,256	—
Florida	206,774	4	85	—	201,159	4	62	1	0.02	407,933	0
Georgia	121,055	—	—	—	116,150	—	—	—	—	237,205	—
Guam	2,545	7	72	3	2,311	—	73	3	—	4,856	—
Hawaii	14,560	—	—	—	13,875	—	—	—	—	28,435	—
Idaho	20,055	1	69	28	19,644	0.4	25	44	25	39,699	5
Illinois	160,924	—	—	—	156,451	—	—	—	—	317,375	—
Indiana	81,599	1	86	12	79,338	1	57	17	22	160,937	—
Iowa	37,693	—	—	—	37,281	—	—	—	—	74,974	—
Kansas	36,757	—	—	—	35,972	—	—	—	—	72,729	—
Kentucky	50,268	—	—	—	48,934	—	—	—	—	99,202	—
Louisiana	56,540	0	70	—	60,930	1	15	23	5	117,470	—
Maine	17,098	—	—	—	17,131	—	—	—	—	34,229	—
Maryland	69,829	—	—	—	67,984	—	—	—	—	137,813	—
Massachusetts	79,520	—	—	—	77,903	—	—	—	—	157,423	—
Michigan	143,522	8	46	11	135,649	4	38	8	14	279,171	1
Minnesota	67,532	—	87	6	66,999	—	64	8	16	134,531	—
Mississippi	40,644	1	80	44	37,282	1	51	3	5	77,926	—
Missouri	73,302	1	65	21	71,670	0.4	37	0	23	144,972	—
Montana	12,369	—	—	—	12,218	—	—	—	—	24,587	—
Nebraska	22,591	—	23	38	21,943	5	—	—	24	44,534	—
Nevada	30,445	11	100	37	29,242	4	42	27	26	59,687	2
New Hampshire	17,667	—	—	—	17,421	—	—	—	—	35,088	—
New Jersey	104,556	—	—	—	101,559	—	—	—	—	206,115	—
New Mexico	25,425	1	47	11	25,630	1	34	29	14	51,055	2
New York	222,667	—	—	—	215,632	—	—	—	—	438,299	—
North Carolina	108,810	4	100	8	106,126	—	—	—	28	214,936	—
North Dakota	8,201	2	86	9	8,374	1	51	25	16	16,575	—
Ohio	147,899	3	78	11	144,024	2	58	15	22	291,923	0
Oklahoma	47,800	1	75	18	46,805	1	37	36	6	94,605	—
Oregon	44,903	—	—	—	44,156	—	—	—	—	89,059	—
Pennsylvania	150,831	3	63	—	147,829	—	38	54	0	298,660	—
Puerto Rico	50,253	—	—	—	47,533	—	—	—	—	97,786	—
Rhode Island	13,286	—	—	—	12,805	—	—	—	—	26,091	—
South Carolina	53,825	5	88	—	56,214	4	56	—	19	110,039	—
South Dakota	10,188	—	98	—	10,051	—	77	1	22	20,239	—
Tennessee	73,421	—	96	—	70,650	—	80	—	19	144,071	—
Texas	325,154	—	—	—	316,800	—	—	—	—	641,954	—
Utah	36,395	—	54	62	35,547	—	2	79	60	71,942	—
Vermont	8,093	—	—	—	8,077	—	—	—	—	16,170	—
Virgin Islands	1,764	1	91	4	1,296	—	43	6	52	3,060	—
Virginia	95,807	—	—	—	92,641	—	—	—	—	188,448	—
Washington	81,722	—	—	—	79,857	—	—	—	—	161,579	—
West Virginia	22,615	1	1	98	21,943	2	0.3	80	20	44,558	0
Wisconsin	68,631	—	97	—	67,751	—	82	—	19	136,382	1
Wyoming	7,155	5	66	17	6,994	5	37	32	15	14,149	2
NATION	3,883,416	4	62	#	3,767,114	#	37	#	#	7,650,530	#

— Data not available.

In some states data from self-contained classrooms are not included in the totals. Pennsylvania: Grade 8 Accelerated Math includes grades 7 & 8.

Too few states reporting to impute national percent. Nebraska: grade 8 regular math and grade 8 accelerated math are included in grade 7.

Source: State Departments of Education, Data on Public Schools, 2003-04; NCES, CCD Fall Membership 2002; Guam, Fall 2001.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 2.2**High School Mathematics Course Enrollments, Review, and Informal Math, as a Percent of Students in Grades 9-12, 2004**

	Student Membership (Grades 9-12)	Review Math				Informal Math		
		General, Remedial (Level 1) % 9-12	Consumer, Vocational (Level 2) % 9-12	General (Level 3 & 4) % 9-12	Sum Review Math % 9-12	Pre-Algebra (Level 1*) % 9-12	Basic Geometry (Level 2-3) % 9-12	Sum Informal Math % 9-12
Alabama	206,159	—	—	—	—	—	—	—
Alaska	39,984	—	—	—	—	—	—	—
Arizona	276,984	—	—	—	—	—	—	—
Arkansas	131,716	—	—	—	—	7	6	14
California	1,807,054	3	1	—	3	9	—	9
Colorado	217,397	—	—	—	—	—	—	—
Connecticut	164,025	—	—	—	—	—	—	—
Delaware	34,121	—	—	—	—	—	—	—
District of Columbia	15,374	8	0.02	—	8	—	—	—
DoDEA	18,031	6	0	3	9	4	2	6
Florida	730,650	5	1	21	28	11	4	15
Georgia	407,451	—	—	—	—	—	—	—
Guam	8,859	4	1	—	5	19	—	19
Hawaii	52,922	—	—	—	—	—	—	—
Idaho	75,315	3	1	—	4	8	1	9
Illinois	595,349	—	—	—	—	—	—	—
Indiana	288,607	2	—	—	2	9	1	10
Iowa	152,147	7	5	—	12	15	2	17
Kansas	144,334	—	—	—	—	—	—	—
Kentucky	182,479	—	—	—	—	—	—	—
Louisiana	192,902	2	—	—	2	8	7	15
Maine	61,873	—	—	—	—	—	—	—
Maryland	253,506	—	—	—	—	—	—	—
Massachusetts	281,939	—	—	—	—	—	—	—
Michigan	517,152	2	2	1	4	6	7	13
Minnesota	279,190	3	3	—	6	4	—	4
Mississippi	126,932	2	—	—	2	16	—	16
Missouri	271,262	4	1	—	5	11	—	11
Montana	48,727	—	—	—	—	—	—	—
Nebraska	90,289	9	1	—	10	11	1	12
Nevada	98,538	3	4	3	10	14	0.1	14
New Hampshire	63,988	—	—	—	—	—	—	—
New Jersey	369,109	—	—	—	—	—	—	—
New Mexico	95,737	8	3	—	10	11	3	14
New York	802,393	—	—	—	—	—	—	—
North Carolina	371,987	1	0.03	—	1	20	—	20
North Dakota	35,136	3	5	—	8	8	—	8
Ohio	554,490	6	—	—	6	2	3	5
Oklahoma	174,356	0.5	4	—	4	3	0.1	3
Oregon	171,361	—	—	—	—	—	—	—
Pennsylvania	571,910	3	2	0.4	6	19	2	20
Puerto Rico	160,894	—	—	—	—	—	—	—
Rhode Island	46,661	—	—	—	—	—	—	—
South Carolina	194,027	—	—	—	—	25	10	36
South Dakota	40,598	3	3	—	6	5	—	5
Tennessee	254,271	1	2	—	3	0	—	0
Texas	1,180,158	—	—	—	—	0	—	0
Utah	141,839	2	—	—	2	7	0	7
Vermont	31,807	—	—	—	—	—	—	—
Virgin Islands	5,400	—	1	—	1	—	—	—
Virginia	345,720	—	—	—	—	—	—	—
Washington	317,607	—	—	—	—	—	—	—
West Virginia	82,281	2	1	—	3	8	6	14
Wisconsin	289,528	—	—	—	—	3	1	5
Wyoming	28,190	2	2	1	4	6	3	9
NATION	14,100,716	3	2	8	13	10	3	13

— Data not available.

* Informal Math, Level 1, includes first year of Algebra I in a two-year course.

Source: State Departments of Education, Data on Public Schools, 2003-04; NCES, CCD Fall Membership 2002; Guam, Fall 2001.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 2.3**High School Mathematics Course Enrollments, Level 1 Through 5, as a Percent of Students in Grades 9-12, 2004**

State	Membership (Grades 9-12)	Algebra 1/ Student Integrated Math (Level 1) % 9-12	Geometry/ Integrated Math 2 (Level 2) % 9-12	Algebra 2/ Integrated Math 3 (Level 3) % 9-12	Trigonometry Pre-Calculus (Level 4) % 9-12	Calculus (Level 5) % 9-12	Calculus, AP (Level 5) % 9-12	Sum Formal Math % 9-12
Alabama	206,159	—	—	—	—	—	—	—
Alaska	39,984	—	—	—	—	—	—	—
Arizona	276,984	—	—	—	—	—	—	—
Arkansas	131,716	26	20	18	9	0	2	76
California	1,807,054	26	19	19	7	0	3	74
Colorado	217,397	—	—	—	—	—	—	—
Connecticut	164,025	—	—	—	—	—	—	—
Delaware	34,121	—	—	—	—	—	—	—
District of Columbia	15,374	23	17	12	4	—	1	56
DoDEA	18,031	25	25	17	9	—	3	79
Florida	730,650	20	18	15	6	1	2	62
Georgia	407,451	—	—	—	—	—	—	—
Guam	8,859	22	8	14	3	—	1	48
Hawaii	52,922	—	—	—	—	—	—	—
Idaho	75,315	23	18	14	8	1	2	66
Illinois	595,349	—	—	—	—	—	—	—
Indiana	288,607	25	18	17	9	2	1	72
Iowa	152,147	31	21	20	13	2	2	88
Kansas	144,334	—	—	—	—	—	—	—
Kentucky	182,479	—	—	—	—	—	—	—
Louisiana	192,902	26	21	15	7	0	2	71
Maine	61,873	—	—	—	—	—	—	—
Maryland	253,506	—	—	—	—	—	—	—
Massachusetts	281,939	—	—	—	—	—	—	—
Michigan	517,152	16	12	11	9	1	2	51
Minnesota	279,190	20	18	15	9	3	1	65
Mississippi	126,932	21	22	18	8	0.2	1	71
Missouri	271,262	22	20	21	9	4	—	76
Montana	48,727	—	—	—	—	—	—	—
Nebraska	90,289	22	22	21	15	4	—	83
Nevada	98,538	32	23	13	11	1	1	80
New Hampshire	63,988	—	—	—	—	—	—	—
New Jersey	369,109	—	—	—	—	—	—	—
New Mexico	95,737	22	15	13	5	0.2	2	57
New York	802,393	—	—	—	—	—	—	—
North Carolina	371,987	25	32	19	17	0.1	4	98
North Dakota	35,136	23	20	20	12	2	—	76
Ohio	554,490	28	27	15	12	3	2	87
Oklahoma	174,356	29	22	18	9	1	2	80
Oregon	171,361	—	—	—	—	—	—	—
Pennsylvania	571,910	27	20	18	19	2	2	88
Puerto Rico	160,894	—	—	—	—	—	—	—
Rhode Island	46,661	—	—	—	—	—	—	—
South Carolina	194,027	14	17	16	14	0	2	63
South Dakota	40,598	22	21	18	11	2	2	76
Tennessee	254,271	30	22	19	7	1	3	82
Texas	1,180,158	26	27	20	14	0.01	3	90
Utah	141,839	38	32	24	11	2	5	112
Vermont	31,807	—	—	—	—	—	—	—
Virgin Islands	5,400	28	23	22	2	1	1	77
Virginia	345,720	—	—	—	—	—	—	—
Washington	317,607	—	—	—	—	—	—	—
West Virginia	82,281	20	12	12	8	1	1	53
Wisconsin	289,528	30	25	18	13	1	4	92
Wyoming	28,190	22	17	14	8	1	2	64
NATION	14,100,716	25	21	17	11	1	2	78

— Data not available.

Source: State Departments of Education, Data on Public Schools, 2003-04; NCES, CCD Fall Membership 2002; Guam, Fall 2001. Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 2.4**Grades 7-8 Science Course Enrollments as a Percent of Students in Grades 7-8, 2004**

State	Student Membership (Grades 7-8)	General Science % 7-8	Life Science % 7-8	Earth Science % 7-8	Physical Science % 7-8	Integrated/Coordinated Science % 7-8	Other Science % 7-8
Alabama	119,526	—	—	—	—	—	—
Alaska	22,043	—	—	—	—	—	—
Arizona	143,294	—	—	—	—	—	—
Arkansas	72,996	—	—	—	—	—	97
California	973,691	51	8	1	7	—	8
Colorado	116,637	—	—	—	—	—	—
Connecticut	90,304	—	—	—	—	—	—
Delaware	19,563	—	—	—	—	—	—
District of Columbia	9,749	5	38	1	36	—	0.02
DoDEA	14,256	—	1	—	—	89	1
Florida	407,933	77	6	1	5	0.1	0
Georgia	237,205	—	—	—	—	—	—
Guam	4,856	—	—	—	—	78	0
Hawaii	28,435	—	—	—	—	—	—
Idaho	39,699	36	—	27	6	—	27
Illinois	317,375	—	—	—	—	—	—
Indiana	160,937	97	0.1	0.04	0.03	1	—
Iowa	74,974	—	—	—	—	—	—
Kansas	72,729	—	—	—	—	—	—
Kentucky	99,202	—	—	—	—	—	—
Louisiana	117,470	17	22	16	—	13	1
Maine	34,229	—	—	—	—	—	—
Maryland	137,813	—	—	—	—	—	—
Massachusetts	157,423	—	—	—	—	—	—
Michigan	279,171	33	8	6	9	17	3
Minnesota	134,531	—	45	29	7	4	—
Mississippi	77,926	—	—	—	—	98	—
Missouri	144,972	50	24	17	3	—	1
Montana	24,587	—	—	—	—	—	—
Nebraska	44,534	71	10	11	4	—	2
Nevada	59,687	15	11	66	42	0.3	0.4
New Hampshire	35,088	—	—	—	—	—	—
New Jersey	206,115	—	—	—	—	—	—
New Mexico	51,055	5	17	33	16	23	1
New York	438,299	—	—	—	—	—	—
North Carolina	214,936	—	0.04	1	0.3	3	88
North Dakota	16,575	—	48	49	—	—	—
Ohio	291,923	94	2	1	2	2	0.2
Oklahoma	94,605	11	—	10	3	66	1
Oregon	89,059	—	—	—	—	—	—
Pennsylvania	298,660	36	23	29	21	8	—
Puerto Rico	97,786	—	—	—	—	—	—
Rhode Island	26,091	—	—	—	—	—	—
South Carolina	110,039	—	—	—	—	87	1
South Dakota	20,239	48	12	12	6	26	—
Tennessee	144,071	97	—	—	—	—	—
Texas	641,954	—	—	—	—	100	—
Utah	71,942	—	—	—	—	63	—
Vermont	16,170	—	—	—	—	—	—
Virgin Islands	3,060	50	—	—	—	—	—
Virginia	188,448	—	—	—	—	—	—
Washington	161,579	—	—	—	—	—	—
West Virginia	44,558	—	0.04	0.2	0	102	—
Wisconsin	136,382	46	19	17	7	3	12
Wyoming	14,149	22	25	29	6	10	1
NATION	7,650,530	47	14	13	10	30	#

— Data not available. Percentages may sum over 100%, indicating students reported for more than one subject.

In some states data from self-contained classrooms are not included in the totals. # Too few states reporting to impute national percent.

Virgin Islands: partial data.

Source: State Departments of Education, Data on Public Schools, 2003-04; NCES, CCD Fall Membership 2002; Guam, Fall 2001.

Council of Chief State School Officers, *State Services and Technical Assistance*, Washington, DC, 2005.

Table 2.5
High School Biology and Chemistry Course Enrollments as a Percent of Students in Grades
9-12, 2004

	Student Membership (Grades 9-12)	Biology					Chemistry				
		Biology 1st Year % 9-12	Biology 1st Year Applied % 9-12	Biology 2nd Year AP % 9-12	Biology 2nd Year Advanced % 9-12	Biology 2nd Year Other % 9-12	Chemistry 1st Year % 9-12	Chemistry 1st Year Applied % 9-12	Chemistry 2nd Year AP % 9-12	Chemistry 2nd Year Advanced % 9-12	
Alabama	206,159	—	—	—	—	—	—	—	—	—	
Alaska	39,984	—	—	—	—	—	—	—	—	—	
Arizona	276,984	—	—	—	—	—	—	—	—	—	
Arkansas	131,716	25	0.01	1	4	2	14	—	1	0.3	
California	1,807,054	17	2	1	2	0.1	9	0.1	1	1	
Colorado	217,397	—	—	—	—	—	—	—	—	—	
Connecticut	164,025	—	—	—	—	—	—	—	—	—	
Delaware	34,121	—	—	—	—	—	—	—	—	—	
District of Columbia	15,374	25	—	1	7	—	14	—	0	1	
DoDEA	18,031	27	—	1	0.3	5	15	3	1	0.03	
Florida	730,650	21	0.1	1	4	1	11	—	1	0.3	
Georgia	407,451	—	—	—	—	—	—	—	—	—	
Guam	8,859	18	0	0	3	5	—	7	—	1	
Hawaii	52,922	—	—	—	—	—	—	—	—	—	
Idaho	75,315	1	19	1	6	2	7	0.2	0.4	2	
Illinois	595,349	—	—	—	—	—	—	—	—	—	
Indiana	288,607	24	2	1	3	3	14	—	1	2	
Iowa	152,147	32	0.4	1	8	2	18	1	1	2	
Kansas	144,334	—	—	—	—	—	—	—	—	—	
Kentucky	182,479	—	—	—	—	—	—	—	—	—	
Louisiana	192,902	24	8	0.3	2	1	14	0	0.1	0.3	
Maine	61,873	—	—	—	—	—	—	—	—	—	
Maryland	253,506	—	—	—	—	—	—	—	—	—	
Massachusetts	281,939	—	—	—	—	—	—	—	—	—	
Michigan	517,152	16	4	1	4	1	8	2	1	1	
Minnesota	279,190	19	5	1	2	3	13	—	1	1	
Mississippi	126,932	25	—	1	20	2	11	—	0.3	1	
Missouri	271,262	20	5	—	12	2	11	—	—	4	
Montana	48,727	—	—	—	—	—	—	—	—	—	
Nebraska	90,289	26	5	—	10	—	18	—	—	1	
Nevada	98,538	32	1	1	4	3	15	2	1	0.5	
New Hampshire	63,988	—	—	—	—	—	—	—	—	—	
New Jersey	369,109	—	—	—	—	—	—	—	—	—	
New Mexico	95,737	21	0.1	1	4	1	8	1	0.5	1	
New York	802,393	—	—	—	—	—	—	—	—	—	
North Carolina	371,987	27	0.2	1	4	0.3	13	—	1	0.5	
North Dakota	35,136	25	1	—	9	2	14	—	—	1	
Ohio	554,490	30	—	1	3	—	15	—	1	1	
Oklahoma	174,356	24	0.2	1	10	4	10	0.1	1	0.4	
Oregon	171,361	—	—	—	—	—	—	—	—	—	
Pennsylvania	571,910	22	2	1	5	2	16	—	1	2	
Puerto Rico	160,894	—	—	—	—	—	—	—	—	—	
Rhode Island	46,661	—	—	—	—	—	—	—	—	—	
South Carolina	194,027	18	8	1	5	3	14	3	0.4	1	
South Dakota	40,598	27	1	2	9	2	14	1	1	1	
Tennessee	254,271	26	0	1	0	2	15	—	0.4	1	
Texas	1,180,158	29	0	1	2	0.03	18	—	1	0.02	
Utah	141,839	34	3	3	5	0	15	—	2	—	
Vermont	31,807	—	—	—	—	—	—	—	—	—	
Virgin Islands	5,400	14	—	0.2	1	0	7	—	—	0	
Virginia	345,720	—	—	—	—	—	—	—	—	—	
Washington	317,607	—	—	—	—	—	—	—	—	—	
West Virginia	82,281	—	4	1	15	—	—	4	1	10	
Wisconsin	289,528	28	1	2	6	—	14	3	1	2	
Wyoming	28,190	20	2	1	2	2	10	1	0.5	1	
NATION	14,100,716	23	2	1	5	1	13	#	1	1	

— Data not available. Virgin Islands: partial data.

Source: State Departments of Education, Data on Public Schools, 2003-04; NCES, CCD Fall Membership 2002; Guam, Fall 2001. Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 2.6
High School Physics and Earth Science Course Enrollments as a Percent of Students in
Grades 9-12, 2004

State	Student Membership (Grades 9-12)	Physics				Earth Science		
		Physics 1st Year % 9-12	Physics 1st Year Applied % 9-12	Physics 2nd Year AP % 9-12	Physics 2nd Year Advanced % 9-12	Earth Science 1st Year % 9-12	Earth Science 1st Year Applied % 9-12	Earth Science 2nd Year % 9-12
Alabama	206,159	—	—	—	—	—	—	—
Alaska	39,984	—	—	—	—	—	—	—
Arizona	276,984	—	—	—	—	—	—	—
Arkansas	131,716	5	—	0.3	0.1	1	—	1
California	1,807,054	4	0.3	1	0.3	4	—	1
Colorado	217,397	—	—	—	—	—	—	—
Connecticut	164,025	—	—	—	—	—	—	—
Delaware	34,121	—	—	—	—	—	—	—
District of Columbia	15,374	4	—	0.2	1	4	—	1
DoDEA	18,031	11	1	1	0.1	7	2	0
Florida	730,650	4	—	0.4	0.1	8	—	4
Georgia	407,451	—	—	—	—	—	—	—
Guam	8,859	1	—	0	1	—	—	—
Hawaii	52,922	—	—	—	—	—	—	—
Idaho	75,315	2	—	0.4	1	10	—	2
Illinois	595,349	—	—	—	—	—	—	—
Indiana	288,607	5	—	1	0.3	9	2	1
Iowa	152,147	8	—	0.4	1	8	—	2
Kansas	144,334	—	—	—	—	—	—	—
Kentucky	182,479	—	—	—	—	—	—	—
Louisiana	192,902	4	1	0.2	0.2	1	—	0.1
Maine	61,873	—	—	—	—	—	—	—
Maryland	253,506	—	—	—	—	—	—	—
Massachusetts	281,939	—	—	—	—	—	—	—
Michigan	517,152	4	1	0.3	0.3	5	1	1
Minnesota	279,190	5	—	1	1	3	—	1
Mississippi	126,932	3	—	0.1	0.1	1	—	2
Missouri	271,262	3	—	—	2	3	—	1
Montana	48,727	—	—	—	—	—	—	—
Nebraska	90,289	8	—	—	0.3	9	—	—
Nevada	98,538	3	1	0.4	0.2	10	0	1
New Hampshire	63,988	—	—	—	—	—	—	—
New Jersey	369,109	—	—	—	—	—	—	—
New Mexico	95,737	2	—	0.4	0.3	1	—	3
New York	802,393	—	—	—	—	—	—	—
North Carolina	371,987	3	—	1	0.1	25	—	2
North Dakota	35,136	5	0.2	—	—	0.2	—	1
Ohio	554,490	6	—	1	0.4	8	—	0.5
Oklahoma	174,356	2	0.2	1	0.04	3	—	0.2
Oregon	171,361	—	—	—	—	—	—	—
Pennsylvania	571,910	7	1	1	1	15	—	3
Puerto Rico	160,894	—	—	—	—	—	—	—
Rhode Island	46,661	—	—	—	—	—	—	—
South Carolina	194,027	5	—	0.2	—	1	—	2
South Dakota	40,598	5	0.2	1	0.2	2	—	2
Tennessee	254,271	2	—	0.2	0.1	1	—	0
Texas	1,180,158	7	0	1	0.01	1	—	1
Utah	141,839	7	—	1	—	28	—	0.2
Vermont	31,807	—	—	—	—	—	—	—
Virgin Islands	5,400	1	—	—	—	0	—	—
Virginia	345,720	—	—	—	—	—	—	—
Washington	317,607	—	—	—	—	—	—	—
West Virginia	82,281	—	2	1	3	1	—	7
Wisconsin	289,528	6	2	0.4	1	5	—	2
Wyoming	28,190	3	1	0.4	0.3	5	0.3	1
NATION	14,100,716	5	1	1	0.5	7	#	2

— Data not available. # Too few states reporting to impute national percent. Virgin Islands: partial data.

Source: State Departments of Education, Data on Public Schools, 2003-04; NCES, CCD Fall Membership 2002; Guam, Fall 2001. Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 2.7**High School General, Physical, Integrated/Coordinated, Environmental, Technology, and Other Science Course Enrollments as a Percent of Students in Grades 9-12, 2004**

State	Student Membership (Grades 9-12)	General Science % 9-12	Physical Science % 9-12	Integrated/Coordinated Science % 9-12	Environmental Science % 9-12	Technology % 9-12	Other Science % 9-12
Alabama	206,159	—	—	—	—	—	—
Alaska	39,984	—	—	—	—	—	—
Arizona	276,984	—	—	—	—	—	—
Arkansas	131,716	0	25	0.2	4	2	—
California	1,807,054	1	6	7	1	0.001	2
Colorado	217,397	—	—	—	—	—	—
Connecticut	164,025	—	—	—	—	—	—
Delaware	34,121	—	—	—	—	—	—
District of Columbia	15,374	2	0.03	0.1	8	1	1
DoDEA	18,031	—	—	8	3	1	0.3
Florida	730,650	0.002	5	12	3	0.2	0.1
Georgia	407,451	—	—	—	—	—	—
Guam	8,859	6	22	—	—	0	0.3
Hawaii	52,922	—	—	—	—	—	—
Idaho	75,315	1	15	1	1	0	0
Illinois	595,349	—	—	—	—	—	—
Indiana	288,607	0	7	1	1	—	0.03
Iowa	152,147	—	16	8	4	1	2
Kansas	144,334	—	—	—	—	—	—
Kentucky	182,479	—	—	—	—	—	—
Louisiana	192,902	1	24	2	7	0	0
Maine	61,873	—	—	—	—	—	—
Maryland	253,506	—	—	—	—	—	—
Massachusetts	281,939	—	—	—	—	—	—
Michigan	517,152	2	5	4	1	1	4
Minnesota	279,190	—	14	0.4	3	—	0.1
Mississippi	126,932	—	10	—	4	—	12
Missouri	271,262	3	21	—	3	0	2
Montana	48,727	—	—	—	—	—	—
Nebraska	90,289	7	15	—	—	0.5	4
Nevada	98,538	1	2	13	4	0	1
New Hampshire	63,988	—	—	—	—	—	—
New Jersey	369,109	—	—	—	—	—	—
New Mexico	95,737	3	14	2	1	0.5	2
New York	802,393	—	—	—	—	—	—
North Carolina	371,987	—	15	—	7	—	3
North Dakota	35,136	0.5	27	—	—	0.2	—
Ohio	554,490	—	15	16	0.1	0.3	4
Oklahoma	174,356	0.5	20	—	4	0.1	9
Oregon	171,361	—	—	—	—	—	—
Pennsylvania	571,910	4	7	4	6	2	—
Puerto Rico	160,894	—	—	—	—	—	—
Rhode Island	46,661	—	—	—	—	—	—
South Carolina	194,027	—	26	2	2	1	3
South Dakota	40,598	3	24	—	0.1	—	—
Tennessee	254,271	—	24	—	3	1	1
Texas	1,180,158	—	24	0.01	2	0.4	0.2
Utah	141,839	—	0	—	1	0	6
Vermont	31,807	—	—	—	—	—	—
Virgin Islands	5,400	0	13	—	0.2	0.1	4
Virginia	345,720	—	—	—	—	—	—
Washington	317,607	—	—	—	—	—	—
West Virginia	82,281	—	1	73	0.03	—	—
Wisconsin	289,528	4	14	5	4	1	6
Wyoming	28,190	4	14	3	3	0.4	4
NATION	14,100,716	2	12	7	3	1	#

— Data not available. Virgin Islands: partial data.

Source: State Departments of Education, Data on Public Schools, 2003-04; NCES, CCD Fall Membership 2002; Guam, Fall 2001. Council of Chief State School Officers, *State Services and Technical Assistance, Washington, DC, 2005.*

Section III: Teachers Assigned to Science and Math, 7-8, 9-12

Table 3.1
Mathematics Teachers in Grades 9-12 by Time Assigned by Certification Status, 2004

State	Mathematics Assignment			Certification			
	Total Math Teachers	Main %	2nd or 3rd %	Main Assignment % Certified	Main Assignment % Not Certified	2nd or 3rd Assignment % Certified	2nd or 3rd Assignment % Not Certified
Alabama	—	—	—	—	—	—	—
Alaska	555	57	43	44	13	8	35
Arizona	—	—	—	—	—	—	—
Arkansas	1,485	—	—	—	—	—	—
California	13212	84	16	76	8	6	9
Colorado	1,902	94	6	—	—	—	—
Connecticut	1,643	97	3	96	0.4	3	0.1
Delaware	270	100	0	92	8	0	0
District of Columbia	—	—	—	—	—	—	—
DoDEA	319	—	—	—	—	—	—
Florida	8099	62	38	—	—	—	—
Georgia	3430	97	3	89	7	2	3
Guam	53	100	0	83	17	0	0
Hawaii	—	—	—	—	—	—	—
Idaho	708	40	60	34	6	59	1
Illinois	4502	96	4	71	25	2	3
Indiana	2534	90	10	87	2	8	3
Iowa	1346	—	—	—	—	—	—
Kansas	1569	—	—	97	3	—	—
Kentucky	—	—	—	—	—	—	—
Louisiana	1301	92	8	88	4	7	1
Maine	—	—	—	—	—	—	—
Maryland	—	—	—	—	—	—	—
Massachusetts	—	—	—	—	—	—	—
Michigan	—	—	—	—	—	—	—
Minnesota	2148	85	15	85	1	14	1
Mississippi	1237	99	1	96	4	1	0
Missouri	2355	89	11	87	3	9	2
Montana	—	—	—	—	—	—	—
Nebraska	1171	88	12	84	4	8	4
Nevada	664	96	4	95	2	3	1
New Hampshire	611	—	—	—	—	—	—
New Jersey	4,452	—	—	—	—	—	—
New Mexico	1005	80	20	73	7	14	6
New York	—	—	—	—	—	—	—
North Carolina	5,736	56	44	48	8	28	16
North Dakota	426	77	23	77	0	23	0
Ohio	6096	92	8	88	4	7	1
Oklahoma	2108	92	8	92	0.2	8	0.4
Oregon	—	—	—	—	—	—	—
Pennsylvania	6,384	100	0.2	—	—	—	—
Puerto Rico	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	—
South Dakota	492	65	35	64	1	30	5
Tennessee	2070	92	8	91	1	7	1
Texas	14669	72	28	64	8	17	12
Utah	906	74	26	67	7	20	6
Vermont	—	—	—	—	—	—	—
Virgin Islands	55	100	0	0	100	0	0
Virginia	3,305	97	3	90	7	2	2
Washington	—	—	—	—	—	—	—
West Virginia	1161	100	0	96	4	0	0
Wisconsin	2362	96	4	96	—	5	—
Wyoming	271	89	11	89	0	11	0
NATION	138,388	85	15	79	6	10	5

— Data not available. Main Assignment = Half time or more assigned to subject; 2nd or 3rd Assignment = Less than half time assigned to subject. Kansas: 50% or more category = all teaching assignments; Texas: methodology change. National totals include imputation for nonreporting states.

Note: Several state percentages include teachers with general secondary certification: California - 442; Connecticut - 23; Guam - 2; Kansas - 94; Ohio - 1564; Oklahoma - 7; South Dakota - 20; Wyoming - 10.

Source: State Departments of Education, Data on Public Schools, 2003-04.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 3.2
Biology Teachers in Grades 9-12 by Time Assigned by Certification Status, 2004

State	Biology Assignment			Certification					
	Total Biology Teachers	Main %	2nd or 3rd %	Main Assignment			2nd or 3rd Assignment		
				% Certified	% Certified Broad Field	% Not Certified	% Certified	% Certified Broad Field	% Not Certified
Alabama	—	—	—	—	—	—	—	—	—
Alaska	186	51	49	34	2	14	25	6	18
Arizona	—	—	—	—	—	—	—	—	—
Arkansas	640	—	—	—	—	—	—	—	—
California	4729	67	33	0	61	6	0	23	9
Colorado	1,724	95	5	—	—	—	—	—	—
Connecticut	794	85	15	84	0.3	1	14	1	1
Delaware	74	100	0	84	0	16	0	0	0
District of Columbia	—	—	—	—	—	—	—	—	—
DoDEA	117	—	—	—	—	—	—	—	—
Florida	2720	40	60	—	—	—	—	—	—
Georgia	1458	89	11	38	44	7	2	7	3
Guam	13	100	0	0	85	15	0	0	0
Hawaii	—	—	—	—	—	—	—	—	—
Idaho	318	49	51	49	0	0.3	50	0	0
Illinois	1968	84	16	46	0	38	8	0	8
Indiana	1170	74	26	71	1	1	23	2	2
Iowa	631	—	—	—	—	—	—	—	—
Kansas	576	—	—	93	1	6	—	—	—
Kentucky	—	—	—	—	—	—	—	—	—
Louisiana	523	79	21	77	0	2	19	0	2
Maine	—	—	—	—	—	—	—	—	—
Maryland	—	—	—	—	—	—	—	—	—
Massachusetts	—	—	—	—	—	—	—	—	—
Michigan	—	—	—	—	—	—	—	—	—
Minnesota	1003	69	31	52	17	0.5	20	10	1
Mississippi	804	99	1	95	0	4	1	0	0.2
Missouri	1357	69	31	67	0	2	26	0	4
Montana	—	—	—	—	—	—	—	—	—
Nebraska	558	58	42	56	0	3	37	0	5
Nevada	305	91	9	13	76	1	1	9	0
New Hampshire	279	—	—	—	—	—	—	—	—
New Jersey	1,507	—	—	—	—	—	—	—	—
New Mexico	371	49	51	0	46	3	0	48	3
New York	—	—	—	—	—	—	—	—	—
North Carolina	1,494	61	39	19	35	6	6	20	13
North Dakota	259	42	58	34	7	0	44	15	0
Ohio	2330	65	35	54	7	4	18	8	9
Oklahoma	1110	72	28	72	0	0.3	27	0.2	0.1
Oregon	—	—	—	—	—	—	—	—	—
Pennsylvania	1,933	100	0.4	—	—	—	—	—	—
Puerto Rico	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	—	—	—
South Dakota	273	32	68	26	6	0.4	42	24	2
Tennessee	825	95	5	93	0	1	5	0	1
Texas	5381	55	45	49	0	6	25	0	19
Utah	381	61	39	56	0	6	32	0	7
Vermont	—	—	—	—	—	—	—	—	—
Virgin Islands	16	100	0	6	13	81	0	0	0
Virginia	1,318	83	17	79	0	4	14	0	3
Washington	—	—	—	—	—	—	—	—	—
West Virginia	305	100	0	98	0	2	0	0	0
Wisconsin	1040	86	14	85	—	—	15	—	—
Wyoming	119	66	34	64	3	0	30	3	0
NATION	52,697	72	28	56	9	6	15	6	7

— Data not available. Main Assignment = Half time or more assigned to subject; 2nd or 3rd Assignment = Less than half time assigned to subject. Colorado: Biology = all science; Kansas: 50% or more category = all teaching assignments; Texas: methodology change; Virgin Islands: partial data. National totals include imputation for nonreporting states.

Note: Several state percentages include teachers with general secondary certification: California - 114; Connecticut - 8; Ohio - 157; Oklahoma - 2; South Dakota - 5; Wyoming - 1.

Source: State Departments of Education, Data on Public Schools, 2003-04.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 3.3**Chemistry Teachers in Grades 9-12 by Time Assigned by Certification Status, 2004**

State	Chemistry Assignment			Certification					
	Total Chemistry Teachers	Main %	2nd or 3rd %	Main Assignment			2nd or 3rd Assignment		
				% Certified	% Certified Broad Field	% Not Certified	% Certified	% Certified Broad Field	% Not Certified
Alabama	—	—	—	—	—	—	—	—	—
Alaska	76	42	58	16	3	24	17	21	20
Arizona	—	—	—	—	—	—	—	—	—
Arkansas	414	—	—	—	—	—	—	—	—
California	2255	3	97	0	59	11	0	22	8
Colorado	—	—	—	—	—	—	—	—	—
Connecticut	452	83	17	82	1	0.2	13	1	2
Delaware	47	100	0	83	0	17	0	0	0
District of Columbia	—	—	—	—	—	—	—	—	—
DoDEA	74	—	—	—	—	—	—	—	—
Florida	997	52	48	—	—	—	—	—	—
Georgia	—	—	—	—	—	—	—	—	—
Guam	7	100	0	0	71	29	0	0	0
Hawaii	—	—	—	—	—	—	—	—	—
Idaho	141	35	65	35	0	0	65	0	0
Illinois	1346	74	26	51	0	22	17	0	10
Indiana	637	75	25	72	2	1	21	2	1
Iowa	443	—	—	—	—	—	—	—	—
Kansas	436	—	—	93	1	6	—	—	—
Kentucky	—	—	—	—	—	—	—	—	—
Louisiana	204	70	30	65	0	4	24	0	6
Maine	—	—	—	—	—	—	—	—	—
Maryland	—	—	—	—	—	—	—	—	—
Massachusetts	—	—	—	—	—	—	—	—	—
Michigan	—	—	—	—	—	—	—	—	—
Minnesota	545	56	44	48	8	1	31	11	2
Mississippi	295	99	1	93	0	6	0.3	0	0.3
Missouri	687	48	52	46	0	2	46	0	7
Montana	—	—	—	—	—	—	—	—	—
Nebraska	338	34	66	29	0	5	50	0	15
Nevada	144	79	21	28	50	1	5	16	0
New Hampshire	103	—	—	—	—	—	—	—	—
New Jersey	812	—	—	—	—	—	—	—	—
New Mexico	170	40	60	0	39	1	0	57	3
New York	—	—	—	—	—	—	—	—	—
North Carolina	656	66	34	14	43	9	4	21	9
North Dakota	175	18	82	9	9	0	29	54	0
Ohio	1256	62	38	42	19	1	19	15	4
Oklahoma	509	32	68	32	0	0	67	0.2	1
Oregon	—	—	—	—	—	—	—	—	—
Pennsylvania	1,086	100	0.2	—	—	—	—	—	—
Puerto Rico	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	—	—	—
South Dakota	167	18	82	18	0	0	80	0	2
Tennessee	497	86	14	86	0	1	11	0	3
Texas	3179	59	41	52	0	7	26	0	15
Utah	190	62	38	58	0	4	30	0	8
Vermont	—	—	—	—	—	—	—	—	—
Virgin Islands	7	100	0	0	0	100	0	0	0
Virginia	645	83	17	78	0	4	14	0	4
Washington	—	—	—	—	—	—	—	—	—
West Virginia	148	100	0	94	0	6	0	0	0
Wisconsin	585	71	29	71	—	—	29	—	—
Wyoming	68	46	54	40	7	0	40	13	0
NATION	27,947	65	35	53	7	5	24	4	7

— Data not available. Main Assignment = Half time or more assigned to subject; 2nd or 3rd Assignment = Less than half time assigned to subject. Kansas: 50% or more category = all teaching assignments; Texas: methodology change; Virgin Islands: partial data. National totals include imputation for nonreporting states.

Note: Several state percentages include teachers with general secondary certification: California - 49; Connecticut - 8; Ohio - 421; Oklahoma - 1.

Source: State Departments of Education, Data on Public Schools, 2003-04.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 3.4**Physics Teachers in Grades 9-12 by Time Assigned by Certification Status, 2004**

State	Physics Assignment			Certification					
	Total Physics Teachers	Main %	2nd or 3rd %	Main Assignment			2nd or 3rd Assignment		
				% Certified	% Certified Broad Field	% Not Certified	% Certified	% Certified Broad Field	% Not Certified
Alabama	—	—	—	—	—	—	—	—	—
Alaska	45	13	87	4	4	4	18	27	42
Arizona	—	—	—	—	—	—	—	—	—
Arkansas	91	—	—	—	—	—	—	—	—
California	1325	49	51	0	43	6	0	40	11
Colorado	—	—	—	—	—	—	—	—	—
Connecticut	251	76	24	73	1	2	15	4	5
Delaware	33	100	0	58	0	42	0	0	0
District of Columbia	—	—	—	—	—	—	—	—	—
DoDEA	80	—	—	—	—	—	—	—	—
Florida	486	47	53	—	—	—	—	—	—
Georgia	—	—	—	—	—	—	—	—	—
Guam	2	100	0	0	100	0	0	0	0
Hawaii	—	—	—	—	—	—	—	—	—
Idaho	112	10	90	10	0	0	90	0	0
Illinois	824	55	45	38	0	17	24	0	21
Indiana	385	39	61	35	3	1	49	8	4
Iowa	344	—	—	—	—	—	—	—	—
Kansas	323	—	—	88	1	11	—	—	—
Kentucky	—	—	—	—	—	—	—	—	—
Louisiana	91	48	52	42	0	7	40	0	12
Maine	—	—	—	—	—	—	—	—	—
Maryland	—	—	—	—	—	—	—	—	—
Massachusetts	—	—	—	—	—	—	—	—	—
Michigan	—	—	—	—	—	—	—	—	—
Minnesota	353	36	64	31	4	1	50	11	3
Mississippi	205	97	3	70	0	27	3	0	0
Missouri	406	23	77	21	0	2	64	0	14
Montana	—	—	—	—	—	—	—	—	—
Nebraska	281	21	79	16	0	5	55	0	25
Nevada	71	70	30	27	44	0	6	24	0
New Hampshire	58	—	—	—	—	—	—	—	—
New Jersey	—	—	—	—	—	—	—	—	—
New Mexico	98	19	81	0	18	1	0	74	6
New York	—	—	—	—	—	—	—	—	—
North Carolina	344	27	73	7	15	5	9	49	15
North Dakota	118	5	95	3	3	0	9	86	0
Ohio	836	36	64	20	15	0.5	28	33	3
Oklahoma	214	15	85	15	0	0	81	0	3
Oregon	—	—	—	—	—	—	—	—	—
Pennsylvania	630	100	0.3	—	—	—	—	—	—
Puerto Rico	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	—	—	—
South Dakota	125	6	94	1	5	0	22	69	4
Tennessee	259	91	9	65	0	26	2	0	7
Texas	1694	41	59	37	0	4	41	0	17
Utah	136	52	48	51	0	1	40	0	7
Vermont	—	—	—	—	—	—	—	—	—
Virgin Islands	3	100	0	0	0	100	0	0	0
Virginia	426	66	34	62	0	4	23	0	11
Washington	—	—	—	—	—	—	—	—	—
West Virginia	152	100	0	94	0	6	0	0	0
Wisconsin	378	43	57	43	—	—	57	—	—
Wyoming	43	30	70	23	7	0	35	35	0
NATION	16,301	53	47	41	5	7	28	9	11

— Data not available. Main Assignment = Half time or more assigned to subject; 2nd or 3rd Assignment = Less than half time assigned to subject. Kansas: 50% or more category = all teaching assignments; Texas: methodology change; Virgin Islands: partial data. National totals include imputation for nonreporting states.

Note: Several state percentages include teachers with general secondary certification: California - 21; Connecticut - 12; Ohio - 117; South Dakota - 14; Wyoming - 1.

Source: State Departments of Education, Data on Public Schools, 2003-04.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 3.5**Earth Science Teachers in Grades 9-12 by Time Assigned by Certification Status, 2004**

	Earth Science Assignment			Certification					
	Total Earth Science Teachers	Main %	2nd or 3rd %	% Certified	% Certified Broad Field	% Not Certified	% Certified	% Certified Broad Field	% Not Certified
Alabama	—	—	—	—	—	—	—	—	—
Alaska	75	21	79	3	5	13	12	27	40
Arizona	—	—	—	—	—	—	—	—	—
Arkansas	—	—	—	—	—	—	—	—	—
California	1055	46	54	0	30	16	0	30	25
Colorado	—	—	—	—	—	—	—	—	—
Connecticut	190	86	14	85	0	1	13	0	1
Delaware	12	100	0	58	0	42	0	0	0
District of Columbia	—	—	—	—	—	—	—	—	—
DoDEA	44	—	—	—	—	—	—	—	—
Florida	1671	79	21	—	—	—	—	—	—
Georgia	—	—	—	—	—	—	—	—	—
Guam	—	—	—	—	—	—	—	—	—
Hawaii	—	—	—	—	—	—	—	—	—
Idaho	138	33	67	33	0	0	66	0	1
Illinois	460	61	39	26	0	35	8	0	31
Indiana	416	70	30	56	13	1	13	13	4
Iowa	165	—	—	—	—	—	—	—	—
Kansas	56	—	—	86	2	13	—	—	—
Kentucky	—	—	—	—	—	—	—	—	—
Louisiana	18	50	50	39	0	11	28	0	22
Maine	—	—	—	—	—	—	—	—	—
Maryland	—	—	—	—	—	—	—	—	—
Massachusetts	—	—	—	—	—	—	—	—	—
Michigan	—	—	—	—	—	—	—	—	—
Minnesota	171	48	52	27	18	2	25	21	6
Mississippi	336	99	1	91	0	8	0.3	0	0.3
Missouri	199	35	65	34	0	1	52	0	13
Montana	—	—	—	—	—	—	—	—	—
Nebraska	209	22	78	17	0	4	52	0	26
Nevada	119	81	19	18	62	1	0	19	0
New Hampshire	32	—	—	—	—	—	—	—	—
New Jersey	—	—	—	—	—	—	—	—	—
New Mexico	98	0	100	0	0	0	0	93	7
New York	—	—	—	—	—	—	—	—	—
North Carolina	1,382	46	54	7	32	8	8	27	19
North Dakota	25	12	88	4	8	0	20	68	0
Ohio	799	40	60	16	18	6	12	31	18
Oklahoma	132	36	64	35	0	1	56	0	8
Oregon	—	—	—	—	—	—	—	—	—
Pennsylvania	545	100	0.2	—	—	—	—	—	—
Puerto Rico	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	—	—	—
South Dakota	39	8	92	8	0	0	5	87	0
Tennessee	120	93	7	78	0	16	2	0	5
Texas	485	21	79	14	0	7	42	0	37
Utah	167	34	66	20	0	13	42	0	25
Vermont	—	—	—	—	—	—	—	—	—
Virgin Islands	0	—	—	—	—	—	—	—	—
Virginia	1,003	85	15	68	0	17	5	0	10
Washington	—	—	—	—	—	—	—	—	—
West Virginia	242	100	0	95	0	5	0	0	0
Wisconsin	143	57	43	57	—	—	45	—	—
Wyoming	42	45	55	24	21	0	19	36	0
NATION	15,611	66	34	39	18	9	13	8	14

— Data not available. Main Assignment = Half time or more assigned to subject; 2nd or 3rd Assignment = Less than half time assigned to subject. Kansas: 50% or more category = all teaching assignments; Texas: methodology change; Virgin Islands: partial data. National totals include imputation for nonreporting states.

Note: Several state percentages include teachers with general secondary certification: California - 49; Ohio - 269; South Dakota - 2; Wyoming - 2.

Source: State Departments of Education, Data on Public Schools, 2003-04.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 3.6

General Science Teachers in Grades 9-12 by Time Assigned by Certification Status, 2004

State	General Science Assignment			Certification					
	Total General Science Teachers	Main %	2nd or 3rd %	% Certified	% Certified Broad Field	% Not Certified	% Certified	% Certified Broad Field	% Not Certified
Alabama	—	—	—	—	—	—	—	—	—
Alaska	186	38	62	6	3	28	5	12	45
Arizona	—	—	—	—	—	—	—	—	—
Arkansas	—	—	—	—	—	—	—	—	—
California	470	43	57	0	35	8	0	42	15
Colorado	—	—	—	—	—	—	—	—	—
Connecticut	354	61	39	56	3	1	32	3	4
Delaware	87	100	0	18	0	82	0	0	0
District of Columbia	—	—	—	—	—	—	—	—	—
DoDEA	—	—	—	—	—	—	—	—	—
Florida	—	—	—	—	—	—	—	—	—
Georgia	—	—	—	—	—	—	—	—	—
Guam	5	100	0	0	80	20	0	0	0
Hawaii	—	—	—	—	—	—	—	—	—
Idaho	23	9	91	9	0	0	91	0	0
Illinois	967	61	39	32	0	29	18	0	21
Indiana	0	—	—	—	—	—	—	—	—
Iowa	—	—	—	—	—	—	—	—	—
Kansas	190	—	—	78	14	8	—	—	—
Kentucky	—	—	—	—	—	—	—	—	—
Louisiana	11	73	27	64	0	9	18	0	9
Maine	—	—	—	—	—	—	—	—	—
Maryland	—	—	—	—	—	—	—	—	—
Massachusetts	—	—	—	—	—	—	—	—	—
Michigan	—	—	—	—	—	—	—	—	—
Minnesota	—	—	—	—	—	—	—	—	—
Mississippi	—	—	—	—	—	—	—	—	—
Missouri	172	34	66	31	0	2	53	0	13
Montana	—	—	—	—	—	—	—	—	—
Nebraska	252	42	58	38	0	4	52	0	6
Nevada	99	81	19	0	78	3	0	19	0
New Hampshire	70	—	—	—	—	—	—	—	—
New Jersey	—	—	—	—	—	—	—	—	—
New Mexico	55	31	69	0	24	7	0	60	9
New York	—	—	—	—	—	—	—	—	—
North Carolina	—	—	—	—	—	—	—	—	—
North Dakota	8	0	100	0	0	0	0	100	0
Ohio	—	—	—	—	—	—	—	—	—
Oklahoma	20	45	55	45	0	0	55	0	0
Oregon	—	—	—	—	—	—	—	—	—
Pennsylvania	1,571	100	0.2	—	—	—	—	—	—
Puerto Rico	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	—	—	—
South Dakota	41	15	85	15	0	0	61	22	2
Tennessee	—	—	—	—	—	—	—	—	—
Texas	—	—	—	—	—	—	—	—	—
Utah	—	—	—	—	—	—	—	—	—
Vermont	—	—	—	—	—	—	—	—	—
Virgin Islands	10	100	0	0	0	100	0	0	0
Virginia	—	—	—	—	—	—	—	—	—
Washington	—	—	—	—	—	—	—	—	—
West Virginia	—	—	—	—	—	—	—	—	—
Wisconsin	492	80	20	80	—	—	21	—	—
Wyoming	95	65	35	62	3	0	27	7	0
NATION#	13,813	71	29	37	10	16	21	11	15

— Data not available. Main Assignment = Half time or more assigned to subject; 2nd or 3rd Assignment = Less than half time assigned to subject. Kansas: 50% or more category = all teaching assignments; Virgin Islands: partial data.

Sum of reporting states, except total teachers includes imputation for nonreporting states.

Note: Several state percentages include teachers with general secondary certification: California - 32; Connecticut - 22; Wyoming - 10.

Source: State Departments of Education, Data on Public Schools, 2003-04.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 3.7

Physical Science Teachers in Grades 9-12 by Time Assigned by Certification Status, 2004

	Physical Science Assignment			Certification					
	Total Physical Science Teachers	Main %	2nd or 3rd %	% Certified	% Certified Broad Field	% Not Certified	% Certified	% Certified Broad Field	% Not Certified
State	—	—	—	—	—	—	—	—	—
Alabama	—	—	—	—	—	—	—	—	—
Alaska	92	38	62	8	9	22	2	22	38
Arizona	—	—	—	—	—	—	—	—	—
Arkansas	—	—	—	—	—	—	—	—	—
California	1458	48	52	31	11	7	27	14	10
Colorado	—	—	—	—	—	—	—	—	—
Connecticut	100	53	47	0	50	3	0	44	3
Delaware	2	100	0	100	0	0	0	0	0
District of Columbia	—	—	—	—	—	—	—	—	—
DoDEA	—	—	—	—	—	—	—	—	—
Florida	945	10	90	—	—	—	—	—	—
Georgia	1782	90	10	8	71	12	1	5	5
Guam	17	100	0	0	76	24	0	0	0
Hawaii	—	—	—	—	—	—	—	—	—
Idaho	169	41	59	40	0	1	59	0	0
Illinois	—	—	—	—	—	—	—	—	—
Indiana	403	39	61	15	23	2	21	37	2
Iowa	368	—	—	—	—	—	—	—	—
Kansas	275	—	—	39	53	8	—	—	—
Kentucky	—	—	—	—	—	—	—	—	—
Louisiana	329	69	31	65	0	4	26	0	5
Maine	—	—	—	—	—	—	—	—	—
Maryland	—	—	—	—	—	—	—	—	—
Massachusetts	—	—	—	—	—	—	—	—	—
Michigan	—	—	—	—	—	—	—	—	—
Minnesota	580	55	45	29	24	2	27	16	2
Mississippi	290	100	0.3	76	0	23	0	0	0.3
Missouri	811	51	49	0	48	3	0	45	4
Montana	—	—	—	—	—	—	—	—	—
Nebraska	303	4	96	4	0	1	75	0	21
Nevada	38	61	39	0	58	3	0	39	0
New Hampshire	59	—	—	—	—	—	—	—	—
New Jersey	—	—	—	—	—	—	—	—	—
New Mexico	191	41	59	0	37	4	0	52	7
New York	—	—	—	—	—	—	—	—	—
North Carolina	920	39	61	0	28	11	1	34	26
North Dakota	218	26	74	1	25	0	4	70	0
Ohio	1212	54	46	9	36	8	8	24	14
Oklahoma	638	49	51	48	0	1	50	0.2	1
Oregon	—	—	—	—	—	—	—	—	—
Pennsylvania	253	100	0	—	—	—	—	—	—
Puerto Rico	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	—	—	—
South Dakota	200	22	79	2	20	1	9	63	7
Tennessee	822	98	2	89	0	10	1	0	1
Texas	4582	45	55	33	0	12	23	0	32
Utah	0	—	—	—	—	—	—	—	—
Vermont	—	—	—	—	—	—	—	—	—
Virgin Islands	3	100	0	0	0	100	0	0	0
Virginia	—	—	—	—	—	—	—	—	—
Washington	—	—	—	—	—	—	—	—	—
West Virginia	34	100	0	97	0	3	0	0	0
Wisconsin	280	65	35	65	—	—	35	—	—
Wyoming	46	41	59	41	0	0	59	0	0
NATION#	25,499	53	47	28	20	9	17	13	15

— Data not available. Main Assignment = Half time or more assigned to subject; 2nd or 3rd Assignment = Less than half time assigned to subject. Kansas: 50% or more category = all teaching assignments; Texas: methodology change; Virgin Islands: partial data. # Sum of reporting states, except total teachers includes imputation for nonreporting states.

Note: Several state percentages include teachers with general secondary certification: California - 39; Connecticut - 2; Ohio - 547; Oklahoma - 1; South Dakota - 7.

Source: State Departments of Education, Data on Public Schools, 2003-04.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 3.8**Integrated Science Teachers in Grades 9-12 by Time Assigned by Certification Status, 2004**

	Integrated Science Assignment			Certification					
	Total Integrated Science Teachers	Main %	2nd or 3rd %	% Certified	% Certified Broad Field	% Not Certified	% Certified	% Certified Broad Field	% Not Certified
Alabama	—	—	—	—	—	—	—	—	—
Alaska	—	—	—	—	—	—	—	—	—
Arizona	—	—	—	—	—	—	—	—	—
Arkansas	—	—	—	—	—	—	—	—	—
California	1450	60	40	0	57	3	0	33	7
Colorado	—	—	—	—	—	—	—	—	—
Connecticut	33	91	9	0	91	0	0	9	0
Delaware	—	—	—	—	—	—	—	—	—
District of Columbia	—	—	—	—	—	—	—	—	—
DoDEA	31	—	—	—	—	—	—	—	—
Florida	1316	25	75	—	—	—	—	—	—
Georgia	—	—	—	—	—	—	—	—	—
Guam	—	—	—	—	—	—	—	—	—
Hawaii	—	—	—	—	—	—	—	—	—
Idaho	16	0	100	0	0	0	100	0	0
Illinois	—	—	—	—	—	—	—	—	—
Indiana	98	23	77	—	—	—	—	—	—
Iowa	127	—	—	—	—	—	—	—	—
Kansas	—	—	—	—	—	—	—	—	—
Kentucky	—	—	—	—	—	—	—	—	—
Louisiana	23	74	26	70	0	4	22	0	4
Maine	—	—	—	—	—	—	—	—	—
Maryland	—	—	—	—	—	—	—	—	—
Massachusetts	—	—	—	—	—	—	—	—	—
Michigan	—	—	—	—	—	—	—	—	—
Minnesota	30	23	77	10	3	10	30	20	27
Mississippi	—	—	—	—	—	—	—	—	—
Missouri	—	—	—	—	—	—	—	—	—
Montana	—	—	—	—	—	—	—	—	—
Nebraska	—	—	—	—	—	—	—	—	—
Nevada	65	91	9	0	85	6	0	9	0
New Hampshire	—	—	—	—	—	—	—	—	—
New Jersey	—	—	—	—	—	—	—	—	—
New Mexico	33	30	70	0	30	0	0	55	15
New York	—	—	—	—	—	—	—	—	—
North Carolina	—	—	—	—	—	—	—	—	—
North Dakota	—	—	—	—	—	—	—	—	—
Ohio	1533	56	44	30	11	15	22	8	14
Oklahoma	—	—	—	—	—	—	—	—	—
Oregon	—	—	—	—	—	—	—	—	—
Pennsylvania	34	100	0	—	—	—	—	—	—
Puerto Rico	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	—	—	—
South Dakota	—	—	—	—	—	—	—	—	—
Tennessee	—	—	—	—	—	—	—	—	—
Texas	4	25	75	25	0	0	50	0	25
Utah	52	17	83	17	0	0	52	0	31
Vermont	—	—	—	—	—	—	—	—	—
Virgin Islands	—	—	—	—	—	—	—	—	—
Virginia	28	46	54	43	0	4	39	0	14
Washington	—	—	—	—	—	—	—	—	—
West Virginia	847	100	0	94	0	6	0	0	0
Wisconsin	—	—	—	—	—	—	—	—	—
Wyoming	—	—	—	—	—	—	—	—	—
NATION#	5,720	56	44	32	26	8	10	15	8

— Data not available. Main Assignment = Half time or more assigned to subject; 2nd or 3rd Assignment = Less than half time assigned to subject. National totals include imputation for nonreporting states. Texas: methodology change. # Sum of reporting states.

Note: Several state percentages include teachers with general secondary certification: California - 36; Ohio - 168.

Source: State Departments of Education, Data on Public Schools, 2003-04.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 3.9**Grades 7-8 Mathematics Teachers by Time Assigned by Certification Status, 2004**

	Mathematics Assignment			Certification					
	Total Teachers (Grades 7-8)	Main %	2nd or 3rd %	Main Assignment		2nd or 3rd Assignment			
				% Certified Math	% Certified Elem./Middle	% Not Certified	% Certified Math	% Certified Elem./Middle	% Not Certified
Alabama	—	—	—	—	—	—	—	—	—
Alaska	459	49	51	20	2	26	6	5	41
Arizona	—	—	—	—	—	—	—	—	—
Arkansas	874	71	29	66	0.2	4	15	11	4
California	8440	67	33	42	22	3	13	16	4
Colorado	1,234	86	14	—	—	—	—	—	—
Connecticut	994	94	6	60	33	1	2	4	0
Delaware	171	99	1	71	13	16	1	0	0
District of Columbia	—	—	—	—	—	—	—	—	—
DoDEA	281	—	—	—	—	—	—	—	—
Florida	6344	49	51	—	—	—	—	—	—
Georgia	2783	91	9	11	59	—	1	6	—
Guam	46	100	0	48	33	20	0	0	0
Hawaii	—	—	—	—	—	—	—	—	—
Idaho	559	49	51	48	0	0.2	51	0	1
Illinois	1654	89	11	48	21	20	3	5	3
Indiana	1559	85	15	80	4	1	10	3	2
Iowa	—	—	—	—	—	—	—	—	—
Kansas	1075	—	—	61	35	5	—	—	—
Kentucky	—	—	—	—	—	—	—	—	—
Louisiana	493	81	19	76	0	4	17	0	2
Maine	—	—	—	—	—	—	—	—	—
Maryland	—	—	—	—	—	—	—	—	—
Massachusetts	—	—	—	—	—	—	—	—	—
Michigan	—	—	—	—	—	—	—	—	—
Minnesota	1269	75	25	75	—	0.2	25	—	0.5
Mississippi	914	100	0.4	64	0	35	0.3	0	0.1
Missouri	1489	79	21	74	0	5	16	0	5
Montana	—	—	—	—	—	—	—	—	—
Nebraska	99	96	4	83	0	13	3	0	1
Nevada	514	96	4	52	43	1	1	4	0.2
New Hampshire	294	—	—	—	—	—	—	—	—
New Jersey	—	—	—	—	—	—	—	—	—
New Mexico	702	67	33	23	0.3	44	8	0	25
New York	—	—	—	—	—	—	—	—	—
North Carolina	3,821	23	77	17	0.1	6	46	1	30
North Dakota	407	57	43	35	22	0	18	24	0
Ohio	4456	94	6	25	49	19	3	1	1
Oklahoma	1250	52	48	36	16	0.1	32	15	0.5
Oregon	—	—	—	—	—	—	—	—	—
Pennsylvania	—	—	—	—	—	—	—	—	—
Puerto Rico	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	—	—	—
South Dakota	710	31	69	22	9	0.1	50	18	2
Tennessee	1467	99	1	95	0	4	1	0	0
Texas	—	—	—	—	—	—	—	—	—
Utah	961	74	26	65	9	0	20	6	0
Vermont	—	—	—	—	—	—	—	—	—
Virgin Islands	37	100	0	8	3	89	0	0	0
Virginia	2,132	92	8	84	—	—	6	—	—
Washington	—	—	—	—	—	—	—	—	—
West Virginia	963	100	0	94	0	6	0	0	0
Wisconsin	1305	84	16	83	—	—	17	—	—
Wyoming	167	78	22	66	12	0	16	7	0
NATION	85,111	75	25	49	19	7	12	6	7

— Data not available. Main Assignment = Half time or more assigned to subject; 2nd or 3rd Assignment = Less than half time assigned to subject. Certified Elem./Middle = Certified to teach General Elementary, Middle/Junior High, General Secondary, or Science.

Kansas: 50% or more category = all teaching assignments. National totals include imputation for nonreporting states.

Source: State Departments of Education, Data on Public Schools, 2003-04.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 3.10**Grades 7-8 Science Teachers by Time Assigned by Certification Status, 2004**

	Science Assignment			Certification					
	Total Teachers (Grades 7-8)	Main %	2nd or 3rd %	Main Assignment		2nd or 3rd Assignment			
				% Certified Science	% Certified Elem./Middle	% Not Certified	% Certified Science	% Certified Elem./Middle	% Not Certified
Alabama	—	—	—	—	—	—	—	—	—
Alaska	370	56	44	15	1	40	7	2	34
Arizona	—	—	—	—	—	—	—	—	—
Arkansas	—	—	—	—	—	—	—	—	—
California	7577	78	22	53	21	4	6	13	3
Colorado	1,142	88	12	—	—	—	—	—	—
Connecticut	954	96	4	61	31	3	1	3	0.2
Delaware	151	100	0	75	12	13	0	0	0
District of Columbia	—	—	—	—	—	—	—	—	—
DoDEA	200	—	—	—	—	—	—	—	—
Florida	5786	50	50	—	—	—	—	—	—
Georgia	2125	93	7	13	56	—	1	5	—
Guam	42	100	0	55	21	24	0	0	0
Hawaii	—	—	—	—	—	—	—	—	—
Idaho	404	58	42	40	18	0	37	4	0.5
Illinois	1495	89	11	52	14	23	4	4	3
Indiana	1402	88	12	84	3	1	8	2	1
Iowa	—	—	—	—	—	—	—	—	—
Kansas	1030	—	—	63	28	9	—	—	—
Kentucky	—	—	—	—	—	—	—	—	—
Louisiana	561	82	18	78	0	5	14	0	4
Maine	—	—	—	—	—	—	—	—	—
Maryland	—	—	—	—	—	—	—	—	—
Massachusetts	—	—	—	—	—	—	—	—	—
Michigan	—	—	—	—	—	—	—	—	—
Minnesota	1081	76	24	75	—	1	23	—	1
Mississippi	114	99	1	95	0	4	1	0	0
Missouri	1430	82	18	76	0	6	14	0	4
Montana	—	—	—	—	—	—	—	—	—
Nebraska	98	98	2	90	0	8	1	0	1
Nevada	391	97	3	62	33	2	1	2	0
New Hampshire	164	—	—	—	—	—	—	—	—
New Jersey	—	—	—	—	—	—	—	—	—
New Mexico	607	55	45	24	1	30	19	0.2	26
New York	—	—	—	—	—	—	—	—	—
North Carolina	2,942	47	53	32	0.2	15	24	0.3	28
North Dakota	351	35	65	11	24	0	24	41	0
Ohio	308	84	16	38	58	9	5	8	5
Oklahoma	1210	55	45	35	20	0.1	23	21	0.1
Oregon	—	—	—	—	—	—	—	—	—
Pennsylvania	—	—	—	—	—	—	—	—	—
Puerto Rico	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	—	—	—
South Dakota	456	35	65	32	3	0	55	9	1
Tennessee	1392	99	1	86	0	13	0.2	0	0.4
Texas	—	—	—	—	—	—	—	—	—
Utah	651	84	16	67	17	0.3	10	6	0.2
Vermont	—	—	—	—	—	—	—	—	—
Virgin Islands	36	100	0	3	0	97	0	0	0
Virginia	1,836	92	8	84	—	—	5	—	—
Washington	—	—	—	—	—	—	—	—	—
West Virginia	725	100	0	92	0	8	0	0	0
Wisconsin	1161	88	12	88	—	—	15	—	—
Wyoming	147	76	24	69	7	0	22	3	0
NATION	68,331	79	21	54	17	8	9	6	6

— Data not available. Main Assignment = Half time or more assigned to subject; 2nd or 3rd Assignment = Less than half time assigned to subject. Certified Elem./Middle = Certified to teach General Elementary, Middle/Junior High, General Secondary, or Science. Kansas: 50% or more category = all teaching assignments; Virgin Islands: partial data. National totals include imputation for nonreporting states.

Source: State Departments of Education, Data on Public Schools, 2003-04.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 3.11
Age of Science and Mathematics Teachers, Grades 9-12, 2004

	Math				Biology				Chemistry				Physics			
	Total Teachers	% Under Age 30	% 30-49	% Age 50	Total Teachers	% Under Age 30	% 30-49	% Age 50	Total Teachers	% Under Age 30	% 30-49	% Age 50	Total Teachers	% Under Age 30	% 30-49	% Age 50
Alabama	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Alaska	555	13	55	31	186	13	57	30	76	8	62	30	45	9	62	29
Arizona	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Arkansas	1,485	19	52	29	640	20	54	26	414	18	51	31	91	10	62	29
California	13212	16	49	35	4729	17	52	32	2255	14	53	33	1325	18	53	29
Colorado	1,902	17	55	29	1,724	15	59	26	—	—	—	—	—	—	—	—
Connecticut	1,643	14	41	45	794	17	47	36	452	10	46	44	251	10	50	40
Delaware	270	18	50	33	74	26	45	30	47	13	47	40	33	18	61	21
District of Columbia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DoDEA	319	—	—	—	117	—	—	—	74	—	—	—	80	—	—	—
Florida	8099	15	51	35	2720	17	49	33	997	15	49	36	486	11	49	40
Georgia	3430	21	54	25	1458	20	53	26	—	—	—	—	—	—	—	—
Guam	53	13	53	17	13	0	62	23	7	0	43	43	2	0	50	50
Hawaii	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Idaho	708	10	58	32	318	16	52	31	141	12	49	39	112	13	49	38
Illinois	4502	23	47	30	1968	24	49	28	1346	21	50	29	824	16	54	30
Indiana	2534	17	49	33	1170	16	48	35	637	19	53	28	385	16	49	35
Iowa	1346	18	46	35	631	20	47	33	443	16	47	37	344	15	46	39
Kansas	1569	18	51	31	576	20	52	28	436	17	50	34	323	16	49	36
Kentucky	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Louisiana	1301	—	—	—	523	—	—	—	204	—	—	—	91	—	—	—
Maine	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Maryland	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Massachusetts	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Michigan	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Minnesota	2148	17	53	30	1003	15	56	29	545	18	52	30	353	11	57	32
Mississippi	1237	20	51	29	804	23	52	25	295	18	49	33	205	16	55	29
Missouri	2355	17	51	32	1357	16	54	30	687	13	52	35	406	12	50	38
Montana	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nebraska	1171	17	49	35	558	16	51	33	338	13	53	34	281	15	51	33
Nevada	664	14	53	33	305	21	56	24	144	19	56	25	71	15	56	28
New Hampshire	611	13	45	42	279	13	44	42	103	11	45	45	58	12	45	43
New Jersey	4,452	—	—	—	1,507	—	—	—	812	—	—	—	—	—	—	—
New Mexico	1005	10	52	38	371	10	58	32	170	4	55	41	98	9	53	38
New York	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
North Carolina	5,736	30	44	25	1,494	30	46	23	656	27	47	27	344	20	50	30
North Dakota	426	8	50	43	259	11	47	41	175	11	44	45	118	8	45	47
Ohio	6096	16	49	35	2330	16	49	34	1256	14	48	38	836	9	49	42
Oklahoma	2108	9	48	28	1110	8	53	26	509	6	50	34	214	5	46	40
Oregon	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pennsylvania	6,384	14	50	36	1,933	13	53	33	1,086	13	55	32	630	12	59	29
Puerto Rico	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
South Dakota	492	15	47	38	273	15	57	27	167	19	51	31	125	14	55	30
Tennessee	2070	—	—	—	825	—	—	—	497	—	—	—	259	—	—	—
Texas	14669	17	53	30	5381	20	55	26	3179	18	53	29	1694	13	54	33
Utah	906	15	51	34	381	14	50	35	190	22	45	34	136	15	46	38
Vermont	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Virgin Islands	55	20	55	25	16	25	44	31	7	0	43	57	3	0	33	67
Virginia	3,305	17	48	35	1,318	23	48	29	645	18	50	32	426	15	43	42
Washington	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
West Virginia	1161	8	52	40	305	5	41	54	148	8	49	43	152	8	61	32
Wisconsin	2362	15	54	31	1040	14	57	29	585	14	55	31	378	11	59	30
Wyoming	271	14	59	27	119	13	52	34	68	9	60	31	43	7	56	37
NATION	138,388	16	50	33	52,697	17	51	31	27,947	15	51	34	16,301	13	52	35

— Data not available. Colorado: Biology = all science; Texas: methodology change; Virgin Islands: partial data (science).

National totals include imputation for nonreporting states.

Source: State Departments of Education, Data on Public Schools, 2003-04.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 3.12**Gender of Science and Mathematics Teachers, Grades 9-12, 2004**

	Math			Biology			Chemistry			Physics		
	Total Teachers	% Male	% Female	Total Teachers	% Male	% Female	Total Teachers	% Male	% Female	Total Teachers	% Male	% Female
Alabama	—	—	—	—	—	—	—	—	—	—	—	—
Alaska	555	59	41	186	56	44	76	62	38	45	71	29
Arizona	—	—	—	—	—	—	—	—	—	—	—	—
Arkansas	1,485	—	—	640	—	—	414	—	—	998	—	—
California	13212	58	42	4729	53	46	2255	60	40	1325	78	22
Colorado	1,902	49	51	1,724	56	44	—	—	—	—	—	—
Connecticut	1,643	47	53	794	47	53	452	49	51	251	76	24
Delaware	270	35	65	74	50	50	47	53	47	33	76	24
District of Columbia	—	—	—	—	—	—	—	—	—	—	—	—
DoDEA	319	—	—	117	—	—	74	—	—	80	—	—
Florida	8099	41	59	2720	42	58	997	46	54	486	67	33
Georgia	3430	33	67	1458	35	65	—	—	—	—	—	—
Guam	53	53	47	13	31	69	7	29	71	2	50	50
Hawaii	—	—	—	—	—	—	—	—	—	—	—	—
Idaho	708	53	47	318	64	36	141	70	30	112	79	21
Illinois	4502	46	54	1968	45	55	1346	52	48	824	69	31
Indiana	2534	51	49	1170	56	44	637	54	46	385	72	28
Iowa	1346	55	45	631	63	37	443	63	37	344	70	30
Kansas	1569	49	51	576	64	36	436	64	36	323	73	27
Kentucky	—	—	—	—	—	—	—	—	—	—	—	—
Louisiana	1301	—	—	523	—	—	204	—	—	91	—	—
Maine	—	—	—	—	—	—	—	—	—	—	—	—
Maryland	—	—	—	—	—	—	—	—	—	—	—	—
Massachusetts	—	—	—	—	—	—	—	—	—	—	—	—
Michigan	—	—	—	—	—	—	—	—	—	—	—	—
Minnesota	2148	56	44	1003	55	45	545	62	38	353	82	18
Mississippi	1237	31	69	804	33	67	295	36	64	205	44	56
Missouri	2355	40	60	1357	45	55	687	50	50	406	68	32
Montana	—	—	—	—	—	—	—	—	—	—	—	—
Nebraska	1171	52	48	558	58	42	338	67	33	281	71	29
Nevada	664	54	46	305	52	48	144	51	49	71	69	31
New Hampshire	611	47	53	279	48	52	103	48	52	58	81	19
New Jersey	4,452	—	—	1,507	—	—	812	—	—	—	—	—
New Mexico	1005	51	49	371	54	46	170	53	47	98	66	34
New York	—	—	—	—	—	—	—	—	—	—	—	—
North Carolina	5,736	36	64	1,494	36	64	656	43	57	344	64	36
North Dakota	426	57	43	259	61	39	175	59	41	118	64	36
Ohio	6096	45	55	2330	48	52	1256	56	42	836	69	31
Oklahoma	2108	42	58	1110	55	45	509	52	48	214	66	34
Oregon	—	—	—	—	—	—	—	—	—	—	—	—
Pennsylvania	6,384	48	52	1,933	49	51	1,086	52	48	630	78	22
Puerto Rico	—	—	—	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	—	—	—	—	—	—
South Dakota	492	48	52	273	54	46	167	49	51	125	56	44
Tennessee	2070	—	—	825	—	—	497	—	—	259	—	—
Texas	14669	39	61	5381	44	56	3179	45	55	1694	60	40
Utah	906	49	51	381	63	37	190	64	36	136	70	30
Vermont	—	—	—	—	—	—	—	—	—	—	—	—
Virgin Islands	55	45	55	16	38	63	7	57	43	3	67	33
Virginia	3,305	36	64	1,318	34	66	645	35	65	426	68	32
Washington	—	—	—	—	—	—	—	—	—	—	—	—
West Virginia	1161	40	60	305	47	53	148	51	49	152	64	36
Wisconsin	2362	56	44	1040	60	40	585	63	37	378	77	23
Wyoming	271	56	44	119	61	39	68	62	38	43	81	19
NATION	138,388	46	54	52,697	48	52	27,947	53	47	16,301	70	30

— Data not available. Colorado: Biology = all science; Texas: methodology change; Virgin Islands: partial data (science).

National totals include imputation for nonreporting states.

Source: State Departments of Education, Data on Public Schools, 2003-04.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 3.13**Race/Ethnicity of Teachers Assigned in Mathematics and Biology, Grades 9-12, 2004**

	Math						Biology					
	Total Teachers	% Hispanic	% White	% Afr.-Am.	% Asian	% Am. Ind.	Total Teachers	% Hispanic	% White	% Afr.-Am.	% Asian	% Am. Ind.
Alabama	—	—	—	—	—	—	—	—	—	—	—	—
Alaska	555	1	92	1	2	3	186	1	91	2	2	3
Arizona	—	—	—	—	—	—	—	—	—	—	—	—
Arkansas	1,485	—	—	—	—	—	640	—	—	—	—	—
California	13212	12	71	5	10	1	4729	10	76	4	8	1
Colorado	1,902	4	93	1	1	0.3	1,724	4	93	1	1	1
Connecticut	1,643	3	93	3	1	0.2	794	2	94	2	2	0.3
Delaware	270	1	88	11	0.4	0	74	1	89	9	0	0
District of Columbia	—	—	—	—	—	—	—	—	—	—	—	—
DoDEA	319	—	—	—	—	—	117	—	—	—	—	—
Florida	8099	8	75	15	1	0.5	2720	8	77	13	1	0.4
Georgia	3430	0.2	79	19	2	0.2	1458	0.1	81	18	1	0
Guam	53	0	11	0	64	2	13	0	31	0	54	0
Hawaii	—	—	—	—	—	—	—	—	—	—	—	—
Idaho	708	1	98	0	1	0	318	1	98	0	0.3	1
Illinois	4502	2	90	5	2	0.1	1968	2	89	6	2	0.1
Indiana	2534	0.4	97	2	0.3	0.04	1170	1	97	3	0.2	0
Iowa	1346	0.1	99	0.2	0.4	0.2	631	0.3	98	0.2	0.5	1
Kansas	1569	1	97	1	1	0.4	576	1	97	1	0.3	1
Kentucky	—	—	—	—	—	—	—	—	—	—	—	—
Louisiana	1301	—	—	—	—	—	523	—	—	—	—	—
Maine	—	—	—	—	—	—	—	—	—	—	—	—
Maryland	—	—	—	—	—	—	—	—	—	—	—	—
Massachusetts	—	—	—	—	—	—	—	—	—	—	—	—
Michigan	—	—	—	—	—	—	—	—	—	—	—	—
Minnesota	2148	0.3	97	1	1	0.2	1003	0.2	97	1	0.5	0.2
Mississippi	1237	0.2	77	22	0.5	0	804	0.1	75	25	0.1	0.1
Missouri	2355	0.1	93	6	1	0.2	1357	0.3	96	3	0.4	0.2
Montana	—	—	—	—	—	—	—	—	—	—	—	—
Nebraska	1171	1	99	1	0	0.2	558	0.4	99	0.2	0.2	0
Nevada	664	2	91	2	3	0.3	305	3	91	3	1	0.3
New Hampshire	611	—	—	—	—	—	279	—	—	—	—	—
New Jersey	4,452	—	—	—	—	—	1,507	—	—	—	—	—
New Mexico	1005	19	76	2	1	2	371	20	78	0.3	1	1
New York	—	—	—	—	—	—	—	—	—	—	—	—
North Carolina	5,736	0.3	84	14	1	1	1,494	0.4	85	13	1	1
North Dakota	426	0.2	100	0	0	0	259	0	98	0.4	0	2
Ohio	6096	0.3	94	6	1	0.02	2330	0.3	93	6	1	0
Oklahoma	2108	0.2	94	2	1	3	1110	0.5	94	2	0.2	4
Oregon	—	—	—	—	—	—	—	—	—	—	—	—
Pennsylvania	6,384	0.3	94	5	1	0.05	1,933	1	95	4	1	0.1
Puerto Rico	—	—	—	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	—	—	—	—	—	—
South Dakota	492	0	99	0.2	0	0.4	273	0	99	0	0.4	1
Tennessee	2070	—	—	—	—	—	825	—	—	—	—	—
Texas	14669	14	76	8	2	0.2	5381	14	76	9	1	0.4
Utah	906	1	92	0.3	1	1	381	1	92	1	1	1
Vermont	—	—	—	—	—	—	—	—	—	—	—	—
Virgin Islands	55	5	18	69	4	0	16	13	13	75	0	0
Virginia	3,305	1	84	11	2	1	1,318	1	85	10	2	1
Washington	—	—	—	—	—	—	—	—	—	—	—	—
West Virginia	1161	0.1	99	1	0.2	0	305	0	98	2	0	0
Wisconsin	2362	1	97	1	1	0.3	1040	0.2	99	0.3	1	0.2
Wyoming	271	1	98	0	1	0.4	119	0	100	0	0	0
NATION	138,388	5	85	7	2	0.5	52,697	4	86	6	2	0.5

— Data not available. Colorado: Biology = all science; Texas: methodology change; Virgin Islands: partial data (biology).

National totals include imputation for nonreporting states.

Source: State Departments of Education, Data on Public Schools, 2003-04.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.

Table 3.14**Race/Ethnicity of Teachers Assigned in Chemistry and Physics, Grades 9-12, 2004**

	Chemistry						Physics					
	Total Teachers	% Hispanic	% White	% Afr.-Am.	% Asian	% Am. Ind.	Total Teachers	% Hispanic	% White	% Afr.-Am.	% Asian	% Am. Ind.
Alabama	—	—	—	—	—	—	—	—	—	—	—	—
Alaska	76	0	96	3	1	0	45	0	100	0	0	0
Arizona	—	—	—	—	—	—	—	—	—	—	—	—
Arkansas	414	—	—	—	—	—	998	—	—	—	—	—
California	2255	8	76	4	10	1	1325	5	82	3	8	0.4
Colorado	—	—	—	—	—	—	—	—	—	—	—	—
Connecticut	452	2	94	2	2	0.2	251	1	96	1	2	0.4
Delaware	47	0	94	6	0	0	33	0	85	12	3	0
District of Columbia	—	—	—	—	—	—	—	—	—	—	—	—
DoDEA	74	—	—	—	—	—	80	—	—	—	—	—
Florida	997	9	77	11	3	0.4	486	9	83	4	3	0.2
Georgia	—	—	—	—	—	—	—	—	—	—	—	—
Guam	7	0	29	0	57	0	2	0	100	0	0	0
Hawaii	—	—	—	—	—	—	—	—	—	—	—	—
Idaho	141	0	99	0	1	0	112	0	99	0	1	0
Illinois	1346	2	92	3	3	0.1	824	1	95	1	2	0.4
Indiana	637	1	96	2	1	0	385	0.3	97	2	1	0
Iowa	443	0.5	99	0.2	0.5	0.2	344	0	99	0	0.3	0.3
Kansas	436	0.5	98	0.5	0.5	1	323	0.3	99	0.3	0.3	0.3
Kentucky	—	—	—	—	—	—	—	—	—	—	—	—
Louisiana	204	—	—	—	—	—	91	—	—	—	—	—
Maine	—	—	—	—	—	—	—	—	—	—	—	—
Maryland	—	—	—	—	—	—	—	—	—	—	—	—
Massachusetts	—	—	—	—	—	—	—	—	—	—	—	—
Michigan	—	—	—	—	—	—	—	—	—	—	—	—
Minnesota	545	0.2	97	1	1	0.2	353	0	98	1	1	0.3
Mississippi	295	0	74	25	1	0	205	1	76	22	1	0
Missouri	687	1	95	3	1	0.1	406	0	97	2	0.5	0
Montana	—	—	—	—	—	—	—	—	—	—	—	—
Nebraska	338	1	98	0.3	0	0	281	1	99	0	0	0
Nevada	144	0	96	1	3	0	71	3	96	0	0	0
New Hampshire	103	—	—	—	—	—	58	—	—	—	—	—
New Jersey	812	—	—	—	—	—	—	—	—	—	—	—
New Mexico	170	14	84	1	1	1	98	15	82	0	0	3
New York	—	—	—	—	—	—	—	—	—	—	—	—
North Carolina	656	1	88	9	2	1	344	1	92	5	1	1
North Dakota	175	1	98	1	0	1	118	1	99	0	0	0
Ohio	1256	0.2	95	4	1	0.2	836	0.1	97	2	1	0
Oklahoma	509	1	94	1	0.2	4	214	2	97	0.5	0	1
Oregon	—	—	—	—	—	—	—	—	—	—	—	—
Pennsylvania	1,086	0.4	98	2	0.1	0	630	0.5	97	2	1	0
Puerto Rico	—	—	—	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	—	—	—	—	—	—
South Dakota	167	0	99	0	1	1	125	0	98	0	1	1
Tennessee	497	—	—	—	—	—	259	—	—	—	—	—
Texas	3179	13	77	7	3	0.4	1694	8	86	3	3	0.4
Utah	190	0	93	1	1	1	136	0	94	0	1	0
Vermont	—	—	—	—	—	—	—	—	—	—	—	—
Virgin Islands	7	0	14	71	14	0	3	0	33	67	0	0
Virginia	645	1	88	6	2	1	426	1	88	6	2	1
Washington	—	—	—	—	—	—	—	—	—	—	—	—
West Virginia	148	0	99	0	1	1	152	0	99	1	0	0
Wisconsin	585	1	99	0.3	0.3	0	378	0	100	0	0.3	0
Wyoming	68	1	99	0	0	0	43	0	100	0	0	0
NATION	27,947	4	87	4	2	0.5	16,301	3	92	3	2	0.3

— Data not available. Texas: methodology change; Virgin Islands: partial data.

National totals include imputation for nonreporting states.

Source: State Departments of Education, Data on Public Schools, 2003-04.

Council of Chief State School Officers, State Services and Technical Assistance, Washington, DC, 2005.