Appendix C

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Appendix table 1-1

Percentage of high school graduates taking selected mathematics and science courses in high school, by sex: 1990, 1994, and 1998

Course	1990			1994			1998		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Mathematics									
Geometry	63.2	62.1	64.2	70.0	64.3	72.2	75.1	73.7	77.3
Algebra II	52.9	51.0	54.6	61.1	57.7	61.6	61.7	59.8	63.7
Trigonometry	9.6	9.8	9.4	11.7	11.1	12.3	8.9	8.2	9.7
Precalculus	13.4	14.0	12.8	17.3	16.3	18.3	23.1	23.0	22.9
Calculus	6.5	7.5	5.6	9.3	9.5	9.1	11.0	11.2	10.6
Science									
Biology	90.9	89.4	92.3	93.2	91.8	94.5	92.7	91.4	94.1
AP/honors biology	10.1	9.4	10.8	11.9	10.9	12.8	16.2	14.5	18.0
Chemistry	48.9	47.7	50.0	55.8	52.9	58.5	60.4	57.1	63.5
Physics	21.5	25.4	18.0	24.5	27.0	22.2	28.8	31.7	26.2
Engineering	4.2	4.4	4.1	4.5	3.9	5.0	6.7	7.1	6.5

NOTES: Numbers have been revised from previously published figures. These data only report the percentage of students who earned credit in each course while in high school and do not count those students who took these courses prior to entering high school. Included in the totals but not shown separately are graduates whose sex was not reported.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Transcript Study, 1990, 1994, and 1998

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 1-2

Percentage of high school graduates taking selected mathematics and science courses in high school, by race/ethnicity: 1990, 1994, and 1998

Course	1990					1994					1998				
	White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Alaskan Native	White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Alaskan Native	White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Alaskan Native
Mathematics															
Geometry	65.5	55.8	53.2	70.7	54.8	72.4	58.1	68.8	75.7	60.0	77.7	72.5	62.3	75.9	57.2
Algebra II	53.1	40.6	35.1	60.9	47.1	61.6	43.9	49.6	66.2	42.2	64.6	55.6	48.3	70.1	46.6
Trigonometry	10.0	6.2	7.6	21.2	10.7	13.3	7.2	7.2	15.8	5.3	10.0	4.8	5.6	11.7	5.5
Analysis/precalculus	14.8	6.1	7.2	25.3	7.5	18.2	9.7	13.7	33.7	8.7	25.0	13.8	15.3	41.3	16.4
Calculus	6.9	2.7	3.8	18.5	4.1	9.6	3.8	6.0	23.6	3.8	12.1	6.6	6.2	18.4	6.2
Science															
Biology	91.3	91.1	90.1	90.4	89.4	94.3	91.8	93.7	91.5	91.8	93.7	92.8	86.5	92.9	91.3
AP/honors biology	10.5	7.7	6.7	13.4	3.8	12.5	7.7	11.0	18.2	6.2	16.7	15.4	12.6	22.2	6.0
Chemistry	51.4	40.0	38.1	63.6	34.9	58.4	43.7	45.9	69.2	41.3	63.2	54.3	46.1	72.4	46.9
Physics	23.1	14.5	13.2	38.4	14.5	26.3	14.9	16.1	44.4	10.3	30.7	21.4	18.9	46.4	16.2
Engineering	4.8	1.4	0.8	3.4	3.2	4.6	3.8	3.3	3.2	2.2	7.9	4.8	2.3	5.2	9.6

NOTE: Numbers have been revised from previously published figures. These data only report the percentage of students who earned credit in each course while in high school and do not count those students who took these courses prior to entering high school.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Transcript Study, 1990, 1994, and 1998.

Appendix table 1-3

Average total units completed by the 12th grade in high school mathematics and science, and average grades received in mathematics and science, by disability status: 1992

Disability status	Average mathematics units	Average science units	Average high school grade in mathematics	Average high school grade in science
Without disabilities	2.9	2.7	7.63	7.43
With disabilities	2.4	2.2	8.37	8.32
Multiple disabilities	2.5	1.9	8.27	8.70
Learning disability	2.3	2.1	8.51	8.60
Health problems	2.4	2.1	8.07	8.06
Physical or emotional problems	2.6	2.1	8.26	8.25
Physical problems	2.6	2.3	7.98	7.89
Emotional problems	2.5	1.8	8.67	8.92
Sensory	2.4	2.2	8.12	8.08

NOTES: Students' disability status was reported by a parent. High school credit units in mathematics and science are as reported on students' high school transcripts. Grade average is based on a 1–13 scale, where 1.0 = A+ and 13 = F. Students represent those who were in 8th grade in a U.S. school in 1988 and were in 12th grade in 1992.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Profiles of Students With Disabilities as Identified in NELS:88* , NCES 97-254 (Washington, DC, 1997).

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 1-4

Number and percentage distribution of students who took AP examinations, by examination subject, sex, and race/ethnicity: 2000

Race/ethnicity	All AP exams			Biology			Chemistry			Calculus AB			Calculus BC		
	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females
	Number														
All students	747,922	332,731	415,191	85,215	35,917	49,298	51,293	28,758	22,535	133,516	70,479	63,037	33,668	20,769	12,899
White	504,600	229,635	274,965	56,884	23,888	32,996	33,486	19,330	14,156	92,848	49,931	42,917	21,359	13,528	7,831
Asian/Asian American	85,756	40,270	45,486	13,785	6,212	7,573	10,255	5,509	4,746	20,280	10,204	10,076	8,506	4,912	3,594
Black/African American	36,158	12,539	23,619	3,859	1,180	2,679	1,850	786	1,064	5,480	2,311	3,169	614	323	291
Hispanic	74,852	29,133	45,719	5,104	2,100	3,004	2,480	1,336	1,144	7,617	4,030	3,587	1,136	720	416
Chicano/Mexican American	39,799	15,443	24,356	2,426	1,023	1,403	1,205	633	572	4,145	2,212	1,933	457	287	170
Puerto Rican	5,208	2,076	3,132	453	184	269	226	129	97	566	297	269	88	57	31
Other Hispanic	29,845	11,614	18,231	2,225	893	1,332	1,049	574	475	2,906	1,521	1,385	591	376	215
American Indian/Alaskan Native	3,584	1,618	1,966	336	158	178	235	122	113	495	289	206	97	62	35
Other	25,475	11,513	13,962	3,271	1,478	1,793	1,841	1,010	831	4,144	2,269	1,875	1,183	739	444
Not stated	17,497	8,023	9,474	1,976	901	1,075	1,146	665	481	2,652	1,445	1,207	773	485	288
	Percent														
All students	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
White	67.5	69.0	66.2	66.8	66.5	66.9	65.3	67.2	62.8	69.5	70.8	68.1	63.4	65.1	60.7
Asian/Asian American	11.5	12.1	11.0	16.2	17.3	15.4	20.0	19.2	21.1	15.2	14.5	16.0	25.3	23.7	27.9
Black/African American	4.8	3.8	5.7	4.5	3.3	5.4	3.6	2.7	4.7	4.1	3.3	5.0	1.8	1.6	2.3
Hispanic	10.0	8.8	11.0	6.0	5.8	6.1	4.8	4.6	5.1	5.7	5.7	5.7	3.4	3.5	3.2
Chicano/Mexican American	5.3	4.6	5.9	2.8	2.8	2.8	2.3	2.2	2.5	3.1	3.1	3.1	1.4	1.4	1.3
Puerto Rican	0.7	0.6	0.8	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2
Other Hispanic	4.0	3.5	4.4	2.6	2.5	2.7	2.0	2.0	2.1	2.2	2.2	2.2	1.8	1.8	1.7
American Indian/Alaskan Native	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.4	0.5	0.4	0.4	0.3	0.3	0.3	0.3
Other	3.4	3.5	3.4	3.8	4.1	3.6	3.6	3.5	3.7	3.1	3.2	3.0	3.5	3.6	3.4
Not stated	2.3	2.4	2.3	2.3	2.5	2.2	2.2	2.3	2.1	2.0	2.1	1.9	2.3	2.3	2.2

SOURCE: The College Board, *AP 2000 National Summary Reports*, http://www.collegeboard.com/ap/2000/national_2000.pdf.

Appendix table 1-5

Average mathematics and science scale scores in grades 4, 8, and 12, by sex and race/ethnicity: 2000

Grade and race/ethnicity	Mathematics		Science	
	Average scale score	Standard error	Average scale score	Standard error
Grade 4, all students	228	0.9	150	0.7
Male	229	1.0	153	0.8
Female	226	0.9	147	0.8
White	236	0.1	160	0.8
Black	205	1.6	124	1.6
Hispanic	212	1.5	129	1.3
Asian/Pacific Islander	NA	NA	NA	NA
American Indian/Alaskan Native	216	2.1	140	2.8
Grade 8, all students	275	0.8	151	0.6
Male	277	0.9	154	0.7
Female	274	0.9	147	0.8
White	286	0.8	162	0.7
Black	247	1.4	122	1.3
Hispanic	253	1.5	128	1.3
Asian/Pacific Islander	289	3.4	156	2.4
American Indian/Alaskan Native	255	8.3	134	3.2
Grade 12, all students	301	0.9	147	1.0
Male	303	1.1	148	1.1
Female	299	0.9	145	1.0
White	308	1.0	154	1.2
Black	274	1.9	123	1.4
Hispanic	283	2.1	128	1.9
Asian/Pacific Islander	319	2.8	153	2.5
American Indian/Alaskan Native	293	4.4	139	3.6

NA not available

NOTES: Mathematics scale scores range from 0 to 500 across all three grades; science scale scores range from 0 to 300 for each grade.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, 2000 Mathematics Assessment, 2000 Science Assessment, http://www.nces.ed.gov/nationsreportcard/naepdata/.

Appendix table 1-6

Percentage attaining mathematics proficiency levels on the National Assessment of Educational Progress for grades 4, 8, and 12, by sex and race/ethnicity: 2000

Grade and race/ethnicity	Advanced	At or above proficient	At or above basic	Below basic
Grade 4, all students	3	26	69	31
Male	3	28	70	30
Female	2	24	68	32
White	3	34	80	20
Black	—	5	39	61
Hispanic	1	10	48	52
Asian/Pacific Islander	NA	NA	NA	NA
American Indian/Alaskan Native	1	14	53	47
Grade 8, all students	5	27	66	34
Male	6	29	67	33
Female	4	25	65	35
White	7	35	77	23
Black	—	6	32	68
Hispanic	1	10	41	59
Asian/Pacific Islander	12	40	76	24
American Indian/Alaskan Native	—	9	42	58
Grade 12, all students	2	17	65	35
Male	0	20	66	34
Female	1	14	64	36
White	3	20	74	26
Black	—	3	31	69
Hispanic	—	4	44	56
Asian/Pacific Islander	7	34	80	20
American Indian/Alaskan Native	—	10	57	43

— less than 0.5

NA not available

NOTES: Standard errors are included in source publication.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The Nation's Report Card: Mathematics 2000* , NCES 2001-517 (Washington, DC, 2001).

Appendix table 1-7

Trends in average mathematics scale scores by age, sex, and race/ethnicity: 1990–99

Age, sex, and race/ethnicity	1990	1992	1994	1996	1999
Age 9, total	230	230	231	231	232
Male	229	231	232	233	233
Female	230	228	230	229	231
White	235	235	237	237	239
Black	208	208	212	212	211
Hispanic	214	212	210	215	213
Age 13, total	270	273	274	274	276
Male	271	274	276	276	277
Female	270	272	273	272	274
White	276	279	281	281	283
Black	249	250	252	252	251
Hispanic	255	259	256	256	259
Age 17, total	305	307	306	307	308
Male	306	309	309	310	310
Female	303	305	304	305	307
White	309	312	312	313	315
Black	289	286	286	286	283
Hispanic	284	292	291	292	293

NOTES: Other racial/ethnic groups are not reported, as the samples were of insufficient size to analyze and report separately. Standard errors are included in the source publication.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Results Over Time—NAEP 1999 Long-Term Trend Summary Data Tables (2000), National Assessment of Educational Progress: The Nation's Report Card, http://nces.ed.gov/nationsreportcard/tables/Ltt1999/.

Appendix table 1-8

Trends in average science scale scores by age, sex, and race/ethnicity: 1990–99

Age, sex, and race/ethnicity	1990	1992	1994	1996	1999
Age 9, total	229	231	231	230	229
Male	230	235	232	232	231
Female	227	227	230	228	228
White	237	239	240	239	240
Black	196	200	201	202	199
Hispanic	206	205	201	207	206
Age 13, total	255	258	257	256	257
Male	259	260	259	260	259
Female	252	256	254	252	253
White	264	267	267	266	266
Black	226	224	224	226	227
Hispanic	232	238	232	232	227
Age 17, total	290	294	294	296	295
Male	296	299	300	300	300
Female	285	289	289	292	291
White	301	304	306	307	306
Black	253	256	257	260	254
Hispanic	261	270	261	269	276

NOTES: Other racial/ethnic groups are not reported, as the samples were of insufficient size to analyze and report separately. Standard errors are included in the source publication.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Results Over Time—NAEP 1999 Long-Term Trend Summary Data Tables (2000), National Assessment of Educational Progress: The Nation's Report Card, http://nces.ed.gov/nationsreportcard/tables/Ltt1999/.

Appendix table 1-9

Teacher reports of computer and Internet availability and use in public schools, by minority enrollment of school: 1999

(Percent of teachers reporting)

Indicator of computer and Internet availability and use	Total	Minority enrollment in school			
		Less than 6 percent	6 to 20 percent	21 to 49 percent	50 percent or more
Computer and Internet availability					
Computers available in classroom	84	85	86	89	77
Computers available elsewhere in school	95	94	95	96	95
Internet available in classroom	64	69	71	62	51
Internet available elsewhere in school	90	92	93	92	83
E-mail available at school	74	78	80	74	62
Barriers to instructional use of computers and the Internet[a]					
Not enough computers	38	35	35	38	45
Outdated, incompatible, or unreliable computers	25	22	22	26	32
Internet access not easily accessible	27	24	20	27	36
Teacher use of computers or the Internet[b]					
Create instructional material	78	79	81	82	71
Gather information for lesson plans	59	61	67	60	46
Administrative recordkeeping	51	51	55	55	40
Access research and best practice examples	37	39	41	33	35
Multimedia presentations	36	40	38	35	29
Access model lesson plans	34	35	37	31	33
Student use of computers or the Internet[c]					
Word processing/spreadsheets	61	66	61	61	53
Internet research	51	57	52	51	41
Drills	50	55	51	47	47
Solve problems/analyze data	50	55	50	48	45
CD-ROM research	48	55	50	48	38

[a]Teacher reports of "great" barriers to their use of computers or the Internet for instruction.

[b]Teacher reports of performing activities either "a little" or "a lot" with computers or the Internet.

[c]Teacher reports of assigning their students activities to perform using computers or the Internet.

NOTE: Teachers who reported that computers were not available to them anywhere in the school were excluded from the analyses presented here.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, Survey on Public School Teachers Use of Computers and the Internet, FRSS 70, 1999.

Appendix table 1-10
Percentage distributions of mathematics teachers, by various characteristics and grades taught: 1993 and 2000

Characteristic	Grades 1–4[a]		Grades 5–8		Grades 9–12	
	1993	2000	1993	2000	1993	2000
Sex						
Male	3 (1.2)	4 (1.0)	27 (2.7)	24 (3.2)	52 (2.8)	45 (2.0)
Female	97 (1.3)	96 (1.0)	73 (2.5)	76 (3.2)	48 (2.8)	55 (2.0)
Race/ethnicity						
White	90 (1.1)	90 (1.5)	90 (1.7)	86 (2.0)	92 (1.1)	91 (1.1)
Black	4 (0.7)	4 (0.7)	5 (0.7)	8 (1.6)	4 (0.8)	4 (0.8)
Hispanic	5 (1.8)	5 (1.3)	4 (1.2)	5 (1.4)	1 (0.5)	2 (0.3)
American Indian/Alaskan Native	0 (0.3)	1 (0.2)	0 (0.2)	1 (0.3)	0 (0.2)	1 (0.3)
Native Hawaiian or other Pacific Islander[b]	NA	0 (0.1)	NA	0 (0.3)	NA	0 (0.2)
Asian[c]	1 (0.1)	0 (0.2)	1 (0.7)	2 (0.6)	2 (0.7)	1 (0.3)
Age						
30 or younger	17 (2.2)	21 (2.1)	15 (3.4)	21 (2.7)	13 (1.8)	16 (1.4)
31 to 40	27 (2.6)	21 (1.8)	21 (1.9)	24 (2.8)	23 (2.7)	24 (1.5)
41 to 50	32 (2.3)	31 (2.3)	46 (2.9)	26 (3.0)	42 (2.3)	29 (2.0)
51 or older	23 (2.4)	27 (2.4)	18 (3.1)	30 (3.4)	22 (1.9)	30 (1.7)
Experience						
0 to 2 years	12 (1.8)	17 (1.8)	12 (2.2)	21 (3.3)	10 (1.2)	13 (1.4)
3 to 5 years	14 (1.3)	13 (1.5)	9 (1.4)	12 (1.8)	9 (1.2)	15 (1.6)
6 to 10 years	17 (2.3)	14 (1.6)	22 (3.5)	16 (2.4)	20 (3.3)	14 (1.5)
11 to 20 years	36 (2.3)	26 (2.0)	34 (2.8)	21 (2.5)	28 (1.6)	24 (1.7)
21 or more years	22 (2.7)	28 (2.3)	22 (2.9)	31 (3.3)	33 (1.9)	34 (2.0)
Master's degree						
Yes	35 (2.4)	43 (2.5)	41 (3.2)	45 (3.8)	53 (2.8)	52 (2.2)
No	65 (2.4)	57 (2.5)	59 (3.2)	55 (3.8)	47 (2.8)	48 (2.2)

NA not available

[a]2000 data include kindergarten teachers.

[b]This category did not exist in 1993.

[c]In 1993, this category appeared as "Asian or Pacific Islander."

NOTE: Standard errors are in parentheses.

SOURCE: Horizon Research, Inc., 2000 National Survey of Science and Mathematics Education.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 1-11
Percentage distributions of science teachers, by various characteristics and grades taught: 1993 and 2000

Characteristic	Grades 1–4[a]		Grades 5–8		Grades 9–12	
	1993	2000	1993	2000	1993	2000
Sex						
Male	9 (1.3)	8 (1.2)	31 (3.3)	23 (3.1)	66 (3.2)	50 (2.1)
Female	91 (1.4)	92 (1.2)	69 (3.4)	77 (3.1)	34 (3.2)	50 (2.1)
Race/ethnicity						
White	88 (2.2)	88 (1.9)	89 (2.6)	87 (1.8)	95 (0.8)	90 (1.2)
Black	6 (1.8)	5 (0.9)	6 (1.4)	5 (1.1)	3 (0.4)	4 (0.8)
Hispanic	5 (1.2)	4 (1.1)	1 (0.7)	3 (1.0)	1 (0.3)	3 (0.5)
American Indian/Alaskan Native	0 (0.3)	1 (0.3)	0 (0.3)	1 (0.5)	1 (0.4)	2 (0.5)
Native Hawaiian or other Pacific Islander[b]	NA	0 (0.1)	NA	0 (0.1)	NA	0 (0.1)
Asian[c]	0 (0.3)	1 (1.0)	3 (1.7)	1 (0.6)	1 (0.1)	2 (0.6)
Age						
30 or younger	16 (2.3)	20 (2.0)	11 (1.4)	19 (2.8)	13 (1.1)	20 (2.5)
31 to 40	26 (2.6)	19 (1.8)	28 (3.0)	22 (3.1)	23 (3.2)	23 (1.7)
41 to 50	40 (2.9)	34 (2.1)	36 (3.4)	30 (3.1)	41 (3.4)	29 (1.9)
51 or older	18 (2.4)	27 (1.9)	25 (3.9)	29 (3.7)	23 (2.7)	28 (1.7)
Experience						
0 to 2 years	13 (2.1)	14 (1.6)	12 (1.9)	16 (2.7)	11 (1.2)	16 (2.2)
3 to 5 years	10 (1.5)	17 (1.6)	11 (1.6)	9 (1.5)	10 (1.1)	16 (1.7)
6 to 10 years	15 (1.7)	16 (1.8)	19 (2.7)	19 (2.6)	14 (3.1)	18 (1.4)
11 to 20 years	43 (2.7)	27 (1.9)	34 (3.1)	24 (3.3)	30 (1.9)	21 (1.6)
21 or more years	19 (2.7)	26 (2.4)	25 (3.1)	32 (3.1)	35 (2.6)	29 (1.7)
Master's degree						
Yes	34 (2.8)	42 (2.7)	42 (3.4)	51 (3.2)	57 (2.1)	59 (2.3)
No	66 (2.8)	58 (2.7)	58 (3.4)	49 (3.2)	43 (2.1)	41 (2.3)

NA not available

[a]2000 data include kindergarten teachers

[b]This category did not exist in 1993.

[c]In 1993, this category appeared as "Asian or Pacific Islander."

NOTE: Standard errors are in parentheses.

SOURCE: Horizon Research, Inc., 2000 National Survey of Science and Mathematics Education.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 1-12

Race/ethnicity of students ages 6 through 21 served under IDEA, by type of disability: Academic year 1998/99

(Percent)

Type of disability	Total	White, non-Hispanic	Asian/Pacific Islander	Black, non-Hispanic	Hispanic	American Indian/Alaskan Native
All resident population[a]	100.0	66.2	3.8	14.8	14.2	1.0
Students served under IDEA	100.0	63.6	1.7	20.2	13.1	1.3
Specific learning disabilities	100.0	63.0	1.4	18.3	15.8	1.4
Speech or language impairments	100.0	68.3	2.4	16.5	11.6	1.2
Mental retardation	100.0	54.1	1.7	34.3	8.9	1.1
Serious emotional disturbance	100.0	61.6	1.0	26.4	9.8	1.1
Multiple disabilities	100.0	66.1	2.3	19.3	10.9	1.4
Hearing impairments	100.0	66.0	4.6	16.8	16.3	1.4
Orthopedic impairments	100.0	67.2	3.0	14.6	14.4	0.8
Other health impairments	100.0	75.8	1.3	14.1	7.8	1.0
Visual impairments	100.0	69.5	3.0	14.8	11.4	1.3
Autism	100.0	64.4	4.7	20.9	9.4	0.7
Deaf-blindness	100.0	63.3	11.3	11.5	12.1	1.8
Traumatic brain injury	100.0	70.2	2.3	15.9	10.0	1.6
Developmental delay	100.0	60.8	1.1	33.7	4.0	0.5

IDEA Individuals With Disabilities Education Act

[a]Data for all 6- to 21-year-olds are for the 50 states and District of Columbia only. Percentages may not total 100 because of rounding.

SOURCE: U.S. Department of Education, Office of Special Education Programs, *Twenty-second Annual Report to Congress on the Implementation of the Individuals With Disabilities Education Act* (Washington, DC, 2000), http://www.ed.gov/offices/OSERS/OSEP/Products/OSEP2000AnlRpt/.

Appendix table 1-13
Average mathematics and science scale scores in grade 8, by parents' highest level of education and race/ethnicity: 1996

Subject and race/ethnicity	Parents' highest level of education									
	Not a high school graduate		High school graduate		Some education after high school		College graduate		Unknown	
Mathematics, total	281.9	(1.8)	294.0	(1.3)	302.4	(0.8)	313.9	(1.3)	274.8	(2.4)
White	263.7	(3.2)	269.9	(1.3)	285.5	(1.6)	290.5	(1.5)	268.3	(2.3)
Black	—	—	235.0	(2.4)	256.8	(1.9)	245.5	(3.0)	234.5	(2.7)
Hispanic	248.2	(18.7)	244.4	(19.4)	265.8	(16.0)	262.0	(3.2)	236.4	(3.3)
Asian/Pacific Islander	—	—	—	—	—	—	289.6	(4.6)	258.6	(5.2)
American Indian/Alaskan Native	—	—	—	—	—	—	—	—	—	—
Science, total	130.8	(1.9)	140.4	(1.5)	155.2	(1.1)	158.8	(1.2)	133.6	(2.4)
White	140.4	(2.8)	149.7	(1.5)	162.1	(1.3)	166.6	(1.4)	145.4	(3.0)
Black	113.6	(3.3)	115.4	(2.1)	128.4	(2.4)	126.2	(1.6)	111.3	(2.9)
Hispanic	121.0	(3.3)	125.9	(3.1)	134.7	(2.5)	137.5	(1.9)	119.3	(2.8)
Asian/Pacific Islander	—	—	—	—	—	—	161.2	(3.5)	139.4	(5.0)
American Indian/Alaskan Native	—	—	—	—	—	—	—	—	—	—

— sample size too small to permit reliable estimate

NOTES: Mathematics scale scores range from 0 to 500; science scale scores range from 0 to 300. Observed differences are not necessarily statistically significant. Standard errors are in parentheses.

SOURCE: National Center for Education Statistics, 1996 National Assessment of Educational Progress, Summary Data Tables, http://nces.ed.gov/naep3/tables/sdt1996.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 1-14

Percentage of 4th, 8th, and 12th graders agreeing with the statements "I like mathematics" and "I am good at mathematics," by sex and race/ethnicity: 2000

Sex and race/ethnicity	I like mathematics			I am good at mathematics		
	Grade 4	Grade 8	Grade 12	Grade 4	Grade 8	Grade 12
Total	70	54	47	64	65	53
Male	73	56	49	70	72	58
Female	67	52	44	59	60	47
White	69	51	46	66	68	54
Black	75	62	48	64	64	51
Hispanic	72	53	47	56	59	45
Asian/Pacific Islander	NA	65	59	NA	70	56
American Indian/Alaskan Native	70	55	53	55	55	51

NA not available

NOTES: Questions were asked slightly differently at the different grades. Fourth graders responded on a scale of agree, undecided, disagree; 8th and 12th graders responded strongly agree, agree, undecided, disagree, strongly disagree. Percentages shown here are for respondents answering agree or strongly agree. Source table includes standard errors for individual groups.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, 2000 Mathematics Assessment, http://nces.ed.gov/nationsreportcard/naepdata/.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 1-15

Percentage of 4th, 8th, and 12th graders agreeing with the statements "I like science" and "I am good at science," by sex and race/ethnicity: 2000

Sex and race/ethnicity	I like science			I am good at science		
	Grade 4	Grade 8	Grade 12	Grade 4	Grade 8	Grade 12
Total	65	50	47	45	47	39
Male	67	55	52	50	54	44
Female	62	46	42	40	41	34
White	65	51	48	48	51	41
Black	62	51	46	43	45	37
Hispanic	64	45	41	33	33	26
Asian/Pacific Islander	NA	48	50	NA	44	36
American Indian/Alaskan Native	63	39	51	46	33	38

NA not available

NOTE: Source table includes standard errors for individual groups.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, 2000 Science Assessment, http://nces.ed.gov/nationsreportcard/naepdata/.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 1-16

Percentage of students ages 6 through 21 with disabilities receiving special education services, by environment: Academic years 1989/90–1997/98

Year	Total	Outside regular classroom, but in regular school building				Separate facility		Residential facility		Home/ hospital
		Total	Less than 21 percent of the day	21 to 60 percent of the day	More than 60 percent of the day	Public	Private	Public	Private	
1989/90	100.0	93.9	31.5	37.5	24.9	3.2	1.3	0.7	0.3	0.6
1990/91	100.0	94.4	32.8	36.5	25.1	2.9	1.3	0.6	0.3	0.6
1991/92	100.0	94.7	34.9	36.3	23.5	2.5	1.4	0.6	0.3	0.5
1992/93	100.0	94.9	39.8	31.7	23.4	2.4	1.2	0.6	0.3	0.5
1993/94	100.0	95.6	43.4	29.5	22.7	2.2	1.0	0.5	0.3	0.6
1994/95	100.0	95.7	44.5	28.7	22.4	2.0	1.0	0.5	0.3	0.6
1995/96	100.0	95.6	45.3	28.7	21.6	2.1	1.0	0.4	0.3	0.6
1996/97	100.0	95.7	45.8	28.5	21.4	2.1	1.0	0.4	0.3	0.5
1997/98	100.0	95.9	46.4	29.0	20.4	1.8	1.0	0.4	0.3	0.5

NOTE: Percentages may not total 100 because of rounding.

SOURCE: U.S. Department of Education, Office of Special Education Programs, *Twenty-second Annual Report to Congress on the Implementation of the Individuals With Disabilities Education Act* (Washington, DC, 2000), http://www.ed.gov/offices/OSERS/OSEP/Products/OSEP2000AnlRpt/.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 1-17

Percentage of students ages 6 through 21 with disabilities receiving special education services, by type of disability and educational environment: Academic year 1997/98

Type of disability	Total	Outside regular classroom, but in regular school building				Separate facility	Residential facility	Home/ hospital
		Total	Less than 21 percent of the day	21 to 60 percent of the day	More than 60 percent of the day			
All disabilities	100.0	95.8	46.4	29.0	20.4	2.9	0.7	0.6
Specific learning disabilities	100.0	99.1	43.8	39.3	16.0	0.6	0.2	0.2
Speech or language impairments	100.0	99.5	87.8	7.3	4.4	0.3	0.0	0.1
Mental retardation	100.0	93.9	12.6	29.6	51.7	5.2	0.6	0.4
Serious emotional disturbance	100.0	81.8	25.0	23.3	33.5	13.1	1.6	1.6
Multiple disabilities	100.0	72.4	10.0	17.3	45.1	22.3	2.9	2.5
Hearing impairments	100.0	83.3	38.8	19.1	25.4	7.4	9.2	0.2
Orthopedic impairments	100.0	94.1	46.6	21.3	26.2	3.7	0.3	2.0
Other health impairments	100.0	93.5	41.4	33.8	18.3	1.7	0.3	4.7
Visual impairments	100.0	85.5	48.1	20.1	17.3	6.7	7.1	0.7
Autism	100.0	83.1	18.3	12.7	52.1	14.6	1.8	0.5
Deaf-blindness	100.0	63.9	13.6	11.3	39.0	19.9	14.8	1.5
Traumatic brain injury	100.0	86.1	29.8	26.2	30.1	9.8	1.6	2.5

NOTE: Percentages may not total 100 because of rounding.

SOURCE: U.S. Department of Education, Office of Special Education Programs, *Twenty-second Annual Report to Congress on the Implementation of the Individuals With Disabilities Education Act* (Washington, DC, 2000), http://www.ed.gov/offices/OSERS/OSEP/Products/OSEP2000AnlRpt/.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 1-18

Students ages 6 through 21 served under the Individuals With Disabilities Education Act, by type of disability: Academic years 1989/90 and 1998/99

Type of disability	1989/90		1998/99		Percent change
	Number	Percent	Number	Percent	
All disabilities	4,253,018	100.0	5,541,166	100.0	30.3
Specific learning disabilities	2,062,076	48.5	2,817,148	50.8	36.6
Speech or language impairments	974,256	22.9	1,074,548	19.4	10.3
Mental retardation	563,902	13.3	611,076	11.0	8.4
Serious emotional disturbance	381,639	9.0	463,262	8.4	21.4
Multiple disabilities	87,957	2.1	107,763	1.9	22.5
Hearing impairments	57,906	1.4	70,883	1.3	22.4
Orthopedic impairments	48,050	1.1	69,495	1.3	44.6
Other health impairments	52,733	1.2	220,831	4.0	318.7
Visual impairments	22,866	0.5	26,132	0.5	14.3
Autism	NA	NA	53,576	1.0	NA
Deaf-blindness	1,633	—	1,609	—	-1.5
Traumatic brain injury	NA	NA	12,933	0.2	NA
Developmental Delay	NA	NA	11,910	0.2	NA

— less than 0.05 percent

NA not available

NOTES: Data from 1989/90 include children with disabilities served under Chapter 1 of the Elementary and Secondary Education Act. Percentages may not total 100 because of rounding.

SOURCE: U.S. Department of Education, Office of Special Education Programs, *Twenty-second Annual Report to Congress on the Implementation of the Individuals With Disabilities Education Act* (Washington, DC, 2000). http://www.ed.gov/offices/OSERS/OSEP/Products/OSEP2000AnlRpt/.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 1-19

Percentage of 25- to 29-year-olds who had completed high school, by race/ethnicity and sex: 1971–99

	Total			White, non-Hispanic			Black, non-Hispanic			Hispanic		
Year	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1971	77.7	79.1	76.5	81.7	83.0	80.5	58.8	56.7	60.5	48.3	51.3	45.7
1972	79.8	80.5	79.2	83.4	84.1	82.7	64.1	61.7	66.0	47.6	47.1	47.9
1973	80.2	80.6	79.8	84.0	84.2	83.9	64.1	63.2	64.9	52.3	54.2	50.6
1974	81.9	83.1	80.8	85.5	86.0	85.0	68.4	71.5	65.8	54.1	55.9	52.5
1975	83.1	84.5	81.7	86.6	88.0	85.2	71.1	72.3	70.1	53.1	52.2	53.9
1976	84.7	86.0	83.5	87.7	89.0	86.4	74.0	72.8	74.9	58.1	57.6	58.4
1977	85.4	86.6	84.2	88.6	89.2	88.0	74.5	77.5	72.0	58.0	61.9	54.6
1978	85.3	86.0	84.6	88.5	88.8	88.2	77.4	78.7	76.3	56.5	58.5	54.6
1979	85.6	86.3	84.9	89.2	89.8	88.5	74.7	74.0	75.3	57.1	55.5	58.6
1980	85.4	85.4	85.5	89.2	89.1	89.2	76.7	74.8	78.3	57.9	57.0	58.8
1981	86.3	86.5	86.1	89.8	89.7	89.9	77.6	78.8	76.6	59.8	59.1	60.4
1982	86.2	86.3	86.1	89.1	89.1	89.1	81.0	80.4	81.5	61.0	60.6	61.2
1983	86.0	86.0	86.0	89.3	89.3	89.3	79.5	79.0	79.9	58.4	57.8	58.9
1984	85.9	85.6	86.3	89.4	89.4	89.4	79.1	75.9	81.7	58.6	56.7	60.1
1985	86.2	85.9	86.4	89.5	89.2	89.9	80.5	80.6	80.5	61.0	58.6	63.1
1986	86.1	85.9	86.4	89.6	88.7	90.4	83.5	86.4	81.0	59.1	58.2	60.0
1987	86.0	85.5	86.4	89.4	88.9	90.0	83.5	84.5	82.6	59.8	58.6	61.0
1988	85.9	84.7	87.1	89.7	88.4	90.9	80.9	80.9	80.9	62.3	59.9	64.8
1989	85.5	84.4	86.5	89.3	88.2	90.4	82.3	80.5	83.8	61.0	61.0	61.1
1990	85.7	84.4	87.0	90.1	88.6	91.6	81.8	81.4	82.0	58.2	56.6	59.9
1991	85.4	84.9	85.8	89.8	89.2	90.5	81.8	83.6	80.1	56.7	56.4	57.2
1992	86.3	86.1	86.5	90.6	90.3	91.1	80.9	82.7	79.3	60.9	61.1	60.6
1993	86.7	86.0	87.4	91.2	90.7	91.8	82.7	84.8	80.8	60.9	58.2	63.9
1994	86.1	84.5	87.6	91.1	90.0	92.3	84.1	82.8	85.3	60.3	58.0	63.0
1995	86.9	86.3	87.4	92.5	92.0	93.0	86.8	88.4	85.3	57.2	55.7	58.7
1996	87.3	86.5	88.1	92.6	92.0	93.1	86.0	87.9	84.5	61.1	59.7	62.9
1997	87.4	85.8	88.9	92.9	91.7	94.0	86.9	85.8	87.8	61.8	59.2	64.8
1998	88.1	86.6	89.6	93.6	92.5	94.6	88.2	88.4	88.1	62.8	59.9	66.3
1999	87.8	86.1	89.5	93.0	91.9	94.1	88.7	88.2	89.2	61.6	57.4	65.9

NOTES: The Current Population Survey (CPS) questions used to gauge educational attainment were changed in 1992. For 1971 to 1991, high school completers were counted as those who had completed 4 years of high school (but may not have had a diploma or equivalency certificate). For 1992 to 1999, high school completers were considered those with a high school diploma or an equivalency certificate. The CPS covers the civilian, noninstitutionalized population of the 50 states and Washington, D.C. Included in total are other racial/ethnic groups not shown separately.

SOURCE: U.S. Bureau of the Census, March Current Population Survey, various years.

Appendix table 1-20

Percentage of students with disabilities age 14 and older exiting special education, by type of disability and basis of exit: Academic year 1997/98

Type of disability	Total exiting special education	Graduated with diploma	Graduated with certificate	Reached maximum age	Returned to regular education	Moved, known to be continuing	Moved, not known to be continuing	Died	Dropped out
All disabilities	100.0	28.4	5.8	0.9	13.3	23.8	11.5	0.3	15.9
Specific learning disabilities	100.0	33.1	4.5	0.3	13.1	22.0	11.1	0.2	15.7
Speech or language impairments	100.0	17.5	2.2	0.3	48.6	15.1	8.6	0.1	7.6
Mental retardation	100.0	24.8	17.1	3.6	4.4	23.1	9.6	0.6	16.6
Serious emotional disturbance	100.0	15.6	2.4	0.5	9.8	33.5	16.9	0.2	21.2
Multiple disabilities	100.0	26.8	12.2	8.6	3.8	27.4	7.7	3.1	10.3
Hearing impairments	100.0	43.3	8.5	1.1	9.5	21.0	8.3	0.3	8.0
Orthopedic impairments	100.0	35.7	6.3	2.2	20.8	17.6	7.8	2.5	7.2
Other health impairments	100.0	30.5	3.2	0.4	25.3	21.1	8.0	0.8	10.7
Visual impairments	100.0	46.8	6.9	1.7	8.3	19.9	7.3	0.9	8.2
Autism	100.0	25.8	18.0	9.3	5.2	28.2	7.1	0.7	5.7
Deaf-blindness	100.0	55.7	7.6	7.2	2.5	15.2	5.1	2.1	4.6
Traumatic brain injury	100.0	42.3	8.3	2.2	6.8	20.5	9.3	1.0	9.6

NOTE: Percentages may not total 100 because of rounding.

SOURCE: U.S. Department of Education, Office of Special Education Programs, *Twenty-second Annual Report to Congress on the Implementation of the Individuals With Disabilities Education Act* (Washington, DC, 2000), http://www.ed.gov/offices/OSERS/OSEP/Products/OSEP2000AnlRpt/.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 2-1

Percentage of 25- to 29-year-old high school completers with some college and percentage that completed college, by sex and race/ethnicity: 1990–2000

Year	Total			White, non-Hispanic			Black, non-Hispanic			Hispanic		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Percent with some college												
1990	52.0	51.8	52.1	53.6	53.4	53.8	44.1	43.0	45.0	40.1	40.4	39.8
1991	53.1	52.3	53.8	54.9	54.7	55.1	43.2	38.3	47.7	42.2	40.9	43.4
1992	56.7	56.0	57.4	58.8	58.3	59.2	44.7	42.3	46.9	46.8	44.5	49.6
1993	58.9	57.6	60.1	61.0	60.3	61.6	48.4	43.6	52.5	48.8	46.1	51.9
1994	60.5	58.9	62.0	62.7	61.0	64.3	49.6	48.7	50.3	51.5	48.3	55.0
1995	62.2	60.6	63.9	64.6	62.6	66.7	52.0	51.2	52.5	50.3	48.0	52.7
1996	64.7	63.1	66.3	67.0	65.5	68.4	55.9	54.5	57.1	50.9	47.0	55.6
1997	65.4	64.0	66.8	68.2	66.9	69.5	53.7	50.2	56.5	53.9	51.9	56.1
1998	65.6	63.0	68.1	68.5	66.2	70.8	56.6	52.9	59.7	51.7	48.9	54.7
1999	66.1	63.6	68.5	68.7	66.1	71.2	57.8	52.1	62.3	50.6	47.7	53.2
2000	66.2	63.5	68.8	68.2	65.1	71.2	60.8	57.6	63.3	52.3	48.9	55.1
Percent that completed college												
1990	27.1	28.0	26.2	29.3	30.0	28.6	16.4	18.6	14.5	14.0	12.9	15.2
1991	27.2	27.0	27.3	29.7	29.7	29.8	13.4	13.7	13.1	16.3	14.4	18.1
1992	27.3	26.9	27.8	30.0	29.5	30.4	13.7	14.2	13.2	15.6	14.3	17.0
1993	27.3	27.2	27.4	29.8	30.0	29.5	16.1	14.8	17.2	13.6	12.1	15.3
1994	27.0	26.6	27.4	29.7	29.8	29.6	16.2	14.0	17.9	13.3	11.3	15.5
1995	28.4	28.4	28.5	31.2	30.9	31.4	17.8	19.7	16.1	15.5	14.0	17.1
1996	31.1	30.2	32.0	34.1	33.6	34.7	17.0	13.9	19.6	16.4	17.1	15.6
1997	31.8	30.7	32.9	35.2	34.1	36.2	16.4	13.7	18.5	17.8	16.1	19.6
1998	31.0	29.6	32.4	34.5	32.9	36.1	17.9	16.1	19.3	16.5	15.9	17.1
1999	32.1	31.2	33.0	36.1	34.8	37.3	16.9	14.9	18.6	14.4	13.0	15.8
2000	33.0	32.3	33.7	36.2	34.8	37.6	20.6	21.0	20.3	15.4	13.8	21.5

NOTE: The Current Population Survey questions used to obtain educational attainment were changed in 1992. Prior to 1992, "some college" includes those who had completed at least one year of college. From 1992 to 2000, "some college" includes those who reported "some college" as well as those with an associate's degree, vocational certificate, or baccalaureate degree. Prior to 1992, "completed college" includes those who had completed 4 or more years of college. For 1992 to 2000, "completed college" includes those with a bachelor's degree or higher. Included in the total but not shown separately are other racial/ethnic groups.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The Condition of Education 2001*, NCES 2001-072 (Washington, DC: U.S. Government Printing Office, 2001).

Appendix table 2-2

Total and full-time undergraduate enrollment at all institutions, by sex, citizenship, and race/ethnicity: Fall 1990–97

Enrollment status, sex, citizenship, and race/ethnicity	1990	1991	1992	1993	1994	1995	1996	1997
Total undergraduate enrollment	12,110,847	12,595,335	12,693,778	12,482,813	12,417,701	12,399,826	12,424,570	12,458,456
Whites, non-Hispanic	9,273,439	9,508,527	9,388,226	9,101,085	8,916,770	8,806,202	8,731,457	8,684,498
Asians/Pacific Islanders	506,837	565,166	620,463	642,893	683,508	700,828	721,773	745,299
Blacks, non-Hispanic	1,148,979	1,231,252	1,282,732	1,292,621	1,319,684	1,336,052	1,354,910	1,382,028
Hispanics	866,096	949,346	1,032,817	1,064,348	1,109,931	1,167,472	1,218,711	1,253,807
American Indians/Alaskan Natives	95,496	105,839	110,879	112,727	117,434	120,728	122,943	127,191
Temporary residents	220,000	235,205	258,661	269,139	270,374	268,544	274,776	265,633
Male	5,438,593	5,632,690	5,644,113	5,547,126	5,484,342	5,467,370	5,475,620	5,467,836
Whites, non-Hispanic	4,184,777	4,273,310	4,195,726	4,067,289	3,963,400	3,918,342	3,890,906	3,858,521
Asians/Pacific Islanders	257,618	284,673	308,564	318,289	335,960	342,084	350,740	359,927
Blacks, non-Hispanic	448,389	478,648	496,123	500,194	503,512	507,380	513,676	521,120
Hispanics	381,165	418,243	453,488	467,155	485,782	505,162	523,717	535,742
American Indians/Alaskan Natives	39,938	44,186	46,572	47,233	48,650	50,223	51,008	52,651
Temporary residents	126,706	133,630	143,640	146,966	147,038	144,179	145,573	139,875
Female	6,672,254	6,962,645	7,049,665	6,935,687	6,933,359	6,932,456	6,948,950	6,990,620
Whites, non-Hispanic	5,088,662	5,235,217	5,192,500	5,033,796	4,953,370	4,887,860	4,840,551	4,825,977
Asians/Pacific Islanders	249,219	280,493	311,899	324,604	347,548	358,744	371,033	385,372
Blacks, non-Hispanic	700,590	752,604	786,609	792,427	816,172	828,672	841,234	860,908
Hispanics	484,931	531,103	579,329	597,193	624,149	662,310	694,994	718,065
American Indians/Alaskan Natives	55,558	61,653	64,307	65,494	68,784	70,505	71,935	74,540
Temporary residents	93,294	101,575	115,021	122,173	123,336	124,365	129,203	125,758
Full-time undergraduate enrollment, total	7,096,494	7,346,260	7,369,223	7,302,852	7,287,543	7,275,785	7,340,530	7,433,839
Whites, non-Hispanic	5,410,069	5,510,013	5,437,032	5,310,930	5,220,478	5,163,690	5,173,725	5,215,055
Asians/Pacific Islanders	309,168	339,467	367,609	387,105	416,347	428,108	439,215	452,629
Blacks, non-Hispanic	678,434	733,802	753,189	763,883	777,098	778,659	795,368	812,110
Hispanics	483,309	528,946	561,566	581,418	604,721	636,116	657,342	673,976
American Indians/Alaskan Natives	51,057	57,339	60,942	62,710	65,909	67,369	69,178	72,563
Temporary residents	164,457	176,693	188,885	196,806	202,990	201,843	205,702	207,506
Male	3,383,161	3,484,304	3,473,410	3,430,498	3,388,062	3,347,441	3,353,561	3,379,157
Whites, non-Hispanic	2,611,667	2,648,578	2,598,252	2,531,133	2,463,939	2,414,960	2,405,911	2,412,811
Asians/Pacific Islanders	160,755	174,480	187,040	195,676	208,652	212,555	216,595	221,241
Blacks, non-Hispanic	277,966	299,931	305,603	309,775	309,009	305,834	309,646	316,346
Hispanics	212,212	232,628	247,291	254,896	263,705	273,117	279,115	284,528
American Indians/Alaskan Natives	22,673	25,081	26,785	27,690	28,618	29,078	29,563	31,103
Temporary residents	97,888	103,606	108,439	111,328	114,139	111,897	112,731	113,128
Female	3,713,333	3,861,956	3,895,813	3,872,354	3,899,481	3,928,344	3,986,969	4,054,682
Whites, non-Hispanic	2,798,402	2,861,435	2,838,780	2,779,797	2,756,539	2,748,730	2,767,814	2,802,244
Asians/Pacific Islanders	148,413	164,987	180,569	191,429	207,695	215,553	222,620	231,388
Blacks, non-Hispanic	400,468	433,871	447,586	454,108	468,089	472,825	485,722	495,764
Hispanics	271,097	296,318	314,275	326,522	341,016	362,999	378,227	389,448
American Indians/Alaskan Natives	28,384	32,258	34,157	35,020	37,291	38,291	39,615	41,460
Temporary residents	66,569	73,087	80,446	85,478	88,851	89,946	92,971	94,378

NOTE: Data on race/ethnicity are for U.S. citizens and permanent residents only and do not include students on temporary visas.

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Fall Enrollment Survey, various years.

Appendix table 2-3

Percentage distribution of 1988 eighth graders, by high school completion status and postsecondary education enrollment, by disability status and type: 1994

Disability status and type	High school completion status				High school completers enrolled in postsecondary education			
	Enrolled in high school or working toward GED	Dropped out	High school diploma	GED or equivalent certificate	Total	At 4-year institution	At public 2-year institution	At other institution[a]
Total	5.2	6.8	82.0	6.0	70.4	59.4	34.4	6.2
Without disabilities	4.3	6.0	83.8	5.9	71.7	61.5	33.3	5.3
With disabilities	10.6	10.3	72.4	5.7	62.8	42.0	44.9	13.1
Visual impairment	15.8	2.0	77.3	4.9	70.4	48.4	44.2	7.4
Hearing impairment or deaf	10.3	4.4	75.5	9.8	60.2	39.8	47.0	13.2
Speech impairment	6.0	4.7	87.0	2.3	58.5	49.0	47.6	3.5
Orthopedic impairment	5.9	17.4	75.0	1.7	73.9	71.4	23.6	5.1
Learning disability	9.6	12.3	71.4	6.8	57.5	28.2	53.9	17.9
Other disability or impairment[b]	14.3	11.5	67.0	7.2	65.9	44.3	42.8	13.0

[a]Private, for-profit less-than-4-year institution; public less-than-2-year institution; or private, not-for-profit less-than-4-year institution.

[b]Parent reported student had any other disability including health problems, emotional problems, mental retardation, or other physical disabilities and had received services for it.

NOTES: Percentages may not total 100 because of rounding. GED refers to passing the General Education Development exam.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Students With Disabilities in Postsecondary Education: A Profile of Preparation, Participation, and Outcomes*, NCES 1999-187 (Washington, DC, 1999).

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 2-4

Percentage distribution of 1995/96 undergraduates, by selected demographic characteristics and enrollment intensity

Demographic characteristic and enrollment intensity	All undergraduates	Men	Women	Whites, non-Hispanic	Asians/Pacific Islanders	Blacks, non-Hispanic	Hispanics	American Indians/Alaskan Natives
Age								
18 or younger	9.6	9.3	9.8	9.7	8.9	8.6	10.9	6.0
19–23	45.1	48.4	42.5	45.3	51.8	40.3	45.5	40.7
24–29	18.3	19.1	17.7	17.2	19.8	20.7	21.6	22.8
30–39	15.0	13.4	16.2	14.8	11.6	18.3	14.3	21.7
40 or older	12.1	9.8	13.8	13.1	7.9	12.2	7.8	8.9
Average age	26.6	25.8	27.2	26.8	25.3	27.2	25.3	27.3
Family income[a]								
Less than $20,000	18.8	18.4	19.2	12.1	29.2	39.9	38.0	36.8
$20,000–39,999	22.8	21.6	23.9	21.0	25.3	28.1	29.2	24.3
$40,000–59,999	22.7	22.9	22.6	25.4	16.4	16.4	14.0	19.9
$60,000–79,999	16.7	17.2	16.2	19.2	12.6	7.3	10.6	13.8
$80,000–99,999	8.3	8.4	8.2	9.6	6.4	5.0	4.3	3.2
$100,000 or more	10.7	11.4	10.0	12.7	10.1	3.4	3.8	2.1
Marital status								
Not married	77.1	80.8	74.4	75.8	83.7	80.2	78.5	72.7
Married	21.0	18.3	23.0	22.6	15.8	16.2	18.5	25.1
Separated	1.9	1.0	2.7	1.6	0.5	3.6	3.0	2.3
Number of dependents								
None	75.5	81.1	71.3	78.0	85.9	61.6	69.7	63.8
One	10.7	8.0	12.7	9.2	5.3	18.3	14.0	16.9
Two or more	13.8	10.9	16.0	12.7	8.8	20.2	16.3	19.2
Single parent	11.0	6.9	14.1	8.6	5.9	23.7	14.9	16.0
Enrollment intensity								
Full time full year	38.3	40.0	37.0	39.0	44.6	33.6	34.6	36.3
Full time part year	13.1	13.7	12.6	12.2	13.2	16.4	14.6	13.7
Part time full year	24.2	22.1	25.8	23.7	23.5	25.6	26.5	25.9
Part time part year	24.2	24.2	24.6	25.1	18.8	24.4	24.3	24.2

[a]Includes only students who are dependents.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study.

Appendix table 2-5
Percentage distribution of academic year 1995/96 undergraduate students, by selected demographic and educational characteristics and disability status

Characteristic	Total[a]	Without disabilities	With disabilities
Age			
18 or younger	10.2	10.3	8.2
19–23	44.7	45.0	37.8
24–29	17.9	18.3	13.6
30–39	15.0	14.8	17.7
40 or older	12.2	11.6	22.7
Average age	27.0	26.0	30.0
Sex			
Male	44.1	43.7	50.0
Female	55.9	56.3	50.0
Race/ethnicity			
White, non-Hispanic	71.4	71.0	80.9
Asian/Pacific Islander	5.3	5.4	1.8
Black, non-Hispanic	11.6	11.8	7.1
Hispanic	10.3	10.5	7.7
American Indian/Alaskan Native	0.9	0.8	2.1
Other	0.5	0.5	0.4
Income quartile			
Low income quartile	22.2	21.9	26.8
Middle income quartiles	50.5	50.7	50.0
High income quartile	27.4	27.5	23.2
Marital status			
Married	24.6	24.6	27.1
Has dependents	24.2	23.8	29.8
Institution type			
4-year institution	46.1	46.7	39.6
Other institution[b]	53.9	53.3	60.4
Financial aid			
Received any financial aid	52.4	53.2	47.7
Received Federal aid	39.3	40.0	33.8
Received grants	40.3	41.1	34.9
Received loans	31.1	31.7	25.7
Received employer aid	2.8	2.9	2.0
Received work-study	8.5	8.8	6.1
Received other aid	8.0	7.9	11.1
Enrollment intensity			
Full time full year	40.5	40.8	38.7
Full time part year	12.7	12.4	15.6
Part time full year	24.6	24.6	24.5
Part time part year	22.2	22.3	21.2

See explanatory information and SOURCE at end of table

Appendix table 2-5

Percentage distribution of academic year 1995/96 undergraduate students, by selected demographic and educational characteristics and disability status

Characteristic	Total[a]	Without disabilities	With disabilities
Major field of study[c]			
Science and engineering, total	26.7	26.9	26.4
Physical sciences	1.0	1.0	0.6
Mathematics	0.6	0.6	0.2
Computer/information science	3.4	3.3	3.9
Life sciences	5.7	5.7	3.4
Social/behavioral sciences	9.5	9.7	9.4
Engineering	8.1	8.2	9.7
Humanities	14.6	14.5	17.6
Education	8.5	8.7	8.3
Business/management	19.7	19.8	17.4
Health	12.7	12.8	11.4
Vocational/technical	2.7	2.6	3.8
Other technical/professional	13.5	13.3	14.2

[a]Total includes those with unknown disability status who are not shown separately.

[b]2-year institutions, private for-profit institutions, or public less-than-2-year institutions.

[c]Field classifications reflect National Center for Education Statistics taxonomy and do not correspond to National Science Foundation (NSF) categories. For example, history is included here with the social/behavioral sciences but is not in the social sciences as classified by NSF.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Students With Disabilities in Postsecondary Education: A Profile of Preparation, Participation, and Outcomes*, NCES 1999-187 (Washington, DC, 1999).

Appendix table 2-6

Undergraduate enrollment, by type of institution, enrollment status, sex, and race/ethnicity: 1997

Sex and race/ethnicity	Total, all institutions			Public institutions			Private institutions		
	Enrolled full time	Enrolled part time	Percent part time	Enrolled full time	Enrolled part time	Percent part time	Enrolled full time	Enrolled part time	Percent part time
Total	7,208,476	4,954,565	40.7	5,378,662	4,423,917	45.1	1,829,814	530,648	22.5
Male	3,256,947	2,056,732	38.7	2,446,141	1,850,972	43.1	810,806	205,760	20.2
Female	3,951,529	2,897,833	42.3	2,932,521	2,572,945	46.7	1,019,008	324,888	24.2
White, non-Hispanic	5,202,927	3,459,859	39.9	3,863,653	3,066,481	44.2	1,339,274	393,378	22.7
Male	2,406,342	1,441,403	37.5	1,801,034	1,288,649	41.7	605,308	152,754	20.2
Female	2,796,585	2,018,456	41.9	2,062,619	1,777,832	46.3	733,966	240,624	24.7
Asian/Pacific Islander	452,093	292,367	39.3	351,991	274,685	43.8	100,102	17,682	15.0
Male	220,934	138,537	38.5	174,320	130,299	42.8	46,614	8,238	15.0
Female	231,159	153,830	40.0	177,671	144,386	44.8	53,488	9,444	15.0
Black, non-Hispanic	810,236	568,719	41.2	608,431	501,774	45.2	201,805	66,945	24.9
Male	315,550	204,350	39.3	236,146	181,944	43.5	79,404	22,406	22.0
Female	494,686	364,369	42.4	372,285	319,830	46.2	122,401	44,539	26.7
Hispanic	671,051	579,207	46.3	494,092	531,123	51.8	176,959	48,084	21.4
Male	283,228	250,999	47.0	208,618	230,451	52.5	74,610	20,548	21.6
Female	387,823	328,208	45.8	285,474	300,672	51.3	102,349	27,536	21.2
American Indian/Alaskan Native	72,169	54,413	43.0	60,495	49,854	45.2	11,674	4,559	28.1
Male	30,893	21,443	41.0	26,023	19,629	43.0	4,870	1,814	27.1
Female	41,276	32,970	44.4	34,472	30,225	46.7	6,804	2,745	28.7

NOTE: Data on race/ethnicity are for U.S. citizens and permanent residents only and do not include students on temporary visas.

SOURCE: Tabulations by National Science Foundation/Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Fall Enrollment Survey.

Appendix table 2-7

Total and full-time undergraduate enrollment at 2-year institutions, by sex, citizenship, and race/ethnicity: Fall 1990–97

Enrollment status, sex, citizenship, and race/ethnicity	1990	1991	1992	1993	1994	1995	1996	1997
Total undergraduate enrollment	5,200,148	5,573,230	5,708,924	5,551,977	5,499,378	5,459,520	5,476,207	5,467,043
Whites, non-Hispanic	3,909,526	4,125,460	4,108,008	3,933,871	3,820,766	3,752,368	3,709,054	3,661,025
Asians/Pacific Islanders	219,191	258,244	294,266	300,704	318,042	319,542	327,999	340,358
Blacks, non-Hispanic	519,140	566,493	597,906	594,865	609,499	615,301	626,426	638,096
Hispanics	432,368	490,074	556,552	569,161	595,490	619,649	655,955	680,791
American Indians/Alaskan Natives	52,394	59,234	61,353	61,542	63,361	63,363	64,373	65,469
Temporary residents	67,529	73,725	90,839	91,834	92,220	89,297	92,400	81,304
Male	2,220,119	2,372,034	2,412,651	2,346,640	2,318,388	2,323,664	2,349,178	2,341,577
Whites, non-Hispanic	1,664,659	1,750,727	1,730,628	1,658,049	1,607,986	1,601,607	1,601,902	1,581,983
Asians/Pacific Islanders	109,778	128,816	144,208	147,032	154,791	155,100	158,770	163,600
Blacks, non-Hispanic	197,115	213,536	221,657	220,867	224,090	228,217	234,255	239,045
Hispanics	191,955	216,356	245,094	250,092	260,470	269,573	283,559	292,155
American Indians/Alaskan Natives	21,529	24,414	25,249	25,294	25,692	25,983	26,505	26,905
Temporary residents	35,083	38,185	45,815	45,306	45,359	43,184	44,187	37,889
Female	2,980,029	3,201,196	3,296,273	3,205,337	3,180,990	3,135,856	3,127,029	3,125,466
Whites, non-Hispanic	2,244,867	2,374,733	2,377,380	2,275,822	2,212,780	2,150,761	2,107,152	2,079,042
Asians/Pacific Islanders	109,413	129,428	150,058	153,672	163,251	164,442	169,229	176,758
Blacks, non-Hispanic	322,025	352,957	376,249	373,998	385,409	387,084	392,171	399,051
Hispanics	240,413	273,718	311,458	319,069	335,020	350,076	372,396	388,636
American Indians/Alaskan Natives	30,865	34,820	36,104	36,248	37,669	37,380	37,868	38,564
Temporary residents	32,446	35,540	45,024	46,528	46,861	46,113	48,213	43,415
Full-time undergraduate enrollment, total	1,873,618	2,052,070	2,091,798	2,057,807	2,041,011	1,993,537	2,009,906	2,027,351
Whites, non-Hispanic	1,375,799	1,479,121	1,477,967	1,426,491	1,382,761	1,337,624	1,334,522	1,339,137
Asians/Pacific Islanders	76,906	92,123	103,316	109,387	117,904	117,434	117,865	120,433
Blacks, non-Hispanic	206,724	233,782	238,008	239,634	244,657	239,700	247,673	251,566
Hispanics	157,690	183,204	201,160	208,117	218,992	224,517	234,178	241,164
American Indians/Alaskan Natives	20,284	24,169	25,581	25,949	26,828	26,194	26,740	27,339
Temporary residents	36,215	39,671	45,766	48,229	49,869	48,068	48,928	47,712
Male	878,317	953,451	959,787	938,705	920,081	891,210	897,828	907,968
Whites, non-Hispanic	655,608	699,043	690,128	663,172	636,033	611,426	611,084	615,410
Asians/Pacific Islanders	41,129	48,455	53,335	55,998	60,189	59,663	59,615	60,218
Blacks, non-Hispanic	83,663	93,969	92,821	93,207	92,531	89,609	92,841	96,716
Hispanics	69,227	80,094	88,601	90,581	94,445	95,247	98,559	100,286
American Indians/Alaskan Natives	8,955	10,479	11,023	11,242	11,328	10,954	11,167	11,582
Temporary residents	19,735	21,411	23,879	24,505	25,555	24,311	24,562	23,756
Female	995,301	1,098,619	1,132,011	1,119,102	1,120,930	1,102,327	1,112,078	1,119,383
Whites, non-Hispanic	720,191	780,078	787,839	763,319	746,728	726,198	723,438	723,727
Asians/Pacific Islanders	35,777	43,668	49,981	53,389	57,715	57,771	58,250	60,215
Blacks, non-Hispanic	123,061	139,813	145,187	146,427	152,126	150,091	154,832	154,850
Hispanics	88,463	103,110	112,559	117,536	124,547	129,270	135,619	140,878
American Indians/Alaskan Natives	11,329	13,690	14,558	14,707	15,500	15,240	15,573	15,757
Temporary residents	16,480	18,260	21,887	23,724	24,314	23,757	24,366	23,956

NOTE: Data on race/ethnicity are for U.S. citizens and permanent residents only and do not include students on temporary visas.

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Fall Enrollment Survey, various years.

Appendix table 2-8

Total and full-time undergraduate enrollment at 4-year institutions, by sex, citizenship, and race/ethnicity: Fall 1990–97

Enrollment status, sex, citizenship, and race/ethnicity	1990	1991	1992	1993	1994	1995	1996	1997
Total undergraduate enrollment	6,910,699	7,022,105	6,984,854	6,930,836	6,918,323	6,940,306	6,948,363	6,991,413
Whites, non-Hispanic	5,363,913	5,383,067	5,280,218	5,167,214	5,096,004	5,053,834	5,022,403	5,023,473
Asians/Pacific Islanders	287,646	306,922	326,197	342,189	365,466	381,286	393,774	404,941
Blacks, non-Hispanic	629,839	664,759	684,826	697,756	710,185	720,751	728,484	743,932
Hispanics	433,728	459,272	476,265	495,187	514,441	547,823	562,756	573,016
American Indians/Alaskan Natives	43,102	46,605	49,526	51,185	54,073	57,365	58,570	61,722
Temporary residents	152,471	161,480	167,822	177,305	178,154	179,247	182,376	184,329
Male	3,218,474	3,260,656	3,231,462	3,200,486	3,165,954	3,143,706	3,126,442	3,126,259
Whites, non-Hispanic	2,520,118	2,522,583	2,465,098	2,409,240	2,355,414	2,316,735	2,289,004	2,276,538
Asians/Pacific Islanders	147,840	155,857	164,356	171,257	181,169	186,984	191,970	196,327
Blacks, non-Hispanic	251,274	265,112	274,466	279,327	279,422	279,163	279,421	282,075
Hispanics	189,210	201,887	208,394	217,063	225,312	235,589	240,158	243,587
American Indians/Alaskan Natives	18,409	19,772	21,323	21,939	22,958	24,240	24,503	25,746
Temporary residents	91,623	95,445	97,825	101,660	101,679	100,995	101,386	101,986
Female	3,692,225	3,761,449	3,753,392	3,730,350	3,752,369	3,796,600	3,821,921	3,865,154
Whites, non-Hispanic	2,843,795	2,860,484	2,815,120	2,757,974	2,740,590	2,737,099	2,733,399	2,746,935
Asians/Pacific Islanders	139,806	151,065	161,841	170,932	184,297	194,302	201,804	208,614
Blacks, non-Hispanic	378,565	399,647	410,360	418,429	430,763	441,588	449,063	461,857
Hispanics	244,518	257,385	267,871	278,124	289,129	312,234	322,598	329,429
American Indians/Alaskan Natives	24,693	26,833	28,203	29,246	31,115	33,125	34,067	35,976
Temporary residents	60,848	66,035	69,997	75,645	76,475	78,252	80,990	82,343
Full-time undergraduate enrollment, total	5,222,876	5,294,190	5,277,425	5,245,045	5,246,532	5,282,248	5,330,624	5,406,488
Whites, non-Hispanic	4,034,270	4,030,892	3,959,065	3,884,439	3,837,717	3,826,066	3,839,203	3,875,918
Asians/Pacific Islanders	232,262	247,344	264,293	277,718	298,443	310,674	321,350	332,196
Blacks, non-Hispanic	471,710	500,020	515,181	524,249	532,441	538,959	547,695	560,544
Hispanics	325,619	345,742	360,406	373,301	385,729	411,599	423,164	432,812
American Indians/Alaskan Natives	30,773	33,170	35,361	36,761	39,081	41,175	42,438	45,224
Temporary residents	128,242	137,022	143,119	148,577	153,121	153,775	156,774	159,794
Male	2,504,844	2,530,853	2,513,623	2,491,793	2,467,981	2,456,231	2,455,733	2,471,189
Whites, non-Hispanic	1,956,059	1,949,535	1,908,124	1,867,961	1,827,906	1,803,534	1,794,827	1,797,401
Asians/Pacific Islanders	119,626	126,025	133,705	139,678	148,463	152,892	156,980	161,023
Blacks, non-Hispanic	194,303	205,962	212,782	216,568	216,478	216,225	216,805	219,630
Hispanics	142,985	152,534	158,690	164,315	169,260	177,870	180,556	184,242
American Indians/Alaskan Natives	13,718	14,602	15,762	16,448	17,290	18,124	18,396	19,521
Temporary residents	78,153	82,195	84,560	86,823	88,584	87,586	88,169	89,372
Female	2,718,032	2,763,337	2,763,802	2,753,252	2,778,551	2,826,017	2,874,891	2,935,299
Whites, non-Hispanic	2,078,211	2,081,357	2,050,941	2,016,478	2,009,811	2,022,532	2,044,376	2,078,517
Asians/Pacific Islanders	112,636	121,319	130,588	138,040	149,980	157,782	164,370	171,173
Blacks, non-Hispanic	277,407	294,058	302,399	307,681	315,963	322,734	330,890	340,914
Hispanics	182,634	193,208	201,716	208,986	216,469	233,729	242,608	248,570
American Indians/Alaskan Natives	17,055	18,568	19,599	20,313	21,791	23,051	24,042	25,703
Temporary residents	50,089	54,827	58,559	61,754	64,537	66,189	68,605	70,422

NOTE: Data on race/ethnicity are for U.S. citizens and permanent residents only and do not include students on temporary visas.

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Fall Enrollment Survey, various years.

Appendix table 2-9

First university degree enrollments, by country and sex: 1998

Country	Total	Male	Female	Percent female enrollment
Australia	622,280	277,653	344,627	55.4
Canada	843,894	361,755	482,139	57.1
France	1,452,786	641,797	810,989	55.8
Germany	1,785,938	1,008,023	777,915	43.6
Italy	1,823,210	795,600	1,027,610	56.4
Japan	2,753,492	1,773,326	980,166	35.6
Mexico	1,620,335	834,737	785,598	48.5
South Korea	1,547,924	1,010,367	537,557	34.7
Spain	1,596,644	745,087	851,557	53.3
Turkey	1,007,053	630,889	376,164	37.4
United Kingdom	1,280,380	615,109	665,270	52.0
United States	10,218,528	4,502,221	5,716,306	55.9

NOTE: A first university degree refers to completion of an undergraduate degree program. These degrees are classified as level 6 in the International Standard Classification of Education, although individual countries use different names for the first terminal degree: for example, *laureata* in Italy, *diplome* in Germany, *maitrise* in France, and bachelor's degree in the United States and in Asian countries.

SOURCE: Organisation for Economic Co-operation and Development, *Education at a Glance* (Paris, 2000).

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 2-10
Percentage of U.S. freshmen intending S&E majors, by race/ethnicity and sex: 2000

Race/ethnicity and sex	All S&E	Physical sciences	Mathematics and statistics	Computer sciences	Biological/ agricultural sciences	Social and behavioral sciences	Engineering
White, non-Hispanic	29.3	2.0	0.7	3.0	6.6	8.7	8.3
Male	37.0	2.5	0.9	5.6	6.0	6.7	15.3
Female	23.5	1.5	0.6	0.8	7.5	10.6	2.5
Asian/Pacific Islander	41.8	1.5	0.6	8.3	10.2	7.4	13.8
Male	51.8	1.7	0.7	13.3	8.5	5.5	22.1
Female	33.3	1.3	0.7	4.0	11.7	8.9	6.7
Black, non-Hispanic	34.7	1.2	0.5	6.0	7.5	11.1	8.4
Male	38.3	1.4	0.4	9.0	5.8	6.5	15.2
Female	33.0	1.2	0.5	4.2	8.6	14.1	4.4
Chicano/Puerto Rican	32.2	1.4	0.6	2.7	7.1	12.3	8.1
Male	38.4	1.7	0.6	5.1	7.1	7.7	16.2
Female	27.2	1.2	0.5	1.1	6.9	15.3	2.2
Other Hispanic	33.3	1.3	0.3	3.8	7.6	12.7	7.6
Male	40.1	1.8	0.3	7.4	6.8	8.5	15.3
Female	29.2	0.9	0.3	1.4	8.5	15.3	2.8
American Indian/Alaskan Native	32.0	2.6	0.4	2.7	6.7	11.8	7.8
Male	36.6	3.6	0.4	5.1	4.9	8.2	14.4
Female	28.4	1.8	0.3	0.9	7.9	14.4	3.1

NOTES: Data include first-year students at all 4-year colleges. Percentages by discipline may not add to total because of rounding.

SOURCE: Higher Education Research Institute, Survey of the American Freshman: National Norms, special tabulations prepared for the National Science Foundation, Division of Science Resources Statistics (Los Angeles: University of California–Los Angeles, 2000).

Appendix table 2-11

Total and full-time first-year undergraduate enrollment in engineering programs, by sex, citizenship, and race/ethnicity: 1990–99

Year	Total	Men	Women	U.S. citizens and permanent residents					Temporary residents
				Whites, non-Hispanic	Asians/ Pacific Islanders	Blacks, non-Hispanic	Hispanics	American Indians/ Alaskan Natives	
	Number								
Total undergraduate enrollment									
1990	380,287	318,471	61,816	288,732	30,898	20,833	18,873	1,463	19,488
1991	379,977	316,441	63,536	271,906	37,803	24,563	22,441	1,688	21,576
1992	382,525	316,460	66,065	270,942	38,480	25,722	23,863	1,932	21,586
1993	375,944	309,412	66,532	263,073	37,835	25,920	24,586	1,931	22,599
1994	367,298	300,643	66,655	256,287	37,009	24,994	25,216	2,028	21,764
1995	363,315	296,029	67,286	249,896	38,329	25,569	25,998	2,103	21,420
1996	356,177	288,559	67,618	243,270	37,873	24,922	26,483	2,396	21,233
1997	365,358	294,593	70,765	246,950	39,475	24,809	30,580	2,422	21,122
1998	366,991	294,598	72,383	248,439	40,523	25,699	28,802	2,418	21,110
1999	361,395	290,019	71,376	243,560	39,891	25,419	29,111	2,396	21,018
Full-time first-year undergrad enrollment									
1990	94,346	77,672	16,674	67,197	7,926	8,370	5,885	526	4,442
1991	93,002	76,018	16,984	65,560	8,212	8,305	5,949	582	4,394
1992	93,427	74,870	17,947	65,264	8,153	8,924	6,347	633	4,106
1993	88,875	71,921	16,954	61,633	7,969	8,271	6,247	607	4,148
1994	85,047	68,545	16,502	59,455	7,673	7,372	6,157	617	3,773
1995	86,299	69,102	17,197	59,864	7,767	7,890	6,500	601	3,677
1996	85,375	68,375	17,000	58,929	7,997	7,482	6,602	656	3,709
1997	90,882	72,943	17,943	61,882	9,125	7,403	7,757	688	4,027
1998	94,909	76,281	18,628	65,578	9,509	8,028	7,018	719	4,057
1999	93,951	75,919	18,032	64,472	9,570	7,989	7,070	676	4,174
	Percent								
Total undergraduate enrollment									
1990	100.0	83.7	16.3	75.9	8.1	5.5	5.0	0.4	6.1
1991	100.0	83.3	16.7	71.6	9.9	6.5	5.9	0.4	6.8
1992	100.0	82.7	17.3	70.8	10.1	6.7	6.2	0.5	6.8
1993	100.0	82.3	17.7	70.0	10.1	6.9	6.5	0.5	7.3
1994	100.0	81.9	18.1	69.8	10.1	6.8	6.9	0.6	7.2
1995	100.0	81.5	18.5	68.8	10.5	7.0	7.2	0.6	7.2
1996	100.0	81.0	19.0	68.3	10.6	7.0	7.4	0.7	7.4
1997	100.0	80.6	19.4	67.6	10.8	6.8	8.4	0.7	7.2
1998	100.0	80.3	19.7	67.7	11.0	7.0	7.8	0.7	7.2
1999	100.0	80.2	19.8	67.4	11.0	7.0	8.1	0.7	7.2

See SOURCE at end of table.

Appendix table 2-11

Total and full-time first-year undergraduate enrollment in engineering programs, by sex, citizenship, and race/ethnicity: 1990–99

Year	Total	Men	Women	U.S. citizens and permanent residents					Temporary residents
				Whites, non-Hispanic	Asians/ Pacific Islanders	Blacks, non-Hispanic	Hispanics	American Indians/ Alaskan Natives	
	Percent								
Full-time first-year undergrad enrollment									
1990	100.0	82.3	17.7	71.2	8.4	8.9	6.2	0.6	4.7
1991	100.0	81.7	18.3	70.5	8.8	8.9	6.4	0.6	4.7
1992	100.0	80.1	19.2	69.9	8.7	9.6	6.8	0.7	4.4
1993	100.0	80.9	19.1	69.3	9.0	9.3	7.0	0.7	4.7
1994	100.0	80.6	19.4	69.9	9.0	8.7	7.2	0.7	4.4
1995	100.0	80.1	19.9	69.4	9.0	9.1	7.5	0.7	4.3
1996	100.0	80.1	19.9	69.0	9.4	8.8	7.7	0.8	4.3
1997	100.0	80.3	19.7	68.1	10.0	8.1	8.5	0.8	4.4
1998	100.0	80.4	19.6	69.1	10.0	8.5	7.4	0.8	4.3
1999	100.0	80.8	19.2	68.6	10.2	8.5	7.5	0.7	4.4

SOURCE: American Association of Engineering Societies, Engineering Workforce Commission, special tabulations (Washington, DC).

Appendix table 2-12

Total and full-time first-year undergraduate enrollment in engineering programs, by sex, citizenship, and race/ethnicity: 1999

Enrollment status and sex	Total	U.S. citizens and permanent residents					Temporary residents
		Whites, non-Hispanic	Asians/ Pacific Islanders	Blacks, non-Hispanic	Hispanic	American Indians/Alaskan Natives	
	Number						
Total undergraduate enrollment	361,395	243,560	39,891	25,419	29,111	2,396	21,018
Male	290,019	201,044	30,691	16,882	22,289	1,792	17,321
Female	71,376	42,516	9,200	8,537	6,822	604	3,697
Full-time first-year enrollment	93,951	64,472	9,570	7,989	7,070	676	4,174
Male	75,919	53,613	7,504	5,352	5,408	516	3,526
Female	18,032	10,859	2,066	2,637	1,662	160	648
	Percent						
Total undergraduate enrollment	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Male	80.2	82.5	76.9	66.4	76.6	74.8	82.4
Female	19.8	17.5	23.1	33.6	23.4	25.2	17.6
Full-time first-year enrollment	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Male	80.8	83.2	78.4	67.0	76.5	76.3	84.5
Female	19.2	16.8	21.6	33.0	23.5	23.7	15.5

SOURCE: American Association of Engineering Societies, Engineering Workforce Commission, special tabulations (Washington, DC).

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 2-13

Percentage of undergraduates receiving various types of aid and average amount of aid received, by sex and race/ethnicity: Academic year 1995/96

Sex and race/ethnicity	Type of aid received					Average amount of total aid received (dollars)
	Any aid	Grants	Loans	Work-study	Other	
Total	49.7	39.0	25.6	5.0	7.4	4,926
Male	46.7	35.8	24.4	4.3	8.7	5,110
Female	51.9	41.4	26.5	5.6	6.5	4,801
White, non-Hispanic	47.1	35.4	25.6	4.6	7.5	5,009
Asian/Pacific Islander	42.9	35.7	21.3	6.6	5.7	6,268
Black, non-Hispanic	62.9	52.8	30.9	6.1	9.8	4,700
Hispanic	54.2	47.3	22.3	5.8	5.2	4,152
American Indian/Alaskan Native	59.4	48.4	25.2	3.9	12.0	4,642

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 2-14

Percentage distribution of 1989/90 beginning postsecondary students seeking bachelor's degrees, by persistence toward and completion of bachelor's and other degrees, by sex and race/ethnicity: Spring 1994

Sex and race/ethnicity	Completed a degree			Still enrolled for bachelor's[b]	No degree, no longer enrolled toward bachelor's[c]
	Bachelor's	Associate's[a]	Certificate[a]		
Male	41.3	4.8	2.7	20.3	30.9
Female	50.3	5.4	4.0	14.6	25.7
White, non-Hispanic	48.1	4.9	3.3	16.6	27.0
Asian/Pacific Islander	46.8	5.3	0.6	21.8	25.5
Black, non-Hispanic	34.3	7.3	3.6	18.0	36.8
Hispanic	32.4	3.5	5.4	22.1	36.6
American Indian/Alaskan Native	S	S	S	S	S

S data suppressed for reasons of confidentiality and/or data reliability

[a]Includes only students who are no longer working toward a bachelor's degree but who have completed another type of degree or award.

[b]Includes students who have completed another type of degree or award but are still working toward a bachelor's degree.

[c]Includes students who are no longer enrolled and students who are still enrolled but no longer working toward a bachelor's degree.

NOTE: Details may not add to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The Condition of Education 1998*, NCES 98-013 (Washington, DC: U.S. Government Printing Office, 1998), supplemental table 12-1.

Women, Minorities and Persons With Disabilities in Science and Engineering: 2002

Appendix table 2-15

Percentage of 1994 freshmen intending to major in S&E and percentage of 1998 bachelor's degree recipients earning degrees in S&E, by sex and race/ethnicity

Race/ethnicity	All 1994 freshmen		Males		Females	
	Intended to major in S&E	Received S&E baccalaureate	Intended to major in S&E	Received S&E baccalaureate	Intended to major in S&E	Received S&E baccalaureate
White, non-Hispanic	30.3	31.0	37.1	36.6	24.8	26.6
Asian/Pacific Islander	44.2	48.6	52.6	55.8	35.6	42.3
Black, non-Hispanic	33.8	32.1	38.3	34.8	30.8	30.6
Hispanic[a]	36.5/40.3	32.9	39.6/46.8	37.7	33.6/34.4	29.6
American Indian/Alaskan Native	29.5	31.0	34.1	36.4	26.2	27.4

[a]Data on freshman intentions are reported separately for Hispanic subgroups. The number to the left of the slash is for Mexican Americans and Puerto Ricans. The number to the right of the slash is for other Hispanics.

NOTE: S&E includes the social sciences.

SOURCES: Higher Education Research Institute, Survey of the American Freshman: National Norms, special tabulations prepared for the National Science Foundation, Division of Science Resources Statistics (Los Angeles: University of California–Los Angeles, 2000); and U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 2-16

Percentage distribution of 1989/90 beginning postsecondary students according to persistence status and highest undergraduate degree attained, by disability status: Spring 1994

Persistence status and highest degree	Total	Without disabilities	With disabilities
Persistence			
Attained degree or enrolled	63.2	64.1	52.9
Attained degree or certificate	50.0	50.7	41.1
Enrolled in 1994	13.3	13.4	11.8
Not enrolled/no degree or certificate	36.8	36.0	47.2
Highest undergraduate degree attained by 1994			
None	50.1	49.3	58.9
Certificate	12.9	12.5	18.8
Associate's	11.2	11.6	6.0
Bachelor's	25.8	26.6	16.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Students With Disabilities in Postsecondary Education: A Profile of Preparation, Participation, and Outcomes*, NCES 1999-187 (Washington, DC, 1999).

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 3-1
Associate's degrees awarded, by sex and field: 1990–98

Sex and field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all fields	459,048	486,297	508,704	519,098	546,574	544,094	540,644	546,031	549,191
Total science and engineering	72,748	71,026	70,297	71,335	75,132	70,590	67,820	68,328	71,006
Physical sciences	1,212	1,218	1,086	1,224	1,413	1,459	1,560	1,540	1,518
Earth, atmospheric, and ocean sciences	33	28	143	168	226	186	189	191	180
Mathematics	760	670	744	743	766	783	759	793	843
Computer science	7,840	7,970	9,632	9,532	9,868	9,627	9,401	10,632	12,899
Agricultural sciences	1,696	1,724	1,978	1,896	1,938	1,910	1,895	1,865	2,007
Biological sciences	1,055	1,142	1,378	1,499	1,907	1,901	2,074	2,181	2,176
Psychology	1,116	997	1,209	1,235	1,756	1,600	1,584	1,606	1,760
Social sciences	3,693	3,090	3,837	4,597	4,863	4,477	5,090	5,075	5,156
Engineering	2,405	2,513	2,715	2,526	2,844	2,285	2,048	1,888	2,107
Science technologies	903	953	969	1,013	1,150	970	965	893	800
Engineering technologies	46,938	45,106	40,592	40,946	42,414	39,190	35,982	35,221	35,163
Other science and engineering technologies	110	70	172	52	265	364	556	556	634
Interdisciplinary or other sciences	4,987	5,545	5,842	5,904	5,722	5,838	5,717	5,887	5,763
Men, all fields	192,433	200,043	208,856	213,263	222,247	219,704	213,090	212,698	215,888
Total science and engineering	55,177	53,405	51,204	51,639	53,414	50,238	46,750	46,155	48,075
Physical sciences	706	679	591	663	783	773	830	733	707
Earth, atmospheric, and ocean sciences	12	23	116	130	162	148	131	126	128
Mathematics	489	406	464	428	437	438	464	444	490
Computer science	3,942	4,032	4,723	4,695	4,947	4,996	4,862	5,720	7,137
Agricultural sciences	1,033	1,119	1,325	1,280	1,233	1,300	1,250	1,196	1,267
Biological sciences	444	457	573	613	770	757	830	789	793
Psychology	286	257	338	282	433	446	405	376	603
Social sciences	1,539	1,154	1,573	1,816	1,784	1,625	1,656	1,635	1,696
Engineering	2,117	2,233	2,360	2,196	2,474	1,978	1,779	1,617	1,784
Science technologies	605	574	573	617	703	623	587	499	426
Engineering technologies	41,435	39,777	35,666	36,129	36,899	34,196	30,947	29,990	29,949
Other science and engineering technologies	96	62	156	44	245	331	514	521	590
Interdisciplinary or other sciences	2,473	2,632	2,746	2,746	2,544	2,627	2,495	2,509	2,505
Women, all fields	266,615	286,254	299,848	305,835	324,327	324,390	327,554	333,333	333,303
Total science and engineering	17,571	17,621	19,093	19,696	21,718	20,352	21,070	22,173	22,931
Physical sciences	506	539	495	561	630	686	730	807	811
Earth, atmospheric, and ocean sciences	21	5	27	38	64	38	58	65	52
Mathematics	271	264	280	315	329	345	295	349	353
Computer science	3,898	3,938	4,909	4,837	4,921	4,631	4,539	4,912	5,762
Agricultural sciences	663	605	653	616	705	610	645	669	740
Biological sciences	611	685	805	886	1,137	1,144	1,244	1,392	1,383
Psychology	830	740	871	953	1,323	1,154	1,179	1,230	1,157
Social sciences	2,154	1,936	2,264	2,781	3,079	2,852	3,434	3,440	3,460
Engineering	288	280	355	330	370	307	269	271	323
Science technologies	298	379	396	396	447	347	378	394	374
Engineering technologies	5,503	5,329	4,926	4,817	5,515	4,994	5,035	5,231	5,214
Other science and engineering technologies	14	8	16	8	20	33	42	35	44
Interdisciplinary or other sciences	2,514	2,913	3,096	3,158	3,178	3,211	3,222	3,378	3,258

NOTE: Unlike in other degree tables, the science and engineering total includes degrees in science and engineering technologies.

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey, various years.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 3-2
Associate's degrees awarded, by citizenship, race/ethnicity, and field: 1990–98

Citizenship, race/ethnicity, and field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all fields	459,048	486,297	508,704	519,098	546,574	544,094	540,644	546,031	549,191
Total science and engineering	75,770	73,835	68,067	69,650	73,193	68,945	65,713	66,412	69,430
Physical sciences[a]	1,248	1,249	1,229	1,392	1,639	1,459	1,749	1,731	1,698
Mathematics	760	670	744	743	765	783	758	792	843
Computer science	7,840	7,970	9,602	9,512	9,767	9,627	9,198	10,080	12,147
Agricultural sciences	1,983	2,039	2,252	2,227	2,247	1,910	2,278	2,274	2,384
Biological sciences	1,055	1,142	1,378	1,471	1,907	1,901	2,074	2,181	2,176
Psychology	1,116	997	1,209	1,237	1,756	1,600	1,584	1,608	1,763
Social sciences	3,002	2,577	3,232	4,011	4,263	4,477	4,158	4,190	4,338
Engineering	2,402	2,510	2,715	2,525	2,828	2,285	2,030	1,865	2,100
Science technologies	903	953	889	905	1,040	970	875	815	747
Engineering technologies	44,739	42,595	38,015	38,473	39,889	39,190	33,597	32,893	32,919
Other science and engineering technologies	110	70	172	52	265	364	556	556	634
Interdisciplinary or other sciences	11,860	12,312	7,859	8,494	8,466	5,838	8,605	9,158	9,379
White, non-Hispanic, all fields	343,629	376,869	388,049	392,637	419,962	408,126	403,072	400,307	396,735
Total science and engineering	55,240	58,124	50,532	50,794	55,825	50,682	48,158	47,819	49,508
Physical sciences[a]	974	968	848	995	1,230	1,024	1,183	1,159	1,107
Mathematics	538	477	522	509	497	479	439	492	501
Computer science	5,166	5,577	6,109	6,006	6,636	6,471	6,096	6,630	7,907
Agricultural sciences	1,775	1,847	2,038	2,017	1,959	1,633	2,067	2,079	2,136
Biological sciences	709	759	992	977	1,304	1,197	1,356	1,310	1,304
Psychology	840	738	918	894	1,321	1,146	1,094	1,087	1,070
Social sciences	1,912	1,609	1,974	2,347	2,729	2,628	2,458	2,412	2,526
Engineering	1,770	1,867	2,086	1,886	2,133	1,658	1,484	1,340	1,432
Science technologies	564	693	640	644	794	683	637	579	535
Engineering technologies	31,699	33,792	28,242	28,442	31,457	29,646	25,480	24,572	24,313
Other science and engineering technologies	69	51	132	28	211	275	457	447	523
Interdisciplinary or other sciences	10,198	10,714	6,879	7,044	6,784	4,866	6,590	6,871	7,261
Asian/Pacific Islander, all fields	12,687	15,069	15,369	16,280	18,555	20,976	22,630	23,882	23,909
Total science and engineering	2,541	2,507	2,565	2,730	2,801	3,057	3,168	3,689	3,662
Physical sciences[a]	91	86	106	76	122	124	165	180	173
Mathematics	75	65	64	69	77	93	103	86	100
Computer science	336	323	484	459	489	513	512	639	785
Agricultural sciences	8	8	10	6	10	10	7	5	9
Biological sciences	80	126	137	146	172	190	216	264	248
Psychology	18	24	34	33	37	57	57	63	53
Social sciences	92	64	98	183	192	248	263	246	262
Engineering	151	146	185	136	184	152	146	148	165
Science technologies	16	31	29	38	35	56	54	63	35
Engineering technologies	1,499	1,496	1,311	1,358	1,258	1,458	1,391	1,514	1,447
Other science and engineering technologies	1	4	4	2	0	13	22	24	0
Interdisciplinary or other sciences	265	220	209	300	347	267	397	457	385

See explanatory information and SOURCE at end of table

Appendix table 3-2

Associate's degrees awarded, by citizenship, race/ethnicity, and field: 1990–98

Citizenship, race/ethnicity, and field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Black, all fields	32,882	37,854	38,721	41,260	45,597	45,923	49,245	51,588	52,957
Total science and engineering	4,785	5,264	4,653	5,291	6,022	5,741	5,949	6,141	6,435
Physical sciences[a]	57	78	71	70	90	93	112	105	126
Mathematics	20	27	27	26	39	45	36	37	33
Computer science	856	894	1,066	978	1,081	1,046	1,088	1,135	1,459
Agricultural sciences	25	14	15	15	20	23	21	14	12
Biological sciences	71	57	75	93	96	147	114	140	155
Psychology	110	103	78	109	149	126	147	126	112
Social sciences	313	332	342	471	415	669	457	526	469
Engineering	88	126	135	201	179	148	134	131	109
Science technologies	36	69	60	63	91	72	97	86	78
Engineering technologies	2,648	3,030	2,445	2,698	3,197	3,015	2,883	2,899	3,046
Other science and engineering technologies	25	11	21	20	37	35	75	83	86
Interdisciplinary or other sciences	593	601	389	617	718	415	897	964	876
Hispanic, all fields	24,569	29,019	30,253	33,015	35,557	38,499	39,115	42,784	45,452
Total science and engineering	4,006	4,323	4,397	4,962	5,201	5,513	5,409	5,651	5,880
Physical sciences[a]	41	45	42	52	92	70	109	110	122
Mathematics	65	55	63	67	85	99	108	110	120
Computer science	526	622	855	1,019	989	1,035	923	1,039	1,237
Agricultural sciences	70	57	70	88	109	136	89	77	85
Biological sciences	104	130	126	160	203	208	221	276	289
Psychology	113	88	116	141	154	193	179	210	180
Social sciences	272	313	369	472	549	586	549	601	616
Engineering	98	153	132	153	148	161	132	112	196
Science technologies	57	94	111	97	87	91	51	59	58
Engineering technologies	2,298	2,411	2,317	2,398	2,478	2,777	2,644	2,570	2,528
Other science and engineering technologies	10	4	14	1	4	28	1	2	1
Interdisciplinary or other sciences	393	396	224	366	395	199	512	595	570
American Indian/Alaskan Native, all fields	3,290	3,772	3,874	4,213	4,879	5,352	5,221	5,520	6,161
Total science and engineering	430	544	446	561	715	718	755	712	859
Physical sciences[a]	4	7	5	7	20	22	26	21	33
Mathematics	14	13	8	15	11	13	9	2	13
Computer science	70	78	61	101	105	111	127	117	144
Agricultural sciences	21	37	38	41	69	54	48	57	65
Biological sciences	13	22	15	25	36	40	42	46	37
Psychology	9	16	31	18	38	35	42	38	37
Social sciences	59	63	75	100	122	121	159	136	143
Engineering	12	21	14	8	18	22	11	25	22
Science technologies	2	10	3	4	6	10	2	3	14
Engineering technologies	168	232	175	210	263	286	242	211	262
Other science and engineering technologies	0	0	0	0	0	3	1	0	24
Interdisciplinary or other sciences	62	52	26	39	47	23	72	56	65

See explanatory information and SOURCE at end of table

Appendix table 3-2

Associate's degrees awarded, by citizenship, race/ethnicity, and field: 1990–98

Citizenship, race/ethnicity, and field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Other/unknown race/ethnicity, all fields	36,054	16,737	24,411	22,669	11,855	15,307	11,339	11,351	11,932
Total science and engineering	7,900	2,134	4,415	4,277	1,506	2,118	1,211	1,401	1,582
Physical sciences[a]	48	35	113	125	29	49	68	62	62
Mathematics	30	17	22	10	17	15	15	21	27
Computer science	735	321	814	712	224	191	209	261	284
Agricultural sciences	66	55	49	27	35	36	28	23	25
Biological sciences	54	26	0	32	40	42	65	67	61
Psychology	19	20	19	25	33	24	33	45	253
Social sciences	313	148	307	318	101	90	111	125	162
Engineering	213	129	83	63	77	67	53	42	43
Science technologies	227	45	40	48	23	44	25	17	13
Engineering technologies	5,960	1,108	3,021	2,987	822	1,582	625	681	611
Other science and engineering technologies	5	0	0	1	13	5	0	0	0
Interdisciplinary or other sciences	278	265	60	54	121	22	47	119	103
Temporary residents, all fields	5,937	6,977	8,027	9,024	10,169	9,911	10,022	10,599	12,045
Total science and engineering	868	939	1,059	1,035	1,123	1,116	1,063	1,294	1,785
Physical sciences[a]	33	30	44	67	56	77	86	94	75
Mathematics	18	16	38	47	39	39	48	44	49
Computer science	151	155	213	237	243	260	243	259	331
Agricultural sciences	18	21	32	33	45	18	18	19	52
Biological sciences	24	22	33	38	56	77	60	78	82
Psychology	7	8	13	17	24	19	32	39	58
Social sciences	41	48	67	120	155	135	161	144	160
Engineering	70	68	80	78	89	77	70	67	133
Science technologies	1	11	6	11	4	14	9	8	14
Engineering technologies	467	526	504	380	414	426	332	446	712
Other science and engineering technologies	0	0	1	0	0	5	0	0	0
Interdisciplinary or other sciences	71	64	72	74	54	46	90	96	119

[a]In this table, the physical sciences include the earth, atmospheric, and ocean sciences as well as physics, astronomy, and chemistry. See notes for more information.

NOTES: Data on race/ethnicity are for U.S. citizens and permanent residents only and do not include students on temporary visas. Because these data were collected on broad fields of study only until 1994, the trend data could not be adjusted to the exact field taxonomies used by the National Science Foundation. Also, unlike in other degree tables, the science and engineering total includes degrees in science and engineering technologies.

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey, various years.

Appendix table 3-3

Associate's degrees awarded in science and engineering, by citizenship, race/ethnicity, sex, and field: 1998

Citizenship, race/ethnicity, and sex	Total science and engineering	Physical sciences[a]	Mathe-matics	Computer science	Agricultural sciences	Biological sciences	Psych-ology	Social sciences	Engi-neering	Science tech-nologies	Engineer-ing tech-nologies	Other S&E tech-nologies	Inter-disciplinary/ other sciences
Total, all races/ethnicities	71,128	1,698	843	12,147	2,384	2,176	1,763	4,338	2,100	747	32,919	634	9,379
Male	48,085	835	490	6,683	1,605	793	603	1,602	1,779	384	28,184	590	4,537
Female	23,043	863	353	5,464	779	1,383	1,160	2,736	321	363	4,735	44	4,842
White, non-Hispanic	50,615	1,107	501	7,907	2,136	1,304	1,070	2,526	1,432	535	24,313	523	7,261
Male	34,874	565	286	4,564	1,461	481	242	931	1,219	297	20,926	485	3,417
Female	15,741	542	215	3,343	675	823	828	1,595	213	238	3,387	38	3,844
Asian/Pacific Islander	3,662	173	100	785	9	248	53	262	165	35	1,447	0	385
Male	2,429	83	62	451	6	94	23	94	140	11	1,282	0	183
Female	1,233	90	38	334	3	154	30	168	25	24	165	0	202
Black, non-Hispanic	6,561	126	33	1,459	12	155	112	469	109	78	3,046	86	876
Male	4,083	50	14	622	10	60	38	171	85	33	2,455	80	465
Female	2,478	76	19	837	2	95	74	298	24	45	591	6	411
Hispanic	6,002	122	120	1,237	85	289	180	616	196	58	2,528	1	570
Male	3,866	59	68	651	53	86	47	216	168	29	2,175	1	313
Female	2,136	63	52	586	32	203	133	400	28	29	353	0	257
American Indian/Alaskan Native	859	33	13	144	65	37	37	143	22	14	262	24	65
Male	478	12	9	60	35	17	12	42	17	4	210	24	36
Female	381	21	4	84	30	20	25	101	5	10	52	0	29
Other/unknown race/ethnicity	1,644	62	27	284	25	61	253	162	43	13	611	0	103
Male	1,191	35	18	149	15	23	225	80	37	5	536	0	68
Female	453	27	9	135	10	38	28	82	6	8	75	0	35
Temporary resident	1,785	75	49	331	52	82	58	160	133	14	712	0	119
Male	1,164	31	33	186	25	32	16	68	113	5	600	0	55
Female	621	44	16	145	27	50	42	92	20	9	112	0	64

[a]In this table, the physical sciences include the earth, atmospheric, and ocean sciences, as well as physics, astronomy, and chemistry.

NOTES: Data on race/ethnicity are for U.S. citizens and permanent residents only and do not include students on temporary visas. Also, unlike in other degree tables, the science and engineering total includes degrees in science and engineering technologies.

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey.

Appendix table 3-4
Bachelor's degrees awarded, by sex and field: 1990–98

Sex and year	All fields	Science and engineering fields									All other fields
		Total science and engineering	Physical sciences	Earth, atmospheric & ocean sciences	Mathematics	Computer science	Agricultural/biological sciences	Psychology	Social sciences	Engineering	
	Number of degrees										
Total											
1990	1,062,151	329,094	13,425	2,776	14,674	27,695	46,451	54,018	105,350	64,705	733,057
1991	1,107,997	337,675	13,678	2,728	14,784	25,410	48,783	58,893	111,212	62,187	770,322
1992	1,150,072	355,265	13,875	3,201	14,931	24,958	54,193	64,033	118,133	61,941	794,807
1993	1,179,278	366,035	14,188	3,503	14,853	24,580	59,621	67,251	119,334	62,705	813,243
1994	1,183,141	373,261	14,655	3,868	14,632	24,553	65,268	69,768	117,505	63,012	809,880
1995	1,174,436	378,148	14,897	4,478	13,851	24,769	71,470	72,601	112,711	63,371	796,288
1996	1,179,815	384,674	15,396	4,457	13,076	24,545	78,469	73,828	111,789	63,114	795,141
1997	1,186,589	388,482	15,264	4,466	12,723	25,393	82,500	74,734	111,050	62,352	798,107
1998	1,199,579	390,618	15,273	4,321	12,094	27,674	85,079	74,457	110,806	60,914	808,961
Women											
1990	566,284	140,012	4,319	775	6,811	8,374	22,401	38,619	48,740	9,973	426,272
1991	599,045	148,347	4,425	782	6,980	7,514	23,776	42,738	52,467	9,665	450,698
1992	624,677	159,486	4,586	1,024	6,986	7,210	26,720	46,903	56,421	9,636	465,191
1993	641,742	165,720	4,764	1,050	6,999	6,951	29,182	49,222	57,571	9,981	476,022
1994	646,080	170,977	5,067	1,203	6,768	7,020	31,921	51,019	57,576	10,403	475,103
1995	643,290	175,931	5,292	1,524	6,491	7,063	35,555	52,963	56,093	10,950	467,359
1996	651,815	181,333	5,702	1,485	5,992	6,772	39,369	53,863	56,834	11,316	470,482
1997	661,307	187,011	5,882	1,542	5,889	6,903	42,533	55,243	57,549	11,470	474,296
1998	673,865	190,397	5,994	1,599	5,659	7,439	44,844	55,400	58,123	11,339	483,468
	Percent of degrees awarded to women										
1990	53.3	42.5	32.2	27.9	46.4	30.2	48.2	71.5	46.3	15.4	58.1
1991	54.1	43.9	32.4	28.7	47.2	29.6	48.7	72.6	47.2	15.5	58.5
1992	54.3	44.9	33.1	32.0	46.8	28.9	49.3	73.2	47.8	15.6	58.5
1993	54.4	45.3	33.6	30.0	47.1	28.3	48.9	73.2	48.2	15.9	58.5
1994	54.6	45.8	34.6	31.1	46.3	28.6	48.9	73.1	49.0	16.5	58.7
1995	54.8	46.5	35.5	34.0	46.9	28.5	49.7	73.0	49.8	17.3	58.7
1996	55.2	47.1	37.0	33.3	45.8	27.6	50.2	73.0	50.8	17.9	59.2
1997	55.7	48.1	38.5	34.5	46.3	27.2	51.6	73.9	51.8	18.4	59.4
1998	56.2	48.7	39.2	37.0	46.8	26.9	52.7	74.4	52.5	18.6	59.8

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey, various years.

Appendix table 3-5

Bachelor's degrees awarded to women by all institutions and women's colleges and universities: 1966 and 1990–98

Field	1966	1990	1991	1992	1993	1994	1995	1996	1997	1998
	Number of degrees awarded									
All institutions, all fields	222,971	566,284	599,045	624,677	641,742	646,080	643,290	651,815	661,307	673,865
Total science and engineering	45,634	140,012	148,347	159,486	165,720	170,977	175,931	181,333	187,011	190,397
Sciences	45,488	130,039	138,682	149,850	155,739	160,574	164,981	170,017	175,541	179,058
Physical sciences	2,172	4,319	4,425	4,586	4,764	5,067	5,292	5,702	5,882	5,994
Earth, atmospheric, and ocean sciences	161	775	782	1,024	1,050	1,203	1,524	1,485	1,542	1,599
Mathematics and statistics	6,689	6,811	6,980	6,986	6,999	6,768	6,491	5,992	5,889	5,659
Computer science	13	8,374	7,514	7,210	6,951	7,020	7,063	6,772	6,903	7,439
Agricultural sciences	131	2,992	3,140	3,949	4,338	4,941	5,637	6,504	7,267	7,743
Biological sciences	7,334	19,409	20,636	22,771	24,844	26,980	29,918	32,865	35,266	37,101
Psychology	6,928	38,619	42,738	46,903	49,222	51,019	52,963	53,863	55,243	55,400
Social sciences	22,060	48,740	52,467	56,421	57,571	57,576	56,093	56,834	57,549	58,123
Engineering	146	9,973	9,665	9,636	9,981	10,403	10,950	11,316	11,470	11,339
WCUs, all fields	10,127	13,866	14,480	15,194	15,076	15,015	14,787	15,592	15,736	15,978
Total science and engineering	3,217	4,170	4,348	4,736	4,638	4,697	4,567	4,916	4,892	5,026
Sciences	3,217	4,167	4,338	4,729	4,632	4,677	4,556	4,890	4,877	4,986
Physical sciences	265	199	194	205	181	217	222	256	256	215
Earth, atmospheric, and ocean sciences	9	17	19	23	25	29	48	24	26	29
Mathematics and statistics	439	217	250	250	276	273	221	232	245	236
Computer science	0	133	100	104	131	122	117	124	110	126
Agricultural sciences	0	9	20	19	32	36	54	58	50	46
Biological sciences	524	628	647	771	808	823	867	959	1,014	1,081
Psychology	490	1,036	1,099	1,252	1,221	1,263	1,256	1,407	1,351	1,410
Social sciences	1,490	1,928	2,009	2,105	1,958	1,914	1,771	1,830	1,825	1,843
Engineering	0	3	10	7	6	20	11	26	15	40
	WCU institution share of total bachelor's degrees to women (percent)									
Total, all fields	4.5	2.4	2.4	2.4	2.3	2.3	2.3	2.4	2.4	2.4
Total science and engineering	7.0	3.0	2.9	3.0	2.8	2.7	2.6	2.7	2.6	2.6
Sciences	7.1	3.2	3.1	3.2	3.0	2.9	2.8	2.9	2.8	2.8
Physical sciences	12.2	4.6	4.4	4.5	3.8	4.3	4.2	4.5	4.4	3.6
Earth, atmospheric, and ocean sciences	5.6	2.2	2.4	2.2	2.4	2.4	3.1	1.6	1.7	1.8
Mathematics and statistics	6.6	3.2	3.6	3.6	3.9	4.0	3.4	3.9	4.2	4.2
Computer science	0.0	1.6	1.3	1.4	1.9	1.7	1.7	1.8	1.6	1.7
Agricultural sciences	0.0	0.3	0.6	0.5	0.7	0.7	1.0	0.9	0.7	0.6
Biological sciences	7.1	3.2	3.1	3.4	3.3	3.1	2.9	2.9	2.9	2.9
Psychology	7.1	2.7	2.6	2.7	2.5	2.5	2.4	2.6	2.4	2.5
Social sciences	6.8	4.0	3.8	3.7	3.4	3.3	3.2	3.2	3.2	3.2
Engineering	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.4

WCU women's college or university

NOTE: Data are for those institutions identified by the Women's College Coalition as women's colleges. Excludes women's colleges whose data are reported together with a coed insititution or coordinate men's college. The following institutions were excluded for this reason: The Women's College at the University of Denver; Hartford College for Women; Newcomb College; Douglass College; Hobart-William Smith College; Stern College for Women; Russell Sage College; Radcliffe College; and Westhampton College.

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey, various years.

Appendix table 3-6

Bachelor's degrees awarded in science and engineering, by sex and detailed field: 1998

Field	Total	Males	Females	Percent awarded to females
Total science and engineering	390,618	200,221	190,397	48.7
Physical sciences	15,273	9,279	5,994	39.2
Astronomy	168	110	58	34.5
Chemistry	10,873	5,900	4,973	45.7
Physics	3,455	2,789	666	19.3
Other physical sciences	777	480	297	38.2
Earth, atmospheric, and ocean sciences	4,321	2,722	1,599	37.0
Atmospheric sciences	443	339	104	23.5
Earth sciences	3,665	2,262	1,403	38.3
Oceanography	213	121	92	43.2
Mathematics and statistics	12,094	6,435	5,659	46.8
Computer science	27,674	20,235	7,439	26.9
Agricultural sciences	17,967	10,224	7,743	43.1
Biological sciences	67,112	30,011	37,101	55.3
Psychology	74,457	19,057	55,400	74.4
Social sciences	110,806	52,683	58,123	52.5
Economics	18,244	12,453	5,791	31.7
Political science and public administration	36,654	19,334	17,320	47.3
Sociology	24,884	7,762	17,122	68.8
Anthropology	6,894	2,414	4,480	65.0
Linguistics	680	197	483	71.0
History of science	39	21	18	46.2
Area and ethnic studies	5,441	2,000	3,441	63.2
Other social sciences	17,970	8,502	9,468	52.7
Engineering	60,914	49,575	11,339	18.6
Aerospace engineering	1,247	1,050	197	15.8
Chemical engineering	6,721	4,525	2,196	32.7
Civil engineering	11,522	8,946	2,576	22.4
Electrical engineering	16,322	14,310	2,012	12.3
Industrial engineering	3,988	2,968	1,020	25.6
Materials engineering	1,007	772	235	23.3
Mechanical engineering	13,363	11,727	1,636	12.2
Other engineering	6,744	5,277	1,467	21.8

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey.

Appendix table 3-7
First university degrees awarded, by sex and selected field and country: 1998

Country	All fields	Social and behavioral sciences	Life sciences	Physical sciences	Mathematics, statistics, and computers	Engineering	Agriculture
	Number						
Australia, total awards	124,762	5,316	7,958	1,210	5,454	5,375	1,354
Awards to women	72,777	3,248	4,290	417	1,530	788	557
Canada, total awards	124,034	27,107	7,608	2,807	4,905	6,559	1,305
Awards to women	72,985	17,631	4,386	782	1,461	1,250	439
France, total awards	293,984	NA	NA	NA	NA	NA	NA
Awards to women	168,821	NA	NA	NA	NA	NA	NA
Germany, total awards	188,820	7,870	4,178	9,764	10,189	25,383	3,793
Awards to women	81,886	4,121	2,398	2,723	2,483	1,606	1,516
Italy, total awards	132,968	12,703	7,961	3,114	4,748	15,243	1,218
Awards to women	73,037	7,820	5,050	1,364	2,474	2,157	332
Japan, total awards	531,866	NA	NA	NA	NA	NA	NA
Awards to women	185,912	NA	NA	NA	NA	NA	NA
Mexico, total awards	214,794	NA	NA	NA	NA	NA	NA
Awards to women	94,724	NA	NA	NA	NA	NA	NA
South Korea, total awards	196,566	9,848	3,504	9,077	8,447	42,547	7,041
Awards to women	80,932	3,411	2,028	3,143	3,996	4,890	2,682
Spain, total awards	207,898	13,142	3,808	6,030	8,531	15,156	4,371
Awards to women	121,828	7,925	2,412	2,959	2,880	3,170	1,779
Turkey, total awards	115,106	18,222	1,985	6,301	3,565	6,727	4,516
Awards to women	46,040	7,090	1,265	2,809	1,451	1,074	1,787
United Kingdom, total awards	258,877 *	69,045 *	13,211	12,519	16,088	34,350 *	3,214 *
Awards to women	136,734 *	38,256 *	8,369	4,951	4,451	5,740 *	1,748 *
United States, total awards	1,172,879 *	199,082	63,975	19,531	37,588	75,157	28,304 *
Awards to women	652,364 *	115,588	34,505	7,303	12,643	12,509	12,558 *
	Percent awarded to women						
Australia	58.3	61.1	53.9	34.5	28.1	14.7	41.1
Canada	58.8	65.0	57.6	27.9	29.8	19.1	33.6
France	57.4	NA	NA	NA	NA	NA	NA
Germany	43.4	52.4	57.4	27.9	24.4	6.3	40.0
Italy	54.9	61.6	63.4	43.8	52.1	14.2	27.3
Japan	35.0	NA	NA	NA	NA	NA	NA
Mexico	44.1	NA	NA	NA	NA	NA	NA
South Korea	41.2	34.6	57.9	34.6	47.3	11.5	38.1
Spain	58.6	60.3	63.3	49.1	33.8	20.9	40.7
Turkey	40.0	38.9	63.7	44.6	40.7	16.0	39.6
United Kingdom	52.8 *	55.4 *	63.3	39.5	27.7	16.7 *	54.4 *
United States	55.6 *	58.1	53.9	37.4	33.6	16.6	44.4 *

* totals shown include more subfields than do other countries

NA not available

SOURCE: Organisation for Economic Co-operation and Development, *Education at a Glance* (Paris, 2000).

Appendix table 3-8

Bachelor's degrees awarded in science and engineering, by citizenship, race/ethnicity, and field: 1990–98

Citizenship, race/ethnicity, and field	1990	1991	1992	1993	1994	1995	1996	1997	1998
All recipients, all fields	1,062,151	1,107,997	1,150,072	1,179,278	1,183,141	1,174,436	1,179,815	1,186,589	1,199,579
Total science and engineering	345,793	356,785	376,933	388,435	395,380	399,809	405,921	408,749	411,286
Physical sciences[a]	16,203	16,407	17,076	17,691	18,525	19,375	19,853	19,730	19,594
Mathematics	14,674	14,784	14,851	14,870	14,431	13,759	13,201	12,869	12,363
Computer science	27,695	25,410	24,854	24,477	24,458	24,662	24,405	24,975	27,041
Agricultural sciences	8,622	8,643	10,492	11,827	13,165	14,847	16,669	17,666	18,211
Biological sciences	38,040	40,351	43,835	47,877	52,213	56,804	61,998	65,061	67,047
Psychology	54,018	58,893	64,043	67,251	69,768	72,601	73,828	74,734	74,457
Social sciences	121,838	130,111	139,884	141,772	139,858	134,431	132,901	131,408	131,703
Engineering	64,703	62,186	61,898	62,670	62,962	63,330	63,066	62,306	60,870
Non-S&E	716,358	751,212	773,139	790,843	787,761	774,627	773,894	777,840	788,293
U.S. citizens and permanent residents, all fields	1,035,598	1,078,340	1,121,525	1,146,907	1,148,914	1,137,424	1,142,028	1,147,815	1,160,692
Total science and engineering	333,475	344,061	364,695	374,633	381,451	385,055	391,074	393,952	396,558
Physical sciences[a]	15,608	15,799	16,469	16,927	17,812	18,652	19,167	19,059	18,919
Mathematics	14,150	14,206	14,259	14,318	13,869	13,166	12,643	12,343	11,907
Computer science	25,629	23,373	22,880	22,273	22,185	22,367	22,225	22,976	24,912
Agricultural sciences	8,348	8,373	10,289	11,478	12,919	14,589	16,397	17,411	17,917
Biological sciences	37,173	39,288	42,842	46,660	51,058	55,523	60,633	63,601	65,625
Psychology	53,493	58,202	63,379	66,421	68,913	71,659	72,812	73,685	73,287
Social sciences	119,288	127,216	136,902	138,391	136,273	130,579	128,893	127,368	127,764
Engineering	59,786	57,604	57,675	58,165	58,422	58,520	58,304	57,509	56,227
Non-S&E	702,123	734,279	756,830	772,274	767,463	752,369	750,954	753,863	764,134
Whites, non-Hispanic, all fields	856,686	892,363	921,453	931,603	918,124	892,785	884,128	877,759	878,018
Total science and engineering	270,225	278,190	292,614	297,171	297,616	294,773	295,082	292,252	290,207
Physical sciences[a]	13,055	13,145	13,678	13,941	14,616	14,952	15,088	14,920	14,566
Mathematics	11,765	11,649	11,723	11,669	11,089	10,343	9,823	9,484	9,045
Computer science	18,918	17,349	16,844	16,155	15,816	15,532	15,470	15,626	16,670
Agricultural sciences	7,658	7,704	9,382	10,556	11,733	13,120	14,646	15,516	15,832
Biological sciences	28,814	30,264	32,506	35,080	37,942	40,628	43,680	45,325	45,854
Psychology	44,136	48,134	52,066	53,763	54,870	55,914	55,905	55,346	54,225
Social sciences	98,385	104,783	111,389	111,154	106,863	100,558	97,372	94,411	93,482
Engineering	47,494	45,162	45,026	44,853	44,687	43,726	43,098	41,624	40,533
Non-S&E	586,461	614,173	628,839	634,432	620,508	598,012	589,046	585,507	587,811
Asians/Pacific Islanders, all fields	38,027	41,725	46,616	50,587	54,675	59,295	63,117	67,358	69,988
Total science and engineering	19,437	20,552	22,635	24,504	26,420	29,128	31,031	33,139	34,568
Physical sciences[a]	937	983	1,001	1,098	1,096	1,347	1,559	1,620	1,676
Mathematics	874	915	857	915	926	965	935	877	856
Computer science	2,144	2,010	2,082	2,245	2,247	2,365	2,448	2,767	3,158
Agricultural sciences	126	128	154	163	173	287	312	401	444
Biological sciences	3,245	3,559	4,402	5,103	5,959	7,043	7,958	8,535	8,867
Psychology	1,630	1,885	2,150	2,538	2,777	3,331	3,666	4,067	4,267
Social sciences	4,469	4,852	5,724	6,035	6,726	7,005	7,354	7,787	8,298
Engineering	6,012	6,220	6,265	6,407	6,516	6,785	6,799	7,085	7,002
Non-S&E	18,590	21,173	23,981	26,083	28,255	30,167	32,086	34,219	35,420

See explanatory information and SOURCE at end of table.

Appendix table 3-8

Bachelor's degrees awarded in science and engineering, by citizenship, race/ethnicity, and field: 1990–98

Citizenship, race/ethnicity, and field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Blacks, non-Hispanic, all fields	59,301	65,009	71,311	76,667	82,316	85,287	89,554	92,067	95,878
Total science and engineering	18,230	19,987	22,431	24,421	26,289	27,528	29,055	30,444	31,398
Physical sciences[a]	650	753	816	836	921	1,034	1,100	1,110	1,127
Mathematics	720	811	904	965	992	995	981	1,071	1,030
Computer science	2,247	1,997	2,090	2,213	2,398	2,498	2,415	2,370	2,580
Agricultural sciences	171	162	206	219	268	263	363	387	426
Biological sciences	1,994	2,111	2,385	2,739	2,980	3,231	3,811	4,123	4,550
Psychology	3,150	3,688	4,179	4,618	5,236	5,741	6,028	6,647	6,852
Social sciences	7,226	8,236	9,489	10,254	10,835	10,921	11,357	11,660	11,815
Engineering	2,072	2,229	2,362	2,577	2,659	2,845	3,000	3,076	3,018
Non-S&E	41,071	45,022	48,880	52,246	56,027	57,759	60,499	61,623	64,480
Hispanics, all fields	43,864	49,027	53,007	57,845	62,683	66,691	71,015	74,938	78,125
Total science and engineering	13,918	15,351	17,391	18,442	20,529	22,190	23,791	25,266	26,725
Physical sciences[a]	522	533	546	599	733	800	872	853	914
Mathematics	413	480	482	470	543	536	585	581	642
Computer science	1,085	1,215	1,173	1,096	1,135	1,307	1,280	1,267	1,410
Agricultural sciences	218	213	214	217	336	386	506	561	632
Biological sciences	2,119	2,264	2,477	2,652	2,901	3,090	3,521	3,793	4,283
Psychology	2,405	2,746	3,247	3,587	3,990	4,543	5,036	5,282	5,509
Social sciences	4,645	5,334	6,519	6,860	7,748	7,877	8,260	8,804	9,210
Engineering	2,511	2,566	2,733	2,961	3,143	3,651	3,731	4,125	4,125
Non-S&E	29,946	33,676	35,616	39,403	42,154	44,501	47,224	49,672	51,400
American Indians/Alaskan Natives, all fields	4,212	4,486	5,130	5,574	6,064	6,454	6,813	7,238	7,706
Total science and engineering	1,271	1,344	1,561	1,819	2,004	2,126	2,268	2,419	2,533
Physical sciences[a]	73	69	63	93	83	98	104	100	106
Mathematics	45	43	46	55	59	58	53	56	66
Computer science	84	80	79	81	78	110	89	97	106
Agricultural sciences	59	53	60	64	109	124	139	148	153
Biological sciences	130	176	181	211	246	285	316	339	399
Psychology	211	235	311	335	394	407	470	496	515
Social sciences	523	530	639	804	817	823	854	921	935
Engineering	146	158	182	176	218	221	243	262	253
Non-S&E	2,941	3,142	3,569	3,755	4,060	4,328	4,545	4,819	5,173
Unknown race/ethnicity, all fields	33,508	25,730	24,008	24,631	25,052	26,912	27,401	28,455	30,977
Total science and engineering	10,394	8,637	8,063	8,276	8,593	9,310	9,847	10,432	11,127
Physical sciences[a]	371	316	365	360	363	421	444	456	530
Mathematics	333	308	247	244	260	269	266	274	268
Computer science	1,151	722	612	483	511	555	523	849	988
Agricultural sciences	116	113	273	259	300	409	431	398	430
Biological sciences	871	914	891	875	1,030	1,246	1,347	1,486	1,672
Psychology	1,961	1,514	1,426	1,580	1,646	1,723	1,707	1,847	1,919
Social sciences	4,040	3,481	3,142	3,284	3,284	3,395	3,696	3,785	4,024
Engineering	1,551	1,269	1,107	1,191	1,199	1,292	1,433	1,337	1,296
Non-S&E	23,114	17,093	15,945	16,355	16,459	17,602	17,554	18,023	19,850

See explanatory information and SOURCE at end of table.

Appendix table 3-8

Bachelor's degrees awarded in science and engineering, by citizenship, race/ethnicity, and field: 1990–98

Citizenship, race/ethnicity, and field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Temporary residents, all fields	26,553	29,657	28,547	32,371	34,227	37,012	37,787	38,774	38,887
Total science and engineering	12,318	12,724	12,238	13,802	13,929	14,754	14,847	14,797	14,728
Physical sciences[a]	595	608	607	764	713	723	686	671	675
Mathematics	524	578	592	552	562	593	558	526	456
Computer science	2,066	2,037	1,974	2,204	2,273	2,295	2,180	1,999	2,129
Agricultural sciences	867	1,063	993	1,217	1,155	1,281	1,365	1,460	1,422
Biological sciences	274	270	203	349	246	258	272	255	294
Psychology	2,550	2,895	2,982	3,381	3,585	3,852	4,008	4,040	3,939
Social sciences	525	691	664	830	855	942	1,016	1,049	1,170
Engineering	4,917	4,582	4,223	4,505	4,540	4,810	4,762	4,797	4,643
Non-S&E	14,235	16,933	16,309	18,569	20,298	22,258	22,940	23,977	24,159

[a]In this table, the physical sciences include the earth, atmospheric, and ocean sciences as well as physics, astronomy, and chemistry. See notes for more information.

NOTES: Data on race/ethnicity are for U.S. citizens and permanent residents only and do not include students on temporary visas. Because these data were collected on broad fields of study only until 1994, the trend data could not be adjusted to the exact field taxonomies used by the National Science Foundation.

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey, various years.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 3-9

Bachelor's degrees awarded to U.S. citizens and permanent residents, by S&E field and race/ethnicity: 1990–98

(Percent)

Race/ethnicity and field	1990	1991	1992	1993	1994	1995	1996	1997	1998
U.S. citizens and permanent residents, all fields	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total science and engineering	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Physical sciences[a]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mathematics	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Computer science	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Agricultural sciences	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Biological sciences	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Psychology	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Social sciences	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Engineering	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Whites, non-Hispanic, all fields	82.7	82.8	82.2	81.2	79.9	78.5	77.4	76.5	75.6
Total science and engineering	81.0	80.9	80.2	79.3	78.0	76.6	75.5	74.2	73.2
Physical sciences[a]	83.6	83.2	83.1	82.4	82.1	80.2	78.7	78.3	77.0
Mathematics	83.1	82.0	82.2	81.5	80.0	78.6	77.7	76.8	76.0
Computer science	73.8	74.2	73.6	72.5	71.3	69.4	69.6	68.0	66.9
Agricultural sciences	91.7	92.0	91.2	92.0	90.8	89.9	89.3	89.1	88.4
Biological sciences	77.5	77.0	75.9	75.2	74.3	73.2	72.0	71.3	69.9
Psychology	82.5	82.7	82.2	80.9	79.6	78.0	76.8	75.1	74.0
Social sciences	82.5	82.4	81.4	80.3	78.4	77.0	75.5	74.1	73.2
Engineering	79.4	78.4	78.1	77.1	76.5	74.7	73.9	72.4	72.1
Asians/Pacific Islanders, all fields	3.7	3.9	4.2	4.4	4.8	5.2	5.5	5.9	6.0
Total science and engineering	5.8	6.0	6.2	6.5	6.9	7.6	7.9	8.4	8.7
Physical sciences[a]	6.0	6.2	6.1	6.5	6.2	7.2	8.1	8.5	8.9
Mathematics	6.2	6.4	6.0	6.4	6.7	7.3	7.4	7.1	7.2
Computer science	8.4	8.6	9.1	10.1	10.1	10.6	11.0	12.0	12.7
Agricultural sciences	1.5	1.5	1.5	1.4	1.3	2.0	1.9	2.3	2.5
Biological sciences	8.7	9.1	10.3	10.9	11.7	12.7	13.1	13.4	13.5
Psychology	3.0	3.2	3.4	3.8	4.0	4.6	5.0	5.5	5.8
Social sciences	3.7	3.8	4.2	4.4	4.9	5.4	5.7	6.1	6.5
Engineering	10.1	10.8	10.9	11.0	11.2	11.6	11.7	12.3	12.5
Blacks, non-Hispanic, all fields	5.7	6.0	6.4	6.7	7.2	7.5	7.8	8.0	8.3
Total science and engineering	5.5	5.8	6.2	6.5	6.9	7.1	7.4	7.7	7.9
Physical sciences[a]	4.2	4.8	5.0	4.9	5.2	5.5	5.7	5.8	6.0
Mathematics	5.1	5.7	6.3	6.7	7.2	7.6	7.8	8.7	8.7
Computer science	8.8	8.5	9.1	9.9	10.8	11.2	10.9	10.3	10.4
Agricultural sciences	2.0	1.9	2.0	1.9	2.1	1.8	2.2	2.2	2.4
Biological sciences	5.4	5.4	5.6	5.9	5.8	5.8	6.3	6.5	6.9
Psychology	5.9	6.3	6.6	7.0	7.6	8.0	8.3	9.0	9.3
Social sciences	6.1	6.5	6.9	7.4	8.0	8.4	8.8	9.2	9.2
Engineering	3.5	3.9	4.1	4.4	4.6	4.9	5.1	5.3	5.4

See explanatory information and SOURCE at end of table.

Appendix table 3-9

Bachelor's degrees awarded to U.S. citizens and permanent residents, by S&E field and race/ethnicity: 1990–98

(Percent)

Race/ethnicity and field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Hispanics, all fields	4.2	4.5	4.7	5.0	5.5	5.9	6.2	6.5	6.7
Total science and engineering	4.2	4.5	4.8	4.9	5.4	5.8	6.1	6.4	6.7
Physical sciences[a]	3.3	3.4	3.3	3.5	4.1	4.3	4.5	4.5	4.8
Mathematics	2.9	3.4	3.4	3.3	3.9	4.1	4.6	4.7	5.4
Computer science	4.2	5.2	5.1	4.9	5.1	5.8	5.8	5.5	5.7
Agricultural sciences	2.6	2.5	2.1	1.9	2.6	2.6	3.1	3.2	3.5
Biological sciences	5.7	5.8	5.8	5.7	5.7	5.6	5.8	6.0	6.5
Psychology	4.5	4.7	5.1	5.4	5.8	6.3	6.9	7.2	7.5
Social sciences	3.9	4.2	4.8	5.0	5.7	6.0	6.4	6.9	7.2
Engineering	4.2	4.5	4.7	5.1	5.4	6.2	6.4	7.2	7.3
American Indians/Alaskan Natives, all fields	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.7
Total science and engineering	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.6
Physical sciences[a]	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6
Mathematics	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.6
Computer science	0.3	0.3	0.3	0.4	0.4	0.5	0.4	0.4	0.4
Agricultural sciences	0.7	0.6	0.6	0.6	0.8	0.8	0.8	0.9	0.9
Biological sciences	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6
Psychology	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7
Social sciences	0.4	0.4	0.5	0.6	0.6	0.6	0.7	0.7	0.7
Engineering	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.4
Unknown race/ethnicity, all fields	3.2	2.4	2.1	2.1	2.2	2.4	2.4	2.5	2.7
Total science and engineering	3.1	2.5	2.2	2.2	2.3	2.4	2.5	2.6	2.8
Physical sciences[a]	2.4	2.0	2.2	2.1	2.0	2.3	2.3	2.4	2.8
Mathematics	2.4	2.2	1.7	1.7	1.9	2.0	2.1	2.2	2.3
Computer science	4.5	3.1	2.7	2.2	2.3	2.5	2.4	3.7	4.0
Agricultural sciences	1.4	1.3	2.7	2.3	2.3	2.8	2.6	2.3	2.4
Biological sciences	2.3	2.3	2.1	1.9	2.0	2.2	2.2	2.3	2.5
Psychology	3.7	2.6	2.2	2.4	2.4	2.4	2.3	2.5	2.6
Social sciences	3.4	2.7	2.3	2.4	2.4	2.6	2.9	3.0	3.1
Engineering	2.6	2.2	1.9	2.0	2.1	2.2	2.5	2.3	2.3

[a]In this table, the physical sciences include the earth, atmospheric, and ocean sciences, as well as physics, astronomy, and chemistry. See notes for more information.

NOTES: Racial/ethnic data for degree recipients were collected on broad fields of study only until 1994; thus, the trend data could not be adjusted to the exact field taxonomies used by the National Science Foundation.

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey, various years.

Appendix table 3-10

Bachelor's degrees awarded in engineering, by citizenship, race/ethnicity, and sex: 1990–2000

Year	Total	U.S. citizens and permanent residents							Temporary residents
		Men	Women	Whites, non-Hispanic	Asians/ Pacific Islanders	Blacks, non-Hispanic	Hispanics	American Indians/ Alaskan Natives	
1990	65,967	55,837	10,130	50,099	5,989	2,173	2,473	112	5,121
1991	63,986	53,970	10,016	48,028	6,305	2,304	2,663	146	4,540
1992	63,653	53,681	9,972	47,540	6,479	2,374	2,708	163	4,389
1993	65,001	54,548	10,453	47,976	6,764	2,637	2,845	175	4,604
1994	64,946	54,146	10,800	47,136	6,881	2,769	3,045	207	4,908
1995	64,749	53,446	11,303	46,264	7,056	2,897	3,409	230	4,893
1996	65,267	53,530	11,737	45,952	7,333	3,120	3,557	263	5,042
1997	65,091	52,931	12,160	44,976	7,625	3,203	4,005	265	5,017
1998	63,271	51,474	11,797	43,623	7,131	3,144	3,939	351	5,083
1999	62,500	50,140	12,360	42,650	7,226	3,171	4,073	328	5,052
2000	63,635	50,495	13,140	43,437	7,529	3,150	4,124	347	5,048

SOURCE: American Association of Engineering Societies, Engineering Workforce Commission, Engineering and Technology Degrees, 1990–2000.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 3-11
Bachelor's degrees awarded, by detailed field, citizenship, and race/ethnicity: 1998

Field	Total, all recipients	U.S. citizens and permanent residents							Temporary residents
		Total	Whites, non-Hispanic	Asians/ Pacific Islanders	Blacks, non-Hispanic	Hispanics	American Indians/ Alaskan Natives	Unknown race/ ethnicity	
Total, all fields	1,199,579	1,160,692	878,018	69,988	95,878	78,125	7,706	30,977	38,887
Total science and engineering	390,618	375,909	272,561	34,004	30,751	25,712	2,392	10,489	14,709
Sciences	329,704	319,638	231,987	27,002	27,732	21,587	2,138	9,192	10,066
Physical sciences	15,273	14,680	10,763	1,584	1,057	796	81	399	593
Astronomy	168	157	127	12	2	11	0	5	11
Chemistry	10,873	10,488	7,370	1,337	824	640	64	253	385
Physics	3,455	3,277	2,652	208	179	117	14	107	178
Other physical sciences	777	758	614	27	52	28	3	34	19
Earth, atmospheric, and ocean sciences	4,321	4,239	3,803	92	70	118	25	131	82
Atmospheric sciences	443	439	416	5	7	8	0	3	4
Geosciences	3,665	3,590	3,207	76	60	98	25	124	75
Oceanography	213	210	180	11	3	12	0	4	3
Mathematics	12,094	11,641	8,903	834	966	604	65	269	453
Computer sciences	27,674	25,537	17,069	3,220	2,666	1,473	112	997	2,137
Agricultural sciences	17,967	17,674	15,616	439	409	631	151	428	293
Biological sciences	67,112	65,689	45,912	8,869	4,553	4,283	399	1,673	1,423
Psychology	74,457	73,287	54,225	4,267	6,852	5,509	515	1,919	1,170
Social sciences	110,806	106,891	75,696	7,697	11,159	8,173	790	3,376	3,915
Economics	18,244	16,461	11,599	2,430	979	851	69	533	1,783
Political science	36,654	35,475	25,624	2,141	3,638	2,828	215	1,029	1,179
Sociology	24,884	24,575	16,450	1,212	3,944	2,081	197	691	309
Other social sciences	31,024	30,380	22,023	1,914	2,598	2,413	309	1,123	644
Engineering	60,914	56,271	40,574	7,002	3,019	4,125	254	1,297	4,643
Aerospace engineering	1,247	1,110	877	96	35	78	10	14	137
Chemical engineering	6,721	6,214	4,405	897	385	393	31	103	507
Civil engineering	11,522	11,012	8,481	909	401	920	62	239	510
Electrical engineering	16,322	14,485	9,174	2,757	1,047	1,070	53	384	1,837
Industrial engineering	3,988	3,502	2,333	369	262	450	15	73	486
Materials engineering	1,007	974	760	119	32	42	3	18	33
Mechanical engineering	13,363	12,566	9,656	1,128	548	866	47	321	797
Other engineering	6,744	6,408	4,888	727	309	306	33	145	336
Non-S&E	808,961	784,783	605,457	35,984	65,127	52,413	5,314	20,488	24,178

NOTES: Data on race/ethnicity are for U.S. citizens and permanent residents only and do not include students on temporary visas. Because these data were collected by detailed field beginning in 1995, the data in this table do correspond to National Science Foundation (NSF) field taxonomies. They therefore match other tables in this report showing bachelor's degrees by sex, but do not match data in tables showing bachelor's degrees by race/ethnicity over time. The largest effect is in the social sciences: NSF excludes history and includes public administration and public policy, linguistics, gerontology, and agricultural economics in this category.

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey.

Appendix table 3-12

Bachelor's degrees awarded to blacks by all institutions and historically black colleges and universities: 1990–98

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
	Number of degrees awarded								
All institutions, total science and engineering	18,230	19,987	22,431	24,421	26,289	27,528	29,055	30,444	31,398
Sciences	16,158	17,758	20,069	21,844	23,630	24,683	26,055	27,368	28,380
Physical sciences[a]	650	753	816	836	921	1,034	1,100	1,110	1,127
Mathematics and statistics	720	811	904	965	992	995	981	1,071	1,030
Computer science	2,247	1,997	2,090	2,213	2,398	2,498	2,415	2,370	2,580
Agricultural sciences	171	162	206	219	268	263	363	387	426
Biological sciences	1,994	2,111	2,385	2,739	2,980	3,231	3,811	4,123	4,550
Psychology	3,150	3,688	4,179	4,618	5,236	5,741	6,028	6,647	6,852
Social sciences	7,226	8,236	9,489	10,254	10,835	10,921	11,357	11,660	11,815
Engineering	2,072	2,229	2,362	2,577	2,659	2,845	3,000	3,076	3,018
HBCUs, total science and engineering	5,190	5,679	6,363	7,368	7,804	8,361	8,980	9,071	9,151
Sciences	4,666	5,090	5,769	6,668	7,114	7,563	8,086	8,166	8,308
Physical sciences[a]	296	358	376	390	421	471	547	503	485
Mathematics and statistics	307	369	420	463	449	466	443	478	442
Computer science	899	748	780	904	904	967	979	834	904
Agricultural sciences	87	96	117	109	134	123	197	216	220
Biological sciences	764	792	906	1,155	1,197	1,357	1,628	1,841	1,920
Psychology	662	841	969	1,140	1,308	1,432	1,512	1,653	1,636
Social sciences	1,651	1,886	2,201	2,507	2,701	2,747	2,780	2,641	2,701
Engineering	524	589	594	700	690	798	894	905	843
	HBCU share of total bachelor's degrees to blacks (percent)								
Total science and engineering	28.5	28.4	28.4	30.2	29.7	30.4	30.9	29.8	29.1
Sciences	28.9	28.7	28.7	30.5	30.1	30.6	31.0	29.8	29.3
Physical sciences[a]	45.5	47.5	46.1	46.7	45.7	45.6	49.7	45.3	43.0
Mathematics and statistics	42.6	45.5	46.5	48.0	45.3	46.8	45.2	44.6	42.9
Computer science	40.0	37.5	37.3	40.8	37.7	38.7	40.5	35.2	35.0
Agricultural sciences	50.9	59.3	56.8	49.8	50.0	46.8	54.3	55.8	51.6
Biological sciences	38.3	37.5	38.0	42.2	40.2	42.0	42.7	44.7	42.2
Psychology	21.0	22.8	23.2	24.7	25.0	24.9	25.1	24.9	23.9
Social sciences	22.8	22.9	23.2	24.4	24.9	25.2	24.5	22.7	22.9
Engineering	25.3	26.4	25.1	27.2	25.9	28.0	29.8	29.4	27.9

HBCU historically black college or university

[a]In this table, the physical sciences include the earth, atmospheric, and ocean sciences, as well as physics, astronomy, and chemistry. See notes for more information.

NOTES: Data on race/ethnicity are for U.S. citizens and permanent residents only and do not include students on temporary visas. Racial/ethnic data for degree recipients were collected on broad fields of study only until 1994; thus, the trend data could not be adjusted to the exact field taxonomies used by the National Science Foundation.

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey, various years.

Appendix table 3-13
Bachelor's degrees awarded to Hispanics by all institutions and Hispanic-serving institutions: 1990–98

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
	Number of degrees awarded								
All institutions, total science and engineering	13,918	15,351	17,391	18,442	20,529	22,190	23,791	25,266	26,725
Sciences	11,407	12,785	14,658	15,481	17,386	18,539	20,060	21,141	22,600
Physical sciences[a]	522	533	546	599	733	800	872	853	914
Mathematics and statistics	413	480	482	470	543	536	585	581	642
Computer science	1,085	1,215	1,173	1,096	1,135	1,307	1,280	1,267	1,410
Agricultural sciences	218	213	214	217	336	386	506	561	632
Biological sciences	2,119	2,264	2,477	2,652	2,901	3,090	3,521	3,793	4,283
Psychology	2,405	2,746	3,247	3,587	3,990	4,543	5,036	5,282	5,509
Social sciences	4,645	5,334	6,519	6,860	7,748	7,877	8,260	8,804	9,210
Engineering	2,511	2,566	2,733	2,961	3,143	3,651	3,731	4,125	4,125
HSIs, total science and engineering	4,966	5,507	5,678	6,139	6,742	7,382	7,855	8,437	8,696
Sciences	3,969	4,517	4,551	4,956	5,569	5,817	6,353	6,733	7,107
Physical sciences[a]	245	233	239	259	321	398	422	400	427
Mathematics and statistics	152	201	118	145	168	178	193	209	200
Computer science	483	587	515	478	470	510	512	482	539
Agricultural sciences	94	89	43	30	98	125	158	188	190
Biological sciences	1,104	1,147	1,184	1,255	1,294	1,285	1,496	1,602	1,816
Psychology	848	974	1,078	1,214	1,367	1,479	1,626	1,695	1,769
Social sciences	1,043	1,286	1,374	1,575	1,851	1,842	1,946	2,157	2,166
Engineering	997	990	1,127	1,183	1,173	1,565	1,502	1,704	1,589
	HSI share of total bachelor's degrees to Hispanics (percent)								
Total science and engineering	35.7	35.9	32.6	33.3	32.8	33.3	33.0	33.4	32.5
Sciences	34.8	35.3	31.0	32.0	32.0	31.4	31.7	31.8	31.4
Physical sciences[a]	46.9	43.7	43.8	43.2	43.8	49.8	48.4	46.9	46.7
Mathematics and statistics	36.8	41.9	24.5	30.9	30.9	33.2	33.0	36.0	31.2
Computer science	44.5	48.3	43.9	43.6	41.4	39.0	40.0	38.0	38.2
Agricultural sciences	43.1	41.8	20.1	13.8	29.2	32.4	31.2	33.5	30.1
Biological sciences	52.1	50.7	47.8	47.3	44.6	41.6	42.5	42.2	42.4
Psychology	35.3	35.5	33.2	33.8	34.3	32.6	32.3	32.1	32.1
Social sciences	22.5	24.1	21.1	23.0	23.9	23.4	23.6	24.5	23.5
Engineering	39.7	38.6	41.2	40.0	37.3	42.9	40.3	41.3	38.5

HSI Hispanic-serving institution

[a]In this table, the physical sciences include the earth, atmospheric, and ocean sciences, as well as physics, astronomy, and chemistry. See notes for more information.

NOTES: Data on race/ethnicity are for U.S. citizens and permanent residents only and do not include students on temporary visas. Racial/ethnic data for degree recipients were collected on broad fields of study only until 1994; thus, the trend data could not be adjusted to the exact field taxonomies used by the National Science Foundation.

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey, various years.

Appendix table 3-14

Bachelor's degrees awarded to American Indians/Alaskan Natives by all institutions and tribal institutions: 1990–98

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
	Number of degrees awarded								
All institutions, total science and engineering	1,271	1,344	1,561	1,819	2,004	2,126	2,268	2,419	2,533
Sciences	1,125	1,186	1,379	1,643	1,786	1,905	2,025	2,157	2,280
Physical sciences[a]	73	69	63	93	83	98	104	100	106
Mathematics and statistics	45	43	46	55	59	58	53	56	66
Computer science	84	80	79	81	78	110	89	97	106
Agricultural sciences	59	53	60	64	109	124	139	148	153
Biological sciences	130	176	181	211	246	285	316	339	399
Psychology	211	235	311	335	394	407	470	496	515
Social sciences	523	530	639	804	817	823	854	921	935
Engineering	146	158	182	176	218	221	243	262	253
Tribal institutions, total science and engineering	5	5	0	0	7	7	14	24	16
Sciences	5	5	0	0	7	7	14	24	16
Physical sciences[a]	0	0	0	0	0	0	0	0	0
Mathematics and statistics	0	0	0	0	0	0	0	0	0
Computer science	0	0	0	0	0	0	0	0	0
Agricultural sciences	0	0	0	0	0	0	2	7	3
Biological sciences	0	0	0	0	0	0	0	0	0
Psychology	0	0	0	0	0	0	0	0	0
Social sciences	5	5	0	0	7	7	12	17	13
Engineering	0	0	0	0	0	0	0	0	0
	Tribal institution share of total bachelor's degrees to American Indians/Alaskan Natives (percent)								
Total science and engineering	0.4	0.4	0.0	0.0	0.3	0.3	0.6	1.0	0.6
Sciences	0.4	0.4	0.0	0.0	0.4	0.4	0.7	1.1	0.7
Physical sciences[a]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mathematics and statistics	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Computer science	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Agricultural sciences	0.0	0.0	0.0	0.0	0.0	0.0	1.4	4.7	2.0
Biological sciences	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Psychology	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Social sciences	1.0	0.9	0.0	0.0	0.9	0.9	1.4	1.8	1.4
Engineering	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

[a]In this table, the physical sciences include the earth, atmospheric, and ocean sciences, as well as physics, astronomy, and chemistry. See notes for more information.

NOTES: Racial/ethnic data for degree recipients were collected on broad fields of study only until 1994; thus, the trend data could not be adjusted to the exact field taxonomies used by the National Science Foundation.

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey, various years.

Appendix table 3-15

Bachelor's degrees awarded to women, by citizenship, race/ethnicity, and field: 1990–98

Citizenship, race/ethnicity, and field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all fields	566,284	599,045	624,677	641,742	646,080	643,290	651,815	661,307	673,865
Science and engineering	145,877	155,286	167,663	174,047	178,888	183,731	189,307	194,420	198,115
Sciences	135,904	145,622	158,035	164,073	168,495	172,790	178,006	182,960	186,786
Physical sciences[a]	5,094	5,208	5,610	5,814	6,272	6,816	7,187	7,424	7,593
Mathematics	6,811	6,980	6,928	7,011	6,677	6,441	6,025	5,931	5,745
Computer science	8,374	7,514	7,184	6,912	6,992	7,034	6,739	6,809	7,245
Agricultural sciences	3,028	3,166	3,980	4,384	4,996	5,715	6,591	7,330	7,816
Biological sciences	19,409	20,636	22,728	24,766	26,899	29,848	32,809	35,222	37,065
Psychology	38,619	42,738	46,906	49,222	51,019	52,963	53,863	55,243	55,400
Social sciences	54,569	59,380	64,699	65,964	65,640	63,973	64,792	65,001	65,922
Engineering	9,973	9,664	9,628	9,974	10,393	10,941	11,301	11,460	11,329
Non-S&E	420,407	443,759	457,014	467,695	467,192	459,559	462,508	466,887	475,750
U.S. citizens and permanent residents, all fields	556,639	587,615	613,236	628,423	631,596	627,394	635,459	644,156	656,430
Science and engineering	142,495	151,545	163,766	169,639	174,421	178,911	184,246	189,185	192,864
Sciences	133,012	142,351	154,609	160,129	164,576	168,536	173,565	178,401	182,163
Physical sciences[a]	4,914	5,011	5,420	5,575	6,026	6,566	6,938	7,184	7,347
Mathematics	6,611	6,776	6,694	6,804	6,479	6,206	5,853	5,725	5,581
Computer science	7,780	6,940	6,629	6,309	6,386	6,407	6,132	6,241	6,623
Agricultural sciences	2,968	3,099	3,910	4,266	4,907	5,627	6,479	7,238	7,692
Biological sciences	18,973	20,117	22,214	24,118	26,319	29,189	32,057	34,431	36,322
Psychology	38,254	42,225	46,417	48,612	50,371	52,253	53,122	54,449	54,526
Social sciences	53,512	58,183	63,325	64,445	64,088	62,288	62,984	63,133	64,072
Engineering	9,483	9,194	9,157	9,510	9,845	10,375	10,681	10,784	10,701
Non-S&E	414,144	436,070	449,470	458,784	457,175	448,483	451,213	454,971	463,566
Whites, non-Hispanic, all fields	455,662	481,618	498,936	504,363	497,913	485,630	484,996	485,218	489,011
Science and engineering	112,550	119,503	128,394	131,108	132,371	133,042	135,193	136,131	136,825
Sciences	105,589	113,033	121,881	124,499	125,514	126,101	128,072	129,086	129,912
Physical sciences[a]	3,876	3,942	4,248	4,327	4,658	4,946	5,122	5,225	5,276
Mathematics	5,512	5,530	5,468	5,538	5,169	4,887	4,584	4,399	4,194
Computer science	4,944	4,433	4,273	3,826	3,794	3,739	3,546	3,556	3,679
Agricultural sciences	2,704	2,812	3,542	3,875	4,400	4,968	5,678	6,290	6,617
Biological sciences	14,326	15,090	16,476	17,787	19,060	20,838	22,615	23,937	24,946
Psychology	31,504	34,857	38,059	39,261	39,979	40,673	40,735	40,826	40,307
Social sciences	42,723	46,369	49,815	49,885	48,454	46,050	45,792	44,853	44,893
Engineering	6,961	6,470	6,513	6,609	6,857	6,941	7,121	7,045	6,913
Non-S&E	343,112	362,115	370,542	373,255	365,542	352,588	349,803	349,087	352,186

See explanatory information and SOURCE at end of table.

Appendix table 3-15

Bachelor's degrees awarded to women, by citizenship, race/ethnicity, and field: 1990–98

Citizenship, race/ethnicity, and field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Asians/Pacific Islanders, all fields	18,930	20,952	23,426	25,768	28,255	30,947	33,163	35,626	37,400
Science and engineering	7,909	8,610	9,437	10,372	11,453	13,089	14,016	15,225	16,073
Sciences	6,724	7,359	8,239	9,095	10,172	11,644	12,580	13,751	14,506
Physical sciences[a]	345	377	386	423	448	563	651	739	773
Mathematics	383	433	371	413	403	446	396	383	394
Computer science	809	742	709	753	771	782	751	837	882
Agricultural sciences	63	71	75	85	91	157	173	232	253
Biological sciences	1,672	1,823	2,172	2,470	2,967	3,576	4,080	4,528	4,686
Psychology	1,139	1,321	1,530	1,800	1,970	2,362	2,541	2,862	3,044
Social sciences	2,313	2,592	2,996	3,151	3,522	3,758	3,988	4,170	4,474
Engineering	1,185	1,251	1,198	1,277	1,281	1,445	1,436	1,474	1,567
Non-S&E	11,021	12,342	13,989	15,396	16,802	17,858	19,147	20,401	21,327
Blacks, non-Hispanic, all fields	36,711	40,771	44,793	48,293	52,210	54,289	57,331	59,341	62,225
Science and engineering	10,400	11,539	13,056	14,322	15,483	16,401	17,355	18,497	19,248
Sciences	9,744	10,794	12,308	13,509	14,608	15,402	16,319	17,440	18,207
Physical sciences[a]	358	362	435	466	457	539	618	644	606
Mathematics	378	431	530	521	535	519	513	561	542
Computer science	1,173	1,026	998	1,164	1,237	1,257	1,197	1,158	1,257
Agricultural sciences	61	62	93	93	131	142	176	201	237
Biological sciences	1,336	1,415	1,636	1,856	2,053	2,250	2,575	2,819	3,102
Psychology	2,356	2,809	3,197	3,519	4,004	4,339	4,610	5,056	5,308
Social sciences	4,082	4,689	5,419	5,890	6,191	6,356	6,630	7,001	7,155
Engineering	656	745	748	813	875	999	1,036	1,057	1,041
Non-S&E	26,311	29,232	31,737	33,971	36,727	37,888	39,976	40,844	42,977
Hispanics, all fields	25,181	28,246	30,981	34,020	36,823	38,816	41,680	44,388	46,409
Science and engineering	6,484	7,463	8,661	9,282	10,339	11,159	12,199	13,222	14,103
Sciences	6,008	6,936	8,115	8,676	9,691	10,403	11,365	12,293	13,157
Physical sciences[a]	211	215	220	238	318	363	384	385	440
Mathematics	164	221	203	197	243	221	231	241	304
Computer science	416	477	449	396	416	431	456	426	490
Agricultural sciences	74	89	89	87	143	158	223	264	314
Biological sciences	1,164	1,245	1,434	1,508	1,603	1,750	1,961	2,195	2,460
Psychology	1,718	1,989	2,421	2,659	2,994	3,377	3,710	3,997	4,127
Social sciences	2,261	2,700	3,299	3,591	3,974	4,103	4,400	4,785	5,022
Engineering	476	527	546	606	648	756	834	929	946
Non-S&E	18,697	20,783	22,320	24,738	26,484	27,657	29,481	31,166	32,306

See explantory information and SOURCE at end of table.

Appendix table 3-15

Bachelor's degrees awarded to women, by citizenship, race/ethnicity, and field: 1990–98

Citizenship, race/ethnicity, and field	1990	1991	1992	1993	1994	1995	1996	1997	1998
American Indians/Alaskan Natives, all fields	2,438	2,591	2,979	3,173	3,502	3,785	4,002	4,323	4,627
Science and engineering	581	653	776	918	999	1,049	1,160	1,298	1,320
Sciences	558	626	745	884	960	1,004	1,112	1,231	1,273
Physical sciences[a]	21	23	25	32	31	32	30	43	41
Mathematics	22	25	24	28	30	29	23	28	27
Computer science	30	31	31	28	19	37	39	28	34
Agricultural sciences	21	20	17	22	43	42	58	70	68
Biological sciences	58	92	88	108	134	157	173	183	208
Psychology	143	166	221	242	281	287	338	372	368
Social sciences	263	269	339	424	422	420	451	507	527
Engineering	23	27	31	34	39	45	48	67	47
Non-S&E	1,857	1,938	2,203	2,255	2,503	2,736	2,842	3,025	3,307
Unknown race/ethnicity, all fields	17,717	13,437	12,121	12,806	12,893	13,927	14,287	15,260	16,758
Science and engineering	4,571	3,777	3,442	3,637	3,776	4,171	4,323	4,812	5,295
Sciences	4,389	3,603	3,321	3,466	3,631	3,982	4,117	4,600	5,108
Physical sciences[a]	103	92	106	89	114	123	133	148	211
Mathematics	152	136	98	107	99	104	106	113	120
Computer science	408	231	169	142	149	161	143	236	281
Agricultural sciences	45	45	94	104	99	160	171	181	203
Biological sciences	417	452	408	389	502	618	653	769	920
Psychology	1,394	1,083	989	1,131	1,143	1,215	1,188	1,336	1,372
Social sciences	1,870	1,564	1,457	1,504	1,525	1,601	1,723	1,817	2,001
Engineering	182	174	121	171	145	189	206	212	187
Non-S&E	13,146	9,660	8,679	9,169	9,117	9,756	9,964	10,448	11,463
Temporary residents, all fields	9,645	11,430	11,441	13,319	14,484	15,896	16,356	17,151	17,435
Science and engineering	3,382	3,741	3,897	4,408	4,467	4,820	5,061	5,235	5,251
Sciences	2,892	3,271	3,426	3,944	3,919	4,254	4,441	4,559	4,623
Physical sciences[a]	180	197	190	239	246	250	249	240	246
Mathematics	200	204	234	207	198	235	172	206	164
Computer science	594	574	555	603	606	627	607	568	622
Agricultural sciences	60	67	70	118	89	88	112	92	124
Biological sciences	436	519	514	648	580	659	752	791	743
Psychology	365	513	489	610	648	710	741	794	874
Social sciences	1,057	1,197	1,374	1,519	1,552	1,685	1,808	1,868	1,850
Engineering	490	470	471	464	548	566	620	676	628
Non-S&E	6,263	7,689	7,544	8,911	10,017	11,076	11,295	11,916	12,184

[a]In this table, the physical sciences include the earth, atmospheric, and ocean sciences, as well as physics, astronomy, and chemistry. See notes for more information.

NOTES: Data on race/ethnicity are for U.S. citizens and permanent residents only and do not include students on temporary visas. Because these data were collected on broad fields of study only until 1994, the trend data could not be adjusted to the exact field taxonomies used by the National Science Foundation.

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey, various years.

Appendix table 3-16

Bachelor's degrees awarded to men, by field, citizenship, and race/ethnicity: 1990–98

Citizenship, race/ethnicity, and field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all fields	495,867	508,952	525,395	537,536	537,061	531,146	528,000	525,282	525,714
Science and engineering	199,916	201,499	209,270	214,388	216,492	216,078	216,614	214,329	213,171
Sciences	145,186	148,977	157,000	161,692	163,923	163,689	164,849	163,483	163,630
Physical sciences[a]	11,109	11,199	11,466	11,877	12,253	12,559	12,666	12,306	12,001
Mathematics	7,863	7,804	7,923	7,859	7,754	7,318	7,176	6,938	6,618
Computer science	19,321	17,896	17,670	17,565	17,466	17,628	17,666	18,166	19,796
Agricultural sciences	5,594	5,477	6,512	7,443	8,169	9,132	10,078	10,336	10,395
Biological sciences	18,631	19,715	21,107	23,111	25,314	26,956	29,189	29,839	29,982
Psychology	15,399	16,155	17,137	18,029	18,749	19,638	19,965	19,491	19,057
Social sciences	67,269	70,731	75,185	75,808	74,218	70,458	68,109	66,407	65,781
Engineering	54,730	52,522	52,270	52,696	52,569	52,389	51,765	50,846	49,541
Non-S&E	295,951	307,453	316,125	323,148	320,569	315,068	311,386	310,953	312,543
U.S. citizens and permanent residents, all fields	478,959	490,725	508,289	518,484	517,318	510,030	506,569	503,659	504,262
Science and engineering	190,980	192,516	200,929	204,994	207,030	206,144	206,828	204,767	203,694
Sciences	140,677	144,106	152,411	156,339	158,453	157,999	159,205	158,042	158,168
Physical sciences[a]	10,694	10,788	11,049	11,352	11,786	12,086	12,229	11,875	11,572
Mathematics	7,539	7,430	7,565	7,514	7,390	6,960	6,790	6,618	6,326
Computer science	17,849	16,433	16,251	15,964	15,799	15,960	16,093	16,735	18,289
Agricultural sciences	5,380	5,274	6,379	7,212	8,012	8,962	9,918	10,173	10,225
Biological sciences	18,200	19,171	20,628	22,542	24,739	26,334	28,576	29,170	29,303
Psychology	15,239	15,977	16,962	17,809	18,542	19,406	19,690	19,236	18,761
Social sciences	65,776	69,033	73,577	73,946	72,185	68,291	65,909	64,235	63,692
Engineering	50,303	48,410	48,518	48,655	48,577	48,145	47,623	46,725	45,526
Non-S&E	287,979	298,209	307,360	313,490	310,288	303,886	299,741	298,892	300,568
Whites, non-Hispanic, all fields	401,024	410,745	422,517	427,240	420,211	407,155	399,132	392,541	389,007
Science and engineering	157,675	158,687	164,220	166,063	165,245	161,731	159,889	156,121	153,382
Sciences	117,142	119,995	125,707	127,819	127,415	124,946	123,912	121,542	119,762
Physical sciences[a]	9,179	9,203	9,430	9,614	9,958	10,006	9,966	9,695	9,290
Mathematics	6,253	6,119	6,255	6,131	5,920	5,456	5,239	5,085	4,851
Computer science	13,974	12,916	12,571	12,329	12,022	11,793	11,924	12,070	12,991
Agricultural sciences	4,954	4,892	5,840	6,681	7,333	8,152	8,968	9,226	9,215
Biological sciences	14,488	15,174	16,030	17,293	18,882	19,790	21,065	21,388	20,908
Psychology	12,632	13,277	14,007	14,502	14,891	15,241	15,170	14,520	13,918
Social sciences	55,662	58,414	61,574	61,269	58,409	54,508	51,580	49,558	48,589
Engineering	40,533	38,692	38,513	38,244	37,830	36,785	35,977	34,579	33,620
Non-S&E	243,349	252,058	258,297	261,177	254,966	245,424	239,243	236,420	235,625

See explanatory information and SOURCE at end of table.

Appendix table 3-16

Bachelor's degrees awarded to men, by field, citizenship, and race/ethnicity: 1990–98

Citizenship, race/ethnicity, and field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Asians/Pacific Islanders, all fields	19,097	20,773	23,190	24,819	26,420	28,348	29,954	31,732	32,588
Science and engineering	11,528	11,942	13,198	14,132	14,967	16,039	17,015	17,914	18,495
Sciences	6,701	6,973	8,131	9,002	9,732	10,699	11,652	12,303	13,060
Physical sciences[a]	592	606	615	675	648	784	908	881	903
Mathematics	491	482	486	502	523	519	539	494	462
Computer science	1,335	1,268	1,373	1,492	1,476	1,583	1,697	1,930	2,276
Agricultural sciences	63	57	79	78	82	130	139	169	191
Biological sciences	1,573	1,736	2,230	2,633	2,992	3,467	3,878	4,007	4,181
Psychology	491	564	620	738	807	969	1,125	1,205	1,223
Social sciences	2,156	2,260	2,728	2,884	3,204	3,247	3,366	3,617	3,824
Engineering	4,827	4,969	5,067	5,130	5,235	5,340	5,363	5,611	5,435
Non-S&E	7,569	8,831	9,992	10,687	11,453	12,309	12,939	13,818	14,093
Blacks, non-Hispanic, all fields	22,590	24,238	26,518	28,374	30,106	30,998	32,223	32,726	33,653
Science and engineering	7,830	8,448	9,375	10,099	10,806	11,127	11,700	11,947	12,150
Sciences	6,414	6,964	7,761	8,335	9,022	9,281	9,736	9,928	10,173
Physical sciences[a]	292	391	381	370	464	495	482	466	521
Mathematics	342	380	374	444	457	476	468	510	488
Computer science	1,074	971	1,092	1,049	1,161	1,241	1,218	1,212	1,323
Agricultural sciences	110	100	113	126	137	121	187	186	189
Biological sciences	658	696	749	883	927	981	1,236	1,304	1,448
Psychology	794	879	982	1,099	1,232	1,402	1,418	1,591	1,544
Social sciences	3,144	3,547	4,070	4,364	4,644	4,565	4,727	4,659	4,660
Engineering	1,416	1,484	1,614	1,764	1,784	1,846	1,964	2,019	1,977
Non-S&E	14,760	15,790	17,143	18,275	19,300	19,871	20,523	20,779	21,503
Hispanics, all fields	18,683	20,781	22,026	23,825	25,860	27,875	29,335	30,550	31,716
Science and engineering	7,434	7,888	8,730	9,160	10,190	11,031	11,592	12,044	12,622
Sciences	5,399	5,849	6,543	6,805	7,695	8,136	8,695	8,848	9,443
Physical sciences[a]	311	318	326	361	415	437	488	468	474
Mathematics	249	259	279	273	300	315	354	340	338
Computer science	669	738	724	700	719	876	824	841	920
Agricultural sciences	144	124	125	130	193	228	283	297	318
Biological sciences	955	1,019	1,043	1,144	1,298	1,340	1,560	1,598	1,823
Psychology	687	757	826	928	996	1,166	1,326	1,285	1,382
Social sciences	2,384	2,634	3,220	3,269	3,774	3,774	3,860	4,019	4,188
Engineering	2,035	2,039	2,187	2,355	2,495	2,895	2,897	3,196	3,179
Non-S&E	11,249	12,893	13,296	14,665	15,670	16,844	17,743	18,506	19,094

See explanatory information and SOURCE at end of table.

Appendix table 3-16

Bachelor's degrees awarded to men, by field, citizenship, and race/ethnicity: 1990–98

Citizenship, race/ethnicity, and field	1990	1991	1992	1993	1994	1995	1996	1997	1998
American Indians/Alaskan Natives, all fields	1,774	1,895	2,151	2,401	2,562	2,669	2,811	2,915	3,079
Science and engineering	690	691	785	901	1,005	1,077	1,108	1,121	1,213
Sciences	567	560	634	759	826	901	913	926	1,007
Physical sciences[a]	52	46	38	61	52	66	74	57	65
Mathematics	23	18	22	27	29	29	30	28	39
Computer science	54	49	48	53	59	73	50	69	72
Agricultural sciences	38	33	43	42	66	82	81	78	85
Biological sciences	72	84	93	103	112	128	143	156	191
Psychology	68	69	90	93	113	120	132	124	147
Social sciences	260	261	300	380	395	403	403	414	408
Engineering	123	131	151	142	179	176	195	195	206
Non-S&E	1,084	1,204	1,366	1,500	1,557	1,592	1,703	1,794	1,866
Unknown race/ethnicity, all fields	15,791	12,293	11,887	11,825	12,159	12,985	13,114	13,195	14,219
Science and engineering	5,823	4,860	4,621	4,639	4,817	5,139	5,524	5,620	5,832
Sciences	4,454	3,765	3,635	3,619	3,763	4,036	4,297	4,495	4,723
Physical sciences[a]	268	224	259	271	249	298	311	308	319
Mathematics	181	172	149	137	161	165	160	161	148
Computer science	743	491	443	341	362	394	380	613	707
Agricultural sciences	71	68	179	155	201	249	260	217	227
Biological sciences	454	462	483	486	528	628	694	717	752
Psychology	567	431	437	449	503	508	519	511	547
Social sciences	2,170	1,917	1,685	1,780	1,759	1,794	1,973	1,968	2,023
Engineering	1,369	1,095	986	1,020	1,054	1,103	1,227	1,125	1,109
Non-S&E	9,968	7,433	7,266	7,186	7,342	7,846	7,590	7,575	8,387
Temporary residents, all fields	16,908	18,227	17,106	19,052	19,743	21,116	21,431	21,623	21,452
Science and engineering	8,936	8,983	8,341	9,394	9,462	9,934	9,786	9,562	9,477
Sciences	4,509	4,871	4,589	5,353	5,470	5,690	5,644	5,441	5,462
Physical sciences[a]	2,856	2,995	2,806	3,271	3,230	3,291	3,169	3,014	3,077
Mathematics	324	374	358	345	364	358	386	320	292
Computer science	1,472	1,463	1,419	1,601	1,667	1,668	1,573	1,431	1,507
Agricultural sciences	214	203	133	231	157	170	160	163	170
Biological sciences	431	544	479	569	575	622	613	669	679
Psychology	160	178	175	220	207	232	275	255	296
Social sciences	1,493	1,698	1,608	1,862	2,033	2,167	2,200	2,172	2,089
Engineering	4,427	4,112	3,752	4,041	3,992	4,244	4,142	4,121	4,015
Non-S&E	7,972	9,244	8,765	9,658	10,281	11,182	11,645	12,061	11,975

[a]In this table, the physical sciences include the earth, atmospheric, and ocean sciences, as well as physics, astronomy, and chemistry. See notes for more information.

NOTES: Data on race/ethnicity are for U.S. citizens and permanent residents only and do not include students on temporary visas. Because these data were collected on broad fields of study only until 1994, the trend data could not be adjusted to the exact field taxonomies used by the National Science Foundation.

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey, various years.

Appendix table 3-17

Bachelor's degrees awarded, by sex, citizenship, race/ethnicity, and S&E field: 1998

Sex, citizenship, and race/ethnicity	Total, all fields	Total, S&E	Physical sciences	Earth, atmospheric & ocean sciences	Mathe-matics	Computer science	Agricultural sciences	Biological sciences	Psychology	Social sciences	Engineering
Total	1,199,579	390,618	15,273	4,321	12,094	27,674	17,967	67,112	74,457	110,806	60,914
White, non-Hispanic	878,018	272,561	10,763	3,803	8,903	17,069	15,616	45,912	54,225	75,696	40,574
Asian/Pacific Islander	69,988	34,004	1,584	92	834	3,220	439	8,869	4,267	7,697	7,002
Black, non-Hispanic	95,878	30,751	1,057	70	966	2,666	409	4,553	6,852	11,159	3,019
Hispanic	78,125	25,712	796	118	604	1,473	631	4,283	5,509	8,173	4,125
American Indian/Alaskan Native	7,706	2,392	81	25	65	112	151	399	515	790	254
Other/unknown race/ethnicity	30,977	10,489	399	131	269	997	428	1,673	1,919	3,376	1,297
Temporary resident	38,887	14,709	593	82	453	2,137	293	1,423	1,170	3,915	4,643
Men	525,714	200,221	9,279	2,722	6,435	20,235	10,224	30,011	19,057	52,683	49,575
White, non-Hispanic	389,007	142,372	6,851	2,439	4,739	13,274	9,062	20,935	13,918	37,502	33,652
Asian/Pacific Islander	32,588	18,176	858	45	444	2,328	188	4,181	1,223	3,474	5,435
Black, non-Hispanic	33,653	11,698	488	33	462	1,372	179	1,448	1,544	4,195	1,977
Hispanic	31,716	11,968	412	62	318	961	318	1,823	1,382	3,513	3,179
American Indian/Alaskan Native	3,079	1,122	53	12	38	76	83	191	147	315	207
Other/unknown race/ethnicity	14,219	5,448	236	83	148	711	225	753	547	1,635	1,110
Temporary resident	21,452	9,437	381	48	286	1,513	169	680	296	2,049	4,015
Women	673,865	190,397	5,994	1,599	5,659	7,439	7,743	37,101	55,400	58,123	11,339
White, non-Hispanic	489,011	130,189	3,912	1,364	4,164	3,795	6,554	24,977	40,307	38,194	6,922
Asian/Pacific Islander	37,400	15,828	726	47	390	892	251	4,688	3,044	4,223	1,567
Black, non-Hispanic	62,225	19,053	569	37	504	1,294	230	3,105	5,308	6,964	1,042
Hispanic	46,409	13,744	384	56	286	512	313	2,460	4,127	4,660	946
American Indian/Alaskan Native	4,627	1,270	28	13	27	36	68	208	368	475	47
Other/unknown race/ethnicity	16,758	5,041	163	48	121	286	203	920	1,372	1,741	187
Temporary resident	17,435	5,272	212	34	167	624	124	743	874	1,866	628

See explanatory information and SOURCE at end of table.

Appendix table 3-17

Bachelor's degrees awarded, by sex, citizenship, race/ethnicity, and S&E field: 1998

Sex, citizenship, and race/ethnicity	Total, all fields	Total, S&E	Physical sciences	Earth, atmospheric & ocean sciences	Mathematics	Computer science	Agricultural sciences	Biological sciences	Psychology	Social sciences	Engineering
	Percent female										
Total	56.2	48.7	39.2	37.0	46.8	26.9	43.1	55.3	74.4	52.5	18.6
White, non-Hispanic	55.7	47.8	36.3	35.9	46.8	22.2	42.0	54.4	74.3	50.5	17.1
Asian/Pacific Islander	53.4	46.5	45.8	51.1	46.8	27.7	57.2	52.9	71.3	54.9	22.4
Black, non-Hispanic	64.9	62.0	53.8	52.9	52.2	48.5	56.2	68.2	77.5	62.4	34.5
Hispanic	59.4	53.5	48.2	47.5	47.4	34.8	49.6	57.4	74.9	57.0	22.9
American Indian/Alaskan Native	60.0	53.1	34.6	52.0	41.5	32.1	45.0	52.1	71.5	60.1	18.5
Other/unknown race/ethnicity	54.1	48.1	40.9	36.6	45.0	28.7	47.4	55.0	71.5	51.6	14.4
Temporary resident	44.8	35.8	35.8	41.5	36.9	29.2	42.3	52.2	74.7	47.7	13.5

NOTE: Data on race/ethnicity are for U.S. citizens and permanent residents only and do not include students on temporary visas.

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 3-18

Undergraduate borrowing of 1997 and 1998 S&E bachelor's degree recipients, by sex, race/ethnicity, and disability status

Sex, race/ethnicity, and disability status	Percent that borrowed	Median debt in 1999 (dollars)	Mean debt in 1999 (dollars)
Total	60.3	12,000	13,883
Male	59.8	11,200	13,491
Female	60.8	13,000	14,256
White, non-Hispanic	58.6	12,000	13,804
Asian/Pacific Islander	56.0	10,000	13,457
Black, non-Hispanic	76.0	14,000	15,728
Hispanic	66.4	11,000	12,951
American Indian/Alaskan Native	80.5	8,400	14,848
Without disabilities	60.0	12,000	13,879
With disabilities	68.0	10,000	13,973

SOURCE: National Science Foundation, Division of Science Resources Statistics, National Survey of Recent College Graduates.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 4-1

Science and engineering graduate students, by field: 1990–99

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Science and engineering, total	397,128	412,690	430,635	435,869	431,233	422,533	415,258	407,656	404,903	411,308
Physical sciences	34,075	34,710	35,348	35,318	34,449	33,388	32,324	31,078	30,571	30,689
Astronomy	810	829	869	880	973	912	874	778	820	832
Chemistry	19,118	19,407	19,929	20,131	19,797	19,565	19,327	18,764	18,479	18,414
Physics	13,813	14,081	14,122	13,841	13,162	12,425	11,728	11,147	10,809	10,869
Physical sciences, other	334	393	428	466	517	486	395	389	463	574
Earth, atmospheric, and ocean sciences	13,984	14,480	15,333	15,731	15,968	15,722	15,185	14,565	14,259	14,082
Atmospheric sciences	929	968	1,089	1,112	1,109	1,072	1,086	1,092	965	913
Geosciences	7,692	7,567	7,744	7,785	7,741	7,608	7,323	6,997	6,705	6,652
Ocean sciences	2,333	2,386	2,530	2,611	2,853	2,703	2,598	2,458	2,545	2,608
Earth, atmospheric, and ocean sciences, other	3,030	3,559	3,970	4,223	4,265	4,339	4,178	4,018	4,044	3,909
Mathematics and applied mathematics	17,096	17,206	17,404	16,945	16,463	15,400	14,970	14,048	13,841	13,530
Statistics	2,678	2,746	2,951	3,055	3,116	3,109	3,045	2,681	2,647	2,724
Computer science	34,257	34,681	36,325	36,213	34,158	33,458	34,626	35,991	38,027	42,560
Agricultural sciences	11,316	11,506	11,841	11,988	12,273	12,450	12,009	11,893	11,877	12,036
Biological sciences	49,989	51,778	54,180	56,458	58,152	58,775	58,170	57,140	57,124	57,320
Anatomy	968	1,008	991	986	1,043	1,008	1,046	1,029	947	913
Biochemistry	5,039	5,201	5,376	5,513	5,632	5,579	5,296	5,123	5,173	5,120
Biology	13,027	13,292	13,874	14,327	14,220	14,284	14,635	14,643	14,289	13,996
Biometry and epidemiology	1,871	2,032	2,365	2,658	2,710	2,812	3,001	2,900	3,484	3,575
Biophysics	642	697	751	780	794	845	833	748	737	710
Botany	2,733	2,694	2,689	2,714	2,748	2,609	2,504	2,402	2,328	2,261
Cell and molecular biology	2,587	2,852	3,132	3,415	3,804	3,938	3,961	4,046	4,148	4,402
Ecology	1,136	1,180	1,301	1,410	1,566	1,680	1,615	1,619	1,655	1,687
Entomology and parasitology	1,173	1,171	1,193	1,247	1,263	1,241	1,234	1,161	1,168	1,145
Genetics	1,408	1,520	1,639	1,785	1,699	1,700	1,729	1,760	1,705	1,767
Microbiology, immunology, and virology	4,873	4,928	4,972	5,068	5,141	5,072	4,963	4,854	4,869	4,910
Nutrition	4,172	4,164	4,159	4,388	4,747	5,016	4,859	4,550	4,430	4,449
Pathology	1,354	1,449	1,456	1,575	1,707	1,670	1,656	1,674	1,580	1,580
Pharmacology	2,353	2,432	2,532	2,651	2,839	2,710	2,663	2,597	2,730	2,757
Physiology	2,236	2,332	2,317	2,372	2,378	2,540	2,377	2,298	2,151	2,100
Zoology	2,104	2,191	2,139	2,120	2,092	2,068	1,911	1,730	1,676	1,614
Biological sciences, other	2,313	2,635	3,294	3,449	3,769	4,003	3,887	4,006	4,054	4,334
Psychology	48,167	51,343	53,484	54,557	54,554	53,641	53,122	53,126	52,557	51,874
Psychology, combined program	20,108	19,555	18,802	18,887	18,297	17,666	16,894	17,350	17,241	16,353
Psychology, except clinical	18,143	20,954	22,592	23,144	23,573	23,456	23,441	22,768	22,668	22,805
Clinical psychology	9,916	10,834	12,090	12,526	12,684	12,519	12,787	13,008	12,648	12,716
Social sciences	77,941	80,735	85,766	88,770	89,107	89,417	88,618	86,064	84,031	85,025
Agricultural economics	2,273	2,364	2,522	2,415	2,289	2,338	2,117	2,043	1,995	2,014
Anthropology (cultural and social)	6,479	6,731	7,123	7,361	7,665	7,693	7,773	7,560	7,577	7,633
Economics	12,326	12,707	13,252	13,214	12,913	12,673	12,080	11,097	10,701	10,562
Geography	3,530	3,760	4,102	4,378	4,502	4,371	4,331	4,287	4,326	4,250
History and philosophy of science	331	337	360	369	387	401	409	443	508	557
Linguistics	3,404	3,425	3,277	3,321	3,279	3,194	3,156	3,068	2,935	2,799
Political science/public administration	30,582	31,707	33,797	35,076	34,317	34,298	33,252	32,083	30,828	31,398
Sociology	7,801	8,393	9,011	9,425	9,498	9,564	9,425	9,413	9,058	8,966
Sociology/anthropology	1,164	899	979	935	987	941	923	948	857	741
Social sciences, other	10,051	10,412	11,343	12,276	13,270	13,944	15,152	15,122	15,246	16,105

See SOURCE at end of table.

Appendix table 4-1

Science and engineering graduate students, by field: 1990–99

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Engineering	107,625	113,505	118,003	116,834	112,993	107,173	103,189	101,070	99,969	101,468
Aerospace engineering	3,934	4,120	4,036	3,940	3,715	3,343	3,208	3,083	3,137	3,349
Agricultural engineering	946	983	1,008	1,018	1,061	1,037	1,012	941	925	934
Biomedical engineering	2,136	2,239	2,537	2,675	2,750	2,732	2,732	2,847	2,905	3,121
Chemical engineering	6,735	7,127	7,397	7,516	7,608	7,424	7,373	7,247	7,060	6,849
Civil engineering	15,542	17,398	19,572	19,583	19,925	19,218	18,528	17,156	16,481	16,190
Electrical engineering	33,722	35,111	36,428	35,290	33,020	30,721	29,702	30,548	31,129	31,368
Engineering science and engineering physics	2,020	2,154	2,218	2,180	2,089	1,955	1,751	1,647	1,701	1,627
Industrial/manufacturing engineering	11,248	12,676	13,525	13,596	13,661	13,143	12,399	11,736	10,995	10,886
Mechanical engineering	16,879	17,730	18,637	18,477	17,761	16,363	15,509	15,045	14,696	14,956
Metallurgical and materials engineering	4,941	5,160	5,512	5,363	5,191	4,920	4,713	4,649	4,644	4,451
Mining engineering	437	489	437	427	424	373	371	348	304	328
Nuclear engineering	1,278	1,282	1,286	1,306	1,246	1,154	980	868	821	830
Petroleum engineering	670	705	737	725	624	610	562	561	571	642
Engineering, other	7,137	6,331	4,673	4,738	3,918	4,180	4,349	4,394	4,600	5,937

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, various years.

Appendix table 4-2
Female science and engineering graduate students, by field: 1990–99

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Science and engineering, total	133,737	140,847	150,239	156,584	159,117	160,201	161,661	162,027	163,445	168,468
Physical sciences	8,068	8,564	8,844	9,202	9,159	9,080	9,042	8,841	8,751	8,905
Astronomy	165	172	186	198	223	223	227	208	230	225
Chemistry	5,868	6,262	6,562	6,852	6,841	6,825	6,837	6,718	6,563	6,610
Physics	1,913	1,980	1,943	1,976	1,908	1,835	1,809	1,744	1,780	1,873
Physical sciences, other	122	150	153	176	187	197	169	171	178	197
Earth, atmospheric, and ocean sciences	4,119	4,455	4,851	5,030	5,323	5,436	5,448	5,419	5,569	5,720
Atmospheric sciences	185	190	241	225	242	237	234	263	234	242
Geosciences	1,922	2,008	2,077	2,110	2,235	2,298	2,332	2,311	2,326	2,407
Ocean sciences	781	846	959	1,004	1,107	1,094	1,059	1,043	1,152	1,210
Earth, atmospheric, and ocean sciences, other	1,231	1,411	1,574	1,691	1,739	1,807	1,823	1,802	1,857	1,861
Mathematics and applied mathematics	5,287	5,336	5,485	5,528	5,406	5,078	4,996	4,791	4,900	4,865
Statistics	912	962	1,064	1,110	1,129	1,183	1,225	1,081	1,089	1,176
Computer science	8,199	8,290	8,471	8,431	8,087	8,133	8,797	9,881	10,802	12,570
Agricultural sciences	3,335	3,567	3,775	4,118	4,318	4,465	4,458	4,572	4,725	4,915
Biological sciences	23,042	24,135	25,475	27,056	28,161	28,862	28,783	28,630	29,096	29,760
Anatomy	444	484	478	474	511	483	486	476	427	431
Biochemistry	2,065	2,131	2,218	2,331	2,382	2,417	2,293	2,181	2,235	2,274
Biology	5,949	6,212	6,579	6,807	6,744	6,889	7,124	7,273	7,204	7,146
Biometry and epidemiology	997	1,112	1,328	1,526	1,586	1,673	1,774	1,781	2,141	2,267
Biophysics	164	182	202	226	218	241	244	216	209	213
Botany	1,072	1,067	1,054	1,094	1,164	1,144	1,110	1,119	1,118	1,093
Cell and molecular biology	1,134	1,298	1,421	1,591	1,744	1,817	1,864	1,928	2,026	2,242
Ecology	469	518	589	664	745	774	768	781	823	870
Entomology and parasitology	358	341	354	400	417	414	424	410	414	406
Genetics	727	759	842	932	912	882	901	959	970	1,007
Microbiology, immunology, and virology	2,320	2,352	2,366	2,468	2,509	2,481	2,457	2,423	2,422	2,503
Nutrition	2,941	2,920	2,951	3,144	3,480	3,729	3,628	3,412	3,361	3,380
Pathology	578	624	647	741	782	780	809	832	804	804
Pharmacology	1,024	1,130	1,181	1,244	1,352	1,311	1,291	1,229	1,325	1,343
Physiology	933	966	951	983	986	1,058	981	934	886	910
Zoology	835	884	828	860	876	866	820	756	735	707
Biological sciences, other	1,032	1,155	1,486	1,571	1,753	1,903	1,809	1,920	1,996	2,164
Psychology	32,345	34,787	36,834	37,990	38,138	37,764	37,747	37,619	37,462	37,377
Psychology, combined program	13,067	12,714	12,470	12,693	12,332	12,015	11,668	11,951	11,938	11,457
Psychology, except clinical	12,583	14,632	15,808	16,425	16,808	16,817	16,992	16,417	16,415	16,698
Clinical psychology	6,695	7,441	8,556	8,872	8,998	8,932	9,087	9,251	9,109	9,222
Social sciences	33,758	35,056	38,223	40,436	41,349	42,193	42,920	42,459	42,044	43,337
Agricultural economics	599	636	712	750	748	783	710	688	680	713
Anthropology (cultural and social)	3,791	3,953	4,247	4,392	4,593	4,553	4,686	4,501	4,556	4,644
Economics	3,374	3,559	3,802	3,856	3,793	3,876	3,783	3,512	3,464	3,499
Geography	1,204	1,318	1,431	1,582	1,598	1,585	1,561	1,625	1,663	1,703
History and philosophy of science	118	132	130	142	140	139	152	162	193	212
Linguistics	2,006	1,913	1,996	2,020	2,066	2,000	2,023	2,017	1,953	1,833
Political science/public administration	13,157	13,736	14,971	15,756	15,584	15,950	15,632	15,404	14,961	15,582
Sociology	4,279	4,612	5,150	5,568	5,740	5,783	5,785	5,822	5,696	5,739
Sociology/anthropology	681	489	534	512	591	554	541	571	522	470
Social sciences, other	4,549	4,708	5,250	5,858	6,496	6,970	8,047	8,157	8,356	8,942

See SOURCE at end of table.

Appendix table 4-2

Female science and engineering graduate students, by field: 1990–99

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Engineering	14,672	15,695	17,217	17,683	18,047	18,007	18,245	18,734	19,007	19,843
Aerospace engineering	289	327	348	357	358	351	352	371	382	423
Agricultural engineering	101	125	144	151	200	202	210	218	243	251
Biomedical engineering	547	588	617	698	697	726	733	826	870	1,004
Chemical engineering	1,146	1,257	1,394	1,499	1,526	1,561	1,642	1,709	1,721	1,726
Civil engineering	2,689	3,102	3,654	3,858	4,211	4,232	4,300	4,189	4,127	4,180
Electrical engineering	3,715	3,851	4,277	4,313	4,102	4,088	4,122	4,438	4,747	4,966
Engineering science and engineering physics	299	288	305	304	306	297	295	278	331	319
Industrial/manufacturing engineering	2,137	2,355	2,655	2,593	2,795	2,755	2,714	2,611	2,407	2,423
Mechanical engineering	1,442	1,511	1,698	1,774	1,823	1,677	1,636	1,779	1,762	1,787
Metallurgical and materials engineering	893	987	1,069	1,027	1,069	1,059	1,060	1,094	1,115	1,072
Mining engineering	58	50	43	50	50	42	54	63	55	55
Nuclear engineering	155	177	186	185	153	145	153	143	134	144
Petroleum engineering	33	52	65	66	59	71	60	77	55	82
Engineering, other	1,168	1,025	762	808	698	801	914	938	1,058	1,411

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, various years.

Appendix table 4-3
Male science and engineering graduate students, by field: 1990–99

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Science and engineering, total	263,391	271,843	280,396	279,285	272,116	262,332	253,597	245,629	241,458	242,840
Physical sciences	26,007	26,146	26,504	26,116	25,290	24,308	23,282	22,237	21,820	21,784
Astronomy	645	657	683	682	750	689	647	570	590	607
Chemistry	13,250	13,145	13,367	13,279	12,956	12,740	12,490	12,046	11,916	11,804
Physics	11,900	12,101	12,179	11,865	11,254	10,590	9,919	9,403	9,029	8,996
Physical sciences, other	212	243	275	290	330	289	226	218	285	377
Earth, atmospheric, and ocean sciences	9,865	10,025	10,482	10,701	10,645	10,286	9,737	9,146	8,690	8,362
Atmospheric sciences	744	778	848	887	867	835	852	829	731	671
Geosciences	5,770	5,559	5,667	5,675	5,506	5,310	4,991	4,686	4,379	4,245
Ocean sciences	1,552	1,540	1,571	1,607	1,746	1,609	1,539	1,415	1,393	1,398
Earth, atmospheric, and ocean sciences, other	1,799	2,148	2,396	2,532	2,526	2,532	2,355	2,216	2,187	2,048
Mathematics and applied mathematics	11,809	11,870	11,919	11,417	11,057	10,322	9,974	9,257	8,941	8,665
Statistics	1,766	1,784	1,887	1,945	1,987	1,926	1,820	1,600	1,558	1,548
Computer science	26,058	26,391	27,854	27,782	26,071	25,325	25,829	26,110	27,225	29,990
Agricultural sciences	7,981	7,939	8,066	7,870	7,955	7,985	7,551	7,321	7,152	7,121
Biological sciences	26,947	27,643	28,705	29,402	29,991	29,913	29,387	28,510	28,028	27,560
Anatomy	524	524	513	512	532	525	560	553	520	482
Biochemistry	2,974	3,070	3,158	3,182	3,250	3,162	3,003	2,942	2,938	2,846
Biology	7,078	7,080	7,295	7,520	7,476	7,395	7,511	7,370	7,085	6,850
Biometry and epidemiology	874	920	1,037	1,132	1,124	1,139	1,227	1,119	1,343	1,308
Biophysics	478	515	549	554	576	604	589	532	528	497
Botany	1,661	1,627	1,635	1,620	1,584	1,465	1,394	1,283	1,210	1,168
Cell and molecular biology	1,453	1,554	1,711	1,824	2,060	2,121	2,097	2,118	2,122	2,160
Ecology	667	662	712	746	821	906	847	838	832	817
Entomology and parasitology	815	830	839	847	846	827	810	751	754	739
Genetics	681	761	797	853	787	818	828	801	735	760
Microbiology, immunology, and virology	2,553	2,576	2,606	2,600	2,632	2,591	2,506	2,431	2,447	2,407
Nutrition	1,231	1,244	1,208	1,244	1,267	1,287	1,231	1,138	1,069	1,069
Pathology	776	825	809	834	925	890	847	842	776	776
Pharmacology	1,329	1,302	1,351	1,407	1,487	1,399	1,372	1,368	1,405	1,414
Physiology	1,303	1,366	1,366	1,389	1,392	1,482	1,396	1,364	1,265	1,190
Zoology	1,269	1,307	1,311	1,260	1,216	1,202	1,091	974	941	907
Biological sciences, other	1,281	1,480	1,808	1,878	2,016	2,100	2,078	2,086	2,058	2,170
Psychology	15,822	16,556	16,650	16,567	16,416	15,877	15,375	15,507	15,095	14,497
Psychology, combined program	7,041	6,841	6,332	6,194	5,965	5,651	5,226	5,399	5,303	4,896
Psychology, except clinical	5,560	6,322	6,784	6,719	6,765	6,639	6,449	6,351	6,253	6,107
Clinical psychology	3,221	3,393	3,534	3,654	3,686	3,587	3,700	3,757	3,539	3,494
Social sciences	44,183	45,679	47,543	48,334	47,758	47,224	45,698	43,605	41,987	41,688
Agricultural economics	1,674	1,728	1,810	1,665	1,541	1,555	1,407	1,355	1,315	1,301
Anthropology (cultural and social)	2,688	2,778	2,876	2,969	3,072	3,140	3,087	3,059	3,021	2,989
Economics	8,952	9,148	9,450	9,358	9,120	8,797	8,297	7,585	7,237	7,063
Geography	2,326	2,442	2,671	2,796	2,904	2,786	2,770	2,662	2,663	2,547
History and philosophy of science	213	205	230	227	247	262	257	281	315	345
Linguistics	1,398	1,512	1,281	1,301	1,213	1,194	1,133	1,051	982	966
Political science/public administration	17,425	17,971	18,826	19,320	18,733	18,348	17,620	16,679	15,867	15,816
Sociology	3,522	3,781	3,861	3,857	3,758	3,781	3,640	3,591	3,362	3,227
Sociology/anthropology	483	410	445	423	396	387	382	377	335	271
Social sciences, other	5,502	5,704	6,093	6,418	6,774	6,974	7,105	6,965	6,890	7,163

See SOURCE at end of table.

Appendix table 4-3

Male science and engineering graduate students, by field: 1990–99

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Engineering	92,953	97,810	100,786	99,151	94,946	89,166	84,944	82,336	80,962	81,625
Aerospace engineering	3,645	3,793	3,688	3,583	3,357	2,992	2,856	2,712	2,755	2,926
Agricultural engineering	845	858	864	867	861	835	802	723	682	683
Biomedical engineering	1,589	1,651	1,920	1,977	2,053	2,006	1,999	2,021	2,035	2,117
Chemical engineering	5,589	5,870	6,003	6,017	6,082	5,863	5,731	5,538	5,339	5,123
Civil engineering	12,853	14,296	15,918	15,725	15,714	14,986	14,228	12,967	12,354	12,010
Electrical engineering	30,007	31,260	32,151	30,977	28,918	26,633	25,580	26,110	26,382	26,402
Engineering science and engineering physics	1,721	1,866	1,913	1,876	1,783	1,658	1,456	1,369	1,370	1,308
Industrial/manufacturing engineering	9,111	10,321	10,870	11,003	10,866	10,388	9,685	9,125	8,588	8,463
Mechanical engineering	15,437	16,219	16,939	16,703	15,938	14,686	13,873	13,266	12,934	13,169
Metallurgical and materials engineering	4,048	4,173	4,443	4,336	4,122	3,861	3,653	3,555	3,529	3,379
Mining engineering	379	439	394	377	374	331	317	285	249	273
Nuclear engineering	1,123	1,105	1,100	1,121	1,093	1,009	827	725	687	686
Petroleum engineering	637	653	672	659	565	539	502	484	516	560
Engineering, other	5,969	5,306	3,911	3,930	3,220	3,379	3,435	3,456	3,542	4,526

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, various years.

Appendix table 4-4

Full-time first-time S&E graduate students, by field and sex: 1990–99

Field and sex	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Both sexes, all S&E fields	76,570	81,455	83,133	79,307	78,050	74,378	73,462	73,576	74,362	75,247
Physical sciences	6,809	7,107	6,910	6,690	6,454	6,127	6,014	6,029	5,932	5,978
Earth, atmospheric, and ocean sciences	2,694	2,909	3,016	2,985	3,009	2,803	2,632	2,689	2,859	2,739
Mathematical sciences	4,269	4,350	4,443	4,044	3,963	3,578	3,450	3,302	3,334	3,265
Computer science	5,378	5,570	5,479	4,742	4,756	4,783	4,917	5,018	5,758	6,677
Agricultural sciences	2,413	2,434	2,221	2,303	2,304	2,242	2,130	2,107	2,256	2,200
Biological sciences	10,220	10,676	10,893	11,117	11,379	11,423	10,839	11,115	11,405	11,028
Psychology	8,925	9,457	10,172	9,686	9,530	9,241	9,140	8,800	8,590	8,319
Social sciences	15,779	16,420	17,757	17,403	16,888	16,108	16,342	15,704	15,005	14,608
Engineering	20,083	22,532	22,242	20,337	19,767	18,073	17,998	18,812	19,223	20,433
Males, all S&E fields	49,502	52,668	52,698	49,133	48,241	45,149	43,732	43,583	43,855	44,216
Physical sciences	5,006	5,194	5,003	4,802	4,599	4,353	4,183	4,145	4,208	4,071
Earth, atmospheric, and ocean sciences	1,862	1,917	1,971	1,945	1,899	1,712	1,602	1,612	1,595	1,463
Mathematical sciences	2,839	2,841	2,950	2,662	2,590	2,337	2,207	2,077	2,096	2,014
Computer science	4,199	4,308	4,291	3,667	3,681	3,630	3,694	3,730	4,241	4,880
Agricultural sciences	1,594	1,565	1,422	1,355	1,414	1,345	1,283	1,201	1,237	1,217
Biological sciences	5,212	5,475	5,492	5,524	5,726	5,737	5,330	5,346	5,331	5,055
Psychology	2,831	2,930	3,199	2,914	2,994	2,851	2,732	2,570	2,418	2,277
Social sciences	8,875	9,282	9,707	9,436	9,068	8,499	8,263	7,879	7,371	7,046
Engineering	17,084	19,156	18,663	16,828	16,270	14,685	14,438	15,023	15,358	16,193
Females, all S&E fields	27,068	28,787	30,435	30,174	29,809	29,229	29,730	29,993	30,507	31,031
Physical sciences	1,803	1,913	1,907	1,888	1,855	1,774	1,831	1,884	1,724	1,907
Earth, atmospheric, and ocean sciences	832	992	1,045	1,040	1,110	1,091	1,030	1,077	1,264	1,276
Mathematical sciences	1,430	1,509	1,493	1,382	1,373	1,241	1,243	1,225	1,238	1,251
Computer science	1,179	1,262	1,188	1,075	1,075	1,153	1,223	1,288	1,517	1,797
Agricultural sciences	819	869	799	948	890	897	847	906	1,019	983
Biological sciences	5,008	5,201	5,401	5,593	5,653	5,686	5,509	5,769	6,074	5,973
Psychology	6,094	6,527	6,973	6,772	6,536	6,390	6,408	6,230	6,172	6,042
Social sciences	6,904	7,138	8,050	7,967	7,820	7,609	8,079	7,825	7,634	7,562
Engineering	2,999	3,376	3,579	3,509	3,497	3,388	3,560	3,789	3,865	4,240

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, various years.

Appendix table 4-5

Top institutions enrolling science and engineering graduate students, by sex: 1999

Rank	Academic institution	Male			Academic institution	Female		
		S&E, total	Science, total	Engineering, total		S&E, total	Science, total	Engineering, total
	Total, all institutions	242,840	161,215	81,625	Total, all institutions	168,468	148,625	19,843
1	Stanford University	3,448	1,364	2,084	University of Minnesota	1,922	1,664	258
2	University of Michigan	3,362	1,311	2,051	University of Colorado	1,679	1,483	196
3	Massachusetts Institute of Technology	3,140	1,260	1,880	University of California–Berkeley	1,583	1,225	358
4	University of Southern California	3,089	1,556	1,533	Teachers College, Columbia University	1,566	1,566	0
5	Texas A&M University	3,035	1,702	1,333	University of Washington	1,557	1,291	266
6	University of Illinois at Urbana-Champaign	3,023	1,814	1,209	University of Wisconsin–Madison	1,545	1,377	168
7	University of California–Berkeley	2,878	1,756	1,122	George Washington University	1,540	1,225	315
8	University of Wisconsin–Madison	2,811	1,917	894	University of Michigan	1,532	1,070	462
9	Georgia Institute of Technology	2,786	589	2,197	New York University	1,498	1,498	0
10	University of Minnesota	2,687	1,747	940	Rutgers University	1,458	1,273	185
11	University of Texas–Austin	2,663	1,258	1,405	Texas A&M University	1,440	1,193	247
12	Pennsylvania State University	2,596	1,422	1,174	University of Southern California	1,403	1,118	285
13	University of Florida	2,559	1,369	1,190	University of California–Los Angeles	1,400	1,272	128
14	Purdue University	2,531	1,214	1,317	Cornell University	1,369	1,194	175
15	University of Colorado	2,526	1,739	787	University of Illinois at Urbana-Champaign	1,336	1,116	220
16	University of Maryland–College Park	2,500	1,309	1,191	University of Maryland–College Park	1,323	1,020	303
17	Ohio State University	2,427	1,582	845	Ohio State University	1,297	1,072	225
18	University of California–Los Angeles	2,331	1,670	661	Harvard University	1,293	1,242	51
19	University of Washington	2,318	1,550	768	University of Kansas	1,284	1,201	83
20	North Carolina State University	2,267	1,190	1,077	Stanford University	1,263	730	533

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

Appendix table 4-6

Science and engineering graduate students, by field, citizenship, and race/ethnicity: 1990–99

Field, citizenship, and race/ethnicity	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Science and engineering, all students	397,128	412,690	430,635	435,869	431,233	422,533	415,258	407,656	404,903	411,308
U.S. citizens and permanent residents	294,311	304,056	321,171	330,148	329,073	323,993	317,101	308,665	302,875	301,404
White, non-Hispanic	238,465	243,596	253,425	256,840	255,701	245,893	238,062	228,018	220,689	216,865
Asian/Pacific Islander	17,155	18,135	21,751	24,059	26,475	25,904	25,928	26,007	26,709	27,562
Black, non-Hispanic	12,774	13,691	15,445	17,116	17,610	18,282	19,068	19,346	19,654	20,341
Hispanic	10,159	11,045	12,246	13,381	13,277	14,111	14,568	14,980	15,476	16,514
American Indian/Alaskan Native	1,054	1,120	1,243	1,309	1,382	1,516	1,538	1,600	1,607	1,557
Other or unknown race/ethnicity	14,704	16,469	17,061	17,443	14,628	18,287	17,937	18,714	18,740	18,565
Temporary residents	102,817	108,634	109,464	105,721	102,160	98,540	98,157	98,991	102,028	109,904
Physical sciences, all students	34,075	34,710	35,348	35,318	34,449	33,388	32,324	31,078	30,571	30,689
U.S. citizens and permanent residents	21,609	21,985	22,543	23,066	22,740	21,979	21,146	20,183	19,833	19,567
White, non-Hispanic	18,433	18,402	18,527	18,582	18,422	17,475	16,750	15,741	15,214	15,048
Asian/Pacific Islander	1,200	1,429	1,615	1,973	1,923	1,780	1,743	1,637	1,760	1,683
Black, non-Hispanic	654	699	807	843	856	897	986	952	913	903
Hispanic	642	649	680	747	675	731	742	782	832	891
American Indian/Alaskan Native	63	62	67	81	67	76	60	70	64	69
Other or unknown race/ethnicity	617	744	847	840	797	1,020	865	1,001	1,050	973
Temporary residents	12,466	12,725	12,805	12,252	11,709	11,409	11,178	10,895	10,738	11,122
Earth, atmospheric, and ocean sciences, all students	13,984	14,480	15,333	15,731	15,968	15,722	15,185	14,565	14,259	14,082
U.S. citizens and permanent residents	11,309	11,583	12,329	12,723	12,704	12,775	12,419	12,050	11,760	11,560
White, non-Hispanic	10,375	10,531	10,881	11,085	11,291	11,251	10,875	10,419	10,099	10,022
Asian/Pacific Islander	258	267	383	462	449	419	409	417	424	400
Black, non-Hispanic	123	141	201	224	202	215	219	203	202	213
Hispanic	241	250	308	370	339	365	374	399	370	382
American Indian/Alaskan Native	30	29	34	45	48	52	65	82	84	63
Other or unknown race/ethnicity	282	365	522	537	375	473	477	530	581	480
Temporary residents	2,675	2,897	3,004	3,008	3,264	2,947	2,766	2,515	2,499	2,522
Mathematical sciences, all students	19,774	19,952	20,355	20,000	19,579	18,509	18,015	16,729	16,488	16,254
U.S. citizens and permanent residents	13,210	13,318	13,878	13,866	13,516	12,700	12,254	11,185	11,067	10,332
White, non-Hispanic	10,605	10,457	10,851	10,572	10,496	9,659	9,201	8,360	8,100	7,662
Asian/Pacific Islander	822	866	963	1,020	1,208	1,121	1,225	1,052	1,174	1,002
Black, non-Hispanic	511	524	579	710	673	689	711	657	613	594
Hispanic	351	349	376	415	369	400	425	427	454	446
American Indian/Alaskan Native	20	20	27	32	36	70	41	43	34	30
Other or unknown race/ethnicity	901	1,102	1,082	1,117	734	761	651	646	692	598
Temporary residents	6,564	6,634	6,477	6,134	6,063	5,809	5,761	5,544	5,421	5,922
Computer science, all students	34,257	34,681	36,325	36,213	34,158	33,458	34,626	35,991	38,027	42,560
U.S. citizens and permanent residents	23,351	23,057	24,209	24,304	23,096	22,663	22,779	23,074	23,605	25,405
White, non-Hispanic	17,292	16,527	16,951	16,804	15,752	14,773	14,479	14,062	13,948	14,423
Asian/Pacific Islander	2,888	2,863	3,389	3,557	4,046	4,043	4,266	4,626	5,219	6,156
Black, non-Hispanic	985	1,093	1,106	1,167	1,182	1,155	1,276	1,300	1,355	1,501
Hispanic	565	631	706	695	631	664	700	723	754	872
American Indian/Alaskan Native	44	43	72	70	44	56	54	60	92	75
Other or unknown race/ethnicity	1,577	1,900	1,985	2,011	1,441	1,972	2,004	2,303	2,237	2,378
Temporary residents	10,906	11,624	12,116	11,909	11,062	10,795	11,847	12,917	14,422	17,155

See SOURCE at end of table.

Appendix table 4-6

Science and engineering graduate students, by field, citizenship, and race/ethnicity: 1990–99

Field, citizenship, and race/ethnicity	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Agricultural sciences, all students	11,316	11,506	11,841	11,988	12,273	12,450	12,009	11,893	11,877	12,036
U.S. citizens and permanent residents	8,133	8,298	8,663	8,850	9,132	9,353	9,060	9,167	9,280	9,545
White, non-Hispanic	7,251	7,481	7,691	7,791	8,032	8,049	7,813	7,816	7,911	8,196
Asian/Pacific Islander	242	225	215	271	281	280	283	302	305	306
Black, non-Hispanic	158	145	210	238	240	298	272	232	313	277
Hispanic	272	279	279	309	268	289	374	408	387	428
American Indian/Alaskan Native	20	31	40	35	38	60	49	62	70	68
Other or unknown race/ethnicity	190	137	228	206	273	377	269	347	294	270
Temporary residents	3,183	3,208	3,178	3,138	3,141	3,097	2,949	2,726	2,597	2,491
Biological sciences, all students	49,989	51,778	54,180	56,458	58,152	58,775	58,170	57,140	57,124	57,320
U.S. citizens and permanent residents	38,470	39,282	41,359	43,527	45,319	46,548	46,658	45,952	45,652	46,013
White, non-Hispanic	32,677	33,058	34,230	35,096	36,392	36,525	36,345	35,022	34,584	34,529
Asian/Pacific Islander	2,228	2,346	2,822	3,456	3,954	4,302	4,465	4,481	4,439	4,461
Black, non-Hispanic	1,249	1,317	1,493	1,737	1,709	1,879	2,010	2,167	2,175	2,258
Hispanic	1,220	1,374	1,459	1,649	1,651	1,824	1,848	1,986	2,047	2,181
American Indian/Alaskan Native	142	129	141	157	183	205	200	198	192	187
Other or unknown race/ethnicity	954	1,058	1,214	1,432	1,430	1,813	1,790	2,098	2,215	2,397
Temporary residents	11,519	12,496	12,821	12,931	12,833	12,227	11,512	11,188	11,472	11,307
Psychology, all students	48,167	51,343	53,484	54,557	54,554	53,641	53,122	53,126	52,557	51,874
U.S. citizens and permanent residents	46,349	49,355	51,551	52,676	52,211	51,554	51,149	51,118	50,371	49,634
White, non-Hispanic	39,246	40,990	42,426	42,662	42,062	40,146	39,327	38,724	37,622	36,356
Asian/Pacific Islander	962	1,040	1,278	1,470	1,583	1,598	1,757	1,909	2,019	2,044
Black, non-Hispanic	2,226	2,455	2,758	3,284	3,529	3,359	3,452	3,644	3,813	3,787
Hispanic	2,160	2,365	2,371	2,562	2,485	2,799	2,937	3,075	3,228	3,575
American Indian/Alaskan Native	235	252	290	289	317	330	359	341	311	303
Other or unknown race/ethnicity	1,520	2,253	2,428	2,409	2,235	3,322	3,317	3,425	3,378	3,569
Temporary residents	1,818	1,988	1,933	1,881	2,343	2,087	1,973	2,008	2,186	2,240
Social sciences, all students	77,941	80,735	85,766	88,770	89,107	89,417	88,618	86,064	84,031	85,025
U.S. citizens and permanent residents	62,454	65,014	70,090	73,580	74,348	74,714	73,484	71,340	69,100	69,297
White, non-Hispanic	49,379	51,429	54,530	56,852	57,277	56,093	54,196	51,819	49,151	48,615
Asian/Pacific Islander	1,868	1,988	2,584	2,854	3,244	3,343	3,340	3,450	3,364	3,356
Black, non-Hispanic	5,082	5,292	5,915	6,353	6,435	6,934	7,245	7,313	7,448	7,842
Hispanic	2,822	3,024	3,604	3,939	3,996	4,231	4,232	4,368	4,504	4,820
American Indian/Alaskan Native	348	370	395	391	408	437	477	505	524	520
Other or unknown race/ethnicity	2,955	2,911	3,062	3,191	2,988	3,676	3,994	3,885	4,109	4,144
Temporary residents	15,487	15,721	15,676	15,190	14,759	14,703	15,134	14,724	14,931	15,728
Engineering, all students	107,625	113,505	118,003	116,834	112,993	107,173	103,189	101,070	99,969	101,468
U.S. citizens and permanent residents	69,426	72,164	76,549	77,556	76,007	71,707	68,152	64,596	62,207	60,051
White, non-Hispanic	53,207	54,721	57,338	57,396	55,977	51,922	49,076	46,055	44,060	42,014
Asian/Pacific Islander	6,687	7,111	8,502	8,996	9,787	9,018	8,440	8,133	8,005	8,154
Black, non-Hispanic	1,786	2,025	2,376	2,560	2,784	2,856	2,897	2,878	2,822	2,966
Hispanic	1,886	2,124	2,463	2,695	2,863	2,808	2,936	2,812	2,900	2,919
American Indian/Alaskan Native	152	184	177	209	241	230	233	239	236	242
Other or unknown race/ethnicity	5,708	5,999	5,693	5,700	4,355	4,873	4,570	4,479	4,184	3,756
Temporary residents	38,199	41,341	41,454	39,278	36,986	35,466	35,037	36,474	37,762	41,417

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, various years.

Appendix table 4-7

Top 20 schools enrolling Asian, black, Hispanic, and American Indian/Alaskan Native graduate students in science and engineering: 1999

	Asian/Pacific Islander		Black, non-Hispanic		Hispanic		American Indian/Alaskan Native	
Rank	Academic institution	Number of students	Academic institution	Number of students	Academic institution	Number of students	Academic institution	Number of students
	Total, all institutions	27,562	Total, all institutions	20,341	Total, all institutions	16,514	Total, all institutions	1,557
1	New Jersey Institute Technology	712	Howard University*	467	University of Puerto Rico–Rio Piedras**	1,029	Oklahoma State University	49
2	University of California–Los Angeles	689	Southern University A&M*	438	Caribbean Center for Advanced Studies**	566	University of Oklahoma	44
3	Stanford University	662	Texas Southern University*	328	University of Puerto Rico–Mayaguez**	544	Northeastern State University (OK)	36
4	San Jose State University	653	North Carolina Central University*	295	Florida International University**	335	University of Kansas	31
5	University of Houston	535	Long Island University	294	California State University–Los Angeles**	267	Arizona State University Main	27
6	University of Southern California	533	Teachers College, Columbia University	261	University of Texas–El Paso**	220	University of New Mexico	26
7	University of California–Berkeley	494	American University	245	University of Florida	215	Northern Arizona University	24
8	Massachusetts Institute of Technology	433	North Carolina A&T State University*	237	University of California–Los Angeles	207	University of Washington–Seattle	24
9	De Paul University	403	George Washington University	232	Nova Southeastern University	194	University of Montana	22
10	George Mason University	368	University of Michigan	232	University of Southern California	191	University of Colorado	21
11	California State University–Hayward	348	De Paul University	227	University of California–Berkeley	183	University of California–Berkeley	20
12	University of Hawaii–Manoa	307	Georgia State University	226	University of New Mexico**	181	Stanford University	19
13	University of Washington–Seattle	303	Louisiana State University	226	University of Colorado	171	University of California–Davis	19
14	University of California–Davis	295	CUNY John Jay College Criminal Justice	224	Texas A&M University	168	University of California–Los Angeles	19
15	California State University–Long Beach	284	Georgia Institute of Technology	217	National University	167	University of Minnesota	16
16	New York University	280	Chicago State University	212	California State University–Long Beach	162	Harvard University	14
17	University of California–San Diego	276	University of Maryland–College Park	210	San Diego State University**	155	Portland State University	14
18	University of Illinois at Urbana-Champaign	274	Clark Atlanta University*	209	Arizona State University	150	San Diego State University	14
19	University of Michigan	272	National University	197	University of Texas–Pan American**	150	University of Arizona	14
20	Rutgers University	266	Jackson State University*	193	University of Texas–Austin	150	University of Idaho	14

* historically black college or university

** Hispanic-serving institution

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 4-8
Female science and engineering graduate students, by field, citizenship, and race/ethnicity: 1994–99

Field, citizenship, and race/ethnicity	1994	1995	1996	1997	1998	1999
Science and engineering, all females	159,117	160,201	161,661	162,027	163,445	168,468
U.S. citizens and permanent residents	133,226	134,024	134,530	133,726	133,375	135,518
White, non-Hispanic	102,081	99,834	98,695	96,523	94,949	95,005
Asian/Pacific Islander	9,323	9,532	9,980	10,320	10,814	11,515
Black, non-Hispanic	9,561	10,071	10,817	11,014	11,330	11,749
Hispanic	6,080	6,707	6,919	7,283	7,636	8,291
American Indian/Alaskan Native	689	763	770	796	810	812
Other or unknown race/ethnicity	5,492	7,117	7,349	7,790	7,836	8,146
Temporary residents	25,891	26,177	27,131	28,301	30,070	32,950
Physical sciences, all females	9,159	9,080	9,042	8,841	8,751	8,905
U.S. citizens and permanent residents	6,190	6,045	6,001	5,830	5,831	5,862
White, non-Hispanic	4,677	4,477	4,369	4,174	4,168	4,172
Asian/Pacific Islander	670	621	647	593	610	636
Black, non-Hispanic	359	368	436	444	432	402
Hispanic	231	262	287	283	307	339
American Indian/Alaskan Native	18	19	18	24	23	29
Other or unknown race/ethnicity	235	298	244	312	291	284
Temporary residents	2,969	3,035	3,041	3,011	2,920	3,043
Earth, atmospheric, and ocean sciences, all females	5,323	5,436	5,448	5,419	5,569	5,720
U.S. citizens and permanent residents	4,446	4,639	4,676	4,700	4,806	4,861
White, non-Hispanic	3,923	4,047	4,054	4,042	4,066	4,141
Asian/Pacific Islander	155	159	160	164	186	192
Black, non-Hispanic	85	99	104	98	99	101
Hispanic	127	142	144	163	168	186
American Indian/Alaskan Native	23	21	29	35	40	31
Other or unknown race/ethnicity	133	171	185	198	247	210
Temporary residents	877	797	772	719	763	859
Mathematical sciences, all females	6,535	6,261	6,221	5,872	5,989	6,041
U.S. citizens and permanent residents	4,846	4,605	4,559	4,173	4,206	3,982
White, non-Hispanic	3,672	3,429	3,291	3,038	3,041	2,862
Asian/Pacific Islander	473	452	523	430	470	437
Black, non-Hispanic	330	304	343	310	274	270
Hispanic	128	152	159	173	178	176
American Indian/Alaskan Native	12	27	17	14	18	18
Other or unknown race/ethnicity	231	241	226	208	225	219
Temporary residents	1,689	1,656	1,662	1,699	1,783	2,059
Computer science, all females	8,087	8,133	8,797	9,881	10,802	12,570
U.S. citizens and permanent residents	5,668	5,537	5,736	6,198	6,577	7,437
White, non-Hispanic	3,269	3,083	3,040	3,143	3,198	3,534
Asian/Pacific Islander	1,357	1,337	1,432	1,648	1,920	2,322
Black, non-Hispanic	486	503	560	535	591	677
Hispanic	160	162	177	210	195	213
American Indian/Alaskan Native	8	15	14	17	24	24
Other or unknown race/ethnicity	388	437	513	645	649	667
Temporary residents	2,419	2,596	3,061	3,683	4,225	5,133

See SOURCE at end of table.

Appendix table 4-8

Female science and engineering graduate students, by field, citizenship, and race/ethnicity: 1990–99

Field, citizenship, and race/ethnicity	1994	1995	1996	1997	1998	1999
Agricultural sciences, all females	4,318	4,465	4,458	4,572	4,725	4,915
U.S. citizens and permanent residents	3,475	3,600	3,610	3,751	3,898	4,084
White, non-Hispanic	2,995	3,018	3,035	3,138	3,249	3,437
Asian/Pacific Islander	110	129	140	138	150	167
Black, non-Hispanic	121	147	140	127	164	142
Hispanic	124	134	168	162	177	206
American Indian/Alaskan Native	17	30	26	28	25	22
Other or unknown race/ethnicity	108	142	101	158	133	110
Temporary residents	843	865	848	821	827	831
Biological sciences, all females	28,161	28,862	28,783	28,630	29,096	29,760
U.S. citizens and permanent residents	22,595	23,385	23,488	23,472	23,599	24,266
White, non-Hispanic	17,921	18,124	18,045	17,543	17,559	17,892
Asian/Pacific Islander	1,932	2,136	2,208	2,310	2,338	2,359
Black, non-Hispanic	1,038	1,188	1,285	1,387	1,388	1,472
Hispanic	882	969	996	1,085	1,123	1,220
American Indian/Alaskan Native	106	118	107	107	104	107
Other or unknown race/ethnicity	716	850	847	1,040	1,087	1,216
Temporary residents	5,566	5,477	5,295	5,158	5,497	5,494
Psychology, all females	38,138	37,764	37,747	37,619	37,462	37,377
U.S. citizens and permanent residents	36,736	36,534	36,482	36,361	36,074	35,927
White, non-Hispanic	29,350	28,163	27,753	27,408	26,707	26,133
Asian/Pacific Islander	1,148	1,182	1,292	1,399	1,468	1,507
Black, non-Hispanic	2,678	2,542	2,644	2,736	2,926	2,872
Hispanic	1,780	2,037	2,130	2,215	2,347	2,617
American Indian/Alaskan Native	220	237	248	223	224	215
Other or unknown race/ethnicity	1,560	2,373	2,415	2,380	2,402	2,583
Temporary residents	1,402	1,230	1,265	1,258	1,388	1,450
Social sciences, all females	41,349	42,193	42,920	42,459	42,044	43,337
U.S. citizens and permanent residents	36,064	36,703	37,146	36,699	35,989	36,729
White, non-Hispanic	27,048	26,619	26,490	25,756	24,784	24,959
Asian/Pacific Islander	1,659	1,735	1,796	1,856	1,837	1,885
Black, non-Hispanic	3,647	4,021	4,362	4,461	4,576	4,836
Hispanic	2,068	2,237	2,189	2,353	2,454	2,647
American Indian/Alaskan Native	223	247	268	289	289	299
Other or unknown race/ethnicity	1,419	1,844	2,041	1,984	2,049	2,103
Temporary residents	5,285	5,490	5,774	5,760	6,055	6,608
Engineering, all females	18,047	18,007	18,245	18,734	19,007	19,843
U.S. citizens and permanent residents	13,206	12,976	12,832	12,542	12,395	12,370
White, non-Hispanic	9,226	8,874	8,618	8,281	8,177	7,875
Asian/Pacific Islander	1,819	1,781	1,782	1,782	1,835	2,010
Black, non-Hispanic	817	899	943	916	880	977
Hispanic	580	612	669	639	687	687
American Indian/Alaskan Native	62	49	43	59	63	67
Other or unknown race/ethnicity	702	761	777	865	753	754
Temporary residents	4,841	5,031	5,413	6,192	6,612	7,473

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, various years.

Appendix table 4-9

Male science and engineering graduate students, by field, citizenship, and race/ethnicity: 1994–99

Field, citizenship, and race/ethnicity	1994	1995	1996	1997	1998	1999
Science and engineering, all males	272,116	262,332	253,597	245,629	241,458	242,840
U.S. citizens and permanent residents	195,847	189,969	182,571	174,939	169,500	165,886
White, non-Hispanic	153,620	146,059	139,367	131,495	125,740	121,860
Asian/Pacific Islander	17,152	16,372	15,948	15,687	15,895	16,047
Black, non-Hispanic	8,049	8,211	8,251	8,332	8,324	8,592
Hispanic	7,197	7,404	7,649	7,697	7,840	8,223
American Indian/Alaskan Native	693	753	768	804	797	745
Other or unknown race/ethnicity	9,136	11,170	10,588	10,924	10,904	10,419
Temporary residents	76,269	72,363	71,026	70,690	71,958	76,954
Physical sciences, all males	25,290	24,308	23,282	22,237	21,820	21,784
U.S. citizens and permanent residents	16,550	15,934	15,145	14,353	14,002	13,705
White, non-Hispanic	13,745	12,998	12,381	11,567	11,046	10,876
Asian/Pacific Islander	1,253	1,159	1,096	1,044	1,150	1,047
Black, non-Hispanic	497	529	550	508	481	501
Hispanic	444	469	455	499	525	552
American Indian/Alaskan Native	49	57	42	46	41	40
Other or unknown race/ethnicity	562	722	621	689	759	689
Temporary residents	8,740	8,374	8,137	7,884	7,818	8,079
Earth, atmospheric, and ocean sciences, all males	10,645	10,286	9,737	9,146	8,690	8,362
U.S. citizens and permanent residents	8,258	8,136	7,743	7,350	6,954	6,699
White, non-Hispanic	7,368	7,204	6,821	6,377	6,033	5,881
Asian/Pacific Islander	294	260	249	253	238	208
Black, non-Hispanic	117	116	115	105	103	112
Hispanic	212	223	230	236	202	196
American Indian/Alaskan Native	25	31	36	47	44	32
Other or unknown race/ethnicity	242	302	292	332	334	270
Temporary residents	2,387	2,150	1,994	1,796	1,736	1,663
Mathematical sciences, all males	13,044	12,248	11,794	10,857	10,499	10,213
U.S. citizens and permanent residents	8,670	8,095	7,695	7,012	6,861	6,350
White, non-Hispanic	6,824	6,230	5,910	5,322	5,059	4,800
Asian/Pacific Islander	735	669	702	622	704	565
Black, non-Hispanic	343	385	368	347	339	324
Hispanic	241	248	266	254	276	270
American Indian/Alaskan Native	24	43	24	29	16	12
Other or unknown race/ethnicity	503	520	425	438	467	379
Temporary residents	4,374	4,153	4,099	3,845	3,638	3,863
Computer science, all males	26,071	25,325	25,829	26,110	27,225	29,990
U.S. citizens and permanent residents	17,428	17,126	17,043	16,876	17,028	17,968
White, non-Hispanic	12,483	11,690	11,439	10,919	10,750	10,889
Asian/Pacific Islander	2,689	2,706	2,834	2,978	3,299	3,834
Black, non-Hispanic	696	652	716	765	764	824
Hispanic	471	502	523	513	559	659
American Indian/Alaskan Native	36	41	40	43	68	51
Other or unknown race/ethnicity	1,053	1,535	1,491	1,658	1,588	1,711
Temporary residents	8,643	8,199	8,786	9,234	10,197	12,022

See SOURCE at end of table.

Appendix table 4-9

Male science and engineering graduate students, by field, citizenship, and race/ethnicity: 1990–99

Field, citizenship, and race/ethnicity	1994	1995	1996	1997	1998	1999
Agricultural sciences, all males	7,955	7,985	7,551	7,321	7,152	7,121
U.S. citizens and permanent residents	5,657	5,753	5,450	5,416	5,382	5,461
White, non-Hispanic	5,037	5,031	4,778	4,678	4,662	4,759
Asian/Pacific Islander	171	151	143	164	155	139
Black, non-Hispanic	119	151	132	105	149	135
Hispanic	144	155	206	246	210	222
American Indian/Alaskan Native	21	30	23	34	45	46
Other or unknown race/ethnicity	165	235	168	189	161	160
Temporary residents	2,298	2,232	2,101	1,905	1,770	1,660
Biological sciences, all males	29,991	29,913	29,387	28,510	28,028	27,560
U.S. citizens and permanent residents	22,724	23,163	23,170	22,480	22,053	21,747
White, non-Hispanic	18,471	18,401	18,300	17,479	17,025	16,637
Asian/Pacific Islander	2,022	2,166	2,257	2,171	2,101	2,102
Black, non-Hispanic	671	691	725	780	787	786
Hispanic	769	855	852	901	924	961
American Indian/Alaskan Native	77	87	93	91	88	80
Other or unknown race/ethnicity	714	963	943	1,058	1,128	1,181
Temporary residents	7,267	6,750	6,217	6,030	5,975	5,813
Psychology, all males	16,416	15,877	15,375	15,507	15,095	14,497
U.S. citizens and permanent residents	15,475	15,020	14,667	14,757	14,297	13,707
White, non-Hispanic	12,712	11,983	11,574	11,316	10,915	10,223
Asian/Pacific Islander	435	416	465	510	551	537
Black, non-Hispanic	851	817	808	908	887	915
Hispanic	705	762	807	860	881	958
American Indian/Alaskan Native	97	93	111	118	87	88
Other or unknown race/ethnicity	675	949	902	1,045	976	986
Temporary residents	941	857	708	750	798	790
Social sciences, all males	47,758	47,224	45,698	43,605	41,987	41,688
U.S. citizens and permanent residents	38,284	38,011	36,338	34,641	33,111	32,568
White, non-Hispanic	30,229	29,474	27,706	26,063	24,367	23,656
Asian/Pacific Islander	1,585	1,608	1,544	1,594	1,527	1,471
Black, non-Hispanic	2,788	2,913	2,883	2,852	2,872	3,006
Hispanic	1,928	1,994	2,043	2,015	2,050	2,173
American Indian/Alaskan Native	185	190	209	216	235	221
Other or unknown race/ethnicity	1,569	1,832	1,953	1,901	2,060	2,041
Temporary residents	9,474	9,213	9,360	8,964	8,876	9,120
Engineering, all males	94,946	89,166	84,944	82,336	80,962	81,625
U.S. citizens and permanent residents	62,801	58,731	55,320	52,054	49,812	47,681
White, non-Hispanic	46,751	43,048	40,458	37,774	35,883	34,139
Asian/Pacific Islander	7,968	7,237	6,658	6,351	6,170	6,144
Black, non-Hispanic	1,967	1,957	1,954	1,962	1,942	1,989
Hispanic	2,283	2,196	2,267	2,173	2,213	2,232
American Indian/Alaskan Native	179	181	190	180	173	175
Other or unknown race/ethnicity	3,653	4,112	3,793	3,614	3,431	3,002
Temporary residents	32,145	30,435	29,624	30,282	31,150	33,944

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, various years.

Appendix table 4-10

Black graduate students enrolled in S&E in all institutions and in historically black colleges and universities, by field: 1992–99

Field and institution type	1992	1993	1994	1995	1996	1997	1998	1999
	Total number of black students							
All institutions, total science and engineering	15,445	17,116	17,610	18,282	19,068	19,346	19,654	20,341
Sciences	13,069	14,556	14,826	15,426	16,171	16,468	16,832	17,375
Physical sciences	807	843	856	897	986	952	913	903
Earth, atmospheric, and ocean sciences	201	224	202	215	219	203	202	213
Mathematical sciences	579	710	673	689	711	657	613	594
Computer science	1,106	1,167	1,182	1,155	1,276	1,300	1,355	1,501
Agricultural sciences	210	238	240	298	272	232	313	277
Biological sciences	1,493	1,737	1,709	1,879	2,010	2,167	2,175	2,258
Psychology	2,758	3,284	3,529	3,359	3,452	3,644	3,813	3,787
Social sciences	5,915	6,353	6,435	6,934	7,245	7,313	7,448	7,842
Engineering	2,376	2,560	2,784	2,856	2,897	2,878	2,822	2,966
All HBCUs, total science and engineering	2,075	2,433	2,768	2,906	3,174	3,279	3,082	3,233
Sciences	1,898	2,221	2,515	2,612	2,883	2,995	2,799	2,939
Physical sciences	179	211	231	253	279	286	229	179
Earth, atmospheric, and ocean sciences	30	42	30	38	34	43	40	36
Mathematical sciences	111	169	155	139	157	128	107	129
Computer science	200	190	227	210	217	219	199	216
Agricultural sciences	70	84	102	130	111	88	137	155
Biological sciences	306	403	453	492	543	593	563	572
Psychology	352	428	489	413	430	490	399	451
Social sciences	650	694	828	937	1,112	1,148	1,125	1,201
Engineering	177	212	253	294	291	284	283	294
	Percent of black students in HBCUs							
Total science and engineering	13.4	14.3	15.7	15.9	16.6	16.9	15.7	15.9
Sciences	14.5	15.4	17.0	16.9	17.8	18.2	16.6	16.9
Physical sciences	22.2	24.9	27.0	28.2	28.3	30.0	25.1	19.8
Earth, atmospheric, and ocean sciences	14.9	18.8	14.9	17.7	15.5	21.2	19.8	16.9
Mathematical sciences	19.2	25.9	23.0	20.2	22.1	19.5	17.5	21.7
Computer science	18.1	16.3	19.2	18.2	17.0	16.8	14.7	14.4
Agricultural sciences	33.3	40.5	42.5	43.6	40.8	37.9	43.8	56.0
Biological sciences	20.5	23.1	26.5	26.2	27.0	27.4	25.9	25.3
Psychology	12.8	12.8	13.9	12.3	12.5	13.4	10.5	11.9
Social sciences	11.0	10.9	12.9	13.5	15.3	15.7	15.1	15.3
Engineering	7.4	8.2	9.1	10.3	10.0	9.9	10.0	9.9

HBCU historically black college or university

NOTE: Data are for U.S. citizens and permanent residents only.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, various years.

Appendix table 4-11

Hispanic graduate students enrolled in S&E in all institutions and in Hispanic-serving institutions, by field: 1990–99

Field and institution type	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	Total number of Hispanic students									
All institutions, total science and engineering	10,159	11,045	12,246	13,381	13,277	14,111	14,568	14,980	15,476	16,514
Sciences	8,273	8,921	9,783	10,686	10,414	11,303	11,632	12,168	12,576	13,595
Physical sciences	642	649	680	747	675	731	742	782	832	891
Earth, atmospheric, and ocean sciences	241	250	308	370	339	365	374	399	370	382
Mathematical sciences	351	349	376	415	369	400	425	427	454	446
Computer science	565	631	706	695	631	664	700	723	754	872
Agricultural sciences	272	279	279	309	268	289	374	408	387	428
Biological sciences	1,220	1,374	1,459	1,649	1,651	1,824	1,848	1,986	2,047	2,181
Psychology	2,160	2,365	2,371	2,562	2,485	2,799	2,937	3,075	3,228	3,575
Social sciences	2,822	3,024	3,604	3,939	3,996	4,231	4,232	4,368	4,504	4,820
Engineering	1,886	2,124	2,463	2,695	2,863	2,808	2,936	2,812	2,900	2,919
All HSI, total science and engineering	2,935	3,147	3,369	3,712	3,414	3,705	3,771	3,930	4,342	4,834
Sciences	2,552	2,695	2,813	3,109	2,825	3,049	3,116	3,332	3,698	4,211
Physical sciences	163	151	174	200	192	197	228	233	274	316
Earth, atmospheric, and ocean sciences	52	50	70	100	95	97	112	111	113	120
Mathematical sciences	120	89	100	107	72	90	103	115	145	136
Computer science	78	74	123	102	91	98	72	80	100	109
Agricultural sciences	74	78	85	105	67	91	126	159	160	177
Biological sciences	288	411	376	453	453	480	481	524	554	589
Psychology	698	820	652	701	596	734	745	799	1,020	1,237
Social sciences	1,079	1,022	1,233	1,341	1,259	1,262	1,249	1,311	1,332	1,527
Engineering	383	452	556	603	589	656	655	598	644	623
	Percent of Hispanic students in HSIs									
Total science and engineering	28.9	28.5	27.5	27.7	25.7	26.3	25.9	26.2	28.1	29.3
Sciences	30.8	30.2	28.8	29.1	27.1	27.0	26.8	27.4	29.4	31.0
Physical sciences	25.4	23.3	25.6	26.8	28.4	26.9	30.7	29.8	32.9	35.5
Earth, atmospheric, and ocean sciences	21.6	20.0	22.7	27.0	28.0	26.6	29.9	27.8	30.5	31.4
Mathematical sciences	34.2	25.5	26.6	25.8	19.5	22.5	24.2	26.9	31.9	30.5
Computer science	13.8	11.7	17.4	14.7	14.4	14.8	10.3	11.1	13.3	12.5
Agricultural sciences	27.2	28.0	30.5	34.0	25.0	31.5	33.7	39.0	41.3	41.4
Biological sciences	23.6	29.9	25.8	27.5	27.4	26.3	26.0	26.4	27.1	27.0
Psychology	32.3	34.7	27.5	27.4	24.0	26.2	25.4	26.0	31.6	34.6
Social sciences	38.2	33.8	34.2	34.0	31.5	29.8	29.5	30.0	29.6	31.7
Engineering	20.3	21.3	22.6	22.4	20.6	23.4	22.3	21.3	22.2	21.3

HSI Hispanic-serving institution

NOTE: Data are for U.S. citizens and permanent residents only.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, various years.

Appendix table 4-12

Graduate student enrollment, by disability status, selected demographic characteristics, and attendance status: 1996

Characteristic	Total enrollment	Students without disabilities	Students with disabilities
	Number		
Total	2,784,000	2,695,000	89,000
	Percent distribution		
Sex			
Male	45.7	46.2	31.3
Female	54.3	53.8	68.7
Race/ethnicity			
White, non-Hispanic	80.6	80.9	73.9
Asian/Pacific Islander	8.1	8.2	5.5
Black, non-Hispanic	6.4	6.2	10.7
Hispanic	4.9	4.7	9.8
American Indian/Alaskan Native	S	S	S
Other	S	S	S
Age			
15 to 23	9.2	9.3	7.6
24 to 29	42.7	43.0	32.3
30 or older	48.1	47.7	60.0
Attendance status			
Part time	67.5	65.7	65.8
Full time	32.5	32.5	34.2

S suppressed for reasons of confidentiality and/or data reliability

NOTES: Data include first-professional students (i.e., those in chiropractic medicine, dentistry, medicine, optometry, osteopathic medicine, pharmacy, podiatry, and veterinary medicine). Details may not add to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics: 1998*, NCES 1999-036 (Washington, DC, 1999).

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 4-13
Graduate student enrollment, by disability status and field: 1996

Field	Total enrollment		With disabilities		Without disabilities	
	Number					
Total	2,784,000		89,000		2,695,000	
	Percent distribution					
Total	100.0		100.0		100.0	
Social/behavioral sciences	7.8	(0.8)	7.9	(0.8)	5.8	(2.0)
Life and physical sciences	6.3	(0.9)	6.5	(0.9)	2.1	(1.4)
Engineering/computer science/math	8.3	(0.9)	8.4	(1.0)	3.7	(2.0)
Humanities	9.7	(1.5)	9.8	(1.5)	6.2	(2.1)
Education	26.1	(1.6)	26.2	(1.6)	23.8	(5.5)
Business/management	17.1	(1.5)	17.1	(1.5)	14.8	(4.2)
Health	13.0	(1.4)	12.5	(1.4)	28.6	(7.9)
Law	5.2	(0.6)	5.2	(0.6)	4.1	(1.0)
Other	2.9	(0.5)	2.9	(0.5)	3.8	(2.5)
Missing/undeclared	3.5	(0.6)	3.5	(0.6)	7.1	(4.4)

NOTES: Standard errors are in parentheses. Details may not add to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study, Data Analysis System.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 4-14

Science and engineering graduate students, by field, sex, and enrollment status: 1999

Field	All enrollment			Male enrollment			Female enrollment		
	Total	Full time	Part time	Total	Full time	Part time	Total	Full time	Part time
Science and engineering, total	411,308	283,915	127,393	242,840	169,025	73,815	168,468	114,890	53,578
Physical sciences	30,689	26,640	4,049	21,784	19,076	2,708	8,905	7,564	1,341
Astronomy	832	808	24	607	590	17	225	218	7
Chemistry	18,414	15,963	2,451	11,804	10,322	1,482	6,610	5,641	969
Physics	10,869	9,661	1,208	8,996	8,028	968	1,873	1,633	240
Physical sciences, other	574	208	366	377	136	241	197	72	125
Earth, atmospheric, and ocean sciences	14,082	10,492	3,590	8,362	6,180	2,182	5,720	4,312	1,408
Atmospheric sciences	913	793	120	671	567	104	242	226	16
Geosciences	6,652	5,239	1,413	4,245	3,315	930	2,407	1,924	483
Ocean sciences	2,608	2,130	478	1,398	1,128	270	1,210	1,002	208
Earth, atmospheric, and ocean sciences, other	3,909	2,330	1,579	2,048	1,170	878	1,861	1,160	701
Mathematics and applied mathematics	13,530	9,681	3,849	8,665	6,477	2,188	4,865	3,204	1,661
Statistics	2,724	2,111	613	1,548	1,183	365	1,176	928	248
Computer science	42,560	22,708	19,852	29,990	16,327	13,663	12,570	6,381	6,189
Agricultural sciences	12,036	9,210	2,826	7,121	5,403	1,718	4,915	3,807	1,108
Biological sciences	57,320	47,268	10,052	27,560	23,285	4,275	29,760	23,983	5,777
Anatomy	913	871	42	482	463	19	431	408	23
Biochemistry	5,120	4,819	301	2,846	2,703	143	2,274	2,116	158
Biology	13,996	9,908	4,088	6,850	4,959	1,891	7,146	4,949	2,197
Biometry and epidemiology	3,575	2,604	971	1,308	961	347	2,267	1,643	624
Biophysics	710	681	29	497	479	18	213	202	11
Botany	2,261	1,950	311	1,168	1,002	166	1,093	948	145
Cell and molecular biology	4,402	4,039	363	2,160	2,036	124	2,242	2,003	239
Ecology	1,687	1,240	447	817	595	222	870	645	225
Entomology and parasitology	1,145	971	174	739	619	120	406	352	54
Genetics	1,767	1,667	100	760	730	30	1,007	937	70
Microbiology, immunology, and virology	4,910	4,554	356	2,407	2,253	154	2,503	2,301	202
Nutrition	4,449	3,153	1,296	1,069	796	273	3,380	2,357	1,023
Pathology	1,580	1,364	216	776	669	107	804	695	109
Pharmacology	2,757	2,579	178	1,414	1,316	98	1,343	1,263	80
Physiology	2,100	1,901	199	1,190	1,091	99	910	810	100
Zoology	1,614	1,382	232	907	774	133	707	608	99
Biological sciences, other	4,334	3,585	749	2,170	1,839	331	2,164	1,746	418
Psychology	51,874	34,715	17,159	14,497	10,085	4,412	37,377	24,630	12,747
Psychology, combined program	16,353	11,649	4,704	4,896	3,588	1,308	11,457	8,061	3,396
Psychology, except clinical	22,805	13,207	9,598	6,107	3,721	2,386	16,698	9,486	7,212
Clinical psychology	12,716	9,859	2,857	3,494	2,776	718	9,222	7,083	2,139

See SOURCE at end of table.

Appendix table 4-14

Science and engineering graduate students, by field, sex, and enrollment status: 1999

Field	All enrollment			Male enrollment			Female enrollment		
	Total	Full time	Part time	Total	Full time	Part time	Total	Full time	Part time
Social sciences	85,025	53,258	31,767	41,688	26,671	15,017	43,337	26,587	16,750
Agricultural economics	2,014	1,686	328	1,301	1,093	208	713	593	120
Anthropology (cultural and social)	7,633	5,814	1,819	2,989	2,295	694	4,644	3,519	1,125
Economics	10,562	8,390	2,172	7,063	5,655	1,408	3,499	2,735	764
Geography	4,250	2,786	1,464	2,547	1,636	911	1,703	1,150	553
History and philosophy of science	557	429	128	345	267	78	212	162	50
Linguistics	2,799	2,182	617	966	782	184	1,833	1,400	433
Political science/public administration	31,398	16,138	15,260	15,816	8,494	7,322	15,582	7,644	7,938
Sociology	8,966	6,278	2,688	3,227	2,312	915	5,739	3,966	1,773
Sociology/anthropology	741	518	223	271	180	91	470	338	132
Social sciences, other	16,105	9,037	7,068	7,163	3,957	3,206	8,942	5,080	3,862
Engineering	101,468	67,832	33,636	81,625	54,338	27,287	19,843	13,494	6,349
Aerospace engineering	3,349	2,645	704	2,926	2,320	606	423	325	98
Agricultural engineering	934	767	167	683	546	137	251	221	30
Biomedical engineering	3,121	2,742	379	2,117	1,840	277	1,004	902	102
Chemical engineering	6,849	5,569	1,280	5,123	4,178	945	1,726	1,391	335
Civil engineering	16,190	11,178	5,012	12,010	8,118	3,892	4,180	3,060	1,120
Electrical engineering	31,368	20,224	11,144	26,402	16,967	9,435	4,966	3,257	1,709
Engineering science and engineering physics	1,627	1,035	592	1,308	838	470	319	197	122
Industrial/manufacturing engineering	10,886	5,284	5,602	8,463	4,198	4,265	2,423	1,086	1,337
Mechanical engineering	14,956	10,333	4,623	13,169	9,072	4,097	1,787	1,261	526
Metallurgical and materials engineering	4,451	3,537	914	3,379	2,699	680	1,072	838	234
Mining engineering	328	258	70	273	215	58	55	43	12
Nuclear engineering	830	641	189	686	530	156	144	111	33
Petroleum engineering	642	535	107	560	462	98	82	73	9
Engineering, other	5,937	3,084	2,853	4,526	2,355	2,171	1,411	729	682

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

Appendix table 4-15

Science and engineering graduate students, by enrollment status, race/ethnicity, and field: 1999

Enrollment status and race/ethnicity	Science and engineering, total	Physical sciences	Earth, atmospheric, and ocean sciences	Mathe-matical sciences	Computer science	Agricultural sciences	Biological sciences	Psychology	Social sciences	Engineering
Total	301,404	19,567	11,560	10,332	25,405	9,545	46,013	49,634	69,297	60,051
White, non-Hispanic	216,865	15,048	10,022	7,662	14,423	8,196	34,529	36,356	48,615	42,014
Asian/Pacific Islander	27,562	1,683	400	1,002	6,156	306	4,461	2,044	3,356	8,154
Black, non-Hispanic	20,341	903	213	594	1,501	277	2,258	3,787	7,842	2,966
Hispanic	16,514	891	382	446	872	428	2,181	3,575	4,820	2,919
American Indian/Alaskan Native	1,557	69	63	30	75	68	187	303	520	242
Other or unknown race/ethnicity	18,565	973	480	598	2,378	270	2,397	3,569	4,144	3,756
Full-time students	190,146	16,314	8,273	6,589	9,960	7,048	36,949	32,977	39,790	32,246
White, non-Hispanic	140,377	12,796	7,178	4,991	5,617	6,004	27,722	24,876	28,841	22,352
Asian/Pacific Islander	18,065	1,401	292	626	2,869	245	3,864	1,530	2,258	4,980
Black, non-Hispanic	11,227	700	137	342	540	202	1,709	2,211	3,779	1,607
Hispanic	10,338	727	294	275	296	335	1,759	2,458	2,547	1,647
American Indian/Alaskan Native	1,029	62	42	20	33	50	142	222	337	121
Other or unknown race/ethnicity	9,110	628	330	335	605	212	1,753	1,680	2,028	1,539
Part-time students	111,258	3,253	3,287	3,743	15,445	2,497	9,064	16,657	29,507	27,805
White, non-Hispanic	76,488	2,252	2,844	2,671	8,806	2,192	6,807	11,480	19,774	19,662
Asian/Pacific Islander	9,497	282	108	376	3,287	61	597	514	1,098	3,174
Black, non-Hispanic	9,114	203	76	252	961	75	549	1,576	4,063	1,359
Hispanic	6,176	164	88	171	576	93	422	1,117	2,273	1,272
American Indian/Alaskan Native	528	7	21	10	42	18	45	81	183	121
Other or unknown race/ethnicity	9,455	345	150	263	1,773	58	644	1,889	2,116	2,217

NOTE: Data are for U.S. citizens and permanent residents only.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

Appendix table 4-16

Full-time graduate students in science and engineering, by sex, primary source of support, and field: 1999

Field and sex	Total, all sources	Federal support									Institutional support	Other outside support			Self-support
		Total Federal	DOD	HHS			NASA	NSF	USDA	All other Federal		Other outside support, total	All other U.S. support	Foreign support	
				Total HHS	NIH	Other HHS									
Both sexes, total science and engineering	283,915	57,438	7,674	17,256	15,998	1,258	2,582	13,728	2,589	13,609	122,322	23,776	20,297	3,479	80,379
Sciences	216,083	41,525	3,322	16,295	15,154	1,141	1,436	8,769	2,360	9,343	97,111	14,279	11,884	2,395	63,168
Physical sciences	26,640	9,241	883	1,846	1,657	189	568	3,278	33	2,633	14,123	1,926	1,754	172	1,350
Earth, atmospheric, and ocean sciences	10,492	2,987	339	42	22	20	411	1,128	55	1,012	4,732	844	682	162	1,929
Mathematical sciences	11,792	1,104	227	105	78	27	15	441	7	309	8,278	423	297	126	1,987
Computer science	22,708	3,361	1,213	107	64	43	111	1,309	20	601	7,057	1,560	1,424	136	10,730
Agricultural sciences	9,210	1,911	28	28	17	11	55	107	1,063	630	3,797	1,569	1,310	259	1,933
Biological sciences	47,268	16,531	337	12,268	11,774	494	101	1,504	843	1,478	20,500	3,368	2,898	470	6,869
Psychology	34,715	3,255	124	1,554	1,275	279	41	310	13	1,213	13,252	1,400	1,344	56	16,808
Social sciences	53,258	3,135	171	345	267	78	134	692	326	1,467	25,372	3,189	2,175	1,014	21,562
Engineering	67,832	15,913	4,352	961	844	117	1,146	4,959	229	4,266	25,211	9,497	8,413	1,084	17,211
Aerospace engineering	2,645	983	438	4	3	1	257	98	0	186	797	348	288	60	517
Chemical engineering	5,569	1,657	163	149	127	22	102	744	25	474	2,294	966	891	75	652
Civil engineering	11,178	1,672	157	44	39	5	56	544	35	836	4,852	1,089	936	153	3,565
Electrical engineering	20,224	4,610	1,842	102	85	17	279	1,477	10	900	7,114	2,829	2,551	278	5,671
Industrial engineering	5,284	675	236	31	18	13	26	213	2	167	1,868	564	477	87	2,177
Mechanical engineering	10,333	2,596	713	112	87	25	242	886	22	621	4,037	1,603	1,432	171	2,097
Metallurgical and materials engineering	3,537	1,336	320	14	6	8	60	520	12	410	1,081	702	636	66	418
Other engineering	9,062	2,384	483	505	479	26	124	477	123	672	3,168	1,396	1,202	194	2,114
Men, total science and engineering	169,025	37,670	6,379	9,075	8,454	621	1,903	9,745	1,452	9,116	72,171	16,327	13,718	2,609	42,857
Sciences	114,687	24,746	2,568	8,369	7,838	531	982	5,859	1,290	5,678	52,343	8,500	6,843	1,657	29,098
Physical sciences	19,076	6,890	710	1,224	1,101	123	426	2,444	19	2,067	9,858	1,386	1,252	134	942
Earth, atmospheric, and ocean sciences	6,180	1,851	236	25	14	11	255	683	30	622	2,711	546	426	120	1,072
Mathematical sciences	7,660	813	196	61	41	20	10	325	6	215	5,420	286	188	98	1,141
Computer science	16,327	2,719	1,031	85	53	32	89	1,035	12	467	5,179	1,195	1,075	120	7,234

See information and SOURCE at end of table.

Appendix table 4-16

Full-time graduate students in science and engineering, by sex, primary source of support, and field: 1999

Field and sex	Total, all sources	Federal support									Institutional support	Other outside support			Self-support
		Total Federal	DOD	HHS			NASA	NSF	USDA	All other Federal		Other outside support, total	All other U.S. support	Foreign support	
				Total HHS	NIH	Other HHS									
Agricultural sciences	5,403	1,127	17	20	13	7	38	59	633	360	2,165	1,011	827	184	1,100
Biological sciences	23,285	8,495	173	6,279	6,051	228	64	810	393	776	10,030	1,792	1,503	289	2,968
Psychology	10,085	1,210	75	550	470	80	17	130	4	434	4,087	442	415	27	4,346
Social sciences	26,671	1,641	130	125	95	30	83	373	193	737	12,893	1,842	1,157	685	10,295
Engineering	54,338	12,924	3,811	706	616	90	921	3,886	162	3,438	19,828	7,827	6,875	952	13,759
Aerospace engineering	2,320	885	407	4	3	1	223	84	0	167	657	317	260	57	461
Chemical engineering	4,178	1,214	134	109	91	18	69	520	14	368	1,713	753	695	58	498
Civil engineering	8,118	1,207	131	23	23	0	37	391	24	601	3,454	818	690	128	2,639
Electrical engineering	16,967	3,945	1,612	81	67	14	233	1,239	9	771	5,904	2,430	2,177	253	4,688
Industrial engineering	4,198	561	207	21	11	10	16	176	2	139	1,473	448	375	73	1,716
Mechanical engineering	9,072	2,277	652	102	78	24	207	745	19	552	3,514	1,406	1,251	155	1,875
Metallurgical and materials engineering	2,699	1,031	253	11	6	5	41	385	6	335	789	557	500	57	322
Other engineering	6,786	1,804	415	355	337	18	95	346	88	505	2,324	1,098	927	171	1,560
Women, total science and engineering	114,890	19,768	1,295	8,181	7,544	637	679	3,983	1,137	4,493	50,151	7,449	6,579	870	37,522
Sciences	101,396	16,779	754	7,926	7,316	610	454	2,910	1,070	3,665	44,768	5,779	5,041	738	34,070
Physical sciences	7,564	2,351	173	622	556	66	142	834	14	566	4,265	540	502	38	408
Earth, atmospheric, and ocean sciences	4,312	1,136	103	17	8	9	156	445	25	390	2,021	298	256	42	857
Mathematical sciences	4,132	291	31	44	37	7	5	116	1	94	2,858	137	109	28	846
Computer science	6,381	642	182	22	11	11	22	274	8	134	1,878	365	349	16	3,496
Agricultural sciences	3,807	784	11	8	4	4	17	48	430	270	1,632	558	483	75	833
Biological sciences	23,983	8,036	164	5,989	5,723	266	37	694	450	702	10,470	1,576	1,395	181	3,901
Psychology	24,630	2,045	49	1,004	805	199	24	180	9	779	9,165	958	929	29	12,462
Social sciences	26,587	1,494	41	220	172	48	51	319	133	730	12,479	1,347	1,018	329	11,267

See information and SOURCE at end of table.

Appendix table 4-16

Full-time graduate students in science and engineering, by sex, primary source of support, and field: 1999

Field and sex	Total, all sources	Federal support									Institutional support	Other outside support			Self-support
		Total Federal	DOD	HHS			NASA	NSF	USDA	All other Federal		Other outside support, total	All other U.S. support	Foreign support	
				Total HHS	NIH	Other HHS									
Engineering	13,494	2,989	541	255	228	27	225	1,073	67	828	5,383	1,670	1,538	132	3,452
Aerospace engineering	325	98	31	0	0	0	34	14	0	19	140	31	28	3	56
Chemical engineering	1,391	443	29	40	36	4	33	224	11	106	581	213	196	17	154
Civil engineering	3,060	465	26	21	16	5	19	153	11	235	1,398	271	246	25	926
Electrical engineering	3,257	665	230	21	18	3	46	238	1	129	1,210	399	374	25	983
Industrial engineering	1,086	114	29	10	7	3	10	37	0	28	395	116	102	14	461
Mechanical engineering	1,261	319	61	10	9	1	35	141	3	69	523	197	181	16	222
Metallurgical and materials engineering	838	305	67	3	0	3	19	135	6	75	292	145	136	9	96
Other engineering	2,276	580	68	150	142	8	29	131	35	167	844	298	275	23	554

DOD Department of Defense
HHS Department of Health and Human Services
NASA National Aeronautics and Space Administration
NIH National Institutes of Health
NSF National Science Foundation
USDA U.S. Department of Agriculture

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 4-17

Types of financial support received by full-time full-year S&E graduate students, by race/ethnicity: 1996

(Percent)

Race/ethnicity	Any aid	Loan	Grant	Research assistantship	Teaching assistantship
Total	82.8	33.4	51.6	15.7	20.3
White, non-Hispanic	87.5	35.6	50.6	13.0	18.6
Asian/Pacific Islander	72.0	21.2	49.9	33.9	41.7
Underrepresented minority[a]	74.1	42.7	62.1	18.7	10.9

[a]Underrepresented minority groups include black, non Hispanic; Hispanic; and American Indian/Alaskan Native.

NOTE: Data are U.S. citizens and permanent residents only.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 4-18

Science and engineering doctorate recipients, by field, sex, and amount of debt: 1995–99

Field	Sex	Number of doctorate recipients	Percent distribution								
			No debt	$5,000 or less	$5,001 to $10,000	$10,001 to 15,000	$15,001 to 20,000	$20,001 to 25,000	$25,001 to 30,000	$30,001 or more	Unknown/ unreported
Science and engineering, total	Male	48,188	40.3	11.0	11.1	8.7	6.3	4.5	3.5	9.7	4.9
	Female	31,056	37.2	10.4	10.2	8.3	6.4	4.9	4.1	13.3	5.3
Physical sciences	Male	8,066	39.9	13.4	13.7	9.8	6.1	4.3	2.8	5.4	4.7
	Female	2,439	40.8	13.6	13.5	10.2	6.6	3.9	2.8	5.0	3.6
Earth, atmospheric, and ocean sciences	Male	1,791	47.0	12.8	11.2	9.1	5.5	4.0	2.4	4.7	3.2
	Female	654	45.3	13.0	12.8	9.3	5.4	3.8	3.2	3.8	3.4
Mathematical sciences	Male	1,973	48.5	10.6	11.9	8.8	5.2	3.2	2.1	5.3	4.4
	Female	716	51.7	11.5	10.9	6.1	4.9	3.4	2.4	4.1	5.2
Computer science	Male	1,753	57.8	9.6	8.3	5.8	3.9	2.5	1.7	5.0	5.4
	Female	468	59.2	10.0	7.1	4.9	2.8	1.9	1.9	6.4	5.8
Agricultural sciences	Male	1,647	40.2	11.8	12.1	8.3	6.2	3.8	4.6	7.5	5.5
	Female	689	41.7	13.1	10.7	7.4	5.8	4.5	2.2	5.7	9.0
Biological sciences	Male	10,086	36.7	12.6	12.5	9.8	6.8	4.6	3.5	9.3	4.1
	Female	8,035	42.1	12.7	12.2	9.2	6.2	4.4	3.0	6.5	3.6
Psychology	Male	5,163	23.5	7.0	8.3	7.4	6.8	6.4	5.9	26.5	8.2
	Female	10,430	27.4	7.1	7.4	7.3	6.8	5.7	5.8	24.4	8.2
Social sciences	Male	6,961	34.3	9.5	10.6	9.9	7.9	5.9	4.7	12.8	4.4
	Female	5,619	36.6	10.1	10.6	9.1	7.0	5.7	4.5	13.0	3.5
Engineering	Male	10,748	50.3	10.7	9.8	7.3	5.3	3.4	2.5	5.9	4.7
	Female	2,006	51.8	12.4	11.3	7.4	4.9	2.5	1.9	4.3	3.4

NOTE: Debt is for undergraduate and/or graduate education expenses including tuition and fees, living expenses and supplies, and transportation costs to and from school.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 4-19

Science and engineering doctorate recipients, by field, race/ethnicity, and amount of debt: 1995–99

Field and race/ethnicity	Number of doctorate recipients	Percent distribution								
		No debt	$5,000 or less	$5,001 to $10,000	$10,001 to $15,000	$15,001 to $20,000	$20,001 to $25,000	$25,001 to $30,000	$30,001 or more	Unknown/ unreported
Science and engineering, total										
White, non-Hispanic	66,740	40.1	10.9	10.9	8.6	6.3	4.7	3.7	10.8	4.0
Asian/Pacific Islander	4,625	45.7	9.8	10.8	8.3	5.2	3.3	2.9	8.3	5.6
Black, non-Hispanic	2,715	22.5	11.5	11.2	9.6	7.4	5.8	5.9	20.7	5.6
Hispanic	2,872	27.4	10.9	10.5	9.7	8.3	5.2	4.7	15.4	7.9
American Indian/Alaskan Native	456	32.0	11.4	7.5	8.1	5.0	5.3	6.4	16.2	8.1
Physical sciences										
White, non-Hispanic	9,040	40.7	13.6	13.6	10.0	6.3	4.3	2.8	5.3	3.5
Asian/Pacific Islander	655	44.6	12.8	15.6	8.7	4.7	2.6	2.9	3.2	4.9
Black, non-Hispanic	234	22.6	15.4	14.5	9.8	7.3	6.0	6.4	11.5	6.4
Hispanic	269	32.0	13.4	13.4	12.6	8.9	5.2	2.2	6.3	5.9
American Indian/Alaskan Native	43	37.2	11.6	14.0	11.6	2.3	2.3	2.3	4.7	14.0
Earth, atmospheric, and ocean sciences										
White, non-Hispanic	2,216	47.1	13.3	11.6	9.5	5.4	3.8	2.8	4.0	2.5
Asian/Pacific Islander	56	51.8	8.9	12.5	3.6	7.1	5.4	0.0	3.6	7.1
Black, non-Hispanic	28	35.7	10.7	17.9	3.6	7.1	0.0	0.0	17.9	7.1
Hispanic	68	42.6	10.3	13.2	7.4	4.4	4.4	0.0	13.2	4.4
American Indian/Alaskan Native	13	46.2	7.7	0.0	15.4	7.7	15.4	7.7	0.0	0.0
Mathematical sciences										
White, non-Hispanic	2,362	49.9	11.1	11.9	8.3	5.2	3.1	2.0	5.0	3.3
Asian/Pacific Islander	138	55.1	7.2	8.7	7.2	2.9	4.3	2.9	1.4	10.1
Black, non-Hispanic	40	17.5	7.5	12.5	10.0	5.0	10.0	10.0	20.0	7.5
Hispanic	74	43.2	8.1	10.8	6.8	9.5	4.1	1.4	6.8	9.5
American Indian/Alaskan Native	8	62.5	25.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5
Computer science										
White, non-Hispanic	1,812	59.4	9.9	8.1	5.6	3.7	2.5	1.8	4.9	4.3
Asian/Pacific Islander	204	63.7	7.8	8.3	5.4	2.9	1.5	1.0	3.4	5.9
Black, non-Hispanic	53	37.7	7.5	7.5	11.3	3.8	3.8	5.7	13.2	9.4
Hispanic	58	41.4	17.2	5.2	6.9	6.9	3.4	3.4	15.5	0.0
American Indian/Alaskan Native	9	55.6	11.1	11.1	0.0	11.1	11.1	0.0	0.0	0.0

See explanatory information and SOURCE at end of table.

Appendix table 4-19

Science and engineering doctorate recipients, by field, race/ethnicity, and amount of debt: 1995–99

Field and race/ethnicity	Number of doctorate recipients	Percent distribution								
		No debt	$5,000 or less	$5,001 to $10,000	$10,001 to $15,000	$15,001 to $20,000	$20,001 to $25,000	$25,001 to $30,000	$30,001 or more	Unknown/ unreported
Agricultural sciences										
White, non-Hispanic	2,065	41.5	12.5	11.7	8.3	6.2	4.3	3.7	6.6	5.1
Asian/Pacific Islander	65	52.3	7.7	12.3	3.1	3.1	1.5	3.1	4.6	12.3
Black, non-Hispanic	63	17.5	11.1	9.5	9.5	12.7	3.2	6.3	14.3	15.9
Hispanic	68	33.8	11.8	13.2	4.4	5.9	1.5	7.4	16.2	5.9
American Indian/Alaskan Native	24	33.3	12.5	20.8	8.3	0.0	4.2	4.2	8.3	8.3
Biological sciences										
White, non-Hispanic	15,320	39.7	12.7	12.6	9.6	6.6	4.6	3.3	7.7	3.2
Asian/Pacific Islander	1,273	45.8	10.8	10.4	9.3	5.6	3.1	2.8	8.0	4.2
Black, non-Hispanic	482	22.0	16.2	12.7	10.2	6.0	5.2	5.6	16.4	5.8
Hispanic	634	30.4	14.0	13.6	10.9	8.4	6.3	3.2	9.5	3.8
American Indian/Alaskan Native	74	28.4	23.0	6.8	2.7	5.4	6.8	8.1	12.2	6.8
Psychology										
White, non-Hispanic	13,100	27.6	7.1	7.9	7.2	6.6	6.1	5.9	25.0	6.6
Asian/Pacific Islander	464	26.9	5.6	6.7	8.4	7.5	5.4	4.5	27.4	7.5
Black, non-Hispanic	756	18.1	9.3	8.2	8.7	8.7	6.6	5.7	29.2	5.4
Hispanic	853	17.0	6.9	7.3	8.1	8.1	5.0	6.7	25.6	15.4
American Indian/Alaskan Native	117	16.2	7.7	6.0	8.5	6.8	5.1	8.5	28.2	12.8
Social sciences										
White, non-Hispanic	10,571	37.1	9.9	10.7	9.3	7.5	5.9	4.4	12.1	3.2
Asian/Pacific Islander	442	34.2	9.7	10.6	12.4	5.4	5.4	4.5	11.3	6.3
Black, non-Hispanic	703	22.2	8.8	10.7	9.7	7.5	6.1	7.1	23.2	4.7
Hispanic	451	23.1	11.1	10.0	13.7	10.0	5.5	5.3	17.3	4.0
American Indian/Alaskan Native	334	26.3	11.7	8.1	7.5	5.4	6.0	7.2	19.8	8.1
Engineering										
White, non-Hispanic	10,254	51.8	11.1	10.0	7.3	5.2	3.3	2.3	5.4	3.6
Asian/Pacific Islander	1,328	52.3	9.6	10.7	6.9	4.8	2.6	2.4	5.3	5.3
Black, non-Hispanic	356	31.2	13.5	14.3	10.4	5.9	4.8	3.9	11.8	4.2
Hispanic	397	38.3	12.3	11.1	7.3	7.6	4.3	4.8	8.6	5.8
American Indian/Alaskan Native	66	54.5	10.6	1.5	7.6	4.5	1.5	4.5	9.1	6.1

NOTES: Data are for U.S. citizens and permanent residents only. Debt is for undergraduate and/or graduate education expenses including tuition and fees, living expenses and supplies, and transportation costs to and from school.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates.

Appendix table 4-20

Science and engineering doctorate recipients, by field, disability status, and amount of debt: 1995–99

Field	Disability status	Number of doctorate recipients	Percent distribution								
			No debt	$5,000 or less	$5,001 to $10,000	$10,001 to $15,000	$15,001 to $20,000	$20,001 to $25,000	$25,001 to $30,000	$30,001 or more	Unknown/ unreported
Science and engineering, total	Without disabilities	77,984	39.1	10.8	10.8	8.6	6.3	4.6	3.7	10.9	5.1
	With disabilities	1,284	37.4	9.4	7.9	8.2	6.5	4.9	5.3	19.4	1.0
Physical sciences	Without disabilities	10,400	40.0	13.5	13.7	9.9	6.2	4.2	2.8	5.3	4.5
	With disabilities	107	42.1	14.0	3.7	8.4	12.1	6.5	5.6	6.5	0.9
Earth, atmospheric, and ocean sciences	Without disabilities	2,411	46.6	12.8	11.7	9.1	5.4	4.0	2.6	4.5	3.3
	With disabilities	41	34.1	12.2	12.2	12.2	4.9	2.4	4.9	17.1	0.0
Mathematical sciences	Without disabilities	2,652	49.5	10.7	11.6	8.1	5.2	3.3	2.1	4.9	4.6
	With disabilities	37	40.5	16.2	13.5	8.1	0.0	2.7	5.4	10.8	2.7
Computer science	Without disabilities	2,176	58.5	9.5	8.0	5.7	3.7	2.4	1.7	5.0	5.6
	With disabilities	46	39.1	19.6	13.0	4.3	0.0	2.2	2.2	17.4	2.2
Agricultural sciences	Without disabilities	2,296	40.7	12.2	11.6	8.0	6.1	3.9	3.9	6.8	6.7
	With disabilities	41	36.6	7.3	14.6	9.8	7.3	7.3	2.4	14.6	0.0
Biological sciences	Without disabilities	17,902	39.1	12.7	12.4	9.6	6.5	4.5	3.3	8.0	3.9
	With disabilities	222	38.7	10.4	12.2	8.1	8.1	4.1	4.5	12.2	1.8
Psychology	Without disabilities	15,226	26.0	7.1	7.7	7.3	6.8	5.9	5.8	24.9	8.5
	With disabilities	379	27.7	5.5	5.8	7.7	6.3	6.6	6.1	33.5	0.8
Social sciences	Without disabilities	12,303	35.2	9.8	10.6	9.5	7.5	5.9	4.6	12.7	4.1
	With disabilities	279	40.9	6.5	8.2	8.6	5.7	3.2	5.0	20.8	1.1
Engineering	Without disabilities	12,618	50.5	10.9	10.1	7.3	5.3	3.2	2.4	5.6	4.6
	With disabilities	138	49.3	15.2	2.9	8.0	5.1	5.1	6.5	8.0	0.0

NOTE: Debt is for undergraduate and/or graduate education expenses including tuition and fees, living expenses and supplies, and transportation costs to and from school.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates.

Appendix table 4-21

Graduate degree attainment and enrollment status of 1992–93 bachelor's degree recipients who enrolled in S&E graduate programs, by sex, race/ethnicity, and disability status: 1997

Sex, race/ethnicity, and disability status	Degree attainment and enrollment as of 1997							
	No graduate degree				Attained graduate degree			
	Not enrolled		Enrolled		Not enrolled		Enrolled	
Total	30.3	(1.9)	27.9	(1.9)	34.4	(1.9)	7.5	(1.1)
Male	30.9	(2.5)	28.2	(2.4)	32.3	(2.5)	8.5	(1.5)
Female	29.6	(2.9)	26.9	(3.1)	37.3	(3.2)	6.2	(1.4)
White, non-Hispanic	28.4	(2.1)	29.1	(2.2)	34.8	(2.2)	7.8	(1.2)
Asian/Pacific Islander	24.9	(6.1)	32.9	(7.1)	28.3	(7.6)	13.9	(5.2)
Underrepresented minority[a]	44.1	(6.6)	18.0	(4.1)	34.3	(6.2)	3.7	(1.9)
Without disabilities	28.9	(1.9)	28.3	(2.0)	35.1	(2.0)	7.7	(1.1)
With disabilities	58.0	(10.9)	18.8	(8.0)	19.1	(7.8)	4.2	(3.0)

[a]Underrepresented minority groups include black, non-Hispanic; Hispanic; and American Indian/Alaskan Native.

NOTES: Standard errors are in parentheses. Details may not add to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Baccalaureate and Beyond Second Followup.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 5-1

Master's degrees awarded, by field: 1990–98

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all fields	324,947	338,498	354,207	370,973	389,008	399,428	408,932	420,954	431,871
Total science and engineering	77,788	78,368	81,107	86,425	91,411	94,309	95,313	93,485	93,918
Physical sciences	3,805	3,777	3,922	3,965	4,263	4,241	4,364	4,141	3,969
Astronomy	105	98	113	135	129	119	115	93	101
Chemistry	1,711	1,676	1,791	1,853	2,010	2,105	2,273	2,268	2,173
Physics	1,819	1,725	1,834	1,781	1,952	1,826	1,686	1,497	1,401
Other physical sciences	170	278	184	196	172	191	290	283	294
Earth, atmospheric, and ocean sciences	1,596	1,499	1,425	1,397	1,418	1,483	1,487	1,435	1,426
Atmospheric sciences	198	172	180	202	197	203	199	177	199
Earth sciences	1,316	1,195	1,102	1,052	1,073	1,142	1,146	1,145	1,105
Oceanography	82	132	143	143	148	138	142	113	122
Mathematics	3,684	3,632	3,665	3,751	3,804	3,932	3,742	3,599	3,525
Computer science	9,643	9,324	9,655	10,349	10,546	10,563	10,613	10,489	11,752
Agricultural sciences	2,634	2,600	3,037	3,272	3,410	3,574	4,021	3,927	3,862
Biological sciences	4,893	4,806	4,848	4,840	5,276	5,495	6,286	6,594	6,368
Psychology	9,308	9,802	9,852	10,412	11,572	13,132	13,043	13,633	13,146
Social sciences	18,230	18,915	19,685	20,775	22,405	23,259	23,996	23,793	23,732
Economics	2,456	2,411	2,564	2,725	2,989	2,838	2,964	2,804	2,843
Political science and public administration	9,941	10,392	10,767	11,310	12,041	12,802	13,370	13,368	13,151
Sociology	1,213	1,293	1,379	1,564	1,675	1,790	1,822	1,752	1,774
Anthropology	827	851	913	927	989	1,053	1,051	1,111	1,098
Linguistics	601	606	586	610	650	603	601	642	568
History of science	0	0	3	9	16	13	10	18	22
Area and ethnic studies	1,205	1,262	1,374	1,501	1,597	1,584	1,657	1,587	1,550
Other social sciences	1,987	2,100	2,099	2,129	2,448	2,576	2,521	2,511	2,726
Engineering	23,995	24,013	25,018	27,664	28,717	28,630	27,761	25,874	26,138
Aerospace engineering	1,029	941	933	1,047	1,038	821	774	625	584
Chemical engineering	1,205	1,025	1,145	1,220	1,287	1,369	1,416	1,345	1,372
Civil engineering	3,213	3,404	3,755	4,438	4,918	5,168	5,002	4,880	4,736
Electrical engineering	8,009	7,942	8,274	8,828	8,870	8,743	8,156	7,341	7,971
Industrial engineering	1,834	2,039	2,370	2,745	2,882	2,873	3,027	2,935	3,109
Materials engineering	802	787	796	849	910	852	774	724	698
Mechanical engineering	3,630	3,680	3,826	4,169	4,277	4,368	4,009	3,756	3,551
Other engineering	4,273	4,195	3,919	4,368	4,535	4,436	4,603	4,268	4,117
Non-S&E	247,159	260,130	273,100	284,548	297,597	305,119	313,619	327,469	337,953

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey, various years.

Appendix table 5-2

Master's degrees awarded to women, by field: 1990–98

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998	Percent awarded to women	
										1990	1998
Total, all fields	170,922	181,603	191,908	201,220	212,246	220,230	228,572	239,497	246,810	52.6	57.1
Total science and engineering	26,558	27,927	28,950	30,971	33,441	35,791	37,453	38,262	38,583	34.1	41.1
Physical sciences	1,051	1,074	1,088	1,171	1,233	1,283	1,450	1,333	1,440	27.6	36.3
Astronomy	22	19	32	29	31	31	27	32	30	21.0	29.7
Chemistry	673	683	701	743	827	885	998	927	998	39.3	45.9
Physics	296	284	295	318	297	291	301	255	255	16.3	18.2
Other physical sciences	60	88	60	81	78	76	124	119	157	35.3	53.4
Earth, atmospheric, and ocean sciences	378	383	368	391	424	451	436	487	494	23.7	34.6
Atmospheric sciences	24	34	33	41	47	51	35	42	52	12.1	26.1
Earth sciences	325	308	297	296	328	353	347	393	397	24.7	35.9
Oceanography	29	41	38	54	49	47	54	52	45	35.4	36.9
Mathematical sciences	1,476	1,486	1,446	1,532	1,493	1,579	1,506	1,489	1,470	40.1	41.7
Computer science	2,675	2,761	2,675	2,795	2,729	2,786	2,850	2,979	3,414	27.7	29.1
Agricultural sciences	947	940	1,128	1,265	1,391	1,471	1,707	1,695	1,709	36.0	44.3
Biological sciences	2,500	2,491	2,530	2,466	2,780	2,858	3,341	3,518	3,354	51.1	52.7
Psychology	6,283	6,808	6,923	7,484	8,285	9,397	9,373	9,918	9,540	67.5	72.6
Social sciences	7,979	8,627	9,123	9,773	10,683	11,334	12,038	12,148	11,999	43.8	50.6
Economics	625	700	712	816	959	894	1,002	953	944	25.4	33.2
Political science and public administration	4,278	4,640	4,933	5,241	5,624	6,124	6,654	6,691	6,566	43.0	49.9
Sociology	712	779	818	960	1,023	1,112	1,180	1,142	1,118	58.7	63.0
Anthropology	481	501	565	534	610	668	631	712	686	58.2	62.5
Linguistics	378	388	380	392	418	416	393	418	389	62.9	68.5
History of science	0	0	1	4	7	4	4	7	7	0.0	31.8
Area and ethnic studies	547	623	682	761	819	818	856	845	842	45.4	54.3
Other social sciences	958	996	1,032	1,065	1,223	1,298	1,318	1,380	1,447	48.2	53.1
Engineering	3,269	3,357	3,669	4,094	4,423	4,632	4,752	4,695	5,163	13.6	19.8
Aerospace engineering	82	86	83	106	100	99	92	75	81	8.0	13.9
Chemical engineering	192	173	231	224	279	306	306	332	344	15.9	25.1
Civil engineering	520	540	635	831	953	1,045	1,064	1,099	1,154	16.2	24.4
Electrical engineering	991	934	1,045	1,051	1,149	1,204	1,196	1,144	1,376	12.4	17.3
Industrial engineering	341	436	472	555	536	512	624	604	676	18.6	21.7
Materials engineering	152	180	143	167	187	184	175	174	170	19.0	24.4
Mechanical engineering	354	360	371	400	417	450	454	419	461	9.8	13.0
Other engineering	637	648	689	760	802	832	841	848	901	14.9	21.9
Non-S&E	144,364	153,676	162,958	170,249	178,805	184,439	191,119	201,235	208,227	58.4	61.6

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey, various years.

Appendix table 5-3

Master's degrees awarded in science and engineering, by field, citizenship, and race/ethnicity: 1990–98

Citizenship, race/ethnicity, and field	1990	1991	1992	1993	1994	1995	1996	1997	1998	Percent of all master's degrees awarded to U.S. citizens and permanent residents 1990	1998
All recipients, all fields	324,947	338,498	354,207	370,973	389,008	399,428	408,932	420,954	431,871	na	na
Total science and engineering	72,228	72,828	76,184	81,415	86,080	88,431	88,730	86,697	87,144	na	na
Physical sciences[a]	5,411	5,282	5,352	5,365	5,688	5,735	5,854	5,579	5,398	na	na
Mathematical sciences	3,684	3,632	4,019	4,084	4,108	4,190	4,037	3,790	3,700	na	na
Computer science	9,643	9,324	9,530	10,167	10,421	10,332	10,223	10,107	11,270	na	na
Agricultural sciences	2,662	2,625	3,058	3,299	3,435	3,612	4,032	3,946	3,881	na	na
Biological sciences	4,893	4,806	4,816	4,798	5,217	5,423	6,207	6,497	6,283	na	na
Psychology	9,308	9,802	10,280	11,020	12,274	14,021	13,862	14,442	13,910	na	na
Social sciences	12,642	13,350	14,119	15,024	16,230	16,501	16,758	16,466	16,574	na	na
Engineering	23,985	24,007	25,010	27,658	28,707	28,617	27,757	25,870	26,128	na	na
Non-S&E	252,719	265,670	278,023	289,558	302,928	310,997	320,202	334,257	344,727	na	na
U.S. citizens and permanent residents, all fields	290,345	300,887	314,555	326,864	342,502	350,672	360,682	371,477	379,666	100.0	100.0
Total science and engineering	55,890	55,779	58,177	61,265	65,201	67,110	68,151	66,609	65,748	100.0	100.0
Physical sciences[a]	4,047	3,778	3,814	3,763	3,918	3,980	4,119	3,933	3,898	100.0	100.0
Mathematical sciences	2,649	2,573	2,907	2,946	3,013	3,034	2,956	2,789	2,671	100.0	100.0
Computer science	7,080	6,505	6,361	6,388	6,509	6,452	6,352	6,172	6,523	100.0	100.0
Agricultural sciences	2,023	2,022	2,356	2,605	2,727	2,948	3,371	3,281	3,274	100.0	100.0
Biological sciences	4,164	4,057	4,021	3,949	4,284	4,543	5,230	5,589	5,392	100.0	100.0
Psychology	8,923	9,485	9,978	10,688	11,913	13,537	13,423	14,025	13,441	100.0	100.0
Social sciences	10,258	10,872	11,629	12,387	13,487	13,695	13,938	13,584	13,579	100.0	100.0
Engineering	16,746	16,487	17,111	18,539	19,350	18,921	18,762	17,236	16,970	100.0	100.0
Non-S&E	234,455	245,108	256,378	265,599	277,301	283,562	292,531	304,868	313,918	100.0	100.0
Whites, non-Hispanic, all fields	236,874	247,524	257,062	265,668	273,913	277,437	282,713	288,353	291,962	81.6	76.9
Total science and engineering	44,450	44,513	45,649	47,975	50,711	51,417	51,791	50,288	49,047	79.5	74.6
Physical sciences[a]	3,401	3,129	3,067	3,078	3,145	3,179	3,326	3,173	3,129	84.0	80.3
Mathematical sciences	2,169	2,068	2,336	2,354	2,379	2,342	2,227	2,145	2,036	81.9	76.2
Computer science	4,851	4,637	4,407	4,464	4,286	4,205	4,113	3,868	3,976	68.5	61.0
Agricultural sciences	1,820	1,818	2,075	2,282	2,261	2,474	2,926	2,819	2,837	90.0	86.7
Biological sciences	3,501	3,353	3,251	3,144	3,453	3,589	4,080	4,342	4,156	84.1	77.1
Psychology	7,489	7,973	8,238	8,810	9,960	11,107	10,739	11,101	10,421	83.9	77.5
Social sciences	8,360	8,900	9,523	9,923	10,758	10,700	10,807	10,350	10,413	81.5	76.7
Engineering	12,859	12,635	12,752	13,920	14,469	13,821	13,573	12,490	12,079	76.8	71.2
Non-S&E	192,424	203,011	211,413	217,693	223,202	226,020	230,922	238,065	242,915	82.1	77.4

See explanatory information and SOURCE at end of table.

Appendix table 5-3

Master's degrees awarded in science and engineering, by field, citizenship, and race/ethnicity: 1990–98

Citizenship, race/ethnicity, and field	1990	1991	1992	1993	1994	1995	1996	1997	1998	Percent of all master's degrees awarded to U.S. citizens and permanent residents	
										1990	1998
Asians/Pacific Islanders, all fields	9,994	11,070	12,293	13,169	14,559	15,906	17,281	17,912	19,936	3.4	5.3
Total science and engineering	4,055	4,310	4,763	4,846	5,422	5,683	5,942	5,845	6,178	7.3	9.4
Physical sciences[a]	1,863	2,008	2,223	2,260	2,443	2,572	2,621	2,319	2,450	11.1	14.4
Mathematical sciences	234	251	295	249	284	288	304	308	278	5.8	7.1
Computer science	184	189	201	197	233	239	235	248	215	6.9	8.0
Agricultural sciences	941	1,014	1,105	1,106	1,228	1,239	1,237	1,268	1,527	13.3	23.4
Biological sciences	45	50	51	61	82	97	110	105	83	2.2	2.5
Psychology	225	231	264	305	332	417	519	558	576	5.4	10.7
Social sciences	159	170	183	191	270	298	330	374	394	1.8	2.9
Engineering	404	397	441	477	550	533	586	665	655	3.9	4.8
Non-S&E	5,939	6,760	7,530	8,323	9,137	10,223	11,339	12,067	13,758	2.5	4.4
Blacks, non-Hispanic, all fields	14,473	15,857	17,420	18,897	20,936	22,954	24,588	26,948	28,616	5.0	7.5
Total science and engineering	1,847	2,090	2,356	2,554	2,849	3,339	3,518	3,817	3,756	3.3	5.7
Physical sciences[a]	462	594	660	730	803	930	965	1,010	1,012	4.5	7.5
Mathematical sciences	87	73	98	105	127	147	116	144	146	2.1	3.7
Computer science	70	100	77	98	109	151	151	157	150	2.6	5.6
Agricultural sciences	232	283	316	308	365	347	379	377	376	3.3	5.8
Biological sciences	28	51	59	70	78	74	88	96	95	1.4	2.9
Psychology	110	137	149	135	142	162	198	236	190	2.6	3.5
Social sciences	471	454	531	544	636	863	947	1,123	1,073	5.3	8.0
Engineering	387	398	466	564	589	665	674	674	714	2.3	4.2
Non-S&E	12,626	13,767	15,064	16,343	18,087	19,615	21,070	23,131	24,860	5.4	7.9
Hispanics, all fields	8,495	9,684	10,256	11,371	13,177	13,905	15,394	16,360	17,416	2.9	4.6
Total science and engineering	1,587	1,736	1,806	2,092	2,514	2,585	2,730	2,882	3,071	2.8	4.7
Physical sciences[a]	98	96	93	114	114	129	127	139	149	2.4	3.8
Mathematical sciences	51	85	66	78	75	75	91	71	91	1.9	3.4
Computer science	118	128	149	162	169	198	173	197	193	1.7	3.0
Agricultural sciences	44	49	49	69	184	96	95	105	116	2.2	3.5
Biological sciences	120	136	146	151	138	167	191	208	188	2.9	3.5
Psychology	369	391	419	463	558	656	709	771	851	4.1	6.3
Social sciences	341	383	396	474	557	553	596	626	676	3.3	5.0
Engineering	446	468	488	581	719	711	748	765	807	2.7	4.8
Non-S&E	6,908	7,948	8,450	9,279	10,663	11,320	12,664	13,478	14,345	2.9	4.6

See explanatory information and SOURCE at end of table.

Appendix table 5-3

Master's degrees awarded in science and engineering, by field, citizenship, and race/ethnicity: 1990–98

Citizenship, race/ethnicity, and field	1990	1991	1992	1993	1994	1995	1996	1997	1998	Percent of all master's degrees awarded to U.S. citizens and permanent residents 1990	1998
American Indians/Alaskan Natives, all fields	1,050	1,125	1,228	1,344	1,618	1,542	1,693	1,844	1,951	0.4	0.5
Total science and engineering	181	200	198	253	273	299	304	332	349	0.3	0.5
Physical sciences[a]	9	13	18	12	16	19	10	16	24	0.2	0.6
Mathematical sciences	6	9	4	8	6	11	6	14	11	0.2	0.4
Computer science	7	14	15	14	18	16	24	25	14	0.1	0.2
Agricultural sciences	8	8	7	8	11	13	14	18	23	0.4	0.7
Biological sciences	14	13	12	26	17	20	17	23	21	0.3	0.4
Psychology	37	49	38	57	62	85	80	100	112	0.4	0.8
Social sciences	65	54	62	78	83	92	97	83	90	0.6	0.7
Engineering	35	40	42	50	60	43	56	53	54	0.2	0.3
Non-S&E	869	925	1,030	1,091	1,345	1,243	1,389	1,512	1,602	0.4	0.5
Unknown race/ethnicity, all fields	19,459	15,627	16,296	16,415	18,299	18,928	19,013	20,060	19,785	6.7	5.2
Total science and engineering	3,770	2,930	3,405	3,545	3,432	3,787	3,866	3,445	3,347	6.7	5.1
Physical sciences[a]	218	216	243	205	232	218	236	153	172	5.4	4.4
Mathematical sciences	169	122	223	211	211	216	246	154	168	6.4	6.3
Computer science	931	429	369	334	443	447	426	437	437	13.1	6.7
Agricultural sciences	78	46	115	115	111	194	138	138	120	3.9	3.7
Biological sciences	194	187	199	188	202	188	225	222	261	4.7	4.8
Psychology	398	448	569	623	427	528	618	556	590	4.5	4.4
Social sciences	626	544	547	705	736	887	887	850	733	6.1	5.4
Engineering	1,156	938	1,140	1,164	1,070	1,109	1,090	935	866	6.9	5.1
Non-S&E	15,689	12,697	12,891	12,870	14,867	15,141	15,147	16,615	16,438	6.7	5.2
Temporary residents, all fields	34,602	37,611	39,652	44,109	46,506	48,756	48,250	49,477	52,205	na	na
Total science and engineering	16,338	17,049	18,007	20,150	20,879	21,321	20,579	20,088	21,396	na	na
Physical sciences[a]	1,364	1,504	1,538	1,602	1,770	1,755	1,735	1,646	1,500	na	na
Mathematical sciences	1,035	1,059	1,112	1,138	1,095	1,156	1,081	1,001	1,029	na	na
Computer science	2,563	2,819	3,169	3,779	3,912	3,880	3,871	3,935	4,747	na	na
Agricultural sciences	639	603	702	694	708	664	661	665	607	na	na
Biological sciences	729	749	795	849	933	880	977	908	891	na	na
Psychology	385	317	302	332	361	484	439	417	469	na	na
Social sciences	2,384	2,478	2,490	2,637	2,743	2,806	2,820	2,882	2,995	na	na
Engineering	7,239	7,520	7,899	9,119	9,357	9,696	8,995	8,634	9,158	na	na
Non-S&E	18,264	20,562	21,645	23,959	25,627	27,435	27,671	29,389	30,809	na	na

na not applicable

[a]In this table, the physical sciences include the earth, atmospheric, and ocean sciences as well as physics, astronomy, and chemistry. See notes for more information.

NOTES: Data on race/ethnicity are for U.S. citizens and permanent residents only and do not include students on temporary visas. Because these data were collected on broad fields of study only until 1994, the trend data could not be adjusted to the exact field taxonomies used by the National Science Foundation.

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey, various years.

Appendix table 5-4

Master's degrees in science and engineering awarded to women, by field, citizenship, and race/ethnicity: 1990–98

Citizenship, race/ethnicity, and field	1990	1991	1992	1993	1994	1995	1996	1997	1998
All recipients, all fields	170,922	181,603	191,908	201,220	212,246	220,230	228,572	239,497	246,810
Total science and engineering	23,804	25,080	26,416	28,313	30,619	32,628	33,802	34,516	34,925
Physical sciences[a]	1,430	1,457	1,457	1,562	1,658	1,735	1,886	1,821	1,934
Mathematical sciences	1,476	1,486	1,562	1,616	1,567	1,641	1,569	1,545	1,493
Computer science	2,675	2,761	2,646	2,756	2,694	2,702	2,723	2,855	3,270
Agricultural sciences	954	944	1,130	1,270	1,395	1,481	1,708	1,698	1,712
Biological sciences	2,500	2,491	2,500	2,433	2,742	2,807	3,282	3,449	3,289
Psychology	6,283	6,808	7,276	7,978	8,857	10,111	10,034	10,573	10,175
Social sciences	5,218	5,776	6,180	6,605	7,285	7,520	7,848	7,881	7,894
Engineering	3,268	3,357	3,665	4,093	4,421	4,631	4,752	4,694	5,158
Non-S&E	147,118	156,523	165,492	172,907	181,627	187,602	194,770	204,981	211,885
U.S. citizens and permanent residents, all fields	160,019	169,142	178,493	185,932	195,881	202,633	210,372	220,221	226,085
Total science and engineering	20,168	21,112	22,114	23,528	25,501	27,326	28,183	28,814	28,584
Physical sciences[a]	1,094	1,023	1,030	1,078	1,124	1,202	1,338	1,315	1,415
Mathematical sciences	1,090	1,110	1,162	1,229	1,210	1,269	1,198	1,207	1,129
Computer science	2,045	2,086	1,857	1,788	1,730	1,727	1,739	1,756	1,895
Agricultural sciences	765	765	927	1,062	1,131	1,246	1,448	1,450	1,468
Biological sciences	2,150	2,112	2,090	1,990	2,271	2,379	2,760	2,951	2,790
Psychology	6,034	6,595	7,069	7,757	8,626	9,775	9,719	10,283	9,822
Social sciences	4,418	4,911	5,218	5,627	6,199	6,431	6,621	6,606	6,630
Engineering	2,572	2,510	2,761	2,997	3,210	3,297	3,360	3,246	3,435
Non-S&E	139,851	148,030	156,379	162,404	170,380	175,307	182,189	191,407	197,501
Whites, non-Hispanic, all fields	130,799	139,607	146,265	151,951	157,155	160,782	165,154	170,411	173,498
Total science and engineering	16,200	16,879	17,536	18,482	19,865	20,953	21,200	21,358	20,981
Physical sciences[a]	883	830	833	849	893	923	1,038	1,001	1,085
Mathematical sciences	894	899	947	1,022	959	988	901	906	835
Computer science	1,377	1,377	1,171	1,138	977	974	943	890	936
Agricultural sciences	682	684	825	925	921	1,024	1,239	1,212	1,253
Biological sciences	1,790	1,724	1,685	1,551	1,810	1,849	2,122	2,234	2,148
Psychology	5,058	5,553	5,851	6,384	7,190	8,005	7,718	8,088	7,551
Social sciences	3,579	3,919	4,247	4,470	4,878	4,950	5,049	4,922	4,956
Engineering	1,937	1,893	1,977	2,143	2,237	2,240	2,190	2,105	2,217
Non-S&E	114,599	122,728	128,729	133,469	137,290	139,829	143,954	149,053	152,517
Asians/Pacific Islanders, all fields	4,324	4,850	5,470	6,044	6,768	7,521	8,404	9,327	10,298
Total science and engineering	1,256	1,351	1,487	1,609	1,861	1,950	2,216	2,392	2,471
Physical sciences[a]	94	86	89	99	102	101	136	140	128
Mathematical sciences	78	81	98	76	107	105	103	123	104
Computer science	332	387	400	396	443	454	462	513	618
Agricultural sciences	21	23	21	29	47	53	61	73	40
Biological sciences	128	127	139	169	181	208	282	314	286
Psychology	117	123	121	141	196	219	252	288	301
Social sciences	180	201	212	258	274	261	299	380	367
Engineering	306	323	407	441	511	549	621	561	627
Non-S&E	3,068	3,499	3,983	4,435	4,907	5,571	6,188	6,935	7,827

See explanatory information and SOURCE at end of table.

Appendix table 5-4

Master's degrees in science and engineering awarded to women, by field, citizenship, and race/ethnicity: 1990–98

Citizenship, race/ethnicity, and field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Blacks, non-Hispanic, all fields	9,304	10,238	11,626	12,425	13,929	15,318	16,590	18,504	19,509
Total science and engineering	897	1,062	1,190	1,301	1,473	1,805	1,953	2,200	2,110
Physical sciences[a]	26	30	32	47	53	61	57	70	65
Mathematical sciences	33	47	33	50	47	87	73	80	79
Computer science	92	133	141	115	160	148	174	169	147
Agricultural sciences	10	17	23	30	32	39	39	40	59
Biological sciences	59	79	88	88	94	112	122	167	122
Psychology	338	325	394	429	475	645	704	865	813
Social sciences	239	332	345	385	445	512	574	584	581
Engineering	100	99	134	157	167	201	210	225	244
Non-S&E	8,407	9,176	10,436	11,124	12,456	13,513	14,637	16,304	17,399
Hispanics, all fields	4,782	5,560	5,875	6,496	7,694	8,180	9,322	9,894	10,568
Total science and engineering	628	744	740	837	1,087	1,127	1,252	1,306	1,475
Physical sciences[a]	35	23	29	38	34	41	47	53	62
Mathematical sciences	18	33	19	28	31	22	34	21	40
Computer science	25	44	51	58	49	47	48	56	70
Agricultural sciences	19	18	18	34	79	40	40	54	58
Biological sciences	59	82	77	75	73	92	106	101	92
Psychology	236	267	288	311	417	482	533	563	632
Social sciences	163	187	178	192	267	270	276	282	343
Engineering	73	90	80	101	137	133	168	176	178
Non-S&E	4,154	4,816	5,135	5,659	6,607	7,053	8,070	8,588	9,093
American Indians/Alaskan Natives, all fields	611	661	727	788	964	919	1,028	1,147	1,212
Total science and engineering	85	91	90	124	112	148	150	155	173
Physical sciences[a]	3	5	4	4	3	8	4	5	11
Mathematical sciences	2	2	3	4	1	6	1	6	7
Computer science	2	4	5	3	6	5	7	9	3
Agricultural sciences	3	5	2	3	3	3	8	8	8
Biological sciences	6	9	5	17	5	9	8	12	12
Psychology	24	30	25	47	43	55	58	64	76
Social sciences	37	30	39	33	39	59	59	44	48
Engineering	8	6	7	13	12	3	5	7	8
Non-S&E	526	570	637	664	852	771	878	992	1,039
Unknown race/ethnicity, all fields	10,199	8,226	8,530	8,228	9,371	9,913	9,874	10,938	11,000
Total science and engineering	1,102	985	1,071	1,175	1,103	1,343	1,412	1,403	1,374
Physical sciences[a]	53	49	43	41	39	68	56	46	64
Mathematical sciences	65	48	62	49	65	61	86	71	64
Computer science	217	141	89	78	95	99	105	119	121
Agricultural sciences	30	18	38	41	49	87	61	63	50
Biological sciences	108	91	96	90	108	109	120	123	130
Psychology	261	297	390	445	305	369	454	415	449
Social sciences	220	242	197	289	296	379	364	394	335
Engineering	148	99	156	142	146	171	166	172	161
Non-S&E	9,097	7,241	7,459	7,053	8,268	8,570	8,462	9,535	9,626

See explanatory information and SOURCE at end of table.

Appendix table 5-4

Master's degrees in science and engineering awarded to women, by field, citizenship, and race/ethnicity: 1990–98

Citizenship, race/ethnicity, and field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Temporary residents, all fields	10,903	12,461	13,415	15,288	16,365	17,597	18,200	19,276	20,725
Total science and engineering	3,636	3,968	4,302	4,785	5,118	5,302	5,619	5,702	6,341
Physical sciences[a]	336	434	427	484	534	533	548	506	519
Mathematical sciences	386	376	400	387	357	372	371	338	364
Computer science	630	675	789	968	964	975	984	1,099	1,375
Agricultural sciences	189	179	203	208	264	235	260	248	244
Biological sciences	350	379	410	443	471	428	522	498	499
Psychology	249	213	207	221	231	336	315	290	353
Social sciences	800	865	962	978	1,086	1,089	1,227	1,275	1,264
Engineering	696	847	904	1,096	1,211	1,334	1,392	1,448	1,723
Non-S&E	7,267	8,493	9,113	10,503	11,247	12,295	12,581	13,574	14,384

[a]In this table, the physical sciences include the earth, atmospheric, and ocean sciences as well as physics, astronomy, and chemistry. See notes for more information.

NOTES: Data on race/ethnicity are for U.S. citizens and permanent residents only and do not include students on temporary visas. Because these data were collected on broad fields of study only until 1994, the trend data could not be adjusted to the exact field taxonomies used by the National Science Foundation.

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey, various years.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 5-5

Master's degrees in science and engineering awarded to men, by field, citizenship, and race/ethnicity: 1990–98

Citizenship, race/ethnicity, and field	1990	1991	1992	1993	1994	1995	1996	1997	1998
All recipients, all fields	154,025	156,895	162,299	169,753	176,762	179,198	180,360	181,457	185,061
Total science and engineering	48,424	47,748	49,768	53,102	55,461	55,803	54,928	52,181	52,219
Physical sciences[a]	3,981	3,825	3,895	3,803	4,030	4,000	3,968	3,758	3,464
Mathematical sciences	2,208	2,146	2,457	2,468	2,541	2,549	2,468	2,245	2,207
Computer science	6,968	6,563	6,884	7,411	7,727	7,630	7,500	7,252	8,000
Agricultural sciences	1,708	1,681	1,928	2,029	2,040	2,131	2,324	2,248	2,169
Biological sciences	2,393	2,315	2,316	2,365	2,475	2,616	2,925	3,048	2,994
Psychology	3,025	2,994	3,004	3,042	3,417	3,910	3,828	3,869	3,735
Social sciences	7,424	7,574	7,939	8,419	8,945	8,981	8,910	8,585	8,680
Engineering	20,717	20,650	21,345	23,565	24,286	23,986	23,005	21,176	20,970
Non-S&E	105,601	109,147	112,531	116,651	121,301	123,395	125,432	129,276	132,842
U.S. citizens and permanent residents, all fields	130,326	131,745	136,062	140,932	146,621	148,039	150,310	151,256	153,581
Total science and engineering	35,722	34,667	36,063	37,737	39,700	39,784	39,968	37,795	37,164
Physical sciences[a]	2,953	2,755	2,784	2,685	2,794	2,778	2,781	2,618	2,483
Mathematical sciences	1,559	1,463	1,745	1,717	1,803	1,765	1,758	1,582	1,542
Computer science	5,035	4,419	4,504	4,600	4,779	4,725	4,613	4,416	4,628
Agricultural sciences	1,258	1,257	1,429	1,543	1,596	1,702	1,923	1,831	1,806
Biological sciences	2,014	1,945	1,931	1,959	2,013	2,164	2,470	2,638	2,602
Psychology	2,889	2,890	2,909	2,931	3,287	3,762	3,704	3,742	3,619
Social sciences	5,840	5,961	6,411	6,760	7,288	7,264	7,317	6,978	6,949
Engineering	14,174	13,977	14,350	15,542	16,140	15,624	15,402	13,990	13,535
Non-S&E	94,604	97,078	99,999	103,195	106,921	108,255	110,342	113,461	116,417
Whites, non-Hispanic, all fields	106,075	107,917	110,797	113,717	116,758	116,655	117,559	117,942	118,464
Total science and engineering	28,250	27,634	28,113	29,493	30,846	30,464	30,591	28,930	28,066
Physical sciences[a]	2,518	2,299	2,234	2,229	2,252	2,256	2,288	2,172	2,044
Mathematical sciences	1,275	1,169	1,389	1,332	1,420	1,354	1,326	1,239	1,201
Computer science	3,474	3,260	3,236	3,326	3,309	3,231	3,170	2,978	3,040
Agricultural sciences	1,138	1,134	1,250	1,357	1,340	1,450	1,687	1,607	1,584
Biological sciences	1,711	1,629	1,566	1,593	1,643	1,740	1,958	2,108	2,008
Psychology	2,431	2,420	2,387	2,426	2,770	3,102	3,021	3,013	2,870
Social sciences	4,781	4,981	5,276	5,453	5,880	5,750	5,758	5,428	5,457
Engineering	10,922	10,742	10,775	11,777	12,232	11,581	11,383	10,385	9,862
Non-S&E	77,825	80,283	82,684	84,224	85,912	86,191	86,968	89,012	90,398
Asians/Pacific Islanders, all fields	5,670	6,220	6,823	7,125	7,791	8,385	8,877	8,585	9,638
Total science and engineering	2,799	2,959	3,276	3,237	3,561	3,733	3,726	3,453	3,707
Physical sciences[a]	140	165	206	150	182	187	168	168	150
Mathematical sciences	106	108	103	121	126	134	132	125	111
Computer science	609	627	705	710	785	785	775	755	909
Agricultural sciences	24	27	30	32	35	44	49	32	43
Biological sciences	97	104	125	136	151	209	237	244	290
Psychology	42	47	62	50	74	79	78	86	93
Social sciences	224	196	229	219	276	272	287	285	288
Engineering	1,557	1,685	1,816	1,819	1,932	2,023	2,000	1,758	1,823
Non-S&E	2,871	3,261	3,547	3,888	4,230	4,652	5,151	5,132	5,931

See explanatory information and SOURCE at end of table.

Appendix table 5-5

Master's degrees in science and engineering awarded to men, by field, citizenship, and race/ethnicity: 1990–98

Citizenship, race/ethnicity, and field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Blacks, non-Hispanic, all fields	5,169	5,619	5,794	6,472	7,007	7,636	7,998	8,444	9,107
Total science and engineering	950	1,028	1,166	1,253	1,376	1,534	1,565	1,617	1,646
Physical sciences[a]	61	43	66	58	74	86	59	74	81
Mathematical sciences	37	53	44	48	62	64	78	77	71
Computer science	140	150	175	193	205	199	205	208	229
Agricultural sciences	18	34	36	40	46	35	49	56	36
Biological sciences	51	58	61	47	48	50	76	69	68
Psychology	133	129	137	115	161	218	243	258	260
Social sciences	223	262	315	345	358	418	391	426	431
Engineering	287	299	332	407	422	464	464	449	470
Non-S&E	4,219	4,591	4,628	5,219	5,631	6,102	6,433	6,827	7,461
Hispanics, all fields	3,713	4,124	4,381	4,875	5,483	5,725	6,072	6,466	6,848
Total science and engineering	959	992	1,066	1,255	1,427	1,458	1,478	1,576	1,596
Physical sciences[a]	63	73	64	76	80	88	80	86	87
Mathematical sciences	33	52	47	50	44	53	57	50	51
Computer science	93	84	98	104	120	151	125	141	123
Agricultural sciences	25	31	31	35	105	56	55	51	58
Biological sciences	61	54	69	76	65	75	85	107	96
Psychology	133	124	131	152	141	174	176	208	219
Social sciences	178	196	218	282	290	283	320	344	333
Engineering	373	378	408	480	582	578	580	589	629
Non-S&E	2,754	3,132	3,315	3,620	4,056	4,267	4,594	4,890	5,252
American Indians/Alaskan Natives, all fields	439	464	501	556	654	623	665	697	739
Total science and engineering	96	109	108	129	161	151	154	177	176
Physical sciences[a]	6	8	14	8	13	11	6	11	13
Mathematical sciences	4	7	1	4	5	5	5	8	4
Computer science	5	10	10	11	12	11	17	16	11
Agricultural sciences	5	3	5	5	8	10	6	10	15
Biological sciences	8	4	7	9	12	11	9	11	9
Psychology	13	19	13	10	19	30	22	36	36
Social sciences	28	24	23	45	44	33	38	39	42
Engineering	27	34	35	37	48	40	51	46	46
Non-S&E	343	355	393	427	493	472	511	520	563
Unknown race/ethnicity, all fields	9,260	7,401	7,766	8,187	8,928	9,015	9,139	9,122	8,785
Total science and engineering	2,668	1,945	2,334	2,370	2,329	2,444	2,454	2,042	1,973
Physical sciences[a]	165	167	200	164	193	150	180	107	108
Mathematical sciences	104	74	161	162	146	155	160	83	104
Computer science	714	288	280	256	348	348	321	318	316
Agricultural sciences	48	28	77	74	62	107	77	75	70
Biological sciences	86	96	103	98	94	79	105	99	131
Psychology	137	151	179	178	122	159	164	141	141
Social sciences	406	302	350	416	440	508	523	456	398
Engineering	1,008	839	984	1,022	924	938	924	763	705
Non-S&E	6,592	5,456	5,432	5,817	6,599	6,571	6,685	7,080	6,812

See explanatory information and SOURCE at end of table.

Appendix table 5-5

Master's degrees in science and engineering awarded to men, by field, citizenship, and race/ethnicity: 1990–98

Citizenship, race/ethnicity, and field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Temporary residents, all fields	23,699	25,150	26,237	28,821	30,141	31,159	30,050	30,201	31,480
Total science and engineering	12,702	13,081	13,705	15,365	15,761	16,019	14,960	14,386	15,055
Physical sciences[a]	1,028	1,070	1,111	1,118	1,236	1,222	1,187	1,140	981
Mathematical sciences	649	683	712	751	738	784	710	663	665
Computer science	1,933	2,144	2,380	2,811	2,948	2,905	2,887	2,836	3,372
Agricultural sciences	450	424	499	486	444	429	401	417	363
Biological sciences	379	370	385	406	462	452	455	410	392
Psychology	136	104	95	111	130	148	124	127	116
Social sciences	1,584	1,613	1,528	1,659	1,657	1,717	1,593	1,607	1,731
Engineering	6,543	6,673	6,995	8,023	8,146	8,362	7,603	7,186	7,435
Non-S&E	10,997	12,069	12,532	13,456	14,380	15,140	15,090	15,815	16,425

[a]In this table, the physical sciences include the earth, atmospheric, and ocean sciences as well as physics, astronomy, and chemistry. See notes for more information.

NOTES: Data on race/ethnicity are for U.S. citizens and permanent residents only and do not include students on temporary visas. Because these data were collected on broad fields of study only until 1994, the trend data could not be adjusted to the exact field taxonomies used by the National Science Foundation.

SOURCE: Tabulations by National Science Foundation, Division of Science Resources Statistics; data from U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey, various years.

Appendix table 5-6

Doctoral degrees awarded, by field: 1990–99

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total, all fields	36,067	37,534	38,890	39,801	41,034	41,743	42,414	42,555	42,683	41,140
Total science and engineering	22,868	24,023	24,675	25,443	26,205	26,535	27,229	27,245	27,309	25,953
Physical sciences	3,524	3,626	3,781	3,699	3,977	3,841	3,837	3,768	3,829	3,582
Astronomy	128	125	134	145	144	173	192	198	208	160
Chemistry	2,100	2,194	2,214	2,137	2,257	2,162	2,148	2,147	2,219	2,134
Physics	1,265	1,286	1,403	1,399	1,548	1,479	1,484	1,401	1,378	1,271
Other physical sciences	31	21	30	18	28	27	13	22	24	17
Earth, atmospheric, and ocean sciences	738	815	794	771	824	780	794	878	814	807
Atmospheric sciences	83	108	120	99	129	130	125	149	125	124
Earth sciences	477	560	503	479	509	454	452	489	504	453
Oceanography	128	112	114	125	125	115	134	144	112	130
Other earth, atmospheric, and ocean sciences	50	35	57	68	61	81	83	96	73	100
Mathematical sciences	892	1,039	1,058	1,146	1,118	1,190	1,122	1,125	1,177	1,085
Computer science	705	800	869	880	903	997	921	910	925	850
Agricultural sciences	1,174	1,073	1,063	968	1,078	1,036	1,037	982	1,037	965
Biological sciences	4,328	4,650	4,799	5,092	5,203	5,376	5,723	5,786	5,854	5,600
Psychology	3,281	3,250	3,263	3,420	3,379	3,429	3,491	3,571	3,685	3,667
Clinical psychology	1,885	1,884	1,904	1,956	1,866	1,909	1,923	1,903	1,955	2,085
Nonclinical psychology	1,396	1,366	1,359	1,464	1,642	1,670	1,719	1,670	1,730	1,582
Experimental/biological psychology	273	288	312	337	369	351	339	394	360	378
Individual/social psychology	324	315	326	349	480	473	533	548	596	514
Other psychology	799	763	721	778	793	846	847	728	774	690
Social sciences	3,332	3,556	3,610	3,769	3,901	3,878	3,999	4,111	4,058	4,060
Economics	1,007	1,053	1,051	1,067	1,101	1,152	1,177	1,163	1,155	1,076
Political science and public administration	734	740	804	824	930	894	928	974	962	1,016
Sociology	448	493	512	535	548	555	527	601	581	571
Anthropology	346	374	353	380	418	410	417	469	459	487
Linguistics	167	227	266	214	221	201	230	244	220	250
History of science	26	27	28	37	27	41	37	36	43	49
Area and ethnic studies	94	116	114	137	122	121	143	94	114	109
Other social sciences	510	526	482	575	534	504	540	530	524	502
Engineering	4,894	5,214	5,438	5,698	5,822	6,008	6,305	6,114	5,930	5,337
Aerospace engineering	192	207	234	228	230	252	287	273	243	207
Chemical engineering	658	691	725	737	725	708	798	767	775	678
Civil engineering	553	575	594	624	684	656	697	656	651	585
Electrical engineering	1,276	1,405	1,483	1,543	1,673	1,731	1,740	1,721	1,596	1,477
Industrial engineering	151	165	196	236	228	284	258	246	230	209
Materials engineering	440	489	485	535	539	588	572	581	565	470
Mechanical engineering	884	875	987	1,030	1,015	1,025	1,052	1,021	1,023	853
Other engineering	740	807	734	765	728	764	901	849	847	858
Total non-S&E	13,199	13,511	14,215	14,358	14,829	15,208	15,185	15,310	15,374	15,187
Health	956	1,041	1,112	1,197	1,296	1,330	1,324	1,423	1,503	1,410
Humanities	3,535	3,720	4,036	4,092	4,374	4,690	4,713	5,037	5,114	5,045
Education	6,510	6,454	6,677	6,689	6,708	6,649	6,772	6,573	6,575	6,557
Professional/other	2,198	2,296	2,390	2,380	2,451	2,539	2,376	2,277	2,182	2,175

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates, various years.

Appendix table 5-7
Doctoral degrees awarded to women, by field: 1990–99

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Percent awarded to women 1990	Percent awarded to women 1999
Total, all fields	13,106	13,873	14,436	15,122	15,820	16,414	16,944	17,251	17,858	17,493	36.3	42.5
Total science and engineering	6,370	6,932	7,080	7,652	7,921	8,286	8,646	8,943	9,355	9,084	27.9	35.0
Physical sciences	661	679	770	780	828	878	842	852	927	831	18.8	23.2
Astronomy	20	14	19	25	25	30	41	37	46	32	15.6	20.0
Chemistry	503	517	579	582	625	661	605	613	695	633	24.0	29.7
Physics	130	142	167	169	175	182	193	193	177	160	10.3	12.6
Other physical sciences	8	6	5	4	3	5	3	9	9	6	25.8	35.3
Earth, atmospheric, and ocean sciences	141	179	188	160	183	170	172	210	219	210	19.1	26.0
Atmospheric sciences	14	16	27	18	26	23	22	25	30	22	16.9	17.7
Earth sciences	85	124	115	89	95	91	88	119	127	112	17.8	24.7
Oceanography	31	26	29	35	38	28	39	38	32	45	24.2	34.6
Other earth, atmospheric, and ocean sciences	11	13	17	18	24	28	23	28	30	31	22.0	31.0
Mathematical sciences	158	199	205	264	236	265	231	263	297	277	17.7	25.5
Computer science	110	117	120	138	137	186	139	150	159	156	15.6	18.4
Agricultural sciences	246	209	233	228	249	228	282	260	298	280	21.0	29.0
Biological sciences	1,615	1,773	1,831	2,050	2,109	2,217	2,415	2,494	2,538	2,400	37.3	42.9
Psychology	1,913	1,996	1,928	2,088	2,101	2,180	2,328	2,372	2,460	2,447	58.3	66.7
Clinical psychology	1,119	1,211	1,158	1,222	1,205	1,266	1,321	1,324	1,373	1,462	59.4	70.1
Nonclinical psychology	794	785	770	866	999	1,032	1,128	1,050	1,087	985	56.9	62.3
Experimental/biological psychology	115	136	147	169	186	171	171	190	168	191	42.1	50.5
Individual/social psychology	214	209	217	234	347	332	397	400	429	381	66.0	74.1
Other psychology	465	440	406	463	466	529	560	460	490	413	58.2	59.9
Social sciences	1,111	1,313	1,299	1,422	1,443	1,466	1,461	1,591	1,684	1,692	33.3	41.7
Economics	200	217	219	246	249	279	263	266	311	291	19.9	27.0
Political science and public administration	170	211	235	246	282	266	305	297	365	356	23.2	35.0
Sociology	218	246	250	255	283	294	276	334	318	341	48.7	59.7
Anthropology	185	230	172	231	225	237	225	261	262	273	53.5	56.1
Linguistics	90	112	133	118	134	102	113	135	123	147	53.9	58.8
History of science	9	11	8	16	10	17	10	13	19	18	34.6	36.7
Area and ethnic studies	46	61	58	68	65	65	76	52	63	59	48.9	54.1
Other social sciences	193	225	224	242	195	206	193	233	223	207	37.8	41.2
Engineering	415	467	506	522	635	696	776	751	773	791	8.5	14.8
Aerospace engineering	4	7	8	8	11	14	24	16	15	17	2.1	8.2
Chemical engineering	78	83	113	94	113	109	143	122	140	124	11.9	18.3
Civil engineering	49	41	50	54	80	76	79	80	100	89	8.9	15.2
Electrical engineering	84	79	115	125	147	173	169	150	156	156	6.6	10.6
Industrial engineering	25	17	25	27	33	50	51	40	40	43	4.3	11.1
Materials engineering	49	77	61	78	83	95	83	106	84	88	11.1	18.7
Mechanical engineering	38	57	45	57	69	64	78	88	93	95	16.6	20.6
Other engineering	88	106	89	79	99	115	149	149	145	179	11.9	20.9

See SOURCE at end of table.

Appendix table 5-7

Doctoral degrees awarded to women, by field: 1990–99

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Percent awarded to women 1990	Percent awarded to women 1999
Total non-S&E	6,736	6,941	7,356	7,470	7,899	8,128	8,298	8,308	8,503	8,409	51.0	55.4
Health	592	668	710	777	843	843	860	937	1,008	901	61.9	63.9
Humanities	1,600	1,720	1,858	1,919	2,054	2,256	2,343	2,382	2,467	2,425	45.3	48.1
Education	3,752	3,748	3,976	3,921	4,089	4,092	4,179	4,120	4,132	4,196	57.6	64.0
Professional/other	792	805	812	853	913	937	916	869	896	887	36.0	40.8

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates, various years.

Appendix table 5-8
Doctoral degrees awarded to men, by field: 1990–99

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total, all fields	22,960	23,525	24,235	24,384	25,059	25,159	25,274	24,944	24,659	23,460
Total science and engineering	16,498	16,986	17,422	17,568	18,165	18,117	18,445	18,084	17,833	16,745
Physical sciences	2,863	2,934	2,986	2,880	3,128	2,944	2,968	2,892	2,883	2,736
Astronomy	108	110	114	120	119	143	151	161	162	128
Chemistry	1,597	1,672	1,621	1,530	1,621	1,488	1,525	1,522	1,512	1,494
Physics	1,135	1,137	1,226	1,216	1,364	1,291	1,282	1,196	1,195	1,103
Other physical sciences	23	15	25	14	24	22	10	13	14	11
Earth, atmospheric, and ocean sciences	597	631	600	602	635	608	614	662	592	593
Atmospheric sciences	69	89	92	79	101	106	100	124	93	101
Earth sciences	392	436	385	384	411	362	361	366	376	339
Oceanography	97	86	83	89	86	87	94	105	80	85
Other earth, atmospheric, and ocean sciences	39	20	40	50	37	53	59	67	43	68
Mathematical sciences	734	836	841	865	879	919	881	853	872	805
Computer science	595	679	747	737	762	808	776	744	763	687
Agricultural sciences	928	860	824	736	827	804	755	715	738	681
Biological sciences	2,713	2,864	2,952	3,014	3,076	3,132	3,286	3,260	3,301	3,181
Psychology	1,368	1,249	1,328	1,322	1,273	1,246	1,160	1,165	1,210	1,210
Clinical psychology	766	671	743	731	660	641	602	564	576	622
Nonclinical psychology	602	578	585	591	588	573	528	601	634	588
Experimental/biological psychology	158	152	165	168	183	180	168	204	191	187
Individual/social psychology	110	106	109	113	107	109	106	144	165	132
Other psychology	334	320	311	310	298	284	254	253	278	269
Social sciences	2,221	2,230	2,284	2,315	2,435	2,386	2,520	2,480	2,356	2,349
Economics	807	833	821	808	845	864	905	876	840	781
Political science and public administration	564	527	565	569	643	619	620	674	596	655
Sociology	230	247	262	279	261	258	246	265	261	228
Anthropology	161	143	179	149	193	172	192	203	194	214
Linguistics	77	112	127	89	87	98	116	107	96	99
History of science	17	15	20	21	17	24	27	22	24	31
Area and ethnic studies	48	55	56	68	57	55	67	42	51	48
Other social sciences	317	298	254	332	332	296	347	291	294	293
Engineering	4,479	4,703	4,860	5,097	5,150	5,270	5,485	5,313	5,118	4,503
Aerospace engineering	188	198	217	218	219	237	262	254	227	189
Chemical engineering	580	605	609	638	609	597	653	641	629	553
Civil engineering	504	529	535	558	598	575	615	572	545	495
Electrical engineering	1,192	1,312	1,352	1,403	1,516	1,545	1,555	1,560	1,429	1,308
Industrial engineering	126	146	169	207	195	231	207	205	189	166
Materials engineering	391	412	416	449	452	489	482	469	477	377
Mechanical engineering	846	810	933	955	940	954	963	927	923	749
Other engineering	652	691	629	669	621	642	748	685	699	666
Total non-S&E	6,462	6,539	6,813	6,816	6,894	7,042	6,829	6,860	6,826	6,715
Health	364	369	394	408	444	478	456	470	489	499
Humanities	1,301	1,402	1,498	1,498	1,572	1,746	1,617	1,879	1,903	1,806
Education	2,758	2,696	2,688	2,748	2,610	2,547	2,574	2,393	2,426	2,344
Professional/other	2,039	2,072	2,233	2,162	2,268	2,271	2,182	2,118	2,008	2,066

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates, various years.

Appendix table 5-9

Top 50 baccalaureate-origin institutions of 1995–99 S&E doctorate recipients, by sex

Rank	Rank and name of baccalaureate-origin institution	Number of male S&E doctorate recipients who attended	Rank	Rank and name of baccalaureate-origin institution	Number of male S&E doctorate recipients who attended
Total, all institutions		89,224	Total, all institutions		44,314
1	University of California–Berkeley	1,090	1	University of California–Berkeley	611
2	University of Illinois–Urbana-Champaign	759	2	University of Michigan–Ann Arbor	427
3	Massachusetts Institute of Technology	755	3	University of California–Los Angeles	331
4	University of Michigan–Ann Arbor	643	4	University of Illinois–Urbana-Champaign	326
5	Pennsylvania State University–main campus	629	5	University of Wisconsin–Madison	308
6	University of Wisconsin–Madison	628	6	Harvard University	291
7	University of Texas–Austin	540	7	University of Texas–Austin	288
8	Harvard University	508	8	University of California–Davis	276
9	University of Minnesota–Twin Cities	506	9	Stanford University	243
10	Brigham Young University–main campus	485	10	Pennsylvania State University–main campus	241
11	Purdue University–main campus	473	11	Michigan State University	240
12	Texas A&M University–main campus	457	12	Yale University	233
13	University of California–Davis	446	13	University of Minnesota–Twin Cities	232
14	University of California–Los Angeles	424	14	Ohio State University–main campus	229
15	Stanford University	410	15	Massachusetts Institute of Technology	228
16	Virginia Polytechnic Institute and State University	406	16	Brown University	224
17	Princeton University	398	16	University of Pennsylvania	224
18	Michigan State University	389	18	Texas A&M University–main campus	222
19	Ohio State University–main campus	388	19	Rutgers University–New Brunswick	219
20	University of Washington–Seattle	377	20	Duke University	214
21	University of Florida	372	21	University of Virginia–main campus	210
22	University of Pennsylvania	356	22	University of California–San Diego	202
23	University of California–San Diego	345	23	University of Colorado–Boulder	201
24	Iowa State University	337	24	University of Florida	192
25	Rutgers University–New Brunswick	335	25	University of Washington–Seattle	191
26	University of Colorado–Boulder	330	26	Princeton University	183
27	Yale University	328	27	Purdue University–main campus	180
28	California Institute of Technology	326	28	University of Maryland–College Park	173
28	University of Virginia–main campus	326	29	Cornell University–all campuses	168
30	University of Maryland–College Park	315	29	University of North Carolina–Chapel Hill	168
31	University of Chicago	304	31	Wellesley College	167
32	Rensselaer Polytechnic Institute	303	32	Indiana University–Bloomington	165
33	Georgia Institute of Technology–main campus	289	32	University of California–Santa Cruz	165
34	Brown University	287	34	Northwestern University	164
35	North Carolina State University–Raleigh	279	34	Smith College	164
36	Duke University	277	36	University of California–Irvine	162
37	University of Massachusetts–Amherst	275	37	University of Massachusetts–Amherst	160
38	Cornell University–all campuses	274	38	University of Chicago	159
39	SUNY at Buffalo	262	39	University of Puerto Rico–Rio Piedras	150
40	University of California-Santa Cruz	255	40	Virginia Polytechnic Institute and State University	149
41	University of California-Santa Barbara	254	41	Oberlin College	148
42	University of Arizona	246	42	University of California-Santa Barbara	146
43	Northwestern University	244	43	University of Arizona	142
44	University of Notre Dame	243	44	Iowa State University	137
45	University of California-Irvine	240	44	University of Iowa	137
46	Carnegie Mellon University	239	46	College of William and Mary	136
47	Rice University	231	47	Boston University	135
48	Washington University	229	48	Mount Holyoke College	134
49	Columbia University in the City of New York	216	49	Bryn Mawr College	129
50	Johns Hopkins University	213	50	Tufts University	128

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates, various years.

Appendix table 5-10
Doctorate recipients, by race/ethnicity, citizenship, and field of degree: 1999

Race/ethnicity and citizenship	Total, all fields	Total S&E	Engineering	Sciences: Total	Mathematics & statistics	Computer science	Physical sciences	Earth, atmospheric & ocean sciences	Agricultural sciences	Biological sciences	Psychology	Social sciences	Non-S&E
	Number												
All doctorate recipients	41,140	25,953	5,337	20,616	1,085	850	3,582	807	965	5,600	3,667	4,060	15,187
U.S. citizen	27,622	15,783	2,474	13,309	538	412	2,023	470	440	3,654	3,161	2,611	11,839
Noncitizen	13,518	10,170	2,863	7,307	547	438	1,559	337	525	1,946	506	1,449	3,348
White, non-Hispanic	26,450	15,667	2,606	13,061	678	454	2,207	511	497	3,420	2,764	2,530	10,783
U.S. citizen	22,929	13,136	1,982	11,154	474	329	1,742	408	385	3,028	2,632	2,156	9,793
Noncitizen	3,521	2,531	624	1,907	204	125	465	103	112	392	132	374	990
Asian/Pacific Islander	8,032	6,465	2,036	4,429	292	290	932	178	260	1,516	209	752	1,567
U.S. citizen	1,324	1,004	266	738	31	42	128	15	20	297	107	98	320
Noncitizen	6,708	5,461	1,770	3,691	261	248	804	163	240	1,219	102	654	1,247
Black, non-Hispanic	2,071	919	131	788	19	23	88	19	67	145	179	248	1,152
U.S. citizen	1,596	639	84	555	10	16	54	11	16	109	169	170	957
Noncitizen	475	280	47	233	9	7	34	8	51	36	10	78	195
Hispanic	1,842	1,143	179	964	36	31	98	34	106	224	214	221	699
U.S. citizen	1,109	615	71	544	12	12	51	18	10	145	192	104	494
Noncitizen	733	528	108	420	24	19	47	16	96	79	22	117	205
American Indian/ Alaskan Native	219	117	12	105	1	1	10	6	2	20	36	29	102
Unknown race/ethnicity	2,526	1,642	373	1,269	59	51	247	59	33	275	265	280	884
U.S. citizen	445	272	59	213	10	12	38	12	7	55	25	54	173
Noncitizen	2,081	1,370	314	1,056	49	39	209	47	26	220	240	226	711
	Percent												
All doctorate recipients	100.0	63.1	13.0	50.1	2.6	2.1	8.7	2.0	2.3	13.6	8.9	9.9	36.9
U.S. citizen	100.0	57.1	9.0	48.2	1.9	1.5	7.3	1.7	1.6	13.2	11.4	9.5	42.9
Noncitizen	100.0	75.2	21.2	54.1	4.0	3.2	11.5	2.5	3.9	14.4	3.7	10.7	24.8
White, non-Hispanic	100.0	59.2	9.9	49.4	2.6	1.7	8.3	1.9	1.9	12.9	10.4	9.6	40.8
U.S. citizen	100.0	57.3	8.6	48.6	2.1	1.4	7.6	1.8	1.7	13.2	11.5	9.4	42.7
Noncitizen	100.0	71.9	17.7	54.2	5.8	3.6	13.2	2.9	3.2	11.1	3.7	10.6	28.1
Asian/Pacific Islander	100.0	80.5	25.3	55.1	3.6	3.6	11.6	2.2	3.2	18.9	2.6	9.4	19.5
U.S. citizen	100.0	75.8	20.1	55.7	2.3	3.2	9.7	1.1	1.5	22.4	8.1	7.4	24.2
Noncitizen	100.0	81.4	26.4	55.0	3.9	3.7	12.0	2.4	3.6	18.2	1.5	9.7	18.6
Black, non-Hispanic	100.0	44.4	6.3	38.0	0.9	1.1	4.2	0.9	3.2	7.0	8.6	12.0	55.6
U.S. citizen	100.0	40.0	5.3	34.8	0.6	1.0	3.4	0.7	1.0	6.8	10.6	10.7	60.0
Noncitizen	100.0	58.9	9.9	49.1	1.9	1.5	7.2	1.7	10.7	7.6	2.1	16.4	41.1
Hispanic	100.0	62.1	9.7	52.3	2.0	1.7	5.3	1.8	5.8	12.2	11.6	12.0	37.9
U.S. citizen	100.0	55.5	6.4	49.1	1.1	1.1	4.6	1.6	0.9	13.1	17.3	9.4	44.5
Noncitizen	100.0	72.0	14.7	57.3	3.3	2.6	6.4	2.2	13.1	10.8	3.0	16.0	28.0
American Indian/ Alaskan Native	100.0	53.4	5.5	47.9	0.5	0.5	4.6	2.7	0.9	9.1	16.4	13.2	46.6
Unknown race/ethnicity	100.0	65.0	14.8	50.2	2.3	2.0	9.8	2.3	1.3	10.9	10.5	11.1	35.0
U.S. citizen	100.0	61.1	13.3	47.9	2.2	2.7	8.5	2.7	1.6	12.4	5.6	12.1	38.9
Noncitizen	100.0	65.8	15.1	50.7	2.4	1.9	10.0	2.3	1.2	10.6	11.5	10.9	34.2

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates.

Appendix table 5-11

S&E doctorates awarded to U.S. citizens and permanent residents, by race/ethnicity and field: 1990–99

Race/ethnicity and field	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Percent 1990	Percent 1999
U.S. citizens and permanent residents, all fields	26,603	27,430	27,990	28,708	30,894	32,058	31,518	31,086	31,166	29,922	100.0	100.0
Total science and engineering	15,364	15,914	15,942	16,573	18,187	18,996	18,639	18,402	18,268	17,428	100.0	100.0
Sciences	13,018	13,440	13,422	13,876	15,134	15,654	15,252	15,073	15,223	14,555	100.0	100.0
Physical sciences	2,341	2,300	2,357	2,330	2,789	2,841	2,569	2,497	2,455	2,263	100.0	100.0
Astronomy	96	86	106	111	112	141	149	158	148	116	100.0	100.0
Chemistry	1,497	1,461	1,441	1,400	1,616	1,624	1,462	1,439	1,466	1,400	100.0	100.0
Physics	725	739	790	806	1,044	1,059	948	883	823	735	100.0	100.0
Other physical sciences	23	14	20	13	17	17	10	17	18	12	100.0	100.0
Earth, atmospheric, and ocean sciences	535	618	541	504	613	594	558	606	562	521	100.0	100.0
Mathematical sciences	422	518	507	590	657	771	648	630	669	605	100.0	100.0
Computer science	403	451	489	509	543	616	514	521	558	483	100.0	100.0
Biological sciences	3,380	3,525	3,568	3,752	4,088	4,329	4,365	4,254	4,313	4,118	100.0	100.0
Agricultural sciences	687	620	573	506	616	598	576	551	543	491	100.0	100.0
Psychology	2,992	3,018	2,986	3,161	3,136	3,184	3,228	3,138	3,281	3,230	100.0	100.0
Clinical psychology	1,762	1,792	1,798	1,873	1,786	1,848	1,851	1,753	1,825	1,897	100.0	100.0
Nonclinical psychology	1,230	1,226	1,188	1,288	1,238	1,204	1,256	1,383	1,456	1,333	100.0	100.0
Social sciences[a]	2,258	2,390	2,401	2,524	2,692	2,721	2,794	2,876	2,842	2,844	100.0	100.0
Engineering	2,346	2,474	2,520	2,697	3,053	3,342	3,387	3,329	3,045	2,873	100.0	100.0
Chemical engineering	392	399	378	377	380	381	391	409	373	374	100.0	100.0
Civil engineering	241	213	215	227	292	309	305	327	297	310	100.0	100.0
Electrical engineering	599	686	719	795	899	971	928	938	804	762	100.0	100.0
Mechanical engineering	368	359	426	434	538	563	588	537	516	460	100.0	100.0
Other engineering	746	817	782	864	944	1,118	1,175	1,118	1,055	967	100.0	100.0
Total non-S&E	11,239	11,516	12,048	12,135	12,707	13,062	12,879	12,684	12,898	12,494	100.0	100.0
Health	756	839	855	939	1,050	1,044	1,016	1,028	1,155	1,043	100.0	100.0
Humanities	3,082	3,194	3,440	3,512	3,766	4,055	4,045	4,235	4,325	4,277	100.0	100.0
Education	5,787	5,788	6,017	5,968	6,063	5,995	6,062	5,744	5,741	5,609	100.0	100.0
Professional/other	1,614	1,695	1,736	1,716	1,828	1,968	1,756	1,677	1,677	1,565	100.0	100.0
Whites, non-Hispanic, all fields	22,878	23,186	23,626	24,052	24,595	24,721	24,691	23,958	24,313	23,725	86.0	79.3
Total science and engineering	13,170	13,324	13,327	13,737	13,890	13,906	14,008	13,829	14,026	13,656	85.7	78.4
Sciences	11,330	11,487	11,447	11,712	11,870	11,813	11,746	11,542	11,855	11,555	87.0	79.4
Physical sciences	2,008	1,969	1,974	1,911	2,025	1,924	1,887	1,883	1,914	1,831	85.8	80.9
Astronomy	86	83	95	100	97	111	131	132	121	108	89.6	93.1
Chemistry	1,284	1,239	1,220	1,145	1,179	1,112	1,063	1,078	1,127	1,088	85.8	77.7
Physics	618	634	641	656	736	687	684	658	650	624	85.2	84.9
Other physical sciences	20	13	18	10	13	14	9	15	16	11	87.0	91.7
Earth, atmospheric, and ocean sciences	494	557	485	455	504	464	449	487	464	430	92.3	82.5
Mathematical sciences	372	419	425	476	479	535	479	479	526	506	88.2	83.6
Computer science	339	355	378	410	401	452	356	361	411	348	84.1	72.0
Biological sciences	2,975	3,041	3,068	3,146	3,107	3,118	3,175	3,158	3,251	3,139	88.0	76.2
Agricultural sciences	601	545	493	438	487	473	444	411	418	398	87.5	81.1
Psychology	2,648	2,652	2,636	2,807	2,730	2,727	2,744	2,525	2,657	2,665	88.5	82.5
Clinical psychology	1,562	1,591	1,584	1,663	1,579	1,616	1,578	1,418	1,491	1,540	88.6	81.2
Nonclinical psychology	1,086	1,061	1,052	1,144	1,051	1,000	1,061	1,107	1,166	1,125	88.3	84.4
Social sciences[a]	1,893	1,949	1,988	2,069	2,137	2,120	2,212	2,238	2,214	2,238	83.8	78.7

See explanatory information and SOURCE at end of table.

Appendix table 5-11

S&E doctorates awarded to U.S. citizens and permanent residents, by race/ethnicity and field: 1990–99

Race/ethnicity and field	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Percent 1990	Percent 1999
Engineering	1,840	1,837	1,880	2,025	2,020	2,093	2,262	2,287	2,171	2,101	78.4	73.1
Chemical engineering	318	322	284	295	259	257	275	294	276	287	81.1	76.7
Civil engineering	196	159	166	168	199	194	199	220	216	240	81.3	77.4
Electrical engineering	450	478	487	553	548	590	588	578	523	508	75.1	66.7
Mechanical engineering	286	266	326	328	337	339	392	376	371	334	77.7	72.6
Other engineering	590	612	617	681	677	713	808	819	785	732	79.1	75.7
Total non-S&E	9,708	9,862	10,299	10,315	10,705	10,815	10,683	10,129	10,287	10,069	86.4	80.6
Health	662	720	735	800	867	836	823	827	932	836	87.6	80.2
Humanities	2,766	2,821	3,061	3,109	3,283	3,521	3,487	3,526	3,605	3,621	89.7	84.7
Education	4,900	4,889	5,051	4,965	5,044	4,853	4,943	4,452	4,416	4,392	84.7	78.3
Professional/other	1,380	1,432	1,452	1,441	1,511	1,605	1,430	1,324	1,334	1,220	85.5	78.0
Asians/Pacific Islanders, all fields	1,306	1,531	1,764	2,017	3,546	4,309	3,699	3,122	2,729	2,518	4.9	8.4
Total science and engineering	1,009	1,180	1,345	1,610	2,989	3,669	3,095	2,539	2,148	1,951	6.6	11.2
Sciences	650	775	894	1,083	2,122	2,636	2,198	1,832	1,592	1,436	5.0	9.9
Physical sciences	164	172	227	265	600	751	503	402	334	257	7.0	11.4
Astronomy	5	0	4	4	10	22	12	8	13	3	5.2	2.6
Chemistry	99	122	135	157	332	416	295	235	207	187	6.6	13.4
Physics	58	50	88	103	255	312	195	158	113	67	8.0	9.1
Other physical sciences	2	0	0	1	3	1	1	1	1	0	8.7	0.0
Earth, atmospheric, and ocean sciences	15	17	27	22	89	104	77	72	51	39	2.8	7.5
Mathematical sciences	27	57	52	79	142	208	140	98	71	59	6.4	9.8
Computer science	48	66	86	77	117	137	111	108	91	86	11.9	17.8
Biological sciences	200	261	269	370	720	924	890	723	661	619	5.9	15.0
Agricultural sciences	32	24	37	29	72	78	81	63	47	45	4.7	9.2
Psychology	53	59	59	73	109	122	124	127	115	129	1.8	4.0
Clinical psychology	21	26	29	36	51	53	53	68	63	77	1.2	4.1
Nonclinical psychology	32	33	30	37	54	63	66	57	52	52	2.6	3.9
Social sciences[a]	111	119	137	168	273	312	272	239	222	202	4.9	7.1
Engineering	359	405	451	527	867	1,033	897	707	556	515	15.3	17.9
Chemical engineering	51	50	54	62	96	101	80	73	65	60	13.0	16.0
Civil engineering	28	30	34	41	69	91	89	72	38	46	11.6	14.8
Electrical engineering	115	140	175	199	304	322	276	256	206	172	19.2	22.6
Mechanical engineering	69	62	78	93	179	189	166	113	90	89	18.8	19.3
Other engineering	96	123	110	132	219	330	286	193	157	148	12.9	15.3
Total non-S&E	297	351	419	407	557	640	604	583	581	567	2.6	4.5
Health	39	44	52	45	94	93	87	87	85	85	5.2	8.1
Humanities	62	81	99	108	151	194	191	181	195	196	2.0	4.6
Education	104	130	144	144	173	179	185	181	180	170	1.8	3.0
Professional/other	92	96	124	110	139	174	141	134	121	116	5.7	7.4
Blacks, non-Hispanic, all fields	1,050	1,166	1,116	1,280	1,279	1,475	1,456	1,488	1,603	1,729	3.9	5.8
Total science and engineering	374	464	408	469	500	560	576	623	646	715	2.4	4.1
Sciences	334	409	359	419	446	489	502	525	562	619	2.6	4.3
Physical sciences	30	32	25	41	46	43	60	52	56	66	1.3	2.9
Astronomy	1	0	1	2	0	1	0	2	1	2	1.0	1.7
Chemistry	24	23	17	31	34	33	45	35	45	56	1.6	4.0
Physics	5	9	6	7	11	9	15	15	10	8	0.7	1.1
Other physical sciences	0	0	1	1	1	0	0	0	0	0	0.0	0.0

See explanatory information and SOURCE at end of table.

Appendix table 5-11

S&E doctorates awarded to U.S. citizens and permanent residents, by race/ethnicity and field: 1990–99

Race/ethnicity and field	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Percent 1990	Percent 1999
Earth, atmospheric, and ocean sciences	3	3	6	4	6	3	4	8	9	14	0.6	2.7
Mathematical sciences	4	11	4	8	11	5	8	7	16	12	0.9	2.0
Computer science	1	8	5	6	10	11	12	4	14	18	0.2	3.7
Biological sciences	51	64	62	75	79	108	98	111	110	116	1.5	2.8
Agricultural sciences	15	17	14	16	22	17	25	25	19	24	2.2	4.9
Psychology	115	130	106	119	124	151	154	156	156	173	3.8	5.4
Clinical psychology	76	75	72	72	66	86	104	96	91	103	4.3	5.4
Nonclinical psychology	39	55	34	47	55	59	42	60	65	70	3.2	5.3
Social sciences[a]	115	144	137	150	148	151	141	162	182	196	5.1	6.9
Engineering	40	55	49	50	54	71	74	98	84	96	1.7	3.3
Chemical engineering	10	8	13	6	8	3	12	16	3	11	2.6	2.9
Civil engineering	1	12	3	5	8	11	8	10	10	6	0.4	1.9
Electrical engineering	8	16	17	15	17	24	22	31	23	29	1.3	3.8
Mechanical engineering	5	3	5	3	7	14	10	12	14	12	1.4	2.6
Other engineering	16	16	11	21	14	19	22	29	34	38	2.1	3.9
Total non-S&E	676	702	708	811	779	915	880	865	957	1,014	6.0	8.1
Health	32	40	38	59	46	60	49	56	65	57	4.2	5.5
Humanities	72	92	90	98	106	114	119	141	141	169	2.3	4.0
Education	496	472	501	557	521	627	608	558	652	650	8.6	11.6
Professional/other	76	98	79	97	106	114	104	110	99	138	4.7	8.8
Hispanics, all fields	837	868	909	973	1,030	1,054	1,103	1,191	1,319	1,246	3.1	4.2
Total science and engineering	468	493	513	542	548	563	618	656	753	688	3.0	3.9
Sciences	414	432	442	476	482	487	521	561	643	606	3.2	4.2
Physical sciences	72	65	72	79	90	73	66	69	54	57	3.1	2.5
Astronomy	2	1	4	2	2	4	2	3	2	0	2.1	0.0
Chemistry	57	46	42	51	59	43	35	44	34	42	3.8	3.0
Physics	13	18	26	26	29	26	29	22	18	15	1.8	2.0
Other physical sciences	0	0	0	0	0	0	0	0	0	0	0.0	0.0
Earth, atmospheric, and ocean sciences	13	16	16	13	8	13	19	15	16	20	2.4	3.8
Mathematical sciences	10	9	12	16	13	15	10	20	27	15	2.4	2.5
Computer science	5	12	8	7	7	6	16	17	14	14	1.2	2.9
Biological sciences	89	95	102	114	131	125	128	146	169	164	2.6	4.0
Agricultural sciences	23	15	18	20	25	21	12	27	35	15	3.3	3.1
Psychology	109	122	133	131	133	145	173	171	207	202	3.6	6.3
Clinical psychology	60	77	88	87	78	71	97	104	115	141	3.4	7.4
Nonclinical psychology	49	45	45	44	53	67	74	67	92	61	4.0	4.6
Social sciences[a]	93	98	81	96	75	89	97	96	121	119	4.1	4.2
Engineering	54	61	71	66	66	76	97	95	110	82	2.3	2.9
Chemical engineering	8	11	16	10	7	12	18	6	13	7	2.0	1.9
Civil engineering	9	5	7	12	14	11	6	12	16	12	3.7	3.9
Electrical engineering	13	16	17	17	21	15	27	25	31	29	2.2	3.8
Mechanical engineering	5	9	11	5	8	8	12	15	19	9	1.4	2.0
Other engineering	19	20	20	22	16	30	34	37	31	25	2.5	2.6

See explanatory information and SOURCE at end of table.

Appendix table 5-11

S&E doctorates awarded to U.S. citizens and permanent residents, by race/ethnicity and field: 1990–99

Race/ethnicity and field	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Percent 1990	Percent 1999
Total non-S&E	369	375	396	431	482	491	485	535	566	558	3.3	4.5
Health	17	16	13	24	25	30	38	32	37	46	2.2	4.4
Humanities	127	136	129	145	168	154	178	207	196	193	4.1	4.5
Education	190	189	214	222	241	258	216	253	285	266	3.3	4.7
Professional/other	35	34	40	40	48	49	53	43	48	53	2.2	3.4
Puerto Ricans, all fields	210	191	229	232	257	269	249	312	299	292	0.8	1.0
Total science and engineering	115	99	120	112	131	137	140	173	171	164	0.7	0.9
Sciences	109	90	107	102	121	124	118	150	154	141	0.8	1.0
Physical sciences	24	17	20	17	26	21	12	20	11	18	1.0	0.8
Astronomy	1	0	1	0	0	1	0	0	1	0	1.0	0.0
Chemistry	20	14	14	14	19	17	9	13	9	15	1.3	1.1
Physics	3	3	5	3	7	3	3	7	1	3	0.4	0.4
Other physical sciences	0	0	0	0	0	0	0	0	0	0	0.0	0.0
Earth, atmospheric & ocean sciences	5	0	3	1	0	2	3	5	5	5	0.9	1.0
Mathematical sciences	2	0	2	1	1	1	3	4	7	2	0.5	0.3
Computer science	2	3	1	1	4	0	5	6	2	6	0.5	1.2
Biological sciences	24	23	27	27	28	30	30	37	43	39	0.7	0.9
Agricultural sciences	5	0	3	10	5	3	4	5	3	1	0.7	0.2
Psychology	26	20	35	24	43	44	48	57	69	49	0.9	1.5
Social sciences[a]	21	27	16	21	14	23	13	16	14	21	0.9	0.7
Engineering	6	9	13	10	10	13	22	23	17	23	0.3	0.8
Chemical engineering	2	2	3	2	2	4	4	1	3	2	0.5	0.5
Civil engineering	1	1	1	1	1	1	1	5	1	2	0.4	0.6
Electrical engineering	2	0	3	5	3	3	4	4	3	11	0.3	1.4
Mechanical engineering	0	2	1	1	1	1	3	6	5	2	0.0	0.4
Other engineering	1	4	5	1	3	4	10	7	5	6	0.1	0.6
Total non-S&E	95	92	109	120	126	132	109	139	128	128	0.8	1.0
Health	6	3	4	3	6	12	7	10	7	11	0.8	1.1
Humanities	28	30	22	36	38	30	38	49	36	30	0.9	0.7
Education	56	52	76	70	68	69	51	69	71	70	1.0	1.2
Professional/other	5	7	7	11	14	21	13	11	14	17	0.3	1.1
Mexicans, all fields	190	232	219	252	308	288	288	305	422	344	0.7	1.1
Total science and engineering	104	126	120	122	145	148	144	160	223	163	0.7	0.9
Sciences	91	112	110	110	130	129	118	142	193	150	0.7	1.0
Physical sciences	11	15	9	12	24	13	22	15	21	16	0.5	0.7
Astronomy	0	0	0	0	1	1	1	0	1	0	0.0	0.0
Chemistry	11	12	6	8	19	8	14	9	15	9	0.7	0.6
Physics	0	3	3	4	4	4	7	6	5	7	0.0	1.0
Other physical sciences	0	0	0	0	0	0	0	0	0	0	0.0	0.0
Earth, atmospheric, and ocean sciences	3	4	7	2	4	4	5	3	5	5	0.6	1.0
Mathematical sciences	3	3	4	4	4	6	1	3	6	7	0.7	1.2
Computer science	0	0	3	1	2	3	1	2	3	1	0.0	0.2
Biological sciences	22	26	24	24	30	27	28	44	54	41	0.7	1.0
Agricultural sciences	8	5	5	4	6	4	1	2	10	3	1.2	0.6
Psychology	25	35	37	42	40	48	38	49	53	44	0.8	1.4
Social sciences[a]	19	24	21	21	20	24	22	24	41	33	0.8	1.2

See explanatory information and SOURCE at end of table.

Appendix table 5-11

S&E doctorates awarded to U.S. citizens and permanent residents, by race/ethnicity and field: 1990–99

Race/ethnicity and field	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Percent 1990	Percent 1999
Engineering	13	14	10	12	15	19	26	18	30	13	0.6	0.5
Chemical engineering	2	4	1	1	1	3	3	2	1	0	0.5	0.0
Civil engineering	2	2	2	0	2	7	2	2	5	3	0.8	1.0
Electrical engineering	4	3	3	2	4	3	9	5	7	4	0.7	0.5
Mechanical engineering	3	3	2	0	2	2	3	3	3	1	0.8	0.2
Other engineering	2	2	2	9	6	4	9	6	14	5	0.3	0.5
Total non-S&E	86	106	99	130	163	140	144	145	199	181	0.8	1.4
Health	7	3	5	8	5	8	6	7	15	16	0.9	1.5
Humanities	19	27	24	35	42	34	41	38	58	46	0.6	1.1
Education	50	67	58	74	102	93	79	90	115	101	0.9	1.8
Professional/other	10	9	12	13	14	5	18	10	11	18	0.6	1.2
Other Hispanics, all fields	437	445	461	489	465	497	566	574	598	610	1.6	2.0
Total science and engineering	249	268	273	308	272	278	334	323	359	361	1.6	2.1
Sciences	214	230	225	264	231	234	285	269	296	315	1.6	2.2
Physical sciences	37	33	43	50	40	39	32	34	22	23	1.6	1.0
Astronomy	1	1	3	2	1	2	1	3	0	0	1.0	0.0
Chemistry	26	20	22	29	21	18	12	22	10	18	1.7	1.3
Physics	10	12	18	19	18	19	19	9	12	5	1.4	0.7
Other physical sciences	0	0	0	0	0	0	0	0	0	0	0.0	0.0
Earth, atmospheric, and ocean sciences	5	12	6	10	4	7	11	7	6	10	0.9	1.9
Mathematical sciences	5	6	6	11	8	8	6	13	14	6	1.2	1.0
Computer science	3	9	4	5	1	3	10	9	9	7	0.7	1.4
Biological sciences	43	46	51	63	73	68	70	65	72	84	1.3	2.0
Agricultural sciences	10	10	10	6	14	14	7	20	22	11	1.5	2.2
Psychology	58	67	61	65	50	53	87	65	85	109	1.9	3.4
Social sciences[a]	53	47	44	54	41	42	62	56	66	65	2.3	2.3
Engineering	35	38	48	44	41	44	49	54	63	46	1.5	1.6
Chemical engineering	4	5	12	7	4	5	11	3	9	5	1.0	1.3
Civil engineering	6	2	4	11	11	3	3	5	10	7	2.5	2.3
Electrical engineering	7	13	11	10	14	9	14	16	21	14	1.2	1.8
Mechanical engineering	2	4	8	4	5	5	6	6	11	6	0.5	1.3
Other engineering	16	14	13	12	7	22	15	24	12	14	2.1	1.4
Total non-S&E	188	177	188	181	193	219	232	251	239	249	1.7	2.0
Health	4	10	4	13	14	10	25	15	15	19	0.5	1.8
Humanities	80	79	83	74	88	90	99	120	102	117	2.6	2.7
Education	84	70	80	78	71	96	86	94	99	95	1.5	1.7
Professional/other	20	18	21	16	20	23	22	22	23	18	1.2	1.2
American Indians/Alaskan Natives, all fields	97	132	149	120	143	148	188	166	189	219	0.4	0.7
Total science and engineering	43	56	69	43	64	68	97	79	96	117	0.3	0.7
Sciences	39	50	58	41	58	59	82	62	83	105	0.3	0.7
Physical sciences	3	10	12	5	6	7	6	10	10	10	0.1	0.4
Astronomy	0	0	0	1	0	0	0	1	1	2	0.0	1.7
Chemistry	3	9	6	2	4	5	4	6	7	5	0.2	0.4
Physics	0	1	6	2	2	2	2	2	2	3	0.0	0.4
Other physical sciences	0	0	0	0	0	0	0	1	0	0	0.0	0.0

See explanatory information and SOURCE at end of table.

Appendix table 5-11

S&E doctorates awarded to U.S. citizens and permanent residents, by race/ethnicity and field: 1990–99

Race/ethnicity and field	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Percent 1990	Percent 1999
Earth, atmospheric, and ocean sciences	1	3	1	4	1	0	2	2	3	6	0.2	1.2
Mathematical sciences	1	0	2	1	2	2	1	1	3	1	0.2	0.2
Computer science	0	1	2	1	1	0	4	1	3	1	0.0	0.2
Biological sciences	4	10	13	7	16	15	20	7	12	20	0.1	0.5
Agricultural sciences	4	4	0	1	1	2	6	5	9	2	0.6	0.4
Psychology	19	13	15	15	12	14	18	18	31	36	0.6	1.1
Clinical psychology	14	8	10	9	8	8	12	11	19	24	0.8	1.3
Nonclinical psychology	5	5	5	6	3	6	6	7	12	12	0.4	0.9
Social sciences[a]	7	9	13	7	19	19	25	18	12	29	0.3	1.0
Engineering	4	6	11	2	6	9	15	17	13	12	0.2	0.4
Chemical engineering	0	1	1	1	1	2	1	4	3	2	0.0	0.5
Civil engineering	2	1	1	0	0	0	2	2	0	2	0.8	0.6
Electrical engineering	0	2	4	0	1	1	2	5	3	1	0.0	0.1
Mechanical engineering	0	1	1	0	0	2	4	6	2	2	0.0	0.4
Other engineering	2	1	4	1	4	4	6	0	5	5	0.3	0.5
Total non-S&E	54	76	80	77	79	80	91	87	93	102	0.5	0.8
Health	1	5	5	6	6	9	4	6	4	6	0.1	0.6
Humanities	6	10	18	10	20	18	18	19	21	21	0.2	0.5
Education	37	56	50	51	37	41	60	51	50	60	0.6	1.1
Professional/other	10	5	7	10	16	12	9	11	18	15	0.6	1.0

[a]Social sciences here include linguistics, history of science, American studies, and archaeology.

NOTE: Total includes "other" race/ethnicity not shown.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates, various years.

Appendix table 5-12
Top baccalaureate-origin institutions of 1995–99 black S&E doctorate recipients

Rank	Rank and name of baccalaureate-origin institution	Number of S&E doctorate recipients who attended	Rank	Rank and name of baccalaureate-origin institution	Number of S&E doctorate recipients who attended
Total, all institutions		3,120	24	Xavier University of Louisiana*	19
1	Howard University*	116	28	Lincoln University (Pennsylvania)	18
2	Spelman College*	63	28	Tougaloo College	18
3	Southern University A&M–Baton Rouge*	35	30	Columbia University in the City of New York	17
4	Hampton University*	34	30	Prairie View A&M University	17
5	North Carolina A&T State University*	31	30	Temple University	17
5	North Carolina State University–Raleigh	31	33	North Carolina Central University*	16
7	Morehouse College*	30	33	Tennessee State University	16
8	Massachusetts Institute of Technology	28	35	CUNY Brooklyn College	15
9	University of California–Berkeley	26	35	Fisk University*	15
9	University of Maryland–College Park	26	35	New York University	15
9	University of Michigan–Ann Arbor	26	35	Princeton University	15
12	Brown University	24	35	University of South Carolina–Columbia	15
12	Northwestern University	24	35	University of Tennessee–Knoxville	15
14	Alabama A&M University*	23	35	Yale University	15
14	Tuskegee University*	23	42	Ohio State University–main campus	14
16	Harvard University	22	42	SUNY at Buffalo	14
16	University of Virginia–main campus	22	42	University of North Carolina–Chapel Hill	14
18	CUNY City College	21	42	University of Pennsylvania	14
18	Morgan State University*	21	42	University of Texas–Austin	14
20	Florida A&M University*	20	42	University of the District of Columbia	14
20	Jackson State University*	20	48	Clark Atlanta University*	12
20	Stanford University	20	48	CUNY Hunter College	12
20	Wayne State University	20	48	Grambling State University*	12
24	Michigan State University	19	48	Norfolk State University*	12
24	University of California–Los Angeles	19	48	Rutgers University	12
24	University of Illinois–Urbana-Champaign	19	48	University of Washington–Seattle	12

* historically black college or university

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates, various years.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 5-13
Top baccalaureate-origin institutions of 1995–99 Hispanic S&E doctorate recipients

Rank	Rank and name of baccalaureate-origin institution	Number of S&E doctorate recipients who attended	Rank	Rank and name of baccalaureate-origin institution	Number of S&E doctorate recipients who attended
Total, all institutions		3,278	24	University of Maryland–College Park	16
1	University of Puerto Rico–Rio Piedras*	241	24	University of South Florida	16
2	University of Puerto Rico–Mayaguez*	136	29	University of Arizona	15
3	University of California–Berkeley	67	29	University of California–Santa Barbara	15
4	University of Texas–Austin	58	29	University of Puerto Rico–Cayey*	15
5	University of California–Los Angeles	54	29	University of Washington–Seattle	15
6	Florida International University*	45	33	California State University–Los Angeles*	14
7	University of Miami*	42	33	Cornell University–all campuses	14
8	Massachusetts Institute of Technology	41	33	New York University	14
9	University of Florida	40	33	Princeton University	14
10	University of Texas–El Paso*	38	33	University of Illinois–Urbana-Champaign	14
11	Texas A&M University–main campus	36	38	California Institute of Technology	13
12	Stanford University	33	38	California State University–Long Beach	13
12	University of California–Irvine	33	38	California State University–Northridge*	13
14	University of California–Davis	32	38	University of Massachusetts–Amherst	13
15	University of New Mexico–all campuses*	30	38	University of Pennsylvania	13
16	New Mexico State University–all campuses*	26	43	Brown University	12
17	Rutgers University	24	43	California State Polytechnic University Pomona	12
18	University of Michigan–Ann Arbor	21	43	University of Chicago	12
19	University of California–San Diego	20	43	University of Colorado–Boulder	12
19	Yale University	20	47	Columbia University in the City of New York	11
21	University of California–Santa Cruz	18	47	Duke University	11
22	San Diego State University	17	47	SUNY at Stony Brook–all campuses	11
22	St .Mary's University*	17	47	Trinity University	11
24	Harvard University	16	47	University of Virginia–main campus	11
24	The Pontifical Catholic Univ. of Puerto Rico*	16	47	Virginia Polytechnic Institute and State University	11
24	University of Houston*	16			

* Hispanic-serving institution

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates, various years.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 5-14
Baccalaureate-origin institutions of 1995–99 American Indian/Alaskan Native S&E doctorate recipients

Rank	Rank and name of baccalaureate-origin institution	Number of S&E doctorate recipients who attended
	Total, all institutions	457
1	University of California–Berkeley	14
2	University of Oklahoma–Norman	11
3	Oklahoma State University–all campuses	8
4	University of Missouri–Columbia	5
4	University of Texas–Austin	5
6	Auburn University–main campus	4
6	Northeastern State University	4
6	Purdue University–main campus	4
6	San Diego State University	4
6	Southwest Missouri State University	4
6	University of California–Davis	4
6	University of California–Irvine	4
6	University of Florida	4
6	University of Massachusetts–Amherst	4
6	University of New Mexico–all campuses	4
6	University of Washington–Seattle	4
6	University of Wisconsin–Madison	4
18	California State Polytechnic University–San Luis Obispo	3
18	Central Washington University	3
18	Georgia Institute of Technology–main campus	3
18	Iowa State University	3
18	Massachusetts Institute of Technology	3
18	New Mexico State University–all campuses	3
18	Northern Arizona University	3
18	San Jose State University	3
18	Texas A&M University–main campus	3
18	Tufts University	3
18	University of Alaska–Fairbanks	3
18	University of Arizona	3
18	University of California–Los Angeles	3
18	University of Central Oklahoma	3
18	University of North Dakota–all campuses	3
18	University of Pennsylvania	3
18	University of Pittsburgh–main campus	3
18	University of Tulsa	3
18	University of West Florida	3
18	University of Wisconsin–Milwaukee	3

NOTE: Includes institutions awarding baccalaureates to three or more American Indian/Alaskan Native S&E doctorate recipients in the 1995–99 period.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates, various years.

Appendix table 5-15
Top baccalaureate-origin institutions of 1995–99 Asian/Pacific Islander S&E doctorate recipients

Rank	Rank and name of baccalaureate-origin institution	Number of S&E doctorate recipients who attended	Rank	Rank and name of baccalaureate-origin institution	Number of S&E doctorate recipients who attended
Total, all institutions		13,402	24	University of Southern California	33
1	University of California–Berkeley	413	24	University of Minnesota–Twin Cities	33
2	Massachusetts Institute of Technology	160	24	Cornell University–all campuses	33
3	Harvard University	130	28	Rutgers University	30
4	University of California–Los Angeles	123	29	Washington University	29
5	University of California–Davis	85	30	University of California–Santa Barbara	26
5	California Institute of Technology	85	31	University of Virginia–main campus	25
6	Stanford University	81	31	Carnegie Mellon University	25
7	University of Michigan–Ann Arbor	78	33	SUNY at Stony Brook–all campuses	24
8	University of California–Irvine	75	33	Texas A&M University–main campus	24
9	Princeton University	72	35	Pennsylvania State University	23
10	University of Illinois–Urbana-Champaign	68	35	University of Colorado–Boulder	23
11	University of California–San Diego	63	35	University of Rochester	23
12	University of Hawaii–Manoa	59	38	Georgia Institute of Technology–main campus	22
13	University of Pennsylvania	58	38	Rice University	22
14	Yale University	52	40	SUNY–Buffalo	21
14	University of Washington–Seattle	52	41	Harvey Mudd College	20
16	University of Texas–Austin	50	42	Duke University	19
17	University of Maryland–College Park	49	42	Case Western Reserve University	19
18	Johns Hopkins University	46	42	Rensselaer Polytechnic Institute	19
19	University of Chicago	45	45	Michigan State University	18
20	Northwestern University	40	45	Ohio State University–main campus	18
21	Brown University	36	47	Boston University	17
21	Purdue University–main campus	36	47	University of Florida	17
23	University of Wisconsin–Madison	35	47	University of California-Riverside	17
24	Columbia University	33	47	Virginia Polytechnic Institute and State University	17

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates, various years.

Appendix table 5-16

Science and engineering doctorates awarded to U.S. citizens and permanent residents, by sex and race/ethnicity: 1990–99

Sex and race/ethnicity	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	Number									
All U.S. citizens and permanent residents	15,364	15,914	15,942	16,573	18,187	18,996	18,639	18,402	18,268	17,428
White, non-Hispanic	13,170	13,324	13,327	13,737	13,890	13,906	14,008	13,829	14,026	13,656
Asian/Pacific Islander	1,009	1,180	1,345	1,610	2,989	3,669	3,095	2,539	2,148	1,951
Black, non-Hispanic	374	464	408	469	500	560	576	623	646	715
Hispanic	468	493	513	542	548	563	618	656	753	688
Puerto Rican	115	99	120	112	131	137	140	173	171	164
Mexican American	104	126	120	122	145	148	144	160	223	163
Other Hispanic	249	268	273	308	272	278	334	323	359	361
American Indian/Alaskan Native	43	56	69	43	64	68	97	79	96	117
Other/unknown race/ethnicity	300	397	280	172	196	230	245	676	599	301
Male	10,182	10,314	10,363	10,543	11,692	12,082	11,676	11,392	11,076	10,434
White, non-Hispanic	8,648	8,585	8,624	8,724	8,732	8,683	8,653	8,559	8,530	8,235
Asian/Pacific Islander	757	805	926	1,077	2,168	2,554	2,112	1,644	1,375	1,223
Black, non-Hispanic	225	270	238	261	284	290	323	332	296	349
Hispanic	290	307	308	320	318	336	346	392	426	344
Puerto Rican	67	52	71	70	72	74	72	100	68	79
Mexican American	67	84	79	73	87	89	91	91	136	90
Other Hispanic	156	171	158	177	159	173	183	201	222	175
American Indian/Alaskan Native	25	37	42	25	40	42	62	45	54	61
Other/unknown race/ethnicity	237	310	225	136	150	177	180	420	395	222
Female	5,182	5,597	5,577	6,024	6,494	6,912	6,963	6,994	7,174	6,994
White, non-Hispanic	4,522	4,739	4,703	5,012	5,158	5,223	5,355	5,268	5,496	5,421
Asian/Pacific Islander	252	374	418	531	820	1,115	983	894	767	728
Black, non-Hispanic	149	194	170	208	216	270	253	291	350	366
Hispanic	178	186	205	222	230	227	272	264	327	344
Puerto Rican	48	47	49	42	59	63	68	73	103	85
Mexican American	37	42	41	49	58	59	53	69	87	73
Other Hispanic	93	97	115	131	113	105	151	122	137	186
American Indian/Alaskan Native	18	19	27	18	24	26	35	34	42	56
Other/unknown race/ethnicity	63	85	54	33	46	51	65	243	192	79
	Percent awarded to women									
All U.S. citizens and permanent residents	33.7	35.2	35.0	36.3	35.7	36.4	37.4	38.0	39.3	40.1
White, non-Hispanic	34.3	35.6	35.3	36.5	37.1	37.6	38.2	38.1	39.2	39.7
Asian/Pacific Islander	25.0	31.7	31.1	33.0	27.4	30.4	31.8	35.2	35.7	37.3
Black, non-Hispanic	39.8	41.8	41.7	44.3	43.2	48.2	43.9	46.7	54.2	51.2
Hispanic	38.0	37.7	40.0	41.0	42.0	40.3	44.0	40.2	43.4	50.0
Puerto Rican	41.7	47.5	40.8	37.5	45.0	46.0	48.6	42.2	60.2	51.8
Mexican American	35.6	33.3	34.2	40.2	40.0	39.9	36.8	43.1	39.0	44.8
Other Hispanic	37.3	36.2	42.1	42.5	41.5	37.8	45.2	37.8	38.2	51.5
American Indian/Alaskan Native	41.9	33.9	39.1	41.9	37.5	38.2	36.1	43.0	43.8	47.9
Other/unknown race/ethnicity	21.0	21.4	19.3	19.2	23.5	22.2	26.5	35.9	32.1	26.2

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates, various years.

Appendix table 5-17
S&E doctorate awards, by sex, race/ethnicity, and field: 1999

Sex and S&E field	Total	White, non-Hispanic	Asian/ Pacific Islander	Black, non-Hispanic	Hispanic				American Indian/ Alaskan Native
					Total	Puerto Rican	Mexican American	Other Hispanic	
	Percent distribution								
Men, total S&E	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sciences	77.2	78.7	65.0	79.1	82.8	81.0	90.0	80.0	83.6
Physical sciences	16.4	17.4	13.2	10.6	10.5	12.7	12.2	8.6	11.5
Astronomy	0.9	1.0	0.2	0.0	0.0	0.0	0.0	0.0	1.6
Chemistry	9.3	9.6	8.6	9.5	6.4	8.9	5.6	5.7	4.9
Physics	6.1	6.7	4.4	1.1	4.1	3.8	6.7	2.9	4.9
Other physical sciences	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Earth, atmospheric, and ocean sciences	3.5	3.7	2.3	2.6	4.7	5.1	4.4	4.6	4.9
Mathematics	4.0	4.2	3.0	1.7	2.9	2.5	5.6	1.7	1.6
Computer sciences	3.6	3.4	5.5	2.6	3.2	6.3	1.1	2.9	0.0
Agricultural sciences	3.2	3.3	2.3	4.6	2.3	0.0	3.3	2.9	1.6
Biological sciences	21.6	21.0	27.3	14.3	27.0	24.1	27.8	28.0	16.4
Psychology	10.1	11.0	2.8	11.5	16.0	19.0	17.8	13.7	21.3
Social sciences	14.7	14.7	8.6	31.2	16.3	11.4	17.8	17.7	26.2
Engineering	22.8	21.3	35.0	20.9	17.2	19.0	10.0	20.0	16.4
Chemical	2.9	2.9	3.7	2.0	0.9	1.3	0.0	1.1	1.6
Civil	2.4	2.3	3.4	1.1	1.7	1.3	1.1	2.3	1.6
Electrical	6.5	5.6	11.9	6.9	7.3	11.4	3.3	7.4	1.6
Mechanical	3.8	3.5	6.2	3.2	2.3	2.5	1.1	2.9	3.3
Other engineering	7.2	6.9	9.8	7.7	4.9	2.5	4.4	6.3	8.2
Women, total S&E	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sciences	93.0	93.5	88.0	93.7	93.3	90.6	94.5	94.1	96.4
Physical sciences	7.9	7.3	13.0	7.9	6.1	9.4	6.8	4.3	5.4
Astronomy	0.4	0.4	0.0	0.5	0.0	0.0	0.0	0.0	1.8
Chemistry	6.1	5.4	11.3	6.3	5.8	9.4	5.5	4.3	3.6
Physics	1.4	1.4	1.8	1.1	0.3	0.0	1.4	0.0	0.0
Other physical sciences	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Earth, atmospheric, and ocean sciences	2.2	2.3	1.5	1.4	1.2	1.2	1.4	1.1	5.4
Mathematics	2.7	2.9	3.0	1.6	1.5	0.0	2.7	1.6	0.0
Computer sciences	1.5	1.3	2.6	2.5	0.9	1.2	0.0	1.1	1.8
Agricultural sciences	2.3	2.3	2.3	2.2	2.0	1.2	0.0	3.2	1.8
Biological sciences	26.6	26.0	39.1	18.0	20.6	23.5	21.9	18.8	17.9
Psychology	31.1	32.5	13.0	36.3	42.7	40.0	38.4	45.7	41.1
Social sciences	18.7	19.0	13.3	23.8	18.3	14.1	23.3	18.3	23.2
Engineering	7.0	6.5	12.0	6.3	6.7	9.4	5.5	5.9	3.6
Chemical	1.1	0.9	2.1	1.1	1.2	1.2	0.0	1.6	1.8
Civil	0.9	0.9	0.7	0.5	1.7	1.2	2.7	1.6	1.8
Electrical	1.2	0.8	3.6	1.4	1.2	2.4	1.4	0.5	0.0
Mechanical	0.9	0.8	1.8	0.3	0.3	0.0	0.0	0.5	0.0
Other engineering	3.0	3.0	3.8	3.0	2.3	4.7	1.4	1.6	0.0
	Number								
Men	10,434	8,235	1,223	349	344	79	90	175	61
Women	6,994	5,421	728	366	344	85	73	186	56

NOTES: Data are for U.S. citizens and permanent residents only; total includes "other" race/ethnicity not shown separately.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates.

Appendix table 5-18

Recipients of science and engineering doctorates, by disability status: 1993–99

Disability status	1993	1994	1995	1996	1997	1998	1999
All recipients	25,443	26,205	26,535	27,229	27,245	27,309	25,953
Without a disability	25,112	25,832	26,178	26,945	26,925	26,986	25,621
With a disability	331	373	357	284	320	323	332
Auditory	51	62	45	41	45	36	40
Orthopedic	57	88	96	81	104	93	94
Visual	85	98	97	46	39	55	54
Vocal	7	13	5	7	7	11	6
Other or more than one	94	74	87	97	98	96	107
Unspecified	37	38	27	12	27	32	31

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates, various years.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 5-19

Baccalaureate-origin institutions of 1995–99 S&E doctorate recipients with disabilities, by disability type

Baccalaureate-origin institution	Number of S&E doctorate recipients who attended	Type of disability					
		Auditory	Orthopedic	Visual	Vocal	Other or more than one	Unspecified
Total, all institutions	1,616	207	468	291	36	485	129
University of California–Berkeley	27	3	7	3	2	11	1
University of Wisconsin–Madison	21	1	5	1	2	10	2
Massachusetts Institute of Technology	12	1	5	1	0	4	1
Ohio State University–main campus	12	1	4	2	3	1	1
University of Washington–Seattle	12	0	5	1	0	5	1
University of Michigan–Ann Arbor	11	3	2	1	0	4	1
Brigham Young University–main campus	10	1	3	0	1	3	2
Harvard University	10	0	3	2	0	5	0
Texas A&M University–main campus	10	2	2	0	0	5	1
University of Colorado–Boulder	10	0	2	1	0	6	1
University of Illinois–Urbana-Champaign	10	2	3	0	0	4	1
Brown University	9	1	1	2	0	4	1
Duke University	9	0	4	1	1	1	2
Pennsylvania State University–main campus	9	1	3	3	0	2	0
Purdue University–main campus	9	1	0	1	1	6	0
University of California–Davis	9	3	4	1	0	1	0
Washington University	9	2	1	1	0	2	3
Yale University	9	1	4	1	0	3	0
Colorado State University	8	2	3	2	0	0	1
Cornell University–all campuses	8	2	2	1	0	2	1
Michigan State University	8	1	4	1	0	2	0
University of Kansas–main campus	8	1	1	1	0	4	1
University of Nebraska–Lincoln	8	1	2	1	0	3	1
University of Pennsylvania	8	0	2	2	0	3	1
University of Texas–Austin	8	1	3	0	1	2	1
California State University–Northridge	7	0	3	0	1	2	1
Kansas State University	7	1	3	2	0	1	0
Mount Holyoke College	7	2	2	1	0	2	0
Rutgers University–New Brunswick	7	0	2	1	0	3	1
Swarthmore College	7	1	1	0	1	3	1
University of California–Los Angeles	7	0	3	2	0	1	1
University of California–San Diego	7	1	5	0	0	1	0
University of Minnesota–Twin Cities	7	0	2	2	0	1	2
University of Missouri–Columbia	7	2	3	1	0	1	0
Dartmouth College	6	2	0	0	0	4	0
Florida State University	6	1	1	1	0	3	0
Indiana University–Bloomington	6	0	0	1	1	4	0
Iowa State University	6	1	2	1	0	2	0
Louisiana State University and A&M College	6	0	1	1	0	4	0
New York University	6	0	2	0	0	4	0
Princeton University	6	1	3	2	0	0	0
Rensselaer Polytechnic Institute	6	1	1	1	0	2	1

See explanatory information and SOURCE at end of table.

Appendix table 5-19.

Baccalaureate-origin institutions of 1995–99 S&E doctorate recipients with disabilities, by disability type

Baccalaureate-origin institution	Number of S&E doctorate recipients who attended	Type of disability					
		Auditory	Orthopedic	Visual	Vocal	Other or more than one	Unspecified
United States Military Academy	6	0	4	0	0	2	0
University of California–Santa Cruz	6	2	3	0	0	1	0
University of Florida	6	2	2	0	0	2	0
University of Maryland–College Park	6	0	0	2	0	3	1
Arizona State University–main campus	5	1	2	1	0	1	0
Auburn University–main campus	5	2	1	1	1	0	0
California State University–Fullerton	5	0	2	0	0	2	1
Carnegie Mellon University	5	1	1	0	0	3	0
Earlham College	5	1	0	2	0	2	0
Oberlin College	5	0	0	1	0	4	0
Sonoma State University	5	0	2	2	0	1	0
Syracuse University–main campus	5	1	3	0	0	1	0
Tufts University	5	0	2	1	0	2	0
University of Arizona	5	0	2	1	0	2	0
University of California–Irvine	5	0	2	1	0	2	0
University of California–Riverside	5	0	2	1	0	2	0
University of Cincinnati–all campuses	5	1	0	1	0	3	0
University of Delaware	5	0	1	3	0	1	0
University of Illinois–Chicago	5	1	1	0	1	1	1
University of Maine	5	0	2	1	0	1	1
University of Massachusetts–Amherst	5	0	2	2	0	1	0
University of Northern Colorado	5	0	1	0	0	4	0
University of Notre Dame	5	3	0	0	0	1	1
University of Pittsburgh–main campus	5	2	1	1	0	1	0
University of Wyoming	5	0	2	1	0	2	0

NOTE: Includes institutions awarding baccalaureates to five or more S&E doctorate recipients with disabilities.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates, various years.

Appendix table 5-20

Recipients of science and engineering doctorates, by field and disability status: 1999

Field	Number			Percent distribution	
	Total	Without a disability	With a disability	Without a disability	With a disability
Total science and engineering	25,953	25,621	332	100.0	100.0
Physical sciences	3,582	3,554	28	13.9	8.4
Earth, atmospheric, and ocean sciences	807	801	6	3.1	1.8
Mathematics and statistics	1,085	1,068	17	4.2	5.1
Computer science	850	843	7	3.3	2.1
Agricultural sciences	965	951	14	3.7	4.2
Biological sciences	5,600	5,536	64	21.6	19.3
Psychology	3,667	3,588	79	14.0	23.8
Social sciences	4,060	3,998	62	15.6	18.7
Engineering	5,337	5,282	55	20.6	16.6

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 5-21
Primary source of support of 1995–99 doctoral recipients, by sex and field

Sex and primary source of support	Total S&E	Engineering	Physical sciences	Earth, atmospheric & ocean sciences	Mathematics	Computer science	Agricultural sciences	Biological sciences	Psychology	Social sciences
	Percent distribution									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Personal sources of support	24.5	16.7	9.0	18.2	13.8	27.0	23.3	14.7	50.0	36.3
Loans	4.2	1.1	0.6	1.2	0.7	1.2	2.2	1.3	14.7	5.4
Personal savings	0.7	0.6	0.2	0.7	0.3	1.3	0.8	0.3	1.2	1.4
Other personal earnings in graduate school	11.4	9.8	4.0	10.4	6.6	17.0	12.6	6.6	18.3	18.9
Other family earnings or savings	8.2	5.1	4.1	5.9	6.2	7.5	7.6	6.5	15.8	10.5
Teaching assistantship	14.7	7.2	19.2	12.3	51.3	11.5	5.8	11.2	12.4	21.5
Research assistantship, traineeship, internship	32.8	44.6	48.7	43.2	11.0	31.8	46.2	43.2	13.7	11.8
Research assistantship	29.8	43.2	47.4	42.6	10.2	31.1	45.9	34.5	11.8	10.9
Traineeship	2.9	1.3	1.2	0.6	0.8	0.6	0.3	8.7	1.6	0.9
Internship or residency	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.3	0.0
Fellowship/scholarship/dissertation grant	14.6	15.2	11.7	15.2	13.4	11.9	9.0	19.6	8.5	18.0
Fellowship/scholarship	14.4	15.0	11.5	14.6	13.4	11.8	8.7	19.0	8.4	17.6
Dissertation grant	0.3	0.2	0.2	0.5	0.0	0.1	0.3	0.5	0.1	0.4
Employer reimbursement/assistance	2.4	6.1	1.4	1.8	1.5	7.5	2.7	1.1	1.3	1.5
Foreign (non-U.S.) support	0.3	0.6	0.1	0.3	0.3	0.4	1.1	0.2	0.0	0.4
Other source of support	1.3	1.4	0.9	1.2	0.6	1.3	1.3	1.5	1.1	1.4
Unknown source of support	9.4	8.1	9.0	7.8	8.1	8.5	10.5	8.5	13.0	9.2
Male, total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Personal sources of support	21.2	17.5	9.1	20.1	12.9	25.2	25.0	14.6	47.7	34.9
Loans	2.9	1.1	0.7	1.2	0.7	1.0	2.3	1.4	14.2	5.4
Personal savings	0.7	0.7	0.2	0.8	0.3	1.4	0.8	0.4	1.3	1.3
Other personal earnings in graduate school	11.1	10.5	4.3	11.6	7.0	16.7	13.8	6.8	21.1	18.9
Other family earnings or savings	6.4	5.2	3.9	6.4	4.9	6.2	8.1	6.0	11.0	9.4
Teaching assistantship	15.1	7.3	18.9	11.8	52.1	11.0	5.4	11.9	13.8	22.7
Research assistantship, traineeship, internship	35.9	44.4	49.5	42.9	11.2	34.6	46.0	43.4	14.2	12.0
Research assistantship	33.4	43.3	48.5	42.6	10.3	34.1	45.8	35.0	12.1	11.3
Traineeship	2.4	1.0	1.0	0.2	0.8	0.5	0.1	8.3	1.7	0.6
Internship or residency	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.4	0.0
Fellowship/scholarship/dissertation grant	13.9	13.7	11.0	13.8	12.7	11.6	7.7	18.4	8.4	17.2
Fellowship/scholarship	13.7	13.6	10.9	13.4	12.7	11.5	7.5	18.0	8.4	16.9
Dissertation grant	0.2	0.2	0.1	0.4	0.0	0.1	0.3	0.4	0.0	0.3
Employer reimbursement/assistance	3.1	6.6	1.6	1.9	1.8	7.8	2.6	1.3	1.7	1.7
Foreign (non-U.S.) support	0.4	0.7	0.1	0.3	0.3	0.5	1.3	0.2	0.0	0.5
Other source of support	1.3	1.4	0.9	1.3	0.7	1.5	1.4	1.3	1.2	1.5
Unknown source of support	9.2	8.4	9.0	7.8	8.2	7.8	10.6	8.9	12.9	9.6

See explanatory information and SOURCE at end of table.

Appendix table 5-21
Primary source of support of 1995–99 doctoral recipients, by sex and field

Sex and primary source of support	Total S&E	Engineering	Physical sciences	Earth, atmospheric & ocean sciences	Mathematics	Computer science	Agricultural sciences	Biological sciences	Psychology	Social sciences
Female, total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Personal sources of support	29.8	12.2	8.8	13.2	16.0	33.9	19.3	14.9	51.2	38.0
Loans	6.1	0.9	0.4	1.2	0.6	2.0	1.9	1.3	15.0	5.5
Personal savings	0.8	0.2	0.3	0.4	0.2	0.9	0.9	0.2	1.1	1.4
Other personal earnings in graduate school	11.8	6.3	3.2	7.1	5.6	18.2	9.9	6.3	16.9	19.0
Other family earnings or savings	11.1	4.8	4.9	4.5	9.6	12.8	6.7	7.1	18.2	12.0
Teaching assistantship	14.2	6.7	20.1	13.7	49.3	13.5	6.9	10.5	11.7	20.0
Research assistantship, traineeship, internship	27.8	46.1	46.2	43.9	10.5	21.2	46.9	43.0	13.5	11.6
Research assistantship	24.0	42.8	44.0	42.4	9.9	20.1	46.0	33.8	11.7	10.3
Traineeship	3.7	3.2	2.1	1.4	0.6	1.1	0.9	9.1	1.5	1.3
Internship or residency	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Fellowship/scholarship/dissertation grant	15.8	23.2	13.8	18.8	15.2	13.2	12.1	21.0	8.6	18.9
Fellowship/scholarship	15.5	22.8	13.5	18.1	15.2	13.2	11.8	20.3	8.5	18.5
Dissertation grant	0.4	0.4	0.2	0.8	0.0	0.0	0.4	0.7	0.1	0.5
Employer reimbursement/assistance	1.3	3.3	0.9	1.4	0.6	6.6	2.8	0.9	1.1	1.2
Foreign (non-U.S.) support	0.2	0.5	0.1	0.3	0.3	0.2	0.7	0.2	0.0	0.3
Other source of support	1.2	1.1	1.0	0.8	0.6	0.9	1.0	1.7	1.0	1.3
Unknown source of support	9.7	6.8	9.2	7.9	7.6	10.5	10.1	7.9	12.9	8.7
	Number									
Total, all students	91,733	15,976	12,625	2,841	3,323	2,692	2,759	21,379	16,061	14,077
Male	56,660	13,470	9,560	2,081	2,427	2,129	1,950	11,871	5,304	7,868
Female	35,037	2,499	3,061	759	895	561	808	9,502	10,745	6,207

NOTE: Data are for U.S. citizens and permanent residents only.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates, various years.

Appendix table 5-22
Primary source of support of 1995–99 doctoral recipients, by race/ethnicity and field

Race/ethnicity and primary source of support	Total S&E	Engineer-ing	Physical sciences	Earth, atmo-spheric & ocean sciences	Mathe-matics	Computer science	Agri-cultural sciences	Biological sciences	Psy-chology	Social sciences
	Percent distribution									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Personal sources of support	24.5	16.7	9.0	18.2	13.8	27.0	23.3	14.7	50.0	36.3
Loans	4.2	1.1	0.6	1.2	0.7	1.2	2.2	1.3	14.7	5.4
Personal savings	0.7	0.6	0.2	0.7	0.3	1.3	0.8	0.3	1.2	1.4
Other personal earnings in graduate school	11.4	9.8	4.0	10.4	6.6	17.0	12.6	6.6	18.3	18.9
Other family earnings or savings	8.2	5.1	4.1	5.9	6.2	7.5	7.6	6.5	15.8	10.5
Teaching assistantship	14.7	7.2	19.2	12.3	51.3	11.5	5.8	11.2	12.4	21.5
Research assistantship, traineeship, internship	32.8	44.6	48.7	43.2	11.0	31.8	46.2	43.2	13.7	11.8
Research assistantship	29.8	43.2	47.4	42.6	10.2	31.1	45.9	34.5	11.8	10.9
Traineeship	2.9	1.3	1.2	0.6	0.8	0.6	0.3	8.7	1.6	0.9
Internship or residency	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.3	0.0
Fellowship/scholarship/dissertation grant	14.6	15.2	11.7	15.2	13.4	11.9	9.0	19.6	8.5	18.0
Fellowship/scholarship	14.4	15.0	11.5	14.6	13.4	11.8	8.7	19.0	8.4	17.6
Dissertation grant	0.3	0.2	0.2	0.5	0.0	0.1	0.3	0.5	0.1	0.4
Employer reimbursement/assistance	2.4	6.1	1.4	1.8	1.5	7.5	2.7	1.1	1.3	1.5
Foreign (non-U.S.) support	0.3	0.6	0.1	0.3	0.3	0.4	1.1	0.2	0.0	0.4
Other source of support	1.3	1.4	0.9	1.2	0.6	1.3	1.3	1.5	1.1	1.4
Unknown source of support	9.4	8.1	9.0	7.8	8.1	8.5	10.5	8.5	13.0	9.2
White, non-Hispanic, total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Personal sources of support	27.0	18.3	10.3	19.6	15.1	29.5	26.0	16.7	52.7	37.9
Loans	4.5	1.1	0.7	1.1	0.7	0.8	2.4	1.5	14.9	5.3
Personal savings	0.8	0.7	0.2	0.7	0.4	1.2	0.7	0.3	1.3	1.4
Other personal earnings in graduate school	12.6	11.3	4.4	11.2	7.2	19.3	14.2	7.4	19.3	20.0
Other family earnings or savings	9.3	5.3	4.9	6.6	6.9	8.1	8.7	7.5	17.2	11.2
Teaching assistantship	15.2	6.7	18.6	13.0	50.9	10.6	6.2	12.1	13.1	22.3
Research assistantship, traineeship, internship	32.0	43.2	49.6	41.3	11.4	30.7	45.4	42.7	14.4	12.1
Research assistantship	28.7	41.6	48.2	40.6	10.4	29.9	45.0	33.1	12.6	11.0
Traineeship	3.2	1.5	1.4	0.7	1.0	0.7	0.3	9.5	1.6	1.1
Internship or residency	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.3	0.0
Fellowship/scholarship/dissertation grant	14.1	16.6	12.1	16.2	14.1	12.7	8.7	18.6	6.5	16.8
Fellowship/scholarship	13.8	16.3	11.9	15.6	14.1	12.6	8.4	18.0	6.4	16.5
Dissertation grant	0.3	0.2	0.2	0.7	0.0	0.1	0.3	0.6	0.1	0.4
Employer reimbursement/assistance	2.6	7.2	1.7	1.9	1.7	7.9	3.1	1.3	1.2	1.6
Foreign (non-U.S.) support	0.2	0.4	0.1	0.2	0.2	0.3	0.5	0.1	0.0	0.3
Other source of support	1.2	1.4	0.8	1.2	0.5	1.2	1.2	1.4	1.1	1.3
Unknown source of support	7.7	6.1	7.0	6.6	5.9	7.1	8.9	7.1	10.9	7.6

See explanatory information and SOURCE at end of table.

Appendix table 5-22
Primary source of support of 1995–99 doctoral recipients, by race/ethnicity and field

Race/ethnicity and primary source of support	Total S&E	Engineer-ing	Physical sciences	Earth, atmo-spheric & ocean sciences	Mathe-matics	Computer science	Agri-cultural sciences	Biological sciences	Psy-chology	Social sciences
	Percent distribution									
Asian/Pacific Islander, total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Personal sources of support	11.9	12.6	4.1	7.0	7.8	18.9	11.1	7.4	34.8	26.7
Loans	1.1	0.5	0.1	0.6	0.3	0.2	1.0	0.4	11.8	2.6
Personal savings	0.4	0.5	0.2	0.3	0.0	1.3	1.3	0.2	0.3	1.1
Other personal earnings in graduate school	5.6	6.4	2.2	3.2	3.8	11.4	4.8	3.5	10.2	12.9
Other family earnings or savings	4.7	5.2	1.6	2.9	3.6	6.0	4.1	3.3	12.5	10.1
Teaching assistantship	15.9	9.2	23.1	8.5	60.4	17.3	4.1	9.9	17.0	25.2
Research assistantship, traineeship, internship	45.4	54.3	51.0	65.9	10.8	40.7	64.0	50.5	17.2	15.1
Research assistantship	43.3	53.5	50.3	65.9	10.6	40.3	63.7	44.7	14.9	14.9
Traineeship	2.1	0.7	0.6	0.0	0.2	0.4	0.3	5.8	2.1	0.2
Internship or residency	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Fellowship/scholarship/dissertation grant	11.5	7.4	5.6	5.0	5.0	6.2	5.1	19.5	13.8	17.0
Fellowship/scholarship	11.3	7.4	5.6	5.0	5.0	6.0	4.8	19.3	13.8	16.7
Dissertation grant	0.1	0.1	0.0	0.0	0.0	0.2	0.3	0.2	0.0	0.3
Employer reimbursement/assistance	1.5	3.1	0.6	0.9	0.5	5.3	1.0	0.5	0.8	0.8
Foreign (non-U.S.) support	0.5	1.0	0.0	0.0	0.2	0.8	1.9	0.1	0.2	1.0
Other source of support	1.3	1.2	1.3	1.2	1.0	1.1	1.0	1.5	0.6	1.4
Unknown source of support	12.0	11.2	14.3	11.7	14.2	9.8	11.8	10.6	15.6	12.8
Black, non-Hispanic, total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Personal sources of support	25.5	13.9	5.4	26.3	14.6	23.7	14.5	12.2	38.9	36.3
Loans	8.4	3.1	1.1	10.5	4.2	10.2	1.8	3.3	15.2	11.3
Personal savings	0.7	0.2	0.0	0.0	0.0	0.0	0.9	0.4	1.1	1.2
Other personal earnings in graduate school	12.0	6.6	3.6	15.8	6.3	10.2	9.1	5.9	16.7	17.7
Other family earnings or savings	4.4	4.0	0.7	0.0	4.2	3.4	2.7	2.6	5.8	6.1
Teaching assistantship	8.8	5.2	17.3	10.5	22.9	6.8	6.4	6.8	7.1	10.5
Research assistantship, traineeship, internship	16.8	22.7	26.7	21.1	6.3	8.5	34.5	29.8	9.5	7.5
Research assistantship	14.6	20.3	26.0	21.1	6.3	8.5	34.5	22.8	8.1	6.5
Traineeship	2.1	2.1	0.7	0.0	0.0	0.0	0.0	7.0	1.3	1.0
Internship or residency	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Fellowship/scholarship/dissertation grant	31.3	38.5	32.5	28.9	45.8	32.2	20.0	35.5	27.8	28.2
Fellowship/scholarship	30.8	38.5	31.8	28.9	45.8	32.2	20.0	33.9	27.7	28.0
Dissertation grant	0.4	0.0	0.7	0.0	0.0	0.0	0.0	1.7	0.1	0.2
Employer reimbursement/assistance	2.5	6.6	2.2	5.3	2.1	11.9	0.0	1.1	2.0	1.6

See explanatory information and SOURCE at end of table.

Appendix table 5-22
Primary source of support of 1995–99 doctoral recipients, by race/ethnicity and field

Race/ethnicity and primary source of support	Total S&E	Engineer-ing	Physical sciences	Earth, atmo-spheric & ocean sciences	Mathe-matics	Computer science	Agri-cultural sciences	Biological sciences	Psy-chology	Social sciences
	Percent distribution									
Foreign (non-U.S.) support	0.3	0.5	0.0	0.0	0.0	0.0	4.5	0.2	0.0	0.1
Other source of support	1.9	1.9	2.5	2.6	0.0	3.4	0.9	2.2	1.5	1.8
Unknown source of support	12.9	10.6	13.4	5.3	8.3	13.6	19.1	12.2	13.2	14.1
Hispanic, total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Personal sources of support	24.9	16.5	11.3	16.9	11.5	40.3	21.8	12.4	42.1	30.8
Loans	6.8	2.8	1.9	1.2	0.0	9.0	2.7	1.8	15.9	7.5
Personal savings	0.6	0.4	0.0	1.2	1.1	1.5	2.7	0.0	0.3	1.9
Other personal earnings in graduate school	10.3	8.9	6.0	8.4	4.6	13.4	9.1	5.5	14.6	14.8
Other family earnings or savings	7.1	4.3	3.4	6.0	5.7	16.4	7.3	5.2	11.2	6.7
Teaching assistantship	10.6	6.3	16.6	10.8	35.6	10.4	3.6	8.2	7.1	17.2
Research assistantship, traineeship, internship	21.6	30.4	36.1	24.1	9.2	19.4	37.3	33.6	8.6	9.0
Research assistantship	18.9	28.3	34.2	22.9	9.2	19.4	37.3	26.8	6.2	8.8
Traineeship	2.7	2.2	1.9	1.2	0.0	0.0	0.0	6.8	2.1	0.2
Internship or residency	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Fellowship/scholarship/dissertation grant	24.3	24.3	25.4	27.7	27.6	11.9	13.6	31.3	18.2	26.8
Fellowship/scholarship	23.9	23.9	25.4	27.7	27.6	11.9	13.6	30.7	17.9	26.2
Dissertation grant	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.5	0.2	0.6
Employer reimbursement/assistance	2.2	7.0	1.9	2.4	1.1	10.4	0.0	0.8	1.6	1.0
Foreign (non-U.S.) support	1.6	2.8	0.9	4.8	2.3	3.0	8.2	1.5	0.1	1.5
Other source of support	1.7	2.2	0.3	1.2	0.0	3.0	3.6	1.8	1.7	2.1
Unknown source of support	13.1	10.4	7.5	12.0	12.6	1.5	11.8	10.4	20.7	11.5
American Indian/Alaskan Native, total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Personal sources of support	27.4	27.3	11.6	30.8	25.0	33.3	4.2	16.2	35.0	39.0
Loans	5.3	3.0	0.0	0.0	0.0	0.0	0.0	2.7	12.8	5.0
Personal savings	1.3	0.0	2.3	7.7	0.0	0.0	0.0	1.4	0.9	2.0
Other personal earnings in graduate school	14.4	15.2	4.7	23.1	25.0	33.3	4.2	5.4	12.0	27.0
Other family earnings or savings	6.3	9.1	4.7	0.0	0.0	0.0	0.0	6.8	9.4	5.0
Teaching assistantship	9.6	3.0	14.0	7.7	37.5	0.0	8.3	1.4	8.5	19.0
Research assistantship, traineeship, internship	23.0	25.8	46.5	46.2	12.5	55.6	37.5	45.9	6.8	5.0
Research assistantship	20.8	24.2	44.2	46.2	12.5	44.4	37.5	37.8	6.0	5.0
Traineeship	2.2	1.5	2.3	0.0	0.0	11.1	0.0	8.1	0.9	0.0
Internship or residency	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fellowship/scholarship/dissertation grant	23.0	25.8	14.0	15.4	12.5	11.1	25.0	20.3	26.5	26.0
Fellowship/scholarship	22.8	24.2	14.0	15.4	12.5	11.1	25.0	20.3	26.5	26.0
Dissertation grant	0.2	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

See explanatory information and SOURCE at end of table.

Appendix table 5-22
Primary source of support of 1995–99 doctoral recipients, by race/ethnicity and field

Race/ethnicity and primary source of support	Total S&E	Engineer-ing	Physical sciences	Earth, atmo-spheric & ocean sciences	Mathe-matics	Computer science	Agri-cultural sciences	Biological sciences	Psy-chology	Social sciences
	Percent distribution									
Employer reimbursement/assistance	2.0	6.1	0.0	0.0	0.0	0.0	8.3	0.0	1.7	1.0
Foreign (non-U.S.) support	1.3	3.0	0.0	0.0	0.0	0.0	4.2	1.4	0.9	1.0
Other source of support	0.7	0.0	0.0	0.0	0.0	0.0	4.2	0.0	1.7	0.0
Unknown source of support	13.1	9.1	14.0	0.0	12.5	0.0	8.3	14.9	18.8	12.0
Other/unknown race/ethnicity, total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Personal sources of support	16.0	11.1	6.3	22.9	13.9	14.6	17.5	11.8	22.1	27.9
Loans	2.8	0.7	0.3	2.9	1.3	3.1	1.8	1.1	8.1	4.6
Personal savings	0.8	1.2	0.3	0.0	0.0	3.1	0.0	0.0	0.6	1.7
Other personal earnings in graduate school	8.2	6.4	3.3	18.6	7.6	6.3	14.0	6.2	8.7	14.0
Other family earnings or savings	4.1	2.7	2.3	1.4	5.1	2.1	1.8	4.6	4.7	7.7
Teaching assistantship	9.5	6.4	15.0	11.4	34.2	2.1	3.5	5.6	3.7	14.8
Research assistantship, traineeship, internship	22.3	35.1	36.0	27.1	5.1	25.0	24.6	29.0	3.7	7.4
Research assistantship	20.3	34.6	35.3	27.1	5.1	25.0	22.8	21.2	2.8	6.6
Traineeship	1.9	0.2	0.7	0.0	0.0	0.0	1.8	7.8	0.6	0.9
Internship or residency	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Fellowship/scholarship	11.9	12.8	9.7	8.6	15.2	15.6	5.3	15.9	2.2	17.4
Dissertation grant	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.3
Employer reimbursement/assistance	1.6	3.5	0.3	1.4	0.0	8.3	3.5	0.5	0.0	1.4
Foreign (non-U.S.) support	0.6	1.2	0.0	0.0	2.5	0.0	0.0	0.3	0.3	0.9
Other source of support	1.5	1.5	1.3	1.4	2.5	2.1	1.8	1.6	0.6	1.7
Unknown source of support	36.5	28.1	31.3	27.1	26.6	32.3	43.9	34.7	67.3	28.2
	Number									
Total, all students	91,733	15,976	12,625	2,841	3,323	2,692	2,759	21,379	16,061	14,077
White, non-Hispanic	69,425	10,914	9,439	2,294	2,525	1,928	2,144	15,841	13,318	11,022
Asian/Pacific Islander	13,402	3,708	2,247	343	576	533	314	3,817	617	1,247
Black, non-Hispanic	3,120	423	277	38	48	59	110	543	790	832
Hispanic	3,278	460	319	83	87	67	110	732	898	522
American Indian/Alaskan Native	457	66	43	13	8	9	24	74	117	103
Other/unknown race/ethnicity	2,051	405	300	70	79	96	57	372	321	351

NOTE: Data are for U.S. citizens and permanent residents only.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates, various years.

Appendix table 5-23
Primary source of support of 1995–99 doctoral recipients, by disability status

Primary source of support	All doctoral recipients	Without disabilities	With disabilities
Number of recipients	91,733	90,384	1,349
	Percent distribution		
Total	100.0	100.0	100.0
Loans	4.2	4.1	8.5
Personal savings	0.7	0.7	1.8
Other personal earnings in graduate school	11.4	11.2	18.4
Other family earnings or savings	8.2	8.2	10.5
Teaching assistantship	14.7	14.8	13.1
Research assistantship	29.8	30.0	19.2
Traineeship	2.9	3.0	2.0
Fellowship/scholarship	14.4	14.4	13.6
Dissertation grant	0.3	0.3	0.4
Employer reimbursement/assistance	2.4	2.4	1.9
Foreign (non-U.S.) support	0.3	0.3	0.0
Other source of support	1.3	1.2	3.3
Unknown source of support	9.4	9.4	7.3

NOTE: Data are for U.S. citizens and permanent residents only.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates, various years.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 5-24

Age of S&E doctorate recipients by sex, race/ethnicity, and disability status: 1999

Sex, race/ethnicity, and disability status	Age (in years)		
	25th percentile	Median	75th percentile
Total	28.9	31.4	36.2
Male	28.8	31.4	35.9
Female	28.9	31.4	36.7
White, non-Hispanic	28.8	31.2	36.1
Asian/Pacific Islander	29.3	32.0	35.9
Black, non-Hispanic	29.6	33.0	38.9
Mexican American	29.6	31.8	35.5
Puerto Rican	29.1	31.4	37.4
Other Hispanic	29.8	33.4	39.2
American Indian/Alaskan Native	29.9	34.4	42.3
Without disabilities	28.8	31.3	36.0
With disabilities	30.6	36.9	45.2

NOTES: Data are for U.S. citizens and permanent residents only. Total includes 722 who did not report race/ethnicity, 717 who did not report disability status, and 164 who did not report age.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 5-25

S&E doctorate recipients, by sex, race/ethnicity, disability status, and educational attainment of parents: 1999

Sex, race/ethnicity, and disability status	Number	Educational attainment of mother							Educational attainment of father						
		Less than high school	High school	Some college	Bachelor's degree	Master's degree	Professional degree	Doctoral degree	Less than high school	High school	Some college	Bachelor's degree	Master's degree	Professional degree	Doctoral degree
		Percent distribution													
Total	17,038	7.7	23.2	18.9	25.2	16.7	4.3	4.0	7.2	16.6	12.9	22.4	15.8	8.7	16.4
Male	10,255	8.1	23.7	18.7	25.4	16.3	4.0	3.8	7.5	16.7	12.7	22.4	15.8	8.2	16.7
Female	6,783	7.1	22.4	19.2	25.0	17.2	4.8	4.3	6.9	16.3	13.3	22.3	15.9	9.5	15.8
White, non-Hispanic	13,351	4.4	23.8	19.8	26.0	18.0	4.1	4.0	5.1	16.4	13.0	22.4	16.9	9.0	17.1
Asian/Pacific Islander	1,925	20.4	19.4	13.7	25.8	10.5	5.4	4.9	12.3	13.5	10.3	28.6	11.7	8.1	15.3
Black, non-Hispanic	686	21.1	21.9	18.0	16.2	15.9	4.0	2.9	19.8	24.7	17.5	13.1	10.8	5.2	8.9
Mexican American	156	28.3	27.0	17.8	11.2	13.2	0.7	2.0	29.8	20.5	17.9	7.9	15.9	1.3	6.6
Puerto Rican	159	17.0	24.8	20.3	19.0	10.5	5.2	3.3	22.7	22.1	12.3	11.0	11.0	9.1	11.7
Other Hispanic	353	22.9	23.9	18.9	16.8	9.4	4.4	3.7	16.8	20.2	12.8	16.8	11.4	6.7	15.2
American Indian/Alaskan Native	112	24.2	27.3	17.2	18.2	9.1	2.0	2.0	21.4	29.6	15.3	9.2	9.2	7.1	8.2
With disabilities	268	7.5	30.5	17.3	22.6	15.0	4.5	2.6	9.5	17.8	14.8	18.6	14.4	9.8	15.2
Without disabilities	16,053	7.6	23.1	19.0	25.3	16.7	4.3	4.1	7.2	16.5	12.9	22.5	15.9	8.6	16.4

NOTES: Data are for U.S. citizens and permanent residents only. Total includes 679 respondents who did not report mother's education and 722 respondents who did not report father's education.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 5-26
S&E doctorate recipients, by sex, race/ethnicity, disability status, marital status, and number of dependents: 1999

Sex, race/ethnicity, and disability status	Number	Marital status					Number of dependents			
		Never married	Married	Separated/ divorced	Living in a marriage-like relationship	Widowed	0	1	2	3 or more
		Percent distribution								
Total	17,038	32.6	55.4	5.4	6.4	0.2	60.0	19.5	11.2	9.3
Men	10,255	32.8	57.4	4.2	5.5	0.2	54.6	20.2	12.5	12.7
Women	6,783	32.4	52.4	7.2	7.8	0.4	68.3	18.3	9.2	4.2
White, non-Hispanic	13,351	32.7	54.8	5.3	7.0	0.3	61.8	18.6	10.4	9.2
Asian/Pacific Islander	1,925	29.7	64.0	2.8	3.4	0.1	52.9	23.1	16.4	7.7
Black, non-Hispanic	686	40.7	46.1	10.6	2.3	0.3	54.8	19.5	11.3	14.4
Mexican American	156	34.6	53.6	5.9	5.9	0.0	56.4	22.1	12.8	8.7
Puerto Rican	159	34.8	49.7	8.4	7.1	0.0	53.3	23.0	9.2	14.5
Other Hispanic	353	29.2	52.0	9.4	9.1	0.3	52.4	24.5	12.4	10.7
American Indian/ Alaskan Native	112	23.8	54.5	12.9	7.9	1.0	44.6	28.7	13.9	12.9
Without disabilities	16,053	32.6	55.5	5.3	6.4	0.2	60.0	19.5	11.2	9.3
With disabilities	268	33.7	50.0	10.2	5.3	0.8	59.5	18.9	13.6	8.0

NOTES: Data are for U.S. citizens and permanent residents only. Total includes 679 respondents who did not report marital status and 859 respondents who did not report number of dependents.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 5-27

Satisfaction with highest degree field of study, by field, sex, race/ethnicity, and disability status: 1997

Field and likelihood of choosing same field of study	Total	Male	Female	White, non-Hispanic	Asian/ Pacific Islander	Black, non-Hispanic	Hispanic	American Indian/ Alaskan Native	Without disabilities	With disabilities
	Percent									
Science and engineering, total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Very likely	49.5	49.5	49.5	52.3	40.1	54.5	55.9	54.1	49.7	44.4
Somewhat likely	33.2	32.9	33.6	32.9	35.5	26.0	29.0	22.1	33.2	33.0
Not at all likely	17.3	17.6	16.9	14.8	24.4	19.4	15.2	23.8	17.2	22.7
Physical and related sciences	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Very likely	41.9	42.1	41.1	43.3	36.9	47.9	54.1	S	42.1	34.5
Somewhat likely	34.0	34.2	33.5	36.3	30.0	21.1	31.5	S	34.2	27.3
Not at all likely	24.1	23.7	25.5	20.4	33.1	31.1	14.4	S	23.7	38.2
Mathematics and computer science	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Very likely	61.3	61.0	62.4	67.4	48.4	51.9	58.7	S	61.7	52.6
Somewhat likely	24.0	23.5	25.9	21.7	29.1	21.5	22.2	S	24.5	12.4
Not at all likely	14.8	15.5	11.7	10.9	22.5	26.6	19.0	S	13.8	35.1
Life and related sciences	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Very likely	47.2	45.7	49.2	49.6	36.8	56.6	54.6	58.8	47.4	42.5
Somewhat likely	33.7	34.9	32.2	33.3	37.5	20.7	30.2	24.4	33.5	40.6
Not at all likely	19.1	19.4	18.6	17.1	25.7	22.7	15.2	16.8	19.2	16.9
Social and related sciences	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Very likely	53.1	56.4	50.1	54.2	45.1	54.2	52.5	46.4	53.4	45.0
Somewhat likely	34.0	31.7	36.2	34.1	36.3	28.3	34.7	23.2	33.9	37.0
Not at all likely	12.9	11.9	13.7	11.7	18.6	17.5	12.8	30.4	12.7	18.0
Engineering	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Very likely	50.4	50.1	52.7	57.2	40.7	56.4	66.1	S	50.4	49.8
Somewhat likely	33.7	33.9	31.4	30.5	38.6	35.3	14.2	S	33.8	29.0
Not at all likely	15.9	15.9	15.9	12.3	20.7	8.2	19.7	S	15.8	21.2
	Number									
Science and engineering, total	114,200	75,500	38,700	79,100	27,900	3,300	3,400	400	110,800	3,400
Physical and related sciences	19,800	15,600	4,200	13,300	5,600	400	500	S	19,400	500
Mathematics and computer science	7,900	6,300	1,600	5,200	2,400	100	200	S	7,500	300
Life and related sciences	32,400	18,200	14,200	23,300	7,000	1,000	1,000	100	31,400	1,000
Social and related sciences	30,700	14,800	15,900	24,900	2,900	1,400	1,200	200	29,600	1,100
Engineering	23,400	20,600	2,800	12,400	9,900	500	500	S	22,800	500

S suppressed for reasons of confidentiality

NOTE: The specific wording of the question was "If you had the chance to do it over again, knowing what you do now, how likely is it that you would choose the same field of study for your highest degree?"

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Doctorate Recipients.

Appendix table 5-28

S&E doctorate recipients with definite postgraduate plans, by sex and degree field: 1999

(Percent distribution)

Field of study	Definite plans	In the United States					Abroad	Location unknown
		Total	Postdoctoral study	Academic employment	Industry employment	Other		
All recipients, all fields	100.0	96.4	25.8	35.5	16.1	19.0	3.2	0.4
Total science and engineering	100.0	96.1	39.6	21.8	22.0	12.7	3.6	0.3
Sciences	100.0	96.0	43.7	23.5	16.1	12.7	3.8	0.3
Physical sciences	100.0	95.1	48.9	10.3	30.5	5.4	4.5	0.4
Astronomy	100.0	89.2	60.2	9.7	11.8	7.5	10.8	—
Chemistry	100.0	96.2	48.2	10.2	34.0	3.7	3.3	0.5
Physics	100.0	94.0	48.6	10.3	26.9	8.1	5.6	0.4
Other physical sciences	100.0	100.0	33.3	22.2	22.2	22.2	—	—
Earth, atmospheric & ocean sciences	100.0	92.6	40.5	15.6	17.0	19.5	6.8	0.6
Mathematical sciences	100.0	94.7	26.0	45.7	16.8	6.2	5.1	0.2
Computer science	100.0	97.8	6.7	36.2	43.8	11.0	2.2	—
Agricultural sciences	100.0	97.5	31.7	29.5	23.6	12.7	2.5	—
Biological sciences	100.0	96.0	73.9	9.5	7.0	5.5	3.6	0.4
Psychology	100.0	98.8	37.4	21.5	16.0	24.0	1.1	—
Social sciences	100.0	93.8	11.6	52.5	11.3	18.5	6.0	0.2
Engineering	100.0	96.7	18.9	12.8	52.1	13.0	2.8	0.5
Aeronautical/astronautical	100.0	97.2	20.8	2.8	40.3	33.3	2.8	—
Chemical	100.0	96.7	20.4	6.3	65.8	4.1	3.3	—
Civil	100.0	96.9	20.0	21.5	36.9	18.5	2.1	1.0
Electrical	100.0	98.5	9.8	12.8	63.8	12.2	0.9	0.6
Industrial	100.0	95.9	5.5	28.8	45.2	16.4	2.7	1.4
Materials/metallurgical	100.0	93.2	22.8	7.4	53.7	9.3	6.8	—
Mechanical	100.0	96.2	22.2	14.3	47.0	12.7	2.9	1.0
Other engineering	100.0	96.0	28.4	12.9	39.8	14.9	3.7	0.3
Total non-S&E	100.0	97.0	6.0	55.3	7.5	28.1	2.5	0.5
Men, all fields	100.0	95.9	27.3	31.3	20.4	16.9	3.7	0.4
Total science and engineering	100.0	95.7	37.8	19.6	26.2	12.0	4.0	0.4
Sciences	100.0	95.3	43.4	21.9	18.5	11.5	4.4	0.3
Physical sciences	100.0	95.0	51.1	9.0	29.8	5.1	4.5	0.5
Astronomy	100.0	87.7	58.9	8.2	15.1	5.5	12.3	0.0
Chemistry	100.0	96.2	51.7	8.5	33.0	3.0	3.3	0.6
Physics	100.0	94.3	49.0	9.8	27.2	8.3	5.2	0.4
Other physical sciences	100.0	100.0	50.0	25.0	25.0	0.0	0.0	0.0
Earth, atmospheric & ocean sciences	100.0	91.9	39.0	13.1	17.0	22.8	7.3	0.8
Mathematical sciences	100.0	94.6	27.1	42.5	19.1	6.0	5.0	0.3
Computer science	100.0	97.8	5.1	34.4	46.5	11.7	2.2	0.0
Agricultural sciences	100.0	96.9	28.3	32.3	24.3	11.9	3.1	0.0
Biological sciences	100.0	95.5	73.6	9.3	7.3	5.3	4.1	0.4
Psychology	100.0	98.7	34.3	22.3	18.2	23.9	1.3	0.0
Social sciences	100.0	93.0	10.2	48.7	14.9	19.2	6.8	0.2

See explanatory information and SOURCE at end of table.

Appendix table 5-28

S&E doctorate recipients with definite postgraduate plans, by sex and degree field: 1999

(Percent distribution)

Field of study	Definite plans	In the United States					Abroad	Location unknown
		Total	Postdoctoral study	Academic employment	Industry employment	Other		
Engineering	100.0	96.9	18.1	11.6	53.3	13.9	2.6	0.5
Aeronautical/astronautical	100.0	97.0	17.9	3.0	41.8	34.3	3.0	0.0
Chemical	100.0	96.3	20.0	5.1	67.0	4.2	3.7	0.0
Civil	100.0	96.1	19.5	17.5	39.6	19.5	2.6	1.3
Electrical	100.0	98.6	9.3	13.0	64.3	12.0	1.0	0.4
Industrial	100.0	93.9	6.1	24.5	42.9	20.4	4.1	2.0
Materials/metallurgical	100.0	95.2	24.8	8.8	52.0	9.6	4.8	0.0
Mechanical	100.0	96.8	23.2	12.1	47.9	13.6	2.5	0.7
Other engineering	100.0	96.3	25.4	11.6	41.0	18.3	3.4	0.4
Total non-S&E	100.0	96.4	5.7	55.4	8.4	26.9	3.2	0.4
Women, all fields	100.0	97.1	24.0	40.5	11.0	21.6	2.5	0.4
Total science and engineering	100.0	96.8	42.5	25.1	15.2	13.8	3.0	0.2
Sciences	100.0	96.8	44.0	25.6	12.9	14.3	3.0	0.2
Physical sciences	100.0	95.4	42.0	14.2	32.6	6.6	4.3	0.3
Astronomy	100.0	95.0	65.0	15.0	—	15.0	5.0	—
Chemistry	100.0	96.1	40.2	14.1	36.3	5.5	3.5	0.3
Physics	100.0	91.2	45.6	14.0	24.6	7.0	8.8	—
Other physical sciences	100.0	100.0	20.0	20.0	20.0	40.0	—	—
Earth, atmospheric & ocean sciences	100.0	94.7	44.7	22.3	17.0	10.6	5.3	—
Mathematical sciences	100.0	94.9	23.5	52.9	11.8	6.6	5.1	—
Computer science	100.0	97.6	12.0	42.2	34.9	8.4	2.4	—
Agricultural sciences	100.0	99.0	39.6	22.9	21.9	14.6	1.0	—
Biological sciences	100.0	96.6	74.4	9.8	6.6	5.7	3.0	0.4
Psychology	100.0	98.9	39.0	21.1	14.8	24.0	1.0	0.1
Social sciences	100.0	94.9	13.4	57.1	6.7	17.6	5.0	0.1
Engineering	100.0	95.7	22.8	18.8	46.2	8.0	3.7	0.6
Aeronautical/astronautical	100.0	100.0	60.0	—	20.0	20.0	—	—
Chemical	100.0	98.1	22.2	11.1	61.1	3.7	1.9	—
Civil	100.0	100.0	22.0	36.6	26.8	14.6	—	—
Electrical	100.0	97.9	14.6	10.4	58.3	14.6	—	2.1
Industrial	100.0	100.0	4.2	37.5	50.0	8.3	—	—
Materials/metallurgical	100.0	86.5	16.2	2.7	59.5	8.1	13.5	—
Mechanical	100.0	91.4	14.3	31.4	40.0	5.7	5.7	2.9
Other engineering	100.0	95.1	38.3	17.3	35.8	3.7	4.9	—
Total non-S&E	100.0	97.4	6.3	55.2	6.9	29.0	2.0	0.5

— less than 0.1

NOTE: Data are for U.S. citizens and permanent residents only.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Earned Doctorates.

Appendix table 5-29

Science and engineering postdoctoral fellows, by sex and field: 1990–99

Sex and field	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	Number									
All S&E fellows, all fields	21,819	22,870	23,900	24,680	25,826	26,186	26,597	27,015	27,515	28,662
Physical sciences	5,592	5,722	5,792	5,669	5,884	5,851	5,828	5,927	5,964	6,107
Earth, atmospheric, and ocean sciences	594	625	692	765	824	845	861	938	897	921
Mathematical sciences	249	206	201	224	239	262	326	304	274	348
Computer science	71	120	145	164	185	213	250	318	368	330
Agricultural sciences	524	565	630	698	705	701	677	701	666	717
Biological sciences	11,944	12,491	13,194	13,818	14,448	14,715	14,943	14,940	15,517	15,916
Psychology	464	508	525	521	551	582	594	574	612	709
Social sciences	438	379	361	378	390	376	444	362	389	451
Engineering	1,943	2,254	2,360	2,443	2,600	2,641	2,674	2,951	2,828	3,163
Female S&E fellows, all fields	5,642	5,959	6,436	6,785	7,314	7,510	7,635	7,831	8,223	8,623
Physical sciences	795	836	839	847	882	940	933	1,037	1,044	1,036
Earth, atmospheric, and ocean sciences	94	111	154	163	174	184	183	220	227	218
Mathematical sciences	30	29	26	33	47	45	50	40	38	73
Computer science	9	20	32	29	31	29	48	46	62	58
Agricultural sciences	138	131	157	171	184	169	162	190	176	197
Biological sciences	3,994	4,209	4,602	4,897	5,261	5,380	5,458	5,528	5,828	6,011
Psychology	221	237	250	225	246	281	286	282	314	370
Social sciences	155	148	126	138	155	162	201	144	152	196
Engineering	206	238	250	282	334	320	314	344	382	464
	Percent female									
All S&E fields	25.9	26.1	26.9	27.5	28.3	28.7	28.7	29.0	29.9	30.1
Physical sciences	14.2	14.6	14.5	14.9	15.0	16.1	16.0	17.5	17.5	17.0
Earth, atmospheric, and ocean sciences	15.8	17.8	22.3	21.3	21.1	21.8	21.3	23.5	25.3	23.7
Mathematical sciences	12.0	14.1	12.9	14.7	19.7	17.2	15.3	13.2	13.9	21.0
Computer science	12.7	16.7	22.1	17.7	16.8	13.6	19.2	14.5	16.8	17.6
Agricultural sciences	26.3	23.2	24.9	24.5	26.1	24.1	23.9	27.1	26.4	27.5
Biological sciences	33.4	33.7	34.9	35.4	36.4	36.6	36.5	37.0	37.6	37.8
Psychology	47.6	46.7	47.6	43.2	44.6	48.3	48.1	49.1	51.3	52.2
Social sciences	35.4	39.1	34.9	36.5	39.7	43.1	45.3	39.8	39.1	43.5
Engineering	10.6	10.6	10.6	11.5	12.8	12.1	11.7	11.7	13.5	14.7

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, various years.

Appendix table 5-30

S&E doctorate recipients with definite postgraduate plans, by race/ethnicity: 1999

(Percent distribution)

Race/ethnicity	Definite plans	In the United States					Abroad	Location unknown
		Total	Postdoctoral study	Academic employment	Industry employment	Other		
Total	100.0	96.1	39.6	21.8	22.0	12.7	3.6	0.3
White, non-Hispanic	100.0	96.3	39.4	22.6	21.2	13.1	3.4	0.3
Asian/Pacific Islander	100.0	95.7	45.3	11.1	31.6	7.7	3.7	0.6
Black, non-Hispanic	100.0	97.3	31.7	32.9	16.2	16.4	2.7	0.0
Hispanic	100.0	94.4	39.8	23.7	18.1	12.8	5.3	0.2
American Indian/Alaskan Native	100.0	89.2	32.3	21.5	15.4	20.0	10.8	0.0
Unknown race/ethnicity	100.0	90.1	30.4	20.5	24.0	15.2	8.8	1.2

NOTE: Data are for U.S. citizens and permanent residents only.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 5-31

S&E doctorate recipients with definite postgraduate plans, by race/ethnicity: 1999

(Percent distribution)

Disability status	Definite plans	In the United States					Abroad	Location unknown
		Total	Postdoctoral study	Academic employment	Industry employment	Other		
Total	100.0	96.1	39.6	21.8	22.0	12.7	3.6	0.3
Without disabilities	100.0	96.1	39.7	21.7	22.1	12.6	3.6	0.3
With disabilities	100.0	95.6	34.4	23.9	17.8	19.4	4.4	0.0

NOTE: Data are for U.S. citizens and permanent residents only.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 6-1

Employed scientists and engineers, by broad occupation, highest degree level, sex, and race/ethnicity: 1993 and 1999

Highest degree level and occupation	All employed scientists and engineers[a]	Males	Females	Whites, non-Hispanic	Asians/Pacific Islanders	Blacks, non-Hispanic	Hispanics	American Indians/Alaskan Natives
1993: all degree levels,[b] all occupations	9,793,500	6,729,500	3,064,100	8,303,300	650,800	503,100	306,800	25,000
S&E occupations	3,303,400	2,547,900	755,500	2,777,500	299,300	119,400	97,200	7,600
Science occupations	1,912,300	1,276,400	635,900	1,612,100	160,500	79,800	53,800	4,800
Computer/math scientists	991,500	686,100	305,400	827,700	90,600	44,500	26,300	1,800
Life and related scientists	322,300	212,600	109,700	269,300	31,300	10,400	10,100	700
Physical and related scientists	280,900	221,100	59,900	237,600	27,200	8,000	7,100	800
Social and related scientists	317,600	156,600	160,900	277,500	11,400	16,800	10,300	1,600
Engineering occupations	1,391,100	1,271,500	119,600	1,165,400	138,800	39,700	43,400	2,800
Non-S&E occupations	6,490,100	4,181,600	2,308,600	5,525,800	351,500	383,700	209,600	17,400
Bachelor's, all occupations	5,727,200	3,876,700	1,850,500	4,866,300	330,900	320,100	191,500	15,200
S&E occupations	1,980,300	1,553,200	427,200	1,700,100	127,600	83,400	62,600	4,600
Science occupations	1,007,000	664,900	342,100	859,100	61,000	52,000	31,100	2,600
Computer/math scientists	676,200	457,700	218,500	574,800	45,300	34,500	19,800	1,300
Life and related scientists	131,600	82,200	49,500	114,200	6,100	5,800	4,900	300
Physical and related scientists	130,700	96,900	33,700	113,500	7,300	5,700	3,500	500
Social and related scientists	68,500	28,200	40,300	56,600	2,300	6,000	3,000	600
Engineering occupations	973,300	888,200	85,100	841,000	66,600	31,400	31,500	2,000
Non-S&E occupations	3,746,900	2,323,600	1,423,300	3,166,200	203,300	236,700	128,900	10,600
Master's, all occupations	2,575,600	1,688,100	887,500	2,155,400	210,700	129,400	73,100	6,300
S&E occupations	891,300	657,300	234,000	725,900	113,300	26,000	24,200	1,500
Science occupations	541,400	338,200	203,300	449,400	58,900	18,800	13,500	700
Computer/math scientists	263,600	185,400	78,200	212,100	37,600	8,300	5,300	300
Life and related scientists	70,400	40,500	29,900	57,400	8,300	2,700	1,900	S
Physical and related scientists	72,600	55,600	17,000	61,100	8,200	1,200	1,900	S
Social and related scientists	134,900	56,600	78,200	118,800	4,700	6,600	4,400	300
Engineering occupations	349,900	319,100	30,800	276,600	54,400	7,200	10,700	700
Non-S&E occupations	1,684,300	1,030,800	653,500	1,429,500	97,500	103,300	48,800	4,800
Doctorate, all occupations	634,800	499,400	135,400	520,800	74,300	20,500	16,800	2,200
S&E occupations	395,600	311,500	84,100	321,300	54,800	9,000	9,100	1,400
Science occupations	330,500	250,000	80,600	275,900	37,400	8,000	8,000	1,300
Computer/math scientists	48,700	40,400	8,300	38,500	7,600	1,200	1,300	200
Life and related scientists	98,100	73,300	24,800	79,900	13,900	1,500	2,400	300
Physical and related scientists	77,000	68,300	8,700	62,400	11,600	1,100	1,700	200
Social and related scientists	106,700	68,000	38,700	95,100	4,300	4,100	2,600	700
Engineering occupations	65,000	61,500	3,500	45,400	17,500	1,000	1,100	100
Non-S&E occupations	239,200	187,900	51,300	199,500	19,500	11,500	7,800	700

See explanatory information and SOURCE at end of table.

Appendix table 6-1
Employed scientists and engineers, by broad occupation, highest degree level, sex, and race/ethnicity: 1993 and 1999

Highest degree level and occupation	All employed scientists and engineers[a]	Males	Females	Whites, non-Hispanic	Asians/Pacific Islanders	Blacks, non-Hispanic	Hispanics	American Indians/Alaskan Natives
1999: all degree levels,[b] all occupations	10,981,600	7,171,500	3,810,200	9,124,600	805,900	597,100	417,200	33,300
S&E occupations	3,540,800	2,705,000	835,800	2,896,600	390,500	121,600	120,900	10,600
Science occupations	2,170,500	1,464,800	705,800	1,774,200	233,900	84,000	71,800	6,500
Computer/math scientists	1,167,400	850,600	316,700	922,200	153,600	51,400	37,600	2,700
Life and related scientists	341,900	217,500	124,400	285,100	37,700	6,600	10,900	1,500
Physical and related scientists	297,900	229,400	68,400	252,500	27,800	8,800	7,800	900
Social and related scientists	363,400	167,300	196,200	314,400	14,800	17,200	15,500	1,500
Engineering occupations	1,370,300	1,240,200	130,000	1,122,400	156,600	37,700	49,100	4,100
Non-S&E occupations	7,440,800	4,466,400	2,974,300	6,228,100	415,400	475,500	296,300	22,700
Bachelor's, all occupations	6,350,100	4,084,400	2,265,700	5,300,500	394,800	362,000	268,800	22,000
S&E occupations	1,994,400	1,564,700	429,700	1,680,900	158,300	73,900	74,800	6,200
Science occupations	1,087,100	744,300	342,800	908,100	87,700	46,600	41,500	3,100
Computer/math scientists	740,500	538,900	201,600	612,200	65,400	34,200	27,000	1,700
Life and related scientists	135,500	76,900	58,600	117,100	9,800	2,000	5,700	900
Physical and related scientists	139,600	101,700	38,000	120,600	8,400	5,800	4,600	S
Social and related scientists	71,400	26,800	44,600	58,300	4,000	4,600	4,200	S
Engineering occupations	907,400	820,400	86,900	772,800	70,600	27,300	33,300	3,100
Non-S&E occupations	4,355,700	2,519,700	1,836,000	3,619,600	236,500	288,100	194,000	15,800
Master's, all occupations	2,982,000	1,871,200	1,110,800	2,440,500	266,600	168,600	98,000	7,700
S&E occupations	1,032,100	751,200	280,900	807,200	153,000	35,900	32,800	3,000
Science occupations	655,500	411,400	244,200	516,000	91,100	27,300	19,100	2,100
Computer/math scientists	354,100	253,700	100,500	256,200	72,900	15,200	8,800	900
Life and related scientists	72,500	44,000	28,500	61,200	7,100	2,200	1,800	300
Physical and related scientists	73,000	53,700	19,300	62,300	7,100	1,800	1,400	400
Social and related scientists	155,900	60,000	95,900	136,200	4,000	8,100	7,100	500
Engineering occupations	376,500	339,800	36,700	291,300	62,000	8,600	13,600	900
Non-S&E occupations	1,949,900	1,120,000	829,900	1,633,200	113,600	132,700	65,300	4,700
Doctorate, all occupations	736,700	552,200	184,500	583,300	103,800	25,800	21,200	2,000
S&E occupations	484,100	368,900	115,200	381,600	77,000	11,000	12,900	1,400
Science occupations	399,900	290,900	109,100	325,100	53,100	9,300	11,000	1,300
Computer/math scientists	67,100	54,900	12,200	49,500	14,500	1,400	1,600	S
Life and related scientists	121,100	86,200	34,900	95,600	19,500	2,100	3,500	400
Physical and related scientists	84,900	73,700	11,200	69,200	12,300	1,200	1,800	300
Social and related scientists	126,900	76,100	50,800	110,800	6,800	4,500	4,100	600
Engineering occupations	84,200	78,000	6,200	56,500	23,900	1,700	1,900	100
Non-S&E occupations	252,600	183,400	69,300	201,700	26,800	14,800	8,300	600

S data with weighted values less than 50 or fewer than 5 respondents are suppressed for reasons of respondent confidentiality and/or data reliability

[a]Total includes "other" race/ethnicity not shown separately.

[b]Total includes first-professional degrees not shown separately.

NOTES: "Scientists and engineers" include all people holding a bachelor's degree or higher in an S&E field plus people holding a non-S&E bachelor's degree or higher who were employed in an S&E occupation in 1993. Figures are rounded to the nearest hundred. Details may not add to totals because of rounding.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Scientists and Engineers Statistical Data System (SESTAT).

Appendix table 6-2

Employed scientists and engineers in the United States, by occupation, race/ethnicity, and sex: 1999

Occupation	Total[a]		White		Asian/Pacific Islander		Black		Hispanic		American Indian/ Alaskan Native	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
All occupations	7,171,500	3,810,200	6,083,500	3,041,100	536,700	269,200	284,100	313,000	243,800	173,400	20,900	12,400
S&E occupations	2,705,000	835,800	2,236,600	660,000	298,100	92,400	75,200	46,400	86,700	34,200	7,800	2,700
Computer/mathematical scientists	850,600	316,700	684,400	237,800	109,500	44,000	29,700	21,700	25,600	12,000	1,400	1,300
Computer/information scientists	778,800	279,300	624,900	208,200	102,400	41,100	26,400	18,600	23,800	10,200	1,300	1,200
Mathematical scientists	24,000	12,300	19,400	9,600	2,400	1,300	1,400	700	700	800	S	S
Postsecondary computer/mathematics teachers	47,800	25,100	40,000	20,000	4,700	1,700	1,900	2,400	1,200	1,000	100	100
Life and related scientists	217,500	124,400	184,300	100,900	22,300	15,300	3,800	2,800	6,000	4,900	1,000	500
Agricultural/food scientists	30,800	8,900	27,300	7,500	2,000	500	1,100	100	400	800	S	S
Biological scientists	119,800	86,800	96,200	68,300	17,000	13,200	1,700	1,700	4,100	3,300	700	300
Environmental life scientists	15,600	4,200	15,300	3,800	S	S	S	S	S	S	200	S
Postsecondary life science teachers	51,300	24,500	45,500	21,200	3,300	1,400	1,000	1,100	1,500	700	100	100
Physical and related scientists	229,400	68,400	197,500	55,000	19,500	8,300	5,800	3,000	5,900	1,900	700	200
Chemists	84,800	36,900	69,100	27,300	9,100	6,500	3,800	1,900	2,800	1,300	100	S
Earth scientists/geologists/oceanographers	59,800	13,000	54,500	12,000	3,100	200	400	400	1,600	300	200	S
Physicists and astronomers	27,400	3,000	23,900	2,300	2,700	300	400	400	300	S	100	S
Other physical scientists	17,000	5,200	15,500	4,300	800	600	300	S	300	S	S	S
Postsecondary physical science teachers	40,400	10,300	34,500	9,100	3,800	700	800	200	1,000	300	200	S
Social and related scientists	167,300	196,200	146,900	167,500	7,500	7,300	6,600	10,600	5,200	10,300	1,000	400
Economists	23,800	11,600	21,200	8,400	1,600	2,100	500	200	500	900	S	S
Political scientists	5,600	6,000	4,800	4,600	S	S	S	S	500	800	S	S
Psychologists	71,900	125,100	65,700	110,400	700	2,300	3,100	6,200	2,200	5,900	200	300
Sociologists/anthropologists	8,400	9,200	7,400	8,000	200	300	600	600	100	300	S	S
Other social scientists	4,900	8,700	3,900	5,800	600	1,000	S	1,100	S	800	S	S
Postsecondary social science teachers	52,600	35,600	44,000	30,300	4,200	1,600	2,200	2,000	1,400	1,600	700	100

See explanatory information and SOURCE at end of table.

Appendix table 6-2

Employed scientists and engineers in the United States, by occupation, race/ethnicity, and sex: 1999

Occupation	Total[a]		White		Asian/Pacific Islander		Black		Hispanic		American Indian/ Alaskan Native	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Engineers	1,240,200	130,000	1,023,500	98,900	139,100	17,500	29,400	8,200	44,000	5,100	3,700	300
Aerospace engineers	62,800	4,600	53,300	3,600	6,600	800	1,500	100	1,200	100	100	S
Chemical engineers	67,200	12,700	54,000	9,000	9,000	2,200	1,300	1,200	2,700	300	200	S
Civil engineers	201,200	22,500	163,900	17,400	22,500	3,100	4,200	600	9,800	1,200	700	S
Electrical engineers	339,700	22,600	266,900	14,900	50,000	5,200	8,600	1,800	13,300	700	800	S
Industrial engineers	68,800	12,300	58,900	10,100	4,600	500	2,400	1,000	2,600	700	400	S
Mechanical engineers	251,200	14,600	211,600	12,100	25,300	1,300	6,000	1,000	7,100	100	1,000	S
Other engineers	221,900	36,800	194,300	28,500	16,200	3,900	4,400	2,400	6,300	1,700	600	200
Postsecondary engineering teachers	27,500	3,900	20,500	3,300	5,100	400	1,100	100	800	200	S	S
Non-S&E occupations	4,466,400	2,974,300	3,846,900	2,381,100	238,600	176,800	208,900	266,600	157,100	139,200	13,000	9,700
Managers and administrators	1,429,100	606,500	1,258,000	482,900	71,400	35,000	57,000	58,900	38,400	27,700	3,500	2,000
Health-related occupations	465,400	382,700	391,800	306,800	37,900	31,900	17,300	26,500	17,300	16,300	800	700
Teachers, except S&E postsecondary teachers	258,100	425,600	221,300	352,300	5,800	12,700	17,300	38,900	12,800	20,400	900	1,100
Non-S&E postsecondary teachers	68,900	55,100	56,300	45,300	5,800	3,900	3,900	3,700	2,300	1,900	300	300
Social services/related occupations	183,600	292,200	143,300	219,800	8,100	5,900	19,900	45,000	11,000	19,800	1,400	1,700
Technologists and technicians	274,500	112,600	224,200	81,700	30,400	16,300	11,200	10,600	7,900	3,600	800	S
Sales and marketing occupations	639,800	304,000	559,700	257,300	33,800	19,000	24,200	17,200	19,700	9,600	2,000	1,000
Art, humanities, and related occupations	81,600	83,300	73,300	73,800	3,000	3,700	1,800	3,500	3,100	2,300	S	S
Other non-S&E occupations	1,065,500	712,300	919,000	561,200	42,500	48,500	56,300	62,100	44,500	37,600	3,100	2,600

S data with weighted values less than 50 or fewer than 5 respondents are suppressed for reasons of respondent confidentiality and/or data reliability

[a]Total includes "other" race/ethnicity not shown separately.

NOTES: "Scientists and engineers" include all people holding a bachelor's degree or higher in an S&E field plus people holding a non-S&E bachelor's degree or higher who were employed in an S&E occupation in 1993. Figures are rounded to the nearest hundred. Details may not add to totals because of rounding.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Scientists and Engineers Statistical Data System (SESTAT).

Appendix table 6-3

Employed scientists and engineers, by broad occupation, highest degree level, disability status, and type of disability: 1993 and 1999

Highest degree level and occupation	All employed scientists and engineers	Persons without disabilities	Persons with disabilities				
			Any disability	Seeing	Hearing	Walking	Lifting
1993: all degree levels,[a] all occupations	9,793,500	9,245,000	548,500	228,100	240,300	76,400	115,200
S&E occupations	3,303,400	3,137,300	166,100	68,600	77,700	18,800	29,400
Science occupations	1,912,300	1,820,400	91,900	38,500	36,500	12,900	20,900
Computer/math scientists	991,500	942,300	49,200	21,600	19,600	7,400	9,900
Life and related scientists	322,300	307,500	14,700	4,800	7,700	1,500	2,800
Physical and related scientists	280,900	269,700	11,200	5,000	4,900	1,000	2,100
Social and related scientists	317,600	300,900	16,700	7,100	4,400	3,100	6,000
Engineering occupations	1,391,100	1,317,000	74,100	30,100	41,200	5,800	8,500
Non-S&E occupations	6,490,100	6,107,700	382,500	159,500	162,600	57,600	85,800
Bachelor's, all occupations	5,727,200	5,393,800	333,400	142,000	151,200	41,200	61,300
S&E occupations	1,980,300	1,878,000	102,300	42,500	50,500	10,500	15,000
Science occupations	1,007,000	959,600	47,500	20,300	20,100	6,000	8,600
Computer/math scientists	676,200	642,700	33,500	15,600	14,000	4,600	4,800
Life and related scientists	131,600	126,000	5,600	1,600	3,300	300	900
Physical and related scientists	130,700	125,800	4,800	1,900	2,400	300	1,000
Social and related scientists	68,500	65,000	3,500	1,300	S	800	1,900
Engineering occupations	973,300	918,500	54,800	22,200	30,400	4,500	6,400
Non-S&E occupations	3,746,900	3,515,800	231,100	99,500	100,700	30,700	46,300
Master's, all occupations	2,575,600	2,429,400	146,100	59,100	59,700	22,900	38,300
S&E occupations	891,300	848,700	42,600	18,800	17,500	5,000	10,000
Science occupations	541,400	514,500	26,900	11,900	8,900	4,200	8,600
Computer/math scientists	263,600	250,300	13,300	5,400	4,600	2,300	4,500
Life and related scientists	70,400	66,600	3,800	1,600	1,500	500	1,000
Physical and related scientists	72,600	69,500	3,000	1,600	1,100	200	600
Social and related scientists	134,900	128,000	6,800	3,300	1,600	1,200	2,500
Engineering occupations	349,900	334,200	15,700	6,900	8,600	800	1,500
Non-S&E occupations	1,684,300	1,580,700	103,500	40,300	42,300	17,900	28,300
Doctorate, all occupations	634,800	602,300	32,500	12,300	14,400	4,700	7,300
S&E occupations	395,600	376,000	19,500	7,000	8,900	2,900	3,800
Science occupations	330,500	314,400	16,100	6,000	6,900	2,500	3,200
Computer/math scientists	48,700	46,300	2,400	600	1,000	500	700
Life and related scientists	98,100	93,900	4,200	1,200	2,300	500	600
Physical and related scientists	77,000	73,700	3,300	1,500	1,300	400	400
Social and related scientists	106,700	100,500	6,200	2,600	2,200	1,100	1,500
Engineering occupations	65,000	61,600	3,400	1,000	2,000	400	600
Non-S&E occupations	239,200	226,200	13,000	5,400	5,500	1,800	3,500

See explanatory information and SOURCE at end of table.

Appendix table 6-3

Employed scientists and engineers, by broad occupation, highest degree level, disability status, and type of disability: 1993 and 1999

Highest degree level and occupation	All employed scientists and engineers	Persons without disabilities	Persons with disabilities				
			Any disability	Seeing	Hearing	Walking	Lifting
1999: all degree levels,[a] all occupations	10,981,600	10,237,000	744,600	345,700	311,600	101,400	148,200
S&E occupations	3,540,800	3,334,900	206,000	89,400	95,500	26,700	38,600
Science occupations	2,170,500	2,045,400	125,200	54,400	52,200	16,900	26,700
Computer/math scientists	1,167,400	1,099,400	67,900	32,200	25,800	8,100	14,400
Life and related scientists	341,900	321,700	20,200	8,000	11,500	2,000	2,600
Physical and related scientists	297,900	281,400	16,500	6,600	7,400	2,500	3,300
Social and related scientists	363,400	342,900	20,600	7,600	7,500	4,400	6,400
Engineering occupations	1,370,300	1,289,500	80,800	35,000	43,200	9,900	11,900
Non-S&E occupations	7,440,800	6,902,200	538,600	256,300	216,100	74,600	109,600
Bachelor's, all occupations	6,350,100	5,906,800	443,300	208,200	191,400	53,000	80,800
S&E occupations	1,994,400	1,877,600	116,800	54,500	55,600	12,300	18,600
Science occupations	1,087,100	1,027,300	59,700	28,700	25,000	5,800	10,500
Computer/math scientists	740,500	696,900	43,600	21,200	17,500	5,100	7,900
Life and related scientists	135,500	127,500	8,000	4,000	4,500	S	S
Physical and related scientists	139,600	132,900	6,700	3,100	2,400	600	1,700
Social and related scientists	71,400	70,100	1,400	S	S	S	S
Engineering occupations	907,400	850,300	57,100	25,800	30,600	6,500	8,100
Non-S&E occupations	4,355,700	4,029,200	326,400	153,700	135,800	40,800	62,300
Master's, all occupations	2,982,000	2,769,400	212,600	97,700	82,500	33,200	48,600
S&E occupations	1,032,100	975,200	56,800	21,800	25,200	8,600	13,300
Science occupations	655,500	617,800	37,800	14,500	15,000	6,100	10,200
Computer/math scientists	354,100	334,200	19,900	9,100	6,500	2,400	5,600
Life and related scientists	72,500	68,800	3,800	S	2,700	500	S
Physical and related scientists	73,000	67,900	5,100	1,700	2,500	1,100	1,000
Social and related scientists	155,900	146,900	9,000	3,200	3,300	2,000	3,000
Engineering occupations	376,500	357,500	19,100	7,400	10,200	2,500	3,000
Non-S&E occupations	1,949,900	1,794,100	155,700	75,900	57,400	24,600	35,300
Doctorate, all occupations	736,700	687,500	49,200	21,500	22,000	8,200	10,000
S&E occupations	484,100	453,200	30,900	12,700	14,000	5,100	5,900
Science occupations	399,900	373,700	26,300	11,000	11,600	4,300	5,200
Computer/math scientists	67,100	62,700	4,400	2,000	1,700	500	900
Life and related scientists	121,100	113,700	7,400	3,300	3,900	900	900
Physical and related scientists	84,900	80,100	4,800	1,700	2,500	700	700
Social and related scientists	126,900	117,200	9,700	4,000	3,400	2,200	2,700
Engineering occupations	84,200	79,600	4,600	1,800	2,500	800	800
Non-S&E occupations	252,600	234,300	18,300	8,800	7,900	3,100	4,100

S data with weighted values less than 50 or fewer than 5 respondents are suppressed for reasons of respondent confidentiality and/or data reliability

[a]Total includes first-professional degrees not shown separately.

NOTES: "Scientists and engineers" include all people holding a bachelor's degree or higher in an S&E field plus people holding a non-S&E bachelor's degree or higher who were employed in an S&E occupation in 1993. Figures are rounded to the nearest hundred. Details may not add to totals because of rounding.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Scientists and Engineers Statistical Data System (SESTAT).

Appendix table 6-4
Employment status of scientists and engineers, by age group, sex, race/ethnicity, and disability status: 1999

Age group, sex, race/ethnicity,[a] and disability status	Total	Employed				Not employed/ seeking employment	Retired	Not employed/ not seeking employment
		Total	Full-time	Part-time	Postdoctoral appointment			
All ages	13,050,800	10,981,600	9,770,200	1,187,400	24,000	194,400	1,092,900	781,900
Male	8,304,100	7,171,500	6,698,500	458,600	14,400	117,700	823,600	191,400
Female	4,746,700	3,810,200	3,071,700	728,800	9,700	76,700	269,300	590,500
White, non-Hispanic	10,931,000	9,124,600	8,080,700	1,028,500	15,400	153,600	994,000	658,800
Asian/Pacific Islander	919,900	805,900	734,300	64,800	6,800	16,200	34,300	63,500
Black, non-Hispanic	677,500	597,100	548,400	48,000	700	12,500	44,500	23,300
Hispanic	476,100	417,200	373,000	43,100	1,100	11,100	16,600	31,200
American Indian/Alaskan Native	42,000	33,300	30,400	2,800	100	1,000	3,400	4,400
Without disabilities	11,943,400	10,237,000	9,130,700	1,082,800	23,500	167,400	845,700	693,400
With disabilities	1,107,300	744,600	639,500	104,600	500	27,000	247,200	88,500
29 or younger	1,772,200	1,534,200	1,365,300	166,900	2,000	37,400	S	199,800
Male	880,700	777,300	707,700	68,600	1,000	17,800	S	85,000
Female	891,500	756,800	657,600	98,200	1,000	19,500	S	114,800
White, non-Hispanic	1,361,100	1,190,600	1,057,400	131,800	1,500	26,600	S	143,300
Asian/Pacific Islander	183,200	147,200	134,000	12,800	500	3,900	S	31,700
Black, non-Hispanic	109,400	95,800	87,300	8,400	S	3,600	S	10,100
Hispanic	109,200	93,100	79,900	13,200	S	3,100	S	13,000
American Indian/Alaskan Native	9,400	7,400	6,700	700	S	S	S	1,800
Without disabilities	1,734,500	1,501,400	1,335,300	164,100	2,000	36,700	S	195,500
With disabilities	37,700	32,700	29,900	2,800	S	600	S	4,300
30 to 39	2,949,800	2,718,200	2,470,700	229,800	17,600	33,300	3,400	195,000
Male	1,750,300	1,706,200	1,646,700	48,800	10,700	15,900	S	28,000
Female	1,199,500	1,012,000	824,000	181,000	7,000	17,400	3,100	167,000
White, non-Hispanic	2,395,800	2,202,400	1,994,600	196,400	11,300	23,400	3,200	166,800
Asian/Pacific Islander	257,100	239,200	218,000	16,200	5,000	4,700	S	13,000
Black, non-Hispanic	150,600	142,600	135,300	6,800	400	2,600	S	5,400
Hispanic	136,300	125,200	114,900	9,500	800	2,500	S	8,600
American Indian/Alaskan Native	8,800	8,000	7,100	700	100	S	S	800
Without disabilities	2,860,100	2,640,300	2,399,700	223,300	17,400	30,400	2,800	186,500
With disabilities	89,700	77,800	71,000	6,500	300	2,900	S	8,500
40 to 49	3,684,600	3,426,400	3,097,900	324,700	3,700	44,800	16,700	196,700
Male	2,310,900	2,250,200	2,181,300	66,500	2,400	25,700	7,400	27,500
Female	1,373,700	1,176,100	916,600	258,200	1,300	19,100	9,300	169,200
White, non-Hispanic	3,108,700	2,881,400	2,593,500	285,800	2,100	37,000	14,200	176,000
Asian/Pacific Islander	237,000	223,200	204,400	17,500	1,200	3,100	1,200	9,500
Black, non-Hispanic	197,700	191,300	180,500	10,600	200	2,000	1,000	3,400
Hispanic	128,700	119,500	109,300	10,000	200	2,600	S	6,400
American Indian/Alaskan Native	10,400	9,300	8,500	700	S	200	S	1,000
Without disabilities	3,412,300	3,189,700	2,881,100	305,000	3,600	37,100	14,400	171,100
With disabilities	272,200	236,700	216,800	19,700	100	7,700	2,300	25,600

See explanatory information and SOURCE at end of table.

Appendix table 6-4
Employment status of scientists and engineers, by age group, sex, race/ethnicity, and disability status: 1999

Age group, sex, race/ethnicity,[a] and disability status	Total	Employed				Not employed/ seeking employment	Retired	Not employed/ not seeking employment
		Total	Full-time	Part-time	Postdoctoral appointment			
50 or older	4,644,200	3,302,900	2,836,300	465,900	700	78,900	1,072,000	190,400
Male	3,362,200	2,437,800	2,162,800	274,600	300	58,200	815,500	50,800
Female	1,282,000	865,200	673,500	191,300	300	20,700	256,600	139,600
White, non-Hispanic	4,065,500	2,850,200	2,435,200	414,400	600	66,500	976,100	172,700
Asian/Pacific Islander	242,700	196,300	177,900	18,400	S	4,500	32,700	9,200
Black, non-Hispanic	219,800	167,400	145,300	22,100	S	4,300	43,500	4,500
Hispanic	102,000	79,400	68,900	10,400	S	3,000	16,400	3,300
American Indian/Alaskan Native	13,300	8,700	8,100	600	S	500	3,400	800
Without disabilities	3,936,500	2,905,500	2,514,600	390,300	600	63,100	827,600	140,300
With disabilities	707,700	397,400	321,700	75,600	100	15,800	244,400	50,100

S data with weighted values less than 50 or fewer than 5 respondents are suppressed for reasons of respondent confidentiality and/or data reliability

[a]Total includes "other" race/ethnicity not shown separately.

NOTES: "Scientists and engineers" include all people holding a bachelor's degree or higher in an S&E field plus people holding a non-S&E bachelor's degree or higher who were employed in an S&E occupation in 1993. Figures are rounded to the nearest hundred. Details may not add to totals because of rounding.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Scientists and Engineers Statistical Data System (SESTAT).

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 6-5

Scientists and engineers who are unemployed or out of the labor force, by reason for not working, sex, race/ethnicity, and disability status: 1999

Reason for not working	All scientists and engineers	Sex		Race/ethnicity[a]					Disability status	
		Male	Female	White	Asian/ Pacific Islander	Black	Hispanic	American Indian/ Alaskan Native	Without disabilities	With disabilities
	Number									
Total not working	2,069,200	1,132,600	936,600	1,806,400	114,000	80,400	58,900	8,700	1,706,400	362,700
Family responsibilities	368,900	31,200	337,700	320,700	22,300	8,900	13,600	2,800	341,900	27,000
Chronic illness or permanent disability	139,900	81,300	58,600	118,200	4,200	11,200	5,200	1,000	44,600	95,300
Suitable job not available	121,400	65,700	55,700	94,700	12,300	6,100	7,700	600	106,900	14,500
Did not need or want to work	454,200	130,200	324,000	404,500	26,400	9,700	12,600	1,000	416,300	37,900
Retired	1,115,800	841,800	274,000	1,014,500	35,100	45,700	17,300	3,400	863,100	252,700
Student	248,600	117,700	130,900	177,000	38,700	14,500	17,000	1,500	239,100	9,500
On layoff from a job	81,200	57,600	23,500	64,700	6,400	5,100	4,500	500	67,900	13,200
Other reason	70,200	26,300	43,900	57,000	7,600	2,900	2,200	600	62,700	7,500
	Percent									
Total not working	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Family responsibilities	17.8	2.8	36.1	17.8	19.5	11.0	23.0	32.0	20.0	7.5
Chronic illness or permanent disability	6.8	7.2	6.3	6.5	3.7	14.0	8.8	11.3	2.6	26.3
Suitable job not available	5.9	5.8	5.9	5.2	10.8	7.6	13.0	7.0	6.3	4.0
Did not need or want to work	22.0	11.5	34.6	22.4	23.2	12.1	21.4	11.5	24.4	10.4
Retired	53.9	74.3	29.3	56.2	30.8	56.8	29.3	38.8	50.6	69.7
Student	12.0	10.4	14.0	9.8	33.9	18.0	28.9	17.2	14.0	2.6
On layoff from a job	3.9	5.1	2.5	3.6	5.6	6.4	7.7	5.3	4.0	3.6
Other reason	3.4	2.3	4.7	3.2	6.7	3.6	3.7	6.7	3.7	2.1

[a]Total includes "other" race/ethnicity not shown separately.

NOTES: "Scientists and engineers" include all people holding a bachelor's degree or higher in an S&E field plus people holding a non-S&E bachelor's degree or higher who were employed in an S&E occupation in 1993. Figures are rounded to the nearest hundred. Details may not add to totals because of rounding and because respondents could select more than one reason.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Scientists and Engineers Statistical Data System (SESTAT).

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 6-6

Preference for full-time employment and reasons for working part time of scientists and engineers employed part time, by occupation, sex, race/ethnicity, and disability status: 1999

Occupation, preference for full-time employment, and reason for part-time employment	Total employed part time	Sex		Race/ethnicity[a]					Disability status	
		Male	Female	White	Asian/ Pacific Islander	Black	Hispanic	American Indian/ Alaskan Native	Without disabilities	With disabilities
All occupations	1,187,400	458,600	728,800	1,028,500	64,800	48,000	43,100	2,800	1,082,800	104,600
S&E occupation	272,500	134,600	137,900	236,900	17,000	8,300	9,500	700	251,700	20,700
Non-S&E occupation	914,900	324,000	590,900	791,600	47,900	39,700	33,700	2,000	831,000	83,900
Preference for full-time employment										
Did not want full-time employment	1,057,800	390,400	667,400	926,300	52,600	39,900	36,500	2,400	967,900	90,000
S&E occupation	241,800	114,800	127,000	211,600	15,000	7,200	7,400	600	224,300	17,400
Non-S&E occupation	816,100	275,700	540,400	714,700	37,700	32,700	29,100	1,800	743,600	72,500
Wanted full-time employment	129,500	68,100	61,400	102,200	12,200	8,100	6,600	400	114,900	14,600
S&E occupation	30,700	19,800	10,900	25,400	2,000	1,100	2,000	S	27,400	3,300
Non-S&E occupation	98,800	48,300	50,500	76,900	10,200	6,900	4,600	S	87,500	11,400
Reasons for part-time employment										
Family responsibilities	401,600	53,500	348,100	348,800	26,300	11,800	13,900	800	382,900	18,800
S&E occupation	76,400	14,200	62,200	67,200	5,100	1,200	2,900	S	73,600	2,800
Non-S&E occupation	325,200	39,300	285,900	281,600	21,200	10,600	11,000	800	309,300	15,900
Chronic illness or permanent disability	45,000	19,800	25,200	38,000	2,200	1,600	3,100	S	27,800	17,200
S&E occupation	6,500	3,100	3,500	6,000	200	S	400	S	3,200	3,400
Non-S&E occupation	38,500	16,800	21,700	32,100	2,100	1,500	2,700	S	24,700	13,800
Did not need or want to work full time	635,400	206,800	428,600	563,100	30,500	21,600	18,700	1,300	596,400	39,000
S&E occupation	127,100	54,300	72,800	111,600	7,500	3,800	3,800	300	120,100	7,000
Non-S&E occupation	508,300	152,400	355,900	451,600	23,000	17,800	14,900	1,000	476,400	31,900
Suitable full-time job not available	134,300	63,200	71,100	107,300	11,500	8,000	6,900	600	122,000	12,300
S&E occupation	30,800	18,800	12,100	25,000	3,200	1,000	1,500	S	28,400	2,400
Non-S&E occupation	103,500	44,400	59,000	82,300	8,300	7,000	5,400	500	93,600	9,800
Student	200,600	91,400	109,200	154,700	18,900	11,000	15,300	800	195,700	4,900
S&E occupation	80,700	43,300	37,400	62,900	8,800	4,500	4,100	S	79,000	1,700
Non-S&E occupation	119,900	48,100	71,800	91,800	10,100	6,500	11,100	400	116,700	3,200
Retired	248,200	186,800	61,400	223,500	7,800	12,400	4,100	300	203,100	45,100
S&E occupation	59,300	51,300	8,000	54,800	2,100	1,400	900	S	50,000	9,300
Non-S&E occupation	188,900	135,400	53,400	168,700	5,700	11,000	3,100	S	153,100	35,800
Other reason	94,500	42,100	52,400	78,100	6,700	5,700	3,600	300	84,500	10,000
S&E occupation	19,800	11,400	8,400	16,300	1,700	1,000	700	100	17,700	2,100
Non-S&E occupation	74,700	30,700	44,000	61,800	5,000	4,700	3,000	S	66,800	7,800

S data with weighted values less than 50 or fewer than 5 respondents are suppressed for reasons of respondent confidentiality and/or data reliability

[a]Total includes "other" race/ethnicity not shown separately.

NOTES: "Scientists and engineers" include all people holding a bachelor's degree or higher in an S&E field plus people holding a non-S&E bachelor's degree or higher who were employed in an S&E occupation in 1993. Figures are rounded to the nearest hundred. Details may not add to totals because of rounding and because respondents could select more than one reason.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Scientists and Engineers Statistical Data System (SESTAT).

Appendix table 6-7

Employed scientists and engineers in the United States, by occupation, highest degree, and sex: 1999

Occupation	All degrees[a]			Bachelor's			Master's			Doctorate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
All occupations	10,981,600	7,171,500	3,810,200	6,350,100	4,084,400	2,265,700	2,982,000	1,871,200	1,110,800	736,700	552,200	184,500
S&E occupations	3,540,800	2,705,000	835,800	1,994,400	1,564,700	429,700	1,032,100	751,200	280,900	484,100	368,900	115,200
Computer/mathematical scientists	1,167,400	850,600	316,700	740,500	538,900	201,600	354,100	253,700	100,500	67,100	54,900	12,200
Computer/information scientists	1,058,100	778,800	279,300	715,400	522,900	192,500	304,800	225,300	79,500	32,400	27,600	4,800
Mathematical scientists	36,200	24,000	12,300	12,400	7,500	4,900	16,000	10,600	5,400	7,900	5,800	2,000
Postsecondary computer/ mathematics teachers	73,000	47,800	25,100	12,700	8,600	4,200	33,300	17,700	15,600	26,800	21,400	5,400
Life and related scientists	341,900	217,500	124,400	135,500	76,900	58,600	72,500	44,000	28,500	121,100	86,200	34,900
Agricultural/food scientists	39,700	30,800	8,900	20,100	15,900	4,300	10,400	7,200	3,200	9,200	7,700	1,500
Biological scientists	206,500	119,800	86,800	87,900	43,300	44,600	42,700	24,600	18,100	70,000	47,800	22,100
Environmental life scientists	19,800	15,600	4,200	14,600	11,700	2,900	4,000	3,000	1,000	1,200	900	200
Postsecondary life science teachers	75,800	51,300	24,500	12,800	6,100	6,700	15,500	9,300	6,200	40,800	29,700	11,100
Physical and related scientists	297,900	229,400	68,400	139,600	101,700	38,000	73,000	53,700	19,300	84,900	73,700	11,200
Chemists	121,700	84,800	36,900	70,500	45,400	25,100	23,000	16,300	6,800	28,100	23,100	5,100
Earth scientists/geologists/ oceanographers	72,800	59,800	13,000	38,000	31,700	6,200	24,300	18,600	5,700	10,400	9,300	1,100
Physicists and astronomers	30,400	27,400	3,000	7,200	6,600	600	8,500	7,100	1,400	14,700	13,700	1,000
Other physical scientists	22,200	17,000	5,200	13,100	10,000	3,100	7,300	5,400	1,900	1,800	1,600	200
Postsecondary physical science teachers	50,700	40,400	10,300	10,900	8,000	2,900	9,800	6,300	3,500	29,800	26,000	3,800
Social and related scientists	363,400	167,300	196,200	71,400	26,800	44,600	155,900	60,000	95,900	126,900	76,100	50,800
Economists	35,400	23,800	11,600	11,800	6,800	5,000	15,200	10,700	4,500	8,100	6,300	1,800
Political scientists	11,600	5,600	6,000	5,800	2,900	2,900	4,200	2,000	2,200	1,400	800	700
Psychologists	197,000	71,900	125,100	32,100	8,700	23,400	102,400	30,700	71,700	58,000	30,200	27,700
Sociologists/anthropologists	17,600	8,400	9,200	6,900	3,200	3,700	6,900	3,400	3,500	3,700	1,800	2,000
Other social scientists	13,600	4,900	8,700	4,500	1,400	3,100	5,700	2,300	3,400	2,400	1,200	1,200
Postsecondary social science teachers	88,100	52,600	35,600	10,400	3,800	6,600	21,500	11,000	10,500	53,300	35,800	17,500

See explanatory information and SOURCE at end of table.

Appendix table 6-7

Employed scientists and engineers in the United States, by occupation, highest degree, and sex: 1999

Occupation	All degrees[a]			Bachelor's			Master's			Doctorate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Engineers	1,370,300	1,240,200	130,000	907,400	820,400	86,900	376,500	339,800	36,700	84,200	78,000	6,200
Aerospace engineers	67,400	62,800	4,600	36,300	33,500	2,900	26,300	24,900	1,400	4,600	4,200	300
Chemical engineers	79,900	67,200	12,700	51,100	42,300	8,700	20,700	17,600	3,100	8,100	7,200	800
Civil engineers	223,700	201,200	22,500	160,800	143,800	17,000	57,200	51,900	5,300	5,100	4,900	200
Electrical engineers	362,300	339,700	22,600	233,500	220,000	13,500	109,400	101,500	7,900	18,400	17,300	1,000
Industrial engineers	81,200	68,800	12,300	62,700	53,600	9,100	17,400	14,300	3,000	1,000	900	200
Mechanical engineers	265,800	251,200	14,600	194,300	184,000	10,200	62,000	58,000	4,000	9,100	8,800	300
Other engineers	258,700	221,900	36,800	163,000	139,100	23,900	76,900	65,900	11,000	18,800	16,900	1,800
Postsecondary engineering teachers	31,400	27,500	3,900	5,600	4,100	1,500	6,600	5,700	1,000	19,200	17,700	1,500
Non-S&E occupations	7,440,800	4,466,400	2,974,300	4,355,700	2,519,700	1,836,000	1,949,900	1,120,000	829,900	252,600	183,400	69,300
Managers and administrators	2,035,600	1,429,100	606,500	1,156,800	801,400	355,500	726,600	514,800	211,800	98,400	77,500	20,900
Health-related occupations	848,100	465,400	382,700	304,300	107,100	197,200	100,400	24,300	76,200	25,000	16,600	8,400
Teachers, except S&E postsecondary teachers	683,700	258,100	425,600	361,200	125,200	236,100	304,300	123,000	181,300	11,500	6,700	4,800
Non-S&E postsecondary teachers	124,000	68,900	55,100	18,500	8,800	9,700	41,400	18,600	22,800	53,000	32,100	20,900
Social services/related occupations	475,800	183,600	292,200	215,300	74,800	140,500	239,800	93,000	146,800	12,000	9,600	2,400
Technologists and technicians	387,100	274,500	112,600	309,600	217,100	92,600	65,900	47,400	18,600	9,800	8,800	1,000
Sales and marketing occupations	943,800	639,800	304,000	723,700	479,800	244,000	196,000	141,700	54,300	11,800	9,800	2,000
Art, humanities, and related occupations	164,900	81,600	83,300	107,400	53,800	53,600	48,800	22,900	25,900	6,000	3,300	2,700
Other non-S&E occupations	1,777,800	1,065,500	712,300	1,158,700	651,800	506,800	226,600	134,400	92,200	25,000	18,900	6,200

[a]Total includes first-professional degrees not shown separately.

NOTES: "Scientists and engineers" include all people holding a bachelor's degree or higher in an S&E field plus people holding a non-S&E bachelor's degree or higher who were employed in an S&E occupation in 1993. Figures are rounded to the nearest hundred. Details may not add to totals because of rounding.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Scientists and Engineers Statistical Data System (SESTAT)

Appendix table 6-8

Employed scientists and engineers in the United States, by occupation, highest degree, and race/ethnicity: 1999

Occupation	All degrees[a]						Bachelor's					
	Total[b]	White	Asian/ Pacific Islander	Black	Hispanic	American Indian/ Alaskan Native	Total[b]	White	Asian/ Pacific Islander	Black	Hispanic	American Indian/ Alaskan Native
All occupations	10,981,600	9,124,600	805,900	597,100	417,200	33,300	6,350,100	5,300,500	394,800	362,000	268,800	22,000
S&E occupations	3,540,800	2,896,600	390,500	121,600	120,900	10,600	1,994,400	1,680,900	158,300	73,900	74,800	6,200
Computer/mathematical scientists	1,167,400	922,200	153,600	51,400	37,600	2,700	740,500	612,200	65,400	34,200	27,000	1,700
Computer/information scientists	1,058,100	833,200	143,500	45,000	34,000	2,500	715,400	591,100	64,200	32,700	25,700	1,700
Mathematical scientists	36,200	29,000	3,700	2,100	1,500	S	12,400	10,400	S	800	900	S
Postsecondary computer/ mathematics teachers	73,000	60,000	6,300	4,300	2,200	200	12,700	10,700	900	700	S	S
Life and related scientists	341,900	285,100	37,700	6,600	10,900	1,500	135,500	117,100	9,800	2,000	5,700	900
Agricultural/food scientists	39,700	34,700	2,500	1,100	1,200	100	20,100	18,400	S	800	S	S
Biological scientists	206,500	164,500	30,100	3,400	7,500	1,000	87,900	73,100	8,600	1,200	4,400	600
Environmental life scientists	19,800	19,100	300	S	S	200	14,600	14,300	S	S	S	S
Postsecondary life science teachers	75,800	66,700	4,700	2,000	2,200	200	12,800	11,300	S	S	800	S
Physical and related scientists	297,900	252,500	27,800	8,800	7,800	900	139,600	120,600	8,400	5,800	4,600	S
Chemists	121,700	96,400	15,500	5,700	4,100	100	70,500	57,400	5,600	4,200	3,200	S
Earth scientists/geologists/oceanographers	72,800	66,600	3,300	800	1,900	200	38,000	35,500	900	S	900	S
Physicists and astronomers	30,400	26,200	3,000	800	300	100	7,200	6,400	400	S	S	S
Other physical scientists	22,200	19,800	1,400	500	300	S	13,100	12,100	S	S	S	S
Postsecondary physical science teachers	50,700	43,600	4,500	1,000	1,300	300	10,900	9,200	1,100	300	300	S
Social and related scientists	363,400	314,400	14,800	17,200	15,500	1,500	71,400	58,300	4,000	4,600	4,200	S
Economists	35,400	29,600	3,600	800	1,500	S	11,800	9,400	1,400	S	S	S
Political scientists	11,600	9,400	300	500	1,300	S	5,800	4,900	S	S	700	S
Psychologists	197,000	176,100	3,000	9,300	8,100	500	32,100	26,500	S	2,800	2,100	S
Sociologists/anthropologists	17,600	15,400	600	1,200	400	S	6,900	6,200	S	S	S	S
Other social scientists	13,600	9,600	1,600	1,100	1,300	S	4,500	2,700	1,000	S	S	S
Postsecondary social science teachers	88,100	74,300	5,800	4,200	3,000	700	10,400	8,700	S	S	S	S
Engineers	1,370,300	1,122,400	156,600	37,700	49,100	4,100	907,400	772,800	70,600	27,300	33,300	3,100
Aerospace engineers	67,400	56,800	7,400	1,600	1,300	100	36,300	30,700	3,500	1,400	700	S
Chemical engineers	79,900	63,000	11,200	2,500	3,000	200	51,100	42,600	4,600	1,500	2,200	S
Civil engineers	223,700	181,200	25,600	4,800	11,100	800	160,800	133,900	14,500	3,900	7,600	700
Electrical engineers	362,300	281,800	55,200	10,400	14,000	800	233,500	190,000	25,800	7,800	9,200	700
Industrial engineers	81,200	69,000	5,100	3,400	3,300	400	62,700	54,400	2,900	2,600	2,600	200
Mechanical engineers	265,800	223,800	26,600	7,000	7,300	1,000	194,300	171,800	11,500	4,700	5,400	700

See explanatory information and SOURCE at end of table.

Appendix table 6-8

Employed scientists and engineers in the United States, by occupation, highest degree, and race/ethnicity: 1999

Occupation	All degrees[a]						Bachelor's					
	Total[b]	White	Asian/ Pacific Islander	Black	Hispanic	American Indian/ Alaskan Native	Total[b]	White	Asian/ Pacific Islander	Black	Hispanic	American Indian/ Alaskan Native
Other engineers	258,700	222,900	20,100	6,900	8,100	800	163,000	145,200	6,900	5,000	5,300	600
Postsecondary engineering teachers	31,400	23,800	5,400	1,200	1,000	S	5,600	4,100	900	S	S	S
Non-S&E occupations	7,440,800	6,228,100	415,400	475,500	296,300	22,700	4,355,700	3,619,600	236,500	288,100	194,000	15,800
Managers and administrators	2,035,600	1,740,900	106,500	115,900	66,100	5,500	1,156,800	997,500	51,300	62,900	41,100	3,400
Health-related occupations	848,100	698,700	69,700	43,800	33,700	1,500	304,300	238,100	26,900	21,400	16,600	800
Teachers, except S&E postsecondary teachers	683,700	573,600	18,500	56,200	33,200	2,100	361,200	298,800	11,100	29,900	20,300	1,200
Non-S&E postsecondary teachers	124,000	101,700	9,700	7,600	4,200	500	18,500	14,000	1,600	1,700	1,100	S
Social services/related occupations	475,800	363,000	13,900	64,900	30,900	3,000	215,300	153,300	7,400	33,300	19,900	1,500
Technologists and technicians	387,100	305,900	46,700	21,800	11,500	1,200	309,600	248,900	30,600	19,700	9,300	1,000
Sales and marketing occupations	943,800	817,000	52,800	41,400	29,300	2,900	723,700	630,500	35,800	30,400	24,100	2,800
Art, humanities, and related occupations	164,900	147,100	6,700	5,400	5,400	S	107,400	96,100	4,300	3,000	3,600	S
Other non-S&E occupations	1,777,800	1,480,200	91,000	118,400	82,100	5,700	1,158,700	942,500	67,400	85,900	57,900	4,800
All occupations	2,982,000	2,440,500	266,600	168,600	98,000	7,700	736,700	583,300	103,800	25,800	21,200	2,000
S&E occupations	1,032,100	807,200	153,000	35,900	32,800	3,000	484,100	381,600	77,000	11,000	12,900	1,400
Computer/mathematical scientists	354,100	256,200	72,900	15,200	8,800	900	67,100	49,500	14,500	1,400	1,600	S
Computer/information scientists	304,800	216,200	69,100	11,600	7,200	700	32,400	21,800	9,600	200	800	S
Mathematical scientists	16,000	12,400	2,000	1,100	500	S	7,900	6,200	1,400	100	100	S
Postsecondary computer/mathematics teachers	33,300	27,600	1,900	2,500	1,100	S	26,800	21,500	3,600	1,100	600	S
Life and related scientists	72,500	61,200	7,100	2,200	1,800	300	121,100	95,600	19,500	2,100	3,500	400
Agricultural/food scientists	10,400	8,800	1,000	S	300	S	9,200	7,500	1,000	200	400	S
Biological scientists	42,700	35,200	5,400	1,100	900	S	70,000	51,200	15,200	1,100	2,200	200
Environmental life scientists	4,000	3,800	S	S	S	S	1,200	1,100	S	S	S	S
Postsecondary life science teachers	15,500	13,400	600	900	500	S	40,800	35,900	3,100	900	800	100
Physical and related scientists	73,000	62,300	7,100	1,800	1,400	400	84,900	69,200	12,300	1,200	1,800	300
Chemists	23,000	18,100	3,500	1,100	400	S	28,100	20,700	6,500	400	500	S
Earth scientists/geologists/oceanographers	24,300	21,800	1,300	200	800	S	10,400	9,000	1,100	S	200	S
Physicists and astronomers	8,500	7,500	600	S	S	S	14,700	12,300	2,000	100	200	S
Other physical scientists	7,300	6,100	1,000	S	S	S	1,800	1,600	100	S	S	S
Postsecondary physical science teachers	9,800	8,700	800	100	100	S	29,800	25,600	2,600	600	900	200

See explanatory information and SOURCE at end of table.

Appendix table 6-8

Employed scientists and engineers in the United States, by occupation, highest degree, and race/ethnicity: 1999

Occupation	All degrees[a]						Bachelor's					
	Total[b]	White	Asian/ Pacific Islander	Black	Hispanic	American Indian/ Alaskan Native	Total[b]	White	Asian/ Pacific Islander	Black	Hispanic	American Indian/ Alaskan Native
Social and related scientists	155,900	136,200	4,000	8,100	7,100	500	126,900	110,800	6,800	4,500	4,100	600
Economists	15,200	13,100	1,200	S	700	S	8,100	6,700	1,000	100	200	S
Political scientists	4,200	3,100	S	S	600	S	1,400	1,300	S	S	S	S
Psychologists	102,400	92,100	1,000	5,100	4,000	200	58,000	53,100	1,200	1,500	1,900	300
Sociologists/anthropologists	6,900	5,700	400	600	S	S	3,700	3,400	100	100	100	S
Other social scientists	5,700	4,100	400	400	800	S	2,400	1,800	200	300	S	S
Postsecondary social science teachers	21,500	18,100	900	1,400	900	S	53,300	44,500	4,100	2,500	1,900	300
Engineers	376,500	291,300	62,000	8,600	13,600	900	84,200	56,500	23,900	1,700	1,900	100
Aerospace engineers	26,300	22,600	2,700	200	500	S	4,600	3,300	1,100	100	100	S
Chemical engineers	20,700	15,200	4,000	800	600	S	8,100	5,200	2,600	100	100	S
Civil engineers	57,200	43,600	9,700	700	3,200	S	5,100	3,200	1,400	200	200	S
Electrical engineers	109,400	80,000	22,600	2,300	4,400	S	18,400	10,900	6,800	200	400	S
Industrial engineers	17,400	13,800	2,000	800	600	S	1,000	800	200	S	S	S
Mechanical engineers	62,000	46,600	11,400	2,100	1,600	300	9,100	5,300	3,500	100	100	S
Other engineers	76,900	64,400	8,400	1,600	2,400	S	18,800	13,300	4,800	300	400	S
Postsecondary engineering teachers	6,600	5,100	1,100	S	300	S	19,200	14,500	3,500	700	500	S
Non-S&E occupations	1,949,900	1,633,200	113,600	132,700	65,300	4,700	252,600	201,700	26,800	14,800	8,300	600
Managers and administrators	726,600	618,100	44,100	42,500	20,400	1,500	98,400	79,800	9,700	5,700	3,000	200
Health-related occupations	100,400	82,800	9,000	4,700	3,800	S	25,000	17,500	5,300	1,100	1,000	100
Teachers, except S&E postsecondary teachers	304,300	260,700	6,700	24,600	11,300	800	11,500	8,700	400	1,500	800	S
Non-S&E postsecondary teachers	41,400	35,100	2,200	2,800	1,000	S	53,000	42,700	5,100	3,100	1,600	200
Social services/related occupations	239,800	192,500	5,700	29,500	10,600	1,400	12,000	9,000	800	1,900	300	S
Technologists and technicians	65,900	48,600	13,400	2,100	1,800	S	9,800	7,100	2,600	S	100	S
Sales and marketing occupations	196,000	167,400	14,700	9,000	4,600	S	11,800	9,700	1,300	400	400	S
Art, humanities and related occupations	48,800	42,900	2,000	2,200	1,700	S	6,000	5,600	200	100	100	S
Other non-S&E occupations	226,600	185,200	15,900	15,200	10,000	300	25,000	21,600	1,400	900	1,100	S

S data with weighted values less than 50 or fewer than 5 respondents are suppressed for reasons of respondent confidentiality and/or data reliability

[a]Total includes first-professional degrees not shown separately.

[b]Total includes "other" race/ethnicity not shown separately.

NOTES: "Scientists and engineers" include all people holding a bachelor's degree or higher in an S&E field plus people holding a non-S&E bachelor's degree or higher who were employed in an S&E occupation in 1993. Figures are rounded to the nearest hundred. Details may not add to totals because of rounding.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Scientists and Engineers Statistical Data System (SESTAT).

Appendix table 6-9
Employed scientists and engineers in the United States, by occupation, highest degree, and disability status: 1999

Occupation	All degrees[a]		Bachelor's		Master's		Doctorate	
	Without disabilities	With disabilities	Without disabilities	With disabilities	Without disabilities	With disabilities	Without disabilities	With disabilities
All occupations	10,237,000	744,600	5,906,800	443,300	2,769,400	212,600	687,500	49,200
S&E occupations	3,334,900	206,000	1,877,600	116,800	975,200	56,800	453,200	30,900
Computer/mathematical scientists	1,099,400	67,900	696,900	43,600	334,200	19,900	62,700	4,400
Computer/information scientists	999,700	58,400	674,300	41,100	289,300	15,600	30,700	1,700
Mathematical scientists	33,900	2,400	11,100	S	15,300	700	7,400	400
mathematics teachers	65,800	7,200	11,500	1,200	29,600	3,700	24,600	2,300
Life and related scientists	321,700	20,200	127,500	8,000	68,800	3,800	113,700	7,400
Agricultural/food scientists	37,200	2,500	18,500	1,700	10,400	S	8,300	900
Biological scientists	195,800	10,800	83,600	4,300	39,800	2,900	66,600	3,300
Environmental life scientists	18,700	1,100	13,800	S	3,900	S	1,100	100
Postsecondary life science teachers	70,100	5,800	11,600	1,200	14,700	700	37,700	3,100
Physical and related scientists	281,400	16,500	132,900	6,700	67,900	5,100	80,100	4,800
Chemists	116,200	5,600	67,400	3,000	21,800	1,200	26,900	1,300
oceanographers	67,900	4,900	35,600	2,300	22,300	1,900	9,700	600
Physicists and astronomers	29,400	1,000	7,200	S	8,200	200	14,000	700
Other physical scientists	20,000	2,200	12,000	S	6,300	1,100	1,700	S
science teachers	47,800	2,800	10,700	S	9,300	600	27,800	2,100
Social and related scientists	342,900	20,600	70,100	1,400	146,900	9,000	117,200	9,700
Economists	32,900	2,500	11,000	S	14,400	800	7,500	600
Political scientists	11,400	200	5,800	S	4,200	S	1,200	200
Psychologists	185,500	11,500	31,600	S	95,600	6,800	54,000	3,900
Sociologists/anthropologists	17,000	600	6,900	S	6,600	S	3,500	200
Other social scientists	13,100	500	4,500	S	5,500	S	2,000	400
science teachers	83,000	5,200	10,400	S	20,500	900	49,000	4,200
Engineers	1,289,500	80,800	850,300	57,100	357,500	19,100	79,600	4,600
Aerospace engineers	62,600	4,800	33,400	2,900	24,700	1,700	4,400	200
Chemical engineers	76,800	3,000	48,900	2,200	20,200	500	7,700	300
Civil engineers	210,500	13,100	151,700	9,100	53,600	3,700	4,800	300
Electrical engineers	340,100	22,100	218,200	15,400	103,700	5,700	17,400	1,000
Industrial engineers	75,100	6,000	57,300	5,400	16,800	600	1,000	S
Mechanical engineers	251,300	14,400	182,800	11,500	59,500	2,500	8,600	400
Other engineers	243,400	15,300	153,100	10,000	72,600	4,300	17,700	1,000
Postsecondary engineering teachers	29,400	2,000	5,000	S	6,600	S	17,900	1,300
Non-S&E occupations	6,902,200	538,600	4,029,200	326,400	1,794,100	155,700	234,300	18,300
Managers and administrators	1,887,800	147,800	1,068,800	88,000	675,700	50,900	92,000	6,500
Health-related occupations	813,600	34,500	290,700	13,600	95,800	4,700	23,300	1,700
postsecondary teachers	628,200	55,500	336,100	25,200	276,400	27,900	10,100	1,400
Non-S&E postsecondary teachers	115,900	8,100	16,700	1,800	38,500	2,900	49,800	3,200
Social services/related occupations	434,500	41,400	199,600	15,700	216,300	23,500	10,500	1,500
Technologists and technicians	366,200	20,900	292,600	17,000	63,100	2,900	9,000	800
Sales and marketing occupations	870,500	73,300	667,500	56,300	181,600	14,500	10,500	1,300
Art, humanities, and related occupations	150,700	14,200	98,500	8,900	44,500	4,300	5,600	400
Other non-S&E occupations	1,634,600	143,100	1,058,800	99,900	202,300	24,300	23,500	1,500

S data with weighted values less than 50 or fewer than 5 respondents are suppressed for reasons of respondent confidentiality and/or data reliability
[a]Total includes first-professional degrees not shown separately

NOTES: "Scientists and engineers" include all people holding a bachelor's degree or higher in an S&E field plus people holding a non-S&E bachelor's degree or higher who were employed in an S&E occupation in 1993. Figures are rounded to the nearest hundred. Details may not add to totals because of rounding.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Scientists and Engineers Statistical Data System (SESTAT).

Appendix table 6-10
Employed scientists and engineers, by broad occupation, employment sector, sex, race/ethnicity, and disability status: 1999

Occupation and employment sector	Total	Sex		Race/ethnicity[a]					Disability status	
		Male	Female	White	Asian/ Pacific Islander	Black	Hispanic	American Indian/ Alaskan Native	Without disabilities	With disabilities
All occupations	10,981,600	7,171,500	3,810,200	9,124,600	805,900	597,100	417,200	33,300	10,237,000	744,600
Pre-/elementary/middle/ secondary school	845,200	311,400	533,800	702,600	22,100	75,100	42,500	2,700	778,800	66,400
2-year college	109,100	56,500	52,600	86,900	5,100	11,100	5,600	500	97,200	11,900
4-year college or university	1,068,100	600,000	468,100	851,200	103,200	61,500	47,600	3,200	1,002,000	66,200
Private for-profit	5,586,800	4,067,600	1,519,200	4,678,500	478,000	229,600	185,500	14,800	5,247,800	339,000
Private not-for-profit	708,700	318,000	390,600	589,300	35,800	49,000	31,800	2,200	667,000	41,700
Self-employed, not incorporated	726,600	494,100	232,400	657,800	32,800	13,400	21,000	1,600	660,000	66,500
Self-employed, incorporated	518,300	383,600	134,700	458,300	33,400	14,400	10,900	800	473,700	44,600
Local government	384,100	231,000	153,100	285,000	28,000	43,400	25,300	2,200	357,800	26,300
State government	446,100	271,200	174,900	353,200	21,500	48,500	20,500	2,200	410,200	36,000
U.S. military	92,800	81,500	11,400	77,000	4,700	6,300	4,600	200	89,700	3,100
U.S. government	480,200	346,200	134,000	375,500	38,600	42,800	19,800	2,800	438,200	42,000
Other non-educational institution	15,700	10,400	5,300	9,300	2,500	1,900	1,900	S	14,700	900
All S&E occupations	3,540,800	2,705,000	835,800	2,896,600	390,500	121,600	120,900	10,600	3,334,900	206,000
Pre-/elementary/middle/ secondary school	41,600	15,700	25,900	37,100	700	1,500	2,200	S	39,700	1,900
2-year college	56,700	34,400	22,300	48,700	2,000	3,300	2,500	200	50,800	5,900
4-year college or university	510,100	335,500	174,600	416,600	55,500	17,700	18,400	1,600	481,600	28,700
Private for-profit	2,172,400	1,762,400	409,900	1,763,200	265,500	67,700	70,000	5,800	2,054,900	117,500
Private not-for-profit	114,000	62,500	51,500	95,600	8,100	4,100	5,600	600	106,500	7,500
Self-employed, not incorporated	105,200	67,900	37,300	98,500	4,000	500	2,000	200	97,400	7,800
Self-employed, incorporated	84,600	68,900	15,600	74,700	6,100	2,000	1,600	S	78,300	6,300
Local government	77,100	58,800	18,300	54,900	12,700	3,800	5,300	400	74,000	3,100
State government	131,700	99,600	32,100	107,000	11,300	7,200	5,500	600	123,500	8,200
U.S. military	21,500	19,100	2,400	16,700	2,000	1,900	800	100	20,800	700
U.S. government	219,600	175,500	44,200	179,300	21,400	11,500	6,400	800	201,500	18,100
Other non-educational institution	6,400	4,600	1,800	4,300	1,200	300	600	S	6,000	400
Computer and mathematical scientists	1,167,400	850,600	316,700	922,200	153,600	51,400	37,600	2,700	1,099,400	67,900
Pre-/elementary/middle/ secondary school	7,800	4,600	3,100	6,800	S	S	S	S	7,800	S
2-year college	26,000	15,900	10,100	21,400	1,300	2,100	1,200	S	22,100	3,900
4-year college or university	98,500	64,400	34,200	81,800	10,300	3,000	2,700	100	91,700	5,900
Private for-profit	855,300	637,800	217,500	665,300	125,100	34,800	27,900	2,200	812,000	43,300
Private not-for-profit	35,600	19,400	16,100	31,100	2,400	1,200	800	S	32,400	3,200
Self-employed, not incorporated	21,500	16,800	4,700	19,900	1,300	S	300	S	20,500	1,000
Self-employed, incorporated	30,100	25,800	4,300	24,800	3,400	1,500	S	S	28,600	1,400
Local government	12,900	7,900	5,000	7,900	2,800	900	1,200	S	11,500	1,400
State government	25,700	17,200	8,500	20,100	2,000	2,100	1,500	S	25,400	S
U.S. military	6,500	6,000	500	5,700	S	S	S	S	6,200	S
U.S. government	46,100	34,000	12,100	36,700	4,200	4,200	1,000	S	39,800	6,300
Other non-educational institution	1,400	800	500	800	S	S	S	S	1,300	S

See explanatory information and SOURCE at end of table.

Appendix table 6-10
Employed scientists and engineers, by broad occupation, employment sector, sex, race/ethnicity, and disability status: 1999

Occupation and employment sector	Total	Sex		Race/ethnicity[a]					Disability status	
		Male	Female	White	Asian/ Pacific Islander	Black	Hispanic	American Indian/ Alaskan Native	Without disabilities	With disabilities
Life and related scientists	341,900	217,500	124,400	285,100	37,700	6,600	10,900	1,500	321,700	20,200
Pre-/elementary/middle/ secondary school	S	S	S	S	S	S	S	S	S	S
2-year college	10,500	5,500	4,900	9,400	200	400	500	S	9,500	1,000
4-year college or university	152,300	92,500	59,900	124,000	18,900	3,000	5,800	200	144,200	8,100
Private for-profit	87,900	56,700	31,200	73,500	10,700	1,200	2,300	200	84,000	4,000
Private not-for-profit	12,800	6,600	6,200	9,900	2,400	100	300	100	12,300	500
Self-employed, not incorporated	8,000	4,700	3,200	7,400	300	S	300	S	7,700	300
Self-employed, incorporated	4,500	3,900	700	4,300	200	S	S	S	3,700	900
Local government	8,600	5,500	3,100	5,800	1,100	S	1,000	S	8,600	S
State government	19,900	13,600	6,300	18,600	700	S	200	300	18,000	1,900
U.S. military	700	300	400	600	S	S	S	S	700	S
U.S. government	36,000	27,600	8,400	31,200	2,800	1,400	300	200	32,900	3,100
Other non-educational institution	200	100	S	100	S	S	S	S	200	S
Physical and related scientists	297,900	229,400	68,400	252,500	27,800	8,800	7,800	900	281,400	16,500
Pre-/elementary/middle/ secondary school	S	S	S	S	S	S	S	S	S	S
2-year college	7,300	5,500	1,900	6,600	300	300	100	S	7,000	300
4-year college or university	75,000	57,900	16,900	64,000	7,500	1,000	1,800	300	71,500	3,300
Private for-profit	142,800	108,600	34,200	119,100	15,100	4,300	3,900	400	134,500	8,300
Private not-for-profit	6,100	4,900	1,200	5,000	400	100	500	S	6,000	100
Self-employed, not incorporated	6,300	5,900	400	6,000	100	S	S	S	5,200	1,000
Self-employed, incorporated	5,700	4,100	1,700	5,300	300	S	S	S	5,400	S
Local government	6,800	5,400	1,400	5,500	800	S	S	S	6,600	S
State government	16,200	11,800	4,300	13,900	1,100	1,000	200	S	14,400	1,800
U.S. military	3,300	3,000	S	2,800	S	S	S	S	3,300	S
U.S. government	28,000	21,900	6,100	23,800	2,200	1,100	900	S	27,000	1,100
Other non-educational institution	300	300	S	300	S	S	S	S	300	S
Social and related scientists	363,400	167,300	196,200	314,400	14,800	17,200	15,500	1,500	342,900	20,600
Pre-/elementary/middle/ secondary school	32,500	9,700	22,800	29,500	300	1,100	1,600	S	31,200	1,400
2-year college	9,400	4,600	4,800	8,400	100	500	400	S	9,000	400
4-year college or university	122,000	65,900	56,200	100,500	7,400	7,600	5,400	700	115,900	6,100
Private for-profit	52,700	23,200	29,500	47,400	2,800	1,100	1,500	S	49,300	3,400
Private not-for-profit	41,600	15,500	26,100	34,400	1,300	2,700	3,100	S	39,300	2,300
Self-employed, not incorporated	44,500	16,500	27,900	42,800	700	300	600	100	41,200	3,300
Self-employed, incorporated	13,800	5,400	8,400	13,200	100	S	200	S	13,300	500
Local government	9,300	4,200	5,100	7,500	S	400	1,100	S	8,900	400
State government	18,400	10,800	7,600	15,900	600	1,500	300	100	16,600	1,800
U.S. military	1,100	400	700	500	S	S	S	S	1,100	S
U.S. government	15,500	9,300	6,200	12,800	500	1,300	700	100	14,800	800
Other non-educational institution	2,600	1,700	1,000	1,600	600	S	400	S	2,500	S

See explanatory information and SOURCE at end of table.

Appendix table 6-10

Employed scientists and engineers, by broad occupation, employment sector, sex, race/ethnicity, and disability status: 1999

Page 3 of 3

Occupation and employment sector	Total	Sex		Race/ethnicity[a]					Disability status	
		Male	Female	White	Asian/ Pacific Islander	Black	Hispanic	American Indian/ Alaskan Native	Without disabilities	With disabilities
Engineers	1,370,300	1,240,200	130,000	1,122,400	156,600	37,700	49,100	4,100	1,289,500	80,800
Pre-/elementary/middle/ secondary school	900	900	S	S	S	S	S	S	700	S
2-year college	3,400	2,800	600	2,900	S	S	S	S	3,300	S
4-year college or university	62,400	55,000	6,700	46,400	11,200	1,800	2,100	S	58,100	4,300
Private for-profit	1,033,500	936,100	97,400	857,900	111,800	26,300	34,400	2,900	975,100	58,400
Private not-for-profit	18,000	16,000	1,900	15,200	1,600	S	900	200	16,500	1,400
Self-employed, not incorporated	25,000	23,900	1,100	22,400	1,600	200	800	S	22,800	2,200
Self-employed, incorporated	30,400	29,800	600	27,100	2,100	300	900	S	27,400	3,100
Local government	39,400	35,700	3,700	28,100	7,700	1,500	1,900	S	38,400	1,000
State government	51,500	46,100	5,400	38,600	6,800	2,500	3,200	S	49,100	2,500
U.S. military	9,800	9,400	400	7,000	1,400	1,000	400	S	9,500	S
U.S. government	94,000	82,700	11,200	74,700	11,600	3,500	3,600	400	87,000	6,900
Other non-educational institution	2,000	1,700	300	1,500	S	S	S	S	1,800	S
Non-S&E occupations	7,440,800	4,466,400	2,974,300	6,228,100	415,400	475,500	296,300	22,700	6,902,200	538,600
Pre-/elementary/middle/secondary school	803,600	295,700	507,900	665,500	21,400	73,600	40,300	2,700	739,100	64,500
2-year college	52,400	22,100	30,300	38,200	3,000	7,700	3,100	400	46,400	6,000
4-year college or university	558,000	264,400	293,500	434,500	47,800	43,900	29,300	1,400	520,400	37,400
Private for-profit	3,414,500	2,305,100	1,109,300	2,915,300	212,500	161,900	115,500	9,000	3,192,900	221,600
Private not-for-profit	594,700	255,500	339,200	493,800	27,700	44,900	26,200	1,600	560,500	34,200
Self-employed, not incorporated	621,400	426,200	195,200	559,400	28,800	12,800	19,000	1,300	562,700	58,700
Self-employed, incorporated	433,700	314,700	119,000	383,600	27,300	12,400	9,300	700	395,400	38,300
Local government	307,000	172,200	134,800	230,100	15,300	39,600	20,000	1,900	283,800	23,300
State government	314,400	171,600	142,800	246,200	10,300	41,400	15,000	1,500	286,700	27,700
U.S. military	71,400	62,400	9,000	60,300	2,700	4,400	3,800	100	69,000	2,400
U.S. government	260,500	170,700	89,800	196,200	17,300	31,300	13,400	1,900	236,700	23,800
Other non-educational institution	9,300	5,800	3,500	5,000	1,300	1,600	1,300	S	8,700	S

S data with weighted values less than 50 or fewer than 5 respondents are suppressed for reasons of respondent confidentiality and/or data reliability

[a]Total includes "other" race/ethnicity not shown separately.

NOTES: "Scientists and engineers" include all people holding a bachelor's degree or higher in an S&E field plus people holding a non-S&E bachelor's degree or higher who were employed in an S&E occupation in 1993. Figures are rounded to the nearest hundred. Details may not add to totals because of rounding.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Scientists and Engineers Statistical Data System (SESTAT).

Appendix table 6-11

Participation of employed scientists and engineers in work-related training, by type of training, broad occupation, sex, race/ethnicity, and disability status: 1999

Type of training attended[a] and occupation	Total	Sex		Race/ethnicity[b]					Disability status	
		Male	Female	White	Asian/Pacific Islander	Black	Hispanic	American Indian/ Alaskan Native	Without disabilities	With disabilities
	Number participating in work-related training during the past year									
All work-related training, all occupations	7,611,800	4,894,300	2,717,500	6,322,800	514,000	453,400	294,600	24,200	7,109,700	502,000
S&E occupations	2,384,700	1,795,200	589,500	1,946,000	255,100	91,000	84,600	7,600	2,251,900	132,900
Science occupations	1,432,900	939,800	493,100	1,167,600	148,600	62,800	49,200	4,600	1,353,100	79,800
Computer/math scientists	785,700	559,900	225,700	612,200	105,600	40,100	26,000	1,700	742,400	43,300
Life/related scientists	210,000	135,900	74,100	178,200	20,000	4,100	6,500	1,200	198,600	11,400
Physical/related scientists	176,300	133,700	42,600	148,800	15,900	6,000	4,900	600	165,600	10,700
Social/related scientists	260,900	110,300	150,600	228,300	7,100	12,600	11,800	1,000	246,400	14,500
Engineering occupations	951,800	855,400	96,400	778,400	106,400	28,200	35,400	3,000	898,800	53,000
Non-S&E occupations	5,227,000	3,099,100	2,127,900	4,376,800	258,900	362,400	210,000	16,700	4,857,900	369,200
	Percent of those participating in training who participated in each type of training									
Management/supervisor training, all occupations	30.1	33.2	24.3	29.9	27.3	35.1	30.0	28.5	29.8	33.1
S&E occupations	26.1	28.1	20.1	26.0	25.0	28.0	30.0	25.0	26.2	24.4
Science occupations	21.6	23.4	18.2	21.1	23.2	24.0	25.2	21.7	21.6	21.9
Computer/math scientists	23.7	24.2	22.4	23.2	24.1	25.7	30.0	S	23.8	22.2
Life/related scientists	24.3	26.3	20.5	24.5	18.5	26.8	32.3	33.3	24.1	28.1
Physical/related scientists	20.8	22.7	14.8	20.1	22.0	30.0	28.6	16.7	20.4	27.1
Social/related scientists	13.6	16.4	11.6	13.3	26.8	15.9	10.2	20.0	13.7	12.4
Engineering occupations	32.9	33.3	30.0	33.4	27.6	36.5	36.4	30.0	33.2	28.1
Non-S&E occupations	31.9	36.2	25.5	31.7	29.5	36.9	30.0	29.9	31.5	36.3
Occupational training, all occupations	87.3	86.3	89.2	87.2	87.4	88.8	88.0	87.2	87.5	84.8
S&E occupations	87.1	86.6	88.7	86.8	88.4	90.3	87.0	86.8	87.2	86.0
Science occupations	88.9	88.6	89.4	88.7	90.6	89.2	89.0	82.6	88.8	90.0
Computer/math scientists	89.9	89.8	90.1	89.0	93.6	92.5	91.2	94.1	89.8	91.2
Life/related scientists	85.2	85.2	85.2	85.4	85.0	80.5	86.2	75.0	85.1	86.0
Physical/related scientists	85.1	85.2	84.5	85.8	79.2	81.7	85.7	83.3	85.1	84.1
Social/related scientists	91.5	90.9	92.0	92.3	87.3	85.7	87.3	90.0	91.4	93.1
Engineering occupations	84.5	84.5	84.6	84.1	85.5	92.6	84.2	93.3	84.8	80.0
Non-S&E occupations	87.4	86.0	89.4	87.3	86.4	88.5	88.4	86.8	87.6	84.4

See explanatory information and SOURCE at end of table.

Appendix table 6-11

Participation of employed scientists and engineers in work-related training, by type of training, broad occupation, sex, race/ethnicity, and disability status: 1999

Type of training attended[a] and occupation	Total	Sex		Race/ethnicity[b]					Disability status	
		Male	Female	White	Asian/Pacific Islander	Black	Hispanic	American Indian/ Alaskan Native	Without disabilities	With disabilities
	Percent of those participating in training who participated in each type of training									
General professional training, all occupations	22.8	22.7	22.9	22.2	23.1	27.9	27.2	23.1	22.5	26.9
S&E occupations	22.0	21.6	23.4	21.2	23.8	28.7	29.0	23.7	21.9	24.5
Science occupations	20.4	19.6	22.0	19.5	20.9	28.8	28.7	26.1	20.3	21.8
Computer/math scientists	20.4	19.4	22.8	19.8	18.4	26.4	31.2	23.5	20.3	21.0
Life/related scientists	23.5	21.4	27.3	22.6	24.0	41.5	32.3	33.3	23.3	27.2
Physical/related scientists	20.0	18.9	23.5	18.4	28.9	28.3	30.6	16.7	20.1	18.7
Social/related scientists	18.3	19.0	17.7	16.9	31.0	32.5	21.2	30.0	18.1	22.1
Engineering occupations	24.5	23.8	30.7	23.7	27.8	28.4	29.1	20.0	24.3	28.5
Non-S&E occupations	23.1	23.3	22.8	22.6	22.4	27.8	26.5	22.8	22.8	27.8

S data with weighted values less than 50 or fewer than 5 respondents are suppressed for reasons of respondent confidentiality and/or data reliability

[a]Includes management/supervisory training, training in one's occupational field, and general professional training (e.g., public speaking, business writing).

[b]Total includes "other" race/ethnicity not shown separately.

NOTES: "Scientists and engineers" include all people holding a bachelor's degree or higher in an S&E field plus people holding a non-S&E bachelor's degree or higher who were employed in an S&E occupation in 1993. Figures are rounded to the nearest hundred. Details may not add to totals because of rounding and because individuals could participate in more than one type of training.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Scientists and Engineers Statistical Data System (SESTAT).

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 6-12

Reasons for attending work-related training in the past year, by broad occupation, sex, race/ethnicity, and disability status: 1999

(Percent of those attending)

Reason for attending training and occupation	Total	Sex		Race/ethnicity[a]					Disability status	
		Male	Female	White	Asian/Pacific Islander	Black	Hispanic	American Indian/Alaskan Native	Without disabilities	With disabilities
Facilitate change in occupational field										
All occupations	13.8	13.5	14.4	12.5	19.5	20.8	21.8	19.8	13.8	14.8
S&E occupations	13.5	13.4	13.8	11.8	20.5	20.5	21.9	15.8	13.3	15.4
Scientists	14.6	15.0	13.7	12.9	21.7	21.7	23.4	19.6	14.3	19.5
Computer/math scientists	17.2	17.5	16.4	15.3	23.4	22.9	26.5	47.1	17.1	18.5
Life/related scientists	11.6	10.7	13.1	10.3	16.5	19.5	26.2	8.3	11.0	22.8
Physical/related scientists	12.5	11.7	14.6	11.2	22.6	13.3	18.4	S	11.7	24.3
Social/related scientists	10.5	11.6	9.7	9.6	8.5	22.2	16.9	S	10.1	16.6
Engineers	11.8	11.5	14.1	10.2	19.0	18.1	19.8	6.7	11.9	9.2
Non-S&E occupations	14.0	13.6	14.5	12.8	18.4	20.8	21.7	21.6	13.9	14.6
Gain further skills/knowledge in occupational field										
All occupations	93.2	92.7	94.1	93.2	93.4	93.8	93.7	92.6	93.3	92.0
S&E occupations	93.1	92.8	93.8	92.9	94.1	93.8	93.4	88.2	93.1	92.2
Scientists	93.6	93.2	94.3	93.3	95.6	94.3	94.5	89.1	93.6	93.0
Computer/math scientists	94.8	94.4	95.7	94.3	97.0	95.0	95.8	94.1	94.7	96.3
Life/related scientists	91.1	90.8	91.8	90.8	93.5	95.1	90.8	83.3	91.4	86.0
Physical/related scientists	90.1	90.5	88.7	90.2	90.6	83.3	95.9	83.3	90.0	90.7
Social/related scientists	94.5	93.7	95.1	94.5	93.0	96.8	94.1	100.0	94.8	90.3
Engineers	92.3	92.4	91.2	92.4	92.0	92.9	91.8	90.0	92.4	91.1
Non-S&E occupations	93.3	92.7	94.2	93.3	92.7	93.8	93.8	93.4	93.4	92.0
Licensure/certification										
All occupations	31.0	30.3	32.4	31.5	24.1	31.1	31.6	39.7	31.1	29.9
S&E occupations	20.5	19.4	24.0	20.6	17.2	25.1	22.0	34.2	20.6	20.2
Scientists	22.1	20.8	24.6	22.4	17.8	22.5	26.8	34.8	22.2	21.1
Computer/math scientists	16.0	17.4	12.4	14.9	18.5	19.2	25.4	41.2	16.1	13.9
Life/related scientists	23.6	24.6	21.9	24.9	16.0	4.9	21.5	25.0	24.2	14.0
Physical/related scientists	15.7	15.0	18.1	15.9	11.3	18.3	18.4	50.0	15.9	13.1
Social/related scientists	43.7	40.8	45.9	44.9	26.8	40.5	35.6	40.0	43.1	54.5
Engineers	18.2	17.9	20.9	18.0	16.5	30.9	15.5	33.3	18.1	18.9
Non-S&E occupations	35.8	36.6	34.7	36.4	30.8	32.6	35.5	41.9	36.0	33.5
All occupations	37.4	38.1	36.1	36.0	43.4	45.4	42.5	46.3	37.6	33.8
S&E occupations	42.7	43.2	41.0	40.8	49.7	55.8	51.3	50.0	43.0	37.3

See explanatory information and SOURCE at end of table.

Appendix table 6-12

Reasons for attending work-related training in the past year, by broad occupation, sex, race/ethnicity, and disability status: 1999

(Percent of those attending)

Reason for attending training and occupation	Total	Sex		Race/ethnicity[a]					Disability status	
		Male	Female	White	Asian/Pacific Islander	Black	Hispanic	American Indian/Alaskan Native	Without disabilities	With disabilities
Scientists	42.6	44.0	39.9	40.5	50.4	55.1	51.0	52.2	42.8	38.5
Computer/math scientists	51.0	51.7	49.3	48.9	56.6	63.3	58.1	70.6	51.2	48.3
Life/related scientists	35.0	32.9	38.9	33.8	38.0	48.8	49.2	50.0	35.6	25.4
Physical/related scientists	36.8	35.8	40.1	36.4	34.0	45.0	42.9	50.0	36.7	37.4
Social/related scientists	27.1	28.2	26.3	25.8	29.6	35.7	39.8	30.0	27.5	20.0
Engineers	42.8	42.4	46.7	41.1	48.7	57.4	51.7	50.0	43.3	35.7
Non-S&E occupations	34.9	35.1	34.7	33.9	37.2	42.8	38.9	43.7	35.1	32.5
Learn skills or knowledge needed for recently acquired position										
All occupations	29.7	28.3	32.3	28.3	38.9	33.8	37.4	37.6	29.8	28.2
S&E occupations	31.6	30.9	33.8	29.7	42.5	36.9	37.6	36.8	31.6	31.2
Scientists	32.0	31.8	32.4	30.0	43.7	36.1	37.8	39.1	32.0	32.1
Computer/math scientists	37.5	36.8	39.4	35.8	45.7	39.7	41.2	52.9	37.7	34.9
Life/related scientists	26.0	24.1	29.4	24.2	40.5	24.4	27.7	33.3	25.7	29.8
Physical/related scientists	26.7	25.4	30.5	25.3	38.4	28.3	28.6	33.3	26.1	35.5
Social/related scientists	23.8	23.5	24.0	22.1	36.6	31.7	39.0	30.0	23.8	23.4
Engineers	31.0	29.9	40.6	29.1	40.6	38.7	37.6	30.0	31.1	29.8
Non-S&E occupations	28.9	26.8	31.8	27.7	35.5	33.0	37.2	37.7	29.0	27.1
Attendance required/expected by employer										
All occupations	50.3	49.3	52.1	49.6	47.2	60.0	53.9	60.3	50.2	51.6
S&E occupations	49.5	50.5	46.6	49.4	47.2	56.9	52.2	50.0	49.6	48.8
Scientists	47.0	48.0	44.9	46.5	46.4	55.6	50.0	45.7	47.0	46.1
Computer/math scientists	48.7	49.1	47.9	48.3	47.9	56.6	51.5	41.2	48.8	48.0
Life/related scientists	46.9	47.4	46.0	47.3	43.0	39.0	47.7	66.7	47.4	37.7
Physical/related scientists	50.2	50.0	50.5	50.7	45.3	53.3	49.0	50.0	49.9	54.2
Social/related scientists	39.6	41.2	38.4	38.2	35.2	58.7	48.3	30.0	39.5	40.7
Engineers	53.4	53.2	55.2	53.8	48.4	59.9	55.4	56.7	53.4	53.0
Non-S&E occupations	50.6	48.5	53.7	49.7	47.3	60.8	54.6	64.7	50.5	52.6

S data with weighted values less than 50 or fewer than 5 respondents are suppressed for reasons of respondent confidentiality and/or data reliability

[a]Total includes "other" race/ethnicity not shown separately.

NOTES: "Scientists and engineers" include all people holding a bachelor's degree or higher in an S&E field plus people holding a non-S&E bachelor's degree or higher who were employed in an S&E occupation in 1993. Figures are rounded to the nearest hundred. Details may not add to totals because of rounding.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Scientists and Engineers Statistical Data System (SESTAT).

Appendix table 6-13

Median annual salary of full-time employed scientists and engineers, by broad occupation, age group, sex, and highest degree level: 1999

(Dollars)

Occupation and age	All degree levels[a]			Bachelor's			Master's			Doctorate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
All occupations	54,500	60,000	40,400	49,000	55,000	36,000	58,000	65,000	45,000	70,000	74,500	56,100
29 or younger	34,000	39,000	30,000	32,700	37,600	29,000	38,500	46,500	34,000	49,000	60,000	35,000
30–39	53,000	59,000	43,000	50,000	55,000	40,000	56,000	61,000	45,000	60,000	63,400	52,000
40–49	60,000	67,500	46,000	55,000	60,000	40,000	61,300	70,000	49,000	69,000	72,000	56,800
50 or older	60,000	68,400	46,000	56,000	60,000	41,000	60,000	66,000	48,000	76,000	80,000	60,000
S&E occupations	60,000	64,000	50,300	59,000	60,000	50,000	64,000	68,000	50,000	70,000	72,000	58,000
29 or younger	43,000	45,000	38,000	42,000	45,000	38,000	45,000	50,000	36,000	50,000	60,000	35,000
30–39	60,000	60,000	52,000	58,200	60,000	52,000	60,000	62,000	50,000	60,000	63,000	53,000
40–49	67,000	70,000	58,000	65,000	67,000	56,000	70,000	72,000	59,000	68,000	70,000	59,000
50 or older	70,000	71,400	55,000	66,000	68,000	55,000	69,300	73,000	50,500	77,000	80,000	64,000
Computer and mathematical scientists	64,000	66,000	58,000	60,800	64,000	56,000	68,000	70,000	61,000	72,000	75,000	62,000
29 or younger	50,000	52,800	47,000	50,000	50,000	47,000	59,000	60,000	54,000	65,000	80,000	S
30–39	63,000	65,000	58,000	61,000	65,000	57,000	65,000	68,000	61,000	66,000	70,000	57,000
40–49	68,500	70,000	60,000	65,000	69,000	58,000	72,000	75,000	65,100	75,000	78,000	70,000
50 or older	66,000	70,000	60,000	64,000	65,000	57,000	69,000	72,500	60,000	74,500	75,800	66,800
Life and related scientists	49,000	52,000	40,000	37,000	41,500	33,600	43,800	46,000	41,000	67,000	70,000	60,000
29 or younger	26,000	25,000	26,000	25,000	25,000	25,000	28,100	21,000	31,000	29,000	S	S
30–39	40,000	42,000	38,000	36,000	39,900	33,600	38,000	36,000	39,200	54,000	54,000	54,000
40–49	54,300	55,000	54,000	46,000	45,000	48,000	50,300	50,000	51,200	65,000	67,000	60,000
50 or older	62,000	67,000	49,300	50,000	52,000	S	49,300	52,000	46,000	78,000	80,000	70,900
Physical and related scientists	52,000	56,600	41,400	45,000	47,000	38,000	52,000	58,000	42,400	71,000	73,000	63,000
29 or younger	31,000	28,000	32,000	30,000	28,000	32,000	29,000	28,500	33,500	50,000	43,000	S
30–39	48,000	50,000	41,400	41,600	43,200	38,000	48,000	50,300	43,000	60,000	60,000	58,000
40–49	60,000	62,500	51,000	52,000	53,000	50,000	60,000	65,000	43,000	71,000	72,900	66,000
50 or older	68,900	71,000	50,000	55,200	62,000	49,000	62,000	66,000	50,000	80,000	81,000	74,000
Social and related scientists	47,100	54,000	40,000	30,000	35,000	29,700	41,000	47,500	38,000	60,000	64,000	52,900
29 or younger	29,000	30,000	28,000	28,000	27,000	28,000	30,000	32,000	29,000	40,600	S	38,000
30–39	40,000	46,000	37,000	30,000	S	28,000	36,000	35,000	36,000	48,000	51,000	45,000
40–49	51,000	55,300	46,700	45,000	S	S	46,000	49,000	44,000	56,000	60,000	52,000
50 or older	59,000	62,000	52,800	S	S	S	50,000	50,000	46,000	66,000	70,000	60,000
Engineers	65,000	65,000	55,700	60,000	62,000	52,000	70,000	70,000	61,000	80,000	80,000	68,000
29 or younger	46,000	46,000	45,000	45,000	45,000	45,000	50,000	50,000	48,000	62,000	62,000	S
30–39	60,000	60,000	58,200	59,900	60,000	55,700	64,000	65,000	62,000	70,600	71,500	66,000
40–49	70,000	70,000	64,000	68,500	70,000	60,000	75,000	75,000	72,000	78,700	79,000	70,000
50 or older	74,500	75,000	66,000	70,000	70,000	66,000	79,100	79,400	S	90,000	90,700	84,000
Non-S&E occupations	50,000	60,000	38,500	41,800	50,000	33,500	53,000	62,000	44,000	70,200	79,000	54,000
29 or younger	30,000	34,000	29,100	30,000	32,000	28,000	35,000	40,000	33,000	45,000	56,000	S
30–39	48,000	54,500	40,000	42,500	48,000	36,000	50,000	60,000	41,000	60,000	65,000	50,000
40–49	55,000	65,000	43,000	48,000	55,000	38,300	57,000	68,300	46,500	70,000	80,000	54,000
50 or older	57,000	65,000	43,600	50,000	56,000	40,000	55,000	60,000	46,000	75,000	80,000	56,000

S data with unweighted sample sizes less than 20 are suppressed for reasons of respondent confidentiality and/or data reliability

[a]Total includes first-professional degrees not shown separately.

NOTES: "Scientists and engineers" include all people holding a bachelor's degree or higher in an S&E field plus people holding a non-S&E bachelor's degree or higher who were employed in an S&E occupation in 1993. Median salaries are rounded to nearest hundred dollars.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Scientists and Engineers Statistical Data System (SESTAT).

Appendix table 6-14

Median annual salary of full-time employed scientists and engineers, by broad occupation, race/ethnicity, highest degree level, and age group: 1999

(Dollars)

Occupation and race/ethnicity[a]	All degrees[b]					Bachelor's					Master's					Doctorate				
	All ages	29 or younger	30–39	40–49	50 or older	All ages	29 or younger	30–39	40–49	50 or older	All ages	29 or younger	30–39	40–49	50 or older	All ages	29 or younger	30–39	40–49	50 or older
All occupations	54,500	34,000	53,000	60,000	60,000	49,000	32,700	50,000	55,000	56,000	58,000	38,500	56,000	61,300	60,000	70,000	49,000	60,000	69,000	76,000
White, non-Hispanic	55,000	33,900	54,000	62,000	62,300	50,000	32,000	50,000	57,900	58,500	58,200	38,000	55,500	63,000	60,000	70,000	43,000	59,500	69,500	77,000
Asian/Pacific Islander	56,000	42,000	60,000	61,000	60,000	48,000	40,000	51,700	52,000	51,000	63,000	55,000	62,000	68,000	66,000	72,000	62,000	66,000	73,000	80,000
Black, non-Hispanic	43,000	30,000	42,000	45,000	50,000	38,000	30,000	39,400	42,000	45,000	48,000	30,000	48,000	50,000	48,300	60,000	S	54,000	59,700	62,000
Hispanic	45,000	32,000	47,500	53,000	55,000	41,000	32,000	45,000	48,000	48,000	52,000	35,000	49,000	56,000	60,000	65,000	S	56,000	60,000	71,400
American Indian/Alaskan Native	42,500	30,000	47,500	42,000	54,000	39,000	29,000	46,000	40,000	51,000	48,500	S	48,500	40,000	53,000	60,000	S	49,000	53,000	65,000
S&E occupations	60,000	43,000	60,000	67,000	70,000	59,000	42,000	58,200	65,000	66,000	64,000	45,000	60,000	70,000	69,300	70,000	50,000	60,000	68,000	77,000
White, non-Hispanic	61,000	42,000	60,000	67,900	70,000	60,000	42,000	59,000	65,000	67,600	64,400	41,000	60,000	70,000	69,300	70,000	45,000	59,000	68,000	76,600
Asian/Pacific Islander	63,000	50,000	62,000	69,000	70,000	58,000	45,000	58,000	65,000	62,000	65,300	57,000	65,000	70,000	72,800	71,000	61,000	68,000	70,000	80,000
Black, non-Hispanic	53,000	44,500	51,600	57,000	59,000	50,600	44,000	50,000	57,000	55,000	54,000	42,000	54,000	58,000	55,000	62,000	S	51,000	56,000	70,000
Hispanic	55,000	42,000	55,000	60,000	60,000	53,500	42,000	55,000	60,000	60,000	58,000	40,000	55,000	62,000	61,000	60,000	S	56,000	56,000	75,000
American Indian/Alaskan Native	50,000	36,000	49,000	45,000	70,000	45,000	35,000	46,000	S	S	54,000	S	S	S	S	60,000	S	55,000	53,000	64,000
Computer and mathematical scientists	64,000	50,000	63,000	68,500	66,000	60,800	50,000	61,000	65,000	64,000	68,000	59,000	65,000	72,000	69,000	72,000	65,000	66,000	75,000	74,500
White, non-Hispanic	65,000	50,000	63,000	69,200	67,000	62,200	50,000	63,000	66,400	65,000	68,000	55,000	65,000	72,000	70,000	72,000	54,300	60,000	75,000	75,000
Asian/Pacific Islander	65,000	58,000	65,000	71,100	68,000	60,000	53,000	60,000	68,600	60,000	70,000	61,000	70,000	77,000	70,000	73,000	S	72,000	75,000	72,000
Black, non-Hispanic	54,000	45,000	54,000	55,900	60,000	50,000	45,000	53,000	54,000	S	60,000	55,000	61,000	63,900	59,000	71,000	S	51,000	58,700	71,000
Hispanic	59,000	50,000	60,000	65,000	53,500	57,000	50,000	59,000	65,000	S	66,000	70,000	70,000	72,000	S	65,000	S	76,000	65,000	58,000
American Indian/Alaskan Native	54,000	S	33,000	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Life and related scientists	49,000	26,000	40,000	54,300	62,000	37,000	25,000	36,000	46,000	50,000	43,800	28,100	38,000	50,300	49,300	67,000	29,000	54,000	65,000	78,000
White, non-Hispanic	50,000	26,000	40,000	55,000	63,000	38,000	25,000	36,000	48,000	50,000	45,000	28,100	37,000	50,700	49,800	68,000	S	52,500	65,000	78,000
Asian/Pacific Islander	48,000	29,000	46,300	53,500	67,000	35,000	26,000	S	S	S	41,000	S	40,000	S	S	64,000	S	60,000	60,000	80,000
Black, non-Hispanic	44,000	S	41,000	44,300	56,800	S	S	S	S	S	42,000	S	S	S	S	58,000	S	49,000	55,000	72,000
Hispanic	36,000	20,000	40,000	47,000	46,000	28,500	20,000	S	S	S	40,000	S	S	S	S	63,000	S	52,000	65,000	81,000
American Indian/Alaskan Native	39,000	S	39,000	S	S	S	S	S	S	S	S	S	S	S	S	62,000	S	56,000	S	S
Physical and related scientists	52,000	31,000	48,000	60,000	68,900	45,000	30,000	41,600	52,000	55,200	52,000	29,000	48,000	60,000	62,000	71,000	50,000	60,000	71,000	80,000
White, non-Hispanic	53,000	30,000	47,500	60,500	69,900	45,000	30,000	42,000	53,400	60,000	55,000	28,500	48,000	63,000	62,000	72,700	49,400	59,400	72,000	81,000

See explantory information and SOURCE at end of table.

Appendix table 6-14

Median annual salary of full-time employed scientists and engineers, by broad occupation, race/ethnicity, highest degree level, and age group: 1999

(Dollars)

Occupation and race/ethnicity[a]	All degrees[b]					Bachelor's					Master's					Doctorate				
	All ages	29 or younger	30-39	40-49	50 or older	All ages	29 or younger	30-39	40-49	50 or older	All ages	29 or younger	30-39	40-49	50 or older	All ages	29 or younger	30-39	40-49	50 or older
Asian/Pacific Islander	55,000	36,000	55,000	60,000	60,000	41,400	36,000	S	S	S	50,000	S	48,000	46,200	S	69,000	S	64,000	70,000	77,000
Black, non-Hispanic	43,000	29,000	41,700	44,700	53,000	43,000	S	S	S	S	44,700	S	S	S	S	60,000	S	60,000	55,000	75,000
Hispanic	43,000	29,000	39,000	46,600	70,000	37,000	29,000	S	S	S	36,000	S	39,000	S	S	67,000	S	61,700	52,500	76,000
American Indian/Alaskan Native	48,000	S	S	S	S	S	S	S	S	S	S	S	S	S	S	61,000	S	S	S	S
Social and related scientists	47,100	29,000	40,000	51,000	59,000	30,000	28,000	30,000	45,000	S	41,000	30,000	36,000	46,000	50,000	60,000	40,600	48,000	56,000	66,000
White, non-Hispanic	48,000	28,500	40,000	51,000	59,700	30,000	27,500	30,000	S	S	42,000	30,000	35,000	46,000	50,000	60,000	38,000	48,000	58,000	66,000
Asian/Pacific Islander	48,500	32,000	47,800	60,000	62,500	S	S	S	S	S	48,000	S	S	S	S	58,000	S	50,000	55,000	67,000
Black, non-Hispanic	40,000	19,000	30,000	45,000	52,000	S	S	S	S	S	35,000	S	33,000	S	S	60,000	S	46,000	53,000	67,000
Hispanic	40,000	26,000	42,000	42,000	45,000	27,000	24,000	S	S	S	42,000	S	42,000	S	S	52,000	S	47,500	47,000	70,500
American Indian/Alaskan Native	50,000	S	S	47,000	53,000	S	S	S	S	S	S	S	S	S	S	55,000	S	S	51,000	55,000
Engineers	65,000	46,000	60,000	70,000	74,500	60,000	45,000	59,900	68,500	70,000	70,000	50,000	64,000	75,000	79,100	80,000	62,000	70,600	78,700	90,000
White, non-Hispanic	65,000	45,000	60,000	70,000	75,000	62,000	45,000	60,000	70,000	70,000	71,000	49,500	65,000	75,000	80,000	80,000	65,000	71,000	80,000	92,000
Asian/Pacific Islander	64,800	48,000	61,000	70,000	72,000	59,100	45,000	59,000	64,000	63,000	68,000	55,000	60,000	70,000	75,000	78,000	56,000	72,000	76,000	90,000
Black, non-Hispanic	58,000	45,000	57,000	65,000	70,000	56,000	45,000	56,300	64,000	65,000	62,000	53,000	60,000	70,000	S	67,500	S	55,000	70,000	80,000
Hispanic	58,000	46,000	55,000	63,000	74,000	56,000	46,000	55,000	60,000	68,500	62,000	45,000	55,000	66,000	75,000	67,000	S	59,000	67,000	85,000
American Indian/Alaskan Native	57,000	S	52,000	60,000	S	55,000	S	S	S	S	S	S	S	S	S	83,000	S	S	S	S
Non-S&E occupations	50,000	30,000	48,000	55,000	57,000	41,800	30,000	42,500	48,000	50,000	53,000	35,000	50,000	57,000	55,000	70,200	45,000	60,000	70,000	75,000
White, non-Hispanic	50,000	30,000	49,000	59,000	60,000	43,000	30,000	44,000	50,000	52,000	55,000	35,000	50,000	59,000	56,000	72,000	35,000	60,000	72,000	77,000
Asian/Pacific Islander	46,800	36,000	50,000	50,000	50,000	40,000	35,000	45,000	40,000	43,000	54,000	46,000	55,000	60,000	53,600	75,000	S	56,000	85,000	80,000
Black, non-Hispanic	40,000	29,000	38,300	43,000	48,000	35,000	28,000	35,000	38,000	40,000	45,000	29,000	42,000	48,000	48,000	60,000	S	64,300	59,700	60,000
Hispanic	41,000	30,500	42,000	49,000	53,000	36,000	30,000	38,000	42,000	44,000	49,000	35,000	41,000	54,000	57,000	70,000	S	56,000	70,000	70,000
American Indian/Alaskan Native	40,000	27,000	45,500	40,000	52,000	36,800	27,000	39,000	38,000	50,000	45,000	S	S	40,000	52,000	50,000	S	S	52,500	65,000

S data with unweighted sample sizes less than 20 are suppressed for reasons of respondent confidentiality and/or data reliability

[a]Total includes "other" race/ethnicity not shown separately.

[b]Total includes first-professional degrees not shown separately.

NOTES: "Scientists and engineers" include all people holding a bachelor's degree or higher in an S&E field plus people holding a non-S&E bachelor's degree or higher who were employed in an S&E occupation in 1993. Median salaries are rounded to nearest hundred dollars.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Scientists and Engineers Statistical Data System (SESTAT).

Appendix table 6-15

Median annual salary of full-time employed scientists and engineers, by broad occupation, age group, sex, and race/ethnicity: 1999

(Dollars)

Occupation and age	All races/ethnicities[a]			Whites, non-Hispanic			Asians/Pacific Islanders			Blacks, non-Hispanic			Hispanics			American Indians/ Alaskan Natives		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
All occupations	54,500	60,000	40,400	55,000	62,000	41,000	56,000	60,000	46,000	43,000	48,800	38,500	45,000	52,000	37,000	42,500	50,000	35,000
29 or younger	34,000	39,000	30,000	33,900	38,000	30,000	42,000	46,000	38,000	30,000	35,000	29,000	32,000	36,000	30,000	30,000	35,000	26,000
30–39	53,000	59,000	43,000	54,000	60,000	43,200	60,000	61,800	52,000	42,000	49,000	38,000	47,500	51,300	40,000	47,500	49,000	40,000
40–49	60,000	67,500	46,000	62,000	69,000	47,000	61,000	67,000	52,000	45,000	50,000	42,000	53,000	58,400	45,000	42,000	49,800	37,500
50 or older	60,000	68,400	46,000	62,300	70,000	47,000	60,000	68,000	46,000	50,000	53,000	45,000	55,000	60,000	43,000	54,000	57,000	50,000
S&E occupations	60,000	64,000	50,300	61,000	65,000	50,000	63,000	65,000	57,500	53,000	55,000	48,000	55,000	58,000	45,000	50,000	53,000	42,000
29 or younger	43,000	45,000	38,000	42,000	44,900	36,000	50,000	51,000	45,000	44,500	45,000	41,000	42,000	45,000	33,000	36,000	45,000	S
30–39	60,000	60,000	52,000	60,000	60,000	50,000	62,000	63,000	60,000	51,600	52,500	50,000	55,000	56,000	50,000	49,000	48,000	52,500
40–49	67,000	70,000	58,000	67,900	70,000	57,000	69,000	70,000	64,000	57,000	58,000	55,000	60,000	62,000	50,000	45,000	60,000	43,100
50 or older	70,000	71,400	55,000	70,000	72,000	56,000	70,000	70,000	60,000	59,000	60,000	50,000	60,000	68,500	45,000	70,000	70,000	64,000
Computer and mathematical scientists	64,000	66,000	58,000	65,000	66,500	57,000	65,000	68,000	62,700	54,000	55,000	50,000	59,000	60,000	56,000	54,000	55,000	S
29 or younger	50,000	52,800	47,000	50,000	50,000	47,000	58,000	59,000	55,000	45,000	50,000	44,000	50,000	50,000	51,000	S	S	S
30–39	63,000	65,000	58,000	63,000	65,000	57,500	65,000	70,000	62,000	54,000	53,200	54,000	60,000	60,000	58,600	33,000	S	S
40–49	68,500	70,000	60,000	69,200	70,000	60,000	71,100	76,500	69,000	55,900	60,000	54,000	65,000	68,000	57,000	S	S	S
50 or older	66,000	70,000	60,000	67,000	70,000	60,000	68,000	70,000	60,000	60,000	59,000	66,000	53,500	60,000	S	S	S	S
Life and related scientists	49,000	52,000	40,000	50,000	52,700	40,000	48,000	52,000	42,000	44,000	51,000	36,000	36,000	40,000	34,000	39,000	36,000	46,100
29 or younger	26,000	25,000	26,000	26,000	25,000	27,000	29,000	32,000	26,000	S	S	S	20,000	S	23,700	S	S	S
30–39	40,000	42,000	38,000	40,000	41,800	37,000	46,300	47,700	46,300	41,000	47,100	35,000	40,000	38,000	40,000	39,000	S	S
40–49	54,300	55,000	54,000	55,000	56,000	55,000	53,500	56,000	51,200	44,300	47,000	40,000	47,000	48,000	40,000	S	S	S
50 or older	62,000	67,000	49,300	63,000	67,000	49,300	67,000	70,000	50,000	56,800	57,000	42,000	46,000	80,500	S	S	S	S
Physical and related scientists	52,000	56,600	41,400	53,000	58,000	41,000	55,000	60,000	50,000	43,000	43,000	43,000	43,000	46,000	30,000	48,000	48,500	S
29 or younger	31,000	28,000	32,000	30,000	28,000	32,000	36,000	36,000	S	29,000	S	S	29,000	28,800	S	S	S	S
30–39	48,000	50,000	41,400	47,500	50,000	40,000	55,000	54,000	55,000	41,700	45,000	38,000	39,000	46,000	26,800	S	S	S
40–49	60,000	62,500	51,000	60,500	63,000	50,000	60,000	64,000	55,000	44,700	38,000	S	46,600	48,000	S	S	S	S
50 or older	68,900	71,000	50,000	69,900	72,000	49,000	60,000	71,600	52,000	53,000	55,000	S	70,000	76,000	S	S	S	S
Social and related scientists	47,100	54,000	40,000	48,000	55,000	41,000	48,500	60,000	36,000	40,000	45,000	38,000	40,000	46,000	38,000	50,000	49,000	52,500
29 or younger	29,000	30,000	28,000	28,500	29,000	28,000	32,000	S	30,000	19,000	S	S	26,000	S	24,000	S	S	S
30–39	40,000	46,000	37,000	40,000	46,000	37,000	47,800	52,000	36,000	30,000	27,000	30,000	42,000	46,000	38,000	S	S	S
40–49	51,000	55,300	46,700	51,000	55,300	47,000	60,000	67,000	50,000	45,000	45,000	48,000	42,000	54,800	42,000	47,000	S	S
50 or older	59,000	62,000	52,800	59,700	63,000	53,000	62,500	68,000	50,000	52,000	60,000	40,600	45,000	62,000	45,000	53,000	S	S

See explanatory information and SOURCE at end of table.

Appendix table 6-15

Median annual salary of full-time employed scientists and engineers, by broad occupation, age group, sex, and race/ethnicity: 1999

(Dollars)

Occupation and age	All races/ethnicities[a]			Whites, non-Hispanic			Asians/Pacific Islanders			Blacks, non-Hispanic			Hispanics			American Indians/ Alaskan Natives		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Engineers	65,000	65,000	55,700	65,000	65,900	55,000	64,800	65,000	60,000	58,000	59,000	57,000	58,000	59,000	52,000	57,000	60,000	S
29 or younger	46,000	46,000	45,000	45,000	45,000	45,000	48,000	49,000	47,000	45,000	45,000	46,800	46,000	46,000	43,000	S	S	S
30–39	60,000	60,000	58,200	60,000	61,000	58,000	61,000	60,000	64,000	57,000	57,000	57,000	55,000	55,000	55,000	52,000	52,000	S
40–49	70,000	70,000	64,000	70,000	71,500	63,000	70,000	70,000	60,000	65,000	63,000	S	63,000	63,000	59,500	60,000	S	S
50 or older	74,500	75,000	66,000	75,000	75,000	66,000	72,000	72,000	60,000	70,000	70,000	S	74,000	74,000	S	S	S	S
Non-S&E occupations	50,000	60,000	38,500	50,000	60,000	39,000	46,800	52,000	40,000	40,000	45,000	37,000	41,000	48,000	35,000	40,000	49,000	32,000
29 or younger	30,000	34,000	29,100	30,000	34,000	29,000	36,000	36,500	35,000	29,000	31,000	28,000	30,500	32,500	30,000	27,000	33,000	24,000
30–39	48,000	54,500	40,000	49,000	55,000	40,000	50,000	59,000	44,000	38,300	44,000	35,000	42,000	45,000	36,000	45,500	50,000	36,800
40–49	55,000	65,000	43,000	59,000	67,700	44,000	50,000	59,000	41,000	43,000	45,000	41,400	49,000	55,000	45,000	40,000	45,000	37,500
50 or older	57,000	65,000	43,600	60,000	66,000	44,000	50,000	56,000	42,000	48,000	50,000	44,000	53,000	58,000	42,900	52,000	52,000	42,000

S data with unweighted sample sizes less than 20 are suppressed for reasons of respondent confidentiality and/or data reliability

[a]Total includes "other" race/ethnicity not shown separately.

NOTES: "Scientists and engineers" include all people holding a bachelor's degree or higher in an S&E field plus people holding a non-S&E bachelor's degree or higher who were employed in an S&E occupation in 1993. Median salaries are rounded to nearest hundred dollars.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Scientists and Engineers Statistical Data System (SESTAT).

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 6-16

Median annual salary of full-time employed scientists and engineers, by broad occupation, age group, disability status, and highest degree level: 1999

(Dollars)

Occupation and age	All degree levels[a]			Bachelor's			Master's			Doctorate		
	Total	Without disabilities	With disabilities	Total	Without disabilities	With disabilities	Total	Without disabilities	With disabilities	Total	Without disabilities	With disabilities
All occupations	54,500	55,000	52,000	49,000	49,000	48,800	58,000	58,000	53,000	70,000	70,000	70,000
29 or younger	34,000	34,100	31,000	32,700	33,000	30,000	38,500	39,000	35,000	49,000	52,000	S
30–39	53,000	53,000	48,000	50,000	50,000	45,000	56,000	56,000	45,000	60,000	60,000	55,500
40–49	60,000	60,700	52,000	55,000	55,800	48,000	61,300	62,000	57,500	69,000	70,000	65,000
50 or older	60,000	62,000	55,000	56,000	57,200	52,000	60,000	60,000	53,000	76,000	77,000	72,000
S&E occupations	60,000	60,000	61,600	59,000	59,000	60,000	64,000	64,000	63,000	70,000	70,000	72,500
29 or younger	43,000	43,000	42,000	42,000	42,000	40,000	45,000	45,000	46,000	50,000	50,000	S
30–39	60,000	60,000	55,000	58,200	58,500	54,000	60,000	60,000	56,000	60,000	60,000	64,000
40–49	67,000	67,000	63,800	65,000	65,000	60,000	70,000	70,000	73,600	68,000	68,000	70,000
50 or older	70,000	70,000	65,000	66,000	67,000	63,000	69,300	70,000	65,000	77,000	78,000	75,000
Computer/mathematical scientists	64,000	64,000	63,000	60,800	60,700	61,800	68,000	68,000	65,000	72,000	72,000	68,000
29 or younger	50,000	50,000	52,000	50,000	50,000	S	59,000	60,000	S	65,000	65,000	S
30–39	63,000	63,000	60,000	61,000	61,000	60,000	65,000	65,000	68,000	66,000	67,000	60,000
40–49	68,500	69,000	65,000	65,000	66,000	63,000	72,000	72,000	73,600	75,000	75,000	72,000
50 or older	66,000	66,800	64,700	64,000	64,000	64,700	69,000	69,100	62,000	74,500	75,000	68,000
Life and related scientists	49,000	48,000	54,000	37,000	36,000	44,700	43,800	43,000	45,000	67,000	67,000	70,000
29 or younger	26,000	26,000	S	25,000	25,000	S	28,100	28,100	S	29,000	29,000	S
30–39	40,000	40,000	40,000	36,000	36,000	S	38,000	39,000	S	54,000	54,000	55,000
40–49	54,300	54,000	55,000	46,000	46,000	S	50,300	50,000	S	65,000	65,000	65,000
50 or older	62,000	65,000	55,000	50,000	51,000	S	49,300	49,300	S	78,000	78,500	72,000
Physical and related scientists	52,000	52,000	52,000	45,000	45,000	48,800	52,000	53,000	45,000	71,000	70,200	75,000
29 or younger	31,000	31,000	S	30,000	30,000	S	29,000	28,500	S	50,000	50,000	S
30–39	48,000	49,000	40,000	41,600	41,700	S	48,000	50,000	S	60,000	60,000	47,000
40–49	60,000	60,000	52,000	52,000	53,400	S	60,000	60,000	S	71,000	70,300	78,000
50 or older	68,900	70,000	60,000	55,200	55,900	S	62,000	62,000	S	80,000	80,000	77,200
Social and related scientists	47,100	47,000	50,000	30,000	30,000	S	41,000	41,000	40,000	60,000	60,000	65,000
29 or younger	29,000	29,000	S	28,000	28,000	S	30,000	30,000	S	40,600	38,000	S
30–39	40,000	40,000	35,000	30,000	30,000	S	36,000	36,000	S	48,000	48,000	73,000
40–49	51,000	50,200	59,000	45,000	45,000	S	46,000	45,000	S	56,000	56,000	60,000
50 or older	59,000	60,000	56,000	S	S	S	50,000	50,000	S	66,000	66,000	67,000

See explanatory information and SOURCE at end of table.

Appendix table 6-16

Median annual salary of full-time employed scientists and engineers, by broad occupation, age group, disability status, and highest degree level: 1999

(Dollars)

Occupation and age	All degree levels[a]			Bachelor's			Master's			Doctorate		
	Total	Without disabilities	With disabilities	Total	Without disabilities	With disabilities	Total	Without disabilities	With disabilities	Total	Without disabilities	With disabilities
Engineers	65,000	65,000	67,000	60,000	60,000	61,800	70,000	70,000	75,000	80,000	79,000	86,000
29 or younger	46,000	46,000	41,000	45,000	45,000	41,000	50,000	50,000	S	62,000	62,000	S
30–39	60,000	60,000	56,000	59,900	60,000	55,000	64,000	64,000	57,000	70,600	70,200	75,000
40–49	70,000	70,000	66,500	68,500	69,000	65,000	75,000	75,000	75,000	78,700	78,000	85,000
50 or older	74,500	75,000	72,000	70,000	70,000	67,600	79,100	79,000	84,500	90,000	90,000	95,000
Non-S&E occupations	50,000	50,000	47,000	41,800	41,600	42,000	53,000	54,000	50,000	70,200	72,000	60,000
29 or younger	30,000	30,000	28,000	30,000	30,000	27,000	35,000	35,000	S	45,000	60,000	S
30–39	48,000	48,000	40,000	42,500	42,900	40,000	50,000	50,000	38,000	60,000	60,000	S
40–49	55,000	56,200	48,000	48,000	49,000	43,000	57,000	58,000	53,000	70,000	72,000	54,000
50 or older	57,000	59,000	50,000	50,000	50,000	45,000	55,000	56,000	50,000	75,000	75,000	66,500

S data with unweighted sample sizes less than 20 are suppressed for reasons of respondent confidentiality and/or data reliability

[a]Total includes first-professional degrees not shown separately.

NOTES: "Scientists and engineers" include all people holding a bachelor's degree or higher in an S&E field plus people holding a non-S&E bachelor's degree or higher who were employed in an S&E occupation in 1993. Median salaries are rounded to nearest hundred dollars.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Scientists and Engineers Statistical Data System (SESTAT).

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 6-17

Primary education, employment status, and median salary of recipients of S&E bachelor's degrees in 1996/97 and 1997/98, by broad field of degree, sex, race/ethnicity, and disability status: 1999

Field of degree, sex, race/ethnicity, and disability status	All S&E bachelor's degree recipients	Primary education and employment status in April 1999				Median salary for full-time employed[a]
		Full-time student	Not full-time student			
			Employed in an S&E occupation	Employed in a non-S&E occupation	Not employed	
	Number					Dollars
All S&E fields	743,400	165,500	161,900	377,300	38,800	30,000
Male	366,800	77,900	112,900	162,300	13,700	35,000
Female	376,600	87,600	49,000	215,000	25,100	26,600
White, non-Hispanic	561,300	121,900	119,900	292,600	26,900	30,000
Asian/Pacific Islander	71,600	19,400	21,700	26,100	4,400	36,000
Black, non-Hispanic	51,600	10,600	8,300	29,900	2,900	29,000
Hispanic	54,100	12,300	11,500	26,500	3,900	30,000
American Indian/Alaskan Native	4,800	S	500	2,300	S	24,000
Without disabilities	715,600	159,500	157,300	362,400	36,300	30,000
With disabilities	27,900	5,900	4,500	14,900	S	27,300
Sciences	628,800	150,800	83,100	359,300	35,500	27,900
Male	274,800	66,900	48,500	147,900	11,400	30,000
Female	354,000	83,900	34,600	211,400	24,200	26,000
White, non-Hispanic	478,100	112,600	60,200	280,600	24,800	27,000
Asian/Pacific Islander	54,300	15,500	11,400	23,600	3,700	32,500
Black, non-Hispanic	45,800	9,900	5,100	27,900	2,800	27,000
Hispanic	46,200	11,700	6,200	24,900	3,400	28,000
American Indian/Alaskan Native	4,300	S	S	2,200	S	24,000
Without disabilities	604,000	145,600	80,600	344,700	33,100	28,000
With disabilities	24,800	5,200	2,500	14,600	S	26,000
Computer/math sciences	69,800	7,100	30,900	29,000	2,700	41,000
Male	46,900	5,000	22,500	17,800	S	43,000
Female	22,900	2,100	8,400	11,200	S	38,000
White, non-Hispanic	49,200	4,900	21,400	20,800	S	41,000
Asian/Pacific Islander	9,200	S	4,100	3,800	S	42,000
Black, non-Hispanic	6,500	S	2,900	2,700	S	38,000
Hispanic	4,600	S	2,500	1,600	S	44,000
American Indian/Alaskan Native	S	S	S	S	S	S
Without disabilities	66,700	6,700	29,700	27,600	2,700	41,500
With disabilities	3,100	S	S	S	S	34,000
Life and related sciences	164,000	54,300	20,900	79,100	9,800	25,000
Male	73,000	25,000	9,000	36,000	2,900	26,500
Female	91,100	29,300	11,800	43,100	6,900	25,000
White, non-Hispanic	123,300	37,900	15,500	63,700	6,200	25,000
Asian/Pacific Islander	21,200	9,700	S	6,400	S	28,000
Black, non-Hispanic	9,000	3,100	S	4,600	S	25,000
Hispanic	9,700	3,400	S	4,100	S	28,000
American Indian/Alaskan Native	S	S	S	S	S	S
Without disabilities	158,100	51,800	20,200	76,900	9,100	25,000
With disabilities	6,000	S	S	S	S	S

See explanatory information and SOURCE at end of table.

Appendix table 6-17

Primary education, employment status, and median salary of recipients of S&E bachelor's degrees in 1996/97 and 1997/98, by broad field of degree, sex, race/ethnicity, and disability status: 1999

Field of degree, sex, race/ethnicity, and disability status	All S&E bachelor's degree recipients	Primary education and employment status in April 1999				Median salary for full-time employed[a]
		Full-time student	Not full-time student			
			Employed in an S&E occupation	Employed in a non-S&E occupation	Not employed	
	Number					Dollars
Physical and related sciences	36,500	12,600	11,100	11,900	1,000	28,500
Male	22,500	7,500	7,400	7,000	S	30,000
Female	14,100	5,100	3,600	4,900	S	27,500
White, non-Hispanic	29,800	10,000	9,100	9,900	800	28,000
Asian/Pacific Islander	2,900	1,400	S	S	S	31,000
Black, non-Hispanic	2,100	800	500	700	S	30,000
Hispanic	1,600	400	S	700	S	26,400
American Indian/Alaskan Native	S	S	S	S	S	S
Without disabilities	35,400	12,200	10,800	11,500	900	28,500
With disabilities	1,200	S	S	S	S	S
Social and related sciences	358,500	76,800	20,300	239,300	22,000	26,500
Male	132,500	29,400	9,600	87,000	6,400	30,000
Female	226,000	47,400	10,800	152,300	15,600	25,000
White, non-Hispanic	275,800	59,800	14,300	186,300	15,500	26,000
Asian/Pacific Islander	21,000	S	S	13,100	S	31,000
Black, non-Hispanic	28,200	5,300	S	19,900	2,100	26,000
Hispanic	30,300	7,500	1,900	18,500	2,400	27,000
American Indian/Alaskan Native	3,100	S	S	S	S	S
Without disabilities	343,900	74,900	19,900	228,600	20,400	26,600
With disabilities	14,600	S	S	10,700	S	25,000
Engineering	114,600	14,600	78,700	18,000	3,300	42,500
Male	92,000	10,900	64,400	14,400	2,300	43,000
Female	22,600	3,700	14,400	3,600	900	42,000
White, non-Hispanic	83,100	9,400	59,700	12,000	2,100	42,000
Asian/Pacific Islander	17,300	3,900	10,300	2,500	S	45,000
Black, non-Hispanic	5,800	700	3,100	2,000	S	40,000
Hispanic	7,900	600	5,300	1,600	400	42,000
American Indian/Alaskan Native	400	S	S	S	S	S
Without disabilities	111,500	13,900	76,700	17,700	3,200	42,000
With disabilities	3,100	S	2,000	S	S	48,000

S data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of respondent confidentiality and/or data reliability

[a]Salary data exclude the self-employed and full-time students, and are for principal job only. Full-time employment is defined as working at one's principal job at least 35 hours a week.

NOTES: Includes all those who received S&E bachelor's degrees between July 1996 and June 1998. Figures are rounded to the nearest hundred. Details may not add to totals because of rounding. Totals include those of other or unknown race/ethnicity.

SOURCE: National Science Foundation, Division of Science Resources Statistics, National Survey of Recent College Graduates.

Appendix table 6-18

Primary education, employment status, and median salary of recipients of S&E master's degrees in 1996/97 and 1997/98, by broad field of degree, sex, race/ethnicity, and disability status: 1999

Field of degree, sex, race/ethnicity, and disability status	All S&E master's degree recipients	Primary education and employment status in April 1999				Median salary for full-time employed[a]
		Full-time student	Not full-time student			
			Employed in an S&E occupation	Employed in a non-S&E occupation	Not employed	
	Number					Dollars
All S&E fields	157,000	32,100	71,800	46,300	6,800	46,000
Male	91,700	20,400	49,800	18,900	2,600	50,200
Female	65,300	11,800	22,100	27,400	4,100	38,000
White, non-Hispanic	104,400	21,400	44,500	33,900	4,600	43,000
Asian/Pacific Islander	35,800	7,500	21,400	5,500	1,400	55,000
Black, non-Hispanic	8,400	1,500	2,500	4,100	S	42,000
Hispanic	7,700	1,600	3,300	2,600	S	40,000
American Indian/Alaskan Native	S	S	S	S	S	S
Without disabilities	149,900	31,000	68,600	44,500	5,800	46,000
With disabilities	7,100	1,100	3,200	1,800	S	46,000
Sciences	110,400	24,300	39,400	41,200	5,500	40,000
Male	53,600	13,900	22,700	15,000	2,000	46,000
Female	56,800	10,400	16,700	26,200	3,500	36,000
White, non-Hispanic	77,200	17,300	24,800	30,700	4,300	38,000
Asian/Pacific Islander	20,000	4,400	10,900	4,100	S	54,000
Black, non-Hispanic	6,800	1,100	1,500	3,900	S	40,000
Hispanic	5,700	1,200	2,000	2,300	S	37,200
American Indian/Alaskan Native	S	S	S	S	S	S
Without disabilities	104,900	23,300	37,200	39,600	4,700	40,000
With disabilities	5,500	S	2,200	1,600	S	40,000
Computer/math sciences	27,200	3,300	17,400	5,400	S	55,000
Male	18,500	2,500	12,000	3,300	S	56,700
Female	8,700	S	5,400	2,100	S	53,000
White, non-Hispanic	13,200	2,200	7,300	3,100	S	52,500
Asian/Pacific Islander	12,000	S	8,900	2,000	S	57,000
Black, non-Hispanic	1,000	S	600	S	S	53,500
Hispanic	700	S	S	S	S	S
American Indian/Alaskan Native	S	S	S	S	S	S
Without disabilities	25,400	2,900	16,300	5,400	S	55,000
With disabilities	1,800	S	S	S	S	58,000
Life and related sciences	16,600	4,900	5,000	6,000	S	34,000
Male	9,100	3,600	2,500	2,700	S	36,000
Female	7,500	1,400	2,500	3,300	S	33,000
White, non-Hispanic	12,200	3,000	4,000	4,800	S	35,000
Asian/Pacific Islander	3,000	1,700	S	S	S	S
Black, non-Hispanic	600	S	S	S	S	S
Hispanic	700	S	S	S	S	S
American Indian/Alaskan Native	S	S	S	S	S	S
Without disabilities	16,400	4,900	5,000	6,000	S	34,000
With disabilities	S	S	S	S	S	S

See explanatory information and SOURCE at end of table.

Appendix table 6-18

Primary education, employment status, and median salary of recipients of S&E master's degrees in 1996/97 and 1997/98, by broad field of degree, sex, race/ethnicity, and disability status: 1999

Field of degree, sex, race/ethnicity, and disability status	All S&E master's degree recipients	Primary education and employment status in April 1999				Median salary for full-time employed[a]
		Full-time student	Not full-time student			
			Employed in an S&E occupation	Employed in a non-S&E occupation	Not employed	
	Number					Dollars
Physical and related sciences	9,100	2,900	4,100	1,600	S	41,600
Male	5,800	2,100	2,900	700	S	42,000
Female	3,200	800	1,200	900	S	40,000
White, non-Hispanic	6,500	2,000	3,000	1,300	S	40,000
Asian/Pacific Islander	1,800	800	S	S	S	47,000
Black, non-Hispanic	S	S	S	S	S	S
Hispanic	400	S	S	S	S	S
American Indian/Alaskan Native	S	S	S	S	S	S
Without disabilities	8,800	2,800	4,000	1,600	S	41,600
With disabilities	S	S	S	S	S	S
Social and related sciences	57,600	13,100	12,800	28,100	3,500	35,000
Male	20,200	5,800	5,200	8,200	S	40,000
Female	37,400	7,300	7,500	19,900	2,600	33,000
White, non-Hispanic	45,200	10,200	10,600	21,500	2,900	34,500
Asian/Pacific Islander	3,100	S	S	S	S	36,000
Black, non-Hispanic	4,900	900	S	3,300	S	35,600
Hispanic	3,900	S	1,100	1,900	S	37,000
American Indian/Alaskan Native	S	S	S	S	S	S
Without disabilities	54,300	12,600	12,000	26,700	3,000	36,000
With disabilities	3,300	S	S	1,500	S	29,000
Engineering	46,700	7,900	32,500	5,100	1,300	55,000
Male	38,100	6,500	27,100	3,900	700	55,000
Female	8,500	1,400	5,400	1,200	S	50,000
White, non-Hispanic	27,200	4,000	19,600	3,200	S	54,000
Asian/Pacific Islander	15,800	3,100	10,400	1,400	S	57,000
Black, non-Hispanic	1,600	S	1,000	S	S	53,000
Hispanic	2,000	S	1,300	S	S	47,000
American Indian/Alaskan Native	S	S	S	S	S	S
Without disabilities	45,000	7,700	31,400	4,800	1,100	55,000
With disabilities	1,600	S	1,100	S	S	52,000

S data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of respondent confidentiality and/or data reliability

[a]Salary data exclude the self-employed and full-time students, and are for principal job only. Full-time employment is defined as working at one's principal job at least 35 hours a week.

NOTES: Includes all those who received S&E master's degrees between July 1996 and June 1998. Figures are rounded to the nearest hundred. Details may not add to totals because of rounding. Totals include those of other or unknown race/ethnicity.

SOURCE: National Science Foundation, Division of Science Resources Statistics, National Survey of Recent College Graduates.

Appendix table 6-19

Employment status and median salary of recipients of S&E doctoral degrees in 1996/97 and 1997/98, by broad field of doctorate, sex, race/ethnicity, and disability status: 1999

Field of degree, sex, race/ethnicity, and disability status	All S&E doctorate recipients[a]	Employment status					Median salary for full-time employed[c]
		Employed			Not employed		
		Full time	Part time	Postdoctoral appointment[b]	Not employed, seeking work	Not employed and not seeking work	
	Number						Dollars
All S&E fields	50,300	32,700	2,300	13,200	600	1,500	55,200
Male	32,300	23,000	800	7,800	200	400	59,500
Female	18,000	9,700	1,500	5,400	400	1,000	48,900
White, non-Hispanic	33,600	22,200	1,900	8,200	400	900	52,000
Asian/Pacific Islander	12,900	8,100	200	4,000	100	400	63,000
Black, non-Hispanic	1,600	1,100	100	300	S	S	45,000
Hispanic	1,900	1,100	100	700	S	100	50,000
American Indian/Alaskan Native	200	100	S	100	S	S	52,000
Without disabilities	48,700	31,600	2,200	13,000	500	1,400	55,500
With disabilities	1,600	1,100	100	200	S	S	55,000
Sciences	39,800	23,600	2,200	12,200	400	1,300	50,000
Male	23,100	14,900	700	7,000	100	400	51,000
Female	16,600	8,700	1,400	5,200	300	900	46,400
White, non-Hispanic	27,900	17,300	1,800	7,700	300	900	48,000
Asian/Pacific Islander	8,800	4,400	200	3,700	100	400	60,000
Black, non-Hispanic	1,400	1,000	100	300	S	S	44,400
Hispanic	1,500	800	100	600	S	100	40,000
American Indian/Alaskan Native	200	100	S	100	S	S	48,000
Without disabilities	38,500	22,700	2,000	12,000	400	1,300	50,000
With disabilities	1,300	900	100	200	S	S	52,000
Computer/math sciences	3,600	2,800	200	500	S	S	60,000
Male	2,800	2,300	S	400	S	S	60,000
Female	700	500	100	100	S	S	58,000
White, non-Hispanic	2,300	1,700	100	400	S	S	55,000
Asian/Pacific Islander	1,100	1,000	S	100	S	S	66,000
Black, non-Hispanic	100	S	S	S	S	S	S
Hispanic	100	100	S	S	S	S	65,000
American Indian/Alaskan Native	S	S	S	S	S	S	S
Without disabilities	3,400	2,600	100	500	S	S	60,000
With disabilities	200	200	S	S	S	S	47,500
Life and related sciences	15,500	6,800	500	7,300	200	600	47,000
Male	8,400	4,000	100	4,000	S	200	46,000
Female	7,000	2,900	400	3,300	100	400	50,000
White, non-Hispanic	10,100	5,000	400	4,300	100	300	46,000
Asian/Pacific Islander	4,200	1,300	100	2,500	S	300	52,000
Black, non-Hispanic	500	300	S	100	S	S	43,000
Hispanic	600	300	S	300	S	S	44,400
American Indian/Alaskan Native	100	S	S	S	S	S	S
Without disabilities	15,000	6,600	500	7,200	100	600	47,000
With disabilities	400	200	S	100	S	S	52,000

See explanatory information and SOURCE at end of table.

Appendix table 6-19

Employment status and median salary of recipients of S&E doctoral degrees in 1996/97 and 1997/98, by broad field of doctorate, sex, race/ethnicity, and disability status: 1999

Field of degree, sex, race/ethnicity, and disability status	All S&E doctorate recipients[a]	Employment status					Median salary for full-time employed[c]
		Employed			Not employed		
		Full time	Part time	Postdoctoral appointment[b]	Not employed, seeking work	Not employed and not seeking work	
	Number						Dollars
Physical and related sciences	8,300	4,900	200	3,000	S	100	60,000
Male	6,400	3,900	200	2,300	S	S	60,000
Female	1,800	1,000	S	700	S	100	58,000
White, non-Hispanic	5,600	3,400	200	1,900	S	100	59,500
Asian/Pacific Islander	2,300	1,300	S	900	S	S	61,300
Black, non-Hispanic	200	100	S	S	S	S	57,000
Hispanic	200	100	S	100	S	S	36,000
American Indian/Alaskan Native	S	S	S	S	S	S	S
Without disabilities	8,100	4,800	200	2,900	S	100	60,000
With disabilities	200	200	S	100	S	S	58,000
Social and related sciences	12,500	9,000	1,300	1,400	200	500	45,000
Male	5,400	4,700	300	300	S	S	45,000
Female	7,000	4,400	900	1,100	200	500	44,000
White, non-Hispanic	9,900	7,200	1,100	1,100	200	400	44,100
Asian/Pacific Islander	1,200	900	100	100	S	100	57,000
Black, non-Hispanic	700	600	S	100	S	S	41,800
Hispanic	600	400	100	100	S	S	36,000
American Indian/Alaskan Native	100	S	S	S	S	S	S
Without disabilities	12,000	8,700	1,200	1,400	200	500	45,000
With disabilities	500	300	S	S	S	S	45,000
Engineering	10,500	9,100	100	1,000	100	100	67,000
Male	9,100	8,200	S	800	S	100	67,000
Female	1,400	1,000	100	200	S	S	65,000
White, non-Hispanic	5,700	5,000	100	500	S	S	66,300
Asian/Pacific Islander	4,100	3,700	S	300	S	S	68,000
Black, non-Hispanic	200	100	S	100	S	S	70,000
Hispanic	500	300	S	100	S	S	65,000
American Indian/Alaskan Native	S	S	S	S	S	S	S
Without disabilities	10,300	8,900	100	1,000	100	100	67,000
With disabilities	300	300	S	S	S	S	65,000

S data with weighted values less than 50 or fewer than 5 respondents are suppressed for reasons of respondent confidentiality and/or data reliability

[a]Total includes "other" race/ethnicity not shown separately because of too few cases.

[b]Postdoctoral appointments are reported separately from full-time and part-time employment.

[c]Salary data exclude the self-employed and full-time students, and are for principal job only. Full-time employment is defined as working at one's principal job at least 35 hours a week.

NOTES: Figures are rounded to the nearest hundred. Details may not add to totals because of rounding.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Doctorate Recipients.

Appendix table 6-20

Career-path job search limitations of recipients of S&E doctoral degrees in 1996/97 and 1997/98, by broad field of doctorate, sex, race/ethnicity, and disability status: 1999

Field of degree, sex, race/ethnicity, and disability status	All S&E doctorate recipients[a]	Total who sought or held a career-path job	Career-path job search limited "a great deal" or "somewhat" by…				
			Family responsibilities	Spouse's career or employment	Debt burden from undergraduate or graduate degrees	Desire to not relocate or move to place of job	Suitable job not available
	Number		Percent citing limitation				
All S&E fields	50,300	44,400	38.8	36.8	17.4	37.6	37.6
Male	32,300	28,200	39.5	31.4	17.2	33.9	38.4
Female	18,000	16,200	37.4	46.2	17.7	44.0	36.1
White, non-Hispanic	33,600	31,000	38.4	37.6	18.3	40.8	34.7
Asian/Pacific Islander	12,900	10,000	40.6	36.5	11.8	28.8	47.0
Black, non-Hispanic	1,600	1,400	30.3	25.9	26.5	31.2	31.0
Hispanic	1,900	1,800	38.4	31.1	25.3	34.7	38.7
American Indian/Alaskan Native	200	200	39.3	31.5	S	30.3	29.3
Without disabilities	48,700	42,900	39.0	36.9	17.4	37.5	37.7
With disabilities	1,600	1,500	33.3	33.8	18.0	41.0	35.0
Sciences	39,800	35,100	39.2	37.7	18.6	38.2	38.7
Male	23,100	20,100	40.8	32.3	18.9	33.7	40.3
Female	16,600	15,000	37.1	44.9	18.2	44.2	36.5
White, non-Hispanic	27,900	25,700	38.2	38.0	19.6	41.0	36.4
Asian/Pacific Islander	8,800	6,600	45.0	39.8	10.9	29.4	48.4
Black, non-Hispanic	1,400	1,300	28.1	24.5	27.6	29.9	30.8
Hispanic	1,500	1,400	35.5	31.3	26.7	32.5	38.9
American Indian/Alaskan Native	200	100	68.3	S	S	S	58.7
Without disabilities	38,500	33,900	39.4	37.7	18.6	38.0	38.8
With disabilities	1,300	1,200	32.9	36.9	17.7	43.7	34.8
Computer/math sciences	3,600	2,900	41.4	40.5	10.0	43.7	33.4
Male	2,800	2,300	43.0	37.8	11.9	44.6	34.7
Female	700	600	35.3	51.0	S	40.3	28.3
White, non-Hispanic	2,300	2,000	41.8	41.4	9.2	43.8	33.7
Asian/Pacific Islander	1,100	800	38.6	37.1	9.0	43.9	31.5
Black, non-Hispanic	100	100	S	S	S	S	S
Hispanic	100	100	S	S	S	S	S
American Indian/Alaskan Native	S	S	S	S	S	S	S
Without disabilities	3,400	2,800	41.8	40.5	10.4	43.4	31.7
With disabilities	200	200	S	S	S	25.1	39.6
Life and related sciences	15,500	13,400	42.6	40.5	18.7	36.5	34.4
Male	8,400	7,200	44.8	34.3	21.7	30.6	36.1
Female	7,000	6,200	39.9	47.7	15.2	43.5	32.5
White, non-Hispanic	10,100	9,300	38.8	38.1	21.3	39.1	28.1
Asian/Pacific Islander	4,200	3,000	55.1	52.4	10.4	31.7	53.6
Black, non-Hispanic	500	400	41.1	28.5	S	30.6	31.2
Hispanic	600	600	36.5	28.4	28.3	23.0	35.2
American Indian/Alaskan Native	100	100	S	S	S	S	S
Without disabilities	15,000	13,000	42.9	40.8	18.8	36.9	34.9
With disabilities	400	400	31.8	30.7	16.1	25.8	18.4

See explanatory information and SOURCE at end of table.

Appendix table 6-20

Career-path job search limitations of recipients of S&E doctoral degrees in 1996/97 and 1997/98, by broad field of doctorate, sex, race/ethnicity, and disability status: 1999

Field of degree, sex, race/ethnicity, and disability status	All S&E doctorate recipients[a]	Total who sought or held a career-path job	Career-path job search limited "a great deal" or "somewhat" by…				
			Family responsibilities	Spouse's career or employment	Debt burden from undergraduate or graduate degrees	Desire to not relocate or move to place of job	Suitable job not available
	Number		Percent citing limitation				
Physical and related sciences	8,300	7,200	38.5	33.8	14.2	32.2	44.3
Male	6,400	5,600	40.5	30.2	13.7	30.4	42.3
Female	1,800	1,700	29.4	43.9	14.8	36.1	48.3
White, non-Hispanic	5,600	5,200	39.8	37.4	14.1	36.0	42.0
Asian/Pacific Islander	2,300	1,700	35.5	22.2	12.4	20.3	52.6
Black, non-Hispanic	200	100	S	51.5	62.1	S	S
Hispanic	200	100	S	51.6	S	70.1	59.2
American Indian/Alaskan Native	S	S	S	S	S	S	S
Without disabilities	8,100	7,000	38.0	33.6	14.0	32.0	43.8
With disabilities	200	200	52.6	S	S	36.2	62.2
Social and related sciences	12,500	11,600	35.2	36.1	23.2	42.4	41.5
Male	5,400	5,000	34.2	29.1	23.7	36.8	46.8
Female	7,000	6,500	36.5	41.9	23.3	47.3	38.0
White, non-Hispanic	9,900	9,300	35.4	37.0	23.0	44.6	41.8
Asian/Pacific Islander	1,200	1,000	40.1	38.4	12.3	29.3	43.7
Black, non-Hispanic	700	700	18.7	16.9	33.1	32.3	29.1
Hispanic	600	600	34.6	33.3	30.9	38.4	44.0
American Indian/Alaskan Native	100	S	S	S	S	S	S
Without disabilities	12,000	11,100	35.6	35.9	23.3	41.6	42.1
With disabilities	500	500	26.1	39.1	21.4	59.8	28.1
Engineering	10,500	9,300	37.2	33.4	12.9	35.4	33.3
Male	9,100	8,100	36.5	29.2	13.2	34.5	33.7
Female	1,400	1,200	41.5	62.1	11.4	41.3	30.2
White, non-Hispanic	5,700	5,300	39.6	36.0	12.1	39.7	26.2
Asian/Pacific Islander	4,100	3,400	32.3	29.9	13.7	27.5	44.3
Black, non-Hispanic	200	100	58.8	S	S	S	S
Hispanic	500	400	48.6	S	S	S	37.9
American Indian/Alaskan Native	S	S	S	S	S	S	S
Without disabilities	10,300	9,000	37.2	33.8	12.7	35.6	33.2
With disabilities	300	200	52.5	32.3	S	45.0	54.1

S data with weighted values less than 50 or fewer than 5 respondents are suppressed for reasons of respondent confidentiality and/or data reliability

[a]Total includes "other" race/ethnicity not shown separately because of too few cases.

NOTES: Figures in first two columns are rounded to nearest hundred. Percentages add to more than 100 because respondents could select more than one limitation. Percentages are the proportion of total that sought or held a career-path job, which is a job that will help further one's career plans or is in a field in which the respondent wishes to make his or her career.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Doctorate Recipients.

Appendix table 6-21

Demographic characteristics of scientists and engineers, by highest degree level and sex: 1999

Characteristic	Total, all degree levels[a]			Bachelor's			Master's			Doctorate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Number of scientists and engineers	13,050,800	8,304,100	4,746,700	7,682,100	4,789,600	2,892,500	3,535,900	2,169,900	1,366,000	839,000	630,600	208,400
	Percent											
Age	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
29 or younger	13.6	10.6	18.8	19.2	15.3	25.7	6.3	5.1	8.3	1.3	1.0	2.2
30–39	22.6	21.1	25.3	23.8	22.6	25.9	21.0	19.9	22.8	19.0	17.1	24.8
40–49	28.2	27.8	28.9	26.7	27.0	26.3	29.5	27.8	32.3	27.4	25.5	33.2
50 or older	35.6	40.5	27.0	30.2	35.1	22.1	43.1	47.2	36.7	52.3	56.4	39.8
Race/ethnicity												
White, non-Hispanic	83.8	85.3	81.0	84.2	86.4	80.4	82.7	83.1	81.9	80.0	80.2	79.3
Asian/Pacific Islander	7.0	7.2	6.8	6.0	5.7	6.6	8.5	9.6	6.8	13.3	14.0	11.3
Black, non-Hispanic	5.2	3.9	7.4	5.4	4.0	7.6	5.4	4.1	7.7	3.5	2.8	5.5
Hispanic	3.6	3.3	4.3	4.0	3.5	4.9	3.1	2.9	3.4	2.8	2.6	3.5
American Indian/Alaskan Native	0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3
Marital status												
Married	70.1	74.8	61.8	66.6	70.9	59.5	73.6	79.1	64.9	79.1	83.0	67.1
Widowed	1.4	0.9	2.2	1.4	1.0	2.0	1.6	0.9	2.8	1.2	0.9	1.9
Separated	1.0	0.9	1.3	1.0	0.8	1.3	1.1	0.8	1.5	1.1	1.0	1.4
Divorced	7.5	6.1	9.9	7.2	6.3	8.8	8.1	5.5	12.3	7.9	6.4	12.5
Never married	20.0	17.3	24.7	23.8	21.1	28.3	15.6	13.7	18.5	10.8	8.7	17.1
If married, spouse's employment status												
Employed full time	55.5	42.9	82.3	57.1	43.6	83.5	56.6	44.5	80.0	50.9	42.8	81.0
Employed part time	14.9	19.6	5.0	13.9	18.7	4.5	14.8	19.4	5.8	16.6	19.5	5.6
Not employed	29.5	37.5	12.6	29.0	37.7	11.9	28.6	36.1	14.2	32.5	37.7	13.4
If spouse is employed, whether spouse's job requires technical expertise at the bachelor's or above in:												
Engineering, computer science, or natural sciences	25.5	17.5	37.5	24.5	15.9	36.5	27.0	18.4	39.5	32.2	26.7	47.2
Social sciences	16.0	18.1	12.9	13.8	15.9	10.9	18.0	20.2	14.9	21.7	22.1	20.5
Some other field	35.7	36.2	34.9	32.3	32.7	31.9	37.4	38.0	36.6	37.8	39.4	33.5
Children living at home												
Yes	45.1	45.8	43.9	43.0	43.1	42.9	47.1	48.1	45.5	45.7	46.4	43.4
No	54.9	54.2	56.1	57.0	56.9	57.1	52.9	51.9	54.5	54.3	53.6	56.6

See explanatory information and SOURCE at end of table.

Appendix table 6-21

Demographic characteristics of scientists and engineers, by highest degree level and sex: 1999

Characteristic	Total, all degree levels[a]			Bachelor's			Master's			Doctorate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
	Percent											
Citizenship												
Native U.S. citizen	88.6	88.0	89.6	90.5	90.6	90.4	86.3	84.7	88.9	75.1	73.7	79.5
Naturalized U.S. citizen	8.0	8.4	7.5	7.3	7.3	7.3	9.0	9.9	7.5	13.6	14.5	10.7
Non-U.S. citizen, permanent resident	2.6	2.7	2.3	1.8	1.8	1.9	3.1	3.4	2.5	9.2	9.5	8.1
Non-U.S. citizen, temporary resident	0.8	0.9	0.6	0.4	0.4	0.4	1.6	2.0	1.1	2.1	2.3	1.6

[a]Includes first-professional degrees not shown separately.

NOTES: "Scientists and engineers" include all people holding a bachelor's degree or higher in an S&E field plus people holding a non-S&E bachelor's degree or higher who were employed in an S&E occupation in 1993. Numbers are rounded to nearest hundred. Details may not add to totals because of rounding.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Scientists and Engineers Statistical Data System (SESTAT).

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2002

Appendix table 6-22

Demographic characteristics of scientists and engineers, by race/ethnicity and sex: 1999

Characteristic	Total, all groups			White			Asian/Pacific Islander			Black			Hispanic			American Indian/ Alaskan Native		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Number of scientists and engineers	13,050,800	8,304,100	4,746,700	10,931,000	7,085,700	3,845,300	919,900	597,100	322,800	677,500	324,200	353,300	476,100	270,000	206,100	42,000	24,400	17,600
	Percent																	
Age	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
29 or younger	13.6	10.6	18.8	12.5	9.7	17.6	19.9	17.1	25.0	16.1	13.0	19.1	22.9	17.3	30.2	22.4	18.7	27.5
30–39	22.6	21.1	25.3	21.9	20.3	24.9	27.9	27.6	28.6	22.2	20.6	23.7	28.6	27.8	29.7	21.0	20.2	22.3
40–49	28.2	27.8	28.9	28.4	28.0	29.3	25.8	25.5	26.3	29.2	28.7	29.6	27.0	28.0	25.7	24.9	22.4	28.3
50 or older	35.6	40.5	27.0	37.2	42.0	28.3	26.4	29.8	20.0	32.4	37.7	27.6	21.4	26.8	14.4	31.7	38.8	21.9
Marital status																		
Married	70.1	74.8	61.8	71.7	75.7	64.2	69.5	73.0	63.2	51.8	64.1	40.6	61.2	67.9	52.5	61.8	65.3	57.0
Widowed	1.4	0.9	2.2	1.4	1.0	2.1	0.8	0.6	1.2	2.9	1.1	4.5	0.8	0.4	1.3	1.2	S	2.1
Separated	1.0	0.9	1.3	0.9	0.8	1.2	0.6	0.5	0.7	3.1	2.4	3.7	1.5	1.4	1.7	1.0	S	S
Divorced	7.5	6.1	9.9	7.5	6.2	10.0	3.2	2.6	4.2	12.2	8.9	15.2	7.1	5.6	9.0	13.7	12.0	16.0
Never married	20.0	17.3	24.7	18.5	16.3	22.6	25.9	23.4	30.6	30.0	23.5	36.0	29.3	24.7	35.4	22.3	21.8	23.1
If married, spouse's employment status																		
Employed full time	55.5	42.9	82.3	54.1	41.2	82.0	61.7	50.2	86.2	70.5	64.2	79.6	62.9	49.6	85.5	57.2	45.5	75.9
Employed part time	14.9	19.6	5.0	15.7	20.6	5.1	10.8	13.9	4.1	7.8	9.9	4.8	12.0	15.6	6.0	13.8	18.4	6.5
Not employed	29.5	37.5	12.6	30.2	38.2	12.9	27.6	36.0	9.6	21.7	25.9	15.6	25.1	34.9	8.5	29.0	36.1	17.6
If spouse is employed, whether spouses's job requires technical expertise at the bachelor's or above in:																		
Engineering, computer science, or natural sciences	25.5	17.5	37.5	23.7	15.8	35.9	46.1	34.3	63.9	24.6	21.6	28.3	27.6	20.5	36.2	19.1	15.4	23.7
Social sciences	16.0	18.1	12.9	16.1	18.1	13.0	11.6	12.4	10.4	21.1	27.7	12.8	17.3	20.0	14.1	15.1	13.5	17.1
Some other field	35.7	36.2	34.9	36.1	36.2	35.8	32.4	35.7	27.5	34.2	36.2	31.6	35.4	37.0	33.4	43.0	45.3	40.1

See explanatory information and SOURCE at end of table.

Appendix table 6-22
Demographic characteristics of scientists and engineers, by race/ethnicity and sex: 1999

Characteristic	Total, all groups			White			Asian/Pacific Islander			Black			Hispanic			American Indian/ Alaskan Native		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
	Percent																	
Children living at home																		
Yes	45.1	45.8	43.9	44.5	45.1	43.4	49.7	52.1	45.3	46.9	45.9	47.8	46.8	49.5	43.4	44.5	41.3	49.1
No	54.9	54.2	56.1	55.5	54.9	56.6	50.3	47.9	54.7	53.1	54.1	52.2	53.2	50.5	56.6	55.5	58.7	50.9
Citizenship																		
Native U.S. citizen	88.6	88.0	89.6	94.9	94.6	95.4	23.5	20.7	28.6	89.7	86.5	92.6	68.0	65.5	71.2	94.6	94.3	95.1
Naturalized U.S. citizen	8.0	8.4	7.5	3.7	3.9	3.3	52.0	52.7	50.7	6.6	8.4	5.0	24.8	26.9	21.9	4.7	4.5	4.9
Non-U.S. citizen, permanent resident	2.6	2.7	2.3	1.2	1.2	1.1	17.4	18.4	15.5	3.0	4.1	2.1	5.9	6.0	5.7	S	S	S
Non-U.S. citizen, temporary resident	0.8	0.9	0.6	0.2	0.2	0.2	7.2	8.3	5.2	0.7	1.0	0.4	1.4	1.6	1.1	S	S	S

S data with weighted values less than 50 or fewer than 5 respondents are suppressed for reasons of respondent confidentiality and/or data reliability

NOTES: "Scientists and engineers" include all people holding a bachelor's degree or higher in an S&E field plus people holding a non-S&E bachelor's degree or higher who were employed in an S&E occupation in 1993. Numbers are rounded to nearest hundred. Details may not add to totals because of rounding.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Scientists and Engineers Statistical Data System (SESTAT).

Appendix table 6-23
Demographic characteristics of scientists and engineers, by disability status and sex: 1999

Characteristic	Total			Without disabilities			With disabilities		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Number of scientists and engineers	13,050,800	8,304,100	4,746,700	11,943,400	7,541,300	4,402,200	1,107,300	762,800	344,600
	Percent								
Age	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
29 or younger	13.6	10.6	18.8	14.5	11.5	19.8	3.4	2.2	6.0
30–39	22.6	21.1	25.3	23.9	22.5	26.4	8.1	7.0	10.6
40–49	28.2	27.8	28.9	28.6	28.3	29.0	24.6	22.8	28.6
50 or older	35.6	40.5	27.0	33.0	37.7	24.8	63.9	68.1	54.7
Race/ethnicity									
White, non-Hispanic	83.8	85.3	81.0	83.7	85.1	81.2	84.8	87.4	79.1
Asian/Pacific Islander	7.0	7.2	6.8	7.2	7.3	6.8	5.9	5.8	6.3
Black, non-Hispanic	5.2	3.9	7.4	5.2	4.0	7.3	5.2	3.2	9.7
Hispanic	3.6	3.3	4.3	3.7	3.3	4.3	3.6	3.2	4.4
American Indian/Alaskan Native	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.6
Marital status									
Married	70.1	74.8	61.8	70.0	74.5	62.2	71.4	78.0	56.8
Widowed	1.4	0.9	2.2	1.2	0.8	2.0	3.2	2.4	5.0
Separated	1.0	0.9	1.3	1.0	0.8	1.3	1.4	1.1	2.0
Divorced	7.5	6.1	9.9	7.1	5.9	9.3	11.2	8.3	17.5
Never married	20.0	17.3	24.7	20.7	18.1	25.2	12.8	10.2	18.7
If married, spouse's employment status									
Employed full time	55.5	42.9	82.3	56.3	43.2	83.2	47.3	40.0	69.4
Employed part time	14.9	19.6	5.0	15.1	20.0	5.0	13.4	15.8	6.0
Not employed	29.5	37.5	12.6	28.6	36.8	11.8	39.3	44.2	24.5
If spouse is employed, whether spouse's job requires technical expertise at the bachelor's or above in:									
Engineering, computer science, or natural sciences	25.5	17.5	37.5	25.8	17.8	37.7	21.0	14.6	35.3
Social sciences	16.0	18.1	12.9	16.0	18.2	12.8	16.9	17.7	15.1
Some other field	35.7	36.2	34.9	35.8	36.4	35.0	34.5	34.7	33.9
Children living at home									
Yes	45.1	45.8	43.9	45.7	46.5	44.4	38.3	38.7	37.4
No	54.9	54.2	56.1	54.3	53.5	55.6	61.7	61.3	62.6
Citizenship									
Native U.S. citizen	88.6	88.0	89.6	88.5	87.8	89.6	89.8	89.8	89.7
Naturalized U.S. citizen	8.0	8.4	7.5	8.0	8.4	7.4	8.0	8.2	7.6
Non-U.S. citizen, permanent resident	2.6	2.7	2.3	2.7	2.8	2.3	1.7	1.4	2.4
Non-U.S. citizen, temporary resident	0.8	0.9	0.6	0.8	0.9	0.6	0.5	0.5	0.3

NOTES: "Scientists and engineers" include all people holding a bachelor's degree or higher in an S&E field plus people holding a non-S&E bachelor's degree or higher who were employed in an S&E occupation in 1993. Numbers are rounded to nearest hundred. Details may not add to totals because of rounding.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Scientists and Engineers Statistical Data System (SESTAT).