

Science and Engineering Degrees, by Race/Ethnicity of Recipients:

1990–98

Detailed Statistical Tables

Division of Science Resources Studies
Directorate for Social, Behavioral, and Economic Sciences

National Science Foundation



June 2001

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GENERAL NOTES

This publication is based on data obtained from two surveys. Bachelor's and master's degree data were collected by the National Center for Education Statistics, U.S. Department of Education, from all accredited institutions of higher education. Data on doctorates are from the Survey of Earned Doctorates, a universe survey of individual doctorate recipients that was sponsored by the National Science Foundation (NSF) and four other Federal agencies in 1998.

These data cover earned degrees conferred in the aggregate United States, which includes the 50 States, the District of Columbia, and the U.S. Territories and Outlying Areas (American Samoa, the former Canal Zone, the Northern Mariana Islands, Puerto Rico, the U.S. Virgin Islands, and the Trust Territory of the Pacific Islands). Degree data are compiled for a 12-month period, July of one year through June of the following year. For convenience, degrees for such a given 12-month period will be referred to by the year in which the period ended, e.g., 1998 means the 12-month period ending June 1998.

The definitions of science and engineering for bachelor's and master's degrees in this report differ from those in other NSF reports. The reason for these differences is that racial/ethnic data for bachelor's and master's degrees were collected by NCES for broad fields of study only (e.g., physical science, biological science, psychology, engineering) until 1995. These broad fields include some fields that are normally not included in NSF's science and engineering definitions. While in most fields this impact is small, there is one instance where this difference has a large impact—the broad field of “Social

Sciences.” The U.S. Department of Education includes the field of history in this broad category. When NCES collected the racial/ethnic data up until 1995, this field was included in “Social Sciences” and comprised 20–23 percent of the “Social Sciences” category for bachelor's and master's degree data. However, for doctorate degrees, the “Social Sciences” definition in this report is the same as in other NSF reports: i.e., it does not include history.

If the reader is interested in earlier data for science fields, please request *Science and Engineering Degrees, by Race/Ethnicity of Recipients: 1977–91*, NSF 94-306. Please note, however, that before 1985, the broad category of “Engineering” included engineering technologies. This report excludes engineering technologies so that trend data by race/ethnicity are more consistent with the definition of science and engineering used in other NSF reports. However, the reader can use tables 31 and 32 to add in these data so as to correspond to the earlier report (NSF 94-306).

For more information, please contact the NSF principal author—

Susan T. Hill
Division of Science Resources Studies
National Science Foundation
4201 Wilson Boulevard, Suite 965
Arlington, VA 22230

Telephone: (703) 292-7790
Internet: sthill@nsf.gov

SECTION A.
TECHNICAL NOTES

INTRODUCTION

This report is based on final data from two Federal surveys. The first is the U.S. Department of Education's Completions Survey conducted annually by the National Center for Education Statistics (NCES) as part of the Integrated Postsecondary Education Data System (IPEDS). The second is the Survey of Earned Doctorates, conducted annually for the National Science Foundation (NSF) and four other Federal agencies (between 1990 and 1998). Each source is described in more detail in the following sections.

Data from the Completions Survey were used to report the number of bachelor's and master's degrees. The data on doctoral degrees in this report were derived from the Survey of Earned Doctorates, which surveyed all individuals earning research doctorates, rather than from the Completions Survey, which surveyed the institutions awarding the doctorates. The Survey of Earned Doctorate data were preferred because the data provided by individuals are more specific with respect to the field of specialization and are less likely to contain errors in data reporting and data entry than are the aggregate data provided by institutions. Furthermore, doctorate data provide 100 percent coverage for data by field and sex of individual recipients, whereas institutional data are subject to imputation for nonresponse. For a comparison of reporting on doctoral degrees in the Completions Survey and the Survey of Earned Doctorates, see National Science Foundation, *Science and Engineering Doctorates: 1960–91*, NSF 93-301, Detailed Statistical Tables (Washington, DC, 1993).

In this report the racial and ethnic categories among U.S. citizens (and permanent resident aliens) who were degree recipients during the 1990–98 period are charted and tabulated.

The following five racial/ethnic categories were the standard in Federal Government surveys of institutions in this reporting period:

Black, Non-Hispanic—A person having origins in any of the black racial groups of Africa (except those of Hispanic origin).

American Indian or Alaskan Native—A person having origins in any of the original peoples of North America and who maintains cultural identification through tribal affiliation or community recognition.

Asian or Pacific Islander—A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands. These areas include, for example, China, Japan, Korea, the Philippine Islands, and Samoa. ***Asian*** is used to refer to this racial/ethnic category in the tables in Section B.

Hispanic—A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

White, Non-Hispanic—A person having origins in any of the original peoples of Europe, North Africa, or the Middle East (except those of Hispanic origin).

Persons who are U.S. citizens or foreign citizens admitted for permanent residence are classified into the above categories. The ethnic category of Hispanic took precedence over the racial categories in the data collection. In addition, nonresident aliens, i.e., those admitted to the United States for temporary residence, are separately identified as a sixth category in the surveys. The nonresident aliens are not to be reported in the aforementioned racial/ethnic groups. The definition used in the surveys is as follows:

Nonresident alien—A person who is not a citizen or national of the United States and who is in this country on a temporary basis and does not have the right to remain indefinitely. Resident aliens who are not citizens of the United States and who have been lawfully admitted for permanent residence (and who hold alien registration receipt cards—Form I-551/155) are to be reported in the appropriate racial/ethnic categories along with U.S. citizens.

BACHELOR'S AND MASTER'S DEGREE DATA

Bachelor's and master's degree data presented in this report were derived from a survey conducted by NCES—the Completions Survey.

This survey requested data on the number of associate's, bachelor's, master's, doctoral, and first-professional degrees conferred by institutions of higher education. The data were requested according to sex of recipient and field of study for each degree level. Data on the race/ethnicity of degree recipients were collected biennially by NCES for the Office of Civil Rights from

1987 through 1989 and annually since then. A limitation has been that data were collected only at the broad field level¹ (until 1995) according to the Federal racial/ethnic designations of degree recipients. This has affected one field primarily—Social Sciences. Social Sciences includes History in this report, for all degree levels. History comprises 20-23 percent of the Social Sciences total.

The surveys were mailed to all accredited universities and colleges in the United States, including the U.S. Territories, for completion by the institution. Followup for nonresponse and editing was conducted by letter and telephone. The overall response rate for institutions of higher education ranged between 94 and 97 percent between 1990 and 1997. The response rate in 1998 was 92 percent.

For the bachelor's and master's degree data, the manner of collecting racial and ethnic data is left to the discretion of the institution, provided that the system established results in reasonably accurate data. The information is gathered by NCES for the Office of Civil Rights, U.S. Department of Education, in compliance with title I of the Civil Rights Act of 1964 and title IX of the Education Amendments of 1972.

For institutions that did not report any racial/ethnic data by field, NCES imputed data on the basis of an earlier response for each institution, if available. Table A-1 indicates percentage of 1998 degree recipients in each race/ethnicity category for which race/ethnicity was imputed.

Table A-1. Percent of bachelor's and master's degree recipients imputed by race/ethnicity: 1998

Race/ethnicity	Bachelor's	Master's
	Percent	
White.....	0.1	0.3
Black.....	0.2	0.2
Hispanic.....	4.6	2.4
Asian or Pacific Islander.....	0.2	0.3
American Indian or Alaskan Native.....	0.1	0.2
Nonresident alien.....	0.2	0.3
Unknown.....	0.2	0.4

SOURCE: NCES, IPEDS Completions file, 1998

In examining data on degrees awarded to minorities, it must be noted that 1 to 5 percent of all S&E degrees awarded in 1990–98 were reported as awarded to individuals whose race/ethnicity was unknown. This unknown category could affect trends and observable changes in the number and share of awards received by minority students, particularly if there are shifts from year to year in the number of degree recipients with unknown race/ethnicity. As tables 1–2 in section B indicate, the share of degrees awarded to individuals whose race/ethnicity was unknown varied somewhat by degree level.

This NSF report differs from those published by NCES in that data for the U.S. Territories, and the commonwealth of Puerto Rico are included, whereas NCES excludes them from most of its published reports. This affects the data for Hispanics primarily, since institutions in Puerto Rico are included.

DOCTORAL DEGREE DATA

In the Survey of Earned Doctorates, information is collected during the period of July 1 of one year to June 30 of the next from all persons who have fulfilled the requirements for a research doctorate. The survey was funded jointly by NSF and four other agencies in the period from 1990-1998: the U.S. Department of Education, the National Institutes of Health, the National Endowment for the Humanities, and the U.S. Department of Agriculture. The survey forms are sent to all accredited doctorate-grating institutions for distribution by the graduate deans to all research doctorate recipients as they complete degree requirements. Information collected in the survey comprises demographic data, such as the student's sex, citizenship, ethnicity, and racial group; education history, including field of degrees; sources of graduate student support; employment status during the year preceding receipt of the doctorate; postgraduation plans; and background on parents' education. Approximately 92–95 percent of the doctorate recipients complete and return the survey forms. For nonrespondents, commencement programs constitute a source of skeletal information that is added to the file, for the variables of sex, field of study, institution, year of doctorate, and educational background. Nonresponse for race/ethnicity is not imputed for individuals, but the percent unknown has been low (around 1–2 percent of those with known citizenship; citizenship was unknown for 2–8 percent of degree recipients). Since changes in nonresponse do exist, small changes in numbers should be interpreted with caution. Data are also updated annually with completed survey forms received late, so numbers may change very slightly in each edition.

¹Broad field level refers to the 2-digit program levels in U.S. Department of Education, National Center for Education Statistics, *Classification of Instructional Programs* (Washington, DC: GPO, 1991).

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Table 1. Percentage distribution of earned bachelor's degrees in science and engineering, by citizenship, race/ethnicity, and sex of recipient: 1990-1998

Citizenship and race/ethnicity	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
U.S. citizens and permanent residents, total ¹	96.4	96.4	96.8	96.4	96.5	96.3	96.3	96.4	96.4
White, non-Hispanics	78.1	78.0	77.6	76.5	75.3	73.7	72.7	71.5	70.6
Asians	5.6	5.8	6.0	6.3	6.7	7.3	7.6	8.1	8.4
Underrepresented minorities, total	9.7	10.3	11.0	11.5	12.3	13.0	13.6	14.2	14.7
Black, non-Hispanics	5.3	5.6	6.0	6.3	6.6	6.9	7.2	7.4	7.6
Hispanics	4.0	4.3	4.6	4.7	5.2	5.6	5.9	6.2	6.5
American Indians or Alaskan Natives .....	.4	.4	.4	.5	.5	.5	.6	.6	.6
U.S. citizens and permanent residents, unknown race/ethnicity	3.0	2.4	2.1	2.1	2.2	2.3	2.4	2.6	2.7
Nonresident aliens ²	3.6	3.6	3.2	3.6	3.5	3.7	3.7	3.6	3.6
Men									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
U.S. citizens and permanent residents, total ¹	95.5	95.5	96.0	95.6	95.6	95.4	95.5	95.5	95.6
White, non-Hispanics	78.9	78.8	78.5	77.5	76.3	74.8	73.8	72.8	72.0
Asians	5.8	5.9	6.3	6.6	6.9	7.4	7.9	8.4	8.7
Underrepresented minorities, total	8.0	8.5	9.0	9.4	10.2	10.8	11.3	11.7	12.2
Black, non-Hispanics	3.9	4.2	4.5	4.7	5.0	5.1	5.4	5.6	5.7
Hispanics	3.7	3.9	4.2	4.3	4.7	5.1	5.4	5.6	5.9
American Indians or Alaskan Natives .....	.3	.3	.4	.4	.5	.5	.5	.5	.6
U.S. citizens and permanent residents, unknown race/ethnicity	2.9	2.4	2.2	2.2	2.2	2.4	2.6	2.6	2.7
Nonresident aliens ²	4.5	4.5	4.0	4.4	4.4	4.6	4.5	4.5	4.4
Women									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
U.S. citizens and permanent residents, total ¹	97.7	97.6	97.7	97.5	97.5	97.4	97.3	97.3	97.3
White, non-Hispanics	77.2	77.0	76.6	75.3	74.0	72.4	71.4	70.0	69.1
Asians	5.4	5.5	5.6	6.0	6.4	7.1	7.4	7.8	8.1
Underrepresented minorities, total	12.0	12.7	13.4	14.1	15.0	15.6	16.2	17.0	17.5
Black, non-Hispanics	7.1	7.4	7.8	8.2	8.7	8.9	9.2	9.5	9.7
Hispanics	4.4	4.8	5.2	5.3	5.8	6.1	6.4	6.8	7.1
American Indians or Alaskan Natives .....	.4	.4	.5	.5	.6	.6	.6	.7	.7
U.S. citizens and permanent residents, unknown race/ethnicity	3.1	2.4	2.1	2.1	2.1	2.3	2.3	2.5	2.7
Nonresident aliens ²	2.3	2.4	2.3	2.5	2.5	2.6	2.7	2.7	2.7

¹ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

² Nonresident aliens include foreign citizens on temporary visas only. No racial/ethnic data are collected for this group.

NOTES: Details may not sum to totals due to rounding.

Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

See section C for specific fields included in science and engineering.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 2. Percentage distribution of earned master's degrees in science and engineering, by citizenship, race/ethnicity, and sex of recipient: 1990-1998

Citizenship and race/ethnicity	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
U.S. citizens and permanent residents, total ¹	77.4	76.6	76.4	75.3	75.7	75.9	76.8	76.8	75.4
White, non-Hispanics	61.5	61.1	59.9	58.9	58.9	58.1	58.4	58.0	56.3
Asians	5.6	5.9	6.3	6.0	6.3	6.4	6.7	6.7	7.1
Underrepresented minorities, total	5.0	5.5	5.7	6.0	6.5	7.0	7.4	8.1	8.2
Black, non-Hispanics	2.6	2.9	3.1	3.1	3.3	3.8	4.0	4.4	4.3
Hispanics	2.2	2.4	2.4	2.6	2.9	2.9	3.1	3.3	3.5
American Indians or Alaskan Natives .....	.3	.3	.3	.3	.3	.3	.3	.4	.4
U.S. citizens and permanent residents, unknown race/ethnicity	5.2	4.0	4.5	4.4	4.0	4.3	4.4	4.0	3.8
Nonresident aliens ²	22.6	23.4	23.6	24.7	24.3	24.1	23.2	23.2	24.6
Men									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
U.S. citizens and permanent residents, total ¹	73.8	72.6	72.5	71.1	71.6	71.3	72.8	72.4	71.2
White, non-Hispanics	58.3	57.9	56.5	55.5	55.6	54.6	55.7	55.4	53.7
Asians	5.8	6.2	6.6	6.1	6.4	6.7	6.8	6.6	7.1
Underrepresented minorities, total	4.1	4.5	4.7	5.0	5.3	5.6	5.8	6.5	6.5
Black, non-Hispanics	2.0	2.2	2.3	2.4	2.5	2.7	2.8	3.1	3.2
Hispanics	2.0	2.1	2.1	2.4	2.6	2.6	2.7	3.0	3.1
American Indians or Alaskan Natives .....	.2	.2	.2	.2	.3	.3	.3	.3	.3
U.S. citizens and permanent residents, unknown race/ethnicity	5.5	4.1	4.7	4.5	4.2	4.4	4.5	3.9	3.8
Nonresident aliens ²	26.2	27.4	27.5	28.9	28.4	28.7	27.2	27.6	28.8
Women									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
U.S. citizens and permanent residents, total ¹	84.7	84.2	83.7	83.1	83.3	83.8	83.4	83.5	81.8
White, non-Hispanics	68.1	67.3	66.4	65.3	64.9	64.2	62.7	61.9	60.1
Asians	5.3	5.4	5.6	5.7	6.1	6.0	6.6	6.9	7.1
Underrepresented minorities, total	6.8	7.6	7.6	8.0	8.7	9.4	9.9	10.6	10.8
Black, non-Hispanics	3.8	4.2	4.5	4.6	4.8	5.5	5.8	6.4	6.0
Hispanics	2.6	3.0	2.8	3.0	3.6	3.5	3.7	3.8	4.2
American Indians or Alaskan Natives .....	.4	.4	.3	.4	.4	.5	.4	.4	.5
U.S. citizens and permanent residents, unknown race/ethnicity	4.6	3.9	4.1	4.2	3.6	4.1	4.2	4.1	3.9
Nonresident aliens ²	15.3	15.8	16.3	16.9	16.7	16.2	16.6	16.5	18.2

¹ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

² Nonresident aliens include foreign citizens on temporary visas only. No racial/ethnic data are collected for this group.

NOTES: Details may not sum to totals due to rounding.

Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

See section C for specific fields included in science and engineering.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 3. Percentage distribution of earned doctoral degrees in science and engineering, by citizenship, race/ethnicity, and sex of recipient: 1990-1998

Citizenship and race/ethnicity	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
U.S. citizens and permanent residents, total ¹	67.2	66.2	64.6	65.1	69.4	71.6	68.5	67.5	66.9
White, non-Hispanics	57.6	55.5	54.0	54.0	53.0	52.4	51.4	50.8	51.4
Asians	4.4	4.9	5.5	6.3	11.4	13.8	11.4	9.3	7.9
Underrepresented minorities, total	3.9	4.2	4.0	4.1	4.2	4.5	4.7	5.0	5.5
Black, non-Hispanics	1.6	1.9	1.7	1.8	1.9	2.1	2.1	2.3	2.4
Hispanics	2.0	2.1	2.1	2.1	2.1	2.1	2.3	2.4	2.8
American Indians or Alaskan Natives .....	.2	.2	.3	.2	.2	.3	.4	.3	.4
U.S. citizens and permanent residents, unknown race/ethnicity	1.3	1.7	1.1	.7	.7	.9	.9	2.5	2.2
Nonresident aliens ²	28.7	31.8	32.8	31.9	28.7	26.4	28.7	27.5	28.5
Citizenship unknown	4.1	1.9	2.6	3.0	1.9	2.1	2.9	4.9	4.6
Men									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
U.S. citizens and permanent residents, total ¹	61.7	60.7	59.5	60.0	64.4	66.7	63.3	63.0	62.1
White, non-Hispanics	52.4	50.5	49.5	49.7	48.1	47.9	46.9	47.3	47.8
Asians	4.6	4.7	5.3	6.1	11.9	14.1	11.5	9.1	7.7
Underrepresented minorities, total	3.3	3.6	3.4	3.4	3.5	3.7	4.0	4.3	4.4
Black, non-Hispanics	1.4	1.6	1.4	1.5	1.6	1.6	1.8	1.8	1.7
Hispanics	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.2	2.4
American Indians or Alaskan Natives .....	.2	.2	.2	.1	.2	.2	.3	.2	.3
U.S. citizens and permanent residents, unknown race/ethnicity	1.4	1.8	1.3	.8	.8	1.0	1.0	2.3	2.2
Nonresident aliens ²	33.9	37.7	38.6	37.8	34.0	31.7	34.2	33.0	33.7
Citizenship unknown	4.4	1.6	1.9	2.2	1.6	1.6	2.5	4.0	4.2
Women									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
U.S. citizens and permanent residents, total ¹	81.4	80.7	78.8	78.7	82.0	83.4	80.5	78.2	76.7
White, non-Hispanics	71.0	68.4	66.4	65.5	65.1	63.0	61.9	58.9	58.7
Asians	4.0	5.4	5.9	6.9	10.4	13.5	11.4	10.0	8.2
Underrepresented minorities, total	5.4	5.8	5.7	5.9	5.9	6.3	6.5	6.6	7.7
Black, non-Hispanics	2.3	2.8	2.4	2.7	2.7	3.3	2.9	3.3	3.7
Hispanics	2.8	2.7	2.9	2.9	2.9	2.7	3.1	3.0	3.5
American Indians or Alaskan Natives .....	.3	.3	.4	.2	.3	.3	.4	.4	.4
U.S. citizens and permanent residents, unknown race/ethnicity	1.0	1.2	.8	.4	.6	.6	.8	2.7	2.1
Nonresident aliens ²	15.4	17.7	19.1	19.0	16.7	15.0	17.3	17.0	18.7
Citizenship unknown	3.2	1.5	2.1	2.3	1.3	1.6	2.2	4.8	4.6

¹ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

² Nonresident aliens include foreign citizens on temporary visas only.

NOTES: Details may not sum to totals due to rounding.

See section C for specific fields included in science and engineering.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from NSF/SRS, Survey of Earned Doctorates

Table 4. Number of earned bachelor's degrees, by field and by citizenship and race/ethnicity of recipient: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total									
Total, 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
Science and engineering	345,793	356,785	376,933	388,435	395,380	399,809	405,921	408,749	411,286
Engineering	64,703	62,186	61,898	62,670	62,962	63,330	63,066	62,306	60,870
Sciences	281,090	294,599	315,035	325,765	332,418	336,479	342,855	346,443	350,416
Natural sciences	105,234	105,595	111,108	116,742	122,792	129,447	136,126	140,301	144,256
Physical science ¹	16,203	16,407	17,076	17,691	18,525	19,375	19,853	19,730	19,594
Mathematical science	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
Biological science	38,040	40,351	43,835	47,877	52,213	56,804	61,998	65,061	67,047
Agricultural science	8,622	8,643	10,492	11,827	13,165	14,847	16,669	17,666	18,211
Social sciences	175,856	189,004	203,927	209,023	209,626	207,032	206,729	206,142	206,160
Social science	121,838	130,111	139,884	141,772	139,858	134,431	132,901	131,408	131,703
Psychology	54,018	58,893	64,043	67,251	69,768	72,601	73,828	74,734	74,457
Non-S&E ²	716,358	751,212	773,139	790,843	787,761	774,627	773,894	777,840	788,293
U.S. citizens and permanent residents, total ³									
Total, 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
Science and engineering	333,475	344,061	364,695	374,633	381,451	385,055	391,074	393,952	396,558
Engineering	59,786	57,604	57,675	58,165	58,422	58,520	58,304	57,509	56,227
Sciences	273,689	286,457	307,020	316,468	323,029	326,535	332,770	336,443	340,331
Natural sciences	100,908	101,039	106,739	111,656	117,843	124,297	131,065	135,390	139,280
Physical science ¹	15,608	15,799	16,469	16,927	17,812	18,652	19,167	19,059	18,919
Mathematical science	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
Biological science	37,173	39,288	42,842	46,660	51,058	55,523	60,633	63,601	65,625
Agricultural science	8,348	8,373	10,289	11,478	12,919	14,589	16,397	17,411	17,917
Social sciences	172,781	185,418	200,281	204,812	205,186	202,238	201,705	201,053	201,051
Social science	119,288	127,216	136,902	138,391	136,273	130,579	128,893	127,368	127,764
Psychology	53,493	58,202	63,379	66,421	68,913	71,659	72,812	73,685	73,287
Non-S&E ²	702,123	734,279	756,830	772,274	767,463	752,369	750,954	753,863	764,134
White, non-Hispanics									
Total, all fields	856,686	892,363	921,453	931,603	918,124	892,785	884,128	877,759	878,018
Science and engineering	270,225	278,190	292,614	297,171	297,616	294,773	295,082	292,252	290,207
Engineering	47,494	45,162	45,026	44,853	44,687	43,726	43,098	41,624	40,533
Sciences	222,731	233,028	247,588	252,318	252,929	251,047	251,984	250,628	249,674
Natural sciences	80,210	80,111	84,133	87,401	91,196	94,575	98,707	100,871	101,967
Physical science ¹	13,055	13,145	13,678	13,941	14,616	14,952	15,088	14,920	14,566
Mathematical science	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
Biological science	28,814	30,264	32,506	35,080	37,942	40,628	43,680	45,325	45,854
Agricultural science	7,658	7,704	9,382	10,556	11,733	13,120	14,646	15,516	15,832
Social sciences	142,521	152,917	163,455	164,917	161,733	156,472	153,277	149,757	147,707
Social science	98,385	104,783	111,389	111,154	106,863	100,558	97,372	94,411	93,482
Psychology	44,136	48,134	52,066	53,763	54,870	55,914	55,905	55,346	54,225
Non-S&E ²	586,461	614,173	628,839	634,432	620,508	598,012	589,046	585,507	587,811

See explanatory information and SOURCE at end of table.

Table 4. Number of earned bachelor's degrees, by field and by citizenship and race/ethnicity of recipient: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Asians									
Total, all fields	38,027	41,725	46,616	50,587	54,675	59,295	63,117	67,358	69,988
Science and engineering	19,437	20,552	22,635	24,504	26,420	29,128	31,031	33,139	34,568
Engineering	6,012	6,220	6,265	6,407	6,516	6,785	6,799	7,085	7,002
Sciences	13,425	14,332	16,370	18,097	19,904	22,343	24,232	26,054	27,566
Natural sciences	7,326	7,595	8,496	9,524	10,401	12,007	13,212	14,200	15,001
Physical science ¹	937	983	1,001	1,098	1,096	1,347	1,559	1,620	1,676
Mathematical science	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
Biological science	3,245	3,559	4,402	5,103	5,959	7,043	7,958	8,535	8,867
Agricultural science	126	128	154	163	173	287	312	401	444
Social sciences	6,099	6,737	7,874	8,573	9,503	10,336	11,020	11,854	12,565
Social science	4,469	4,852	5,724	6,035	6,726	7,005	7,354	7,787	8,298
Psychology	1,630	1,885	2,150	2,538	2,777	3,331	3,666	4,067	4,267
Non-S&E ²	18,590	21,173	23,981	26,083	28,255	30,167	32,086	34,219	35,420
Underrepresented minorities, total									
Total, all fields	107,377	118,522	129,448	140,086	151,063	158,432	167,382	174,243	181,709
Science and engineering	33,419	36,682	41,383	44,682	48,822	51,844	55,114	58,129	60,656
Engineering	4,729	4,953	5,277	5,714	6,020	6,717	6,974	7,463	7,396
Sciences	28,690	31,729	36,106	38,968	42,802	45,127	48,140	50,666	53,260
Natural sciences	10,530	10,960	11,722	12,510	13,782	14,815	16,135	16,856	18,424
Physical science ¹	1,245	1,355	1,425	1,528	1,737	1,932	2,076	2,063	2,147
Mathematical science	1,178	1,334	1,432	1,490	1,594	1,589	1,619	1,708	1,738
Computer science	3,416	3,292	3,342	3,390	3,611	3,915	3,784	3,734	4,096
Biological science	4,243	4,551	5,043	5,602	6,127	6,606	7,648	8,255	9,232
Agricultural science	448	428	480	500	713	773	1,008	1,096	1,211
Social sciences	18,160	20,769	24,384	26,458	29,020	30,312	32,005	33,810	34,836
Social science	12,394	14,100	16,647	17,918	19,400	19,621	20,471	21,385	21,960
Psychology	5,766	6,669	7,737	8,540	9,620	10,691	11,534	12,425	12,876
Non-S&E ²	73,958	81,840	88,065	95,404	102,241	106,588	112,268	116,114	121,053
Black, non-Hispanics									
Total, all fields	59,301	65,009	71,311	76,667	82,316	85,287	89,554	92,067	95,878
Science and engineering	18,230	19,987	22,431	24,421	26,289	27,528	29,055	30,444	31,398
Engineering	2,072	2,229	2,362	2,577	2,659	2,845	3,000	3,076	3,018
Sciences	16,158	17,758	20,069	21,844	23,630	24,683	26,055	27,368	28,380
Natural sciences	5,782	5,834	6,401	6,972	7,559	8,021	8,670	9,061	9,713
Physical science ¹	650	753	816	836	921	1,034	1,100	1,110	1,127
Mathematical science	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
Biological science	1,994	2,111	2,385	2,739	2,980	3,231	3,811	4,123	4,550
Agricultural science	171	162	206	219	268	263	363	387	426
Social sciences	10,376	11,924	13,668	14,872	16,071	16,662	17,385	18,307	18,667
Social science	7,226	8,236	9,489	10,254	10,835	10,921	11,357	11,660	11,815
Psychology	3,150	3,688	4,179	4,618	5,236	5,741	6,028	6,647	6,852
Non-S&E ²	41,071	45,022	48,880	52,246	56,027	57,759	60,499	61,623	64,480

See explanatory information and SOURCE at end of table.

Table 4. Number of earned bachelor's degrees, by field and by citizenship and race/ethnicity of recipient: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Hispanics									
Total, all fields	43,864	49,027	53,007	57,845	62,683	66,691	71,015	74,938	78,125
Science and engineering	13,918	15,351	17,391	18,442	20,529	22,190	23,791	25,266	26,725
Engineering	2,511	2,566	2,733	2,961	3,143	3,651	3,731	4,125	4,125
Sciences	11,407	12,785	14,658	15,481	17,386	18,539	20,060	21,141	22,600
Natural sciences	4,357	4,705	4,892	5,034	5,648	6,119	6,764	7,055	7,881
Physical science ¹	522	533	546	599	733	800	872	853	914
Mathematical science	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
Biological science	2,119	2,264	2,477	2,652	2,901	3,090	3,521	3,793	4,283
Agricultural science	218	213	214	217	336	386	506	561	632
Social sciences	7,050	8,080	9,766	10,447	11,738	12,420	13,296	14,086	14,719
Social science	4,645	5,334	6,519	6,860	7,748	7,877	8,260	8,804	9,210
Psychology	2,405	2,746	3,247	3,587	3,990	4,543	5,036	5,282	5,509
Non-S&E ²	29,946	33,676	35,616	39,403	42,154	44,501	47,224	49,672	51,400
American Indians or Alaskan Natives									
Total, all fields	4,212	4,486	5,130	5,574	6,064	6,454	6,813	7,238	7,706
Science and engineering	1,271	1,344	1,561	1,819	2,004	2,126	2,268	2,419	2,533
Engineering	146	158	182	176	218	221	243	262	253
Sciences	1,125	1,186	1,379	1,643	1,786	1,905	2,025	2,157	2,280
Natural sciences	391	421	429	504	575	675	701	740	830
Physical science ¹	73	69	63	93	83	98	104	100	106
Mathematical science	45	43	46	55	59	58	53	56	66
Computer science	84	80	79	81	78	110	89	97	106
Biological science	130	176	181	211	246	285	316	339	399
Agricultural science	59	53	60	64	109	124	139	148	153
Social sciences	734	765	950	1,139	1,211	1,230	1,324	1,417	1,450
Social science	523	530	639	804	817	823	854	921	935
Psychology	211	235	311	335	394	407	470	496	515
Non-S&E ²	2,941	3,142	3,569	3,755	4,060	4,328	4,545	4,819	5,173
U.S. citizens and permanent residents, unknown race/ethnicity									
Total, all fields	33,508	25,730	24,008	24,631	25,052	26,912	27,401	28,455	30,977
Science and engineering	10,394	8,637	8,063	8,276	8,593	9,310	9,847	10,432	11,127
Engineering	1,551	1,269	1,107	1,191	1,199	1,292	1,433	1,337	1,296
Sciences	8,843	7,368	6,956	7,085	7,394	8,018	8,414	9,095	9,831
Natural sciences	2,842	2,373	2,388	2,221	2,464	2,900	3,011	3,463	3,888
Physical science ¹	371	316	365	360	363	421	444	456	530
Mathematical science	333	308	247	244	260	269	266	274	268
Computer science	1,151	722	612	483	511	555	523	849	988
Biological science	871	914	891	875	1,030	1,246	1,347	1,486	1,672
Agricultural science	116	113	273	259	300	409	431	398	430
Social sciences	6,001	4,995	4,568	4,864	4,930	5,118	5,403	5,632	5,943
Social science	4,040	3,481	3,142	3,284	3,284	3,395	3,696	3,785	4,024
Psychology	1,961	1,514	1,426	1,580	1,646	1,723	1,707	1,847	1,919
Non-S&E ²	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.

Table 4. Number of earned bachelor's degrees, by field and by citizenship and race/ethnicity of recipient: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
	Nonresident aliens ⁴								
Total, all fields	26,553	29,657	28,547	32,371	34,227	37,012	37,787	38,774	38,887
Science and engineering	12,318	12,724	12,238	13,802	13,929	14,754	14,847	14,797	14,728
Engineering	4,917	4,582	4,223	4,505	4,540	4,810	4,762	4,797	4,643
Sciences	7,401	8,142	8,015	9,297	9,389	9,944	10,085	10,000	10,085
Natural sciences	4,326	4,556	4,369	5,086	4,949	5,150	5,061	4,911	4,976
Physical science ¹	595	608	607	764	713	723	686	671	675
Mathematical science	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
Biological science	867	1,063	993	1,217	1,155	1,281	1,365	1,460	1,422
Agricultural science	274	270	203	349	246	258	272	255	294
Social sciences	3,075	3,586	3,646	4,211	4,440	4,794	5,024	5,089	5,109
Social science	2,550	2,895	2,982	3,381	3,585	3,852	4,008	4,040	3,939
Psychology	525	691	664	830	855	942	1,016	1,049	1,170
Non-S&E ²	14,235	16,933	16,309	18,569	20,298	22,258	22,940	23,977	24,159

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

³ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

⁴ Nonresident aliens include foreign citizens on temporary visas only. No racial/ethnic data are collected for this group.

NOTES: Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 5. Number of earned bachelor's degrees, by field and by citizenship and race/ethnicity of male recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
	Total								
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
Engineering	54,730	52,522	52,270	52,696	52,569	52,389	51,765	50,846	49,541
Sciences	145,186	148,977	157,000	161,692	163,923	163,689	164,849	163,483	163,630
Natural sciences	62,518	62,091	64,678	67,855	70,956	73,593	76,775	77,585	78,792
Physical science ¹	11,109	11,199	11,466	11,877	12,253	12,559	12,666	12,306	12,001
Mathematical science	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
Biological science	18,631	19,715	21,107	23,111	25,314	26,956	29,189	29,839	29,982
Agricultural science	5,594	5,477	6,512	7,443	8,169	9,132	10,078	10,336	10,395
Social sciences	82,668	86,886	92,322	93,837	92,967	90,096	88,074	85,898	84,838
Social science	67,269	70,731	75,185	75,808	74,218	70,458	68,109	66,407	65,781
Psychology	15,399	16,155	17,137	18,029	18,749	19,638	19,965	19,491	19,057
Non-S&E ²	295,951	307,453	316,125	323,148	320,569	315,068	311,386	310,953	312,543
	U.S. citizens and permanent residents, total ³								
Total, 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
Engineering	50,303	48,410	48,518	48,655	48,577	48,145	47,623	46,725	45,526
Sciences	140,677	144,106	152,411	156,339	158,453	157,999	159,205	158,042	158,168
Natural sciences	59,662	59,096	61,872	64,584	67,726	70,302	73,606	74,571	75,715
Physical science ¹	10,694	10,788	11,049	11,352	11,786	12,086	12,229	11,875	11,572
Mathematical science	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
Biological science	18,200	19,171	20,628	22,542	24,739	26,334	28,576	29,170	29,303
Agricultural science	5,380	5,274	6,379	7,212	8,012	8,962	9,918	10,173	10,225
Social sciences	81,015	85,010	90,539	91,755	90,727	87,697	85,599	83,471	82,453
Social science	65,776	69,033	73,577	73,946	72,185	68,291	65,909	64,235	63,692
Psychology	15,239	15,977	16,962	17,809	18,542	19,406	19,690	19,236	18,761
Non-S&E ²	287,979	298,209	307,360	313,490	310,288	303,886	299,741	298,892	300,568
	White, non-Hispanics								
Total, 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
Engineering	40,533	38,692	38,513	38,244	37,830	36,785	35,977	34,579	33,620
Sciences	117,142	119,995	125,707	127,819	127,415	124,946	123,912	121,542	119,762
Natural sciences	48,848	48,304	50,126	52,048	54,115	55,197	57,162	57,464	57,255
Physical science ¹	9,179	9,203	9,430	9,614	9,958	10,006	9,966	9,695	9,290
Mathematical science	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
Biological science	14,488	15,174	16,030	17,293	18,882	19,790	21,065	21,388	20,908
Agricultural science	4,954	4,892	5,840	6,681	7,333	8,152	8,968	9,226	9,215
Social sciences	68,294	71,691	75,581	75,771	73,300	69,749	66,750	64,078	62,507
Social science	55,662	58,414	61,574	61,269	58,409	54,508	51,580	49,558	48,589
Psychology	12,632	13,277	14,007	14,502	14,891	15,241	15,170	14,520	13,918
Non-S&E ²	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.

Table 5. Number of earned bachelor's degrees, by field and by citizenship and race/ethnicity of male recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Asians									
Total, 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
Engineering	4,827	4,969	5,067	5,130	5,235	5,340	5,363	5,611	5,435
Sciences	6,701	6,973	8,131	9,002	9,732	10,699	11,652	12,303	13,060
Natural sciences	4,054	4,149	4,783	5,380	5,721	6,483	7,161	7,481	8,013
Physical science ¹	592	606	615	675	648	784	908	881	903
Mathematical science	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
Biological science	1,573	1,736	2,230	2,633	2,992	3,467	3,878	4,007	4,181
Agricultural science	63	57	79	78	82	130	139	169	191
Social sciences	2,647	2,824	3,348	3,622	4,011	4,216	4,491	4,822	5,047
Social science	2,156	2,260	2,728	2,884	3,204	3,247	3,366	3,617	3,824
Psychology	491	564	620	738	807	969	1,125	1,205	1,223
Non-S&E ²	7,569	8,831	9,992	10,687	11,453	12,309	12,939	13,818	14,093
Underrepresented minorities, total									
Total, all fields	43,047	46,914	50,695	54,600	58,528	61,542	64,369	66,191	68,448
Science and engineering	15,954	17,027	18,890	20,160	22,001	23,235	24,400	25,112	25,985
Engineering	3,574	3,654	3,952	4,261	4,458	4,917	5,056	5,410	5,362
Sciences	12,380	13,373	14,938	15,899	17,543	18,318	19,344	19,702	20,623
Natural sciences	5,043	5,226	5,450	5,766	6,389	6,888	7,478	7,610	8,294
Physical science ¹	655	755	745	792	931	998	1,044	991	1,060
Mathematical science	614	657	675	744	786	820	852	878	865
Computer science	1,797	1,758	1,864	1,802	1,939	2,190	2,092	2,122	2,315
Biological science	1,685	1,799	1,885	2,130	2,337	2,449	2,939	3,058	3,462
Agricultural science	292	257	281	298	396	431	551	561	592
Social sciences	7,337	8,147	9,488	10,133	11,154	11,430	11,866	12,092	12,329
Social science	5,788	6,442	7,590	8,013	8,813	8,742	8,990	9,092	9,256
Psychology	1,549	1,705	1,898	2,120	2,341	2,688	2,876	3,000	3,073
Non-S&E ²	27,093	29,887	31,805	34,440	36,527	38,307	39,969	41,079	42,463
Black, non-Hispanics									
Total, 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
Engineering	1,416	1,484	1,614	1,764	1,784	1,846	1,964	2,019	1,977
Sciences	6,414	6,964	7,761	8,335	9,022	9,281	9,736	9,928	10,173
Natural sciences	2,476	2,538	2,709	2,872	3,146	3,314	3,591	3,678	3,969
Physical science ¹	292	391	381	370	464	495	482	466	521
Mathematical science	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
Biological science	658	696	749	883	927	981	1,236	1,304	1,448
Agricultural science	110	100	113	126	137	121	187	186	189
Social sciences	3,938	4,426	5,052	5,463	5,876	5,967	6,145	6,250	6,204
Social science	3,144	3,547	4,070	4,364	4,644	4,565	4,727	4,659	4,660
Psychology	794	879	982	1,099	1,232	1,402	1,418	1,591	1,544
Non-S&E ²	14,760	15,790	17,143	18,275	19,300	19,871	20,523	20,779	21,503

See explanatory information and SOURCE at end of table.

Table 5. Number of earned bachelor's degrees, by field and by citizenship and race/ethnicity of male recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Hispanics									
Total, 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
Engineering	2,035	2,039	2,187	2,355	2,495	2,895	2,897	3,196	3,179
Sciences	5,399	5,849	6,543	6,805	7,695	8,136	8,695	8,848	9,443
Natural sciences	2,328	2,458	2,497	2,608	2,925	3,196	3,509	3,544	3,873
Physical science ¹	311	318	326	361	415	437	488	468	474
Mathematical science	249	259	279	273	300	315	354	340	338
Computer science	669	738	724	700	719	876	824	841	920
Biological science	955	1,019	1,043	1,144	1,298	1,340	1,560	1,598	1,823
Agricultural science	144	124	125	130	193	228	283	297	318
Social sciences	3,071	3,391	4,046	4,197	4,770	4,940	5,186	5,304	5,570
Social science	2,384	2,634	3,220	3,269	3,774	3,774	3,860	4,019	4,188
Psychology	687	757	826	928	996	1,166	1,326	1,285	1,382
Non-S&E ²	11,249	12,893	13,296	14,665	15,670	16,844	17,743	18,506	19,094
American Indians or Alaskan Natives									
Total, 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
Engineering	123	131	151	142	179	176	195	195	206
Sciences	567	560	634	759	826	901	913	926	1,007
Natural sciences	239	230	244	286	318	378	378	388	452
Physical science ¹	52	46	38	61	52	66	74	57	65
Mathematical science	23	18	22	27	29	29	30	28	39
Computer science	54	49	48	53	59	73	50	69	72
Biological science	72	84	93	103	112	128	143	156	191
Agricultural science	38	33	43	42	66	82	81	78	85
Social sciences	328	330	390	473	508	523	535	538	555
Social science	260	261	300	380	395	403	403	414	408
Psychology	68	69	90	93	113	120	132	124	147
Non-S&E ²	1,084	1,204	1,366	1,500	1,557	1,592	1,703	1,794	1,866
U.S. citizens and permanent residents, unknown race/ethnicity									
Total, 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
Engineering	1,369	1,095	986	1,020	1,054	1,103	1,227	1,125	1,109
Sciences	4,454	3,765	3,635	3,619	3,763	4,036	4,297	4,495	4,723
Natural sciences	1,717	1,417	1,513	1,390	1,501	1,734	1,805	2,016	2,153
Physical science ¹	268	224	259	271	249	298	311	308	319
Mathematical science	181	172	149	137	161	165	160	161	148
Computer science	743	491	443	341	362	394	380	613	707
Biological science	454	462	483	486	528	628	694	717	752
Agricultural science	71	68	179	155	201	249	260	217	227
Social sciences	2,737	2,348	2,122	2,229	2,262	2,302	2,492	2,479	2,570
Social science	2,170	1,917	1,685	1,780	1,759	1,794	1,973	1,968	2,023
Psychology	567	431	437	449	503	508	519	511	547
Non-S&E ²	9,968	7,433	7,266	7,186	7,342	7,846	7,590	7,575	8,387

See explanatory information and SOURCE at end of table.

Table 5. Number of earned bachelor's degrees, by field and by citizenship and race/ethnicity of male recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
	Nonresident aliens ⁴								
Total, 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
Engineering	4,427	4,112	3,752	4,041	3,992	4,244	4,142	4,121	4,015
Sciences	4,509	4,871	4,589	5,353	5,470	5,690	5,644	5,441	5,462
Natural sciences	2,856	2,995	2,806	3,271	3,230	3,291	3,169	3,014	3,077
Physical science ¹	415	411	417	525	467	473	437	431	429
Mathematical science	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
Biological science	431	544	479	569	575	622	613	669	679
Agricultural science	214	203	133	231	157	170	160	163	170
Social sciences	1,653	1,876	1,783	2,082	2,240	2,399	2,475	2,427	2,385
Social science	1,493	1,698	1,608	1,862	2,033	2,167	2,200	2,172	2,089
Psychology	160	178	175	220	207	232	275	255	296
Non-S&E ²	7,972	9,244	8,765	9,658	10,281	11,182	11,645	12,061	11,975

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

³ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

⁴ Nonresident aliens include foreign citizens on temporary visas only. No racial/ethnic data are collected for this group.

NOTES: Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 6. Number of earned bachelor's degrees, by field and by citizenship and race/ethnicity of female recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
	Total								
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
Engineering	9,973	9,664	9,628	9,974	10,393	10,941	11,301	11,460	11,329
Sciences	135,904	145,622	158,035	164,073	168,495	172,790	178,006	182,960	186,786
Natural sciences	42,716	43,504	46,430	48,887	51,836	55,854	59,351	62,716	65,464
Physical science ¹	5,094	5,208	5,610	5,814	6,272	6,816	7,187	7,424	7,593
Mathematical science	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
Biological science	19,409	20,636	22,728	24,766	26,899	29,848	32,809	35,222	37,065
Agricultural science	3,028	3,166	3,980	4,384	4,996	5,715	6,591	7,330	7,816
Social sciences	93,188	102,118	111,605	115,186	116,659	116,936	118,655	120,244	121,322
Social science	54,569	59,380	64,699	65,964	65,640	63,973	64,792	65,001	65,922
Psychology	38,619	42,738	46,906	49,222	51,019	52,963	53,863	55,243	55,400
Non-S&E ²	420,407	443,759	457,014	467,695	467,192	459,559	462,508	466,887	475,750
	U.S. citizens and permanent residents, total ³								
Total, 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
Engineering	9,483	9,194	9,157	9,510	9,845	10,375	10,681	10,784	10,701
Sciences	133,012	142,351	154,609	160,129	164,576	168,536	173,565	178,401	182,163
Natural sciences	41,246	41,943	44,867	47,072	50,117	53,995	57,459	60,819	63,565
Physical science ¹	4,914	5,011	5,420	5,575	6,026	6,566	6,938	7,184	7,347
Mathematical science	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
Biological science	18,973	20,117	22,214	24,118	26,319	29,189	32,057	34,431	36,322
Agricultural science	2,968	3,099	3,910	4,266	4,907	5,627	6,479	7,238	7,692
Social sciences	91,766	100,408	109,742	113,057	114,459	114,541	116,106	117,582	118,598
Social science	53,512	58,183	63,325	64,445	64,088	62,288	62,984	63,133	64,072
Psychology	38,254	42,225	46,417	48,612	50,371	52,253	53,122	54,449	54,526
Non-S&E ²	414,144	436,070	449,470	458,784	457,175	448,483	451,213	454,971	463,566
	White, non-Hispanics								
Total, 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
Engineering	6,961	6,470	6,513	6,609	6,857	6,941	7,121	7,045	6,913
Sciences	105,589	113,033	121,881	124,499	125,514	126,101	128,072	129,086	129,912
Natural sciences	31,362	31,807	34,007	35,353	37,081	39,378	41,545	43,407	44,712
Physical science ¹	3,876	3,942	4,248	4,327	4,658	4,946	5,122	5,225	5,276
Mathematical science	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
Biological science	14,326	15,090	16,476	17,787	19,060	20,838	22,615	23,937	24,946
Agricultural science	2,704	2,812	3,542	3,875	4,400	4,968	5,678	6,290	6,617
Social sciences	74,227	81,226	87,874	89,146	88,433	86,723	86,527	85,679	85,200
Social science	42,723	46,369	49,815	49,885	48,454	46,050	45,792	44,853	44,893
Psychology	31,504	34,857	38,059	39,261	39,979	40,673	40,735	40,826	40,307
Non-S&E ²	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.

Table 6. Number of earned bachelor's degrees, by field and by citizenship and race/ethnicity of female recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Asians									
Total, 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
Engineering	1,185	1,251	1,198	1,277	1,281	1,445	1,436	1,474	1,567
Sciences	6,724	7,359	8,239	9,095	10,172	11,644	12,580	13,751	14,506
Natural sciences	3,272	3,446	3,713	4,144	4,680	5,524	6,051	6,719	6,988
Physical science ¹	345	377	386	423	448	563	651	739	773
Mathematical science	383	433	371	413	403	446	396	383	394
Computer science	809	742	709	753	771	782	751	837	882
Biological science	1,672	1,823	2,172	2,470	2,967	3,576	4,080	4,528	4,686
Agricultural science	63	71	75	85	91	157	173	232	253
Social sciences	3,452	3,913	4,526	4,951	5,492	6,120	6,529	7,032	7,518
Social science	2,313	2,592	2,996	3,151	3,522	3,758	3,988	4,170	4,474
Psychology	1,139	1,321	1,530	1,800	1,970	2,362	2,541	2,862	3,044
Non-S&E ²	11,021	12,342	13,989	15,396	16,802	17,858	19,147	20,401	21,327
Underrepresented minorities, total									
Total, all fields	64,330	71,608	78,753	85,486	92,535	96,890	103,013	108,052	113,261
Science and engineering	17,465	19,655	22,493	24,522	26,821	28,609	30,714	33,017	34,671
Engineering	1,155	1,299	1,325	1,453	1,562	1,800	1,918	2,053	2,034
Sciences	16,310	18,356	21,168	23,069	25,259	26,809	28,796	30,964	32,637
Natural sciences	5,487	5,734	6,272	6,744	7,393	7,927	8,657	9,246	10,130
Physical science ¹	590	600	680	736	806	934	1,032	1,072	1,087
Mathematical science	564	677	757	746	808	769	767	830	873
Computer science	1,619	1,534	1,478	1,588	1,672	1,725	1,692	1,612	1,781
Biological science	2,558	2,752	3,158	3,472	3,790	4,157	4,709	5,197	5,770
Agricultural science	156	171	199	202	317	342	457	535	619
Social sciences	10,823	12,622	14,896	16,325	17,866	18,882	20,139	21,718	22,507
Social science	6,606	7,658	9,057	9,905	10,587	10,879	11,481	12,293	12,704
Psychology	4,217	4,964	5,839	6,420	7,279	8,003	8,658	9,425	9,803
Non-S&E ²	46,865	51,953	56,260	60,964	65,714	68,281	72,299	75,035	78,590
Black, non-Hispanics									
Total, 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
Engineering	656	745	748	813	875	999	1,036	1,057	1,041
Sciences	9,744	10,794	12,308	13,509	14,608	15,402	16,319	17,440	18,207
Natural sciences	3,306	3,296	3,692	4,100	4,413	4,707	5,079	5,383	5,744
Physical science ¹	358	362	435	466	457	539	618	644	606
Mathematical science	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
Biological science	1,336	1,415	1,636	1,856	2,053	2,250	2,575	2,819	3,102
Agricultural science	61	62	93	93	131	142	176	201	237
Social sciences	6,438	7,498	8,616	9,409	10,195	10,695	11,240	12,057	12,463
Social science	4,082	4,689	5,419	5,890	6,191	6,356	6,630	7,001	7,155
Psychology	2,356	2,809	3,197	3,519	4,004	4,339	4,610	5,056	5,308
Non-S&E ²	26,311	29,232	31,737	33,971	36,727	37,888	39,976	40,844	42,977

See explanatory information and SOURCE at end of table.

Table 6. Number of earned bachelor's degrees, by field and by citizenship and race/ethnicity of female recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Hispanics									
Total, 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
Engineering	476	527	546	606	648	756	834	929	946
Sciences	6,008	6,936	8,115	8,676	9,691	10,403	11,365	12,293	13,157
Natural sciences	2,029	2,247	2,395	2,426	2,723	2,923	3,255	3,511	4,008
Physical science ¹	211	215	220	238	318	363	384	385	440
Mathematical science	164	221	203	197	243	221	231	241	304
Computer science	416	477	449	396	416	431	456	426	490
Biological science	1,164	1,245	1,434	1,508	1,603	1,750	1,961	2,195	2,460
Agricultural science	74	89	89	87	143	158	223	264	314
Social sciences	3,979	4,689	5,720	6,250	6,968	7,480	8,110	8,782	9,149
Social science	2,261	2,700	3,299	3,591	3,974	4,103	4,400	4,785	5,022
Psychology	1,718	1,989	2,421	2,659	2,994	3,377	3,710	3,997	4,127
Non-S&E ²	18,697	20,783	22,320	24,738	26,484	27,657	29,481	31,166	32,306
American Indians or Alaskan Natives									
Total, 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
Engineering	23	27	31	34	39	45	48	67	47
Sciences	558	626	745	884	960	1,004	1,112	1,231	1,273
Natural sciences	152	191	185	218	257	297	323	352	378
Physical science ¹	21	23	25	32	31	32	30	43	41
Mathematical science	22	25	24	28	30	29	23	28	27
Computer science	30	31	31	28	19	37	39	28	34
Biological science	58	92	88	108	134	157	173	183	208
Agricultural science	21	20	17	22	43	42	58	70	68
Social sciences	406	435	560	666	703	707	789	879	895
Social science	263	269	339	424	422	420	451	507	527
Psychology	143	166	221	242	281	287	338	372	368
Non-S&E ²	1,857	1,938	2,203	2,255	2,503	2,736	2,842	3,025	3,307
U.S. citizens and permanent residents, unknown race/ethnicity									
Total, 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
Engineering	182	174	121	171	145	189	206	212	187
Sciences	4,389	3,603	3,321	3,466	3,631	3,982	4,117	4,600	5,108
Natural sciences	1,125	956	875	831	963	1,166	1,206	1,447	1,735
Physical science ¹	103	92	106	89	114	123	133	148	211
Mathematical science	152	136	98	107	99	104	106	113	120
Computer science	408	231	169	142	149	161	143	236	281
Biological science	417	452	408	389	502	618	653	769	920
Agricultural science	45	45	94	104	99	160	171	181	203
Social sciences	3,264	2,647	2,446	2,635	2,668	2,816	2,911	3,153	3,373
Social science	1,870	1,564	1,457	1,504	1,525	1,601	1,723	1,817	2,001
Psychology	1,394	1,083	989	1,131	1,143	1,215	1,188	1,336	1,372
Non-S&E ²	13,146	9,660	8,679	9,169	9,117	9,756	9,964	10,448	11,463

See explanatory information and SOURCE at end of table.

Table 6. Number of earned bachelor's degrees, by field and by citizenship and race/ethnicity of female recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
	Nonresident aliens ⁴								
Total, 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
Engineering	490	470	471	464	548	566	620	676	628
Sciences	2,892	3,271	3,426	3,944	3,919	4,254	4,441	4,559	4,623
Natural sciences	1,470	1,561	1,563	1,815	1,719	1,859	1,892	1,897	1,899
Physical science ¹	180	197	190	239	246	250	249	240	246
Mathematical science	200	204	234	207	198	235	172	206	164
Computer science	594	574	555	603	606	627	607	568	622
Biological science	436	519	514	648	580	659	752	791	743
Agricultural science	60	67	70	118	89	88	112	92	124
Social sciences	1,422	1,710	1,863	2,129	2,200	2,395	2,549	2,662	2,724
Social science	1,057	1,197	1,374	1,519	1,552	1,685	1,808	1,868	1,850
Psychology	365	513	489	610	648	710	741	794	874
Non-S&E ²	6,263	7,689	7,544	8,911	10,017	11,076	11,295	11,916	12,184

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

³ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

⁴ Nonresident aliens include foreign citizens on temporary visas only. No racial/ethnic data are collected for this group.

NOTES: Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 7. Number of earned master's degrees, by field and by citizenship and race/ethnicity of recipient: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total									
Total, all fields	324,947	338,498	354,207	370,973	389,008	399,428	408,932	420,954	431,871
Science and engineering	72,228	72,828	76,184	81,415	86,080	88,431	88,730	86,697	87,144
Engineering	23,985	24,007	25,010	27,658	28,707	28,617	27,757	25,870	26,128
Sciences	48,243	48,821	51,174	53,757	57,373	59,814	60,973	60,827	61,016
Natural sciences	26,293	25,669	26,775	27,713	28,869	29,292	30,353	29,919	30,532
Physical science ¹	5,411	5,282	5,352	5,365	5,688	5,735	5,854	5,579	5,398
Mathematical science	3,684	3,632	4,019	4,084	4,108	4,190	4,037	3,790	3,700
Computer science	9,643	9,324	9,530	10,167	10,421	10,332	10,223	10,107	11,270
Biological science	4,893	4,806	4,816	4,798	5,217	5,423	6,207	6,497	6,283
Agricultural science	2,662	2,625	3,058	3,299	3,435	3,612	4,032	3,946	3,881
Social sciences	21,950	23,152	24,399	26,044	28,504	30,522	30,620	30,908	30,484
Social science	12,642	13,350	14,119	15,024	16,230	16,501	16,758	16,466	16,574
Psychology	9,308	9,802	10,280	11,020	12,274	14,021	13,862	14,442	13,910
Non-S&E ²	252,719	265,670	278,023	289,558	302,928	310,997	320,202	334,257	344,727
U.S. citizens and permanent residents, total ³									
Total, all fields	290,345	300,887	314,555	326,864	342,502	350,672	360,682	371,477	379,666
Science and engineering	55,890	55,779	58,177	61,265	65,201	67,110	68,151	66,609	65,748
Engineering	16,746	16,487	17,111	18,539	19,350	18,921	18,762	17,236	16,970
Sciences	39,144	39,292	41,066	42,726	45,851	48,189	49,389	49,373	48,778
Natural sciences	19,963	18,935	19,459	19,651	20,451	20,957	22,028	21,764	21,758
Physical science ¹	4,047	3,778	3,814	3,763	3,918	3,980	4,119	3,933	3,898
Mathematical science	2,649	2,573	2,907	2,946	3,013	3,034	2,956	2,789	2,671
Computer science	7,080	6,505	6,361	6,388	6,509	6,452	6,352	6,172	6,523
Biological science	4,164	4,057	4,021	3,949	4,284	4,543	5,230	5,589	5,392
Agricultural science	2,023	2,022	2,356	2,605	2,727	2,948	3,371	3,281	3,274
Social sciences	19,181	20,357	21,607	23,075	25,400	27,232	27,361	27,609	27,020
Social science	10,258	10,872	11,629	12,387	13,487	13,695	13,938	13,584	13,579
Psychology	8,923	9,485	9,978	10,688	11,913	13,537	13,423	14,025	13,441
Non-S&E ²	234,455	245,108	256,378	265,599	277,301	283,562	292,531	304,868	313,918
White, non-Hispanics									
Total, all fields	236,874	247,524	257,062	265,668	273,913	277,437	282,713	288,353	291,962
Science and engineering	44,450	44,513	45,649	47,975	50,711	51,417	51,791	50,288	49,047
Engineering	12,859	12,635	12,752	13,920	14,469	13,821	13,573	12,490	12,079
Sciences	31,591	31,878	32,897	34,055	36,242	37,596	38,218	37,798	36,968
Natural sciences	15,742	15,005	15,136	15,322	15,524	15,789	16,672	16,347	16,134
Physical science ¹	3,401	3,129	3,067	3,078	3,145	3,179	3,326	3,173	3,129
Mathematical science	2,169	2,068	2,336	2,354	2,379	2,342	2,227	2,145	2,036
Computer science	4,851	4,637	4,407	4,464	4,286	4,205	4,113	3,868	3,976
Biological science	3,501	3,353	3,251	3,144	3,453	3,589	4,080	4,342	4,156
Agricultural science	1,820	1,818	2,075	2,282	2,261	2,474	2,926	2,819	2,837
Social sciences	15,849	16,873	17,761	18,733	20,718	21,807	21,546	21,451	20,834
Social science	8,360	8,900	9,523	9,923	10,758	10,700	10,807	10,350	10,413
Psychology	7,489	7,973	8,238	8,810	9,960	11,107	10,739	11,101	10,421
Non-S&E ²	192,424	203,011	211,413	217,693	223,202	226,020	230,922	238,065	242,915

See explanatory information and SOURCE at end of table.

Table 7. Number of earned master's degrees, by field and by citizenship and race/ethnicity of recipient: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Asians									
Total, all fields	9,994	11,070	12,293	13,169	14,559	15,906	17,281	17,912	19,936
Science and engineering	4,055	4,310	4,763	4,846	5,422	5,683	5,942	5,845	6,178
Engineering	1,863	2,008	2,223	2,260	2,443	2,572	2,621	2,319	2,450
Sciences	2,192	2,302	2,540	2,586	2,979	3,111	3,321	3,526	3,728
Natural sciences	1,629	1,735	1,916	1,918	2,159	2,280	2,405	2,487	2,679
Physical science ¹	234	251	295	249	284	288	304	308	278
Mathematical science	184	189	201	197	233	239	235	248	215
Computer science	941	1,014	1,105	1,106	1,228	1,239	1,237	1,268	1,527
Biological science	225	231	264	305	332	417	519	558	576
Agricultural science	45	50	51	61	82	97	110	105	83
Social sciences	563	567	624	668	820	831	916	1,039	1,049
Social science	404	397	441	477	550	533	586	665	655
Psychology	159	170	183	191	270	298	330	374	394
Non-S&E ²	5,939	6,760	7,530	8,323	9,137	10,223	11,339	12,067	13,758
Underrepresented minorities, total									
Total, all fields	24,018	26,666	28,904	31,612	35,731	38,401	41,675	45,152	47,983
Science and engineering	3,615	4,026	4,360	4,899	5,636	6,223	6,552	7,031	7,176
Engineering	868	906	996	1,195	1,368	1,419	1,478	1,492	1,575
Sciences	2,747	3,120	3,364	3,704	4,268	4,804	5,074	5,539	5,601
Natural sciences	1,002	1,195	1,258	1,358	1,569	1,625	1,680	1,826	1,787
Physical science ¹	194	182	209	231	257	295	253	299	319
Mathematical science	127	194	147	184	190	237	248	242	252
Computer science	357	425	480	484	552	561	576	599	583
Biological science	244	286	307	312	297	349	406	467	399
Agricultural science	80	108	115	147	273	183	197	219	234
Social sciences	1,745	1,925	2,106	2,346	2,699	3,179	3,394	3,713	3,814
Social science	868	1,031	1,118	1,282	1,443	1,575	1,658	1,719	1,778
Psychology	877	894	988	1,064	1,256	1,604	1,736	1,994	2,036
Non-S&E ²	20,403	22,640	24,544	26,713	30,095	32,178	35,123	38,121	40,807
Black, non-Hispanics									
Total, all fields	14,473	15,857	17,420	18,897	20,936	22,954	24,588	26,948	28,616
Science and engineering	1,847	2,090	2,356	2,554	2,849	3,339	3,518	3,817	3,756
Engineering	387	398	466	564	589	665	674	674	714
Sciences	1,460	1,692	1,890	1,990	2,260	2,674	2,844	3,143	3,042
Natural sciences	527	644	699	716	821	881	932	1,010	957
Physical science ¹	87	73	98	105	127	147	116	144	146
Mathematical science	70	100	77	98	109	151	151	157	150
Computer science	232	283	316	308	365	347	379	377	376
Biological science	110	137	149	135	142	162	198	236	190
Agricultural science	28	51	59	70	78	74	88	96	95
Social sciences	933	1,048	1,191	1,274	1,439	1,793	1,912	2,133	2,085
Social science	462	594	660	730	803	930	965	1,010	1,012
Psychology	471	454	531	544	636	863	947	1,123	1,073
Non-S&E ²	12,626	13,767	15,064	16,343	18,087	19,615	21,070	23,131	24,860

See explanatory information and SOURCE at end of table.

Table 7. Number of earned master's degrees, by field and by citizenship and race/ethnicity of recipient: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Hispanics									
Total, all fields	8,495	9,684	10,256	11,371	13,177	13,905	15,394	16,360	17,416
Science and engineering	1,587	1,736	1,806	2,092	2,514	2,585	2,730	2,882	3,071
Engineering	446	468	488	581	719	711	748	765	807
Sciences	1,141	1,268	1,318	1,511	1,795	1,874	1,982	2,117	2,264
Natural sciences	431	494	503	574	680	665	677	720	737
Physical science ¹	98	96	93	114	114	129	127	139	149
Mathematical science	51	85	66	78	75	75	91	71	91
Computer science	118	128	149	162	169	198	173	197	193
Biological science	120	136	146	151	138	167	191	208	188
Agricultural science	44	49	49	69	184	96	95	105	116
Social sciences	710	774	815	937	1,115	1,209	1,305	1,397	1,527
Social science	341	383	396	474	557	553	596	626	676
Psychology	369	391	419	463	558	656	709	771	851
Non-S&E ²	6,908	7,948	8,450	9,279	10,663	11,320	12,664	13,478	14,345
American Indians or Alaskan Natives									
Total, all fields	1,050	1,125	1,228	1,344	1,618	1,542	1,693	1,844	1,951
Science and engineering	181	200	198	253	273	299	304	332	349
Engineering	35	40	42	50	60	43	56	53	54
Sciences	146	160	156	203	213	256	248	279	295
Natural sciences	44	57	56	68	68	79	71	96	93
Physical science ¹	9	13	18	12	16	19	10	16	24
Mathematical science	6	9	4	8	6	11	6	14	11
Computer science	7	14	15	14	18	16	24	25	14
Biological science	14	13	12	26	17	20	17	23	21
Agricultural science	8	8	7	8	11	13	14	18	23
Social sciences	102	103	100	135	145	177	177	183	202
Social science	65	54	62	78	83	92	97	83	90
Psychology	37	49	38	57	62	85	80	100	112
Non-S&E ²	869	925	1,030	1,091	1,345	1,243	1,389	1,512	1,602
U.S. citizens and permanent residents, unknown race/ethnicity									
Total, all fields	19,459	15,627	16,296	16,415	18,299	18,928	19,013	20,060	19,785
Science and engineering	3,770	2,930	3,405	3,545	3,432	3,787	3,866	3,445	3,347
Engineering	1,156	938	1,140	1,164	1,070	1,109	1,090	935	866
Sciences	2,614	1,992	2,265	2,381	2,362	2,678	2,776	2,510	2,481
Natural sciences	1,590	1,000	1,149	1,053	1,199	1,263	1,271	1,104	1,158
Physical science ¹	218	216	243	205	232	218	236	153	172
Mathematical science	169	122	223	211	211	216	246	154	168
Computer science	931	429	369	334	443	447	426	437	437
Biological science	194	187	199	188	202	188	225	222	261
Agricultural science	78	46	115	115	111	194	138	138	120
Social sciences	1,024	992	1,116	1,328	1,163	1,415	1,505	1,406	1,323
Social science	626	544	547	705	736	887	887	850	733
Psychology	398	448	569	623	427	528	618	556	590
Non-S&E ²	15,689	12,697	12,891	12,870	14,867	15,141	15,147	16,615	16,438

See explanatory information and SOURCE at end of table.

Table 7. Number of earned master's degrees, by field and by citizenship and race/ethnicity of recipient: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
	Nonresident aliens ⁴								
Total, all fields	34,602	37,611	39,652	44,109	46,506	48,756	48,250	49,477	52,205
Science and engineering	16,338	17,049	18,007	20,150	20,879	21,321	20,579	20,088	21,396
Engineering	7,239	7,520	7,899	9,119	9,357	9,696	8,995	8,634	9,158
Sciences	9,099	9,529	10,108	11,031	11,522	11,625	11,584	11,454	12,238
Natural sciences	6,330	6,734	7,316	8,062	8,418	8,335	8,325	8,155	8,774
Physical science ¹	1,364	1,504	1,538	1,602	1,770	1,755	1,735	1,646	1,500
Mathematical science	1,035	1,059	1,112	1,138	1,095	1,156	1,081	1,001	1,029
Computer science	2,563	2,819	3,169	3,779	3,912	3,880	3,871	3,935	4,747
Biological science	729	749	795	849	933	880	977	908	891
Agricultural science	639	603	702	694	708	664	661	665	607
Social sciences	2,769	2,795	2,792	2,969	3,104	3,290	3,259	3,299	3,464
Social science	2,384	2,478	2,490	2,637	2,743	2,806	2,820	2,882	2,995
Psychology	385	317	302	332	361	484	439	417	469
Non-S&E ²	18,264	20,562	21,645	23,959	25,627	27,435	27,671	29,389	30,809

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

³ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

⁴ Nonresident aliens include foreign citizens on temporary visas only. No racial/ethnic data are collected for this group.

NOTES: Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 8. Number of earned master's degrees, by field and by citizenship and race/ethnicity of male recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total									
Total, all fields	154,025	156,895	162,299	169,753	176,762	179,198	180,360	181,457	185,061
Science and engineering	48,424	47,748	49,768	53,102	55,461	55,803	54,928	52,181	52,219
Engineering	20,717	20,650	21,345	23,565	24,286	23,986	23,005	21,176	20,970
Sciences	27,707	27,098	28,423	29,537	31,175	31,817	31,923	31,005	31,249
Natural sciences	17,258	16,530	17,480	18,076	18,813	18,926	19,185	18,551	18,834
Physical science ¹	3,981	3,825	3,895	3,803	4,030	4,000	3,968	3,758	3,464
Mathematical science	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
Biological science	2,393	2,315	2,316	2,365	2,475	2,616	2,925	3,048	2,994
Agricultural science	1,708	1,681	1,928	2,029	2,040	2,131	2,324	2,248	2,169
Social sciences	10,449	10,568	10,943	11,461	12,362	12,891	12,738	12,454	12,415
Social science	7,424	7,574	7,939	8,419	8,945	8,981	8,910	8,585	8,680
Psychology	3,025	2,994	3,004	3,042	3,417	3,910	3,828	3,869	3,735
Non-S&E ²	105,601	109,147	112,531	116,651	121,301	123,395	125,432	129,276	132,842
U.S. citizens and permanent residents, total ³									
Total, all fields	130,326	131,745	136,062	140,932	146,621	148,039	150,310	151,256	153,581
Science and engineering	35,722	34,667	36,063	37,737	39,700	39,784	39,968	37,795	37,164
Engineering	14,174	13,977	14,350	15,542	16,140	15,624	15,402	13,990	13,535
Sciences	21,548	20,690	21,713	22,195	23,560	24,160	24,566	23,805	23,629
Natural sciences	12,819	11,839	12,393	12,504	12,985	13,134	13,545	13,085	13,061
Physical science ¹	2,953	2,755	2,784	2,685	2,794	2,778	2,781	2,618	2,483
Mathematical science	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
Biological science	2,014	1,945	1,931	1,959	2,013	2,164	2,470	2,638	2,602
Agricultural science	1,258	1,257	1,429	1,543	1,596	1,702	1,923	1,831	1,806
Social sciences	8,729	8,851	9,320	9,691	10,575	11,026	11,021	10,720	10,568
Social science	5,840	5,961	6,411	6,760	7,288	7,264	7,317	6,978	6,949
Psychology	2,889	2,890	2,909	2,931	3,287	3,762	3,704	3,742	3,619
Non-S&E ²	94,604	97,078	99,999	103,195	106,921	108,255	110,342	113,461	116,417
White, non-Hispanics									
Total, all fields	106,075	107,917	110,797	113,717	116,758	116,655	117,559	117,942	118,464
Science and engineering	28,250	27,634	28,113	29,493	30,846	30,464	30,591	28,930	28,066
Engineering	10,922	10,742	10,775	11,777	12,232	11,581	11,383	10,385	9,862
Sciences	17,328	16,892	17,338	17,716	18,614	18,883	19,208	18,545	18,204
Natural sciences	10,116	9,491	9,675	9,837	9,964	10,031	10,429	10,104	9,877
Physical science ¹	2,518	2,299	2,234	2,229	2,252	2,256	2,288	2,172	2,044
Mathematical science	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
Biological science	1,711	1,629	1,566	1,593	1,643	1,740	1,958	2,108	2,008
Agricultural science	1,138	1,134	1,250	1,357	1,340	1,450	1,687	1,607	1,584
Social sciences	7,212	7,401	7,663	7,879	8,650	8,852	8,779	8,441	8,327
Social science	4,781	4,981	5,276	5,453	5,880	5,750	5,758	5,428	5,457
Psychology	2,431	2,420	2,387	2,426	2,770	3,102	3,021	3,013	2,870
Non-S&E ²	77,825	80,283	82,684	84,224	85,912	86,191	86,968	89,012	90,398

See explanatory information and SOURCE at end of table.

Table 8. Number of earned master's degrees, by field and by citizenship and race/ethnicity of male recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Asians									
Total, all fields	5,670	6,220	6,823	7,125	7,791	8,385	8,877	8,585	9,638
Science and engineering	2,799	2,959	3,276	3,237	3,561	3,733	3,726	3,453	3,707
Engineering	1,557	1,685	1,816	1,819	1,932	2,023	2,000	1,758	1,823
Sciences	1,242	1,274	1,460	1,418	1,629	1,710	1,726	1,695	1,884
Natural sciences	976	1,031	1,169	1,149	1,279	1,359	1,361	1,324	1,503
Physical science ¹	140	165	206	150	182	187	168	168	150
Mathematical science	106	108	103	121	126	134	132	125	111
Computer science	609	627	705	710	785	785	775	755	909
Biological science	97	104	125	136	151	209	237	244	290
Agricultural science	24	27	30	32	35	44	49	32	43
Social sciences	266	243	291	269	350	351	365	371	381
Social science	224	196	229	219	276	272	287	285	288
Psychology	42	47	62	50	74	79	78	86	93
Non-S&E ²	2,871	3,261	3,547	3,888	4,230	4,652	5,151	5,132	5,931
Underrepresented minorities, total									
Total, all fields	9,321	10,207	10,676	11,903	13,144	13,984	14,735	15,607	16,694
Science and engineering	2,005	2,129	2,340	2,637	2,964	3,143	3,197	3,370	3,418
Engineering	687	711	775	924	1,052	1,082	1,095	1,084	1,145
Sciences	1,318	1,418	1,565	1,713	1,912	2,061	2,102	2,286	2,273
Natural sciences	610	664	728	764	899	905	912	975	952
Physical science ¹	130	124	144	142	167	185	145	171	181
Mathematical science	74	112	92	102	111	122	140	135	126
Computer science	238	244	283	308	337	361	347	365	363
Biological science	120	116	137	132	125	136	170	187	173
Agricultural science	48	68	72	80	159	101	110	117	109
Social sciences	708	754	837	949	1,013	1,156	1,190	1,311	1,321
Social science	429	482	556	672	692	734	749	809	806
Psychology	279	272	281	277	321	422	441	502	515
Non-S&E ²	7,316	8,078	8,336	9,266	10,180	10,841	11,538	12,237	13,276
Black, non-Hispanics									
Total, all fields	5,169	5,619	5,794	6,472	7,007	7,636	7,998	8,444	9,107
Science and engineering	950	1,028	1,166	1,253	1,376	1,534	1,565	1,617	1,646
Engineering	287	299	332	407	422	464	464	449	470
Sciences	663	729	834	846	954	1,070	1,101	1,168	1,176
Natural sciences	307	338	382	386	435	434	467	484	485
Physical science ¹	61	43	66	58	74	86	59	74	81
Mathematical science	37	53	44	48	62	64	78	77	71
Computer science	140	150	175	193	205	199	205	208	229
Biological science	51	58	61	47	48	50	76	69	68
Agricultural science	18	34	36	40	46	35	49	56	36
Social sciences	356	391	452	460	519	636	634	684	691
Social science	223	262	315	345	358	418	391	426	431
Psychology	133	129	137	115	161	218	243	258	260
Non-S&E ²	4,219	4,591	4,628	5,219	5,631	6,102	6,433	6,827	7,461

See explanatory information and SOURCE at end of table.

Table 8. Number of earned master's degrees, by field and by citizenship and race/ethnicity of male recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Hispanics									
Total, all fields	3,713	4,124	4,381	4,875	5,483	5,725	6,072	6,466	6,848
Science and engineering	959	992	1,066	1,255	1,427	1,458	1,478	1,576	1,596
Engineering	373	378	408	480	582	578	580	589	629
Sciences	586	614	658	775	845	880	898	987	967
Natural sciences	275	294	309	341	414	423	402	435	415
Physical science ¹	63	73	64	76	80	88	80	86	87
Mathematical science	33	52	47	50	44	53	57	50	51
Computer science	93	84	98	104	120	151	125	141	123
Biological science	61	54	69	76	65	75	85	107	96
Agricultural science	25	31	31	35	105	56	55	51	58
Social sciences	311	320	349	434	431	457	496	552	552
Social science	178	196	218	282	290	283	320	344	333
Psychology	133	124	131	152	141	174	176	208	219
Non-S&E ²	2,754	3,132	3,315	3,620	4,056	4,267	4,594	4,890	5,252
American Indians or Alaskan Natives									
Total, all fields	439	464	501	556	654	623	665	697	739
Science and engineering	96	109	108	129	161	151	154	177	176
Engineering	27	34	35	37	48	40	51	46	46
Sciences	69	75	73	92	113	111	103	131	130
Natural sciences	28	32	37	37	50	48	43	56	52
Physical science ¹	6	8	14	8	13	11	6	11	13
Mathematical science	4	7	1	4	5	5	5	8	4
Computer science	5	10	10	11	12	11	17	16	11
Biological science	8	4	7	9	12	11	9	11	9
Agricultural science	5	3	5	5	8	10	6	10	15
Social sciences	41	43	36	55	63	63	60	75	78
Social science	28	24	23	45	44	33	38	39	42
Psychology	13	19	13	10	19	30	22	36	36
Non-S&E ²	343	355	393	427	493	472	511	520	563
U.S. citizens and permanent residents, unknown race/ethnicity									
Total, all fields	9,260	7,401	7,766	8,187	8,928	9,015	9,139	9,122	8,785
Science and engineering	2,668	1,945	2,334	2,370	2,329	2,444	2,454	2,042	1,973
Engineering	1,008	839	984	1,022	924	938	924	763	705
Sciences	1,660	1,106	1,350	1,348	1,405	1,506	1,530	1,279	1,268
Natural sciences	1,117	653	821	754	843	839	843	682	729
Physical science ¹	165	167	200	164	193	150	180	107	108
Mathematical science	104	74	161	162	146	155	160	83	104
Computer science	714	288	280	256	348	348	321	318	316
Biological science	86	96	103	98	94	79	105	99	131
Agricultural science	48	28	77	74	62	107	77	75	70
Social sciences	543	453	529	594	562	667	687	597	539
Social science	406	302	350	416	440	508	523	456	398
Psychology	137	151	179	178	122	159	164	141	141
Non-S&E ²	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.

Table 8. Number of earned master's degrees, by field and by citizenship and race/ethnicity of male recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
	Nonresident aliens ⁴								
Total, all fields	23,699	25,150	26,237	28,821	30,141	31,159	30,050	30,201	31,480
Science and engineering	12,702	13,081	13,705	15,365	15,761	16,019	14,960	14,386	15,055
Engineering	6,543	6,673	6,995	8,023	8,146	8,362	7,603	7,186	7,435
Sciences	6,159	6,408	6,710	7,342	7,615	7,657	7,357	7,200	7,620
Natural sciences	4,439	4,691	5,087	5,572	5,828	5,792	5,640	5,466	5,773
Physical science ¹	1,028	1,070	1,111	1,118	1,236	1,222	1,187	1,140	981
Mathematical science	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
Biological science	379	370	385	406	462	452	455	410	392
Agricultural science	450	424	499	486	444	429	401	417	363
Social sciences	1,720	1,717	1,623	1,770	1,787	1,865	1,717	1,734	1,847
Social science	1,584	1,613	1,528	1,659	1,657	1,717	1,593	1,607	1,731
Psychology	136	104	95	111	130	148	124	127	116
Non-S&E ²	10,997	12,069	12,532	13,456	14,380	15,140	15,090	15,815	16,425

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

³ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

⁴ Nonresident aliens include foreign citizens on temporary visas only. No racial/ethnic data are collected for this group.

NOTES: Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 9. Number of earned master's degrees, by field and by citizenship and race/ethnicity of female recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total									
Total, all fields	170,922	181,603	191,908	201,220	212,246	220,230	228,572	239,497	246,810
Science and engineering	23,804	25,080	26,416	28,313	30,619	32,628	33,802	34,516	34,925
Engineering	3,268	3,357	3,665	4,093	4,421	4,631	4,752	4,694	5,158
Sciences	20,536	21,723	22,751	24,220	26,198	27,997	29,050	29,822	29,767
Natural sciences	9,035	9,139	9,295	9,637	10,056	10,366	11,168	11,368	11,698
Physical science ¹	1,430	1,457	1,457	1,562	1,658	1,735	1,886	1,821	1,934
Mathematical science	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
Biological science	2,500	2,491	2,500	2,433	2,742	2,807	3,282	3,449	3,289
Agricultural science	954	944	1,130	1,270	1,395	1,481	1,708	1,698	1,712
Social sciences	11,501	12,584	13,456	14,583	16,142	17,631	17,882	18,454	18,069
Social science	5,218	5,776	6,180	6,605	7,285	7,520	7,848	7,881	7,894
Psychology	6,283	6,808	7,276	7,978	8,857	10,111	10,034	10,573	10,175
Non-S&E ²	147,118	156,523	165,492	172,907	181,627	187,602	194,770	204,981	211,885
U.S. citizens and permanent residents, total ³									
Total, all fields	160,019	169,142	178,493	185,932	195,881	202,633	210,372	220,221	226,085
Science and engineering	20,168	21,112	22,114	23,528	25,501	27,326	28,183	28,814	28,584
Engineering	2,572	2,510	2,761	2,997	3,210	3,297	3,360	3,246	3,435
Sciences	17,596	18,602	19,353	20,531	22,291	24,029	24,823	25,568	25,149
Natural sciences	7,144	7,096	7,066	7,147	7,466	7,823	8,483	8,679	8,697
Physical science ¹	1,094	1,023	1,030	1,078	1,124	1,202	1,338	1,315	1,415
Mathematical science	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
Biological science	2,150	2,112	2,090	1,990	2,271	2,379	2,760	2,951	2,790
Agricultural science	765	765	927	1,062	1,131	1,246	1,448	1,450	1,468
Social sciences	10,452	11,506	12,287	13,384	14,825	16,206	16,340	16,889	16,452
Social science	4,418	4,911	5,218	5,627	6,199	6,431	6,621	6,606	6,630
Psychology	6,034	6,595	7,069	7,757	8,626	9,775	9,719	10,283	9,822
Non-S&E ²	139,851	148,030	156,379	162,404	170,380	175,307	182,189	191,407	197,501
White, non-Hispanics									
Total, all fields	130,799	139,607	146,265	151,951	157,155	160,782	165,154	170,411	173,498
Science and engineering	16,200	16,879	17,536	18,482	19,865	20,953	21,200	21,358	20,981
Engineering	1,937	1,893	1,977	2,143	2,237	2,240	2,190	2,105	2,217
Sciences	14,263	14,986	15,559	16,339	17,628	18,713	19,010	19,253	18,764
Natural sciences	5,626	5,514	5,461	5,485	5,560	5,758	6,243	6,243	6,257
Physical science ¹	883	830	833	849	893	923	1,038	1,001	1,085
Mathematical science	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
Biological science	1,790	1,724	1,685	1,551	1,810	1,849	2,122	2,234	2,148
Agricultural science	682	684	825	925	921	1,024	1,239	1,212	1,253
Social sciences	8,637	9,472	10,098	10,854	12,068	12,955	12,767	13,010	12,507
Social science	3,579	3,919	4,247	4,470	4,878	4,950	5,049	4,922	4,956
Psychology	5,058	5,553	5,851	6,384	7,190	8,005	7,718	8,088	7,551
Non-S&E ²	114,599	122,728	128,729	133,469	137,290	139,829	143,954	149,053	152,517

See explanatory information and SOURCE at end of table.

Table 9. Number of earned master's degrees, by field and by citizenship and race/ethnicity of female recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Asians									
Total, all fields	4,324	4,850	5,470	6,044	6,768	7,521	8,404	9,327	10,298
Science and engineering	1,256	1,351	1,487	1,609	1,861	1,950	2,216	2,392	2,471
Engineering	306	323	407	441	511	549	621	561	627
Sciences	950	1,028	1,080	1,168	1,350	1,401	1,595	1,831	1,844
Natural sciences	653	704	747	769	880	921	1,044	1,163	1,176
Physical science ¹	94	86	89	99	102	101	136	140	128
Mathematical science	78	81	98	76	107	105	103	123	104
Computer science	332	387	400	396	443	454	462	513	618
Biological science	128	127	139	169	181	208	282	314	286
Agricultural science	21	23	21	29	47	53	61	73	40
Social sciences	297	324	333	399	470	480	551	668	668
Social science	180	201	212	258	274	261	299	380	367
Psychology	117	123	121	141	196	219	252	288	301
Non-S&E ²	3,068	3,499	3,983	4,435	4,907	5,571	6,188	6,935	7,827
Underrepresented minorities, total									
Total, all fields	14,697	16,459	18,228	19,709	22,587	24,417	26,940	29,545	31,289
Science and engineering	1,610	1,897	2,020	2,262	2,672	3,080	3,355	3,661	3,758
Engineering	181	195	221	271	316	337	383	408	430
Sciences	1,429	1,702	1,799	1,991	2,356	2,743	2,972	3,253	3,328
Natural sciences	392	531	530	594	670	720	768	851	835
Physical science ¹	64	58	65	89	90	110	108	128	138
Mathematical science	53	82	55	82	79	115	108	107	126
Computer science	119	181	197	176	215	200	229	234	220
Biological science	124	170	170	180	172	213	236	280	226
Agricultural science	32	40	43	67	114	82	87	102	125
Social sciences	1,037	1,171	1,269	1,397	1,686	2,023	2,204	2,402	2,493
Social science	439	549	562	610	751	841	909	910	972
Psychology	598	622	707	787	935	1,182	1,295	1,492	1,521
Non-S&E ²	13,087	14,562	16,208	17,447	19,915	21,337	23,585	25,884	27,531
Black, non-Hispanics									
Total, all fields	9,304	10,238	11,626	12,425	13,929	15,318	16,590	18,504	19,509
Science and engineering	897	1,062	1,190	1,301	1,473	1,805	1,953	2,200	2,110
Engineering	100	99	134	157	167	201	210	225	244
Sciences	797	963	1,056	1,144	1,306	1,604	1,743	1,975	1,866
Natural sciences	220	306	317	330	386	447	465	526	472
Physical science ¹	26	30	32	47	53	61	57	70	65
Mathematical science	33	47	33	50	47	87	73	80	79
Computer science	92	133	141	115	160	148	174	169	147
Biological science	59	79	88	88	94	112	122	167	122
Agricultural science	10	17	23	30	32	39	39	40	59
Social sciences	577	657	739	814	920	1,157	1,278	1,449	1,394
Social science	239	332	345	385	445	512	574	584	581
Psychology	338	325	394	429	475	645	704	865	813
Non-S&E ²	8,407	9,176	10,436	11,124	12,456	13,513	14,637	16,304	17,399

See explanatory information and SOURCE at end of table.

Table 9. Number of earned master's degrees, by field and by citizenship and race/ethnicity of female recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Hispanics									
Total, all fields	4,782	5,560	5,875	6,496	7,694	8,180	9,322	9,894	10,568
Science and engineering	628	744	740	837	1,087	1,127	1,252	1,306	1,475
Engineering	73	90	80	101	137	133	168	176	178
Sciences	555	654	660	736	950	994	1,084	1,130	1,297
Natural sciences	156	200	194	233	266	242	275	285	322
Physical science ¹	35	23	29	38	34	41	47	53	62
Mathematical science	18	33	19	28	31	22	34	21	40
Computer science	25	44	51	58	49	47	48	56	70
Biological science	59	82	77	75	73	92	106	101	92
Agricultural science	19	18	18	34	79	40	40	54	58
Social sciences	399	454	466	503	684	752	809	845	975
Social science	163	187	178	192	267	270	276	282	343
Psychology	236	267	288	311	417	482	533	563	632
Non-S&E ²	4,154	4,816	5,135	5,659	6,607	7,053	8,070	8,588	9,093
American Indians or Alaskan Natives									
Total, all fields	611	661	727	788	964	919	1,028	1,147	1,212
Science and engineering	85	91	90	124	112	148	150	155	173
Engineering	8	6	7	13	12	3	5	7	8
Sciences	77	85	83	111	100	145	145	148	165
Natural sciences	16	25	19	31	18	31	28	40	41
Physical science ¹	3	5	4	4	3	8	4	5	11
Mathematical science	2	2	3	4	1	6	1	6	7
Computer science	2	4	5	3	6	5	7	9	3
Biological science	6	9	5	17	5	9	8	12	12
Agricultural science	3	5	2	3	3	3	8	8	8
Social sciences	61	60	64	80	82	114	117	108	124
Social science	37	30	39	33	39	59	59	44	48
Psychology	24	30	25	47	43	55	58	64	76
Non-S&E ²	526	570	637	664	852	771	878	992	1,039
U.S. citizens and permanent residents, unknown race/ethnicity									
Total, all fields	10,199	8,226	8,530	8,228	9,371	9,913	9,874	10,938	11,000
Science and engineering	1,102	985	1,071	1,175	1,103	1,343	1,412	1,403	1,374
Engineering	148	99	156	142	146	171	166	172	161
Sciences	954	886	915	1,033	957	1,172	1,246	1,231	1,213
Natural sciences	473	347	328	299	356	424	428	422	429
Physical science ¹	53	49	43	41	39	68	56	46	64
Mathematical science	65	48	62	49	65	61	86	71	64
Computer science	217	141	89	78	95	99	105	119	121
Biological science	108	91	96	90	108	109	120	123	130
Agricultural science	30	18	38	41	49	87	61	63	50
Social sciences	481	539	587	734	601	748	818	809	784
Social science	220	242	197	289	296	379	364	394	335
Psychology	261	297	390	445	305	369	454	415	449
Non-S&E ²	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.

Table 9. Number of earned master's degrees, by field and by citizenship and race/ethnicity of female recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
	Nonresident aliens ⁴								
Total, all fields	10,903	12,461	13,415	15,288	16,365	17,597	18,200	19,276	20,725
Science and engineering	3,636	3,968	4,302	4,785	5,118	5,302	5,619	5,702	6,341
Engineering	696	847	904	1,096	1,211	1,334	1,392	1,448	1,723
Sciences	2,940	3,121	3,398	3,689	3,907	3,968	4,227	4,254	4,618
Natural sciences	1,891	2,043	2,229	2,490	2,590	2,543	2,685	2,689	3,001
Physical science ¹	336	434	427	484	534	533	548	506	519
Mathematical science	386	376	400	387	357	372	371	338	364
Computer science	630	675	789	968	964	975	984	1,099	1,375
Biological science	350	379	410	443	471	428	522	498	499
Agricultural science	189	179	203	208	264	235	260	248	244
Social sciences	1,049	1,078	1,169	1,199	1,317	1,425	1,542	1,565	1,617
Social science	800	865	962	978	1,086	1,089	1,227	1,275	1,264
Psychology	249	213	207	221	231	336	315	290	353
Non-S&E ²	7,267	8,493	9,113	10,503	11,247	12,295	12,581	13,574	14,384

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

³ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

⁴ Nonresident aliens include foreign citizens on temporary visas only. No racial/ethnic data are collected for this group.

NOTES: Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 10. Number of earned doctoral degrees, by field and by citizenship and race/ethnicity of recipient: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total									
Total, all fields	36,067	37,534	38,890	39,801	41,034	41,743	42,414	42,555	42,683
Science and engineering	22,868	24,023	24,675	25,443	26,205	26,535	27,229	27,245	27,309
Engineering	4,894	5,214	5,438	5,698	5,822	6,008	6,305	6,114	5,930
Sciences	17,974	18,809	19,237	19,745	20,383	20,527	20,924	21,131	21,379
Natural sciences	11,361	12,003	12,364	12,556	13,103	13,220	13,434	13,449	13,636
Physical science ¹	4,262	4,441	4,575	4,470	4,801	4,621	4,631	4,646	4,643
Mathematical science	892	1,039	1,058	1,146	1,118	1,190	1,122	1,125	1,177
Computer science	705	800	869	880	903	997	921	910	925
Biological science	4,328	4,650	4,799	5,092	5,203	5,376	5,723	5,786	5,854
Agricultural science	1,174	1,073	1,063	968	1,078	1,036	1,037	982	1,037
Social sciences	6,613	6,806	6,873	7,189	7,280	7,307	7,490	7,682	7,743
Social science	3,332	3,556	3,610	3,769	3,901	3,878	3,999	4,111	4,058
Psychology	3,281	3,250	3,263	3,420	3,379	3,429	3,491	3,571	3,685
Non-S&E ²	13,199	13,511	14,215	14,358	14,829	15,208	15,185	15,310	15,374
U.S. citizens and permanent residents, total ³									
Total, all fields	26,603	27,430	27,990	28,708	30,894	32,058	31,518	31,086	31,166
Science and engineering	15,364	15,914	15,942	16,573	18,187	18,996	18,639	18,402	18,268
Engineering	2,346	2,474	2,520	2,697	3,053	3,342	3,387	3,329	3,045
Sciences	13,018	13,440	13,422	13,876	15,134	15,654	15,252	15,073	15,223
Natural sciences	7,768	8,032	8,035	8,191	9,306	9,749	9,230	9,059	9,100
Physical science ¹	2,876	2,918	2,898	2,834	3,402	3,435	3,127	3,103	3,017
Mathematical science	422	518	507	590	657	771	648	630	669
Computer science	403	451	489	509	543	616	514	521	558
Biological science	3,380	3,525	3,568	3,752	4,088	4,329	4,365	4,254	4,313
Agricultural science	687	620	573	506	616	598	576	551	543
Social sciences	5,250	5,408	5,387	5,685	5,828	5,905	6,022	6,014	6,123
Social science	2,258	2,390	2,401	2,524	2,692	2,721	2,794	2,876	2,842
Psychology	2,992	3,018	2,986	3,161	3,136	3,184	3,228	3,138	3,281
Non-S&E ²	11,239	11,516	12,048	12,135	12,707	13,062	12,879	12,684	12,898
White, non-Hispanics									
Total, all fields	22,878	23,186	23,626	24,052	24,595	24,721	24,691	23,958	24,313
Science and engineering	13,170	13,324	13,327	13,737	13,890	13,906	14,008	13,829	14,026
Engineering	1,840	1,837	1,880	2,025	2,020	2,093	2,262	2,287	2,171
Sciences	11,330	11,487	11,447	11,712	11,870	11,813	11,746	11,542	11,855
Natural sciences	6,789	6,886	6,823	6,836	7,003	6,966	6,790	6,779	6,984
Physical science ¹	2,502	2,526	2,459	2,366	2,529	2,388	2,336	2,370	2,378
Mathematical science	372	419	425	476	479	535	479	479	526
Computer science	339	355	378	410	401	452	356	361	411
Biological science	2,975	3,041	3,068	3,146	3,107	3,118	3,175	3,158	3,251
Agricultural science	601	545	493	438	487	473	444	411	418
Social sciences	4,541	4,601	4,624	4,876	4,867	4,847	4,956	4,763	4,871
Social science	1,893	1,949	1,988	2,069	2,137	2,120	2,212	2,238	2,214
Psychology	2,648	2,652	2,636	2,807	2,730	2,727	2,744	2,525	2,657
Non-S&E ²	9,708	9,862	10,299	10,315	10,705	10,815	10,683	10,129	10,287

See explanatory information and SOURCE at end of table.

Table 10. Number of earned doctoral degrees, by field and by citizenship and race/ethnicity of recipient: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Asians									
Total, all fields	1,306	1,531	1,764	2,017	3,546	4,309	3,699	3,122	2,729
Science and engineering	1,009	1,180	1,345	1,610	2,989	3,669	3,095	2,539	2,148
Engineering	359	405	451	527	867	1,033	897	707	556
Sciences	650	775	894	1,083	2,122	2,636	2,198	1,832	1,592
Natural sciences	486	597	698	842	1,740	2,202	1,802	1,466	1,255
Physical science ¹	179	189	254	287	689	855	580	474	385
Mathematical science	27	57	52	79	142	208	140	98	71
Computer science	48	66	86	77	117	137	111	108	91
Biological science	200	261	269	370	720	924	890	723	661
Agricultural science	32	24	37	29	72	78	81	63	47
Social sciences	164	178	196	241	382	434	396	366	337
Social science	111	119	137	168	273	312	272	239	222
Psychology	53	59	59	73	109	122	124	127	115
Non-S&E ²	297	351	419	407	557	640	604	583	581
Underrepresented minorities, total									
Total, all fields	1,984	2,166	2,174	2,373	2,452	2,677	2,747	2,845	3,111
Science and engineering	885	1,013	990	1,054	1,112	1,191	1,291	1,358	1,495
Engineering	98	122	131	118	126	156	186	210	207
Sciences	787	891	859	936	986	1,035	1,105	1,148	1,288
Natural sciences	329	375	374	418	475	466	497	527	579
Physical science ¹	122	129	132	146	157	139	157	156	148
Mathematical science	15	20	18	25	26	22	19	28	46
Computer science	6	21	15	14	18	17	32	22	31
Biological science	144	169	177	196	226	248	246	264	291
Agricultural science	42	36	32	37	48	40	43	57	63
Social sciences	458	516	485	518	511	569	608	621	709
Social science	215	251	231	253	242	259	263	276	315
Psychology	243	265	254	265	269	310	345	345	394
Non-S&E ²	1,099	1,153	1,184	1,319	1,340	1,486	1,456	1,487	1,616
Black, non-Hispanics									
Total, all fields	1,050	1,166	1,116	1,280	1,279	1,475	1,456	1,488	1,603
Science and engineering	374	464	408	469	500	560	576	623	646
Engineering	40	55	49	50	54	71	74	98	84
Sciences	334	409	359	419	446	489	502	525	562
Natural sciences	104	135	116	150	174	187	207	207	224
Physical science ¹	33	35	31	45	52	46	64	60	65
Mathematical science	4	11	4	8	11	5	8	7	16
Computer science	1	8	5	6	10	11	12	4	14
Biological science	51	64	62	75	79	108	98	111	110
Agricultural science	15	17	14	16	22	17	25	25	19
Social sciences	230	274	243	269	272	302	295	318	338
Social science	115	144	137	150	148	151	141	162	182
Psychology	115	130	106	119	124	151	154	156	156
Non-S&E ²	676	702	708	811	779	915	880	865	957

See explanatory information and SOURCE at end of table.

Table 10. Number of earned doctoral degrees, by field and by citizenship and race/ethnicity of recipient: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Hispanics									
Total, all fields	837	868	909	973	1,030	1,054	1,103	1,191	1,319
Science and engineering	468	493	513	542	548	563	618	656	753
Engineering	54	61	71	66	66	76	97	95	110
Sciences	414	432	442	476	482	487	521	561	643
Natural sciences	212	212	228	249	274	253	251	294	315
Physical science ¹	85	81	88	92	98	86	85	84	70
Mathematical science	10	9	12	16	13	15	10	20	27
Computer science	5	12	8	7	7	6	16	17	14
Biological science	89	95	102	114	131	125	128	146	169
Agricultural science	23	15	18	20	25	21	12	27	35
Social sciences	202	220	214	227	208	234	270	267	328
Social science	93	98	81	96	75	89	97	96	121
Psychology	109	122	133	131	133	145	173	171	207
Non-S&E ²	369	375	396	431	482	491	485	535	566
American Indians or Alaskan Natives									
Total, all fields	97	132	149	120	143	148	188	166	189
Science and engineering	43	56	69	43	64	68	97	79	96
Engineering	4	6	11	2	6	9	15	17	13
Sciences	39	50	58	41	58	59	82	62	83
Natural sciences	13	28	30	19	27	26	39	26	40
Physical science ¹	4	13	13	9	7	7	8	12	13
Mathematical science	1	0	2	1	2	2	1	1	3
Computer science	0	1	2	1	1	0	4	1	3
Biological science	4	10	13	7	16	15	20	7	12
Agricultural science	4	4	0	1	1	2	6	5	9
Social sciences	26	22	28	22	31	33	43	36	43
Social science	7	9	13	7	19	19	25	18	12
Psychology	19	13	15	15	12	14	18	18	31
Non-S&E ²	54	76	80	77	79	80	91	87	93
U.S. citizens and permanent residents, unknown race/ethnicity									
Total, all fields	435	547	426	266	301	351	381	1,161	1,013
Science and engineering	300	397	280	172	196	230	245	676	599
Engineering	49	110	58	27	40	60	42	125	111
Sciences	251	287	222	145	156	170	203	551	488
Natural sciences	164	174	140	95	88	115	141	287	282
Physical science ¹	73	74	53	35	27	53	54	103	106
Mathematical science	8	22	12	10	10	6	10	25	26
Computer science	10	9	10	8	7	10	15	30	25
Biological science	61	54	54	40	35	39	54	109	110
Agricultural science	12	15	11	2	9	7	8	20	15
Social sciences	87	113	82	50	68	55	62	264	206
Social science	39	71	45	34	40	30	47	123	91
Psychology	48	42	37	16	28	25	15	141	115
Non-S&E ²	135	150	146	94	105	121	136	485	414

See explanatory information and SOURCE at end of table.

Table 10. Number of earned doctoral degrees, by field and by citizenship and race/ethnicity of recipient: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Nonresident aliens ⁴									
Total, all fields	8,093	9,311	9,953	9,932	9,406	8,811	9,614	9,178	9,498
Science and engineering	6,571	7,641	8,092	8,113	7,521	6,994	7,806	7,498	7,779
Engineering	2,277	2,633	2,743	2,784	2,653	2,524	2,720	2,550	2,584
Sciences	4,294	5,008	5,349	5,329	4,868	4,470	5,086	4,948	5,195
Natural sciences	3,232	3,782	4,089	4,056	3,606	3,248	3,844	3,794	3,992
Physical science ¹	1,244	1,442	1,582	1,498	1,304	1,103	1,345	1,311	1,421
Mathematical science	424	506	511	517	448	382	442	442	447
Computer science	271	340	365	348	343	365	376	330	329
Biological science	853	1,059	1,159	1,246	1,058	969	1,240	1,320	1,333
Agricultural science	440	435	472	447	453	429	441	391	462
Social sciences	1,062	1,226	1,260	1,273	1,262	1,222	1,242	1,154	1,203
Social science	945	1,093	1,104	1,125	1,111	1,058	1,061	1,017	1,035
Psychology	117	133	156	148	151	164	181	137	168
Non-S&E ²	1,522	1,670	1,861	1,819	1,885	1,817	1,808	1,680	1,719
Citizenship unknown									
Total, all fields	1,371	793	947	1,161	734	874	1,282	2,291	2,019
Science and engineering	933	468	641	757	497	545	784	1,345	1,262
Engineering	271	107	175	217	116	142	198	235	301
Sciences	662	361	466	540	381	403	586	1,110	961
Natural sciences	361	189	240	309	191	223	360	596	544
Physical science ¹	142	81	95	138	95	83	159	232	205
Mathematical science	46	15	40	39	13	37	32	53	61
Computer science	31	9	15	23	17	16	31	59	38
Biological science	95	66	72	94	57	78	118	212	208
Agricultural science	47	18	18	15	9	9	20	40	32
Social sciences	301	172	226	231	190	180	226	514	417
Social science	129	73	105	120	98	99	144	218	181
Psychology	172	99	121	111	92	81	82	296	236
Non-S&E ²	438	325	306	404	237	329	498	946	757

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

³ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

⁴ Nonresident aliens include foreign citizens on temporary visas only.

NOTE: See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from NSF/SRS: Survey of Earned Doctorates

Table 11. Number of earned doctoral degrees, by field and by citizenship and race/ethnicity of male recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total									
Total, all fields	22,960	23,525	24,235	24,384	25,059	25,159	25,274	24,944	24,659
Science and engineering	16,498	16,986	17,422	17,568	18,165	18,117	18,445	18,084	17,833
Engineering	4,479	4,703	4,860	5,097	5,150	5,270	5,485	5,313	5,118
Sciences	12,019	12,283	12,562	12,471	13,015	12,847	12,960	12,771	12,715
Natural sciences	8,430	8,804	8,950	8,834	9,307	9,215	9,280	9,126	9,149
Physical science ¹	3,460	3,565	3,586	3,482	3,763	3,552	3,582	3,554	3,475
Mathematical science	734	836	841	865	879	919	881	853	872
Computer science	595	679	747	737	762	808	776	744	763
Biological science	2,713	2,864	2,952	3,014	3,076	3,132	3,286	3,260	3,301
Agricultural science	928	860	824	736	827	804	755	715	738
Social sciences	3,589	3,479	3,612	3,637	3,708	3,632	3,680	3,645	3,566
Social science	2,221	2,230	2,284	2,315	2,435	2,386	2,520	2,480	2,356
Psychology	1,368	1,249	1,328	1,322	1,273	1,246	1,160	1,165	1,210
Non-S&E ²	6,462	6,539	6,813	6,816	6,894	7,042	6,829	6,860	6,826
U.S. citizens and permanent residents, total ³									
Total, all fields	15,354	15,608	15,808	15,980	17,368	17,872	17,193	16,881	16,546
Science and engineering	10,182	10,314	10,363	10,543	11,692	12,082	11,676	11,392	11,076
Engineering	2,070	2,158	2,192	2,348	2,604	2,822	2,862	2,815	2,588
Sciences	8,112	8,156	8,171	8,195	9,088	9,260	8,814	8,577	8,488
Natural sciences	5,526	5,687	5,585	5,557	6,389	6,575	6,138	5,951	5,894
Physical science ¹	2,288	2,306	2,236	2,193	2,633	2,582	2,387	2,351	2,240
Mathematical science	329	406	390	425	506	588	503	453	470
Computer science	313	357	406	399	449	473	423	420	434
Biological science	2,068	2,135	2,130	2,168	2,345	2,469	2,424	2,332	2,390
Agricultural science	528	483	423	372	456	463	401	395	360
Social sciences	2,586	2,469	2,586	2,638	2,699	2,685	2,676	2,626	2,594
Social science	1,366	1,343	1,380	1,417	1,530	1,557	1,631	1,609	1,533
Psychology	1,220	1,126	1,206	1,221	1,169	1,128	1,045	1,017	1,061
Non-S&E ²	5,172	5,294	5,445	5,437	5,676	5,790	5,517	5,489	5,470
White, non-Hispanics									
Total, all fields	13,160	13,153	13,280	13,347	13,557	13,534	13,234	12,994	12,910
Science and engineering	8,648	8,585	8,624	8,724	8,732	8,683	8,653	8,559	8,530
Engineering	1,614	1,602	1,640	1,764	1,715	1,772	1,915	1,955	1,865
Sciences	7,034	6,983	6,984	6,960	7,017	6,911	6,738	6,604	6,665
Natural sciences	4,836	4,911	4,780	4,705	4,810	4,731	4,546	4,518	4,586
Physical science ¹	2,008	2,001	1,928	1,868	1,998	1,832	1,796	1,828	1,789
Mathematical science	293	335	332	352	361	409	374	344	376
Computer science	259	282	309	327	326	348	295	295	327
Biological science	1,821	1,871	1,847	1,835	1,758	1,773	1,774	1,758	1,816
Agricultural science	455	422	364	323	367	369	307	293	278
Social sciences	2,198	2,072	2,204	2,255	2,207	2,180	2,192	2,086	2,079
Social science	1,123	1,081	1,126	1,160	1,178	1,197	1,285	1,253	1,190
Psychology	1,075	991	1,078	1,095	1,029	983	907	833	889
Non-S&E ²	4,512	4,568	4,656	4,623	4,825	4,851	4,581	4,435	4,380

See explanatory information and SOURCE at end of table.

Table 11. Number of earned doctoral degrees, by field and by citizenship and race/ethnicity of male recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Asians									
Total, all fields	908	971	1,135	1,284	2,467	2,865	2,402	1,890	1,635
Science and engineering	757	805	926	1,077	2,168	2,554	2,112	1,644	1,375
Engineering	326	356	390	466	747	863	763	588	455
Sciences	431	449	536	611	1,421	1,691	1,349	1,056	920
Natural sciences	336	372	433	500	1,214	1,456	1,156	890	770
Physical science ¹	136	134	165	182	494	616	423	320	262
Mathematical science	20	39	33	43	116	158	104	70	44
Computer science	41	51	74	57	101	107	95	82	68
Biological science	113	132	136	198	451	513	483	373	367
Agricultural science	26	16	25	20	52	62	51	45	29
Social sciences	95	77	103	111	207	235	193	166	150
Social science	73	62	83	89	175	192	162	134	121
Psychology	22	15	20	22	32	43	31	32	29
Non-S&E ²	151	166	209	207	299	311	290	246	260
Underrepresented minorities, total									
Total, all fields	980	1,085	1,083	1,156	1,142	1,232	1,304	1,343	1,395
Science and engineering	540	614	588	606	642	668	731	769	776
Engineering	83	102	107	95	105	130	150	161	168
Sciences	457	512	481	511	537	538	581	608	608
Natural sciences	220	261	253	275	298	300	327	345	327
Physical science ¹	82	107	97	112	119	92	123	124	95
Mathematical science	10	12	14	22	20	16	17	20	30
Computer science	5	16	13	8	15	9	20	18	22
Biological science	88	94	105	105	114	154	131	139	136
Agricultural science	35	32	24	28	30	29	36	44	44
Social sciences	237	251	228	236	239	238	254	263	281
Social science	136	150	139	141	145	145	153	151	170
Psychology	101	101	89	95	94	93	101	112	111
Non-S&E ²	440	471	495	550	500	564	573	574	619
Black, non-Hispanics									
Total, all fields	479	552	519	579	553	615	641	641	613
Science and engineering	225	270	238	261	284	290	323	332	296
Engineering	34	47	43	39	41	56	55	75	62
Sciences	191	223	195	222	243	234	268	257	234
Natural sciences	71	88	80	99	104	115	147	126	102
Physical science ¹	24	29	24	35	38	28	49	48	31
Mathematical science	3	7	4	7	8	4	6	5	9
Computer science	1	4	4	2	8	7	9	3	6
Biological science	29	32	38	43	34	65	58	51	41
Agricultural science	14	16	10	12	16	11	25	19	15
Social sciences	120	135	115	123	139	119	121	131	132
Social science	77	91	87	79	93	80	82	88	89
Psychology	43	44	28	44	46	39	39	43	43
Non-S&E ²	254	282	281	318	269	325	318	309	317

See explanatory information and SOURCE at end of table.

Table 11. Number of earned doctoral degrees, by field and by citizenship and race/ethnicity of male recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Hispanics									
Total, all fields	449	459	482	517	518	537	560	624	678
Science and engineering	290	307	308	320	318	336	346	392	426
Engineering	45	51	56	54	60	65	82	72	97
Sciences	245	256	252	266	258	271	264	320	329
Natural sciences	138	152	151	162	174	167	157	198	197
Physical science ¹	55	68	62	70	75	59	67	65	53
Mathematical science	6	5	9	14	10	11	10	14	20
Computer science	4	11	7	6	7	2	9	15	13
Biological science	56	56	59	57	69	79	62	84	89
Agricultural science	17	12	14	15	13	16	9	20	22
Social sciences	107	104	101	104	84	104	107	122	132
Social science	55	52	46	59	41	56	54	59	77
Psychology	52	52	55	45	43	48	53	63	55
Non-S&E ²	159	152	174	197	200	201	214	232	252
American Indians or Alaskan Natives									
Total, all fields	52	74	82	60	71	80	103	78	104
Science and engineering	25	37	42	25	40	42	62	45	54
Engineering	4	4	8	2	4	9	13	14	9
Sciences	21	33	34	23	36	33	49	31	45
Natural sciences	11	21	22	14	20	18	23	21	28
Physical science ¹	3	10	11	7	6	5	7	11	11
Mathematical science	1	0	1	1	2	1	1	1	1
Computer science	0	1	2	0	0	0	2	0	3
Biological science	3	6	8	5	11	10	11	4	6
Agricultural science	4	4	0	1	1	2	2	5	7
Social sciences	10	12	12	9	16	15	26	10	17
Social science	4	7	6	3	11	9	17	4	4
Psychology	6	5	6	6	5	6	9	6	13
Non-S&E ²	27	37	40	35	31	38	41	33	50
U.S. citizens and permanent residents, unknown race/ethnicity									
Total, all fields	306	399	310	193	202	241	253	654	606
Science and engineering	237	310	225	136	150	177	180	420	395
Engineering	47	98	55	23	37	57	34	111	100
Sciences	190	212	170	113	113	120	146	309	295
Natural sciences	134	143	119	77	67	88	109	198	211
Physical science ¹	62	64	46	31	22	42	45	79	94
Mathematical science	6	20	11	8	9	5	8	19	20
Computer science	8	8	10	7	7	9	13	25	17
Biological science	46	38	42	30	22	29	36	62	71
Agricultural science	12	13	10	1	7	3	7	13	9
Social sciences	56	69	51	36	46	32	37	111	84
Social science	34	50	32	27	32	23	31	71	52
Psychology	22	19	19	9	14	9	6	40	32
Non-S&E ²	69	89	85	57	52	64	73	234	211

See explanatory information and SOURCE at end of table.

Table 11. Number of earned doctoral degrees, by field and by citizenship and race/ethnicity of male recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Nonresident aliens ⁴									
Total, all fields	6,632	7,506	7,946	7,835	7,306	6,842	7,389	6,960	7,010
Science and engineering	5,590	6,404	6,727	6,636	6,185	5,738	6,304	5,965	6,010
Engineering	2,157	2,481	2,572	2,618	2,469	2,362	2,490	2,335	2,303
Sciences	3,433	3,923	4,155	4,018	3,716	3,376	3,814	3,630	3,707
Natural sciences	2,608	3,001	3,222	3,116	2,792	2,515	2,930	2,820	2,916
Physical science ¹	1,048	1,205	1,292	1,214	1,063	920	1,099	1,048	1,099
Mathematical science	363	420	427	421	364	304	359	367	362
Computer science	256	317	329	321	301	322	335	292	306
Biological science	582	693	783	804	698	630	797	816	794
Agricultural science	359	366	391	356	366	339	340	297	355
Social sciences	825	922	933	902	924	861	884	810	791
Social science	763	845	854	839	853	782	797	752	724
Psychology	62	77	79	63	71	79	87	58	67
Non-S&E ²	1,042	1,102	1,219	1,199	1,121	1,104	1,085	995	1,000
Citizenship unknown									
Total, all fields	974	411	481	569	385	445	692	1,103	1,103
Science and engineering	726	268	332	389	288	297	465	727	747
Engineering	252	64	96	131	77	86	133	163	227
Sciences	474	204	236	258	211	211	332	564	520
Natural sciences	296	116	143	161	126	125	212	355	339
Physical science ¹	124	54	58	75	67	50	96	155	136
Mathematical science	42	10	24	19	9	27	19	33	40
Computer science	26	5	12	17	12	13	18	32	23
Biological science	63	36	39	42	33	33	65	112	117
Agricultural science	41	11	10	8	5	2	14	23	23
Social sciences	178	88	93	97	85	86	120	209	181
Social science	92	42	50	59	52	47	92	119	99
Psychology	86	46	43	38	33	39	28	90	82
Non-S&E ²	248	143	149	180	97	148	227	376	356

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

³ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

⁴ Nonresident aliens include foreign citizens on temporary visas only.

NOTE: See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from NSF/SRS: Survey of Earned Doctorates

Table 12. Number of earned doctoral degrees, by field and by citizenship and race/ethnicity of female recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total									
Total, all fields	13,106	13,873	14,436	15,122	15,820	16,414	16,944	17,251	17,858
Science and engineering	6,370	6,932	7,080	7,652	7,921	8,286	8,646	8,943	9,355
Engineering	415	467	506	522	635	696	776	751	773
Sciences	5,955	6,465	6,574	7,130	7,286	7,590	7,870	8,192	8,582
Natural sciences	2,931	3,156	3,347	3,620	3,742	3,944	4,081	4,229	4,438
Physical science ¹	802	858	958	940	1,011	1,048	1,014	1,062	1,146
Mathematical science	158	199	205	264	236	265	231	263	297
Computer science	110	117	120	138	137	186	139	150	159
Biological science	1,615	1,773	1,831	2,050	2,109	2,217	2,415	2,494	2,538
Agricultural science	246	209	233	228	249	228	282	260	298
Social sciences	3,024	3,309	3,227	3,510	3,544	3,646	3,789	3,963	4,144
Social science	1,111	1,313	1,299	1,422	1,443	1,466	1,461	1,591	1,684
Psychology	1,913	1,996	1,928	2,088	2,101	2,180	2,328	2,372	2,460
Non-S&E ²	6,736	6,941	7,356	7,470	7,899	8,128	8,298	8,308	8,503
U.S. citizens and permanent residents, total ³									
Total, all fields	11,248	11,818	12,178	12,720	13,522	14,183	14,325	14,170	14,590
Science and engineering	5,182	5,597	5,577	6,024	6,494	6,912	6,963	6,994	7,174
Engineering	276	316	328	348	448	520	525	513	451
Sciences	4,906	5,281	5,249	5,676	6,046	6,392	6,438	6,481	6,723
Natural sciences	2,242	2,344	2,449	2,632	2,917	3,172	3,092	3,101	3,200
Physical science ¹	588	611	661	641	769	852	740	750	775
Mathematical science	93	112	117	164	151	183	145	177	198
Computer science	90	94	83	109	94	143	91	100	123
Biological science	1,312	1,390	1,438	1,584	1,743	1,859	1,941	1,919	1,921
Agricultural science	159	137	150	134	160	135	175	155	183
Social sciences	2,664	2,937	2,800	3,044	3,129	3,220	3,346	3,380	3,523
Social science	892	1,047	1,020	1,106	1,162	1,164	1,163	1,266	1,308
Psychology	1,772	1,890	1,780	1,938	1,967	2,056	2,183	2,114	2,215
Non-S&E ²	6,066	6,221	6,601	6,696	7,028	7,271	7,362	7,176	7,416
White, non-Hispanics									
Total, all fields	9,718	10,032	10,346	10,704	11,036	11,187	11,457	10,961	11,402
Science and engineering	4,522	4,739	4,703	5,012	5,158	5,223	5,355	5,268	5,496
Engineering	226	235	240	261	305	321	347	332	306
Sciences	4,296	4,504	4,463	4,751	4,853	4,902	5,008	4,936	5,190
Natural sciences	1,953	1,975	2,043	2,131	2,193	2,235	2,244	2,259	2,398
Physical science ¹	494	525	531	498	531	556	540	541	589
Mathematical science	79	84	93	124	118	126	105	135	150
Computer science	80	73	69	83	75	104	61	66	84
Biological science	1,154	1,170	1,221	1,311	1,349	1,345	1,401	1,399	1,435
Agricultural science	146	123	129	115	120	104	137	118	140
Social sciences	2,343	2,529	2,420	2,620	2,660	2,667	2,764	2,677	2,792
Social science	770	868	862	909	959	923	927	985	1,024
Psychology	1,573	1,661	1,558	1,711	1,701	1,744	1,837	1,692	1,768
Non-S&E ²	5,196	5,293	5,643	5,692	5,878	5,964	6,102	5,693	5,906

See explanatory information and SOURCE at end of table.

Table 12. Number of earned doctoral degrees, by field and by citizenship and race/ethnicity of female recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Asians									
Total, all fields	397	559	628	730	1,077	1,443	1,297	1,231	1,086
Science and engineering	252	374	418	531	820	1,115	983	894	767
Engineering	33	49	61	61	119	170	134	119	98
Sciences	219	325	357	470	701	945	849	775	669
Natural sciences	150	224	264	341	526	746	646	575	482
Physical science ¹	43	54	88	105	195	239	157	153	121
Mathematical science	7	18	19	36	26	50	36	28	27
Computer science	7	15	12	19	16	30	16	26	23
Biological science	87	129	133	172	269	411	407	350	293
Agricultural science	6	8	12	9	20	16	30	18	18
Social sciences	69	101	93	129	175	199	203	200	187
Social science	38	57	54	78	98	120	110	105	101
Psychology	31	44	39	51	77	79	93	95	86
Non-S&E ²	145	185	210	199	257	328	314	337	319
Underrepresented minorities, total									
Total, all fields	1,004	1,081	1,091	1,217	1,310	1,445	1,443	1,502	1,714
Science and engineering	345	399	402	448	470	523	560	589	719
Engineering	15	20	24	23	21	26	36	49	39
Sciences	330	379	378	425	449	497	524	540	680
Natural sciences	109	114	121	143	177	166	170	182	252
Physical science ¹	40	22	35	34	38	47	34	32	53
Mathematical science	5	8	4	3	6	6	2	8	16
Computer science	1	5	2	6	3	8	12	4	9
Biological science	56	75	72	91	112	94	115	125	155
Agricultural science	7	4	8	9	18	11	7	13	19
Social sciences	221	265	257	282	272	331	354	358	428
Social science	79	101	92	112	97	114	110	125	145
Psychology	142	164	165	170	175	217	244	233	283
Non-S&E ²	659	682	689	769	840	922	883	913	995
Black, non-Hispanics									
Total, all fields	571	614	597	701	726	860	815	847	989
Science and engineering	149	194	170	208	216	270	253	291	350
Engineering	6	8	6	11	13	15	19	23	22
Sciences	143	186	164	197	203	255	234	268	328
Natural sciences	33	47	36	51	70	72	60	81	122
Physical science ¹	9	6	7	10	14	18	15	12	34
Mathematical science	1	4	0	1	3	1	2	2	7
Computer science	0	4	1	4	2	4	3	1	8
Biological science	22	32	24	32	45	43	40	60	69
Agricultural science	1	1	4	4	6	6	0	6	4
Social sciences	110	139	128	146	133	183	174	187	206
Social science	38	53	50	71	55	71	59	74	93
Psychology	72	86	78	75	78	112	115	113	113
Non-S&E ²	422	420	427	493	510	590	562	556	639

See explanatory information and SOURCE at end of table.

Table 12. Number of earned doctoral degrees, by field and by citizenship and race/ethnicity of female recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Hispanics									
Total, all fields	388	409	427	456	512	517	543	567	640
Science and engineering	178	186	205	222	230	227	272	264	327
Engineering	9	10	15	12	6	11	15	23	13
Sciences	169	176	190	210	224	216	257	241	314
Natural sciences	74	60	77	87	100	86	94	96	118
Physical science ¹	30	13	26	22	23	27	18	19	17
Mathematical science	4	4	3	2	3	4	0	6	7
Computer science	1	1	1	1	0	4	7	2	1
Biological science	33	39	43	57	62	46	66	62	80
Agricultural science	6	3	4	5	12	5	3	7	13
Social sciences	95	116	113	123	124	130	163	145	196
Social science	38	46	35	37	34	33	43	37	44
Psychology	57	70	78	86	90	97	120	108	152
Non-S&E ²	210	223	222	234	282	290	271	303	313
American Indians or Alaskan Natives									
Total, all fields	45	58	67	60	72	68	85	88	85
Science and engineering	18	19	27	18	24	26	35	34	42
Engineering	0	2	3	0	2	0	2	3	4
Sciences	18	17	24	18	22	26	33	31	38
Natural sciences	2	7	8	5	7	8	16	5	12
Physical science ¹	1	3	2	2	1	2	1	1	2
Mathematical science	0	0	1	0	0	1	0	0	2
Computer science	0	0	0	1	1	0	2	1	0
Biological science	1	4	5	2	5	5	9	3	6
Agricultural science	0	0	0	0	0	0	4	0	2
Social sciences	16	10	16	13	15	18	17	26	26
Social science	3	2	7	4	8	10	8	14	8
Psychology	13	8	9	9	7	8	9	12	18
Non-S&E ²	27	39	40	42	48	42	50	54	43
U.S. citizens and permanent residents, unknown race/ethnicity									
Total, all fields	129	146	113	69	99	108	128	476	388
Science and engineering	63	85	54	33	46	51	65	243	192
Engineering	2	12	3	3	3	3	8	13	8
Sciences	61	73	51	30	43	48	57	230	184
Natural sciences	30	31	21	17	21	25	32	85	68
Physical science ¹	11	10	7	4	5	10	9	24	12
Mathematical science	2	2	1	1	1	1	2	6	5
Computer science	2	1	0	1	0	1	2	4	7
Biological science	15	16	12	10	13	9	18	45	38
Agricultural science	0	2	1	1	2	4	1	6	6
Social sciences	31	42	30	13	22	23	25	145	116
Social science	5	21	12	7	8	7	16	51	38
Psychology	26	21	18	6	14	16	9	94	78
Non-S&E ²	66	61	59	36	53	57	63	233	196

See explanatory information and SOURCE at end of table.

Table 12. Number of earned doctoral degrees, by field and by citizenship and race/ethnicity of female recipients: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Nonresident aliens ⁴									
Total, all fields	1,461	1,794	1,990	2,069	2,077	1,952	2,214	2,203	2,468
Science and engineering	981	1,229	1,351	1,455	1,321	1,245	1,496	1,521	1,754
Engineering	120	149	169	161	178	159	228	211	274
Sciences	861	1,080	1,182	1,294	1,143	1,086	1,268	1,310	1,480
Natural sciences	624	779	859	929	805	726	911	969	1,073
Physical science ¹	196	236	286	281	238	182	245	259	320
Mathematical science	61	86	84	95	84	78	83	75	85
Computer science	15	23	36	26	41	43	41	38	23
Biological science	271	365	372	437	355	334	441	504	538
Agricultural science	81	69	81	90	87	89	101	93	107
Social sciences	237	301	323	365	338	360	357	341	407
Social science	182	245	248	281	258	275	263	262	306
Psychology	55	56	75	84	80	85	94	79	101
Non-S&E ²	480	565	639	614	756	707	718	682	714
Citizenship unknown									
Total, all fields	397	261	268	333	221	279	405	878	800
Science and engineering	207	106	152	173	106	129	187	428	427
Engineering	19	2	9	13	9	17	23	27	48
Sciences	188	104	143	160	97	112	164	401	379
Natural sciences	65	33	39	59	20	46	78	159	165
Physical science ¹	18	11	11	18	4	14	29	53	51
Mathematical science	4	1	4	5	1	4	3	11	14
Computer science	5	0	1	3	2	0	7	12	13
Biological science	32	18	21	29	11	24	33	71	79
Agricultural science	6	3	2	4	2	4	6	12	8
Social sciences	123	71	104	101	77	66	86	242	214
Social science	37	21	31	35	23	27	35	63	70
Psychology	86	50	73	66	54	39	51	179	144
Non-S&E ²	190	155	116	160	115	150	218	450	373

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

³ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

⁴ Nonresident aliens include foreign citizens on temporary visas only.

NOTE: See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from NSF/SRS: Survey of Earned Doctorates

Table 13. Number and percent of bachelor's degrees earned by blacks which are conferred by historically black colleges and universities (HBCUs), by field: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all black recipients									
Total, all fields	59,301	65,009	71,311	76,667	82,316	85,287	89,554	92,067	95,878
Science and engineering	18,230	19,987	22,431	24,421	26,289	27,528	29,055	30,444	31,398
Engineering	2,072	2,229	2,362	2,577	2,659	2,845	3,000	3,076	3,018
Sciences	16,158	17,758	20,069	21,844	23,630	24,683	26,055	27,368	28,380
Natural sciences	5,782	5,834	6,401	6,972	7,559	8,021	8,670	9,061	9,713
Physical science ¹	650	753	816	836	921	1,034	1,100	1,110	1,127
Mathematical science	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
Biological science	1,994	2,111	2,385	2,739	2,980	3,231	3,811	4,123	4,550
Agricultural science	171	162	206	219	268	263	363	387	426
Social sciences	10,376	11,924	13,668	14,872	16,071	16,662	17,385	18,307	18,667
Social science	7,226	8,236	9,489	10,254	10,835	10,921	11,357	11,660	11,815
Psychology	3,150	3,688	4,179	4,618	5,236	5,741	6,028	6,647	6,852
Non-S&E ²	41,071	45,022	48,880	52,246	56,027	57,759	60,499	61,623	64,480
Black recipients from HBCUs									
Total, all fields	16,345	17,963	19,709	21,849	23,426	23,989	25,425	25,215	25,546
Science and engineering	5,190	5,679	6,363	7,368	7,804	8,361	8,980	9,071	9,151
Engineering	524	589	594	700	690	798	894	905	843
Sciences	4,666	5,090	5,769	6,668	7,114	7,563	8,086	8,166	8,308
Natural sciences	2,353	2,363	2,599	3,021	3,105	3,384	3,794	3,872	3,971
Physical science ¹	296	358	376	390	421	471	547	503	485
Mathematical science	307	369	420	463	449	466	443	478	442
Computer science	899	748	780	904	904	967	979	834	904
Biological science	764	792	906	1,155	1,197	1,357	1,628	1,841	1,920
Agricultural science	87	96	117	109	134	123	197	216	220
Social sciences	2,313	2,727	3,170	3,647	4,009	4,179	4,292	4,294	4,337
Social science	1,651	1,886	2,201	2,507	2,701	2,747	2,780	2,641	2,701
Psychology	662	841	969	1,140	1,308	1,432	1,512	1,653	1,636
Non-S&E ²	11,155	12,284	13,346	14,481	15,622	15,628	16,445	16,144	16,395
Percent from HBCUs									
Total, all fields	27.6	27.6	27.6	28.5	28.5	28.1	28.4	27.4	26.6
Science and engineering	28.5	28.4	28.4	30.2	29.7	30.4	30.9	29.8	29.1
Engineering	25.3	26.4	25.1	27.2	25.9	28.0	29.8	29.4	27.9
Sciences	28.9	28.7	28.7	30.5	30.1	30.6	31.0	29.8	29.3
Natural sciences	40.7	40.5	40.6	43.3	41.1	42.2	43.8	42.7	40.9
Physical science ¹	45.5	47.5	46.1	46.7	45.7	45.6	49.7	45.3	43.0
Mathematical science	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
Biological science	38.3	37.5	38.0	42.2	40.2	42.0	42.7	44.7	42.2
Agricultural science	50.9	59.3	56.8	49.8	50.0	46.8	54.3	55.8	51.6
Social sciences	22.3	22.9	23.2	24.5	24.9	25.1	24.7	23.5	23.2
Social science	22.8	22.9	23.2	24.4	24.9	25.2	24.5	22.7	22.9
Psychology	21.0	22.8	23.2	24.7	25.0	24.9	25.1	24.9	23.9
Non-S&E ²	27.2	27.3	27.3	27.7	27.9	27.1	27.2	26.2	25.4

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 14. Number and percent of bachelor's degrees earned by black men which are conferred by historically black colleges and universities (HBCUs), by field: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all black recipients									
Total, 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
Engineering	1,416	1,484	1,614	1,764	1,784	1,846	1,964	2,019	1,977
Sciences	6,414	6,964	7,761	8,335	9,022	9,281	9,736	9,928	10,173
Natural sciences	2,476	2,538	2,709	2,872	3,146	3,314	3,591	3,678	3,969
Physical science ¹	292	391	381	370	464	495	482	466	521
Mathematical science	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
Biological science	658	696	749	883	927	981	1,236	1,304	1,448
Agricultural science	110	100	113	126	137	121	187	186	189
Social sciences	3,938	4,426	5,052	5,463	5,876	5,967	6,145	6,250	6,204
Social science	3,144	3,547	4,070	4,364	4,644	4,565	4,727	4,659	4,660
Psychology	794	879	982	1,099	1,232	1,402	1,418	1,591	1,544
Non-S&E ²	14,760	15,790	17,143	18,275	19,300	19,871	20,523	20,779	21,503
Black recipients from HBCUs									
Total, all fields	6,066	6,430	7,087	7,867	8,457	8,587	9,094	8,933	8,976
Science and engineering	2,086	2,211	2,450	2,761	2,940	3,190	3,467	3,425	3,395
Engineering	331	359	380	430	425	500	544	534	493
Sciences	1,755	1,852	2,070	2,331	2,515	2,690	2,923	2,891	2,902
Natural sciences	935	951	972	1,089	1,162	1,260	1,444	1,418	1,504
Physical science ¹	127	163	145	150	197	202	202	162	179
Mathematical science	134	164	150	196	181	204	206	223	213
Computer science	377	333	364	361	381	411	442	378	438
Biological science	231	231	238	317	334	385	482	543	575
Agricultural science	66	60	75	65	69	58	112	112	99
Social sciences	820	901	1,098	1,242	1,353	1,430	1,479	1,473	1,398
Social science	657	720	868	989	1,060	1,080	1,119	1,045	1,021
Psychology	163	181	230	253	293	350	360	428	377
Non-S&E ²	3,980	4,219	4,637	5,106	5,517	5,397	5,627	5,508	5,581
Percent from HBCUs									
Total, all fields	26.9	26.5	26.7	27.7	28.1	27.7	28.2	27.3	26.7
Science and engineering	26.6	26.2	26.1	27.3	27.2	28.7	29.6	28.7	27.9
Engineering	23.4	24.2	23.5	24.4	23.8	27.1	27.7	26.4	24.9
Sciences	27.4	26.6	26.7	28.0	27.9	29.0	30.0	29.1	28.5
Natural sciences	37.8	37.5	35.9	37.9	36.9	38.0	40.2	38.6	37.9
Physical science ¹	43.5	41.7	38.1	40.5	42.5	40.8	41.9	34.8	34.4
Mathematical science	39.2	43.2	40.1	44.1	39.6	42.9	44.0	43.7	43.6
Computer science	35.1	34.3	33.3	34.4	32.8	33.1	36.3	31.2	33.1
Biological science	35.1	33.2	31.8	35.9	36.0	39.2	39.0	41.6	39.7
Agricultural science	60.0	60.0	66.4	51.6	50.4	47.9	59.9	60.2	52.4
Social sciences	20.8	20.4	21.7	22.7	23.0	24.0	24.1	23.6	22.5
Social science	20.9	20.3	21.3	22.7	22.8	23.7	23.7	22.4	21.9
Psychology	20.5	20.6	23.4	23.0	23.8	25.0	25.4	26.9	24.4
Non-S&E ²	27.0	26.7	27.0	27.9	28.6	27.2	27.4	26.5	26.0

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 15. Number and percent of bachelor's degrees earned by black women which are conferred by historically black colleges and universities (HBCUs), by field: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all black recipients									
Total, 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
Engineering	656	745	748	813	875	999	1,036	1,057	1,041
Sciences	9,744	10,794	12,308	13,509	14,608	15,402	16,319	17,440	18,207
Natural sciences	3,306	3,296	3,692	4,100	4,413	4,707	5,079	5,383	5,744
Physical science ¹	358	362	435	466	457	539	618	644	606
Mathematical science	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
Biological science	1,336	1,415	1,636	1,856	2,053	2,250	2,575	2,819	3,102
Agricultural science	61	62	93	93	131	142	176	201	237
Social sciences	6,438	7,498	8,616	9,409	10,195	10,695	11,240	12,057	12,463
Social science	4,082	4,689	5,419	5,890	6,191	6,356	6,630	7,001	7,155
Psychology	2,356	2,809	3,197	3,519	4,004	4,339	4,610	5,056	5,308
Non-S&E ²	26,311	29,232	31,737	33,971	36,727	37,888	39,976	40,844	42,977
Black recipients from HBCUs									
Total, all fields	10,279	11,533	12,622	13,982	14,969	15,402	16,331	16,282	16,570
Science and engineering	3,104	3,468	3,913	4,607	4,864	5,171	5,513	5,646	5,756
Engineering	193	230	214	270	265	298	350	371	350
Sciences	2,911	3,238	3,699	4,337	4,599	4,873	5,163	5,275	5,406
Natural sciences	1,418	1,412	1,627	1,932	1,943	2,124	2,350	2,454	2,467
Physical science ¹	169	195	231	240	224	269	345	341	306
Mathematical science	173	205	270	267	268	262	237	255	229
Computer science	522	415	416	543	523	556	537	456	466
Biological science	533	561	668	838	863	972	1,146	1,298	1,345
Agricultural science	21	36	42	44	65	65	85	104	121
Social sciences	1,493	1,826	2,072	2,405	2,656	2,749	2,813	2,821	2,939
Social science	994	1,166	1,333	1,518	1,641	1,667	1,661	1,596	1,680
Psychology	499	660	739	887	1,015	1,082	1,152	1,225	1,259
Non-S&E ²	7,175	8,065	8,709	9,375	10,105	10,231	10,818	10,636	10,814
Percent from HBCUs									
Total, all fields	28.0	28.3	28.2	29.0	28.7	28.4	28.5	27.4	26.6
Science and engineering	29.8	30.1	30.0	32.2	31.4	31.5	31.8	30.5	29.9
Engineering	29.4	30.9	28.6	33.2	30.3	29.8	33.8	35.1	33.6
Sciences	29.9	30.0	30.1	32.1	31.5	31.6	31.6	30.2	29.7
Natural sciences	42.9	42.8	44.1	47.1	44.0	45.1	46.3	45.6	42.9
Physical science ¹	47.2	53.9	53.1	51.5	49.0	49.9	55.8	53.0	50.5
Mathematical science	45.8	47.6	50.9	51.2	50.1	50.5	46.2	45.5	42.3
Computer science	44.5	40.4	41.7	46.6	42.3	44.2	44.9	39.4	37.1
Biological science	39.9	39.6	40.8	45.2	42.0	43.2	44.5	46.0	43.4
Agricultural science	34.4	58.1	45.2	47.3	49.6	45.8	48.3	51.7	51.1
Social sciences	23.2	24.4	24.0	25.6	26.1	25.7	25.0	23.4	23.6
Social science	24.4	24.9	24.6	25.8	26.5	26.2	25.1	22.8	23.5
Psychology	21.2	23.5	23.1	25.2	25.3	24.9	25.0	24.2	23.7
Non-S&E ²	27.3	27.6	27.4	27.6	27.5	27.0	27.1	26.0	25.2

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 16. Number and percent of master's degrees earned by blacks which are conferred by historically black colleges and universities (HBCUs), by field: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all black recipients									
Total, all fields	14,473	15,857	17,420	18,897	20,936	22,954	24,588	26,948	28,616
Science and engineering	1,847	2,090	2,356	2,554	2,849	3,339	3,518	3,817	3,756
Engineering	387	398	466	564	589	665	674	674	714
Sciences	1,460	1,692	1,890	1,990	2,260	2,674	2,844	3,143	3,042
Natural sciences	527	644	699	716	821	881	932	1,010	957
Physical science ¹	87	73	98	105	127	147	116	144	146
Mathematical science	70	100	77	98	109	151	151	157	150
Computer science	232	283	316	308	365	347	379	377	376
Biological science	110	137	149	135	142	162	198	236	190
Agricultural science	28	51	59	70	78	74	88	96	95
Social sciences	933	1,048	1,191	1,274	1,439	1,793	1,912	2,133	2,085
Social science	462	594	660	730	803	930	965	1,010	1,012
Psychology	471	454	531	544	636	863	947	1,123	1,073
Non-S&E ²	12,626	13,767	15,064	16,343	18,087	19,615	21,070	23,131	24,860
Black recipients from HBCUs									
Total, all fields	2,358	2,518	2,631	2,779	3,205	3,478	3,818	4,218	4,411
Science and engineering	339	391	426	453	484	582	644	711	677
Engineering	42	37	41	41	43	54	62	64	85
Sciences	297	354	385	412	441	528	582	647	592
Natural sciences	153	180	188	204	204	260	276	311	298
Physical science ¹	24	24	21	36	21	41	38	51	42
Mathematical science	17	21	17	23	21	44	48	45	46
Computer science	63	59	76	75	87	94	92	88	95
Biological science	37	46	47	38	34	48	60	76	63
Agricultural science	12	30	27	32	41	33	38	51	52
Social sciences	144	174	197	208	237	268	306	336	294
Social science	69	114	125	107	126	130	141	156	157
Psychology	75	60	72	101	111	138	165	180	137
Non-S&E ²	2,019	2,127	2,205	2,326	2,721	2,896	3,174	3,507	3,734
Percent from HBCUs									
Total, all fields	16.3	15.9	15.1	14.7	15.3	15.2	15.5	15.7	15.4
Science and engineering	18.4	18.7	18.1	17.7	17.0	17.4	18.3	18.6	18.0
Engineering	10.9	9.3	8.8	7.3	7.3	8.1	9.2	9.5	11.9
Sciences	20.3	20.9	20.4	20.7	19.5	19.7	20.5	20.6	19.5
Natural sciences	29.0	28.0	26.9	28.5	24.8	29.5	29.6	30.8	31.1
Physical science ¹	27.6	32.9	21.4	34.3	16.5	27.9	32.8	35.4	28.8
Mathematical science	24.3	21.0	22.1	23.5	19.3	29.1	31.8	28.7	30.7
Computer science	27.2	20.8	24.1	24.4	23.8	27.1	24.3	23.3	25.3
Biological science	33.6	33.6	31.5	28.1	23.9	29.6	30.3	32.2	33.2
Agricultural science	42.9	58.8	45.8	45.7	52.6	44.6	43.2	53.1	54.7
Social sciences	15.4	16.6	16.5	16.3	16.5	14.9	16.0	15.8	14.1
Social science	14.9	19.2	18.9	14.7	15.7	14.0	14.6	15.4	15.5
Psychology	15.9	13.2	13.6	18.6	17.5	16.0	17.4	16.0	12.8
Non-S&E ²	16.0	15.4	14.6	14.2	15.0	14.8	15.1	15.2	15.0

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 17. Number and percent of master's degrees earned by black men which are conferred by historically black colleges and universities (HBCUs), by field: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all black recipients									
Total, all fields	5,169	5,619	5,794	6,472	7,007	7,636	7,998	8,444	9,107
Science and engineering	950	1,028	1,166	1,253	1,376	1,534	1,565	1,617	1,646
Engineering	287	299	332	407	422	464	464	449	470
Sciences	663	729	834	846	954	1,070	1,101	1,168	1,176
Natural sciences	307	338	382	386	435	434	467	484	485
Physical science ¹	61	43	66	58	74	86	59	74	81
Mathematical science	37	53	44	48	62	64	78	77	71
Computer science	140	150	175	193	205	199	205	208	229
Biological science	51	58	61	47	48	50	76	69	68
Agricultural science	18	34	36	40	46	35	49	56	36
Social sciences	356	391	452	460	519	636	634	684	691
Social science	223	262	315	345	358	418	391	426	431
Psychology	133	129	137	115	161	218	243	258	260
Non-S&E ²	4,219	4,591	4,628	5,219	5,631	6,102	6,433	6,827	7,461
Black recipients from HBCUs									
Total, all fields	746	766	782	822	942	973	1,092	1,164	1,259
Science and engineering	164	172	195	191	208	230	282	266	285
Engineering	32	29	27	23	28	33	44	37	48
Sciences	132	143	168	168	180	197	238	229	237
Natural sciences	84	90	100	106	98	105	135	133	132
Physical science ¹	14	14	16	19	10	24	22	21	22
Mathematical science	9	7	7	9	12	20	24	19	14
Computer science	35	33	46	44	40	36	45	42	58
Biological science	17	15	15	11	7	12	22	20	20
Agricultural science	9	21	16	23	29	13	22	31	18
Social sciences	48	53	68	62	82	92	103	96	105
Social science	28	39	47	40	49	62	64	58	73
Psychology	20	14	21	22	33	30	39	38	32
Non-S&E ²	582	594	587	631	734	743	810	898	974
Percent from HBCUs									
Total, all fields	14.4	13.6	13.5	12.7	13.4	12.7	13.7	13.8	13.8
Science and engineering	17.3	16.7	16.7	15.2	15.1	15.0	18.0	16.5	17.3
Engineering	11.1	9.7	8.1	5.7	6.6	7.1	9.5	8.2	10.2
Sciences	19.9	19.6	20.1	19.9	18.9	18.4	21.6	19.6	20.2
Natural sciences	27.4	26.6	26.2	27.5	22.5	24.2	28.9	27.5	27.2
Physical science ¹	23.0	32.6	24.2	32.8	13.5	27.9	37.3	28.4	27.2
Mathematical science	24.3	13.2	15.9	18.8	19.4	31.3	30.8	24.7	19.7
Computer science	25.0	22.0	26.3	22.8	19.5	18.1	22.0	20.2	25.3
Biological science	33.3	25.9	24.6	23.4	14.6	24.0	28.9	29.0	29.4
Agricultural science	50.0	61.8	44.4	57.5	63.0	37.1	44.9	55.4	50.0
Social sciences	13.5	13.6	15.0	13.5	15.8	14.5	16.2	14.0	15.2
Social science	12.6	14.9	14.9	11.6	13.7	14.8	16.4	13.6	16.9
Psychology	15.0	10.9	15.3	19.1	20.5	13.8	16.0	14.7	12.3
Non-S&E ²	13.8	12.9	12.7	12.1	13.0	12.2	12.6	13.2	13.1

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 18. Number and percent of master's degrees earned by black women which are conferred by historically black colleges and universities (HBCUs), by field: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all black recipients									
Total, all fields	9,304	10,238	11,626	12,425	13,929	15,318	16,590	18,504	19,509
Science and engineering	897	1,062	1,190	1,301	1,473	1,805	1,953	2,200	2,110
Engineering	100	99	134	157	167	201	210	225	244
Sciences	797	963	1,056	1,144	1,306	1,604	1,743	1,975	1,866
Natural sciences	220	306	317	330	386	447	465	526	472
Physical science ¹	26	30	32	47	53	61	57	70	65
Mathematical science	33	47	33	50	47	87	73	80	79
Computer science	92	133	141	115	160	148	174	169	147
Biological science	59	79	88	88	94	112	122	167	122
Agricultural science	10	17	23	30	32	39	39	40	59
Social sciences	577	657	739	814	920	1,157	1,278	1,449	1,394
Social science	239	332	345	385	445	512	574	584	581
Psychology	338	325	394	429	475	645	704	865	813
Non-S&E ²	8,407	9,176	10,436	11,124	12,456	13,513	14,637	16,304	17,399
Black recipients from HBCUs									
Total, all fields	1,612	1,752	1,849	1,957	2,263	2,505	2,726	3,054	3,152
Science and engineering	175	219	231	262	276	352	362	445	392
Engineering	10	8	14	18	15	21	18	27	37
Sciences	165	211	217	244	261	331	344	418	355
Natural sciences	69	90	88	98	106	155	141	178	166
Physical science ¹	10	10	5	17	11	17	16	30	20
Mathematical science	8	14	10	14	9	24	24	26	32
Computer science	28	26	30	31	47	58	47	46	37
Biological science	20	31	32	27	27	36	38	56	43
Agricultural science	3	9	11	9	12	20	16	20	34
Social sciences	96	121	129	146	155	176	203	240	189
Social science	41	75	78	67	77	68	77	98	84
Psychology	55	46	51	79	78	108	126	142	105
Non-S&E ²	1,437	1,533	1,618	1,695	1,987	2,153	2,364	2,609	2,760
Percent from HBCUs									
Total, all fields	17.3	17.1	15.9	15.8	16.2	16.4	16.4	16.5	16.2
Science and engineering	19.5	20.6	19.4	20.1	18.7	19.5	18.5	20.2	18.6
Engineering	10.0	8.1	10.4	11.5	9.0	10.4	8.6	12.0	15.2
Sciences	20.7	21.9	20.5	21.3	20.0	20.6	19.7	21.2	19.0
Natural sciences	31.4	29.4	27.8	29.7	27.5	34.7	30.3	33.8	35.2
Physical science ¹	38.5	33.3	15.6	36.2	20.8	27.9	28.1	42.9	30.8
Mathematical science	24.2	29.8	30.3	28.0	19.1	27.6	32.9	32.5	40.5
Computer science	30.4	19.5	21.3	27.0	29.4	39.2	27.0	27.2	25.2
Biological science	33.9	39.2	36.4	30.7	28.7	32.1	31.1	33.5	35.2
Agricultural science	30.0	52.9	47.8	30.0	37.5	51.3	41.0	50.0	57.6
Social sciences	16.6	18.4	17.5	17.9	16.8	15.2	15.9	16.6	13.6
Social science	17.2	22.6	22.6	17.4	17.3	13.3	13.4	16.8	14.5
Psychology	16.3	14.2	12.9	18.4	16.4	16.7	17.9	16.4	12.9
Non-S&E ²	17.1	16.7	15.5	15.2	16.0	15.9	16.2	16.0	15.9

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 19. Number and percent of doctoral degrees earned by blacks which are conferred by historically black colleges and universities (HBCUs), by field: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all black recipients									
Total, all fields	1,050	1,166	1,116	1,280	1,279	1,475	1,456	1,488	1,603
Science and engineering	374	464	408	469	500	560	576	623	646
Engineering	40	55	49	50	54	71	74	98	84
Sciences	334	409	359	419	446	489	502	525	562
Natural sciences	104	135	116	150	174	187	207	207	224
Physical science ¹	33	35	31	45	52	46	64	60	65
Mathematical science	4	11	4	8	11	5	8	7	16
Computer science	1	8	5	6	10	11	12	4	14
Biological science	51	64	62	75	79	108	98	111	110
Agricultural science	15	17	14	16	22	17	25	25	19
Social sciences	230	274	243	269	272	302	295	318	338
Social science	115	144	137	150	148	151	141	162	182
Psychology	115	130	106	119	124	151	154	156	156
Non-S&E ²	676	702	708	811	779	915	880	865	957
Black recipients from HBCUs									
Total, all fields	141	112	104	135	134	138	141	116	158
Science and engineering	36	53	43	60	52	59	66	61	68
Engineering	0	3	2	0	4	1	4	1	6
Sciences	36	50	41	60	48	58	62	60	62
Natural sciences	15	21	12	26	17	29	25	32	33
Physical science ¹	4	6	0	6	3	10	4	8	7
Mathematical science	0	0	0	0	2	0	0	2	2
Computer science	0	0	0	0	0	0	1	0	0
Biological science	11	15	12	19	12	18	18	19	24
Agricultural science	0	0	0	1	0	1	2	3	0
Social sciences	21	29	29	34	31	29	37	28	29
Social science	13	10	19	22	11	11	25	15	17
Psychology	8	19	10	12	20	18	12	13	12
Non-S&E ²	105	59	61	75	82	79	75	55	90
Percent from HBCUs									
Total, all fields	13.4	9.6	9.3	10.5	10.5	9.4	9.7	7.8	9.9
Science and engineering	9.6	11.4	10.5	12.8	10.4	10.5	11.5	9.8	10.5
Engineering .....	.0	5.5	4.1	.0	7.4	1.4	5.4	1.0	7.1
Sciences	10.8	12.2	11.4	14.3	10.8	11.9	12.4	11.4	11.0
Natural sciences	14.4	15.6	10.3	17.3	9.8	15.5	12.1	15.5	14.7
Physical science ¹	12.1	17.1	.0	13.3	5.8	21.7	6.3	13.3	10.8
Mathematical science .....	.0	.0	.0	.0	18.2	.0	.0	28.6	12.5
Computer science .....	.0	.0	.0	.0	.0	.0	8.3	.0	.0
Biological science	21.6	23.4	19.4	25.3	15.2	16.7	18.4	17.1	21.8
Agricultural science .....	.0	.0	.0	6.3	.0	5.9	8.0	12.0	.0
Social sciences	9.1	10.6	11.9	12.6	11.4	9.6	12.5	8.8	8.6
Social science	11.3	6.9	13.9	14.7	7.4	7.3	17.7	9.3	9.3
Psychology	7.0	14.6	9.4	10.1	16.1	11.9	7.8	8.3	7.7
Non-S&E ²	15.5	8.4	8.6	9.2	10.5	8.6	8.5	6.4	9.4

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from NSF/SRS: Survey of Earned Doctorates

Table 20. Number and percent of doctoral degrees earned by black men which are conferred by historically black colleges and universities (HBCUs), by field: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all black recipients									
Total, all fields	479	552	519	579	553	615	641	641	613
Science and engineering	225	270	238	261	284	290	323	332	296
Engineering	34	47	43	39	41	56	55	75	62
Sciences	191	223	195	222	243	234	268	257	234
Natural sciences	71	88	80	99	104	115	147	126	102
Physical science ¹	24	29	24	35	38	28	49	48	31
Mathematical science	3	7	4	7	8	4	6	5	9
Computer science	1	4	4	2	8	7	9	3	6
Biological science	29	32	38	43	34	65	58	51	41
Agricultural science	14	16	10	12	16	11	25	19	15
Social sciences	120	135	115	123	139	119	121	131	132
Social science	77	91	87	79	93	80	82	88	89
Psychology	43	44	28	44	46	39	39	43	43
Non-S&E ²	254	282	281	318	269	325	318	309	317
Black recipients from HBCUs									
Total, all fields	61	58	48	56	55	57	68	52	58
Science and engineering	22	32	23	30	28	32	40	33	35
Engineering	0	3	2	0	3	1	3	1	6
Sciences	22	29	21	30	25	31	37	32	29
Natural sciences	7	15	5	15	7	17	17	16	16
Physical science ¹	2	5	0	5	2	6	4	8	5
Mathematical science	0	0	0	0	1	0	0	0	2
Computer science	0	0	0	0	0	0	0	0	0
Biological science	5	10	5	9	4	10	11	7	9
Agricultural science	0	0	0	1	0	1	2	1	0
Social sciences	15	14	16	15	18	14	20	16	13
Social science	11	8	14	12	10	8	16	11	10
Psychology	4	6	2	3	8	6	4	5	3
Non-S&E ²	39	26	25	26	27	25	28	19	23
Percent from HBCUs									
Total, all fields	12.7	10.5	9.2	9.7	9.9	9.3	10.6	8.1	9.5
Science and engineering	9.8	11.9	9.7	11.5	9.9	11.0	12.4	9.9	11.8
Engineering .....	.0	6.4	4.7	.0	7.3	1.8	5.5	1.3	9.7
Sciences	11.5	13.0	10.8	13.5	10.3	13.2	13.8	12.5	12.4
Natural sciences	9.9	17.0	6.3	15.2	6.7	14.8	11.6	12.7	15.7
Physical science ¹	8.3	17.2	.0	14.3	5.3	21.4	8.2	16.7	16.1
Mathematical science .....	.0	.0	.0	.0	12.5	.0	.0	.0	22.2
Computer science .....	.0	.0	.0	.0	.0	.0	.0	.0	.0
Biological science	17.2	31.3	13.2	20.9	11.8	15.4	19.0	13.7	22.0
Agricultural science .....	.0	.0	.0	8.3	.0	9.1	8.0	5.3	.0
Social sciences	12.5	10.4	13.9	12.2	12.9	11.8	16.5	12.2	9.8
Social science	14.3	8.8	16.1	15.2	10.8	10.0	19.5	12.5	11.2
Psychology	9.3	13.6	7.1	6.8	17.4	15.4	10.3	11.6	7.0
Non-S&E ²	15.4	9.2	8.9	8.2	10.0	7.7	8.8	6.1	7.3

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from NSF/SRS: Survey of Earned Doctorates

Table 21. Number and percent of doctoral degrees earned by black women which are conferred by historically black colleges and universities (HBCUs), by field: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all black recipients									
Total, all fields	571	614	597	701	726	860	815	847	989
Science and engineering	149	194	170	208	216	270	253	291	350
Engineering	6	8	6	11	13	15	19	23	22
Sciences	143	186	164	197	203	255	234	268	328
Natural sciences	33	47	36	51	70	72	60	81	122
Physical science ¹	9	6	7	10	14	18	15	12	34
Mathematical science	1	4	0	1	3	1	2	2	7
Computer science	0	4	1	4	2	4	3	1	8
Biological science	22	32	24	32	45	43	40	60	69
Agricultural science	1	1	4	4	6	6	0	6	4
Social sciences	110	139	128	146	133	183	174	187	206
Social science	38	53	50	71	55	71	59	74	93
Psychology	72	86	78	75	78	112	115	113	113
Non-S&E ²	422	420	427	493	510	590	562	556	639
Black recipients from HBCUs									
Total, all fields	80	54	56	79	79	81	73	64	100
Science and engineering	14	21	20	30	24	27	26	28	33
Engineering	0	0	0	0	1	0	1	0	0
Sciences	14	21	20	30	23	27	25	28	33
Natural sciences	8	6	7	11	10	12	8	16	17
Physical science ¹	2	1	0	1	1	4	0	0	2
Mathematical science	0	0	0	0	1	0	0	2	0
Computer science	0	0	0	0	0	0	1	0	0
Biological science	6	5	7	10	8	8	7	12	15
Agricultural science	0	0	0	0	0	0	0	2	0
Social sciences	6	15	13	19	13	15	17	12	16
Social science	2	2	5	10	1	3	9	4	7
Psychology	4	13	8	9	12	12	8	8	9
Non-S&E ²	66	33	36	49	55	54	47	36	67
Percent from HBCUs									
Total, all fields	14.0	8.8	9.4	11.3	10.9	9.4	9.0	7.6	10.1
Science and engineering	9.4	10.8	11.8	14.4	11.1	10.0	10.3	9.6	9.4
Engineering .....	.0	.0	.0	.0	7.7	.0	5.3	.0	.0
Sciences	9.8	11.3	12.2	15.2	11.3	10.6	10.7	10.4	10.1
Natural sciences	24.2	12.8	19.4	21.6	14.3	16.7	13.3	19.8	13.9
Physical science ¹	22.2	16.7	.0	10.0	7.1	22.2	.0	.0	5.9
Mathematical science .....	.0	.0	0	.0	33.3	.0	.0	100.0	.0
Computer science	0	.0	.0	.0	.0	.0	33.3	.0	.0
Biological science	27.3	15.6	29.2	31.3	17.8	18.6	17.5	20.0	21.7
Agricultural science .....	.0	.0	.0	.0	.0	.0	0	33.3	.0
Social sciences	5.5	10.8	10.2	13.0	9.8	8.2	9.8	6.4	7.8
Social science	5.3	3.8	10.0	14.1	1.8	4.2	15.3	5.4	7.5
Psychology	5.6	15.1	10.3	12.0	15.4	10.7	7.0	7.1	8.0
Non-S&E ²	15.6	7.9	8.4	9.9	10.8	9.2	8.4	6.5	10.5

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from NSF/SRS: Survey of Earned Doctorates

Table 22. Number of earned bachelor's degrees conferred by institutions in Puerto Rico to Hispanics, by field: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all Hispanic recipients									
Total, all fields	43,864	49,027	53,007	57,845	62,683	66,691	71,015	74,938	78,125
Science and engineering	13,918	15,351	17,391	18,442	20,529	22,190	23,791	25,266	26,725
Engineering	2,511	2,566	2,733	2,961	3,143	3,651	3,731	4,125	4,125
Sciences	11,407	12,785	14,658	15,481	17,386	18,539	20,060	21,141	22,600
Natural sciences	4,357	4,705	4,892	5,034	5,648	6,119	6,764	7,055	7,881
Physical science ¹	522	533	546	599	733	800	872	853	914
Mathematical science	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
Biological science	2,119	2,264	2,477	2,652	2,901	3,090	3,521	3,793	4,283
Agricultural science	218	213	214	217	336	386	506	561	632
Social sciences	7,050	8,080	9,766	10,447	11,738	12,420	13,296	14,086	14,719
Social science	4,645	5,334	6,519	6,860	7,748	7,877	8,260	8,804	9,210
Psychology	2,405	2,746	3,247	3,587	3,990	4,543	5,036	5,282	5,509
Non-S&E ²	29,946	33,676	35,616	39,403	42,154	44,501	47,224	49,672	51,400
Hispanic recipients from institutions in Puerto Rico									
Total, all fields	12,175	12,510	12,755	13,359	13,454	13,792	14,106	14,093	13,905
Science and engineering	2,983	2,952	3,007	3,001	3,205	3,501	3,628	3,849	3,889
Engineering	626	554	686	697	742	988	915	1,125	971
Sciences	2,357	2,398	2,321	2,304	2,463	2,513	2,713	2,724	2,918
Natural sciences	1,447	1,446	1,339	1,300	1,374	1,459	1,658	1,641	1,858
Physical science ¹	184	154	172	172	227	311	324	303	314
Mathematical science	69	108	34	41	27	27	39	24	20
Computer science	261	327	296	254	258	257	263	202	248
Biological science	862	797	837	833	808	812	964	1,021	1,159
Agricultural science	71	60	0	0	54	52	68	91	117
Social sciences	910	952	982	1,004	1,089	1,054	1,055	1,083	1,060
Social science	495	523	496	508	590	554	549	603	596
Psychology	415	429	486	496	499	500	506	480	464
Non-S&E ²	9,192	9,558	9,748	10,358	10,249	10,291	10,478	10,244	10,016
Percent from institutions in Puerto Rico									
Total, all fields	27.8	25.5	24.1	23.1	21.5	20.7	19.9	18.8	17.8
Science and engineering	21.4	19.2	17.3	16.3	15.6	15.8	15.2	15.2	14.6
Engineering	24.9	21.6	25.1	23.5	23.6	27.1	24.5	27.3	23.5
Sciences	20.7	18.8	15.8	14.9	14.2	13.6	13.5	12.9	12.9
Natural sciences	33.2	30.7	27.4	25.8	24.3	23.8	24.5	23.3	23.6
Physical science ¹	35.2	28.9	31.5	28.7	31.0	38.9	37.2	35.5	34.4
Mathematical science	16.7	22.5	7.1	8.7	5.0	5.0	6.7	4.1	3.1
Computer science	24.1	26.9	25.2	23.2	22.7	19.7	20.5	15.9	17.6
Biological science	40.7	35.2	33.8	31.4	27.9	26.3	27.4	26.9	27.1
Agricultural science	32.6	28.2	.0	.0	16.1	13.5	13.4	16.2	18.5
Social sciences	12.9	11.8	10.1	9.6	9.3	8.5	7.9	7.7	7.2
Social science	10.7	9.8	7.6	7.4	7.6	7.0	6.6	6.8	6.5
Psychology	17.3	15.6	15.0	13.8	12.5	11.0	10.0	9.1	8.4
Non-S&E ²	30.7	28.4	27.4	26.3	24.3	23.1	22.2	20.6	19.5

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 23. Number of earned bachelor's degrees conferred by institutions in Puerto Rico to Hispanic men, by field: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all Hispanic recipients									
Total, 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
Engineering	2,035	2,039	2,187	2,355	2,495	2,895	2,897	3,196	3,179
Sciences	5,399	5,849	6,543	6,805	7,695	8,136	8,695	8,848	9,443
Natural sciences	2,328	2,458	2,497	2,608	2,925	3,196	3,509	3,544	3,873
Physical science ¹	311	318	326	361	415	437	488	468	474
Mathematical science	249	259	279	273	300	315	354	340	338
Computer science	669	738	724	700	719	876	824	841	920
Biological science	955	1,019	1,043	1,144	1,298	1,340	1,560	1,598	1,823
Agricultural science	144	124	125	130	193	228	283	297	318
Social sciences	3,071	3,391	4,046	4,197	4,770	4,940	5,186	5,304	5,570
Social science	2,384	2,634	3,220	3,269	3,774	3,774	3,860	4,019	4,188
Psychology	687	757	826	928	996	1,166	1,326	1,285	1,382
Non-S&E ²	11,249	12,893	13,296	14,665	15,670	16,844	17,743	18,506	19,094
Hispanic recipients from institutions in Puerto Rico									
Total, all fields	4,266	4,569	4,252	4,369	4,513	4,864	4,966	4,948	4,770
Science and engineering	1,462	1,365	1,362	1,339	1,426	1,657	1,711	1,789	1,762
Engineering	481	398	498	511	534	743	661	791	698
Sciences	981	967	864	828	892	914	1,050	998	1,064
Natural sciences	626	612	520	496	540	609	692	656	717
Physical science ¹	90	70	78	70	86	131	143	134	123
Mathematical science	47	50	20	24	15	16	28	16	12
Computer science	143	170	159	147	149	164	162	123	136
Biological science	302	293	263	255	258	265	322	331	385
Agricultural science	44	29	0	0	32	33	37	52	61
Social sciences	355	355	344	332	352	305	358	342	347
Social science	252	245	243	211	248	220	218	249	250
Psychology	103	110	101	121	104	85	140	93	97
Non-S&E ²	2,804	3,204	2,890	3,030	3,087	3,207	3,255	3,159	3,008
Percent from institutions in Puerto Rico									
Total, all fields	22.8	22.0	19.3	18.3	17.5	17.4	16.9	16.2	15.0
Science and engineering	19.7	17.3	15.6	14.6	14.0	15.0	14.8	14.9	14.0
Engineering	23.6	19.5	22.8	21.7	21.4	25.7	22.8	24.7	22.0
Sciences	18.2	16.5	13.2	12.2	11.6	11.2	12.1	11.3	11.3
Natural sciences	26.9	24.9	20.8	19.0	18.5	19.1	19.7	18.5	18.5
Physical science ¹	28.9	22.0	23.9	19.4	20.7	30.0	29.3	28.6	25.9
Mathematical science	18.9	19.3	7.2	8.8	5.0	5.1	7.9	4.7	3.6
Computer science	21.4	23.0	22.0	21.0	20.7	18.7	19.7	14.6	14.8
Biological science	31.6	28.8	25.2	22.3	19.9	19.8	20.6	20.7	21.1
Agricultural science	30.6	23.4	0	0	16.6	14.5	13.1	17.5	19.2
Social sciences	11.6	10.5	8.5	7.9	7.4	6.2	6.9	6.4	6.2
Social science	10.6	9.3	7.5	6.5	6.6	5.8	5.6	6.2	6.0
Psychology	15.0	14.5	12.2	13.0	10.4	7.3	10.6	7.2	7.0
Non-S&E ²	24.9	24.9	21.7	20.7	19.7	19.0	18.3	17.1	15.8

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 24. Number of earned bachelor's degrees conferred by institutions in Puerto Rico to Hispanic women, by field: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all Hispanic recipients									
Total, 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
Engineering	476	527	546	606	648	756	834	929	946
Sciences	6,008	6,936	8,115	8,676	9,691	10,403	11,365	12,293	13,157
Natural sciences	2,029	2,247	2,395	2,426	2,723	2,923	3,255	3,511	4,008
Physical science ¹	211	215	220	238	318	363	384	385	440
Mathematical science	164	221	203	197	243	221	231	241	304
Computer science	416	477	449	396	416	431	456	426	490
Biological science	1,164	1,245	1,434	1,508	1,603	1,750	1,961	2,195	2,460
Agricultural science	74	89	89	87	143	158	223	264	314
Social sciences	3,979	4,689	5,720	6,250	6,968	7,480	8,110	8,782	9,149
Social science	2,261	2,700	3,299	3,591	3,974	4,103	4,400	4,785	5,022
Psychology	1,718	1,989	2,421	2,659	2,994	3,377	3,710	3,997	4,127
Non-S&E ²	18,697	20,783	22,320	24,738	26,484	27,657	29,481	31,166	32,306
Hispanic recipients from institutions in Puerto Rico									
Total, all fields	7,909	7,941	8,503	8,990	8,941	8,928	9,140	9,145	9,135
Science and engineering	1,521	1,587	1,645	1,662	1,779	1,844	1,917	2,060	2,127
Engineering	145	156	188	186	208	245	254	334	273
Sciences	1,376	1,431	1,457	1,476	1,571	1,599	1,663	1,726	1,854
Natural sciences	821	834	819	804	834	850	966	985	1,141
Physical science ¹	94	84	94	102	141	180	181	169	191
Mathematical science	22	58	14	17	12	11	11	8	8
Computer science	118	157	137	107	109	93	101	79	112
Biological science	560	504	574	578	550	547	642	690	774
Agricultural science	27	31	0	0	22	19	31	39	56
Social sciences	555	597	638	672	737	749	697	741	713
Social science	243	278	253	297	342	334	331	354	346
Psychology	312	319	385	375	395	415	366	387	367
Non-S&E ²	6,388	6,354	6,858	7,328	7,162	7,084	7,223	7,085	7,008
Percent from institutions in Puerto Rico									
Total, all fields	31.4	28.1	27.4	26.4	24.3	23.0	21.9	20.6	19.7
Science and engineering	23.5	21.3	19.0	17.9	17.2	16.5	15.7	15.6	15.1
Engineering	30.5	29.6	34.4	30.7	32.1	32.4	30.5	36.0	28.9
Sciences	22.9	20.6	18.0	17.0	16.2	15.4	14.6	14.0	14.1
Natural sciences	40.5	37.1	34.2	33.1	30.6	29.1	29.7	28.1	28.5
Physical science ¹	44.5	39.1	42.7	42.9	44.3	49.6	47.1	43.9	43.4
Mathematical science	13.4	26.2	6.9	8.6	4.9	5.0	4.8	3.3	2.6
Computer science	28.4	32.9	30.5	27.0	26.2	21.6	22.1	18.5	22.9
Biological science	48.1	40.5	40.0	38.3	34.3	31.3	32.7	31.4	31.5
Agricultural science	36.5	34.8	.0	.0	15.4	12.0	13.9	14.8	17.8
Social sciences	13.9	12.7	11.2	10.8	10.6	10.0	8.6	8.4	7.8
Social science	10.7	10.3	7.7	8.3	8.6	8.1	7.5	7.4	6.9
Psychology	18.2	16.0	15.9	14.1	13.2	12.3	9.9	9.7	8.9
Non-S&E ²	34.2	30.6	30.7	29.6	27.0	25.6	24.5	22.7	21.7

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 25. Number of earned master's degrees conferred by institutions in Puerto Rico to Hispanics, by field: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all Hispanic recipients									
Total, all fields	8,495	9,684	10,256	11,371	13,177	13,905	15,394	16,360	17,416
Science and engineering	1,587	1,736	1,806	2,092	2,514	2,585	2,730	2,882	3,071
Engineering	446	468	488	581	719	711	748	765	807
Sciences	1,141	1,268	1,318	1,511	1,795	1,874	1,982	2,117	2,264
Natural sciences	431	494	503	574	680	665	677	720	737
Physical science ¹	98	96	93	114	114	129	127	139	149
Mathematical science	51	85	66	78	75	75	91	71	91
Computer science	118	128	149	162	169	198	173	197	193
Biological science	120	136	146	151	138	167	191	208	188
Agricultural science	44	49	49	69	184	96	95	105	116
Social sciences	710	774	815	937	1,115	1,209	1,305	1,397	1,527
Social science	341	383	396	474	557	553	596	626	676
Psychology	369	391	419	463	558	656	709	771	851
Non-S&E ²	6,908	7,948	8,450	9,279	10,663	11,320	12,664	13,478	14,345
Hispanic recipients from institutions in Puerto Rico									
Total, all fields	1,062	1,223	1,224	1,241	1,682	1,523	1,491	1,544	1,693
Science and engineering	207	214	140	160	311	289	288	339	371
Engineering	32	23	0	1	86	64	75	83	106
Sciences	175	191	140	159	225	225	213	256	265
Natural sciences	65	83	27	47	68	72	91	105	108
Physical science ¹	21	16	9	12	18	17	31	33	37
Mathematical science	7	17	7	14	8	9	6	7	6
Computer science	0	0	0	4	5	6	5	9	12
Biological science	30	39	11	17	18	20	37	28	22
Agricultural science	7	11	0	0	19	20	12	28	31
Social sciences	110	108	113	112	157	153	122	151	157
Social science	25	31	32	30	36	17	28	27	18
Psychology	85	77	81	82	121	136	94	124	139
Non-S&E ²	855	1,009	1,084	1,081	1,371	1,234	1,203	1,205	1,322
Percent from institutions in Puerto Rico									
Total, all fields	12.5	12.6	11.9	10.9	12.8	11.0	9.7	9.4	9.7
Science and engineering	13.0	12.3	7.8	7.6	12.4	11.2	10.5	11.8	12.1
Engineering	7.2	4.9	.0	.2	12.0	9.0	10.0	10.8	13.1
Sciences	15.3	15.1	10.6	10.5	12.5	12.0	10.7	12.1	11.7
Natural sciences	15.1	16.8	5.4	8.2	10.0	10.8	13.4	14.6	14.7
Physical science ¹	21.4	16.7	9.7	10.5	15.8	13.2	24.4	23.7	24.8
Mathematical science	13.7	20.0	10.6	17.9	10.7	12.0	6.6	9.9	6.6
Computer science .....	.0	.0	.0	2.5	3.0	3.0	2.9	4.6	6.2
Biological science	25.0	28.7	7.5	11.3	13.0	12.0	19.4	13.5	11.7
Agricultural science	15.9	22.4	.0	.0	10.3	20.8	12.6	26.7	26.7
Social sciences	15.5	14.0	13.9	12.0	14.1	12.7	9.3	10.8	10.3
Social science	7.3	8.1	8.1	6.3	6.5	3.1	4.7	4.3	2.7
Psychology	23.0	19.7	19.3	17.7	21.7	20.7	13.3	16.1	16.3
Non-S&E ²	12.4	12.7	12.8	11.6	12.9	10.9	9.5	8.9	9.2

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 26. Number of earned master's degrees conferred by institutions in Puerto Rico to Hispanic men, by field: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all Hispanic recipients									
Total, all fields	3,713	4,124	4,381	4,875	5,483	5,725	6,072	6,466	6,848
Science and engineering	959	992	1,066	1,255	1,427	1,458	1,478	1,576	1,596
Engineering	373	378	408	480	582	578	580	589	629
Sciences	586	614	658	775	845	880	898	987	967
Natural sciences	275	294	309	341	414	423	402	435	415
Physical science ¹	63	73	64	76	80	88	80	86	87
Mathematical science	33	52	47	50	44	53	57	50	51
Computer science	93	84	98	104	120	151	125	141	123
Biological science	61	54	69	76	65	75	85	107	96
Agricultural science	25	31	31	35	105	56	55	51	58
Social sciences	311	320	349	434	431	457	496	552	552
Social science	178	196	218	282	290	283	320	344	333
Psychology	133	124	131	152	141	174	176	208	219
Non-S&E ²	2,754	3,132	3,315	3,620	4,056	4,267	4,594	4,890	5,252
Hispanic recipients from institutions in Puerto Rico									
Total, all fields	365	386	398	402	586	500	497	531	574
Science and engineering	103	80	48	56	154	130	144	148	169
Engineering	26	15	0	1	68	51	61	56	76
Sciences	77	65	48	55	86	79	83	92	93
Natural sciences	33	39	12	23	43	47	49	48	54
Physical science ¹	11	9	4	6	15	14	16	19	17
Mathematical science	3	9	4	11	5	6	3	4	6
Computer science	0	0	0	1	3	3	3	4	6
Biological science	14	13	4	5	8	10	19	11	13
Agricultural science	5	8	0	0	12	14	8	10	12
Social sciences	44	26	36	32	43	32	34	44	39
Social science	10	8	14	16	25	9	14	16	10
Psychology	34	18	22	16	18	23	20	28	29
Non-S&E ²	262	306	350	346	432	370	353	383	405
Percent from institutions in Puerto Rico									
Total, all fields	9.8	9.4	9.1	8.2	10.7	8.7	8.2	8.2	8.4
Science and engineering	10.7	8.1	4.5	4.5	10.8	8.9	9.7	9.4	10.6
Engineering	7.0	4.0	.0	.2	11.7	8.8	10.5	9.5	12.1
Sciences	13.1	10.6	7.3	7.1	10.2	9.0	9.2	9.3	9.6
Natural sciences	12.0	13.3	3.9	6.7	10.4	11.1	12.2	11.0	13.0
Physical science ¹	17.5	12.3	6.3	7.9	18.8	15.9	20.0	22.1	19.5
Mathematical science	9.1	17.3	8.5	22.0	11.4	11.3	5.3	8.0	11.8
Computer science .....	.0	.0	.0	1.0	2.5	2.0	2.4	2.8	4.9
Biological science	23.0	24.1	5.8	6.6	12.3	13.3	22.4	10.3	13.5
Agricultural science	20.0	25.8	.0	.0	11.4	25.0	14.5	19.6	20.7
Social sciences	14.1	8.1	10.3	7.4	10.0	7.0	6.9	8.0	7.1
Social science	5.6	4.1	6.4	5.7	8.6	3.2	4.4	4.7	3.0
Psychology	25.6	14.5	16.8	10.5	12.8	13.2	11.4	13.5	13.2
Non-S&E ²	9.5	9.8	10.6	9.6	10.7	8.7	7.7	7.8	7.7

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 27. Number of earned master's degrees conferred by institutions in Puerto Rico to Hispanic women, by field: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all Hispanic recipients									
Total, all fields	4,782	5,560	5,875	6,496	7,694	8,180	9,322	9,894	10,568
Science and engineering	628	744	740	837	1,087	1,127	1,252	1,306	1,475
Engineering	73	90	80	101	137	133	168	176	178
Sciences	555	654	660	736	950	994	1,084	1,130	1,297
Natural sciences	156	200	194	233	266	242	275	285	322
Physical science ¹	35	23	29	38	34	41	47	53	62
Mathematical science	18	33	19	28	31	22	34	21	40
Computer science	25	44	51	58	49	47	48	56	70
Biological science	59	82	77	75	73	92	106	101	92
Agricultural science	19	18	18	34	79	40	40	54	58
Social sciences	399	454	466	503	684	752	809	845	975
Social science	163	187	178	192	267	270	276	282	343
Psychology	236	267	288	311	417	482	533	563	632
Non-S&E ²	4,154	4,816	5,135	5,659	6,607	7,053	8,070	8,588	9,093
Hispanic recipients from institutions in Puerto Rico									
Total, all fields	697	837	826	839	1,096	1,023	994	1,013	1,119
Science and engineering	104	134	92	104	157	159	144	191	202
Engineering	6	8	0	0	18	13	14	27	30
Sciences	98	126	92	104	139	146	130	164	172
Natural sciences	32	44	15	24	25	25	42	57	54
Physical science ¹	10	7	5	6	3	3	15	14	20
Mathematical science	4	8	3	3	3	3	3	3	0
Computer science	0	0	0	3	2	3	2	5	6
Biological science	16	26	7	12	10	10	18	17	9
Agricultural science	2	3	0	0	7	6	4	18	19
Social sciences	66	82	77	80	114	121	88	107	118
Social science	15	23	18	14	11	8	14	11	8
Psychology	51	59	59	66	103	113	74	96	110
Non-S&E ²	593	703	734	735	939	864	850	822	917
Percent from institutions in Puerto Rico									
Total, all fields	14.6	15.1	14.1	12.9	14.2	12.5	10.7	10.2	10.6
Science and engineering	16.6	18.0	12.4	12.4	14.4	14.1	11.5	14.6	13.7
Engineering	8.2	8.9	.0	.0	13.1	9.8	8.3	15.3	16.9
Sciences	17.7	19.3	13.9	14.1	14.6	14.7	12.0	14.5	13.3
Natural sciences	20.5	22.0	7.7	10.3	9.4	10.3	15.3	20.0	16.8
Physical science ¹	28.6	30.4	17.2	15.8	8.8	7.3	31.9	26.4	32.3
Mathematical science	22.2	24.2	15.8	10.7	9.7	13.6	8.8	14.3	.0
Computer science .....	.0	.0	.0	5.2	4.1	6.4	4.2	8.9	8.6
Biological science	27.1	31.7	9.1	16.0	13.7	10.9	17.0	16.8	9.8
Agricultural science	10.5	16.7	.0	.0	8.9	15.0	10.0	33.3	32.8
Social sciences	16.5	18.1	16.5	15.9	16.7	16.1	10.9	12.7	12.1
Social science	9.2	12.3	10.1	7.3	4.1	3.0	5.1	3.9	2.3
Psychology	21.6	22.1	20.5	21.2	24.7	23.4	13.9	17.1	17.4
Non-S&E ²	14.3	14.6	14.3	13.0	14.2	12.3	10.5	9.6	10.1

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 28. Number of earned doctoral degrees conferred by institutions in Puerto Rico to Hispanics, by field: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all Hispanic recipients									
Total, all fields	837	868	909	973	1,030	1,054	1,103	1,191	1,319
Science and engineering	468	493	513	542	548	563	618	656	753
Engineering	54	61	71	66	66	76	97	95	110
Sciences	414	432	442	476	482	487	521	561	643
Natural sciences	212	212	228	249	274	253	251	294	315
Physical science ¹	85	81	88	92	98	86	85	84	70
Mathematical science	10	9	12	16	13	15	10	20	27
Computer science	5	12	8	7	7	6	16	17	14
Biological science	89	95	102	114	131	125	128	146	169
Agricultural science	23	15	18	20	25	21	12	27	35
Social sciences	202	220	214	227	208	234	270	267	328
Social science	93	98	81	96	75	89	97	96	121
Psychology	109	122	133	131	133	145	173	171	207
Non-S&E ²	369	375	396	431	482	491	485	535	566
Hispanic recipients from institutions in Puerto Rico									
Total, all fields	33	25	50	31	57	51	43	89	98
Science and engineering	18	12	26	14	30	36	29	50	71
Engineering	0	0	0	0	0	0	0	0	0
Sciences	18	12	26	14	30	36	29	50	71
Natural sciences	8	5	5	6	12	5	3	6	9
Physical science ¹	6	3	4	4	7	5	3	5	4
Mathematical science	0	0	0	0	0	0	0	0	0
Computer science	0	0	0	0	0	0	0	0	0
Biological science	2	2	1	2	5	0	0	1	5
Agricultural science	0	0	0	0	0	0	0	0	0
Social sciences	10	7	21	8	18	31	26	44	62
Social science	0	1	5	0	1	0	0	1	0
Psychology	10	6	16	8	17	31	26	43	62
Non-S&E ²	15	13	24	17	27	15	14	39	27
Percent from institutions in Puerto Rico									
Total, all fields	3.9	2.9	5.5	3.2	5.5	4.8	3.9	7.5	7.4
Science and engineering	3.8	2.4	5.1	2.6	5.5	6.4	4.7	7.6	9.4
Engineering .....	.0	.0	.0	.0	.0	.0	.0	.0	.0
Sciences	4.3	2.8	5.9	2.9	6.2	7.4	5.6	8.9	11.0
Natural sciences	3.8	2.4	2.2	2.4	4.4	2.0	1.2	2.0	2.9
Physical science ¹	7.1	3.7	4.5	4.3	7.1	5.8	3.5	6.0	5.7
Mathematical science .....	.0	.0	.0	.0	.0	.0	.0	.0	.0
Computer science .....	.0	.0	.0	.0	.0	.0	.0	.0	.0
Biological science	2.2	2.1	1.0	1.8	3.8	.0	.0	.7	3.0
Agricultural science .....	.0	.0	.0	.0	.0	.0	.0	.0	.0
Social sciences	5.0	3.2	9.8	3.5	8.7	13.2	9.6	16.5	18.9
Social science .....	.0	1.0	6.2	.0	1.3	.0	.0	1.0	.0
Psychology	9.2	4.9	12.0	6.1	12.8	21.4	15.0	25.1	30.0
Non-S&E ²	4.1	3.5	6.1	3.9	5.6	3.1	2.9	7.3	4.8

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from NSF/SRS: Survey of Earned Doctorates

Table 29. Number of earned doctoral degrees conferred by institutions in Puerto Rico to Hispanic men, by field: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all Hispanic recipients									
Total, all fields	449	459	482	517	518	537	560	624	678
Science and engineering	290	307	308	320	318	336	346	392	426
Engineering	45	51	56	54	60	65	82	72	97
Sciences	245	256	252	266	258	271	264	320	329
Natural sciences	138	152	151	162	174	167	157	198	197
Physical science ¹	55	68	62	70	75	59	67	65	53
Mathematical science	6	5	9	14	10	11	10	14	20
Computer science	4	11	7	6	7	2	9	15	13
Biological science	56	56	59	57	69	79	62	84	89
Agricultural science	17	12	14	15	13	16	9	20	22
Social sciences	107	104	101	104	84	104	107	122	132
Social science	55	52	46	59	41	56	54	59	77
Psychology	52	52	55	45	43	48	53	63	55
Non-S&E ²	159	152	174	197	200	201	214	232	252
Hispanic recipients from institutions in Puerto Rico									
Total, all fields	9	7	14	10	18	16	15	30	20
Science and engineering	6	3	11	7	11	13	11	18	14
Engineering	0	0	0	0	0	0	0	0	0
Sciences	6	3	11	7	11	13	11	18	14
Natural sciences	2	2	4	4	6	4	2	3	4
Physical science ¹	1	2	3	2	5	4	2	3	0
Mathematical science	0	0	0	0	0	0	0	0	0
Computer science	0	0	0	0	0	0	0	0	0
Biological science	1	0	1	2	1	0	0	0	4
Agricultural science	0	0	0	0	0	0	0	0	0
Social sciences	4	1	7	3	5	9	9	15	10
Social science	0	0	0	0	0	0	0	0	0
Psychology	4	1	7	3	5	9	9	15	10
Non-S&E ²	3	4	3	3	7	3	4	12	6
Percent from institutions in Puerto Rico									
Total, all fields	2.0	1.5	2.9	1.9	3.5	3.0	2.7	4.8	2.9
Science and engineering	2.1	1.0	3.6	2.2	3.5	3.9	3.2	4.6	3.3
Engineering .....	.0	.0	.0	.0	.0	.0	.0	.0	.0
Sciences	2.4	1.2	4.4	2.6	4.3	4.8	4.2	5.6	4.3
Natural sciences	1.4	1.3	2.6	2.5	3.4	2.4	1.3	1.5	2.0
Physical science ¹	1.8	2.9	4.8	2.9	6.7	6.8	3.0	4.6	.0
Mathematical science .....	.0	.0	.0	.0	.0	.0	.0	.0	.0
Computer science .....	.0	.0	.0	.0	.0	.0	.0	.0	.0
Biological science	1.8	.0	1.7	3.5	1.4	.0	.0	.0	4.5
Agricultural science .....	.0	.0	.0	.0	.0	.0	.0	.0	.0
Social sciences	3.7	1.0	6.9	2.9	6.0	8.7	8.4	12.3	7.6
Social science .....	.0	.0	.0	.0	.0	.0	.0	.0	.0
Psychology	7.7	1.9	12.7	6.7	11.6	18.8	17.0	23.8	18.2
Non-S&E ²	1.9	2.6	1.7	1.5	3.5	1.5	1.9	5.2	2.4

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from NSF/SRS: Survey of Earned Doctorates

Table 30. Number of earned doctoral degrees conferred by institutions in Puerto Rico to Hispanic women, by field: 1990-1998

Field	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, all Hispanic recipients									
Total, all fields	388	409	427	456	512	517	543	567	640
Science and engineering	178	186	205	222	230	227	272	264	327
Engineering	9	10	15	12	6	11	15	23	13
Sciences	169	176	190	210	224	216	257	241	314
Natural sciences	74	60	77	87	100	86	94	96	118
Physical science ¹	30	13	26	22	23	27	18	19	17
Mathematical science	4	4	3	2	3	4	0	6	7
Computer science	1	1	1	1	0	4	7	2	1
Biological science	33	39	43	57	62	46	66	62	80
Agricultural science	6	3	4	5	12	5	3	7	13
Social sciences	95	116	113	123	124	130	163	145	196
Social science	38	46	35	37	34	33	43	37	44
Psychology	57	70	78	86	90	97	120	108	152
Non-S&E ²	210	223	222	234	282	290	271	303	313
Hispanic recipients from institutions in Puerto Rico									
Total, all fields	24	18	36	21	39	35	28	59	78
Science and engineering	12	9	15	7	19	23	18	32	57
Engineering	0	0	0	0	0	0	0	0	0
Sciences	12	9	15	7	19	23	18	32	57
Natural sciences	6	3	1	2	6	1	1	3	5
Physical science ¹	5	1	1	2	2	1	1	2	4
Mathematical science	0	0	0	0	0	0	0	0	0
Computer science	0	0	0	0	0	0	0	0	0
Biological science	1	2	0	0	4	0	0	1	1
Agricultural science	0	0	0	0	0	0	0	0	0
Social sciences	6	6	14	5	13	22	17	29	52
Social science	0	1	5	0	1	0	0	1	0
Psychology	6	5	9	5	12	22	17	28	52
Non-S&E ²	12	9	21	14	20	12	10	27	21
Percent from institutions in Puerto Rico									
Total, all fields	6.2	4.4	8.4	4.6	7.6	6.8	5.2	10.4	12.2
Science and engineering	6.7	4.8	7.3	3.2	8.3	10.1	6.6	12.1	17.4
Engineering .....	.0	.0	.0	.0	.0	.0	.0	.0	.0
Sciences	7.1	5.1	7.9	3.3	8.5	10.6	7.0	13.3	18.2
Natural sciences	8.1	5.0	1.3	2.3	6.0	1.2	1.1	3.1	4.2
Physical science ¹	16.7	7.7	3.8	9.1	8.7	3.7	5.6	10.5	23.5
Mathematical science .....	.0	.0	.0	.0	.0	.0	.0	.0	.0
Computer science .....	.0	.0	.0	.0	0	.0	.0	.0	.0
Biological science	3.0	5.1	.0	.0	6.5	.0	.0	1.6	1.2
Agricultural science .....	.0	.0	.0	.0	.0	.0	.0	.0	.0
Social sciences	6.3	5.2	12.4	4.1	10.5	16.9	10.4	20.0	26.5
Social science .....	.0	2.2	14.3	.0	2.9	.0	.0	2.7	.0
Psychology	10.5	7.1	11.5	5.8	13.3	22.7	14.2	25.9	34.2
Non-S&E ²	5.7	4.0	9.5	6.0	7.1	4.1	3.7	8.9	6.7

¹ In this report, "Physical science" includes earth, atmospheric, and oceanographic sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

See section C for specific fields included in each category.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from NSF/SRS: Survey of Earned Doctorates

Table 31. Number of earned bachelor's degrees awarded in engineering technologies, by citizenship, race/ethnicity and sex of recipient: 1990-1998

Citizenship and race/ethnicity	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total									
Total	19,150	18,294	17,113	16,987	16,654	16,542	16,156	14,584	14,747
U.S. citizens and permanent residents, total ¹	18,423	17,582	16,597	16,546	16,161	15,992	15,571	14,027	14,157
White, non-Hispanics	15,251	14,279	13,286	13,245	12,909	12,616	12,032	10,946	10,977
Asians	755	768	778	768	720	727	730	473	471
Underrepresented minorities, total	2,053	2,033	2,074	2,096	2,160	2,317	2,470	2,244	2,210
Black, non-Hispanics	1,200	1,227	1,239	1,132	1,249	1,319	1,370	1,423	1,369
Hispanics	784	731	747	853	813	883	988	722	738
American Indians or Alaskan Natives	69	75	88	111	98	115	112	99	103
U.S. citizens and permanent residents, unknown race/ethnicity	364	502	459	437	372	332	339	364	499
Nonresident aliens ²	727	712	516	441	493	550	585	557	590
Men									
Total	17,113	16,329	15,309	15,089	14,835	14,649	14,325	12,889	12,931
U.S. citizens and permanent residents, total ¹	16,431	15,660	14,841	14,687	14,401	14,141	13,794	12,379	12,407
White, non-Hispanics	13,679	12,819	12,069	11,908	11,694	11,332	10,882	9,836	9,796
Asians	679	700	690	678	641	637	656	421	418
Underrepresented minorities, total	1,733	1,692	1,659	1,694	1,729	1,881	1,956	1,781	1,756
Black, non-Hispanics	953	968	949	892	959	1,042	1,041	1,095	1,072
Hispanics	722	655	629	710	687	741	828	604	599
American Indians or Alaskan Natives	58	69	81	92	83	98	87	82	85
U.S. citizens and permanent residents, unknown race/ethnicity	340	449	423	407	337	291	300	341	437
Nonresident aliens ²	682	669	468	402	434	508	531	510	524
Women									
Total	2,037	1,965	1,804	1,898	1,819	1,893	1,831	1,695	1,816
U.S. citizens and permanent residents, total ¹	1,992	1,922	1,756	1,859	1,760	1,851	1,777	1,648	1,750
White, non-Hispanics	1,572	1,460	1,217	1,337	1,215	1,284	1,150	1,110	1,181
Asians	76	68	88	90	79	90	74	52	53
Underrepresented minorities, total	320	341	415	402	431	436	514	463	454
Black, non-Hispanics	247	259	290	240	290	277	329	328	297
Hispanics	62	76	118	143	126	142	160	118	139
American Indians or Alaskan Natives	11	6	7	19	15	17	25	17	18
U.S. citizens and permanent residents, unknown race/ethnicity	24	53	36	30	35	41	39	23	62
Nonresident aliens ²	45	43	48	39	59	42	54	47	66

¹ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

² Nonresident aliens include foreign citizens on temporary visas only.

NOTES: Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

Engineering technologies are instructional programs that prepare individuals to support and assist engineering and related professionals or to independently provide such services. Programs stress specialized, practical knowledge related to the mathematical, scientific, or technical aspects of engineering and related sciences.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 32. Number of earned master's degrees awarded in engineering technologies, by citizenship, race/ethnicity and sex of recipient: 1990-1998

Citizenship and race/ethnicity	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total									
Total	1,194	1,188	1,278	1,555	1,547	1,577	1,651	1,414	1,700
U.S. citizens and permanent residents, total ¹	1,032	1,016	1,063	1,276	1,256	1,268	1,353	1,153	1,432
White, non-Hispanics	823	830	817	1,041	994	982	1,053	950	1,115
Asians	79	60	58	40	46	55	61	49	62
Underrepresented minorities, total	58	69	92	94	112	131	135	115	205
Black, non-Hispanics	44	47	64	61	72	85	81	86	150
Hispanics	9	19	23	25	37	40	47	26	49
American Indians or Alaskan Natives	5	3	5	8	3	6	7	3	6
U.S. citizens and permanent residents, unknown race/ethnicity	72	57	96	101	104	100	104	39	50
Nonresident aliens ²	162	172	215	279	291	309	298	261	268
Men									
Total	888	888	971	1,172	1,164	1,136	1,179	1,012	1,158
U.S. citizens and permanent residents, total ¹	757	757	815	961	949	940	990	842	1,002
White, non-Hispanics	607	619	619	783	753	726	777	704	801
Asians	40	39	45	28	33	41	41	34	40
Underrepresented minorities, total	43	47	66	57	75	89	87	76	130
Black, non-Hispanics	32	29	46	32	48	53	51	56	95
Hispanics	7	17	16	18	27	32	32	17	31
American Indians or Alaskan Natives	4	1	4	7	0	4	4	3	4
U.S. citizens and permanent residents, unknown race/ethnicity	67	52	85	93	88	84	85	28	31
Nonresident aliens ²	131	131	156	211	215	196	189	170	156
Women									
Total	306	300	307	383	383	441	472	402	542
U.S. citizens and permanent residents, total ¹	275	259	248	315	307	328	363	311	430
White, non-Hispanics	216	211	198	258	241	256	276	246	314
Asians	39	21	13	12	13	14	20	15	22
Underrepresented minorities, total	15	22	26	37	37	42	48	39	75
Black, non-Hispanics	12	18	18	29	24	32	30	30	55
Hispanics	2	2	7	7	10	8	15	9	18
American Indians or Alaskan Natives	1	2	1	1	3	2	3	0	2
U.S. citizens and permanent residents, unknown race/ethnicity	5	5	11	8	16	16	19	11	19
Nonresident aliens ²	31	41	59	68	76	113	109	91	112

¹ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

² Nonresident aliens include foreign citizens on temporary visas only.

NOTES: Data on race/ethnicity of degree recipients were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

Engineering technologies are instructional programs that prepare individuals to support and assist engineering and related professionals or to independently provide such services. Programs stress specialized, practical knowledge related to the mathematical, scientific, or technical aspects of engineering and related sciences.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 33. Number of earned bachelor's degrees awarded in health fields, by citizenship, race/ethnicity and sex of recipient: 1990-1998

Citizenship and race/ethnicity	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total									
Total	59,852	60,228	62,655	67,942	75,229	80,629	84,759	86,243	85,334
U.S. citizens and permanent residents, total ¹	59,056	59,250	61,792	66,929	74,200	79,608	83,641	85,135	84,427
White, non-Hispanics	48,405	48,798	51,328	55,482	61,624	64,992	67,509	67,823	65,778
Asians	1,823	1,981	2,229	2,469	3,024	3,488	3,952	4,428	4,696
Underrepresented minorities, total	6,890	6,881	7,048	7,758	8,225	9,453	10,417	10,915	11,867
Black, non-Hispanics	4,056	4,122	4,151	4,670	4,817	5,691	6,186	6,438	7,059
Hispanics	2,580	2,481	2,571	2,747	3,018	3,305	3,722	3,939	4,221
American Indians or Alaskan Natives	254	278	326	341	390	457	509	538	587
U.S. citizens and permanent residents, unknown race/ethnicity	1,938	1,590	1,187	1,220	1,327	1,675	1,763	1,969	2,086
Nonresident aliens ²	796	978	863	1,013	1,029	1,021	1,118	1,108	907
Men									
Total	9,418	9,855	10,305	11,467	13,180	14,564	15,561	16,008	15,252
U.S. citizens and permanent residents, total ¹	9,176	9,572	10,057	11,189	12,912	14,295	15,309	15,717	15,003
White, non-Hispanics	7,521	7,717	8,230	9,081	10,627	11,503	12,249	12,367	11,361
Asians	392	468	541	561	694	891	968	1,108	1,163
Underrepresented minorities, total	1,030	1,094	1,032	1,285	1,315	1,595	1,781	1,876	2,098
Black, non-Hispanics	502	525	530	673	659	850	920	940	1,055
Hispanics	491	519	441	545	576	652	768	823	902
American Indians or Alaskan Natives	37	50	61	67	80	93	93	113	141
U.S. citizens and permanent residents, unknown race/ethnicity	233	293	254	262	276	306	311	366	381
Nonresident aliens ²	242	283	248	278	268	269	252	291	249
Women									
Total	50,434	50,373	52,350	56,475	62,049	66,065	69,198	70,235	70,082
U.S. citizens and permanent residents, total ¹	49,880	49,678	51,735	55,740	61,288	65,313	68,332	69,418	69,424
White, non-Hispanics	40,884	41,081	43,098	46,401	50,997	53,489	55,260	55,456	54,417
Asians	1,431	1,513	1,688	1,908	2,330	2,597	2,984	3,320	3,533
Underrepresented minorities, total	5,860	5,787	6,016	6,473	6,910	7,858	8,636	9,039	9,769
Black, non-Hispanics	3,554	3,597	3,621	3,997	4,158	4,841	5,266	5,498	6,004
Hispanics	2,089	1,962	2,130	2,202	2,442	2,653	2,954	3,116	3,319
American Indians or Alaskan Natives	217	228	265	274	310	364	416	425	446
U.S. citizens and permanent residents, unknown race/ethnicity	1,705	1,297	933	958	1,051	1,369	1,452	1,603	1,705
Nonresident aliens ²	554	695	615	735	761	752	866	817	658

¹ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

² Nonresident aliens include foreign citizens on temporary visas only.

NOTE: Health fields include the medical and other health sciences shown in section C.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 34. Number of earned master's degrees awarded in health fields, by citizenship, race/ethnicity and sex of recipient: 1990-1998

Citizenship and race/ethnicity	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total									
Total	20,482	21,398	23,213	25,823	28,314	31,481	33,475	36,014	39,274
U.S. citizens and permanent residents, total ¹	19,400	20,160	21,903	24,357	26,814	29,734	31,960	34,335	37,696
White, non-Hispanics	16,284	17,002	18,464	20,509	22,154	24,141	25,894	27,968	29,754
Asians	600	600	709	830	962	1,519	1,727	1,594	2,330
Underrepresented minorities, total	1,523	1,667	1,867	2,084	2,528	2,784	3,159	3,226	4,065
Black, non-Hispanics	886	1,004	1,092	1,251	1,431	1,609	1,804	1,910	2,384
Hispanics	558	572	685	718	967	1,049	1,205	1,150	1,488
American Indians or Alaskan Natives	79	91	90	115	130	126	150	166	193
U.S. citizens and permanent residents, unknown race/ethnicity	993	891	863	934	1,170	1,290	1,180	1,547	1,547
Nonresident aliens ²	1,082	1,238	1,310	1,466	1,500	1,747	1,515	1,679	1,578
Men									
Total	4,554	4,499	4,714	5,248	5,874	6,793	6,980	7,697	8,692
U.S. citizens and permanent residents, total ¹	4,080	3,956	4,175	4,638	5,274	6,078	6,352	7,011	8,101
White, non-Hispanics	3,309	3,215	3,399	3,807	4,216	4,658	4,870	5,557	6,084
Asians	181	170	215	222	295	578	615	501	780
Underrepresented minorities, total	313	362	352	399	495	568	608	621	876
Black, non-Hispanics	158	194	171	207	220	280	298	325	433
Hispanics	135	146	158	172	250	261	271	264	393
American Indians or Alaskan Natives	20	22	23	20	25	27	39	32	50
U.S. citizens and permanent residents, unknown race/ethnicity	277	209	209	210	268	274	259	332	361
Nonresident aliens ²	474	543	539	610	600	715	628	686	591
Women									
Total	15,928	16,899	18,499	20,575	22,440	24,688	26,495	28,317	30,582
U.S. citizens and permanent residents, total ¹	15,320	16,204	17,728	19,719	21,540	23,656	25,608	27,324	29,595
White, non-Hispanics	12,975	13,787	15,065	16,702	17,938	19,483	21,024	22,411	23,670
Asians	419	430	494	608	667	941	1,112	1,093	1,550
Underrepresented minorities, total	1,210	1,305	1,515	1,685	2,033	2,216	2,551	2,605	3,189
Black, non-Hispanics	728	810	921	1,044	1,211	1,329	1,506	1,585	1,951
Hispanics	423	426	527	546	717	788	934	886	1,095
American Indians or Alaskan Natives	59	69	67	95	105	99	111	134	143
U.S. citizens and permanent residents, unknown race/ethnicity	716	682	654	724	902	1,016	921	1,215	1,186
Nonresident aliens ²	608	695	771	856	900	1,032	887	993	987

¹ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

² Nonresident aliens include foreign citizens on temporary visas only.

NOTE: Health fields include the medical and other health sciences shown in section C.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 35. Number of earned doctoral degrees awarded in health fields, by citizenship, race/ethnicity and sex of recipient: 1990-1998

Citizenship and race/ethnicity	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total									
Total	956	1,041	1,112	1,197	1,296	1,330	1,324	1,423	1,503
U.S. citizens and permanent residents, total ¹	756	839	855	939	1,050	1,044	1,016	1,028	1,155
White, non-Hispanics	662	720	735	800	867	836	823	827	932
Asians	39	44	52	45	94	93	87	87	85
Underrepresented minorities, total	50	61	56	89	77	99	91	94	106
Black, non-Hispanics	32	40	38	59	46	60	49	56	65
Hispanics	17	16	13	24	25	30	38	32	37
American Indians or Alaskan Natives	1	5	5	6	6	9	4	6	4
U.S. citizens and permanent residents, unknown race/ethnicity	5	14	12	5	12	16	15	20	32
Nonresident aliens ²	166	171	226	214	230	246	267	273	287
Citizenship unknown	34	31	31	44	16	40	41	122	61
Men									
Total	364	369	394	408	444	478	456	470	489
U.S. citizens and permanent residents, total ¹	239	252	226	260	328	325	293	287	310
White, non-Hispanics	203	199	177	208	258	234	212	219	235
Asians	17	21	22	22	48	52	47	37	35
Underrepresented minorities, total	17	27	21	26	19	35	30	25	27
Black, non-Hispanics	14	17	14	18	11	18	13	15	14
Hispanics	2	7	4	8	7	15	16	8	12
American Indians or Alaskan Natives	1	3	3	0	1	2	1	2	1
U.S. citizens and permanent residents, unknown race/ethnicity	2	5	6	4	3	4	4	6	13
Nonresident aliens ²	101	101	158	138	109	140	147	135	156
Citizenship unknown	24	16	10	10	7	13	16	48	23
Women									
Total	592	668	710	777	843	843	860	937	1,008
U.S. citizens and permanent residents, total ¹	517	587	629	679	722	719	723	740	845
White, non-Hispanics	459	521	558	592	609	602	611	608	697
Asians	22	23	30	23	46	41	40	50	50
Underrepresented minorities, total	33	34	35	63	58	64	61	69	79
Black, non-Hispanics	18	23	24	41	35	42	36	41	51
Hispanics	15	9	9	16	18	15	22	24	25
American Indians or Alaskan Natives	0	2	2	6	5	7	3	4	3
U.S. citizens and permanent residents, unknown race/ethnicity	3	9	6	1	9	12	11	13	19
Nonresident aliens ²	65	70	67	76	115	104	116	138	130
Citizenship unknown	10	11	14	22	6	20	21	59	33

¹ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

² Nonresident aliens include foreign citizens on temporary visas only.

NOTE: Health fields include the medical and other health sciences shown in section C.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from NSF/SRS: Survey of Earned Doctorates

Table 36. First-professional degrees awarded, by citizenship, race/ethnicity and sex of recipient: 1990-1998

Citizenship and race/ethnicity	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total									
Total	71,551	72,636	74,801	76,068	76,000	76,457	77,505	79,169	78,945
U.S. citizens and permanent residents, total ¹	70,515	71,550	73,459	74,520	74,563	74,846	75,873	77,515	77,162
White, non-Hispanics	59,376	59,692	59,869	60,338	58,476	58,239	58,179	58,769	57,551
Asians	3,299	3,772	4,757	5,107	5,759	6,277	6,513	7,234	7,547
Underrepresented minorities, total	6,549	6,984	7,334	8,075	8,314	8,877	9,501	9,846	10,001
Black, non-Hispanics	3,337	3,535	3,568	4,078	4,329	4,657	4,905	5,153	5,310
Hispanics	2,959	3,191	3,472	3,632	3,623	3,816	4,143	4,192	4,147
American Indians or Alaskan Natives	253	258	294	365	362	404	453	501	544
U.S. citizens and permanent residents, unknown race/ethnicity	1,291	1,102	1,499	1,000	2,014	1,453	1,680	1,666	2,063
Nonresident aliens ²	1,036	1,086	1,342	1,548	1,437	1,611	1,632	1,654	1,783
Men									
Total	44,309	44,226	45,459	45,565	45,068	45,193	45,182	45,747	45,033
U.S. citizens and permanent residents, total ¹	43,607	43,464	44,511	44,462	44,053	44,112	44,064	44,619	43,886
White, non-Hispanics	37,367	36,926	37,089	36,896	35,526	35,409	34,972	35,077	34,007
Asians	1,946	2,171	2,728	2,831	3,139	3,423	3,483	3,887	3,903
Underrepresented minorities, total	3,501	3,663	3,831	4,122	4,155	4,388	4,589	4,679	4,762
Black, non-Hispanics	1,627	1,653	1,620	1,777	1,851	2,036	2,058	2,139	2,229
Hispanics	1,738	1,868	2,054	2,156	2,088	2,134	2,281	2,258	2,251
American Indians or Alaskan Natives	136	142	157	189	216	218	250	282	282
U.S. citizens and permanent residents, unknown race/ethnicity	793	704	863	613	1,233	892	1,020	976	1,214
Nonresident aliens ²	702	762	948	1,103	1,015	1,081	1,118	1,128	1,147
Women									
Total	27,242	28,410	29,342	30,503	30,932	31,264	32,323	33,422	33,912
U.S. citizens and permanent residents, total ¹	26,908	28,086	28,948	30,058	30,510	30,734	31,809	32,896	33,276
White, non-Hispanics	22,009	22,766	22,780	23,442	22,950	22,830	23,207	23,692	23,544
Asians	1,353	1,601	2,029	2,276	2,620	2,854	3,030	3,347	3,644
Underrepresented minorities, total	3,048	3,321	3,503	3,953	4,159	4,489	4,912	5,167	5,239
Black, non-Hispanics	1,710	1,882	1,948	2,301	2,478	2,621	2,847	3,014	3,081
Hispanics	1,221	1,323	1,418	1,476	1,535	1,682	1,862	1,934	1,896
American Indians or Alaskan Natives	117	116	137	176	146	186	203	219	262
U.S. citizens and permanent residents, unknown race/ethnicity	498	398	636	387	781	561	660	690	849
Nonresident aliens ²	334	324	394	445	422	530	514	526	636

¹ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

² Nonresident aliens include foreign citizens on temporary visas only.

NOTE: First-professional degrees are defined as those that require at least 6 years of college work for completion and 2 years of pre-professional training. First-professional degrees include: Chiropractic, Dentistry, Medicine, Optometry, Osteopathic Medicine, Pharmacy, Podiatry, Veterinary Medicine, Law, Divinity/Ministry, and Rabbinical and Talmudic Studies.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 37. First-professional degrees awarded in health fields, by citizenship, race/ethnicity and sex of recipient: 1990-1998

Citizenship and race/ethnicity	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total									
Total	28,787	28,183	28,303	29,475	29,680	30,757	31,250	32,114	33,566
U.S. citizens and permanent residents, total ¹	28,252	27,677	27,600	28,693	28,861	29,867	30,329	31,226	32,536
White, non-Hispanics	23,027	21,958	21,333	22,076	21,730	22,242	22,314	23,187	23,351
Asians	2,290	2,472	2,909	3,317	3,637	3,996	4,075	4,127	4,901
Underrepresented minorities, total	2,724	2,777	2,840	2,915	3,000	3,110	3,412	3,469	3,714
Black, non-Hispanics	1,251	1,285	1,288	1,350	1,437	1,525	1,646	1,800	1,859
Hispanics	1,373	1,381	1,417	1,426	1,432	1,461	1,600	1,472	1,646
American Indians or Alaskan Natives	100	111	135	139	131	124	166	197	209
U.S. citizens and permanent residents, unknown race/ethnicity	211	470	518	385	494	519	528	443	570
Nonresident aliens ²	535	506	703	782	819	890	921	888	1,030
Men									
Total	18,562	17,777	17,694	17,704	17,565	17,975	17,927	18,308	18,784
U.S. citizens and permanent residents, total ¹	18,235	17,449	17,220	17,194	17,034	17,424	17,335	17,719	18,164
White, non-Hispanics	15,232	14,207	13,607	13,608	13,243	13,352	13,215	13,702	13,548
Asians	1,363	1,440	1,718	1,859	1,972	2,190	2,217	2,198	2,525
Underrepresented minorities, total	1,510	1,479	1,587	1,490	1,504	1,572	1,589	1,583	1,765
Black, non-Hispanics	606	573	604	556	582	649	621	672	735
Hispanics	847	841	907	858	840	858	874	790	916
American Indians or Alaskan Natives	57	65	76	76	82	65	94	121	114
U.S. citizens and permanent residents, unknown race/ethnicity	130	323	308	237	315	310	314	236	326
Nonresident aliens ²	327	328	474	510	531	551	592	589	620
Women									
Total	10,225	10,406	10,609	11,771	12,115	12,782	13,323	13,806	14,782
U.S. citizens and permanent residents, total ¹	10,017	10,228	10,380	11,499	11,827	12,443	12,994	13,507	14,372
White, non-Hispanics	7,795	7,751	7,726	8,468	8,487	8,890	9,099	9,485	9,803
Asians	927	1,032	1,191	1,458	1,665	1,806	1,858	1,929	2,376
Underrepresented minorities, total	1,214	1,298	1,253	1,425	1,496	1,538	1,823	1,886	1,949
Black, non-Hispanics	645	712	684	794	855	876	1,025	1,128	1,124
Hispanics	526	540	510	568	592	603	726	682	730
American Indians or Alaskan Natives	43	46	59	63	49	59	72	76	95
U.S. citizens and permanent residents, unknown race/ethnicity	81	147	210	148	179	209	214	207	244
Nonresident aliens ²	208	178	229	272	288	339	329	299	410

¹ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

² Nonresident aliens include foreign citizens on temporary visas only.

NOTES: First-professional degrees are defined as those that require at least 6 years of college work for completion and 2 years of pre-professional training.

Health fields include: Chiropractic, Dentistry, Medicine, Optometry, Osteopathic Medicine, Pharmacy, Podiatry, and Veterinary Medicine.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

Table 38. First-professional degrees awarded in non-health fields, by citizenship, race/ethnicity and sex of recipient: 1990-1998

Citizenship and race/ethnicity	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total									
Total	42,764	44,453	46,498	46,593	46,320	45,700	46,255	47,055	45,379
U.S. citizens and permanent residents, total ¹	42,263	43,873	45,859	45,827	45,702	44,979	45,544	46,289	44,626
White, non-Hispanics	36,349	37,734	38,536	38,262	36,746	35,997	35,865	35,582	34,200
Asians	1,009	1,300	1,848	1,790	2,122	2,281	2,438	3,107	2,646
Underrepresented minorities, total	3,825	4,207	4,494	5,160	5,314	5,767	6,089	6,377	6,287
Black, non-Hispanics	2,086	2,250	2,280	2,728	2,892	3,132	3,259	3,353	3,451
Hispanics	1,586	1,810	2,055	2,206	2,191	2,355	2,543	2,720	2,501
American Indians or Alaskan Natives	153	147	159	226	231	280	287	304	335
U.S. citizens and permanent residents, unknown race/ethnicity	1,080	632	981	615	1,520	934	1,152	1,223	1,493
Nonresident aliens ²	501	580	639	766	618	721	711	766	753
Men									
Total	25,747	26,449	27,765	27,861	27,503	27,218	27,255	27,439	26,249
U.S. citizens and permanent residents, total ¹	25,372	26,015	27,291	27,268	27,019	26,688	26,729	26,900	25,722
White, non-Hispanics	22,135	22,719	23,482	23,288	22,283	22,057	21,757	21,375	20,459
Asians	583	731	1,010	972	1,167	1,233	1,266	1,689	1,378
Underrepresented minorities, total	1,991	2,184	2,244	2,632	2,651	2,816	3,000	3,096	2,997
Black, non-Hispanics	1,021	1,080	1,016	1,221	1,269	1,387	1,437	1,467	1,494
Hispanics	891	1,027	1,147	1,298	1,248	1,276	1,407	1,468	1,335
American Indians or Alaskan Natives	79	77	81	113	134	153	156	161	168
U.S. citizens and permanent residents, unknown race/ethnicity	663	381	555	376	918	582	706	740	888
Nonresident aliens ²	375	434	474	593	484	530	526	539	527
Women									
Total	17,017	18,004	18,733	18,732	18,817	18,482	19,000	19,616	19,130
U.S. citizens and permanent residents, total ¹	16,891	17,858	18,568	18,559	18,683	18,291	18,815	19,389	18,904
White, non-Hispanics	14,214	15,015	15,054	14,974	14,463	13,940	14,108	14,207	13,741
Asians	426	569	838	818	955	1,048	1,172	1,418	1,268
Underrepresented minorities, total	1,834	2,023	2,250	2,528	2,663	2,951	3,089	3,281	3,290
Black, non-Hispanics	1,065	1,170	1,264	1,507	1,623	1,745	1,822	1,886	1,957
Hispanics	695	783	908	908	943	1,079	1,136	1,252	1,166
American Indians or Alaskan Natives	74	70	78	113	97	127	131	143	167
U.S. citizens and permanent residents, unknown race/ethnicity	417	251	426	239	602	352	446	483	605
Nonresident aliens ²	126	146	165	173	134	191	185	227	226

¹ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

² Nonresident aliens include foreign citizens on temporary visas only.

NOTES: First-professional degrees are defined as those that require at least 6 years of college work for completion and 2 years of pre-professional training.

Non-health fields include: Law, Divinity/Ministry, and Rabbinical and Talmudic Studies.

SOURCE: Tabulated by National Science Foundation/Division of Science Resources Studies; data from Department of Education/National Center for Education Statistics: Integrated Postsecondary Education Data System Completions Survey

SECTION C.

CLASSIFICATION OF PROGRAMS

**Intergrated Postsecondary Education Data System (IPEDS) and
Survey of Earned Doctorates Classification System**

Fields of study collected in IPEDS, 1985–91	Fields of study from the IPEDS, 1992–98	Fields of study from the Survey of Earned Doctorates classification
<p align="center">SCIENCE AND ENGINEERING (S&E)</p> <p>ENGINEERING 14 Engineering</p>	<p align="center">SCIENCE AND ENGINEERING (S&E)</p> <p>ENGINEERING 14 Engineering</p>	<p align="center">SCIENCE AND ENGINEERING (S&E)</p> <p>ENGINEERING</p> <p>Aeronautical/Astronautical Engineering 300 Aerospace, Aeronautical, and Astronautical Engineering</p> <p>Chemical Engineering 312 Chemical Engineering 366 Petroleum Engineering 369 Polymer and Plastics Engineering 547 Fuel Technology and Petroleum Engineering</p> <p>Civil Engineering 315 Civil Engineering 336 Environmental Health Engineering</p> <p>Electrical Engineering 318 Communications Engineering 321 Computer Engineering 322 Electrical Engineering 323 Electronics Engineering 324 Electrical and Electronics Engineering</p> <p>Industrial Engineering 339 Industrial and Manufacturing Engineering</p> <p>Mechanical Engineering 327 Engineering Mechanics 345 Mechanical Engineering</p>

**Intergrated Postsecondary Education Data System (IPEDS) and
Survey of Earned Doctorates Classification System—continued**

Fields of study collected in IPEDS, 1985–91	Fields of study from the IPEDS, 1992–98	Fields of study from the Survey of Earned Doctorates classification
<p>SCIENCES</p> <p>NATURAL SCIENCES</p> <p>Physical Science 40 Physical Sciences (Includes Earth/Atmospheric/ Oceanographic Sciences)</p>	<p>SCIENCES</p> <p>NATURAL SCIENCES</p> <p>Physical Science 40 Physical Sciences (Includes Earth/Atmospheric/ Oceanographic Sciences)</p>	<p>Materials/Metallurgical Engineering 309 Ceramic Sciences 342 Materials Science 348 Metallurgical Engineering</p> <p>Other Engineering 303 Agricultural Engineering 306 Bioengineering and Biomedical Engineering 330 Engineering Physics 333 Engineering Science 351 Mining and Mineral Engineering 354 Naval Architecture and Marine Engineering 357 Nuclear Engineering 360 Ocean Engineering 363 Operations Research 372 Systems Engineering 375 Textile Engineering 398 Engineering, General 399 Engineering, Other</p> <p>SCIENCES</p> <p>NATURAL SCIENCES/ PHYSICAL SCIENCES</p> <p>Astronomy 500 Astronomy 505 Astrophysics 506 Astronomy and Astrophysics</p> <p>Chemistry 520 Analytical Chemistry 521 Agricultural and Food Chemistry 522 Inorganic Chemistry 524 Nuclear Chemistry 526 Organic Chemistry 528 Pharmaceutical Chemistry 530 Physical Chemistry 532 Polymer Chemistry 534 Theoretical Chemistry</p>

**Intergrated Postsecondary Education Data System (IPEDS) and
Survey of Earned Doctorates Classification System—continued**

Fields of study collected in IPEDS, 1985–91	Fields of study from the IPEDS, 1992–98	Fields of study from the Survey of Earned Doctorates classification
		538 Chemistry, General 539 Chemistry, Other Physics 560 Acoustics 561 Chemical and Atomic/ Molecular Physics 562 Electron Physics 563 Electromagnetic Physics 564 Elementary Particle Physics 566 Fluids 567 Mechanics 568 Nuclear Physics 569 Optics 570 Plasma and High- Temperature Physics 572 Polymer Physics 573 Thermal Physics 574 Solid State and Low- Temperature Physics 575 Theoretical Physics 578 Physics, General 579 Physics, Other Other Physical Sciences 599 Physical Sciences, Other Atmospheric Sciences 510 Atmospheric Physics and Chemistry 512 Atmospheric Dynamics 514 Meteorology 518 Atmospheric Science/ Meteorology, General 519 Atmospheric Science/ Meteorology, Other Geosciences 540 Geology 542 Geochemistry 544 Geophysics and Seismology 545 Geophysics (Solid Earth) 546 Paleontology 548 Mineralogy and Petrology

**Intergrated Postsecondary Education Data System (IPEDS) and
Survey of Earned Doctorates Classification System—continued**

Fields of study collected in IPEDS, 1985–91	Fields of study from the IPEDS, 1992–98	Fields of study from the Survey of Earned Doctorates classification
<p>Mathematical Science 27 Mathematics</p>	<p>Mathematical Science 27 Mathematics</p>	<p>549 Mineralogy, Petrology, and Geochemistry 550 Stratigraphy and Sedimentation 552 Geomorphology and Glacial Geology 554 Applied Geology 555 Applied Geology and Geological Engineering 558 Geological and Related Sciences, General 559 Geological and Related Sciences, Other 585 Hydrology and Water Resources</p> <p>Oceanography 590 Oceanography 595 Marine Sciences</p> <p>Other Environmental Sciences 580 Environmental Science</p> <p>MATHEMATICAL/COMPUTER SCIENCES Mathematics 420 Applied Mathematics 425 Algebra 430 Analysis and Functional Analysis 435 Geometry 440 Logic 445 Number Theory 450 Mathematical Statistics 455 Topology 460 Computing Theory and Practice 465 Operations Research 498 Mathematics, General 499 Mathematics, Other</p>

**Intergrated Postsecondary Education Data System (IPEDS) and
Survey of Earned Doctorates Classification System—continued**

Fields of study collected in IPEDS, 1985–91	Fields of study from the IPEDS, 1992–98	Fields of study from the Survey of Earned Doctorates classification
<p>Computer Science 11 Computer and Information Sciences</p>	<p>Computer Science 11 Computer and Information Sciences</p>	<p>Computer Science 400 Computer Science 410 Information Science and Systems</p>
<p>Agricultural Science 02 Agricultural Sciences 03 Renewable Natural Resources</p>	<p>Agricultural Science 02 Agricultural Sciences 03 Conservation and Renewable Natural Resources</p>	<p>BIOLOGICAL/AGRICULTURAL SCIENCES Agricultural Sciences 005 Animal Breeding and Genetics 007 Animal Husbandry 010 Animal Nutrition 012 Dairy Science 014 Poultry Science 019 Animal Sciences, Other 020 Agronomy and Crop Science 025 Plant Breeding and Genetics 030 Plant Pathology 032 Plant Protection/Pest Management 039 Plant Sciences, Other 040 Food Sciences 042 Food Distribution 043 Food Engineering 044 Food Sciences, Other 045 Soil Sciences 046 Soil Chemistry and Microbiology 049 Soil Sciences, Other 050 Horticulture Science 054 Fish and Wildlife 055 Fisheries Science and Management 060 Wildlife Management 065 Forestry Sciences 066 Forest Biology 068 Forest Engineering 070 Forest Management 072 Wood Science and Pulp/ Paper Technology 074 Conservation and Renewable Natural Resources 079 Forestry and Related Sciences</p>

**Intergrated Postsecondary Education Data System (IPEDS) and
Survey of Earned Doctorates Classification System—continued**

Fields of study collected in IPEDS, 1985–91	Fields of study from the IPEDS, 1992–98	Fields of study from the Survey of Earned Doctorates classification
<p>Biological Science 26 Biological Sciences/Life Sciences</p>	<p>Biological Science 26 Biological Sciences/Life Sciences</p>	<p>080 Wildlife and Range Management 098 Agricultural Science, General 099 Agricultural Science, Other</p> <p>Biological Sciences 100 Biochemistry 105 Biophysics 107 Biotechnology Research 110 Bacteriology 115 Plant Genetics 120 Plant Pathology 125 Plant Physiology 129 Botany, Other 130 Anatomy 133 Biometrics and Biostatistics 136 Cell Biology 139 Ecology 140 Hydrobiology 142 Embryology 145 Endocrinology 148 Entomology 151 Biological Immunology 154 Molecular Biology 156 Microbiology and Bacteriology 157 Microbiology 160 Neuroscience 163 Nutritional Sciences 166 Parasitology 169 Toxicology 170 Genetics, Human and Animal 171 Genetics 175 Pathology, Human and Animal 180 Pharmacology, Human and Animal 185 Physiology, Human and Animal 186 Animal and Plant Physiology 189 Zoology, Other 198 Biological Sciences, General 199 Biological Sciences, Other</p>

**Intergrated Postsecondary Education Data System (IPEDS) and
Survey of Earned Doctorates Classification System—continued**

Fields of study collected in IPEDS, 1985–91	Fields of study from the IPEDS, 1992–98	Fields of study from the Survey of Earned Doctorates classification
<p>SOCIAL SCIENCES</p> <p>Social Science 05 Area and Ethnic Studies 45 Social Sciences</p> <p>Psychology 42 Psychology</p>	<p>SOCIAL SCIENCES</p> <p>Social Science 05 Area, Ethnic, and Cultural Studies 45 Social Sciences and History</p> <p>Psychology 42 Psychology</p>	<p>SOCIAL SCIENCES</p> <p>Economics 000 Agricultural Economics 666 Economics 668 Econometrics</p> <p>Political Science 674 International Relations/Affairs 678 Political Science and Government 679 Political Science and Public Administration 682 Public Policy Analysis 976 Public Administration</p> <p>Sociology 662 Demography and Population Studies 686 Sociology</p> <p>Other Social Sciences 650 Anthropology 652 Area Studies 658 Criminology 670 Geography 690 Statistics 694 Urban Affairs/Studies 698 Social Sciences, General 699 Social Sciences, Other 710 History and Philosophy of Science and Technology 729 Linguistics 770 American Studies 773 Archeology</p> <p>Psychology 600 Clinical Psychology 603 Cognitive Psychology and Psycholinguistics 606 Comparative Psychology 609 Counseling Psychology 612 Developmental and Child Psychology 613 Human Indiv. & Family Development</p>

**Intergrated Postsecondary Education Data System (IPEDS) and
Survey of Earned Doctorates Classification System—continued**

Fields of study collected in IPEDS, 1985–91	Fields of study from the IPEDS, 1992–98	Fields of study from the Survey of Earned Doctorates classification
		825 School Psychology (See also 636)
		830 Social/Philosophical Foundations of Education
		835 Special Education
		840 Counseling Education/ Counseling and Guidance Services
		845 Education Evaluation and Research
		850 Pre-elementary/Early Childhood Teacher Education
		852 Elementary Teacher Education
		854 Junior High Teacher Education
		856 Secondary Teacher Education
		858 Adult and Continuing Teacher Education
		861 Art Education
		862 Business Education
		864 English Education
		866 Foreign Languages Education
		867 Physical Education, Health, and Recreation
		870 Home Economics Education
		876 Music Education
		880 Physical Education and Coaching
		882 Reading Education
		886 Speech Education
		888 Trade and Industrial Education
		889 Teacher Education, Specific Academic and Vocational Programs, Other
		898 Education, General
		899 Education, Other

**Intergrated Postsecondary Education Data System (IPEDS) and
Survey of Earned Doctorates Classification System—continued**

Fields of study collected in IPEDS, 1985–91	Fields of study from the IPEDS, 1992–98	Fields of study from the Survey of Earned Doctorates classification
		615 Experimental Psychology 616 Experimental, Physiological Psychology 618 Educational Psychology 619 Human Engineering 621 Industrial and Organizational Psychology 624 Personality Psychology 627 Physiological Psychology/ Psychobiology 630 Psychometrics 631 Human Indiv. & Family Development 633 Quantitative Psychology 636 School Psychology 639 Social Psychology 648 Psychology, General 649 Psychology, Other
NON-S&E	NON-S&E	NON-S&E
01 Agribusiness and Agricultural Production 04 Architecture and Environmental Design 06 Business and Management 07 Business (Administrative Support), Other 08 Marketing and Distribution 09 Communications 12 Consumer, Personal, and Miscellaneous Services 13 Education 16 Foreign Languages 17 Allied Health 18 Health Sciences (Including Dentistry, Medicine, Optometry, Osteopathic Medicine, Pharmacy, Podiatry or Podiatric Medicine or Chiroprody, Veterinary Medicine, Chiropractic) 19 Home Economics 20 Vocational Home Economics	01 Agricultural Business and Production 04 Architecture and Related Programs 08 Marketing Operations/ Marketing and Distribution 09 Communications 10 Communications Technologies 12 Personal and Miscellaneous Services 13 Education 15 Engineering-Related Technologies 16 Foreign Languages and Literatures 17 Allied Health	MEDICAL SCIENCES 205 Dentistry 210 Environmental Health 215 Public Health 219 Public Health and Epidemiology 220 Epidemiology 225 Medicine and Surgery 235 Optometry and Ophthalmology 240 Pharmacy 250 Veterinary Science OTHER HEALTH SCIENCES 200 Speech/Language Pathology and Audiology 212 Health Systems/Services Administration 224 Hospital Administration 230 Nursing 245 Rehabilitation/Therapeutic Services 298 Health Sciences, General 299 Health Sciences, Other

**Intergrated Postsecondary Education Data System (IPEDS) and
Survey of Earned Doctorates Classification System—continued**

Fields of study collected in IPEDS, 1985–91	Fields of study from the IPEDS, 1992–98	Fields of study from the Survey of Earned Doctorates classification
	18 Health Professions and Related Sciences (Including Dentistry, Medicine, Optometry, Osteopathic Medicine, Pharmacy, Podiatry or Podiatric Medicine or Chiropody, Veterinary Medicine, Chiropractic, Allied Health)	HISTORY 700 History, American 705 History, European 718 History, General 719 History, Other
	19 Home Economics	ENGLISH AND LITERATURE 720 Classics 723 Comparative Literature 725 English and American Literature
	20 Vocational Home Economics	
22 Law	22 Law and Legal Studies	732 Literature, American
23 Letters	23 English Language and Literature/Letters	733 Literature, English 734 English Language
24 Liberal/General Studies	24 Liberal/General Studies	736 Speech and Rhetorical Studies
25 Library and Archival Sciences	25 Library and Archival Sciences	738 Letters, General 739 Letters, Other
28 Military Sciences	28 Reserve Officer Training Corps (ROTC)	
29 Military Technologies	29 Military Technologies	FOREIGN LANGUAGES 740 French 743 German 746 Italian 749 Spanish 752 Russian 755 Slavic (Other than Russian) 758 Chinese 762 Japanese 765 Hebrew 768 Arabic 769 Other Languages and Literature
30 Multi-/Interdisciplinary Studies	30 Multi-/Interdisciplinary Studies	
31 Parks and Recreation	31 Parks, Recreation, Leisure, and Fitness Studies	
38 Philosophy and Religion	38 Philosophy and Religion	
39 Theology	39 Theological Studies and Religious Vocations	
41 Science Technologies	41 Science Technologies	
44 Public Affairs (Does not include Parks and Recreation Management, and Law Enforcement and Correction)	43 Protective Services 44 Public Administration and Services (Does not include Parks and Recreation Management, and Law Enforcement and Correction)	
43 Protective Services		
46 Construction Trades	46 Construction Trades	OTHER HUMANITIES 785 Philosophy (See also 440) 798 Humanities, General 799 Humanities, Other
47 Mechanics and Repairers	47 Mechanics and Repairers	
48 Precision Production	48 Precision Production Trades	
49 Transportation and Material Moving	49 Transportation and Materials Moving Workers	
50 Visual and Performing Arts	50 Visual and Performing Arts	RELIGION AND THEOLOGY 790 Religion (See also 984) 791 Religion and Theology 984 Theology/Religious Education (See also 790)
	52 Business Management and Administrative Services	

**Intergrated Postsecondary Education Data System (IPEDS) and
Survey of Earned Doctorates Classification System—continued**

Fields of study collected in IPEDS, 1985–91	Fields of study from the IPEDS, 1992–98	Fields of study from the Survey of Earned Doctorates classification
		<p>BUSINESS AND MANAGEMENT</p> <p>002 Agricultural Business and Management</p> <p>900 Accounting</p> <p>905 Banking/Financial Support Services</p> <p>910 Business Administration and Management</p> <p>915 Business/Managerial Economics</p> <p>917 Management Information Systems/Business Data Processing</p> <p>920 Marketing Management and Research</p> <p>925 Business Statistics</p> <p>930 Operations Research (See also 363, 465)</p> <p>935 Organizational Behavior (See also 621)</p> <p>938 Business Management/ Administrative Services, General</p> <p>939 Business Management/ Administrative Services, Other</p> <p>INFORMATION FIELDS (JOURNALISM, BROADCASTING, LIBRARIANSHIP)</p> <p>940 Communications Research</p> <p>945 Journalism</p> <p>947 Mass Communications</p> <p>950 Radio and Television</p> <p>957 Communication Theory</p> <p>958 Communications, General</p> <p>959 Communications, Other</p> <p>972 Library Science</p> <p>LAW</p> <p>968 Law</p>

**Intergrated Postsecondary Education Data System (IPEDS) and
Survey of Earned Doctorates Classification System—continued**

Fields of study collected in IPEDS, 1985–91	Fields of study from the IPEDS, 1992–98	Fields of study from the Survey of Earned Doctorates classification
		<p>SOCIAL SERVICE PROFESSIONS 980 Social Service Professions</p> <p>VOCATIONAL STUDIES AND HOME ECONOMICS 964 Home Economics</p> <p>OTHER NON-SCIENCE FIELDS 974 Parks/Recreation/ Leisure/ Fitness 988 Professional Fields, General 989 Professional Fields, Other 999 Other Fields</p>