



National Center for Science and
Engineering Statistics

InfoBrief

Trends for Graduate Student Enrollment and Postdoctoral Appointments in Science, Engineering, and Health Fields at U.S. Academic Institutions between 2017 and 2019

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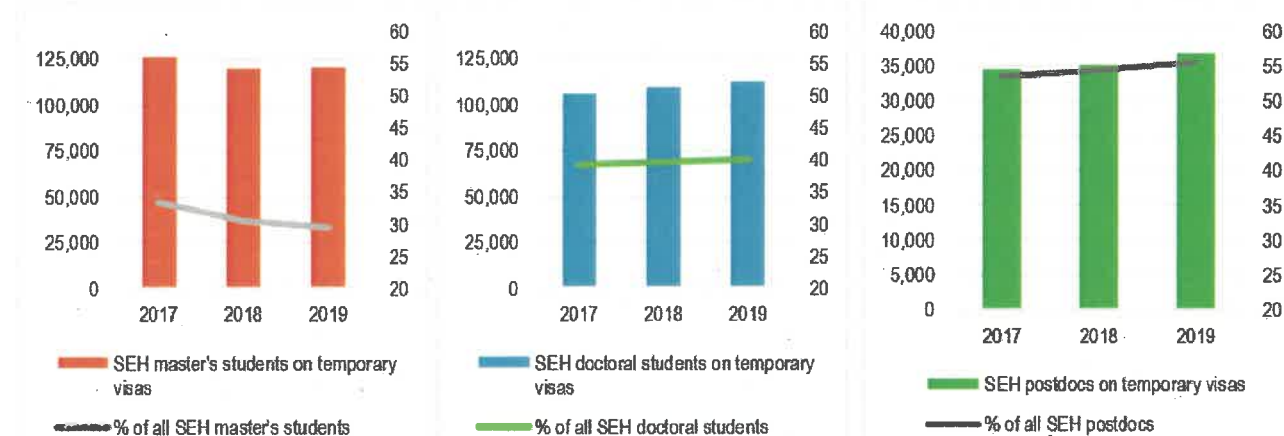
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In 2019, there were 408,228 master's students, 281,889 doctoral students, 66,247 postdoctoral researchers (postdocs), and 30,349 doctorate-holding nonfaculty researchers (NFRs) in science, engineering, and health (SEH) fields at U.S. academic institutions. Between 2017 and 2019, the number of individuals receiving advanced SEH training at U.S. academic institutions increased by 29,641 master's students (7.8%), 11,364 doctoral students (4.2%), and 1,514 postdocs (2.3%). Nearly one-third of SEH master's students, two-fifths of doctoral students, and more than half of postdocs were temporary visa holders in 2017 and 2019 ([figure 1](#)). The number of international students enrolled in U.S. academic institutions across all fields and degree levels declined between 2017 and 2019,¹ and the Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS) shows that within graduate SEH programs this decline among temporary visa holders was limited to master's degree enrollment. The number and proportion of temporary visa holders enrolled in master's-level SEH programs declined by almost 4 percentage points from 2017 to 2019 ([figure 1](#), [table 1](#)). In contrast, from 2017 to 2019, U.S. doctoral and postdoctoral training programs in SEH expanded the ranks of temporary visa holders, by 1 and 2 percentage points, respectively ([figure 1](#), [table 1](#)).

These and other findings in this report are from the 2017 through 2019 GSS. Data from the GSS provide insight into the composition of the current and future science and engineering (S&E) workforce by collecting data on graduate students in SEH fields, postdoctoral appointees, and doctorate-holding NFRs. The GSS is sponsored by the National Center for Science and Engineering Statistics (NCSES) within the National Science Foundation (NSF) and by the National Institutes of Health (NIH).

Figure 1**Temporary visa holders in science, engineering, and health fields, by enrollment or appointment type: 2017–19**

Number and percent



SEH = science, engineering, and health.

Source(s):

National Center for Science and Engineering Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

Table 1**Master's students, doctoral students, and postdocs in science, engineering, and health fields, by sex, citizenship, ethnicity, and race: 2017–19**

(Number and percent change)

Characteristic	Master's				Doctoral				Postdocs			
	2017	2018	2019	Percent change 2017–19	2017	2018	2019	Percent change 2017–19	2017	2018	2019	Percent change 2017–19
All	378,587	391,211	408,228	7.8	270,525	277,096	281,889	4.2	64,733	64,783	66,247	2.3
Male	200,748	201,314	205,768	2.5	155,699	158,019	159,227	2.3	38,870	38,661	39,173	0.8
Female	177,839	189,897	202,460	13.8	114,826	119,077	122,662	6.8	25,863	26,122	27,074	4.7
U.S. citizens and permanent residents ^a	251,896	271,290	287,370	14.1	164,585	167,291	169,134	2.8	30,110	29,622	29,452	-2.2
Male	119,906	126,552	131,686	9.8	86,517	86,601	86,651	0.2	16,378	15,934	15,570	-4.9
Female	131,990	144,738	155,684	18.0	78,068	80,690	82,483	5.7	13,732	13,688	13,882	1.1
Hispanic or Latino	29,622	32,923	36,777	24.2	14,999	16,161	17,690	17.9	1,659	1,856	1,924	16.0
Not Hispanic or Latino												
American Indian or Alaska Native	1,136	1,219	1,327	16.8	714	713	750	5.0	125	81	69	-44.8
Asian	26,093	28,557	31,301	20.0	15,952	16,750	17,543	10.0	6,045	6,020	5,891	-2.5
Black or African American	23,266	25,878	27,598	18.6	9,483	10,065	10,450	10.2	1,019	1,104	1,088	6.8

Table 1**Master's students, doctoral students, and postdocs in science, engineering, and health fields, by sex, citizenship, ethnicity, and race: 2017–19**

(Number and percent change)

Characteristic	Master's				Doctoral				Postdocs			
	2017	2018	2019	Percent change 2017–19	2017	2018	2019	Percent change 2017–19	2017	2018	2019	Percent change 2017–19
Native Hawaiian or Other Pacific Islander	468	497	542	15.8	235	233	202	-14.0	112	55	52	-53.6
White	148,031	156,010	163,836	10.7	109,271	109,725	108,709	-0.5	17,313	17,232	16,972	-2.0
More than one race	8,119	9,120	9,593	18.2	5,420	5,744	6,020	11.1	730	506	519	-28.9
Unknown race and ethnicity	15,161	17,086	16,396	8.1	8,511	7,900	7,770	-8.7	3,107	2,768	2,937	-5.5
Temporary visa holders	126,691	119,921	120,858	-4.6	105,940	109,805	112,755	6.4	34,623	35,161	36,795	6.3
Male	80,842	74,762	74,082	-8.4	69,182	71,418	72,576	4.9	22,492	22,727	23,603	4.9

^a Race and ethnicity data are available for U.S. citizens and permanent residents only.**Source(s):**

National Center for Science and Engineering Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

Trends in Graduate Enrollment and Postdoc Appointments

The total number of SEH graduate students with temporary visas remained relatively stable between 2017 and 2019, increasing by just 0.4%. The small change in the combined count masks opposing changes within master's and doctoral programs. As stated earlier, the number of SEH master's students with temporary visas declined, whereas the corresponding number of SEH doctoral students increased ([table 1](#)).

The decline between 2017 and 2019 in the number and proportion of temporary visa holders among SEH master's students was driven largely by an 8.4% decrease in the number of men with temporary visas who enrolled in master's programs. Most of this decline (-7.5%) in male temporary visa holder master's program enrollment occurred between 2017 and 2018. The number of female temporary visa holders in master's programs, however, increased by 2.0% between 2017 and 2019. This shift represents a decrease in the gender enrollment gap among temporary visa holders with men still comprising the majority (61.3%) of temporary visa holders in master's programs in 2019, down from 63.8% in 2017.

In contrast to the decline in master's enrollments, the number of doctoral students and postdocs with temporary visas increased between 2017 and 2019. The number of doctoral students and postdocs with temporary visas increased more among women than among men. The number of female doctoral students with temporary visas increased by 9.3%, compared to a 4.9% increase among men. The number of female postdocs with temporary visas increased by 8.7%, compared to a 4.9% increase among men between 2017 and 2019. Nevertheless, just over one-third of doctoral students and postdocs with temporary visas were women over the 3-year period ([table 1](#)).

Demographic Trends

The National Science Board's Vision 2030 identifies a critical need for more women, Hispanic or Latino, and Black or African American individuals in the S&E pipeline and workforce.² Among all SEH master's and doctoral students, female enrollment increased more than male enrollment between 2017 and 2019 (11.1% compared to 2.4%). An increase of 18.0% in female U.S. citizen and permanent resident master's degree enrollment, compared to a 9.8% increase in male enrollment was primarily responsible for the overall increase

in female graduate student enrollment. The number of male U.S. citizen and permanent resident doctoral students remained relatively stable, increasing by only 0.2%, while female enrollment increased by 5.7%. These changes resulted in an increase of 2 percentage points in the female share of total graduate student enrollment, thus shrinking the gender gap among SEH graduate students between 2017 and 2019 (table 1).

Among SEH master's students, doctoral students, and postdocs who were U.S. citizens and permanent residents, the number who were Hispanic or Latino increased by 21.8% between 2017 and 2019. This follows a decade-long (2006 to 2016) increase in Hispanic or Latino students earning S&E bachelor's degrees.³ Thus, the increasing diversity of undergraduate completions is apparent in the current graduate enrollment trends.

Overall Growth in Postdocs

The 66,247 postdocs reported in 2019 is the largest number of postdocs ever reported to the GSS.⁴ This represents a 2.3% increase in SEH postdocs between 2017 and 2019, mainly due to the 6.3% increase in temporary visa holders, but also because of a small 1.1% increase in the number of female U.S. citizen and permanent resident postdocs. The total number of U.S. citizen and permanent resident postdocs declined by 2.2% due to a 4.9% decline in male U.S. citizen and permanent resident postdocs between 2017 and 2019 (table 1).

Field of Study and Research Trends

Between 2017 and 2019, master's and doctoral enrollment and the number of postdocs changed in different ways across SEH fields of study (table 2). In engineering, master's enrollments declined by 5.0%, while doctoral enrollment and the number of postdocs increased by 4.7% and 5.4%, respectively. This pattern repeats in five out of the nine engineering fields, including electrical, electronics, and communications engineering; mechanical engineering; civil engineering; industrial and manufacturing engineering; and metallurgical and materials engineering. The increase in the number of doctoral students and postdocs in these fields reflects an increasing research capacity in engineering (table 3).

Table 2

Master's students, doctoral students, and postdoctoral appointees in science, engineering, and health fields, by broad field: 2017–19
(Number and percent change)

Broad field	Master's				Doctoral				Postdocs			
	2017	2018	2019	Percent change 2017–19	2017	2018	2019	Percent change 2017–19	2017	2018	2019	Percent change 2017–19
All surveyed fields	378,587	391,211	408,228	7.8	270,525	277,096	281,889	4.2	64,733	64,783	66,247	2.3
Science and engineering	325,925	334,391	351,734	7.9	255,224	261,165	265,961	4.2	46,080	45,478	46,769	1.5
Science	229,169	241,327	259,795	13.4	186,399	190,928	193,896	4.0	38,241	37,564	38,503	0.7
Agricultural sciences	5,603	5,658	5,629	0.5	3,744	3,880	3,889	3.9	1,024	1,072	1,079	5.4
Biological and biomedical sciences	33,926	35,306	38,078	12.2	51,291	52,627	53,915	5.1	21,781	21,533	21,847	0.3
Computer and information sciences	75,618	77,351	84,092	11.2	14,291	16,127	17,192	20.3	854	879	878	2.8
Geosciences, atmospheric sciences, and ocean sciences	6,006	5,629	5,327	-11.3	6,539	6,704	6,551	0.2	2,089	1,726	1,778	-14.9
Mathematics and statistics	16,568	18,073	19,594	18.3	13,101	13,388	13,565	3.5	991	982	1,070	8.0

Table 2**Master's students, doctoral students, and postdoctoral appointees in science, engineering, and health fields, by broad field: 2017–19**

(Number and percent change)

Broad field	Master's				Doctoral				Postdocs			
	2017	2018	2019	Percent change 2017–19	2017	2018	2019	Percent change 2017–19	2017	2018	2019	Percent change 2017–19
Multidisciplinary and interdisciplinary studies	6,923	7,414	8,203	18.5	2,931	2,924	2,978	1.6	1,131	980	972	-14.1
Natural resources and conservation	7,311	7,691	8,066	10.3	3,568	3,716	3,677	3.1	731	764	806	10.3
Physical sciences	6,368	6,075	6,361	-0.1	35,461	36,000	36,506	2.9	7,211	6,976	7,159	-0.7
Psychology	29,638	35,404	40,838	37.8	20,395	20,303	20,231	-0.8	1,082	1,145	1,152	6.5
Social sciences	41,208	42,726	43,607	5.8	35,078	35,259	35,392	0.9	1,347	1,507	1,762	30.8
Engineering	96,756	93,064	91,939	-5.0	68,825	70,237	72,065	4.7	7,839	7,914	8,266	5.4
Bioengineering and biomedical engineering	4,037	4,202	4,335	7.4	6,845	7,278	7,715	12.7	1,398	1,433	1,515	8.4
Chemical engineering	3,292	3,061	2,632	-20.0	6,874	6,950	7,057	2.7	1,197	1,142	1,157	-3.3
Civil engineering	13,506	12,729	11,873	-12.1	7,626	7,732	7,752	1.7	804	739	865	7.6
Electrical, electronics, and communications engineering	29,816	28,108	28,177	-5.5	17,936	18,119	18,577	3.6	1,170	1,197	1,305	11.5
Engineering science, mechanics, and physics	679	729	852	25.5	1,457	1,428	1,447	-0.7	316	354	180	-43.0
Industrial and manufacturing engineering	12,272	12,389	11,912	-2.9	3,633	3,598	3,762	3.6	127	156	167	31.5
Mechanical engineering	16,279	15,434	14,861	-8.7	11,149	11,159	11,247	0.9	1,089	1,069	1,142	4.9
Metallurgical and materials engineering	2,115	2,079	1,974	-6.7	4,426	4,610	4,616	4.3	550	549	642	16.7
Other engineering ^a	14,760	14,333	15,323	3.8	8,879	9,363	9,892	11.4	1,188	1,275	1,293	8.8
Health	52,662	56,820	56,494	7.3	15,301	15,931	15,928	4.1	18,653	19,305	19,478	4.4
Clinical medicine	25,283	27,494	26,251	3.8	4,410	4,508	4,571	3.7	16,100	16,563	16,650	3.4
Other health	27,379	29,326	30,243	10.5	10,891	11,423	11,357	4.3	2,553	2,742	2,828	10.8

^a Other engineering includes aerospace, aeronautical, and astronautical engineering; agricultural engineering; biological and biosystems engineering; mining engineering; nanotechnology; nuclear engineering; petroleum engineering; and engineering not elsewhere classified.

Note(s):

Broad field refers to the field of the unit that reports postdocs and graduate students.

Source(s):

National Center for Science and Engineering Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

Table 3**Doctorate-holding nonfaculty researchers in science, engineering, and health fields, by sex and broad field: 2017–19**

(Number and percent change)

Broad field	2017	2018	2019	Percent change 2017–19
All surveyed fields	28,180	29,284	30,349	7.7
Male	16,580	17,468	17,980	8.4
Female	11,600	11,816	12,369	6.6
Science and engineering	20,542	21,848	22,728	10.6
Science	17,268	18,278	18,819	9.0
Agricultural sciences	496	565	645	30.0
Biological and biomedical sciences	8,203	8,250	8,229	0.3
Computer and information sciences	476	515	510	7.1
Geosciences, atmospheric sciences, and ocean sciences	1,794	2,106	2,177	21.3
Mathematics and statistics	240	266	305	27.1
Multidisciplinary and interdisciplinary studies	806	832	820	1.7
Natural resources and conservation	364	580	582	59.9
Physical sciences	2,871	3,056	3,316	15.5
Psychology	494	507	576	16.6
Social sciences	1,524	1,601	1,659	8.9
Engineering	3,274	3,570	3,909	19.4
Bioengineering and biomedical engineering	415	440	492	18.6
Chemical engineering	281	257	328	16.7
Civil engineering	422	414	492	16.6
Electrical, electronics, and communications engineering	557	588	637	14.4
Engineering science, mechanics, and physics	200	220	186	-7.0
Industrial and manufacturing engineering	119	105	137	15.1
Mechanical engineering	458	489	531	15.9
Metallurgical and materials engineering	181	215	242	33.7
Other engineering ^a	641	842	864	34.8
Health	7,638	7,436	7,621	-0.2
Clinical medicine	6,448	6,159	6,273	-2.7
Other health	1,190	1,277	1,348	13.3

^a Other engineering includes aerospace, aeronautical, and astronautical engineering; agricultural engineering; biological and biosystems engineering; mining engineering; nanotechnology; nuclear engineering; petroleum engineering; and engineering not elsewhere classified.

Note(s):

Broad field refers to the field of the unit that reports doctorate-holding nonfaculty researchers.

Source(s):

National Center for Science and Engineering Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

Master's enrollment in the sciences grew faster than doctoral enrollment and postdoctoral appointments between 2017 and 2019, but the growth was uneven across fields and degree types. The top five fields of growth among master's science students, was led by psychology with a 37.8% increase in enrollment, followed by multidisciplinary and interdisciplinary studies (18.5%), mathematics and statistics (18.3%), biological and biomedical sciences (12.2%), and computer and information sciences (11.2%). The 4.0% increase in doctoral enrollment in the sciences was led by a 20.3% increase in computer and information sciences students. Biological and biomedical sciences, the single largest field of study among doctoral students, also grew by 5.1% to 53,915 students between 2017 and 2019 ([table 2](#)).

Biological and biomedical sciences is not only the largest field of study among doctoral students in U.S. academic institutions granting SEH advanced degrees, with 19.1% of SEH doctoral enrollment in 2019, but it also includes one-third of SEH postdocs in these institutions. Since 2017, health sciences units⁵ added 825 new postdocs, which is 54.5% of all SEH postdocs added between 2017 and 2019. The large percentage increase in the number of postdocs in social sciences (30.8%) stands in sharp contrast to the relatively stable social sciences enrollment among doctoral students (0.9%) and the moderate increase (5.8%) among master's students between 2017 and 2019 (table 2).

Doctorate-Holding Nonfaculty Researchers

In contrast to postdoc positions, which provide additional training for early career researchers, NFRs hold nontenured staff research positions that do not have the terms of their employment limited by position duration or the number of years since earning a doctoral degree or equivalent credential. From 2017 to 2019, the number of NFRs reported to the GSS grew by 7.7%, representing an increase of 2,169 doctorates engaged in research outside of faculty rank or tenure. Unlike the rate of growth observed among postdocs and graduate students between 2017 and 2019, the number of male NFRs grew at a faster rate than the number of female NFRs between 2017 and 2019 (8.4% compared to 6.6%). In 2019, almost 60% of NFRs were male (table 3).

Rates of growth in the number of NFRs between 2017 and 2019 in various S&E fields of research varied widely, with the largest percentage increase being 59.9% in natural resources and conservation. At the other end of the range, the number of NFRs in engineering science, mechanics, and physics declined by 7.0% (table 3).

Data Source and Limitations

Conducted since 1966, the GSS is an annual survey of all academic institutions in the United States that grant research-based master's or doctoral degrees in SEH fields. The 2019 GSS collected data from 20,249 organizational units (departments, programs, affiliated research centers, and health care facilities) at 714 eligible institutions and their affiliates in the United States, Puerto Rico, and Guam. The unit response rate was 97.4%. An overview of the survey is available at <https://www.nsf.gov/statistics/srvygradpostdoc/>.

In 2017, the GSS was redesigned to collect demographic and financial support data separately for master's and doctoral students, to prioritize electronic data interchange as the primary means of data submission,⁶ and to use the U.S. Department of Education's Classification of Instructional Programs (CIP) codes to report fields of study for graduate student enrollment data.⁷ More information regarding the 2017 GSS redesign is available in the technical notes for the 2019 data tables (<https://nces.nsf.gov/pubs/nsf21318>). Further, in 2017, NSF updated the GSS fields of study to align with the NCSES Taxonomy of Disciplines to increase comparability with other NCSES surveys and more accurately reflect how disciplines are currently organized. For more information regarding the updated GSS taxonomy, see the 2018 GSS Methodology Report (available upon request).

Because of these changes, the data from 2017 to the present are not directly comparable to previously collected GSS data. Trend comparisons can be made using the 2017old estimates in the 2017 data tables, available at <https://ncesdata.nsf.gov/gradpostdoc/2017/>.

GSS health fields are collected under the advisement of NIH. These GSS fields are about one-third of all health fields in the U.S. Department of Education's CIP taxonomy. NIH information on trends seen within these selected health fields can be found at <https://report.nih.gov/nihdatabook/>.

The full set of data tables from the 2019 survey are available at <https://www.nsf.gov/statistics/srvygradpostdoc/>. Data are also available in NCSES's interactive data tool (<https://ncesdata.nsf.gov/ids/gss>). For more information about the survey, contact the GSS survey manager, Michael Yamaner.

Notes

- 1 Several data reports have documented the decline in international graduate students from 2017 to 2019. These include the following: Institute of International Education. 2019. *Open Doors, 2019 Fast Facts*. Washington, DC. Available at https://opendoorsdata.org/fast_facts/fast-facts-2019/. National Science Board, National Science Foundation. 2019. Higher Education in Science and Engineering (Table 2-3). *Science and Engineering Indicators 2020*. NSB-2019-7. Alexandria, VA. Available at <https://nces.nsf.gov/pubs/nsb20197/international-s-e-higher-education#tableCtr1553>. Okahana H, Zhou E. 2019. *International Graduate Applications and Enrollment: Fall 2018*. Washington, DC: Council of Graduate Schools. Available at https://www.cgsnet.org/ckfinder/userfiles/files/Intl_Survey_Report_Fall2018.pdf. Zhou E, Mitic RR, West CPL, Okahana H. 2020. *International Graduate Applications and Enrollment: Fall 2019*. Washington, DC: Council of Graduate Schools. Available at <https://cgsnet.org/sites/default/files/civcrm/persist/contribute/files/CGS%20Fall%202019%20International%20Report.pdf?v=1>.
- 2 National Science Board. (2020). *Vision 2030*. NSB-2020-15. Washington, DC. Available at <https://www.nsf.gov/nsb/publications/2020/nsb202015.pdf>.
- 3 The number of Hispanic or Latino students earning S&E bachelor's degrees increased by an average of 8.9% per year from 2006 through 2016. For more information on bachelor's completions in S&E by race and ethnicity from 2006 through 2016, see table 5-3 in <https://nces.nsf.gov/pubs/nsf19304/data>. National Science Foundation, National Center for Science and Engineering Statistics. 2019. *Women, Minorities, and Persons with Disabilities in Science and Engineering: 2019*. Special Report NSF 19-304. Alexandria, VA. Available at <https://nces.nsf.gov/pubs/nsf19304/>.
- 4 Even though data comparability between 2017 old and current data is limited because the 2017–19 GSS includes fewer fields than were collected from 2007 through 2016, in 2019, GSS institutions reported more postdocs than in any year before 2019. See table 1-1 for the postdoc counts reported to the GSS from 1979 through 2019 at <https://nces.nsf.gov/pubs/nsf21318>.
- 5 In the GSS, a *unit* is defined as an organizational unit where graduate students, postdoctoral researchers, and other doctoral degree-holding NFRs are enrolled and/or work. A unit can be a teaching unit, research unit, or both a teaching and a research unit. Research units can be research centers, health care facilities, and other organizations at the academic institution that appoint postdoctoral researchers and/or appoint doctorate-holding NFRs.
- 6 Electronic data interchange is a method for transferring data between computer systems or networks using a standardized format.
- 7 CIP is a taxonomy used for reporting postsecondary fields to the U.S. Department of Education for the Integrated Postsecondary Education Data System, a mandatory survey for institutions receiving federal financial aid. Most institutions in the GSS already use CIP codes to report data on graduate students. The CIP taxonomy was developed by the National Center for Education Statistics, which updates the taxonomy about once a decade; CIP was last revised in 2010. For more information, see <http://nces.ed.gov/ipeds/cipcode/>.

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TABLE 1-6

Primary source of support for full-time graduate students in science, engineering, and health: 1975–2019

(Number and percent)

Year	Total	Federal		Institutional		Nonfederal domestic		Foreign		Personal resources	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1975	219,648	47,055	21.4	76,170	34.7	11,189	5.1	5,374	2.4	79,860	36.4
1976	223,412	49,036	21.9	81,839	36.6	11,830	5.3	6,279	2.8	74,428	33.3
1977	226,738	50,809	22.4	82,994	36.6	11,883	5.2	6,879	3.0	74,173	32.7
1978 ^a	223,030	51,984	23.3	81,676	36.6	19,450	8.7	na	na	69,920	31.4
1979	231,760	52,682	22.7	84,879	36.6	12,577	5.4	7,773	3.4	73,849	31.9
1980	238,416	52,959	22.2	88,691	37.2	13,068	5.5	8,241	3.5	75,457	31.6
1981	242,049	50,896	21.0	92,089	38.0	13,735	5.7	8,807	3.6	76,522	31.6
1982	244,757	47,403	19.4	95,271	38.9	15,128	6.2	9,059	3.7	77,896	31.8
1983	252,017	47,752	18.9	98,149	38.9	15,904	6.3	8,979	3.6	81,233	32.2
1984	253,922	47,784	18.8	102,175	40.2	16,638	6.6	8,175	3.2	79,150	31.2
1985	257,287	49,051	19.1	104,058	40.4	18,778	7.3	7,770	3.0	77,630	30.2
1986	266,168	51,361	19.3	109,199	41.0	19,056	7.2	7,672	2.9	78,880	29.6
1987	271,056	53,538	19.8	112,263	41.4	18,275	6.7	7,200	2.7	79,780	29.4
1988	275,127	55,489	20.2	114,740	41.7	18,737	6.8	7,001	2.5	79,160	28.8
1989	282,648	57,433	20.3	119,114	42.1	19,140	6.8	6,710	2.4	80,251	28.4
1990	292,782	59,258	20.2	123,005	42.0	19,604	6.7	6,531	2.2	84,384	28.8
1991	307,010	63,000	20.5	125,329	40.8	20,455	6.7	6,643	2.2	91,583	29.8
1992	322,555	65,607	20.3	127,846	39.6	21,343	6.6	6,460	2.0	101,299	31.4
1993	329,644	67,673	20.5	128,950	39.1	21,264	6.5	5,481	1.7	106,276	32.2
1994	332,088	68,550	20.6	129,218	38.9	21,567	6.5	5,718	1.7	107,035	32.2
1995	329,283	67,294	20.4	129,320	39.3	20,435	6.2	5,547	1.7	106,687	32.4
1996	328,536	65,240	19.9	128,379	39.1	20,193	6.1	5,249	1.6	109,475	33.3
1997	327,289	64,522	19.7	128,927	39.4	20,251	6.2	4,848	1.5	108,741	33.2
1998	327,389	63,759	19.5	128,995	39.4	22,157	6.8	4,254	1.3	108,224	33.1
1999	334,423	65,796	19.7	133,182	39.8	22,099	6.6	3,930	1.2	109,416	32.7
2000	341,283	67,588	19.8	133,415	39.1	24,000	7.0	3,848	1.1	112,432	32.9
2001	354,522	68,843	19.4	140,787	39.7	24,420	6.9	3,836	1.1	116,636	32.9
2002	378,991	75,538	19.9	147,883	39.0	25,557	6.7	3,359	0.9	126,654	33.4
2003	397,420	81,761	20.6	151,713	38.2	26,118	6.6	3,098	0.8	134,730	33.9
2004	402,573	83,816	20.8	154,514	38.4	24,325	6.0	2,840	0.7	137,078	34.1
2005	406,620	83,723	20.6	156,332	38.4	24,548	6.0	2,614	0.6	139,403	34.3
2006	419,015	83,962	20.0	160,405	38.3	25,384	6.1	2,658	0.6	146,606	35.0
2007old ^b	430,860	81,542	18.9	167,836	39.0	24,262	5.6	2,927	0.7	154,293	35.8
2007new ^b	437,365	81,859	18.7	171,128	39.1	24,410	5.6	2,939	0.7	157,029	35.9
2008	449,613	78,464	17.5	179,439	39.9	22,238	4.9	3,814	0.8	165,658	36.8
2009	456,115	81,565	17.9	177,680	39.0	22,910	5.0	4,004	0.9	169,956	37.3
2010	461,185	86,310	18.7	177,946	38.6	22,127	4.8	4,238	0.9	170,564	37.0
2011	457,292	85,220	18.6	179,895	39.3	21,717	4.7	4,653	1.0	165,807	36.3
2012	459,498	80,962	17.6	183,965	40.0	22,443	4.9	5,228	1.1	166,900	36.3
2013	468,953	76,840	16.4	189,440	40.4	20,514	4.4	5,371	1.1	176,788	37.7
2014old ^c	484,880	72,507	15.0	195,446	40.3	19,970	4.1	5,809	1.2	191,148	39.4
2014new ^c	492,170	72,756	14.8	196,810	40.0	20,035	4.1	5,882	1.2	196,687	40.0
2015	506,262	72,393	14.3	201,681	39.8	20,771	4.1	5,739	1.1	205,678	40.6
2016	508,773	71,955	14.1	203,823	40.1	19,793	3.9	5,020	1.0	208,182	40.9
2017old ^d	498,619	69,899	14.0	201,388	40.4	21,211	4.3	5,271	1.1	200,850	40.3
2017new ^d	480,788	69,537	14.5	194,550	40.5	20,833	4.3	5,175	1.1	190,693	39.7
2018	491,449	71,594	14.6	199,298	40.6	19,568	4.0	4,875	1.0	196,114	39.9
2019	502,442	73,605	14.6	205,890	41.0	19,171	3.8	4,699	0.9	199,077	39.6

TABLE 1-7

Detailed primary source of federal support for full-time graduate students in science, engineering, and health: 1975–2019

(Number and percent)

Year	Total	DOD		DOE		HHS: NIH		HHS: Other HHS		NASA		NSF		USDA		Other	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1975	47,055	5,061	10.8	NA	NA	12,141	25.8	7,836	16.7	NA	NA	8,790	18.7	NA	NA	13,227	28.1
1976	49,036	4,772	9.7	NA	NA	11,307	23.1	8,341	17.0	NA	NA	8,953	18.3	NA	NA	15,663	31.9
1977	50,809	4,971	9.8	NA	NA	10,861	21.4	9,397	18.5	NA	NA	9,018	17.7	NA	NA	16,562	32.6
1978 ^a	51,984	NA	NA	NA	NA	10,825	20.8	10,060	19.4	NA	NA	9,007	17.3	NA	NA	22,092	42.5
1979	52,682	4,990	9.5	NA	NA	11,648	22.1	10,482	19.9	NA	NA	9,366	17.8	NA	NA	16,196	30.7
1980	52,959	5,251	9.9	NA	NA	11,499	21.7	7,522	14.2	NA	NA	9,348	17.7	NA	NA	19,339	36.5
1981	50,896	5,664	11.1	NA	NA	11,179	22.0	6,429	12.6	NA	NA	9,143	18.0	NA	NA	18,481	36.3
1982	47,403	5,941	12.5	NA	NA	10,814	22.8	4,975	10.5	NA	NA	9,257	19.5	NA	NA	16,416	34.6
1983	47,752	6,969	14.6	NA	NA	10,810	22.6	4,179	8.8	NA	NA	9,524	19.9	NA	NA	16,270	34.1
1984	47,784	7,125	14.9	NA	NA	10,983	23.0	4,124	8.6	NA	NA	9,848	20.6	NA	NA	15,704	32.9
1985	49,051	7,326	14.9	NA	NA	11,112	22.7	4,740	9.7	NA	NA	10,180	20.8	2,171	4.4	13,522	27.6
1986	51,361	7,940	15.5	NA	NA	11,877	23.1	4,500	8.8	NA	NA	10,826	21.1	2,328	4.5	13,890	27.0
1987	53,538	8,795	16.4	NA	NA	12,944	24.2	4,247	7.9	NA	NA	11,247	21.0	2,684	5.0	13,621	25.4
1988	55,489	9,546	17.2	NA	NA	13,715	24.7	4,186	7.5	NA	NA	11,634	21.0	2,591	4.7	13,817	24.9
1989	57,433	9,140	15.9	NA	NA	14,357	25.0	4,335	7.5	NA	NA	11,900	20.7	2,728	4.7	14,973	26.1
1990	59,258	8,868	15.0	NA	NA	14,996	25.3	4,512	7.6	NA	NA	12,025	20.3	2,722	4.6	16,135	27.2
1991	63,000	9,128	14.5	NA	NA	16,018	25.4	4,461	7.1	NA	NA	12,666	20.1	3,075	4.9	17,652	28.0
1992	65,607	9,247	14.1	NA	NA	17,091	26.1	4,321	6.6	NA	NA	13,366	20.4	3,216	4.9	18,366	28.0
1993	67,673	9,750	14.4	NA	NA	18,135	26.8	3,888	5.7	NA	NA	13,530	20.0	3,324	4.9	19,046	28.1
1994	68,550	9,449	13.8	NA	NA	18,292	26.7	4,374	6.4	NA	NA	13,990	20.4	3,422	5.0	19,023	27.8
1995	67,294	9,339	13.9	NA	NA	18,109	26.9	4,666	6.9	NA	NA	13,661	20.3	3,254	4.8	18,265	27.1
1996	65,240	8,802	13.5	NA	NA	17,929	27.5	4,432	6.8	2,309	3.5	13,412	20.6	3,004	4.6	15,352	23.5
1997	64,522	9,021	14.0	NA	NA	18,087	28.0	4,443	6.9	2,586	4.0	13,362	20.7	2,646	4.1	14,377	22.3
1998	63,759	8,259	13.0	NA	NA	18,215	28.6	4,489	7.0	2,646	4.2	13,459	21.1	2,485	3.9	14,206	22.3
1999	65,796	8,026	12.2	2,749	4.2	19,019	28.9	4,423	6.7	2,579	3.9	13,835	21.0	2,634	4.0	12,531	19.0
2000	67,588	8,141	12.0	2,995	4.4	19,472	28.8	4,018	5.9	2,780	4.1	14,599	21.6	2,630	3.9	12,953	19.2
2001	68,843	7,960	11.6	3,116	4.5	19,904	28.9	4,433	6.4	2,819	4.1	15,429	22.4	2,735	4.0	12,447	18.1
2002	75,538	7,977	10.6	3,548	4.7	22,129	29.3	4,830	6.4	3,082	4.1	17,135	22.7	3,100	4.1	13,737	18.2
2003	81,761	9,204	11.3	4,024	4.9	24,309	29.7	4,922	6.0	3,230	4.0	19,308	23.6	3,468	4.2	13,296	16.3
2004	83,816	9,007	10.7	4,135	4.9	26,689	31.8	4,211	5.0	2,916	3.5	19,975	23.8	3,563	4.3	13,320	15.9
2005	83,723	8,993	10.7	4,392	5.2	26,868	32.1	3,912	4.7	2,691	3.2	20,387	24.4	3,351	4.0	13,129	15.7
2006	83,962	8,867	10.6	4,480	5.3	27,587	32.9	3,662	4.4	2,364	2.8	20,339	24.2	3,000	3.6	13,663	16.3
2007old ^b	81,542	8,874	10.9	4,281	5.3	26,982	33.1	3,067	3.8	2,314	2.8	19,747	24.2	2,796	3.4	13,481	16.5
2007new ^b	81,859	8,885	10.9	4,284	5.2	27,015	33.0	3,086	3.8	2,317	2.8	19,792	24.2	2,810	3.4	13,670	16.7
2008	78,464	8,219	10.5	4,341	5.5	26,003	33.1	2,496	3.2	2,344	3.0	19,882	25.3	2,770	3.5	12,409	15.8

TABLE 1-7

Detailed primary source of federal support for full-time graduate students in science, engineering, and health: 1975–2019

(Number and percent)

Year	Total	DOD		DOE		HHS: NIH		HHS: Other HHS		NASA		NSF		USDA		Other	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
2009	81,565	8,683	10.6	4,608	5.6	26,506	32.5	2,200	2.7	2,426	3.0	21,682	26.6	2,706	3.3	12,754	15.6
2010	86,310	9,233	10.7	5,512	6.4	27,615	32.0	2,255	2.6	2,472	2.9	23,226	26.9	3,061	3.5	12,936	15.0
2011	85,220	9,107	10.7	5,738	6.7	25,670	30.1	2,201	2.6	2,394	2.8	24,226	28.4	2,862	3.4	13,022	15.3
2012	80,962	8,748	10.8	5,343	6.6	24,256	30.0	1,921	2.4	2,173	2.7	24,243	29.9	2,664	3.3	11,614	14.3
2013	76,840	8,304	10.8	4,803	6.3	22,372	29.1	1,642	2.1	2,006	2.6	23,307	30.3	2,577	3.4	11,829	15.4
2014old ^c	72,507	7,445	10.3	4,398	6.1	21,153	29.2	1,365	1.9	2,005	2.8	22,791	31.4	2,400	3.3	10,950	15.1
2014new ^c	72,756	7,454	10.2	4,401	6.0	21,191	29.1	1,382	1.9	2,013	2.8	22,899	31.5	2,420	3.3	10,996	15.1
2015	72,393	8,127	11.2	4,309	6.0	20,641	28.5	1,715	2.4	2,036	2.8	22,924	31.7	2,676	3.7	9,965	13.8
2016	71,955	8,291	11.5	4,482	6.2	20,381	28.3	1,635	2.3	2,025	2.8	22,677	31.5	2,535	3.5	9,929	13.8
2017old ^d	69,899	8,365	12.0	4,480	6.4	19,687	28.2	1,727	2.5	1,821	2.6	21,010	30.1	2,444	3.5	10,365	14.8
2017new ^d	69,537	8,323	12.0	4,480	6.4	19,645	28.3	1,719	2.5	1,818	2.6	20,946	30.1	2,415	3.5	10,191	14.7
2018	71,594	7,600	10.6	4,568	6.4	19,903	27.8	2,842	4.0	1,899	2.7	21,711	30.3	2,619	3.7	10,452	14.6
2019	73,605	8,495	11.5	5,119	7.0	21,025	28.6	2,498	3.4	2,057	2.8	21,801	29.6	2,580	3.5	10,030	13.6
Master's students																	
2017new ^d	12,354	2,756	22.3	491	4.0	1,014	8.2	310	2.5	286	2.3	2,212	17.9	962	7.8	4,323	35.0
2018	12,324	2,345	19.0	412	3.3	975	7.9	539	4.4	300	2.4	2,160	17.5	1,059	8.6	4,534	36.8
2019	11,491	2,492	21.7	452	3.9	1,046	9.1	471	4.1	276	2.4	2,054	17.9	977	8.5	3,723	32.4
Doctoral students																	
2017new ^d	57,183	5,567	9.7	3,989	7.0	18,631	32.6	1,409	2.5	1,532	2.7	18,734	32.8	1,453	2.5	5,868	10.3
2018	59,270	5,255	8.9	4,156	7.0	18,928	31.9	2,303	3.9	1,599	2.7	19,551	33.0	1,560	2.6	5,918	10.0
2019	62,114	6,003	9.7	4,667	7.5	19,979	32.2	2,027	3.3	1,781	2.9	19,747	31.8	1,603	2.6	6,307	10.2

NA = not available; USDA was added in 1985, NASA was added in 1996, and DOE was added in 1999.

DOD = Department of Defense; DOE = Department of Energy; HHS = Department of Health and Human Services; NASA = National Aeronautics and Space Administration; NIH = National Institutes of Health; NSF = National Science Foundation; USDA = Department of Agriculture.

^a Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.^b In 2007, eligible fields were reclassified, newly eligible fields were added, and the survey was redesigned to improve coverage and coding of eligible units. "2007new" presents data as collected in 2007; "2007old" shows data as they would have been collected in prior years. See appendix A in <https://www.nsf.gov/statistics/nsf10307/> for more detail.^c In 2014, the survey frame was updated following a comprehensive frame evaluation study. The study identified potentially eligible but not previously surveyed academic institutions in the United States with master's- or doctorate-granting programs in science, engineering, or health. A total of 151 newly eligible institutions were added, and two private for-profit institutions offering mostly practitioner-based graduate degrees were determined to be ineligible. For more information, see <https://www.nsf.gov/statistics/2016/nsf16314>.^d As part of 2017 Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS) redesign, the GSS taxonomy was changed to align with the National Center for Science and Engineering Statistics (NCSES) Taxonomy of Disciplines (TOD), thus increasing comparability with other NCSES surveys. As a result, some eligible fields were reclassified and a small number of fields became fully or partially ineligible. Comparisons to prior years should use the 2017old estimates and should be limited to broad areas of study—detailed field comparisons are not recommended.

Note(s):
Percentages may not add to total because of rounding. Master's and doctoral students were not reported separately until 2017.

Source(s):
National Center for Science and Engineering Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 1-8

Primary mechanism of support for full-time graduate students in science, engineering, and health: 1975–2019

(Number and percent)

Year	Total	Fellowships		Research assistantships		Teaching assistantships		Traineeships		Other types of support			
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Self-support		Other	
										Number	Percent	Number	Percent
1975	219,648	37,163	16.9	39,964	18.2	47,156	21.5	na	na	79,860	36.4	15,505	7.1
1976	223,412	36,200	16.2	42,555	19.0	48,124	21.5	na	na	74,428	33.3	22,105	9.9
1977	226,738	37,679	16.6	43,657	19.3	48,481	21.4	na	na	74,173	32.7	22,748	10.0
1978 ^a	223,030	na	na	na	na	na	na	na	na	69,920	31.4	153,110	68.6
1979	231,760	20,214	8.7	48,976	21.1	51,779	22.3	17,965	7.8	73,849	31.9	18,977	8.2
1980	238,416	20,515	8.6	51,566	21.6	53,889	22.6	17,545	7.4	75,457	31.6	19,444	8.2
1981	242,049	20,095	8.3	52,711	21.8	55,745	23.0	16,771	6.9	76,522	31.6	20,205	8.3
1982	244,757	20,855	8.5	52,580	21.5	58,334	23.8	14,637	6.0	77,896	31.8	20,455	8.4
1983	252,017	21,342	8.5	54,904	21.8	60,071	23.8	13,512	5.4	81,233	32.2	20,955	8.3
1984	253,922	21,624	8.5	57,735	22.7	61,256	24.1	13,465	5.3	79,150	31.2	20,692	8.1
1985	257,287	22,540	8.8	60,995	23.7	61,822	24.0	13,665	5.3	77,630	30.2	20,635	8.0
1986	266,168	22,954	8.6	66,010	24.8	62,552	23.5	13,526	5.1	78,880	29.6	22,246	8.4
1987	271,056	21,953	8.1	70,214	25.9	62,847	23.2	14,096	5.2	79,780	29.4	22,166	8.2
1988	275,127	22,353	8.1	74,588	27.1	63,053	22.9	14,397	5.2	79,160	28.8	21,576	7.8
1989	282,648	23,450	8.3	79,045	28.0	64,296	22.7	14,524	5.1	80,251	28.4	21,082	7.5
1990	292,782	25,254	8.6	80,746	27.6	64,950	22.2	15,198	5.2	84,384	28.8	22,250	7.6
1991	307,010	26,695	8.7	85,175	27.7	65,214	21.2	15,403	5.0	91,583	29.8	22,940	7.5
1992	322,555	28,627	8.9	88,030	27.3	65,702	20.4	15,361	4.8	101,299	31.4	23,536	7.3
1993	329,644	29,132	8.8	90,154	27.3	67,290	20.4	15,445	4.7	106,276	32.2	21,347	6.5
1994	332,088	28,892	8.7	92,008	27.7	66,844	20.1	15,681	4.7	107,035	32.2	21,628	6.5
1995	329,283	28,887	8.8	89,946	27.3	65,976	20.0	15,943	4.8	106,687	32.4	21,844	6.6
1996	328,536	28,862	8.8	87,694	26.7	65,756	20.0	15,481	4.7	109,475	33.3	21,268	6.5
1997	327,289	28,956	8.8	88,001	26.9	65,425	20.0	14,488	4.4	108,741	33.2	21,678	6.6
1998	327,389	29,106	8.9	88,097	26.9	65,173	19.9	14,946	4.6	108,224	33.1	21,843	6.7
1999	334,423	30,112	9.0	91,279	27.3	66,294	19.8	14,707	4.4	109,416	32.7	22,615	6.8
2000	341,283	31,330	9.2	94,323	27.6	66,423	19.5	14,171	4.2	112,432	32.9	22,604	6.6
2001	354,522	32,270	9.1	99,923	28.2	68,267	19.3	14,154	4.0	116,636	32.9	23,272	6.6
2002	378,991	34,849	9.2	108,185	28.5	70,732	18.7	15,006	4.0	126,654	33.4	23,565	6.2
2003	397,420	34,460	8.7	114,256	28.7	73,105	18.4	15,126	3.8	134,730	33.9	25,743	6.5
2004	402,573	35,034	8.7	114,768	28.5	73,009	18.1	14,903	3.7	137,078	34.1	27,781	6.9
2005	406,620	36,414	9.0	114,304	28.1	74,238	18.3	14,570	3.6	139,403	34.3	27,691	6.8
2006	419,015	36,689	8.8	114,774	27.4	75,911	18.1	14,571	3.5	146,606	35.0	30,464	7.3
2007old ^b	430,860	38,340	8.9	115,192	26.7	77,817	18.1	13,437	3.1	154,293	35.8	31,781	7.4
2007new ^b	437,365	38,631	8.8	116,043	26.5	79,948	18.3	13,497	3.1	157,029	35.9	32,217	7.4
2008	449,613	38,599	8.6	118,349	26.3	83,135	18.5	13,317	3.0	165,658	36.8	30,555	6.8
2009	456,115	38,931	8.5	121,443	26.6	81,828	17.9	12,830	2.8	169,956	37.3	31,127	6.8
2010	461,185	39,899	8.7	123,698	26.8	83,252	18.1	12,476	2.7	170,564	37.0	31,296	6.8
2011	457,292	41,297	9.0	122,480	26.8	84,173	18.4	12,629	2.8	165,807	36.3	30,906	6.8
2012	459,498	42,005	9.1	119,347	26.0	86,295	18.8	11,646	2.5	166,900	36.3	33,305	7.2
2013	468,953	43,432	9.3	116,377	24.8	88,689	18.9	10,514	2.2	176,788	37.7	33,153	7.1
2014old ^c	484,880	42,804	8.8	115,274	23.8	90,564	18.7	11,207	2.3	191,148	39.4	33,883	7.0
2014new ^c	492,170	43,084	8.8	115,700	23.5	90,947	18.5	11,251	2.3	196,687	40.0	34,501	7.0
2015	506,262	43,460	8.6	116,425	23.0	92,513	18.3	11,175	2.2	205,678	40.6	37,011	7.3
2016	508,773	42,584	8.4	116,222	22.8	91,545	18.0	11,833	2.3	208,182	40.9	38,407	7.5
2017old ^d	498,619	42,120	8.4	110,408	22.1	91,615	18.4	12,380	2.5	200,850	40.3	41,246	8.3
2017new ^d	480,788	41,408	8.6	108,633	22.6	88,323	18.4	12,249	2.5	190,693	39.7	39,482	8.2
2018	491,449	41,779	8.5	111,469	22.7	87,682	17.8	12,896	2.6	196,114	39.9	41,509	8.4
2019	502,442	45,834	9.1	115,320	23.0	88,144	17.5	12,282	2.4	199,077	39.6	41,785	8.3

TABLE 1-8

Primary mechanism of support for full-time graduate students in science, engineering, and health: 1975–2019

(Number and percent)

Year	Total	Fellowships		Research assistantships		Teaching assistantships		Traineeships		Other types of support			
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Self-support		Other	
Master's students													
2017new ^d	245,010	6,535	2.7	21,681	8.8	24,193	9.9	1,992	0.8	165,485	67.5	25,124	10.3
2018	248,552	6,880	2.8	20,147	8.1	22,636	9.1	2,253	0.9	171,930	69.2	24,706	9.9
2019	254,532	7,717	3.0	20,406	8.0	23,284	9.1	2,185	0.9	176,457	69.3	24,483	9.6
Doctoral students													
2017new ^d	235,778	34,873	14.8	86,952	36.9	64,130	27.2	10,257	4.4	25,208	10.7	14,358	6.1
2018	242,897	34,899	14.4	91,322	37.6	65,046	26.8	10,643	4.4	24,184	10.0	16,803	6.9
2019	247,910	38,117	15.4	94,914	38.3	64,860	26.2	10,097	4.1	22,620	9.1	17,302	7.0

na = not applicable.

^a Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.^b In 2007, eligible fields were reclassified, newly eligible fields were added, and the survey was redesigned to improve coverage and coding of eligible units. "2007new" presents data as collected in 2007; "2007old" shows data as they would have been collected in prior years. See appendix A in <https://www.nsf.gov/statistics/nsf10307/> for more detail.^c In 2014, the survey frame was updated following a comprehensive frame evaluation study. The study identified potentially eligible but not previously surveyed academic institutions in the United States with master's- or doctorate-granting programs in science, engineering, or health. A total of 151 newly eligible institutions were added, and two private for-profit institutions offering mostly practitioner-based graduate degrees were determined to be ineligible. For more information, see <https://www.nsf.gov/statistics/2016/nsf16314>.^d As part of 2017 Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS) redesign, the GSS taxonomy was changed to align with the National Center for Science and Engineering Statistics (NCSES) Taxonomy of Disciplines (TOD), thus increasing comparability with other NCSES surveys. As a result, some eligible fields were reclassified and a small number of fields became fully or partially ineligible. Comparisons to prior years should use the 2017old estimates and should be limited to broad areas of study—detailed field comparisons are not recommended.**Note(s):**

Percentages may not add to total because of rounding. Master's and doctoral students were not reported separately until 2017.

Source(s):

National Center for Science and Engineering Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 1-9a

Graduate students in science broad fields: 1975–2019

(Number)

Year	Total	Agricultural sciences ^a	Biological and biomedical sciences ^a	Communication ^{a,b,c}	Computer and information sciences	Family and consumer sciences and human sciences ^{a,b,c}	Geosciences, atmospheric sciences, and ocean sciences	Mathematics and statistics	Multidisciplinary and interdisciplinary studies ^{a,c}	Natural resources and conservation ^a	Neurobiology and neuroscience ^{a,c}	Physical sciences ^a	Psychology ^d	Social sciences ^a
1975	234,649	10,804	46,185	ne	8,415	ne	12,079	16,892	ne	NA	NA	26,310	36,191	77,773
1976	238,675	11,427	47,453	ne	8,627	ne	12,809	17,071	ne	NA	NA	26,641	37,458	77,189
1977	242,932	11,812	48,975	ne	9,108	ne	13,446	16,052	ne	NA	NA	26,864	38,617	78,058
1978 ^a	236,465	11,981	47,665	ne	9,847	ne	13,268	14,812	ne	NA	NA	26,282	37,522	75,088
1979	247,235	12,365	47,932	ne	11,690	ne	13,731	15,031	ne	NA	NA	26,701	39,766	80,019
1980	251,265	12,689	47,261	ne	13,578	ne	14,051	15,311	ne	NA	NA	26,934	40,610	80,831
1981	252,404	12,585	46,302	ne	16,437	ne	14,263	15,881	ne	NA	NA	27,360	40,666	78,910
1982	255,146	12,826	45,627	ne	19,812	ne	15,018	17,157	ne	NA	NA	28,188	40,073	76,445
1983	255,820	12,728	45,253	ne	23,339	ne	15,443	17,358	ne	NA	NA	29,463	40,905	71,337
1984	256,903	12,528	45,353	ne	25,526	ne	15,500	17,443	ne	NA	NA	30,061	40,931	69,561
1985	261,973	11,846	45,709	ne	29,769	ne	15,414	17,563	ne	NA	NA	30,987	40,721	69,964
1986	266,077	11,771	46,302	ne	31,349	ne	15,053	17,949	ne	NA	NA	32,259	41,241	70,153
1987	269,256	11,405	46,317	ne	32,051	ne	14,357	18,508	ne	NA	NA	32,741	42,612	71,265
1988	272,309	11,438	47,126	ne	32,227	ne	13,854	19,077	ne	NA	NA	32,975	43,963	71,649
1989	278,577	11,461	48,449	ne	32,482	ne	13,630	19,247	ne	NA	NA	33,629	45,528	74,151
1990	289,383	11,563	49,602	ne	34,257	ne	13,977	19,774	ne	NA	NA	34,082	48,167	77,961
1991	299,057	11,766	51,365	ne	34,681	ne	14,466	19,952	ne	NA	NA	34,724	51,343	80,760
1992	312,478	12,153	53,693	ne	36,325	ne	15,324	20,355	ne	NA	NA	35,357	53,484	85,787
1993	318,851	12,305	55,950	ne	36,213	ne	15,721	20,000	ne	NA	NA	35,328	54,557	88,777
1994	318,118	12,611	57,676	ne	34,158	ne	15,957	19,573	ne	NA	NA	34,466	54,554	89,123
1995	315,265	12,768	58,344	ne	33,458	ne	15,716	18,504	ne	NA	NA	33,399	53,641	89,435
1996	311,957	12,301	57,749	ne	34,626	ne	15,183	18,008	ne	NA	NA	32,333	53,122	88,635
1997	306,482	12,203	56,705	ne	35,991	ne	14,548	16,719	ne	NA	NA	31,105	53,126	86,085
1998	304,818	12,168	56,695	ne	38,027	ne	14,258	16,485	ne	NA	NA	30,575	52,557	84,053
1999	309,491	12,312	56,959	ne	42,478	ne	14,083	16,257	ne	NA	NA	30,691	51,727	84,984
2000	309,424	12,029	56,282	ne	47,350	ne	13,941	15,650	ne	NA	NA	30,385	50,466	83,327
2001	319,736	12,235	57,639	ne	52,196	ne	13,841	16,651	ne	NA	NA	31,038	50,454	85,682
2002	335,166	12,698	61,088	ne	55,269	ne	14,240	18,163	ne	NA	NA	32,341	51,152	90,215
2003	347,268	13,197	64,701	ne	53,696	ne	14,620	19,465	ne	NA	NA	34,298	52,162	95,129
2004	352,307	13,445	66,565	ne	50,016	ne	15,131	19,931	ne	NA	NA	35,761	54,126	97,332
2005	357,710	13,123	68,479	ne	47,978	ne	14,836	20,210	ne	NA	NA	36,375	57,282	99,427
2006	363,246	13,016	69,941	ne	47,653	ne	14,920	20,815	ne	NA	NA	36,501	57,653	102,347
2007 ^{old}	372,120	13,222	71,663	ne	48,959	ne	14,675	21,335	ne	NA	NA	37,111	60,284	104,871
2007 ^{new}	384,523	13,528	71,932	7,303	48,246	2,780	14,100	20,975	4,484	NA	1,584	36,824	59,617	103,150
2008	391,419	14,153	72,666	8,444	49,553	3,549	14,389	21,400	5,559	NA	2,012	37,319	58,991	103,384

TABLE 1-9a

Graduate students in science broad fields: 1975–2019

(Number)

Year	Total	Agricultural sciences ^a	Biological and biomedical sciences ^a	Communication ^{a,b,c}	Computer and information sciences	Family and consumer sciences and human sciences ^{a,b,c}	Geosciences, atmospheric sciences, and ocean sciences	Mathematics and statistics	Multidisciplinary and interdisciplinary studies ^{a,c}	Natural resources and conservation ^a	Neurobiology and neuroscience ^{a,c}	Physical sciences ^a	Psychology ^a	Social sciences ^a
2009	401,008	15,200	73,304	9,418	51,161	3,794	14,839	22,228	6,557	NA	2,356	38,149	55,184	107,820
2010	407,291	15,656	74,928	9,825	51,546	4,191	15,655	23,136	7,944	NA	2,798	38,973	53,419	109,220
2011	414,440	16,129	75,423	11,029	51,234	4,509	15,820	23,801	6,537	NA	4,117	39,694	54,486	111,661
2012	413,033	16,234	76,447	11,010	51,789	4,110	16,069	24,575	6,038	NA	4,547	39,928	54,117	108,169
2013	417,251	16,429	76,649	11,114	56,339	4,014	15,816	24,804	5,892	NA	4,795	40,019	54,102	107,278
2014old ^d	425,148	16,947	76,029	11,382	68,766	4,180	15,423	25,502	6,417	NA	4,923	40,196	50,938	104,445
2014new ^e	437,395	17,505	78,490	11,942	76,546	4,302	15,710	25,874	7,196	NA	4,923	40,332	48,833	105,742
2015	448,654	18,610	80,096	11,759	86,192	4,134	15,447	26,444	8,138	NA	5,002	40,386	49,740	102,706
2016	452,046	18,284	79,146	12,347	92,650	3,750	15,015	28,050	9,251	NA	5,226	40,518	47,609	100,200
2017old ^d	450,343	17,674	82,603	11,983	90,657	3,709	14,430	28,990	9,934	NA	5,457	41,081	49,896	93,929
2017new ^a	415,568	9,347	85,217	ne	89,909	ne	12,545	29,669	9,854	10,879	NA	41,829	50,033	75,286
2018	432,255	9,538	87,933	ne	93,478	ne	12,333	31,461	10,338	11,407	NA	42,075	55,707	77,985
2019	453,691	9,518	91,993	ne	101,284	ne	11,878	33,159	11,181	11,743	NA	42,867	61,069	78,999
Master's students														
2017new ^a	229,169	5,603	33,926	ne	75,618	ne	6,006	16,568	6,923	7,311	NA	6,368	29,638	41,208
2018	241,327	5,658	35,306	ne	77,351	ne	5,629	18,073	7,414	7,691	NA	6,075	35,404	42,726
2019	259,795	5,629	38,078	ne	84,092	ne	5,327	19,594	8,203	8,066	NA	6,361	40,338	43,607
Doctoral students														
2017new ^a	186,399	3,744	51,291	ne	14,291	ne	6,539	13,101	2,931	3,568	NA	35,461	20,395	35,078
2018	190,928	3,880	52,627	ne	16,127	ne	6,704	13,388	2,924	3,716	NA	36,000	20,303	35,259
2019	193,896	3,985	53,915	ne	17,192	ne	6,551	13,565	2,978	3,677	NA	36,506	20,231	35,392

NA = not available; these fields were collected as part of other fields in other years (see footnotes a and c). ne = not eligible; the fields collected have changed over time.

^a As part of 2017 Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS) redesign, the GSS taxonomy was changed to align with the National Center for Science and Engineering Statistics (NCSES) Taxonomy of Disciplines (TOD), thus increasing comparability with other NCSES surveys. As a result, some eligible fields were reclassified and a small number of fields became fully or partially ineligible. Comparisons to prior years should use the 2017old estimates and should be limited to broad areas of study—detailed field comparisons are not recommended. Redesign includes the following: natural resources splitting from agricultural sciences; neurosciences being reported under biological and biomedical sciences; human development being reported under psychology; physical sciences adding materials sciences; social sciences no longer including public administration; and multidisciplinary and interdisciplinary studies no longer including nanoscience; and communications as well as family and consumer sciences were removed.

^b The field communications and the field family and consumer sciences and human sciences were added as part of the 2007 field eligibility changes. These fields were dropped in 2017 to align the GSS with other NCSES surveys.

^c In 2007, eligible fields were reclassified, newly eligible fields were added, and the survey was redesigned to improve coverage and coding of eligible units. "2007new" presents data as collected in 2007; "2007old" shows data as they would have been collected in prior years. The science field communication and the science field family and consumer sciences and human sciences were newly eligible in 2007; data for these two fields begin in 2007new. The science field multidisciplinary and interdisciplinary studies was also added to the GSS code list in 2007; some data reported in this field were reported under other fields before 2007 and are included in those fields in 2007old. Neuroscience is reported as a separate field of science in 2007new; data were reported under health field neurology in 2007old and previous years. See appendix A in <https://www.nsf.gov/statistics/nsf10307/> for more detail.

^d Beginning in 2008, more rigorous follow-up was done with institutions regarding the exclusion of practitioner-oriented graduate degree programs in psychology. This change may affect interpretation of trends in this field. This follow-up was discontinued in 2017.

^e Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

^f In 2014, the survey frame was updated following a comprehensive frame evaluation study. The study identified potentially eligible but not previously surveyed academic institutions in the United States with master's- or doctorate-granting programs in science, engineering, or health. A total of 151 newly eligible institutions were added, and two private for-profit institutions offering mostly practitioner-based graduate degrees were determined to be ineligible. For more information, see <https://www.nsf.gov/statistics/2016/nsf16314>.

TABLE 1-9b

Postdoctoral appointees in science broad fields: 1979–2019
(Number)

Year	Total	Agricultural sciences ^a	Biological and biomedical sciences ^a	Communication ^{a,b,c}	Computer and information sciences	Family and consumer sciences and human sciences ^{a,b,c}	Geosciences, atmospheric sciences, and ocean sciences	Mathematics and statistics	Multidisciplinary and interdisciplinary studies ^{a,c}	Natural resources and conservation ^a	Neurobiology and neuroscience ^{a,c}	Physical sciences ^a	Psychology ^d	Social sciences ^a
1979	12,519	228	6,866	ne	38	ne	315	162	ne	NA	NA	4,056	454	400
1980	13,042	259	7,083	ne	43	ne	312	162	ne	NA	NA	4,279	475	429
1981	13,731	292	7,678	ne	35	ne	346	113	ne	NA	NA	4,477	471	319
1982	13,698	302	7,713	ne	47	ne	340	194	ne	NA	NA	4,298	520	284
1983	14,562	318	8,337	ne	80	ne	420	170	ne	NA	NA	4,458	437	342
1984	14,979	384	8,683	ne	59	ne	493	203	ne	NA	NA	4,408	423	326
1985	15,576	374	9,128	ne	70	ne	379	226	ne	NA	NA	4,539	510	350
1986	16,512	421	9,692	ne	75	ne	420	201	ne	NA	NA	4,860	521	322
1987	17,369	453	10,353	ne	103	ne	424	229	ne	NA	NA	4,968	460	379
1988	18,024	476	10,653	ne	96	ne	496	284	ne	NA	NA	5,201	498	320
1989	18,978	522	11,425	ne	84	ne	453	225	ne	NA	NA	5,366	536	367
1990	19,853	536	11,909	ne	71	ne	594	249	ne	NA	NA	5,592	464	438
1991	20,595	580	12,455	ne	120	ne	625	206	ne	NA	NA	5,722	508	379
1992	21,514	640	13,158	ne	145	ne	692	201	ne	NA	NA	5,792	525	361
1993	22,219	720	13,778	ne	164	ne	765	224	ne	NA	NA	5,669	521	378
1994	23,181	729	14,379	ne	185	ne	824	239	ne	NA	NA	5,884	551	390
1995	23,512	724	14,659	ne	213	ne	845	262	ne	NA	NA	5,851	582	376
1996	23,892	699	14,890	ne	250	ne	861	326	ne	NA	NA	5,828	594	444
1997	24,293	724	15,082	ne	322	ne	942	308	ne	NA	NA	5,968	586	361
1998	25,023	695	15,761	ne	374	ne	902	279	ne	NA	NA	6,004	617	391
1999	25,784	750	16,097	ne	334	ne	925	351	ne	NA	NA	6,157	716	454
2000	26,911	822	16,734	ne	344	ne	1,155	385	ne	NA	NA	6,270	730	471
2001	27,044	833	17,032	ne	336	ne	1,049	353	ne	NA	NA	6,223	809	409
2002	28,371	963	17,640	ne	356	ne	1,129	395	ne	NA	NA	6,619	815	454
2003	29,856	1,054	18,625	ne	355	ne	1,182	449	ne	NA	NA	6,829	960	402
2004	30,116	959	18,716	ne	384	ne	1,263	468	ne	NA	NA	7,059	902	365
2005	30,290	1,007	18,747	ne	406	ne	1,264	500	ne	NA	NA	7,011	884	371
2006	30,245	927	18,807	ne	467	ne	1,495	579	ne	NA	NA	6,703	873	394
2007old ^e	30,386	948	19,218	ne	516	ne	1,322	621	ne	NA	NA	6,760	1,106	495
2007new ^e	31,281	985	19,109	30	456	8	1,250	624	244	NA	285	6,719	1,088	483
2008	32,741	1,147	19,827	32	493	19	1,339	723	348	NA	343	6,895	1,077	508
2009	34,388	1,083	20,159	38	594	22	1,424	737	459	NA	645	7,447	1,219	561
2010 ^{e,f}	37,351	1,190	21,726	62	763	30	1,740	791	785	NA	838	7,583	1,132	711
2011 ^f	37,335	1,256	21,107	67	769	52	1,774	830	704	NA	1,398	7,490	1,124	774
2012	36,738	1,290	20,086	58	760	58	1,956	902	742	NA	1,525	7,430	1,132	799

TABLE 1-9b

Postdoctoral appointees in science broad fields: 1979–2019

(Number)

Year	Total	Agricultural sciences ^a	Biological and biomedical sciences ^a	Communication ^{a,b,c}	Computer and information sciences	Family and consumer sciences and human sciences ^{a,b,c}	Geosciences, atmospheric sciences, and ocean sciences	Mathematics and statistics	Multidisciplinary and interdisciplinary studies ^{a,c}	Natural resources and conservation ^a	Neurobiology and neuroscience ^{a,c}	Physical sciences ^a	Psychology ^d	Social sciences ^a
2013	36,289	1,319	19,330	76	765	90	2,032	932	891	NA	1,696	7,197	1,023	938
2014old ^e	36,184	1,395	18,749	75	833	93	2,059	956	1,045	NA	1,778	7,089	1,062	1,050
2014new ^e	37,316	1,402	19,554	75	834	114	2,061	959	1,045	NA	1,878	7,277	1,066	1,051
2015	37,639	1,525	19,304	83	888	103	2,129	1,011	972	NA	1,957	7,358	1,130	1,179
2016	37,941	1,484	19,427	86	914	116	2,104	1,005	1,095	NA	2,071	7,269	1,177	1,193
2017old ^e	37,816	1,620	19,506	89	856	163	2,136	966	1,126	NA	2,109	6,946	1,072	1,227
2017new ^e	38,241	1,024	21,781	ne	854	ne	2,089	991	1,131	781	NA	7,211	1,082	1,347
2018	37,564	1,072	21,533	ne	879	ne	1,726	982	980	764	NA	6,976	1,145	1,507
2019	38,503	1,079	21,847	ne	878	ne	1,778	1,070	972	806	NA	7,159	1,152	1,762

NA = not available; these fields were collected as part of other fields in other years (see footnotes a and c). ne = not eligible; the fields collected have changed over time.

^a As part of 2017 Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS) redesign, the GSS taxonomy was changed to align with the National Center for Science and Engineering Statistics (NCSES) Taxonomy of Disciplines (TOD), thus increasing comparability with other NCSES surveys. As a result, some eligible fields were reclassified and a small number of fields became fully or partially ineligible. Comparisons to prior years should use the 2017old estimates and should be limited to broad areas of study—detailed field comparisons are not recommended. Redesign includes the following: natural resources splitting from agricultural sciences; neurosciences being reported under biological and biomedical sciences; human development being reported under psychology; physical sciences adding materials sciences; and social sciences no longer including public administration; and multidisciplinary no longer including nanoscience.

^b The field communications and the field family and consumer sciences and human sciences were added as part of the 2007 field eligibility changes. These fields were dropped in 2017 to align the GSS with other NCSES surveys.

^c In 2007, eligible fields were reclassified, newly eligible fields were added, and the survey was redesigned to improve coverage and coding of eligible units. "2007new" presents data as collected in 2007; "2007old" shows data as they would have been collected in prior years. The science field communication and the science field family and consumer sciences and human sciences were newly eligible in 2007; data for these two fields begin in 2007new. The science field multidisciplinary and interdisciplinary studies was also added to the GSS code list in 2007; some data reported in this field were reported under other fields before 2007 and are included in those fields in 2007old. neuroscience is reported as a separate field of science in 2007new; data were reported under health field neurology in 2007old and previous years. See appendix A in <https://www.nsf.gov/statistics/nsf10307/> for more detail.

^d Beginning in 2008, more rigorous follow-up was done with institutions regarding the exclusion of practitioner-oriented graduate degree programs in psychology. This change may affect interpretation of trends in this field. This follow-up was discontinued in 2017.

^e In 2010, the postdoctoral (postdoc) and nonfaculty researcher (NFR) section of the survey was expanded and significant effort was made to ensure that appropriate personnel were providing postdoc and NFR data. Thus, it is unclear how much of the increases in 2010 and later years over 2009 and prior years are from growth in postdocs and NFRs and how much are from improved data collection. More information on the changes to the data collection is available at <https://www.nsf.gov/statistics/inbrief/nsf13334/>.

^f Postdoc and NFR data from 2010 and 2011 were reimputed following the 2012 data collection; these data supersede those contained in previous reports.

^g In 2014, the survey frame was updated following a comprehensive frame evaluation study. The study identified potentially eligible but not previously surveyed academic institutions in the United States with master's- or doctorate-granting programs in science, engineering, or health. A total of 151 newly eligible institutions were added, and two private for-profit institutions offering mostly practitioner-based graduate degrees were determined to be ineligible. For more information, see <https://www.nsf.gov/statistics/2016/nsf16314>.

Note(s):

"Field" refers to the field of the unit that reports postdocs to the GSS. Sum of the broad fields may not add to total because of rounding. Master's and doctoral students were not reported separately until 2017.

Source(s):

National Center for Science and Engineering Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 1-9c

Doctorate-holding nonfaculty researchers in science broad fields: 1979–2019
(Number)

Year	Total	Agricultural sciences ^a	Biological and biomedical sciences ^a	Communication ^{a,b,c}	Computer and information sciences	Family and consumer sciences and human sciences ^{a,b,c}	Geosciences, atmospheric sciences, and ocean sciences	Mathematics and statistics	Multidisciplinary and interdisciplinary studies ^{a,c}	Natural resources and conservation ^a	Neurobiology and neuroscience ^{a,c}	Physical sciences ^a	Psychology ^d	Social sciences ^a
1979	1,915	58	932	ne	44	ne	104	69	ne	NA	NA	464	63	181
1980	2,184	74	1,100	ne	51	ne	154	84	ne	NA	NA	475	103	143
1981	2,445	68	1,055	ne	57	ne	143	112	ne	NA	NA	632	156	222
1982	2,809	79	1,267	ne	47	ne	239	82	ne	NA	NA	809	150	136
1983	3,348	179	1,566	ne	61	ne	309	125	ne	NA	NA	759	158	191
1984	3,442	142	1,611	ne	58	ne	245	125	ne	NA	NA	856	221	184
1985	3,529	125	1,638	ne	78	ne	186	176	ne	NA	NA	967	210	149
1986	3,356	155	1,582	ne	97	ne	193	54	ne	NA	NA	924	216	135
1987	3,250	118	1,545	ne	123	ne	202	70	ne	NA	NA	848	256	88
1988	3,348	118	1,608	ne	98	ne	200	89	ne	NA	NA	960	174	101
1989	3,470	150	1,709	ne	68	ne	228	65	ne	NA	NA	991	180	79
1990	3,745	192	1,743	ne	61	ne	315	92	ne	NA	NA	1,006	198	138
1991	3,872	210	1,846	ne	50	ne	298	86	ne	NA	NA	1,007	192	183
1992	3,660	200	1,688	ne	42	ne	304	71	ne	NA	NA	1,071	152	132
1993	4,003	174	1,838	ne	67	ne	340	53	ne	NA	NA	1,225	171	135
1994	4,156	256	1,841	ne	49	ne	363	72	ne	NA	NA	1,244	203	128
1995	4,395	234	1,950	ne	66	ne	421	93	ne	NA	NA	1,381	146	104
1996	4,426	210	1,905	ne	107	ne	431	88	ne	NA	NA	1,291	232	162
1997	4,408	203	1,984	ne	87	ne	431	92	ne	NA	NA	1,208	225	178
1998	4,497	159	2,238	ne	125	ne	415	88	ne	NA	NA	1,083	252	137
1999	4,761	168	2,331	ne	133	ne	436	122	ne	NA	NA	1,157	250	164
2000	4,931	219	2,245	ne	153	ne	486	80	ne	NA	NA	1,271	326	151
2001	4,707	229	2,323	ne	150	ne	477	54	ne	NA	NA	1,081	254	139
2002	5,019	275	2,551	ne	123	ne	606	36	ne	NA	NA	1,089	210	129
2003	5,493	254	2,859	ne	127	ne	603	47	ne	NA	NA	1,245	240	118
2004	5,880	301	2,976	ne	170	ne	587	69	ne	NA	NA	1,374	249	154
2005	6,069	287	2,992	ne	152	ne	584	64	ne	NA	NA	1,576	257	157
2006	6,658	305	3,353	ne	184	ne	639	89	ne	NA	NA	1,615	261	212
2007old ^e	6,517	256	3,257	ne	195	ne	613	108	ne	NA	NA	1,643	277	168
2007new ^e	6,526	264	3,205	4	179	8	610	108	28	NA	NA	1,670	268	168
2008	6,669	458	4,514	6	228	8	751	91	219	NA	23	1,826	297	248
2009	6,698	431	4,213	9	331	31	774	160	231	NA	77	1,773	291	377
2010 ^{old,f}	12,751	572	6,271	24	318	38	1,362	173	467	NA	191	2,251	467	617
2011 ^f	13,363	581	6,224	17	326	101	1,625	174	509	NA	378	2,322	434	672
2012	13,264	567	6,249	14	349	43	1,513	209	497	NA	356	2,296	431	740

TABLE 1-9c

Doctorate-holding nonfaculty researchers in science broad fields: 1979–2019
(Number)

Year	Total	Agricultural sciences ^a	Biological and biomedical sciences ^a	Communication ^{a,b,c}	Computer and information sciences	Family and consumer sciences and human sciences ^{a,b,c}	Geosciences, atmospheric sciences, and ocean sciences	Mathematics and statistics	Multidisciplinary and interdisciplinary studies ^{a,c}	Natural resources and conservation ^a	Neurobiology and neuroscience ^{a,c}	Physical sciences ^a	Psychology ^d	Social sciences ^a
2013	13,932	550	6,527	34	459	43	1,518	224	538	NA	417	2,312	457	853
2014old ^e	14,283	609	6,492	34	450	57	1,499	221	658	NA	650	2,433	411	769
2014new ^f	14,674	616	6,841	34	450	59	1,500	221	661	NA	666	2,445	411	770
2015	15,667	747	6,948	31	459	74	1,754	235	630	NA	718	2,701	472	898
2016	15,940	767	7,058	29	470	120	1,635	213	727	NA	760	2,735	456	970
2017old ^g	na	na	na	na	na	na	na	na	na	NA	na	na	na	na
2017new ^h	17,268	496	8,203	ne	476	ne	1,794	240	806	364	NA	2,871	494	1,524
2018	18,278	565	8,250	ne	515	ne	2,106	266	832	580	NA	3,056	507	1,601
2019	18,819	645	8,229	ne	510	ne	2,177	305	820	582	NA	3,316	576	1,659

na = not applicable; NA = not available; these fields were collected as part of other fields in other years (see footnotes a and c); ne = not eligible; the fields collected have changed over time.

^a As part of 2017 Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS) redesign, the GSS taxonomy was changed to align with the National Center for Science and Engineering Statistics (NCSES) Taxonomy of Disciplines (TOD), thus increasing comparability with other NCSES surveys. As a result, some eligible fields were reclassified and a small number of fields became fully or partially ineligible. Comparisons to prior years should use the 2017old estimates and should be limited to broad areas of study—detailed field comparisons are not recommended. Redesign includes the following: natural resources splitting from agricultural sciences; neurosciences being reported under biological and biomedical sciences; human development being reported under psychology; physical sciences adding materials sciences; social sciences no longer including public administration; and multidisciplinary no longer including nanoscience.^b The field communications and the field family and consumer sciences and human sciences were added as part of the 2007 field eligibility changes. These fields were dropped in 2017 to align the GSS with other NCSES surveys.^c In 2007, eligible fields were reclassified, newly eligible fields were added, and the survey was redesigned to improve coverage and coding of eligible units. "2007new" presents data as collected in 2007; "2007old" shows data as they would have been collected in prior years. The science field communication and the science field and consumer sciences and human sciences were newly eligible in 2007; data for these two fields begin in 2007new. The science field multidisciplinary and interdisciplinary studies was also added to the GSS code list in 2007; some data reported in this field were reported under other fields before 2007 and are included in those fields in 2007old. neuroscience is reported as a separate field of science in 2007new; data were reported under health field neurology in 2007old and previous years. See appendix A in <https://www.nsf.gov/statistics/infbrief/nsf10307/> for more detail.^d Beginning in 2008, more rigorous follow-up was done with institutions regarding the exclusion of practitioner-oriented graduate degree programs in psychology. This change may affect interpretation of trends in this field. This follow-up was discontinued in 2017.^e In 2010, the postdoctoral (postdoc) and nonfaculty researcher (NFR) section of the survey was expanded and significant effort was made to ensure that appropriate personnel were providing postdoc and NFR data. Thus, it is unclear how much of the increases in 2010 and later years over 2009 and prior years are from growth in postdocs and NFRs and how much are from improved data collection. More information on the changes to the data collection is available at <https://www.nsf.gov/statistics/infbrief/nsf13334/>.^f Postdoc and NFR data from 2010 and 2011 were reweighted following the 2012 data collection; these data supersede those contained in previous reports.^g In 2014, the survey frame was updated following a comprehensive frame evaluation study. The study identified potentially eligible but not previously surveyed academic institutions in the United States with master's- or doctorate-granting programs in science, engineering, or health. A total of 151 newly eligible institutions were added, and two private for-profit institutions offering mostly practitioner-based graduate degrees were determined to be ineligible. For more information, see <https://www.nsf.gov/statistics/2016/nsf16314>.**Note(s):**
"Field" refers to the field of the unit that reports doctorate-holding nonfaculty researchers to the GSS. Sum of the broad fields may not add to total because of rounding. Master's and doctoral students were not reported separately until 2017.**Source(s):**
National Center for Science and Engineering Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.