

TABLE 1-2c

Sex of graduate students, postdoctoral appointees, and doctorate-holding nonfaculty researchers in engineering: 1977–2022

(Number and percent)

Year	Graduate students					Postdoctoral appointees					Doctorate-holding nonfaculty researchers				
	Total	Male		Female		Total	Male		Female		Total	Male		Female	
		Number	Percent	Number	Percent		Number	Percent	Number	Percent		Number	Percent	Number	Percent
1977	68,757	65,051	94.6	3,706	5.4	na	na	na	na	na	na	na	na	na	na
1978	67,787	NA	NA	NA	NA	na	na	na	na	na	na	na	na	na	na
1979	71,808	65,921	91.8	5,887	8.2	1,067	1,017	95.3	50	4.7	273	260	95.2	13	4.8
1980	74,335	67,995	91.5	6,340	8.5	981	916	93.4	65	6.6	423	398	94.1	25	5.9
1981	79,585	71,838	90.3	7,747	9.7	1,040	958	92.1	82	7.9	503	471	93.6	32	6.4
1982	83,720	74,943	89.5	8,777	10.5	980	896	91.4	84	8.6	670	638	95.2	32	4.8
1983	91,146	81,337	89.2	9,809	10.8	1,108	1,019	92.0	89	8.0	631	596	94.5	35	5.5
1984	92,739	82,440	88.9	10,299	11.1	1,203	1,119	93.0	84	7.0	589	554	94.1	35	5.9
1985	96,018	84,935	88.5	11,083	11.5	1,356	1,255	92.6	101	7.4	615	564	91.7	51	8.3
1986	101,905	89,532	87.9	12,373	12.1	1,405	1,273	90.6	132	9.4	521	476	91.4	45	8.6
1987	103,983	91,012	87.5	12,971	12.5	1,446	1,297	89.7	149	10.3	443	399	90.1	44	9.9
1988	102,854	89,726	87.2	13,128	12.8	1,690	1,518	89.8	172	10.2	566	515	91.0	51	9.0
1989	104,065	90,457	86.9	13,608	13.1	1,928	1,750	90.8	178	9.2	581	525	90.4	56	9.6
1990	107,658	92,979	86.4	14,679	13.6	1,950	1,744	89.4	206	10.6	609	553	90.8	56	9.2
1991	113,535	97,837	86.2	15,698	13.8	2,262	2,024	89.5	238	10.5	659	600	91.0	59	9.0
1992	118,039	100,819	85.4	17,220	14.6	2,369	2,118	89.4	251	10.6	737	667	90.5	70	9.5
1993	116,872	99,184	84.9	17,688	15.1	2,446	2,164	88.5	282	11.5	805	728	90.4	77	9.6
1994	113,024	94,974	84.0	18,050	16.0	2,606	2,272	87.2	334	12.8	825	734	89.0	91	11.0
1995	107,201	89,188	83.2	18,013	16.8	2,648	2,327	87.9	321	12.1	789	701	88.8	88	11.2
1996	103,224	84,970	82.3	18,254	17.7	2,677	2,362	88.2	315	11.8	731	646	88.4	85	11.6
1997	101,148	82,428	81.5	18,720	18.5	2,971	2,625	88.4	346	11.6	848	733	86.4	115	13.6
1998	100,038	81,050	81.0	18,988	19.0	2,853	2,470	86.6	383	13.4	810	721	89.0	89	11.0
1999	101,691	81,804	80.4	19,887	19.6	3,196	2,727	85.3	469	14.7	940	815	86.7	125	13.3
2000	104,112	83,366	80.1	20,746	19.9	3,313	2,840	85.7	473	14.3	896	783	87.4	113	12.6
2001	109,493	87,236	79.7	22,257	20.3	3,152	2,666	84.6	486	15.4	801	691	86.3	110	13.7
2002	119,668	94,701	79.1	24,967	20.9	3,566	2,963	83.1	603	16.9	903	774	85.7	129	14.3
2003	127,377	99,790	78.3	27,587	21.7	3,810	3,207	84.2	603	15.8	952	816	85.7	136	14.3
2004	123,566	96,294	77.9	27,272	22.1	3,949	3,245	82.2	704	17.8	1,043	924	88.6	119	11.4
2005	120,565	93,670	77.7	26,895	22.3	4,166	3,436	82.5	730	17.5	946	824	87.1	122	12.9
2006	123,041	95,097	77.3	27,944	22.7	4,642	3,819	82.3	823	17.7	1,118	974	87.1	144	12.9
2007old ^a	130,255	100,281	77.0	29,974	23.0	4,908	4,073	83.0	835	17.0	1,298	1,104	85.1	194	14.9
2007new ^a	131,676	101,204	76.9	30,472	23.1	4,942	4,099	82.9	843	17.1	1,310	1,116	85.2	194	14.8
2008	137,856	106,319	77.1	31,537	22.9	5,462	4,359	79.8	1,103	20.2	1,419	1,169	82.4	250	17.6
2009	144,677	111,359	77.0	33,318	23.0	6,416	5,031	78.4	1,385	21.6	1,737	1,451	83.5	286	16.5
2010 ^{b,c}	149,241	114,788	76.9	34,453	23.1	6,969	5,479	78.6	1,490	21.4	2,406	1,971	81.9	435	18.1
2011 ^c	146,501	112,760	77.0	33,741	23.0	6,786	5,287	77.9	1,499	22.1	2,312	1,895	82.0	417	18.0
2012	148,385	113,834	76.7	34,551	23.3	7,103	5,514	77.6	1,589	22.4	2,497	2,023	81.0	474	19.0
2013	153,049	116,651	76.2	36,398	23.8	7,106	5,518	77.7	1,588	22.3	2,494	1,970	79.0	524	21.0
2014old ^d	162,013	123,056	76.0	38,957	24.0	7,292	5,650	77.5	1,642	22.5	2,744	2,148	78.3	596	21.7
2014new ^d	164,488	124,798	75.9	39,690	24.1	7,307	5,665	77.5	1,642	22.5	2,745	2,149	78.3	596	21.7
2015	169,354	128,845	76.1	40,509	23.9	7,656	5,959	77.8	1,697	22.2	2,929	2,297	78.4	632	21.6
2016	168,443	127,088	75.4	41,355	24.6	7,796	6,074	77.9	1,722	22.1	3,155	2,438	77.3	717	22.7
2017old ^e	166,819	125,105	75.0	41,714	25.0	7,929	6,157	77.7	1,772	22.3	na	na	na	na	na
2017new ^e	165,581	124,749	75.3	40,832	24.7	7,839	6,087	77.7	1,752	22.3	3,274	2,530	77.3	744	22.7
2018	163,301	121,935	74.7	41,366	25.3	7,914	6,046	76.4	1,868	23.6	3,570	2,749	77.0	821	23.0
2019	164,004	120,821	73.7	43,183	26.3	8,266	6,282	76.0	1,984	24.0	3,909	2,990	76.5	919	23.5
2020	157,729	115,133	73.0	42,596	27.0	8,462	6,360	75.2	2,102	24.8	3,921	3,021	77.0	900	23.0
2021	168,050	121,487	72.3	46,563	27.7	8,340	6,144	73.7	2,196	26.3	3,992	3,030	75.9	962	24.1

TABLE 1-2c

Sex of graduate students, postdoctoral appointees, and doctorate-holding nonfaculty researchers in engineering: 1977–2022

(Number and percent)

Year	Graduate students					Postdoctoral appointees					Doctorate-holding nonfaculty researchers				
	Total	Male		Female		Total	Male		Female		Total	Male		Female	
		Number	Percent	Number	Percent		Number	Percent	Number	Percent		Number	Percent	Number	Percent
2022	176,000	126,920	72.1	49,080	27.9	8,335	6,047	72.5	2,288	27.5	4,355	3,322	76.3	1,033	23.7
Master's students															
2017new ^e	96,756	73,410	75.9	23,346	24.1	na	na	na	na	na	na	na	na	na	na
2018	93,064	70,039	75.3	23,025	24.7	na	na	na	na	na	na	na	na	na	na
2019	91,939	68,076	74.0	23,863	26.0	na	na	na	na	na	na	na	na	na	na
2020	86,450	63,514	73.5	22,936	26.5	na	na	na	na	na	na	na	na	na	na
2021	95,126	69,461	73.0	25,665	27.0	na	na	na	na	na	na	na	na	na	na
2022	103,020	75,157	73.0	27,863	27.0	na	na	na	na	na	na	na	na	na	na
Doctoral students															
2017new ^e	68,825	51,339	74.6	17,486	25.4	na	na	na	na	na	na	na	na	na	na
2018	70,237	51,896	73.9	18,341	26.1	na	na	na	na	na	na	na	na	na	na
2019	72,065	52,745	73.2	19,320	26.8	na	na	na	na	na	na	na	na	na	na
2020	71,279	51,619	72.4	19,660	27.6	na	na	na	na	na	na	na	na	na	na
2021	72,924	52,026	71.3	20,898	28.7	na	na	na	na	na	na	na	na	na	na
2022	72,980	51,763	70.9	21,217	29.1	na	na	na	na	na	na	na	na	na	na

na = not applicable; master's and doctoral students were not reported separately until 2017, and data on postdoctoral appointees (postdocs) and nonfaculty researchers (NFRs) were not collected until 1979. NA = not available; master's-granting institutions were not surveyed in 1978, and the survey of doctorate-granting institutions did not collect data by sex.

^a 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.

^b In 2010, the postdoc and 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/>.

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

^d 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, and 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>.

^e As part of the 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. Due to changes in reporting, NFR estimates for 2017old are not available.

Note(s):

Percentages may not add to total because of rounding.

Source(s):

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