

TABLE 1-3c

Citizenship of graduate students and postdoctoral appointees in engineering: 1980–2023

(Number and percent)

Year	Graduate students					Postdoctoral appointees				
	Total	U.S. citizens and permanent residents		Temporary visa holders		Total	U.S. citizens and permanent residents		Temporary visa holders	
		Number	Percent	Number	Percent		Number	Percent	Number	Percent
1980	74,335	56,438	75.9	17,897	24.1	981	303	30.9	678	69.1
1981	79,585	59,898	75.3	19,687	24.7	1,040	332	31.9	708	68.1
1982	83,720	58,656	70.1	25,064	29.9	980	323	33.0	657	67.0
1983	91,146	63,649	69.8	27,497	30.2	1,108	414	37.4	694	62.6
1984	92,739	64,832	69.9	27,907	30.1	1,203	439	36.5	764	63.5
1985	96,018	67,187	70.0	28,831	30.0	1,356	443	32.7	913	67.3
1986	101,905	69,949	68.6	31,956	31.4	1,405	460	32.7	945	67.3
1987	103,983	70,594	67.9	33,389	32.1	1,446	497	34.4	949	65.6
1988	102,854	67,617	65.7	35,237	34.3	1,690	588	34.8	1,102	65.2
1989	104,065	67,365	64.7	36,700	35.3	1,928	657	34.1	1,271	65.9
1990	107,658	69,454	64.5	38,204	35.5	1,950	613	31.4	1,337	68.6
1991	113,535	72,181	63.6	41,354	36.4	2,262	655	29.0	1,607	71.0
1992	118,039	76,569	64.9	41,470	35.1	2,369	767	32.4	1,602	67.6
1993	116,872	77,577	66.4	39,295	33.6	2,446	843	34.5	1,603	65.5
1994	113,024	76,018	67.3	37,006	32.7	2,606	1,018	39.1	1,588	60.9
1995	107,201	71,717	66.9	35,484	33.1	2,648	999	37.7	1,649	62.3
1996	103,224	68,168	66.0	35,056	34.0	2,677	1,050	39.2	1,627	60.8
1997	101,148	64,642	63.9	36,506	36.1	2,971	1,089	36.7	1,882	63.3
1998	100,038	62,249	62.2	37,789	37.8	2,853	950	33.3	1,903	66.7
1999	101,691	60,188	59.2	41,503	40.8	3,196	1,018	31.9	2,178	68.1
2000	104,112	56,651	54.4	47,461	45.6	3,313	1,069	32.3	2,244	67.7
2001	109,493	56,890	52.0	52,603	48.0	3,152	965	30.6	2,187	69.4
2002	119,668	61,277	51.2	58,391	48.8	3,566	1,117	31.3	2,449	68.7
2003	127,377	67,310	52.8	60,067	47.2	3,810	1,133	29.7	2,677	70.3
2004	123,566	66,379	53.7	57,187	46.3	3,949	1,297	32.8	2,652	67.2
2005	120,565	66,551	55.2	54,014	44.8	4,166	1,413	33.9	2,753	66.1
2006	123,041	67,698	55.0	55,343	45.0	4,642	1,538	33.1	3,104	66.9
2007old ^a	130,255	70,357	54.0	59,898	46.0	4,908	1,591	32.4	3,317	67.6
2007new ^a	131,676	71,299	54.1	60,377	45.9	4,942	1,594	32.3	3,348	67.7
2008	137,856	74,251	53.9	63,605	46.1	5,462	1,899	34.8	3,563	65.2
2009	144,677	78,642	54.4	66,035	45.6	6,416	2,375	37.0	4,041	63.0
2010 ^{b,c}	149,241	82,295	55.1	66,946	44.9	6,969	2,637	37.8	4,332	62.2
2011 ^c	146,501	79,314	54.1	67,187	45.9	6,786	2,634	38.8	4,152	61.2
2012	148,385	77,301	52.1	71,084	47.9	7,103	2,738	38.5	4,365	61.5

TABLE 1-3c

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(Number and percent)

Year	Graduate students					Postdoctoral appointees				
	Total	U.S. citizens and permanent residents		Temporary visa holders		Total	U.S. citizens and permanent residents		Temporary visa holders	
		Number	Percent	Number	Percent		Number	Percent	Number	Percent
2013	153,049	75,662	49.4	77,387	50.6	7,106	2,706	38.1	4,400	61.9
2014old ^d	162,013	73,268	45.2	88,745	54.8	7,292	2,789	38.2	4,503	61.8
2014new ^d	164,488	74,013	45.0	90,475	55.0	7,307	2,792	38.2	4,515	61.8
2015	169,354	73,452	43.4	95,902	56.6	7,656	2,521	32.9	5,135	67.1
2016	168,443	73,039	43.4	95,404	56.6	7,796	2,590	33.2	5,206	66.8
2017old ^e	166,819	76,182	45.7	90,637	54.3	7,929	2,662	33.6	5,267	66.4
2017new ^e	165,581	75,160	45.4	90,421	54.6	7,839	2,650	33.8	5,189	66.2
2018	163,301	76,770	47.0	86,531	53.0	7,914	2,656	33.6	5,258	66.4
2019	164,004	79,982	48.8	84,022	51.2	8,266	2,689	32.5	5,577	67.5
2020	157,729	84,403	53.5	73,326	46.5	8,462	2,793	33.0	5,669	67.0
2021	168,050	88,665	52.8	79,385	47.2	8,340	2,907	34.9	5,433	65.1
2022	176,000	85,274	48.5	90,726	51.5	8,335	2,839	34.1	5,496	65.9
2023	175,559	83,469	47.5	92,090	52.5	9,051	2,916	32.2	6,135	67.8
Master's students										
2017new ^e	96,756	46,470	48.0	50,286	52.0	na	na	na	na	na
2018	93,064	47,813	51.4	45,251	48.6	na	na	na	na	na
2019	91,939	49,873	54.2	42,066	45.8	na	na	na	na	na
2020	86,450	53,643	62.1	32,807	37.9	na	na	na	na	na
2021	95,126	57,033	60.0	38,093	40.0	na	na	na	na	na
2022	103,020	53,603	52.0	49,417	48.0	na	na	na	na	na
2023	100,567	51,528	51.2	49,039	48.8	na	na	na	na	na
Doctoral students										
2017new ^e	68,825	28,690	41.7	40,135	58.3	na	na	na	na	na
2018	70,237	28,957	41.2	41,280	58.8	na	na	na	na	na
2019	72,065	30,109	41.8	41,956	58.2	na	na	na	na	na
2020	71,279	30,760	43.2	40,519	56.8	na	na	na	na	na
2021	72,924	31,632	43.4	41,292	56.6	na	na	na	na	na
2022	72,980	31,671	43.4	41,309	56.6	na	na	na	na	na
2023	74,992	31,941	42.6	43,051	57.4	na	na	na	na	na

na = not applicable; master's and doctoral students were not reported separately until 2017.

^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 postdoctoral appointee (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/>.

^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.

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.