

TABLE 1-10a

Graduate students in engineering detailed fields: 1975–2019

(Number)

Year	Total	Aerospace, aeronautical, and astronautical engineering	Agricultural engineering	Architecture ^{a,b}	Bioengineering and biomedical engineering	Biological and biosystems engineering	Chemical engineering	Civil engineering ^b	Electrical, electronics, and communications engineering	Engineering mechanics, physics, and science	Industrial and manufacturing engineering	Mechanical engineering	Metallurgical and materials engineering ^a	Mining engineering	Nanotechnology ^a	Nuclear engineering	Petroleum engineering	Engineering nec
1975	68,332	1,670	631	na	883	na	5,095	12,560	16,320	1,746	11,663	8,601	2,376	412	NA	1,636	302	4,437
1976	66,723	1,477	690	na	895	na	5,271	11,995	15,926	1,759	10,687	8,313	2,398	515	NA	1,600	376	4,821
1977	68,757	1,518	754	na	855	na	5,273	12,335	17,406	1,737	10,438	8,722	2,585	452	NA	1,491	379	4,812
1978 ^c	67,787	1,463	788	na	920	na	5,431	12,358	17,127	1,844	9,494	8,638	2,592	416	NA	1,404	428	4,884
1979	71,808	1,481	787	na	1,004	na	5,685	12,822	17,715	1,681	10,729	9,251	2,778	389	NA	1,318	424	5,744
1980	74,335	1,737	789	na	964	na	6,038	13,097	19,132	1,796	9,698	9,888	2,934	413	NA	1,241	503	6,105
1981	79,585	1,883	842	na	1,017	na	6,526	14,089	20,113	1,965	9,737	10,618	3,152	462	NA	1,283	521	7,377
1982	83,720	1,941	911	na	1,085	na	7,222	14,122	21,927	2,130	9,577	11,467	3,154	449	NA	1,301	586	7,848
1983	91,146	2,305	1,001	na	1,220	na	7,590	14,910	25,295	2,261	9,247	12,911	3,477	524	NA	1,203	737	8,465
1984	92,739	2,340	989	na	1,315	na	7,400	15,192	26,388	2,153	9,282	13,855	3,673	502	NA	1,234	744	7,672
1985	96,018	2,538	983	na	1,335	na	7,177	14,902	28,203	2,098	10,525	14,157	3,959	489	NA	1,220	782	7,650
1986	101,905	2,804	1,118	na	1,487	na	7,043	14,976	29,969	2,362	11,569	15,713	4,236	512	NA	1,265	747	8,104
1987	103,983	3,015	1,126	na	1,628	na	7,141	14,682	31,399	2,343	12,353	16,366	4,397	513	NA	1,279	818	6,923
1988	102,854	3,223	1,096	na	1,708	na	6,643	14,811	32,035	2,386	11,575	16,151	4,381	489	NA	1,303	742	6,311
1989	104,065	3,524	1,092	na	1,867	na	6,482	14,909	33,257	2,077	11,333	16,265	4,635	418	NA	1,323	665	6,218
1990	107,658	3,934	985	na	2,097	na	6,768	15,542	33,722	2,020	11,555	16,879	4,983	437	NA	1,278	670	6,788
1991	113,535	4,120	1,023	na	2,199	na	7,157	17,398	35,111	2,154	12,996	17,730	5,203	489	NA	1,282	705	5,968
1992	118,039	4,036	1,053	na	2,492	na	7,433	19,572	36,428	2,218	13,826	18,637	5,550	437	NA	1,286	737	4,334
1993	116,872	3,940	1,053	na	2,640	na	7,554	19,583	35,290	2,180	13,905	18,477	5,410	427	NA	1,306	725	4,382
1994	113,024	3,715	1,095	na	2,716	na	7,639	19,925	33,067	2,089	13,992	17,761	5,228	424	NA	1,246	624	3,503
1995	107,201	3,343	1,076	na	2,693	na	7,452	19,218	30,861	1,955	13,475	16,363	4,956	373	NA	1,154	610	3,672
1996	103,224	3,208	1,055	na	2,689	na	7,408	18,528	29,941	1,751	12,675	15,509	4,747	371	NA	980	562	3,800
1997	101,148	3,083	991	na	2,797	na	7,288	17,193	30,787	1,647	11,957	15,045	4,688	348	NA	868	561	3,895
1998	100,038	3,137	975	na	2,855	na	7,093	16,517	31,384	1,701	11,221	14,696	4,680	304	NA	821	571	4,083
1999	101,691	3,349	986	na	3,069	na	6,883	16,226	31,822	1,627	11,803	14,956	4,481	328	NA	830	642	4,689
2000	104,112	3,407	943	na	3,197	na	7,056	16,451	33,611	1,632	12,119	15,235	4,377	287	NA	792	627	4,378
2001	109,493	3,451	947	na	3,599	na	6,913	16,665	36,100	1,798	12,940	15,852	4,721	240	NA	801	656	4,810
2002	119,668	3,685	952	na	4,338	na	7,414	17,713	39,948	2,121	14,033	17,139	4,992	267	NA	795	766	5,505
2003	127,377	4,048	1,058	na	5,301	na	7,516	18,890	41,763	2,240	14,313	18,393	5,131	278	NA	885	849	6,712
2004	123,566	4,089	1,041	na	5,807	na	7,452	18,561	38,995	2,198	13,852	17,852	5,059	308	NA	971	845	6,536
2005	120,565	4,170	1,059	na	6,067	na	7,173	18,114	37,450	1,951	13,650	17,373	5,160	279	NA	1,013	808	6,298
2006	123,041	4,482	1,073	na	6,482	na	7,261	17,802	38,265	2,046	13,829	17,919	5,268	244	NA	1,099	813	6,458
2007 ^{old} ^b	130,255	4,616	1,126	na	6,881	na	7,383	19,867	40,207	1,843	14,290	18,366	5,365	307	na	1,208	1,014	7,782
2007 ^{new} ^b	131,676	4,616	1,126	4,601	6,904	na	7,584	16,071	40,588	1,806	14,474	18,347	5,314	222	na	1,180	1,014	7,829

TABLE 1-10a

Graduate students in engineering detailed fields: 1975–2019

(Number)

Year	Total	Aerospace, aeronautical, and astronautical engineering	Agricultural engineering	Architecture ^{a,b}	Bioengineering and biomedical engineering	Biological and biosystems engineering	Chemical engineering	Civil engineering ^b	Electrical, electronics, and communications engineering	Engineering mechanics, physics, and science	Industrial and manufacturing engineering	Mechanical engineering	Metallurgical and materials engineering ^a	Mining engineering	Nanotechnology ^a	Nuclear engineering	Petroleum engineering	Engineering nec
2008	137,856	4,902	1,233	5,905	7,339	na	7,892	16,931	41,164	2,099	15,692	19,585	5,539	290	na	1,201	1,009	7,075
2009	144,677	5,266	1,303	6,804	7,904	na	8,188	18,638	41,218	2,168	15,825	21,243	5,863	312	na	1,243	1,190	7,512
2010	149,241	5,540	1,457	6,795	8,497	na	8,668	19,559	41,336	2,071	15,205	22,509	6,274	419	na	1,459	1,295	8,157
2011	146,501	5,691	1,656	3,111	9,175	na	8,828	19,596	41,580	2,101	14,494	21,883	6,649	500	na	1,499	1,301	8,437
2012	148,385	5,069	1,552	2,363	9,157	na	9,222	19,922	42,347	2,227	14,469	23,088	6,985	356	na	1,513	1,525	8,590
2013	153,049	5,181	1,642	2,176	9,198	na	9,698	20,110	45,562	2,142	14,363	24,087	7,144	357	na	1,459	1,609	8,321
2014old ^d	162,013	5,116	1,717	1,812	9,510	na	9,853	20,660	50,051	2,151	14,659	25,508	7,473	396	na	1,467	2,056	9,584
2014new ^d	164,488	5,116	1,740	1,817	9,510	na	9,870	20,789	51,909	2,162	14,845	25,651	7,518	396	na	1,467	2,056	9,642
2015	169,354	5,345	1,630	1,565	9,761	na	10,008	20,978	52,940	1,708	16,284	27,314	7,741	407	na	1,449	2,021	10,203
2016	168,443	5,416	1,626	1,671	10,208	na	10,187	20,569	50,062	1,756	16,200	27,898	8,106	378	na	1,466	1,862	11,038
2017old ^a	166,819	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
2017new ^a	165,581	5,708	1,186	ne	10,882	234	10,166	21,132	47,752	2,136	15,905	27,428	6,541	541	139	1,442	1,578	12,811
2018	163,301	5,848	1,032	ne	11,480	283	10,011	20,461	46,227	2,157	15,987	26,593	6,689	527	118	1,453	1,403	13,032
2019	164,004	6,255	1,156	ne	12,050	308	9,689	19,625	46,754	2,299	15,674	26,108	6,590	493	195	1,449	1,249	14,110
Master's students																		
2017new ^a	96,756	3,322	505	ne	4,037	71	3,292	13,506	29,816	679	12,272	16,279	2,115	312	44	444	916	9,146
2018	93,064	3,342	371	ne	4,202	80	3,061	12,729	28,108	729	12,389	15,434	2,079	316	47	407	754	9,016
2019	91,939	3,701	494	ne	4,335	89	2,632	11,873	28,177	852	11,912	14,861	1,974	292	49	418	642	9,638
Doctoral students																		
2017new ^a	68,825	2,386	681	ne	6,845	163	6,874	7,626	17,936	1,457	3,633	11,149	4,426	229	95	998	662	3,665
2018	70,237	2,506	661	ne	7,278	203	6,950	7,732	18,119	1,428	3,598	11,159	4,610	211	71	1,046	649	4,016
2019	72,065	2,554	662	ne	7,715	219	7,057	7,752	18,577	1,447	3,762	11,247	4,616	201	146	1,031	607	4,472

na = not applicable; data were not collected at this level of detail in the year shown. NA = not available; nanotechnology was not collected until 2007. ne = not eligible.

nec = not elsewhere classified.

^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. Materials sciences was reported as part of metallurgical and materials engineering from 2011–16, starting in 2017 materials sciences is reported as part of physical sciences, nanotechnology was reported as part of the science detailed field multidisciplinary and interdisciplinary studies from 2007–16, and starting in 2017 architecture was removed.

^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. Architecture is reported as a separate field of engineering in 2007new; data were reported under civil engineering in 2007old and previous years. See appendix A in <https://www.nsf.gov/statistics/nsf10307/> for more detail.

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

^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, 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):

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.