

TABLE 1-5a

Enrollment intensity of graduate students in science, engineering, and health, by degree program: 1975–2022

(Number and percent)

Year	All science, engineering, and health graduate students					All science graduate students					All engineering graduate students					All health graduate students				
	Total	Full time		Part time		Total	Full time		Part time		Total	Full time		Part time		Total	Full time		Part time	
		Number	Percent	Number	Percent		Number	Percent	Number	Percent		Number	Percent	Number	Percent		Number	Percent	Number	Percent
1975	328,510	219,648	66.9	108,862	33.1	234,649	164,437	70.1	70,212	29.9	68,332	37,823	55.4	30,509	44.6	25,529	17,388	68.1	8,141	31.9
1976	333,716	223,412	66.9	110,304	33.1	238,675	167,867	70.3	70,808	29.7	66,723	36,948	55.4	29,775	44.6	28,318	18,597	65.7	9,721	34.3
1977	345,374	226,738	65.6	118,636	34.4	242,932	169,184	69.6	73,748	30.4	68,757	37,227	54.1	31,530	45.9	33,685	20,327	60.3	13,358	39.7
1978 ^a	339,912	223,030	65.6	116,882	34.4	236,465	164,151	69.4	72,314	30.6	67,787	37,586	55.4	30,201	44.6	35,660	21,293	59.7	14,367	40.3
1979	357,578	231,760	64.8	125,818	35.2	247,235	168,959	68.3	78,276	31.7	71,808	40,041	55.8	31,767	44.2	38,535	22,760	59.1	15,775	40.9
1980	367,078	238,416	64.9	128,662	35.1	251,265	171,767	68.4	79,498	31.6	74,335	42,650	57.4	31,685	42.6	41,478	23,999	57.9	17,479	42.1
1981	375,130	242,049	64.5	133,081	35.5	252,404	172,200	68.2	80,204	31.8	79,585	45,752	57.5	33,833	42.5	43,141	24,097	55.9	19,044	44.1
1982	382,291	244,757	64.0	137,534	36.0	255,146	172,090	67.4	83,056	32.6	83,720	49,784	59.5	33,936	40.5	43,425	22,883	52.7	20,542	47.3
1983	390,432	252,017	64.5	138,415	35.5	255,820	175,472	68.6	80,348	31.4	91,146	53,932	59.2	37,214	40.8	43,466	22,613	52.0	20,853	48.0
1984	394,670	253,922	64.3	140,748	35.7	256,903	175,766	68.4	81,137	31.6	92,739	55,191	59.5	37,548	40.5	45,028	22,965	51.0	22,063	49.0
1985	404,021	257,287	63.7	146,734	36.3	261,973	178,020	68.0	83,953	32.0	96,018	55,918	58.2	40,100	41.8	46,030	23,349	50.7	22,681	49.3
1986	415,520	266,168	64.1	149,352	35.9	266,077	182,532	68.6	83,545	31.4	101,905	60,197	59.1	41,708	40.9	47,538	23,439	49.3	24,099	50.7
1987	421,497	271,056	64.3	150,441	35.7	269,256	185,143	68.8	84,113	31.2	103,983	61,962	59.6	42,021	40.4	48,258	23,951	49.6	24,307	50.4
1988	424,523	275,127	64.8	149,396	35.2	272,309	187,525	68.9	84,784	31.1	102,854	63,032	61.3	39,822	38.7	49,360	24,570	49.8	24,790	50.2
1989	434,478	282,648	65.1	151,830	34.9	278,577	192,424	69.1	86,153	30.9	104,065	64,396	61.9	39,669	38.1	51,836	25,828	49.8	26,008	50.2
1990	452,113	292,782	64.8	159,331	35.2	289,383	199,313	68.9	90,070	31.1	107,658	66,010	61.3	41,648	38.7	55,072	27,459	49.9	27,613	50.1
1991	471,212	307,010	65.2	164,202	34.8	299,057	206,036	68.9	93,021	31.1	113,535	71,034	62.6	42,501	37.4	58,620	29,940	51.1	28,680	48.9
1992	493,522	322,555	65.4	170,967	34.6	312,478	215,965	69.1	96,513	30.9	118,039	74,443	63.1	43,596	36.9	63,005	32,147	51.0	30,858	49.0
1993	504,304	329,644	65.4	174,660	34.6	318,851	220,097	69.0	98,754	31.0	116,872	73,808	63.2	43,064	36.8	68,581	35,739	52.1	32,842	47.9
1994	504,399	332,088	65.8	172,311	34.2	318,118	221,409	69.6	96,709	30.4	113,024	71,570	63.3	41,454	36.7	73,257	39,109	53.4	34,148	46.6
1995	499,640	329,283	65.9	170,357	34.1	315,265	219,389	69.6	95,876	30.4	107,201	67,782	63.2	39,419	36.8	77,174	42,112	54.6	35,062	45.4
1996	494,079	328,536	66.5	165,543	33.5	311,957	218,180	69.9	93,777	30.1	103,224	65,859	63.8	37,365	36.2	78,898	44,497	56.4	34,401	43.6
1997	487,208	327,289	67.2	159,919	32.8	306,482	214,981	70.1	91,501	29.9	101,148	65,688	64.9	35,460	35.1	79,578	46,620	58.6	32,958	41.4
1998	485,627	327,389	67.4	158,238	32.6	304,818	213,508	70.0	91,310	30.0	100,038	65,435	65.4	34,603	34.6	80,771	48,446	60.0	32,325	40.0
1999	493,256	334,423	67.8	158,833	32.2	309,491	215,870	69.8	93,621	30.2	101,691	68,023	66.9	33,668	33.1	82,074	50,530	61.6	31,544	38.4
2000	493,311	341,283	69.2	152,028	30.8	309,424	219,079	70.8	90,345	29.2	104,112	72,276	69.4	31,836	30.6	79,775	49,928	62.6	29,847	37.4
2001	509,607	354,522	69.6	155,085	30.4	319,736	226,573	70.9	93,163	29.1	109,493	77,448	70.7	32,045	29.3	80,378	50,501	62.8	29,877	37.2
2002	540,404	378,991	70.1	161,413	29.9	335,166	240,020	71.6	95,146	28.4	119,668	85,452	71.4	34,216	28.6	85,570	53,519	62.5	32,051	37.5
2003	567,121	397,420	70.1	169,701	29.9	347,268	248,812	71.6	98,456	28.4	127,377	90,216	70.8	37,161	29.2	92,476	58,392	63.1	34,084	36.9
2004	574,463	402,573	70.1	171,890	29.9	352,307	253,574	72.0	98,733	28.0	123,566	86,955	70.4	36,611	29.6	98,590	62,044	62.9	36,546	37.1
2005	582,226	406,620	69.8	175,606	30.2	357,710	257,283	71.9	100,427	28.1	120,565	84,459	70.1	36,106	29.9	103,951	64,878	62.4	39,073	37.6
2006	597,643	419,015	70.1	178,628	29.9	363,246	261,984	72.1	101,262	27.9	123,041	87,818	71.4	35,223	28.6	111,356	69,213	62.2	42,143	37.8
2007old ^b	607,823	430,860	70.9	176,963	29.1	372,120	269,821	72.5	102,299	27.5	130,255	93,155	71.5	37,100	28.5	105,448	67,884	64.4	37,564	35.6

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(Number and percent)

Year	All science, engineering, and health graduate students					All science graduate students					All engineering graduate students					All health graduate students				
	Total	Full time		Part time		Total	Full time		Part time		Total	Full time		Part time		Total	Full time		Part time	
		Number	Percent	Number	Percent		Number	Percent	Number	Percent		Number	Percent	Number	Percent		Number	Percent	Number	Percent
2007 ^{new^b}	619,499	437,365	70.6	182,134	29.4	384,523	277,229	72.1	107,294	27.9	131,676	94,313	71.6	37,363	28.4	103,300	65,823	63.7	37,477	36.3
2008	631,489	449,613	71.2	181,876	28.8	391,419	285,305	72.9	106,114	27.1	137,856	98,255	71.3	39,601	28.7	102,214	66,053	64.6	36,161	35.4
2009	631,645	456,115	72.2	175,530	27.8	401,008	293,561	73.2	107,447	26.8	144,677	104,937	72.5	39,740	27.5	85,960	57,617	67.0	28,343	33.0
2010	632,652	461,185	72.9	171,467	27.1	407,291	299,315	73.5	107,976	26.5	149,241	109,792	73.6	39,449	26.4	76,120	52,078	68.4	24,042	31.6
2011	626,820	457,292	73.0	169,528	27.0	414,440	303,015	73.1	111,425	26.9	146,501	108,153	73.8	38,348	26.2	65,879	46,124	70.0	19,755	30.0
2012	627,243	459,498	73.3	167,745	26.7	413,033	304,795	73.8	108,238	26.2	148,385	109,589	73.9	38,796	26.1	65,825	45,114	68.5	20,711	31.5
2013	633,010	468,953	74.1	164,057	25.9	417,251	309,756	74.2	107,495	25.8	153,049	114,752	75.0	38,297	25.0	62,710	44,445	70.9	18,265	29.1
2014 ^{old^c}	650,738	484,880	74.5	165,858	25.5	425,148	317,881	74.8	107,267	25.2	162,013	122,642	75.7	39,371	24.3	63,577	44,357	69.8	19,220	30.2
2014 ^{new^c}	666,586	492,170	73.8	174,416	26.2	437,395	322,714	73.8	114,681	26.2	164,488	124,382	75.6	40,106	24.4	64,703	45,074	69.7	19,629	30.3
2015	685,397	506,262	73.9	179,135	26.1	448,654	331,293	73.8	117,361	26.2	169,354	128,112	75.6	41,242	24.4	67,389	46,857	69.5	20,532	30.5
2016	684,825	508,773	74.3	176,052	25.7	452,046	334,770	74.1	117,276	25.9	168,443	128,203	76.1	40,240	23.9	64,336	45,800	71.2	18,536	28.8
2017 ^{old^d}	684,096	498,619	72.9	185,477	27.1	450,343	327,596	72.7	122,747	27.3	166,819	124,363	74.5	42,456	25.5	66,934	46,660	69.7	20,274	30.3
2017 ^{new^d}	649,112	480,788	74.1	168,324	25.9	415,568	310,809	74.8	104,759	25.2	165,581	123,107	74.3	42,474	25.7	67,963	46,872	69.0	21,091	31.0
2018	668,307	491,449	73.5	176,858	26.5	432,255	321,063	74.3	111,192	25.7	163,301	120,521	73.8	42,780	26.2	72,751	49,865	68.5	22,886	31.5
2019	690,117	502,442	72.8	187,675	27.2	453,691	331,673	73.1	122,018	26.9	164,004	121,117	73.9	42,887	26.1	72,422	49,652	68.6	22,770	31.4
2020	697,813	491,515	70.4	206,298	29.6	464,646	330,541	71.1	134,105	28.9	157,729	111,240	70.5	46,489	29.5	75,438	49,734	65.9	25,704	34.1
2021	760,156	543,823	71.5	216,333	28.5	509,784	366,207	71.8	143,577	28.2	168,050	122,853	73.1	45,197	26.9	82,322	54,763	66.5	27,559	33.5
2022	798,534	579,301	72.5	219,233	27.5	538,166	392,192	72.9	145,974	27.1	176,000	130,447	74.1	45,553	25.9	84,368	56,662	67.2	27,706	32.8
Master's students																				
2017 ^{new^d}	378,587	245,010	64.7	133,577	35.3	229,169	145,689	63.6	83,480	36.4	96,756	63,532	65.7	33,224	34.3	52,662	35,789	68.0	16,873	32.0
2018	391,211	248,552	63.5	142,659	36.5	241,327	151,059	62.6	90,268	37.4	93,064	59,228	63.6	33,836	36.4	56,820	38,265	67.3	18,555	32.7
2019	408,228	254,532	62.4	153,696	37.6	259,795	158,704	61.1	101,091	38.9	91,939	57,723	62.8	34,216	37.2	56,494	38,105	67.4	18,389	32.6
2020	414,478	243,859	58.8	170,619	41.2	267,904	155,502	58.0	112,402	42.0	86,450	49,179	56.9	37,271	43.1	60,124	39,178	65.2	20,946	34.8
2021	466,613	286,954	61.5	179,659	38.5	305,796	184,719	60.4	121,077	39.6	95,126	58,790	61.8	36,336	38.2	65,691	43,445	66.1	22,246	33.9
2022	501,311	319,618	63.8	181,693	36.2	331,983	208,749	62.9	123,234	37.1	103,020	66,427	64.5	36,593	35.5	66,308	44,442	67.0	21,866	33.0
Doctoral students																				
2017 ^{new^d}	270,525	235,778	87.2	34,747	12.8	186,399	165,120	88.6	21,279	11.4	68,825	59,575	86.6	9,250	13.4	15,301	11,083	72.4	4,218	27.6
2018	277,096	242,897	87.7	34,199	12.3	190,928	170,004	89.0	20,924	11.0	70,237	61,293	87.3	8,944	12.7	15,931	11,600	72.8	4,331	27.2
2019	281,889	247,910	87.9	33,979	12.1	193,896	172,969	89.2	20,927	10.8	72,065	63,394	88.0	8,671	12.0	15,928	11,547	72.5	4,381	27.5
2020	283,335	247,656	87.4	35,679	12.6	196,742	175,039	89.0	21,703	11.0	71,279	62,061	87.1	9,218	12.9	15,314	10,556	68.9	4,758	31.1
2021	293,543	256,869	87.5	36,674	12.5	203,988	181,488	89.0	22,500	11.0	72,924	64,063	87.8	8,861	12.2	16,631	11,318	68.1	5,313	31.9

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	Total	Full time		Part time		Total	Full time		Part time		Total	Full time		Part time		Total	Full time		Part time	
		Number	Percent	Number	Percent		Number	Percent	Number	Percent		Number	Percent	Number	Percent		Number	Percent		
2022	297,223	259,683	87.4	37,540	12.6	206,183	183,443	89.0	22,740	11.0	72,980	64,020	87.7	8,960	12.3	18,060	12,220	67.7	5,840	32.3

^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, 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>.

^d 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. Master's and doctoral students were not reported separately until 2017. Ethnicity and race data are available only for U.S. citizens and permanent residents. Graduate student data in this table include master's students in health sciences. For more information on the comparability of these counts to other NCSES published data, see the "Technical Notes."

Source(s):

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