

TABLE 16. Graduate students in science, engineering, and health in doctorate-granting institutions, by detailed field: 2005–11

Field	2005	2006	2007old ^a	2007new ^a	2008	2009	2010	2011
All surveyed fields	527,048	542,073	551,832	561,352	574,241	573,883	575,785	570,534
Science and engineering	436,320	445,037	457,931	469,517	482,711	497,223	508,114	511,759
Science	321,920	328,413	334,662	345,094	351,988	360,501	366,312	371,833
Agricultural sciences	12,271	12,133	12,285	12,548	13,099	14,110	14,561	15,078
Biological sciences	64,540	65,861	67,267	67,507	68,199	68,580	69,522	69,686
Anatomy	938	961	979	867	764	833	849	762
Biochemistry	5,720	5,713	5,867	5,761	5,365	5,158	5,190	5,030
Biology	13,115	13,789	13,548	13,220	13,888	14,005	14,103	13,840
Biometry/epidemiology	4,805	4,789	5,483	5,694	5,956	5,682	6,346	6,736
Biophysics	1,183	1,203	1,214	1,193	1,084	1,042	1,072	1,016
Botany	1,859	1,848	1,888	1,818	1,801	1,830	1,863	1,915
Cell biology	6,030	6,388	6,547	6,690	6,948	6,970	6,835	6,746
Ecology	2,019	2,019	2,015	1,896	1,896	1,634	1,713	1,589
Entomology/parasitology	1,126	1,114	1,078	1,078	1,079	1,079	1,116	1,119
Genetics	2,095	2,096	2,096	2,064	2,072	2,242	2,333	2,403
Microbiology/immunology/virology	5,377	5,307	5,279	5,177	5,035	4,931	4,859	4,980
Nutrition	4,416	4,659	4,665	4,305	4,638	4,754	4,867	4,605
Pathology	1,593	1,612	1,633	1,580	1,618	1,450	1,314	1,209
Pharmacology	3,114	2,985	3,030	3,013	3,005	3,163	3,101	3,053
Physiology	2,221	2,238	2,242	2,574	2,687	2,776	2,847	2,932
Zoology	1,261	1,143	1,081	1,105	923	873	894	1,058
Biological sciences, nec	7,668	7,997	8,622	9,472	9,440	10,158	10,220	10,693
Communication ^a	ne	ne	ne	6,026	7,030	7,951	8,219	9,002
Computer sciences	43,080	43,032	44,066	43,555	44,171	45,593	45,860	46,120
Earth, atmospheric, and ocean sciences	13,981	14,032	13,812	13,359	13,663	13,942	14,756	14,887
Atmospheric sciences	1,139	1,071	1,110	1,171	1,394	1,348	1,443	1,496
Geosciences	6,904	6,856	6,781	6,719	6,766	7,141	7,800	7,909
Oceanography	2,659	2,674	2,559	2,511	2,532	2,527	2,455	2,579
Earth/atmospheric/ocean sciences, nec	3,279	3,431	3,362	2,958	2,971	2,926	3,058	2,903
Family and consumer sciences/human sciences ^a	ne	ne	ne	2,491	3,007	3,084	3,491	3,790
Mathematical sciences	18,570	19,037	19,540	19,180	19,722	20,527	21,330	21,967
Mathematics/applied mathematics	14,572	15,004	15,207	14,841	14,894	15,679	16,029	16,541
Statistics	3,998	4,033	4,333	4,339	4,828	4,848	5,301	5,426
Multidisciplinary/interdisciplinary studies ^a	ne	ne	ne	3,693	4,686	5,511	6,742	5,785
Neuroscience ^a	na	na	na	1,561	1,980	2,316	2,798	4,088
Physical sciences	35,435	35,928	36,036	35,768	36,320	37,098	37,871	38,656
Astronomy	1,191	1,211	1,233	1,232	1,275	1,409	1,331	1,345
Chemistry	20,483	20,716	20,695	20,569	20,884	21,374	21,673	22,048
Physics	13,274	13,509	13,589	13,575	13,636	13,834	14,294	14,607
Physical sciences, nec	487	492	519	392	525	481	573	656
Psychology ^b	46,289	47,217	48,773	48,106	48,427	46,564	45,246	45,608
Clinical psychology	12,773	12,501	12,962	13,036	12,205	12,239	11,250	9,662
Psychology, general	12,126	12,133	13,281	13,013	13,133	11,841	11,248	14,748
Psychology, nec	21,390	22,583	22,530	22,057	23,089	22,484	22,748	21,198
Social sciences	87,754	91,173	92,883	91,300	91,684	95,225	95,916	97,166
Agricultural economics	2,121	2,151	2,120	1,983	2,126	2,215	2,171	2,090
Anthropology (cultural/social)	7,387	7,726	7,652	7,682	7,845	7,872	8,013	7,891
Economics (except agricultural)	11,160	11,438	11,659	11,928	12,275	13,200	13,450	13,940
Geography	4,259	4,228	4,089	4,089	4,148	4,196	4,401	4,542
History and philosophy of science	716	742	910	845	998	851	552	469
Linguistics	2,919	2,821	2,801	2,604	2,824	2,882	2,863	2,997
Political science	34,701	36,118	36,296	35,806	35,342	37,744	38,578	41,429
Sociology	8,135	8,214	8,239	8,148	8,531	8,528	8,695	8,578
Sociology/anthropology	825	818	808	659	626	553	305	268
Social sciences, nec	15,531	16,917	18,309	17,556	16,969	17,184	16,888	14,962

TABLE 16. Graduate students in science, engineering, and health in doctorate-granting institutions, by detailed field: 2005–11

Field	2005	2006	2007old ^a	2007new ^a	2008	2009	2010	2011
Engineering	114,400	116,624	123,269	124,423	130,723	136,722	141,802	139,926
Aerospace engineering	4,055	4,357	4,480	4,480	4,761	5,096	5,474	5,605
Agricultural engineering	1,059	1,073	1,126	1,126	1,233	1,303	1,457	1,655
Architecture ^a	na	na	na	4,483	5,760	6,661	6,647	3,085
Biomedical engineering	6,015	6,430	6,848	6,871	7,334	7,879	8,439	9,074
Chemical engineering	7,054	7,151	7,291	7,492	7,794	8,077	8,573	8,741
Civil engineering ^a	17,455	17,158	19,189	15,461	16,169	17,708	18,499	18,528
Electrical engineering	35,248	35,948	37,708	37,887	38,248	38,070	38,609	39,400
Engineering science	1,910	1,967	1,824	1,772	1,932	2,004	2,020	2,054
Industrial engineering	12,760	12,959	13,333	13,504	14,758	14,626	13,936	13,420
Mechanical engineering	16,681	17,156	17,834	17,815	18,723	20,201	21,519	20,988
Metallurgical/materials engineering	5,115	5,223	5,310	5,259	5,486	5,822	6,216	6,579
Mining engineering	265	238	296	211	283	302	408	498
Nuclear engineering	1,013	1,099	1,208	1,180	1,201	1,243	1,459	1,499
Petroleum engineering	806	808	1,006	1,006	1,000	1,184	1,289	1,292
Engineering, nec	4,964	5,057	5,816	5,876	6,041	6,546	7,257	7,508
Health ^b	90,728	97,036	93,901	91,835	91,530	76,660	67,671	58,775
Clinical medicine	20,403	22,425	23,573	21,686	22,803	22,670	24,068	25,358
Anesthesiology	1,042	1,042	589	589	294	163	66	8
Cardiology	33	32	26	26	45	45	48	57
Endocrinology	56	42	40	40	64	50	53	56
Gastroenterology	7	18	28	28	15	15	7	7
Hematology	13	14	9	9	8	11	6	1
Neurology ^a	2,763	2,959	3,358	1,751	1,462	1,323	1,056	219
Obstetrics/gynecology	21	54	81	81	83	89	79	100
Oncology/cancer research	331	341	355	264	260	272	232	255
Ophthalmology	394	414	407	379	1	1	5	2
Otorhinolaryngology	12	14	15	15	14	4	4	2
Pediatrics	278	284	302	302	207	186	211	132
Preventive medicine/community health	12,131	13,821	14,945	15,517	17,105	17,586	19,076	21,729
Psychiatry	250	274	278	218	188	233	260	88
Pulmonary disease	27	10	24	24	13	13	12	14
Radiology	215	225	270	281	320	385	396	339
Surgery	88	105	47	31	31	40	59	30
Clinical medicine, nec	2,742	2,776	2,799	2,131	2,693	2,254	2,498	2,319
Other health ^b	70,325	74,611	70,328	70,149	68,727	53,990	43,603	33,417
Dental sciences	1,748	1,614	1,537	1,688	1,643	1,770	1,661	1,764
Nursing	26,699	29,760	27,901	27,901	26,779	18,706	10,415	6,578
Pharmaceutical sciences	6,088	6,311	4,959	5,061	4,245	4,435	4,280	4,048
Speech pathology/audiology	11,851	11,892	12,820	12,812	12,769	11,377	11,305	10,588
Veterinary sciences	1,970	2,067	2,020	2,371	2,478	2,170	2,211	1,894
Other health, nec	21,969	22,967	21,091	20,316	20,813	15,532	13,731	8,545

na = not applicable; data were not collected at this level of detail. ne = not eligible; data were not collected for this field prior to 2007.

nec = not elsewhere classified.

^a In 2007, eligible fields were reclassified, newly eligible fields were added, and 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. Science fields "communication" and "family and consumer sciences/human sciences" are newly eligible; data for these two fields are only in 2007new. Science field "multidisciplinary/interdisciplinary studies" is also newly eligible; data may have been reported under other fields before 2007. "Neuroscience" is reported as a separate field of science in 2007new; data were reported under health field "neurology" in 2007old and previous 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 <http://www.nsf.gov/statistics/nsf10307/> for more detail.

^b Beginning with 2008, more rigorous follow-up was done with institutions regarding exclusion of practitioner-oriented graduate degree programs in psychology and in other health (a subfield of health). This change may affect interpretation of trends in these fields.

SOURCE: National Science Foundation/National Center for Science and Engineering Statistics, NSF-NIH Survey of Graduate Students and Postdoctorates in Science and Engineering.