

TABLE 21. Graduate students in science, engineering, and health in all institutions, by detailed field, citizenship, ethnicity, and race of U.S. citizens and permanent residents: 2010

Field	U.S. citizens and permanent residents										
	Total	Not Hispanic or Latino								Unknown ethnicity/race	Temporary visa holders
		Hispanic or Latino	American Indian or Alaska Native	Asian ^a	Black or African American	Native Hawaiian or Other Pacific Islander ^a		White	More than one race ^a		
All surveyed fields	632,652	33,375	2,884	37,228	38,199	1,354	299,993	5,816	39,643	174,160	
Science and engineering	556,532	28,609	2,500	32,185	31,094	1,088	255,256	4,989	34,682	166,129	
Science	407,291	22,969	2,171	21,915	26,914	914	202,386	3,987	26,852	99,183	
Agricultural sciences	15,656	770	146	340	482	37	9,867	109	665	3,240	
Biological sciences	74,928	3,970	361	6,105	3,653	242	38,386	635	4,145	17,431	
Anatomy	849	55	1	66	33	12	494	5	32	151	
Biochemistry	5,308	259	30	455	187	19	2,333	26	280	1,719	
Biology	17,210	1,011	76	1,066	828	42	9,246	211	1,179	3,551	
Biometry/epidemiology	6,398	287	25	722	545	22	2,722	54	387	1,634	
Biophysics	1,072	43	5	101	28	3	502	4	48	338	
Botany	1,863	60	15	85	19	21	877	23	64	699	
Cell biology	7,047	385	41	686	257	24	3,220	58	371	2,005	
Ecology	1,828	71	9	51	19	5	1,313	13	137	210	
Entomology/parasitology	1,116	43	6	29	21	1	703	13	35	265	
Genetics	2,333	95	12	147	75	8	1,300	6	89	601	
Microbiology/immunology/virology	4,896	284	30	415	244	4	2,691	39	206	983	
Nutrition	5,548	289	20	409	248	9	3,268	43	274	988	
Pathology	1,376	77	5	112	94	7	734	5	56	286	
Pharmacology	3,101	152	11	290	228	12	1,404	16	154	834	
Physiology	2,879	127	15	292	122	17	1,548	13	123	622	
Zoology	896	26	7	29	12	7	635	17	40	123	
Biological sciences, nec	11,208	706	53	1,150	693	29	5,396	89	670	2,422	
Communication ^b	9,825	563	63	309	785	18	5,848	119	596	1,524	
Computer sciences	51,546	1,455	125	3,543	2,228	59	15,604	298	2,858	25,376	
Earth, atmospheric, and ocean sciences	15,655	669	102	402	328	19	10,141	146	922	2,926	
Atmospheric sciences	1,455	59	5	51	51	2	902	5	58	322	
Geosciences	8,251	324	69	167	132	11	5,328	79	497	1,644	
Oceanography	2,556	140	10	45	29	2	1,733	27	136	434	
Earth/atmospheric/ocean sciences, nec	3,393	146	18	139	116	4	2,178	35	231	526	
Family and consumer sciences/ human sciences ^b	4,191	205	26	147	595	2	2,548	37	244	387	
Mathematical sciences	23,136	794	51	1,501	740	34	9,722	248	1,431	8,615	
Mathematics/applied mathematics	17,589	680	41	1,056	599	31	8,117	235	1,029	5,801	
Statistics	5,547	114	10	445	141	3	1,605	13	402	2,814	
Multidisciplinary/interdisciplinary studies ^b	7,944	617	50	343	561	8	4,199	72	857	1,237	

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Neuroscience ^b	2,798	166	10	244	86	5	1,650	13	158	466	
Physical sciences	38,973	1,364	102	1,785	1,008	38	17,319	268	1,768	15,321	
Astronomy	1,331	38	7	58	7	2	731	18	71	399	
Chemistry	22,436	873	57	1,179	786	22	9,771	150	928	8,670	
Physics	14,507	432	28	521	195	13	6,429	96	746	6,047	
Physical sciences, nec	699	21	10	27	20	1	388	4	23	205	
Psychology ^c	53,419	4,859	353	2,429	5,442	122	32,043	658	4,426	3,087	
Clinical psychology	12,155	1,579	84	653	924	34	7,104	137	1,242	398	
Psychology, general	14,022	1,019	90	704	1,282	37	8,674	188	1,001	1,027	
Psychology, nec	27,242	2,261	179	1,072	3,236	51	16,265	333	2,183	1,662	
Social sciences	109,220	7,537	782	4,767	11,006	330	55,059	1,384	8,782	19,573	
Agricultural economics	2,180	56	2	67	56	4	900	15	63	1,017	
Anthropology (cultural/social)	8,528	544	127	284	248	31	5,379	159	766	990	
Economics (except agricultural)	14,317	492	27	716	436	11	4,707	98	657	7,173	
Geography	5,059	177	25	147	139	8	3,375	43	345	800	
History and philosophy of science	705	26	2	16	43	2	498	8	35	75	
Linguistics	3,132	149	29	186	61	8	1,458	56	235	950	
Political science	45,045	3,344	257	2,089	5,759	162	22,933	559	4,417	5,525	
Sociology	9,883	929	62	431	1,189	21	5,277	153	605	1,216	
Sociology/anthropology	329	28	2	5	56	0	187	3	35	13	
Social sciences, nec	20,042	1,792	249	826	3,019	83	10,345	290	1,624	1,814	
Engineering	149,241	5,640	329	10,270	4,180	174	52,870	1,002	7,830	66,946	
Aerospace engineering	5,540	240	11	416	92	3	2,702	49	380	1,647	
Agricultural engineering	1,457	30	4	38	33	0	528	6	42	776	
Architecture ^b	6,795	420	36	361	277	8	3,928	95	423	1,247	
Biomedical engineering	8,497	325	19	1,185	240	17	3,526	77	414	2,694	
Chemical engineering	8,668	279	18	588	164	16	2,872	40	295	4,396	
Civil engineering ^b	19,559	1,091	55	1,244	594	42	8,245	270	941	7,077	
Electrical engineering	41,336	1,157	48	2,956	937	29	9,035	157	1,790	25,227	
Engineering science	2,071	65	3	146	44	0	784	24	119	886	
Industrial engineering	15,205	677	43	914	708	14	5,011	63	1,598	6,177	
Mechanical engineering	22,509	827	46	1,328	456	24	9,135	129	1,041	9,523	
Metallurgical/materials engineering	6,274	170	12	416	130	2	2,252	31	184	3,077	
Mining engineering	419	5	2	4	12	0	160	2	12	222	
Nuclear engineering	1,459	53	4	68	23	2	912	13	88	296	
Petroleum engineering	1,295	23	0	42	29	0	184	2	13	1,002	
Engineering, nec	8,157	278	28	564	441	17	3,596	44	490	2,699	

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Health	76,120	4,766	384	5,043	7,105	266	44,737	827	4,961	8,031	
Clinical medicine	25,699	1,854	142	2,281	3,724	100	12,639	340	1,836	2,783	
Anesthesiology	325	13	0	16	8	0	251	3	34	0	
Cardiology	51	0	0	3	5	0	24	0	0	19	
Endocrinology	53	1	0	6	6	1	24	0	4	11	
Gastroenterology	7	0	0	1	1	0	4	0	1	0	
Hematology	6	0	0	0	0	0	4	0	0	2	
Neurology ^b	1,056	47	5	84	40	9	590	9	76	196	
Obstetrics/gynecology	79	11	0	10	3	0	40	1	3	11	
Oncology/cancer research	232	9	0	22	14	0	130	2	13	42	
Ophthalmology	5	0	0	1	0	0	3	0	0	1	
Otorhinolaryngology	4	0	0	2	0	0	0	0	0	2	
Pediatrics	211	12	2	17	6	0	125	4	11	34	
Preventive medicine/community health	20,445	1,509	118	1,813	3,328	87	9,693	284	1,478	2,135	
Psychiatry	260	78	0	11	48	0	107	0	5	11	
Pulmonary disease	12	1	1	1	1	0	7	0	1	0	
Radiology	396	14	2	26	10	1	211	4	38	90	
Surgery	59	3	0	1	3	0	27	19	1	5	
Clinical medicine, nec	2,498	156	14	267	251	2	1,399	14	171	224	
Other health ^c	50,421	2,912	242	2,762	3,381	166	32,098	487	3,125	5,248	
Dental sciences	1,661	84	11	211	41	5	775	8	67	459	
Nursing	12,107	728	90	742	1,152	45	7,873	154	953	370	
Pharmaceutical sciences	4,291	146	15	338	237	7	1,380	6	150	2,012	
Speech pathology/audiology	14,645	909	48	484	584	33	11,163	130	871	423	
Veterinary sciences	2,211	65	7	83	71	4	1,229	13	107	632	
Other health, nec	15,506	980	71	904	1,296	72	9,678	176	977	1,352	

nec = not elsewhere classified.

^a Reporting of ethnicity and race in 2008–10 has been affected by changes in reporting of ethnicity and race in Integrated Postsecondary Education Data System (IPEDS). Starting in 2008 IPEDS respondents were asked to use new classification that included category for two or more races (see <http://nces.ed.gov/ipeds/reic/resource.asp>) and separate reporting of Native Hawaiians and Other Pacific Islanders from Asians. New classification was optional in 2008 and 2009 IPEDS but mandatory in 2010 and may have contributed to significant increase in reporting of "Not Hispanic or Latino, More than one race."

^b 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 separate field of science in 2007new; data were reported under health field "neurology" in 2007old and previous years. "Architecture" is reported as 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.

^c 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, 2010.