

TABLE 20. Full-time graduate students in science, engineering, and health in doctorate-granting institutions, by field and primary mechanism of support: 2004–10

Field and primary mechanism of support	2004	2005	2006	2007old ^a	2007new ^a	2008	2009	2010
All surveyed fields	377,984	381,198	393,138	403,722	409,421	422,287	428,856	433,252
Fellowships	34,672	36,026	36,332	37,862	38,149	38,363	38,769	39,719
Research assistantships	112,826	112,367	112,825	113,253	114,067	116,310	119,393	121,525
Teaching assistantships	71,286	72,479	74,204	76,038	78,080	81,399	80,028	81,154
Traineeships	14,403	14,217	14,277	13,123	13,180	12,975	12,693	12,263
Other types of support	144,797	146,109	155,500	163,446	165,945	173,240	177,973	178,591
Self-support	119,485	121,226	127,741	134,541	136,738	145,620	149,613	150,312
Other	25,312	24,883	27,759	28,905	29,207	27,620	28,360	28,279
Science and engineering	322,655	323,371	331,382	342,430	350,133	362,344	376,569	386,384
Fellowships	31,879	33,231	33,345	34,430	35,158	35,625	36,158	37,260
Research assistantships	105,791	105,136	105,604	106,018	107,360	109,825	112,936	115,028
Teaching assistantships	67,569	68,588	70,003	71,459	73,762	77,384	76,589	77,631
Traineeships	9,820	9,873	9,724	9,249	9,558	9,882	9,930	9,790
Other types of support	107,596	106,543	112,706	121,274	124,295	129,628	140,956	146,675
Self-support	87,993	87,754	92,023	99,950	102,651	108,688	118,059	123,298
Other	19,603	18,789	20,683	21,324	21,644	20,940	22,897	23,377
Science	238,039	241,130	246,248	252,596	259,222	267,267	275,074	279,950
Fellowships	24,710	26,013	26,194	26,612	27,290	27,651	28,013	28,508
Research assistantships	70,093	70,503	70,556	71,015	72,020	72,654	73,186	73,986
Teaching assistantships	55,572	56,844	57,960	59,063	61,252	64,103	63,655	64,407
Traineeships	8,879	8,856	8,732	8,328	8,637	9,003	9,041	8,927
Other types of support	78,785	78,914	82,806	87,578	90,023	93,856	101,179	104,122
Self-support	64,896	65,677	68,102	72,492	74,680	78,630	84,219	86,860
Other	13,889	13,237	14,704	15,086	15,343	15,226	16,960	17,262
Agricultural sciences	9,509	9,185	8,977	9,103	9,276	9,564	10,246	10,505
Fellowships	599	656	555	654	678	691	719	712
Research assistantships	5,779	5,473	5,319	5,383	5,544	5,528	5,492	5,633
Teaching assistantships	1,154	1,148	1,163	1,172	1,188	1,295	1,353	1,415
Traineeships	68	20	50	33	33	25	31	43
Other types of support	1,909	1,888	1,890	1,861	1,833	2,025	2,651	2,702
Self-support	1,516	1,523	1,439	1,474	1,425	1,579	2,147	2,218
Other	393	365	451	387	408	446	504	484
Biological sciences	54,139	55,836	57,082	58,011	58,327	58,501	59,235	60,028
Fellowships	6,580	7,053	6,760	6,618	6,651	6,743	6,497	6,735
Research assistantships	23,674	24,349	24,783	24,682	24,448	23,890	23,735	24,149
Teaching assistantships	8,457	8,712	9,022	9,349	9,359	9,215	9,231	9,248
Traineeships	5,611	5,710	5,510	5,581	5,615	5,889	5,890	5,562
Other types of support	9,817	10,012	11,007	11,781	12,254	12,764	13,882	14,334
Self-support	7,013	7,170	7,650	8,535	9,046	9,595	10,134	10,704
Other	2,804	2,842	3,357	3,246	3,208	3,169	3,748	3,630
Communication ^a	ne	ne	ne	ne	4,049	4,642	5,429	5,588
Fellowships	ne	ne	ne	ne	170	216	292	280
Research assistantships	ne	ne	ne	ne	549	588	582	485
Teaching assistantships	ne	ne	ne	ne	1,698	2,034	2,111	2,247
Traineeships	ne	ne	ne	ne	25	12	19	27
Other types of support	ne	ne	ne	ne	1,607	1,792	2,425	2,549
Self-support	ne	ne	ne	ne	1,421	1,523	2,088	2,266
Other	ne	ne	ne	ne	186	269	337	283
Computer sciences	27,204	26,524	26,937	28,285	27,874	28,850	29,669	30,080
Fellowships	1,378	1,449	1,463	1,472	1,456	1,672	1,882	1,501
Research assistantships	7,068	7,053	7,084	7,155	6,921	7,225	7,454	7,760
Teaching assistantships	4,615	4,506	4,374	4,484	4,446	4,696	4,563	4,446
Traineeships	285	230	181	157	157	148	167	188

TABLE 20. Full-time graduate students in science, engineering, and health in doctorate-granting institutions, by field and primary mechanism of support: 2004–10

Field and primary mechanism of support	2004	2005	2006	2007old ^a	2007new ^a	2008	2009	2010
Other types of support	13,858	13,286	13,835	15,017	14,894	15,109	15,603	16,185
Self-support	11,832	11,036	11,776	12,915	12,806	13,191	13,429	14,007
Other	2,026	2,250	2,059	2,102	2,088	1,918	2,174	2,178
Earth, atmospheric, and ocean sciences	11,265	10,999	11,102	10,973	10,570	10,874	11,211	11,868
Fellowships	1,222	1,355	1,300	1,267	1,179	1,275	1,259	1,293
Research assistantships	4,713	4,655	4,664	4,601	4,409	4,487	4,628	4,878
Teaching assistantships	2,590	2,560	2,704	2,625	2,568	2,728	2,674	2,696
Traineeships	119	111	106	70	74	79	67	77
Other types of support	2,621	2,318	2,328	2,410	2,340	2,305	2,583	2,924
Self-support	2,049	1,939	1,971	2,002	1,948	1,974	2,168	2,430
Other	572	379	357	408	392	331	415	494
Family and consumer sciences/human sciences ^a	ne	ne	ne	ne	1,489	1,754	1,903	2,118
Fellowships	ne	ne	ne	ne	90	117	133	143
Research assistantships	ne	ne	ne	ne	334	385	434	407
Teaching assistantships	ne	ne	ne	ne	429	517	464	585
Traineeships	ne	ne	ne	ne	9	0	1	15
Other types of support	ne	ne	ne	ne	627	735	871	968
Self-support	ne	ne	ne	ne	577	602	759	808
Other	ne	ne	ne	ne	50	133	112	160
Mathematical sciences	14,357	14,652	14,995	15,311	15,013	15,636	16,328	16,917
Fellowships	1,333	1,414	1,529	1,550	1,541	1,573	1,708	1,720
Research assistantships	1,869	1,847	1,765	1,841	1,784	1,821	1,931	1,981
Teaching assistantships	7,874	8,041	8,064	8,226	8,178	8,547	8,494	8,643
Traineeships	105	95	98	125	128	156	139	176
Other types of support	3,176	3,255	3,539	3,569	3,382	3,539	4,056	4,397
Self-support	2,571	2,626	2,888	3,042	2,859	3,016	3,478	3,825
Other	605	629	651	527	523	523	578	572
Multidisciplinary/interdisciplinary studies ^a	ne	ne	ne	ne	2,076	2,818	3,420	4,482
Fellowships	ne	ne	ne	ne	261	531	626	850
Research assistantships	ne	ne	ne	ne	514	527	615	830
Teaching assistantships	ne	ne	ne	ne	280	406	483	674
Traineeships	ne	ne	ne	ne	39	46	45	56
Other types of support	ne	ne	ne	ne	982	1,308	1,651	2,072
Self-support	ne	ne	ne	ne	843	1,050	1,380	1,757
Other	ne	ne	ne	ne	139	258	271	315
Neuroscience ^a	na	na	na	na	1,529	1,908	2,261	2,682
Fellowships	na	na	na	na	372	381	462	655
Research assistantships	na	na	na	na	634	832	955	997
Teaching assistantships	na	na	na	na	199	177	198	214
Traineeships	na	na	na	na	211	349	426	506
Other types of support	na	na	na	na	113	169	220	310
Self-support	na	na	na	na	68	96	84	150
Other	na	na	na	na	45	73	136	160
Physical sciences	31,267	31,921	32,368	32,548	32,327	32,747	33,671	34,280
Fellowships	2,707	2,760	3,073	3,119	3,106	2,862	2,895	3,314
Research assistantships	13,610	13,921	13,809	13,795	13,676	13,961	14,354	14,217
Teaching assistantships	12,108	12,455	12,449	12,489	12,474	12,939	12,788	12,951
Traineeships	366	420	436	417	415	390	432	395
Other types of support	2,476	2,365	2,601	2,728	2,656	2,595	3,202	3,403
Self-support	1,531	1,671	1,760	1,850	1,779	1,930	2,357	2,601
Other	945	694	841	878	877	665	845	802
Psychology ^b	32,111	32,781	32,944	34,801	34,286	35,866	34,585	33,566
Fellowships	2,317	2,443	2,543	2,307	2,252	2,130	2,027	2,062
Research assistantships	5,540	5,363	5,284	5,592	5,424	5,646	5,251	5,144
Teaching assistantships	5,658	5,944	6,259	6,276	6,171	6,381	6,348	6,236

TABLE 20. Full-time graduate students in science, engineering, and health in doctorate-granting institutions, by field and primary mechanism of support: 2004–10

Field and primary mechanism of support	2004	2005	2006	2007old ^a	2007new ^a	2008	2009	2010
Traineeships	876	1,035	1,032	929	920	913	1,042	1,004
Other types of support	17,720	17,996	17,826	19,697	19,519	20,796	19,917	19,120
Self-support	14,943	15,476	15,298	16,341	16,171	18,009	17,234	16,456
Other	2,777	2,520	2,528	3,356	3,348	2,787	2,683	2,664
Social sciences	58,187	59,232	61,843	63,564	62,406	64,107	67,116	67,836
Fellowships	8,574	8,883	8,971	9,625	9,534	9,460	9,513	9,243
Research assistantships	7,840	7,842	7,848	7,966	7,783	7,764	7,755	7,505
Teaching assistantships	13,116	13,478	13,925	14,442	14,262	15,168	14,948	15,052
Traineeships	1,449	1,235	1,319	1,016	1,011	996	782	878
Other types of support	27,208	27,794	29,780	30,515	29,816	30,719	34,118	35,158
Self-support	23,441	24,236	25,320	26,333	25,737	26,065	28,961	29,638
Other	3,767	3,558	4,460	4,182	4,079	4,654	5,157	5,520
Engineering	84,616	82,241	85,134	89,834	90,911	95,077	101,495	106,434
Fellowships	7,169	7,218	7,151	7,818	7,868	7,974	8,145	8,752
Research assistantships	35,698	34,633	35,048	35,003	35,340	37,171	39,750	41,042
Teaching assistantships	11,997	11,744	12,043	12,396	12,510	13,281	12,934	13,224
Traineeships	941	1,017	992	921	921	879	889	863
Other types of support	28,811	27,629	29,900	33,696	34,272	35,772	39,777	42,553
Self-support	23,097	22,077	23,921	27,458	27,971	30,058	33,840	36,438
Other	5,714	5,552	5,979	6,238	6,301	5,714	5,937	6,115
Aerospace engineering	3,190	3,150	3,291	3,379	3,379	3,588	3,845	4,187
Fellowships	282	260	302	386	386	334	319	363
Research assistantships	1,451	1,366	1,387	1,478	1,478	1,566	1,706	1,735
Teaching assistantships	373	441	459	502	502	517	488	472
Traineeships	40	35	40	33	33	34	36	31
Other types of support	1,044	1,048	1,103	980	980	1,137	1,296	1,586
Self-support	703	708	789	725	725	869	1,013	1,251
Other	341	340	314	255	255	268	283	335
Agricultural engineering	842	855	893	917	917	1,022	1,084	1,198
Fellowships	64	59	34	40	40	62	73	59
Research assistantships	558	578	604	628	628	751	751	775
Teaching assistantships	64	69	68	61	61	50	32	63
Traineeships	11	2	11	36	36	0	2	5
Other types of support	145	147	176	152	152	159	226	296
Self-support	111	99	119	95	95	122	172	257
Other	34	48	57	57	57	37	54	39
Architecture ^a	na	na	na	na	3,981	5,092	5,988	5,959
Fellowships	na	na	na	na	335	395	387	486
Research assistantships	na	na	na	na	330	306	330	372
Teaching assistantships	na	na	na	na	723	900	848	879
Traineeships	na	na	na	na	10	1	4	4
Other types of support	na	na	na	na	2,583	3,490	4,419	4,218
Self-support	na	na	na	na	2,225	2,933	3,626	3,480
Other	na	na	na	na	358	557	793	738
Biomedical engineering	5,015	5,232	5,641	5,885	5,908	6,260	6,840	7,375
Fellowships	838	778	812	815	819	938	1,014	1,102
Research assistantships	2,047	2,231	2,432	2,548	2,559	2,969	3,259	3,444
Teaching assistantships	458	458	480	518	518	535	527	554
Traineeships	304	336	360	361	361	347	382	427
Other types of support	1,368	1,429	1,557	1,643	1,651	1,471	1,658	1,848
Self-support	1,219	1,268	1,370	1,336	1,336	1,222	1,435	1,619
Other	149	161	187	307	315	249	223	229
Chemical engineering	6,346	6,110	6,185	6,249	6,433	6,722	7,058	7,472
Fellowships	689	648	677	772	814	864	834	860
Research assistantships	3,749	3,593	3,652	3,598	3,702	3,789	4,063	4,158

TABLE 20. Full-time graduate students in science, engineering, and health in doctorate-granting institutions, by field and primary mechanism of support: 2004–10

Field and primary mechanism of support	2004	2005	2006	2007old ^a	2007new ^a	2008	2009	2010
Teaching assistantships	786	757	742	765	810	835	841	816
Traineeships	102	123	114	72	69	78	90	90
Other types of support	1,020	989	1,000	1,042	1,038	1,156	1,230	1,548
Self-support	780	769	757	793	787	912	992	1,256
Other	240	220	243	249	251	244	238	292
Civil engineering ^a	13,348	12,958	12,836	14,352	11,063	11,619	13,120	13,719
Fellowships	1,092	1,094	1,035	1,235	931	938	950	1,056
Research assistantships	4,858	4,440	4,339	4,461	4,262	4,386	4,893	4,949
Teaching assistantships	2,082	1,984	2,129	2,283	1,604	1,825	1,774	1,922
Traineeships	152	159	148	158	148	175	103	32
Other types of support	5,164	5,281	5,185	6,215	4,118	4,295	5,400	5,760
Self-support	4,287	4,493	4,448	5,311	3,484	3,624	4,660	4,947
Other	877	788	737	904	634	671	740	813
Electrical engineering	25,783	25,002	26,259	27,522	27,646	27,813	27,792	28,605
Fellowships	1,504	1,558	1,520	1,769	1,767	1,666	1,604	1,620
Research assistantships	10,136	10,176	9,834	9,623	9,706	10,070	10,475	10,553
Teaching assistantships	3,881	3,822	3,806	3,805	3,831	3,927	3,793	3,634
Traineeships	112	140	90	48	48	54	43	73
Other types of support	10,150	9,306	11,009	12,277	12,294	12,096	11,877	12,725
Self-support	8,605	7,722	9,165	10,348	10,368	10,530	10,470	11,469
Other	1,545	1,584	1,844	1,929	1,926	1,566	1,407	1,256
Engineering science	1,712	1,589	1,639	1,437	1,402	1,444	1,450	1,478
Fellowships	272	306	298	233	224	194	164	175
Research assistantships	861	808	750	571	557	618	721	687
Teaching assistantships	219	173	189	183	176	118	133	155
Traineeships	22	20	29	23	23	19	7	14
Other types of support	338	282	373	427	422	495	425	447
Self-support	227	185	266	285	284	340	306	321
Other	111	97	107	142	138	155	119	126
Industrial engineering	6,352	5,822	6,171	6,727	7,109	7,852	7,878	7,829
Fellowships	436	417	413	347	419	420	430	395
Research assistantships	1,661	1,481	1,556	1,539	1,631	1,905	1,747	1,762
Teaching assistantships	923	899	952	968	996	1,063	1,000	960
Traineeships	46	51	54	62	62	51	45	64
Other types of support	3,286	2,974	3,196	3,811	4,001	4,413	4,656	4,648
Self-support	2,519	2,251	2,493	3,231	3,449	3,742	3,900	3,807
Other	767	723	703	580	552	671	756	841
Mechanical engineering	12,478	11,984	12,408	12,913	12,903	13,456	15,215	16,257
Fellowships	914	921	981	1,078	1,076	1,176	1,318	1,412
Research assistantships	5,686	5,308	5,610	5,586	5,582	5,525	6,220	6,685
Teaching assistantships	2,178	2,171	2,229	2,316	2,317	2,389	2,441	2,570
Traineeships	98	104	89	62	54	67	132	80
Other types of support	3,602	3,480	3,499	3,871	3,874	4,299	5,104	5,510
Self-support	2,929	2,895	2,849	3,268	3,270	3,595	4,351	4,648
Other	673	585	650	603	604	704	753	862
Metallurgical/materials engineering	4,338	4,491	4,606	4,647	4,593	4,784	5,166	5,519
Fellowships	556	652	547	565	532	487	498	546
Research assistantships	2,726	2,764	2,847	2,814	2,829	2,996	3,119	3,298
Teaching assistantships	407	408	455	496	451	416	438	443
Traineeships	21	23	28	29	32	37	31	23
Other types of support	628	644	729	743	749	848	1,080	1,209
Self-support	507	525	582	578	586	638	878	1,041
Other	121	119	147	165	163	210	202	168

TABLE 20. Full-time graduate students in science, engineering, and health in doctorate-granting institutions, by field and primary mechanism of support: 2004–10

Field and primary mechanism of support	2004	2005	2006	2007old ^a	2007new ^a	2008	2009	2010
Mining engineering	229	200	177	199	132	201	205	353
Fellowships	23	13	7	16	16	7	8	20
Research assistantships	92	94	62	86	74	112	108	178
Teaching assistantships	25	19	30	26	20	35	32	44
Traineeships	1	0	0	0	0	0	0	0
Other types of support	88	74	78	71	22	47	57	111
Self-support	57	47	50	56	19	40	42	105
Other	31	27	28	15	3	7	15	6
Nuclear engineering	809	840	910	960	951	941	968	1,123
Fellowships	109	122	141	142	142	141	158	187
Research assistantships	456	447	470	480	472	476	499	593
Teaching assistantships	68	62	62	85	85	76	89	92
Traineeships	6	7	6	8	8	12	9	13
Other types of support	170	202	231	245	244	236	213	238
Self-support	99	126	133	143	142	134	133	149
Other	71	76	98	102	102	102	80	89
Petroleum engineering	658	629	642	786	786	822	988	1,058
Fellowships	88	81	60	55	55	27	55	53
Research assistantships	269	302	314	410	410	435	524	550
Teaching assistantships	70	63	85	80	80	124	118	118
Traineeships	3	3	3	5	5	0	0	0
Other types of support	228	180	180	236	236	236	291	337
Self-support	156	130	127	164	164	187	216	266
Other	72	50	53	72	72	49	75	71
Engineering, nec	3,516	3,379	3,476	3,861	3,708	3,461	3,898	4,302
Fellowships	302	309	324	365	312	325	333	418
Research assistantships	1,148	1,045	1,191	1,181	1,120	1,267	1,335	1,303
Teaching assistantships	463	418	357	308	336	471	380	502
Traineeships	23	14	20	24	32	4	5	7
Other types of support	1,580	1,593	1,584	1,983	1,908	1,394	1,845	2,072
Self-support	898	859	773	1,125	1,037	1,170	1,646	1,822
Other	682	734	811	858	871	224	199	250
Health ^{a,b}	55,329	57,827	61,756	61,292	59,288	59,943	52,287	46,868
Fellowships	2,793	2,795	2,987	3,432	2,991	2,738	2,611	2,459
Research assistantships	7,035	7,231	7,221	7,235	6,707	6,485	6,457	6,497
Teaching assistantships	3,717	3,891	4,201	4,579	4,318	4,015	3,439	3,523
Traineeships	4,583	4,344	4,553	3,874	3,622	3,093	2,763	2,473
Other types of support	37,201	39,566	42,794	42,172	41,650	43,612	37,017	31,916
Self-support	31,492	33,472	35,718	34,591	34,087	36,932	31,554	27,014
Other	5,709	6,094	7,076	7,581	7,563	6,680	5,463	4,902

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 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.

^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.