



APPENDIX TABLE 2-24

First-time full-time S&E graduate students, by citizenship and field: 2000–15

(Number)

Citizenship and field	2000	2001	2002	2003	2004	2005	2006	2007 ^a	2008	2009	2010	2011	2012	2013	2014 ^b	2015
All citizenships																
S&E	94,340	98,112	104,184	107,715	106,544	110,219	116,482	118,893	126,165	129,731	131,394	132,441	133,962	139,550	150,261	157,868
Engineering	22,191	23,306	24,607	24,429	22,025	22,373	25,876	26,732	28,613	30,230	31,540	32,355	33,703	36,805	41,156	41,474
Aerospace	775	767	712	845	834	804	943	962	1,116	1,176	1,196	1,239	991	1,138	1,238	1,261
Chemical	1,595	1,541	1,616	1,600	1,392	1,293	1,429	1,566	1,713	1,910	2,047	2,039	2,216	2,433	2,408	2,527
Civil	3,840	3,820	4,107	4,363	4,175	4,057	4,198	3,662	4,073	4,878	5,079	5,003	5,119	5,127	5,411	5,162
Electrical	7,195	7,882	8,221	7,834	6,633	6,987	8,668	8,920	9,042	8,831	9,237	9,790	10,439	12,387	14,097	13,593
Industrial	2,005	2,216	2,238	2,029	1,724	1,674	2,148	2,626	3,015	2,908	2,783	2,837	2,767	3,047	3,710	4,269
Materials	1,005	975	1,044	958	926	992	1,043	1,086	1,170	1,302	1,431	1,561	1,609	1,571	1,630	1,761
Mechanical	3,269	3,583	3,709	3,476	3,129	3,225	3,734	3,937	4,297	4,814	5,055	4,832	5,344	5,843	6,428	6,794
Other	2,507	2,522	2,960	3,324	3,212	3,341	3,713	3,973	4,187	4,411	4,712	5,054	5,218	5,259	6,234	6,107
Science	72,149	74,806	79,577	83,286	84,519	87,846	90,606	91,390	96,412	98,089	98,095	98,702	98,885	101,505	107,414	114,359
Natural sciences	49,626	51,215	54,124	55,791	56,655	58,228	60,076	60,985	64,066	63,707	64,457	64,614	65,362	68,397	75,653	81,489
Agricultural sciences	2,335	2,338	2,320	2,424	2,316	2,260	2,206	2,356	2,597	2,994	3,121	3,053	3,040	3,128	3,364	3,637
Biological sciences ^c	10,955	11,608	12,127	12,719	12,796	12,918	13,055	14,022	14,832	15,838	16,543	17,327	17,919	17,336	18,021	19,474
Earth, atmospheric, and ocean sciences	2,649	2,794	3,085	3,104	2,926	2,758	2,795	2,749	2,904	3,153	3,445	3,408	3,451	3,382	3,441	3,321



Citizenship and field	2000	2001	2002	2003	2004	2005	2006	2007 ^a	2008	2009	2010	2011	2012	2013	2014 ^b	2015
Atmospheric sciences	222	205	213	268	228	228	207	243	263	250	279	266	300	291	302	281
Earth sciences	1,230	1,383	1,437	1,412	1,336	1,308	1,348	1,405	1,429	1,682	1,887	1,839	1,868	1,940	1,983	1,937
Oceanography	479	511	533	567	534	463	457	402	466	517	502	520	481	476	499	540
Other geosciences	718	695	902	857	828	759	783	699	746	704	777	783	802	675	657	563
Mathematics and computer sciences	11,850	12,763	12,955	12,319	12,035	12,454	13,325	13,688	15,025	15,445	15,776	16,589	17,426	21,408	27,044	29,619
Computer sciences	8,431	9,077	9,037	8,134	7,783	8,258	8,983	9,256	10,434	10,557	10,583	10,995	11,688	15,397	20,658	22,911
Mathematics and statistics	3,419	3,686	3,918	4,185	4,252	4,196	4,342	4,432	4,591	4,888	5,193	5,594	5,738	6,011	6,386	6,708
Medical and other health sciences	16,008	15,701	17,357	18,384	19,979	21,181	22,069	21,459	21,816	19,001	17,995	16,475	15,911	15,601	16,436	17,629
Medical sciences	5,127	5,361	5,780	6,034	6,525	6,644	7,096	6,870	7,753	7,714	7,962	8,014	7,800	8,022	8,415	9,079
Other health sciences ^d	10,881	10,340	11,577	12,350	13,454	14,537	14,973	14,589	14,063	11,287	10,033	8,461	8,111	7,579	8,021	8,550
Physical sciences	5,829	6,011	6,280	6,841	6,603	6,657	6,626	6,711	6,892	7,276	7,577	7,762	7,615	7,542	7,347	7,809
Astronomy	183	193	194	225	210	190	204	207	225	250	234	267	235	210	206	238
Chemistry	3,482	3,651	3,746	3,983	3,862	3,904	3,900	3,938	4,161	4,331	4,557	4,585	4,487	4,429	4,261	4,480
Physics	2,101	2,102	2,231	2,543	2,442	2,458	2,409	2,523	2,406	2,571	2,663	2,766	2,783	2,761	2,734	2,938
Other physical sciences	63	65	109	90	89	105	113	43	100	124	123	144	110	142	146	153
Social and behavioral sciences	22,523	23,591	25,453	27,495	27,864	29,618	30,530	30,405	32,346	34,382	33,638	34,088	33,523	33,108	31,761	32,870
Psychology ^d	7,545	7,691	8,420	8,858	9,478	10,358	10,224	10,476	11,082	10,980	10,231	10,218	10,455	10,467	9,839	10,669
Social sciences	14,978	15,900	17,033	18,637	18,386	19,260	20,306	19,929	21,264	23,402	23,407	23,870	23,068	22,641	21,922	22,201
Anthropology	1,157	1,119	1,177	1,279	1,187	1,243	1,314	1,310	1,444	1,452	1,454	1,407	1,459	1,436	1,401	1,279



Citizenship and field	2000	2001	2002	2003	2004	2005	2006	2007 ^a	2008	2009	2010	2011	2012	2013	2014 ^b	2015
Economics	2,963	3,058	3,418	3,457	3,209	3,281	3,450	3,670	3,836	4,465	4,436	4,573	4,520	4,345	4,436	4,458
History of science	78	72	97	107	107	138	121	151	205	119	94	85	78	53	64	66
Linguistics	454	495	466	588	570	633	577	535	557	632	645	680	709	707	691	665
Political science and public administration	5,142	5,562	6,241	6,950	7,333	7,807	8,319	7,627	8,152	9,736	9,637	10,618	10,277	10,152	9,553	9,810
Sociology	1,464	1,591	1,690	1,722	1,537	1,672	1,504	1,730	1,888	1,761	1,729	1,783	1,597	1,567	1,596	1,553
Other social sciences	3,720	4,003	3,944	4,534	4,443	4,486	5,021	4,906	5,182	5,237	5,412	4,724	4,428	4,381	4,181	4,370
Multidisciplinary and interdisciplinary studies	NA	NA	NA	NA	NA	NA	NA	771	1,140	1,412	1,759	1,384	1,374	1,240	1,691	2,035
U.S. citizen or permanent resident																
S&E	61,021	62,396	70,346	76,478	77,169	79,531	81,142	81,033	84,230	88,183	89,174	86,686	84,860	83,542	83,698	87,677
Engineering	8,603	8,668	10,749	12,263	11,188	10,905	11,747	11,053	11,767	13,749	14,638	13,896	13,158	13,116	13,103	12,925
Aerospace	374	348	396	536	537	508	616	592	707	753	810	801	621	685	716	705
Chemical	651	616	760	852	733	624	684	695	711	927	1,002	910	934	995	936	1,026
Civil	2,009	1,989	2,250	2,595	2,591	2,492	2,650	2,188	2,335	3,017	3,124	2,905	2,697	2,471	2,355	2,068
Electrical	1,901	1,985	2,679	3,127	2,458	2,430	2,305	2,129	2,223	2,295	2,416	2,346	2,119	2,137	2,063	2,097
Industrial	596	590	781	832	755	690	933	901	1,030	1,121	1,042	995	805	886	877	826
Materials	413	410	502	479	454	482	545	514	534	592	721	684	725	706	683	729
Mechanical	1,231	1,373	1,681	1,843	1,684	1,668	1,889	1,854	1,959	2,477	2,664	2,360	2,394	2,415	2,488	2,415
Other	1,428	1,357	1,700	1,999	1,976	2,011	2,125	2,180	2,268	2,567	2,859	2,895	2,863	2,821	2,985	3,059
Science	52,418	53,728	59,597	64,215	65,981	68,626	69,395	69,396	71,604	73,303	73,151	71,714	70,648	69,497	69,457	73,470



Citizenship and field	2000	2001	2002	2003	2004	2005	2006	2007 ^a	2008	2009	2010	2011	2012	2013	2014 ^b	2015
Natural sciences	34,659	34,988	39,006	41,645	42,752	43,728	44,112	44,138	45,010	44,896	45,485	44,122	44,052	43,285	44,812	47,866
Agricultural sciences	1,916	1,845	1,856	1,971	1,870	1,828	1,764	1,848	1,996	2,359	2,513	2,357	2,345	2,394	2,572	2,795
Biological sciences ^c	8,355	8,768	9,261	9,763	9,808	9,925	9,946	10,687	11,129	12,159	12,890	13,380	14,101	13,654	14,248	15,425
Earth, atmospheric, and ocean sciences	2,082	2,210	2,548	2,573	2,468	2,270	2,289	2,271	2,306	2,533	2,804	2,712	2,728	2,640	2,637	2,589
Atmospheric sciences	147	140	157	220	186	172	170	195	209	199	223	209	228	214	221	211
Earth sciences	986	1,091	1,179	1,129	1,102	1,073	1,068	1,139	1,119	1,323	1,511	1,415	1,442	1,505	1,498	1,519
Oceanography	374	426	447	485	476	376	380	345	382	424	407	435	394	389	420	467
Other geosciences	575	553	765	739	704	649	671	592	596	587	663	653	664	532	498	392
Mathematics and computer sciences	4,263	4,651	5,845	6,418	6,264	6,193	5,904	5,595	5,872	6,467	6,594	6,402	6,172	6,225	6,469	6,917
Computer sciences	2,414	2,621	3,534	3,891	3,632	3,632	3,382	3,034	3,324	3,659	3,582	3,339	3,279	3,303	3,682	4,126
Mathematics and statistics	1,849	2,030	2,311	2,527	2,632	2,561	2,522	2,561	2,548	2,808	3,012	3,063	2,893	2,922	2,787	2,791
Medical and other health sciences	14,720	14,189	15,721	16,829	18,316	19,374	20,164	19,648	19,719	16,954	16,105	14,643	14,113	13,723	14,439	15,533
Medical sciences	4,248	4,302	4,640	4,982	5,372	5,455	5,836	5,614	6,285	6,186	6,554	6,554	6,352	6,524	6,879	7,435
Other health sciences ^d	10,472	9,887	11,081	11,847	12,944	13,919	14,328	14,034	13,434	10,768	9,551	8,089	7,761	7,199	7,560	8,098
Physical sciences	3,323	3,325	3,775	4,091	4,026	4,138	4,045	4,089	3,988	4,424	4,579	4,628	4,593	4,649	4,447	4,607
Astronomy	123	135	137	150	145	144	142	136	146	191	169	178	174	161	156	168
Chemistry	2,151	2,125	2,292	2,438	2,391	2,461	2,405	2,434	2,453	2,683	2,777	2,765	2,786	2,772	2,663	2,725
Physics	1,009	1,025	1,270	1,442	1,416	1,439	1,406	1,487	1,315	1,455	1,547	1,580	1,558	1,625	1,536	1,620
Other physical sciences	40	40	76	61	74	94	92	32	74	95	86	105	75	91	92	94



Citizenship and field	2000	2001	2002	2003	2004	2005	2006	2007 ^a	2008	2009	2010	2011	2012	2013	2014 ^b	2015
Social and behavioral sciences	17,759	18,740	20,591	22,570	23,229	24,898	25,283	25,258	26,594	28,407	27,666	27,592	26,596	26,212	24,645	25,604
Psychology ^d	7,060	7,167	7,902	8,285	8,944	9,800	9,645	9,861	10,407	10,347	9,570	9,535	9,750	9,784	9,128	9,884
Social sciences	10,699	11,573	12,689	14,285	14,285	15,098	15,638	15,397	16,187	18,060	18,096	18,057	16,846	16,428	15,517	15,720
Anthropology	996	985	1,028	1,142	1,068	1,131	1,170	1,149	1,280	1,325	1,295	1,252	1,300	1,284	1,224	1,107
Economics	1,207	1,275	1,559	1,694	1,589	1,594	1,634	1,731	1,756	2,213	2,164	2,098	1,915	1,757	1,707	1,752
History of science	65	62	90	95	97	115	109	140	183	106	78	69	62	47	47	50
Linguistics	257	294	305	405	381	440	417	370	361	419	441	468	470	462	448	420
Political science and public administration	3,870	4,291	4,949	5,561	5,974	6,475	6,670	6,206	6,584	7,926	7,898	8,616	8,075	7,995	7,353	7,520
Sociology	1,205	1,311	1,440	1,501	1,357	1,474	1,339	1,513	1,689	1,531	1,508	1,559	1,367	1,318	1,355	1,316
Other social sciences	3,099	3,355	3,318	3,887	3,819	3,869	4,299	4,288	4,334	4,540	4,712	3,995	3,657	3,565	3,383	3,555
Multidisciplinary and interdisciplinary studies	NA	NA	NA	NA	NA	NA	NA	584	859	1,131	1,385	1,076	1,054	929	1,138	1,282
Temporary visa holder																
S&E	33,319	35,716	33,838	31,237	29,375	30,688	35,340	37,860	41,935	41,548	42,220	45,755	49,102	56,008	66,563	70,191
Engineering	13,588	14,638	13,858	12,166	10,837	11,468	14,129	15,679	16,846	16,481	16,902	18,459	20,545	23,689	28,053	28,549
Aerospace	401	419	316	309	297	296	327	370	409	423	386	438	370	453	522	556
Chemical	944	925	856	748	659	669	745	871	1,002	983	1,045	1,129	1,282	1,438	1,472	1,501
Civil	1,831	1,831	1,857	1,768	1,584	1,565	1,548	1,474	1,738	1,861	1,955	2,098	2,422	2,656	3,056	3,094
Electrical	5,294	5,897	5,542	4,707	4,175	4,557	6,363	6,791	6,819	6,536	6,821	7,444	8,320	10,250	12,034	11,496
Industrial	1,409	1,626	1,457	1,197	969	984	1,215	1,725	1,985	1,787	1,741	1,842	1,962	2,161	2,833	3,443



Citizenship and field	2000	2001	2002	2003	2004	2005	2006	2007 ^a	2008	2009	2010	2011	2012	2013	2014 ^b	2015
Materials	592	565	542	479	472	510	498	572	636	710	710	877	884	865	947	1,032
Mechanical	2,038	2,210	2,028	1,633	1,445	1,557	1,845	2,083	2,338	2,337	2,391	2,472	2,950	3,428	3,940	4,379
Other	1,079	1,165	1,260	1,325	1,236	1,330	1,588	1,793	1,919	1,844	1,853	2,159	2,355	2,438	3,249	3,048
Science	19,731	21,078	19,980	19,071	18,538	19,220	21,211	22,194	24,808	24,786	24,944	26,988	28,237	32,008	37,957	40,889
Natural sciences	14,967	16,227	15,118	14,146	13,903	14,500	15,964	16,847	19,056	18,811	18,972	20,492	21,310	25,112	30,841	33,623
Agricultural sciences	419	493	464	453	446	432	442	508	601	635	608	696	695	734	792	842
Biological sciences ^c	2,600	2,840	2,866	2,956	2,988	2,993	3,109	3,335	3,703	3,679	3,653	3,947	3,818	3,682	3,773	4,049
Earth, atmospheric, and ocean sciences	567	584	537	531	458	488	506	478	598	620	641	696	723	742	804	732
Atmospheric sciences	75	65	56	48	42	56	37	48	54	51	56	57	72	77	81	70
Earth sciences	244	292	258	283	234	235	280	266	310	359	376	424	426	435	485	418
Oceanography	105	85	86	82	58	87	77	57	84	93	95	85	87	87	79	73
Other geosciences	143	142	137	118	124	110	112	107	150	117	114	130	138	143	159	171
Mathematics and computer sciences	7,587	8,112	7,110	5,901	5,771	6,261	7,421	8,093	9,153	8,978	9,182	10,187	11,254	15,183	20,575	22,702
Computer sciences	6,017	6,456	5,503	4,243	4,151	4,626	5,601	6,222	7,110	6,898	7,001	7,656	8,409	12,094	16,976	18,785
Mathematics and statistics	1,570	1,656	1,607	1,658	1,620	1,635	1,820	1,871	2,043	2,080	2,181	2,531	2,845	3,089	3,599	3,917
Medical and other health sciences	1,288	1,512	1,636	1,555	1,663	1,807	1,905	1,811	2,097	2,047	1,890	1,832	1,798	1,878	1,997	2,096
Medical sciences	879	1,059	1,140	1,052	1,153	1,189	1,260	1,256	1,468	1,528	1,408	1,460	1,448	1,498	1,536	1,644
Other health sciences ^d	409	453	496	503	510	618	645	555	629	519	482	372	350	380	461	452
Physical sciences	2,506	2,686	2,505	2,750	2,577	2,519	2,581	2,622	2,904	2,852	2,998	3,134	3,022	2,893	2,900	3,202



Citizenship and field	2000	2001	2002	2003	2004	2005	2006	2007 ^a	2008	2009	2010	2011	2012	2013	2014 ^b	2015
Astronomy	60	58	57	75	65	46	62	71	79	59	65	89	61	49	50	70
Chemistry	1,331	1,526	1,454	1,545	1,471	1,443	1,495	1,504	1,708	1,648	1,780	1,820	1,701	1,657	1,598	1,755
Physics	1,092	1,077	961	1,101	1,026	1,019	1,003	1,036	1,091	1,116	1,116	1,186	1,225	1,136	1,198	1,318
Other physical sciences	23	25	33	29	15	11	21	11	26	29	37	39	35	51	54	59
Social and behavioral sciences	4,764	4,851	4,862	4,925	4,635	4,720	5,247	5,147	5,752	5,975	5,972	6,496	6,927	6,896	7,116	7,266
Psychology ^d	485	524	518	573	534	558	579	615	675	633	661	683	705	683	711	785
Social sciences	4,279	4,327	4,344	4,352	4,101	4,162	4,668	4,532	5,077	5,342	5,311	5,813	6,222	6,213	6,405	6,481
Anthropology	161	134	149	137	119	112	144	161	164	127	159	155	159	152	177	172
Economics	1,756	1,783	1,859	1,763	1,620	1,687	1,816	1,939	2,080	2,252	2,272	2,475	2,605	2,588	2,729	2,706
History of science	13	10	7	12	10	23	12	11	22	13	16	16	16	6	17	16
Linguistics	197	201	161	183	189	193	160	165	196	213	204	212	239	245	243	245
Political science and public administration	1,272	1,271	1,292	1,389	1,359	1,332	1,649	1,421	1,568	1,810	1,739	2,002	2,202	2,157	2,200	2,290
Sociology	259	280	250	221	180	198	165	217	199	230	221	224	230	249	241	237
Other social sciences	621	648	626	647	624	617	722	618	848	697	700	729	771	816	798	815
Multidisciplinary and interdisciplinary studies	ne	ne	ne	ne	ne	ne	ne	187	281	281	374	308	320	311	553	753

NA = not available; ne = not eligible; data were not collected for this field before 2007.

^a In 2007, eligible fields were reclassified, newly eligible fields were added, and the survey was redesigned to improve coverage and coding of eligible units. Because of methodological changes, counts should be used with caution for trend analysis. For more details, see appendix A in <https://www.nsf.gov/statistics/nsf10307/>.

^b In 2014, the survey frame was updated following a comprehensive frame evaluation study. The study identified potentially eligible but not previously surveyed U.S. academic institutions with master's- or doctorate-granting programs in science, engineering, or health. For more details on the impact of the frame update, see <https://www.nsf.gov/statistics/2016/nsf16314/>.



^c Starting in 2007, includes neuroscience, which may have been reported under other fields in prior years.

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

Note(s)

S&E includes health fields (medical sciences and other health sciences) and excludes newly eligible fields (architecture, communication, and family and consumer sciences and human sciences) added starting in 2007. Therefore, the S&E numbers in this table differ from the data used in National Science Foundation National Science Foundation, National Center for Science and Engineering Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering (annual series), and elsewhere. The survey changes in 2007 and 2014 may affect interpretation of trends.

Source(s)

National Science Foundation, National Center for Science and Engineering Statistics, special tabulations (2016), 2015 Survey of Graduate Students and Postdoctorates in Science and Engineering.

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