

Graduate Students and Postdoctorates in Science and Engineering: Fall 2003

Detailed Statistical Tables

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GENERAL NOTES

Data presented here are derived from the fall 2003 National Science Foundation-National Institutes of Health (NSF-NIH) Survey of Graduate Students and Postdoctorates in Science and Engineering. Unless otherwise specified, the published data represent estimates of total enrollment in science, engineering, and health-related programs in 12,261 graduate departments at 591 institutions in the United States and outlying areas.

Graduate enrollment and postdoctoral employment data collection began in 1966. Given the need to remain relevant to the needs of those who use the resulting data, the survey has included modifications since inception. These modifications include changes in coverage of institutions and fields, in definitions, and in the kinds of demographic data collected. (See appendix A, Technical

Notes, for further information.) Because survey modifications occur and institutions may revise their data for earlier years, use only the latest trend data published in this report in historical analyses.

For further information on the survey, please contact

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TABLE 1. Total enrollment in all institutions of higher education, by level of enrollment, broad field, and location: 1975–2003 (selected years)

Location	Total	Undergraduate enrollment	Graduate enrollment				First professional enrollment	
			All fields	Science	Engineering	Health fields Other		
All U.S. institutions								
1975	11,289,129	9,777,634	1,267,537	234,649	68,332	25,529	939,027	243,958
1980	12,234,644	10,603,579	1,351,268	251,265	74,335	41,478	984,190	279,797
1985 ^a	12,411,945	10,749,752	1,384,862	261,973	96,018	46,030	980,841	277,331
1990	13,983,255	12,110,847	1,596,037	289,383	107,658	55,072	1,143,924	276,371
1991	14,527,724	12,595,335	1,648,952	299,057	113,535	58,620	1,177,740	283,437
1992	14,657,118	12,693,778	1,679,644	312,478	118,039	63,005	1,186,122	283,696
1993	14,477,792	12,482,813	1,699,292	318,851	116,872	68,581	1,194,988	295,687
1994	14,449,476	12,417,701	1,734,371	318,118	113,024	73,257	1,229,972	297,404
1995	14,445,438	12,399,826	1,745,130	315,265	107,201	77,174	1,245,490	300,482
1996	14,550,056	12,492,977	1,755,635	311,957	103,224	78,898	1,261,556	301,444
1997	14,680,488	12,612,475	1,766,705	306,482	101,148	79,578	1,279,497	301,308
1998	14,711,280	12,624,375	1,781,327	304,818	100,038	80,771	1,295,700	305,578
1999	NA	NA	NA	309,491	101,691	82,074	NA	NA
2000	15,506,922	13,329,803	1,867,092	309,424	104,112	79,775	1,373,781	310,027
2001	16,129,629	13,895,335	1,922,155	319,749	109,493	80,378	1,412,535	312,139
2002	16,822,915	14,444,738	2,055,584	335,224	119,668	85,621	1,515,071	322,593
2003	NA	NA	NA	346,828	127,375	92,632	NA	NA
50 U.S. states and DC								
1975	11,184,859	9,679,455	1,263,137	233,774	68,278	25,183	935,902	242,267
1980	12,096,895	10,475,055	1,344,073	249,767	74,287	41,142	978,877	277,767
1985 ^a	12,247,055	10,596,674	1,376,181	260,075	95,916	45,478	974,712	274,200
1990	13,818,637	11,959,106	1,586,165	287,713	107,549	54,476	1,136,427	273,366
1991	14,358,953	12,439,287	1,639,135	297,252	113,367	57,991	1,170,525	280,531
1992	14,487,359	12,537,700	1,668,737	310,664	117,829	62,269	1,177,975	280,922
1993	14,304,803	12,323,959	1,688,413	316,991	116,659	67,842	1,186,921	292,431
1994	14,278,790	12,262,608	1,721,469	316,234	112,827	72,483	1,219,925	294,713
1995	14,261,781	12,231,719	1,732,470	313,241	106,984	76,280	1,235,965	297,592
1996	14,367,520	12,326,948	1,742,260	309,948	102,970	78,082	1,251,260	298,312
1997	14,502,334	12,450,587	1,753,489	304,442	100,865	78,994	1,269,188	298,258
1998	14,530,036	12,460,006	1,767,557	302,544	99,771	80,193	1,285,049	302,473
1999	NA	NA	NA	307,055	101,444	81,291	NA	NA
2000	15,312,289	13,155,393	1,850,271	306,672	103,833	78,791	1,360,975	306,625
2001	15,927,987	13,715,610	1,903,730	316,917	109,190	79,330	1,398,293	308,647
2002	16,611,711	14,257,077	2,035,652	332,103	119,342	84,643	1,499,564	318,982
2003	NA	NA	NA	343,748	127,009	91,589	NA	NA
Outlying areas								
1975	104,270	98,179	4,400	875	54	346	3,125	1,691
1980	137,749	128,524	7,195	1,498	48	336	5,313	2,030
1985 ^a	164,890	153,078	8,681	1,898	102	552	6,129	3,131
1990	164,618	151,741	9,872	1,670	109	596	7,497	3,005
1991	168,771	156,048	9,817	1,805	168	629	7,215	2,906
1992	169,759	156,078	10,907	1,814	210	736	8,147	2,774
1993	172,989	158,854	10,879	1,860	213	739	8,067	3,256
1994	170,686	155,093	12,902	1,884	197	774	10,047	2,691
1995	183,657	168,107	12,660	2,024	217	894	9,525	2,890
1996	182,536	166,029	13,375	2,009	254	816	10,296	3,132
1997	178,154	161,888	13,216	2,040	283	584	10,309	3,050
1998	181,244	164,369	13,770	2,274	267	578	10,651	3,105
1999	NA	NA	NA	2,436	247	783	NA	NA
2000	194,633	174,410	16,821	2,752	279	984	12,806	3,402

TABLE 1. Total enrollment in all institutions of higher education, by level of enrollment, broad field, and location: 1975–2003 (selected years)

Location	Total	Undergraduate enrollment	Graduate enrollment				Health fields	Other	First professional enrollment
			All fields	Science	Engineering				
2001	201,642	179,725	18,425	2,832	303	1,048	14,242	3,492	
2002	211,204	187,661	19,932	3,121	326	978	15,507	3,611	
2003	NA	NA	NA	3,080	366	1,043	NA	NA	

NA = not available.

^a National Science Foundation figures for 1985 include estimates for master's-granting institutions.

NOTE: Outlying areas include American Samoa, Federated States of Micronesia, Guam, Marshall Islands, Northern Mariana Islands, Palau, Puerto Rico, and U.S. Virgin Islands.

SOURCES: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Fall Enrollment Survey, and National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 2. Graduate students in science, engineering, and health fields in all institutions, by field: 1975–2003

Year	All science and engineering	Science									Engineering								Health fields	
		Total	Agricultural sciences	Biological sciences	Computer sciences	Earth/atmospheric/ocean sciences	Mathematical sciences	Physical sciences	Psychology	Social sciences	Total	Aerospace engineering	Chemical engineering	Civil engineering	Electrical engineering	Industrial engineering	Mechanical engineering	Metallurgical/materials engineering		Other
1975	302,981	234,649	10,804	46,185	8,415	12,079	16,892	26,310	36,191	77,773	68,332	1,670	5,095	12,560	16,320	11,663	8,601	2,376	10,047	25,529
1976	305,398	238,675	11,427	47,453	8,627	12,809	17,071	26,641	37,458	77,189	66,723	1,477	5,271	11,995	15,926	10,687	8,313	2,398	10,656	28,318
1977	311,689	242,932	11,812	48,975	9,108	13,446	16,052	26,864	38,617	78,058	68,757	1,518	5,273	12,335	17,406	10,438	8,722	2,585	10,480	33,685
1978 ^a	304,252	236,465	11,981	47,665	9,847	13,268	14,812	26,282	37,522	75,088	67,787	1,463	5,431	12,358	17,127	9,494	8,638	2,592	10,684	35,660
1979	319,043	247,235	12,365	47,932	11,690	13,731	15,031	26,701	39,766	80,019	71,808	1,481	5,685	12,822	17,715	10,729	9,251	2,778	11,347	38,535
1980	325,600	251,265	12,689	47,261	13,578	14,051	15,311	26,934	40,610	80,831	74,335	1,737	6,038	13,097	19,132	9,698	9,888	2,934	11,811	41,478
1981	331,989	252,404	12,585	46,302	16,437	14,263	15,881	27,360	40,666	78,910	79,585	1,883	6,526	14,089	20,113	9,737	10,618	3,152	13,467	43,141
1982	338,866	255,146	12,826	45,627	19,812	15,018	17,157	28,188	40,073	76,445	83,720	1,941	7,222	14,122	21,927	9,577	11,467	3,154	14,310	43,425
1983	346,966	255,820	12,728	45,253	23,333	15,443	17,358	29,463	40,905	71,337	91,146	2,305	7,590	14,910	25,295	9,247	12,911	3,477	15,411	43,466
1984 ^b	349,642	256,903	12,528	45,353	25,526	15,500	17,443	30,061	40,931	69,561	92,739	2,340	7,400	15,192	26,388	9,282	13,855	3,673	14,609	45,028
1985 ^b	357,991	261,973	11,846	45,709	29,769	15,414	17,563	30,987	40,721	69,964	96,018	2,538	7,177	14,902	28,203	10,525	14,157	3,959	14,557	46,030
1986 ^b	367,982	266,077	11,771	46,302	31,349	15,053	17,949	32,259	41,241	70,153	101,905	2,804	7,043	14,976	29,969	11,569	15,713	4,236	15,595	47,538
1987 ^b	373,239	269,256	11,405	46,317	32,051	14,357	18,508	32,741	42,612	71,265	103,983	3,015	7,141	14,682	31,399	12,353	16,366	4,397	14,630	48,258
1988	375,163	272,309	11,438	47,126	32,227	13,854	19,077	32,975	43,963	71,649	102,854	3,223	6,643	14,811	32,035	11,575	16,151	4,381	14,035	49,360
1989	382,642	278,577	11,461	48,449	32,482	13,630	19,247	33,629	45,528	74,151	104,065	3,524	6,482	14,909	33,257	11,333	16,265	4,635	13,660	51,836
1990	397,041	289,383	11,563	49,602	34,257	13,977	19,774	34,082	48,167	77,961	107,658	3,934	6,768	15,542	33,722	11,555	16,879	4,983	14,275	55,072
1991	412,592	299,057	11,766	51,365	34,681	14,466	19,952	34,724	51,343	80,760	113,535	4,120	7,157	17,398	35,111	12,996	17,730	5,203	13,820	58,620
1992	430,517	312,478	12,153	53,693	36,325	15,324	20,355	35,357	53,484	85,787	118,039	4,036	7,433	19,572	36,428	13,826	18,637	5,550	12,557	63,005
1993	435,723	318,851	12,305	55,950	36,213	15,721	20,000	35,328	54,557	88,777	116,872	3,940	7,554	19,583	35,290	13,905	18,477	5,410	12,713	68,581
1994	431,142	318,118	12,611	57,676	34,158	15,957	19,573	34,466	54,554	89,123	113,024	3,715	7,639	19,925	33,067	13,992	17,761	5,228	11,697	73,257
1995	422,466	315,265	12,768	58,344	33,458	15,716	18,504	33,399	53,641	89,435	107,201	3,343	7,452	19,218	30,861	13,475	16,363	4,956	11,533	77,174
1996	415,181	311,957	12,301	57,749	34,626	15,183	18,008	32,333	53,122	88,635	103,224	3,208	7,408	18,528	29,941	12,675	15,509	4,747	11,208	78,898
1997	407,630	306,482	12,203	56,705	35,991	14,548	16,719	31,105	53,126	86,085	101,148	3,083	7,288	17,193	30,787	11,957	15,045	4,688	11,107	79,578
1998	404,856	304,818	12,168	56,695	38,027	14,258	16,485	30,575	52,557	84,053	100,038	3,137	7,093	16,517	31,384	11,221	14,696	4,680	11,310	80,771
1999	411,182	309,491	12,312	56,959	42,478	14,083	16,257	30,691	51,727	84,984	101,691	3,349	6,883	16,226	31,822	11,803	14,956	4,481	12,171	82,074
2000	413,536	309,424	12,023	56,282	47,350	13,941	15,650	30,385	50,466	83,327	104,112	3,407	7,056	16,451	33,611	12,119	15,235	4,377	11,856	79,775
2001	429,242	319,749	12,235	57,639	52,196	13,841	16,651	31,038	50,467	85,682	109,493	3,451	6,913	16,665	36,100	12,940	15,852	4,721	12,851	80,378
2002	454,892	335,224	12,698	61,133	55,269	14,240	18,163	32,341	51,165	90,215	119,668	3,685	7,414	17,713	39,948	14,033	17,139	4,992	14,744	85,621
2003	474,203	346,828	13,197	64,684	53,678	14,655	19,465	34,298	52,025	94,826	127,375	4,048	7,516	18,838	41,745	14,295	18,440	5,154	17,339	92,632

^a Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

^b Includes estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984–87. See Technical Notes for further information.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 3. Male graduate students in science, engineering, and health fields in all institutions, by field: 1977–2003

Year	All science and engineering	Science									Engineering									Health fields
		Total	Agricultural sciences	Biological sciences	Computer sciences	Earth/atmospheric/ocean sciences	Mathematical sciences	Physical sciences	Psychology	Social sciences	Total	Aerospace engineering	Chemical engineering	Civil engineering	Electrical engineering	Industrial engineering	Mechanical engineering	Metallurgical/materials engineering	Other	
1977	233,775	168,724	9,671	32,301	7,549	11,169	11,933	22,823	20,518	52,760	65,051	1,485	4,893	11,507	16,696	9,683	8,449	2,401	9,937	11,149
1978 ^a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979	229,766	163,845	9,660	30,115	9,367	10,846	11,009	22,206	19,424	51,218	65,921	1,432	5,060	11,503	16,782	9,473	8,782	2,489	10,400	11,073
1980	231,207	163,212	9,783	29,034	10,491	10,844	11,247	22,338	19,027	50,448	67,995	1,663	5,358	11,732	18,149	8,343	9,354	2,629	10,767	11,749
1981	232,144	160,306	9,700	27,743	12,228	10,847	11,400	22,349	17,900	48,139	71,838	1,816	5,747	12,515	18,837	8,194	9,987	2,758	11,984	11,414
1982	235,297	160,354	9,671	26,549	14,366	11,295	12,079	22,769	16,976	46,649	74,943	1,831	6,319	12,373	20,376	7,958	10,748	2,729	12,609	11,001
1983	240,463	159,126	9,506	26,013	16,719	11,548	12,158	23,580	16,648	42,954	81,337	2,182	6,572	13,051	23,227	7,729	12,106	3,025	13,445	10,465
1984 ^b	242,112	159,672	9,308	25,959	18,653	11,628	12,275	23,902	16,180	41,767	82,440	2,208	6,426	13,165	24,175	7,674	12,899	3,201	12,692	10,541
1985 ^b	247,370	162,435	8,769	25,932	22,208	11,489	12,209	24,478	15,597	41,753	84,935	2,375	6,170	12,755	25,768	8,743	13,146	3,352	12,626	10,846
1986 ^b	253,607	164,075	8,722	25,974	23,497	11,108	12,470	25,395	15,377	41,532	89,532	2,604	5,996	12,829	27,061	9,472	14,554	3,552	13,464	11,126
1987 ^b	256,072	165,060	8,367	26,013	24,036	10,581	12,912	25,624	15,683	41,844	91,012	2,791	5,979	12,579	28,301	10,085	15,070	3,659	12,548	11,869
1988	253,925	164,199	8,249	25,997	24,033	10,054	13,301	25,473	15,502	41,590	89,726	2,996	5,564	12,517	28,757	9,449	14,749	3,618	12,076	11,465
1989	256,770	166,313	8,224	26,348	24,494	9,776	13,262	25,824	15,673	42,712	90,457	3,281	5,445	12,474	29,742	9,180	14,867	3,820	11,648	11,955
1990	263,319	170,340	8,138	26,687	26,058	9,860	13,575	26,012	15,822	44,188	92,979	3,645	5,615	12,853	30,007	9,367	15,437	4,085	11,970	12,353
1991	271,762	173,925	8,098	27,372	26,391	10,015	13,654	26,156	16,556	45,683	97,837	3,793	5,897	14,296	31,260	10,594	16,219	4,208	11,570	13,135
1992	280,305	179,486	8,245	28,397	27,854	10,478	13,806	26,508	16,650	47,548	100,819	3,688	6,036	15,918	32,151	11,118	16,939	4,476	10,493	13,917
1993	279,185	180,001	8,058	29,081	27,782	10,695	13,362	26,122	16,567	48,334	99,184	3,583	6,050	15,725	30,977	11,260	16,703	4,373	10,513	15,291
1994	272,031	177,057	8,160	29,670	26,071	10,638	13,042	25,299	16,416	47,761	94,974	3,357	6,110	15,714	28,958	11,135	15,938	4,145	9,617	16,324
1995	262,256	173,068	8,169	29,629	25,325	10,282	12,246	24,314	15,877	47,226	89,188	2,992	5,885	14,986	26,707	10,652	14,686	3,882	9,398	17,049
1996	253,510	168,540	7,716	29,107	25,829	9,736	11,789	23,288	15,375	45,700	84,970	2,856	5,757	14,228	25,712	9,906	13,873	3,670	8,968	18,150
1997	245,619	163,191	7,497	28,229	26,110	9,132	10,851	22,257	15,507	43,608	82,428	2,712	5,568	13,029	26,237	9,301	13,266	3,571	8,744	18,878
1998	241,429	160,379	7,316	27,742	27,225	8,690	10,497	21,822	15,095	41,992	81,050	2,755	5,366	12,415	26,512	8,769	12,934	3,550	8,749	19,590
1999	242,786	160,982	7,263	27,338	29,933	8,358	10,214	21,776	14,456	41,644	81,804	2,926	5,150	12,069	26,689	9,144	13,168	3,397	9,261	19,889
2000	243,057	159,691	6,935	26,475	33,270	8,188	9,870	21,270	13,594	40,089	83,366	2,938	5,181	12,174	28,075	9,406	13,403	3,336	8,853	19,052
2001	251,812	164,576	6,892	26,590	36,894	7,949	10,381	21,702	13,149	41,019	87,236	2,966	5,084	12,162	29,888	10,132	13,908	3,548	9,548	19,345
2002	266,248	171,547	7,045	27,706	39,244	7,993	11,277	22,275	13,437	42,570	94,701	3,169	5,419	12,808	32,678	10,957	15,056	3,741	10,873	20,839
2003	276,090	176,304	7,171	28,812	38,887	8,100	12,176	23,520	13,357	44,281	99,786	3,445	5,416	13,446	33,954	11,035	16,076	3,822	12,592	22,440

NA = not available.

^a Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

^b Includes estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984–87. See Technical Notes for further information.

NOTE: Data on sex of graduate students were not collected for all students in all institutions in 1975 and 1976.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 4. Female graduate students in science, engineering, and health fields in all institutions, by field: 1977–2003

Year	All science and engineering	Science									Engineering								Health fields		
		Total	Agricultural sciences	Biological sciences	Computer sciences	Earth/atmospheric/ocean sciences	Mathematical sciences	Physical sciences	Psychology	Social sciences	Total	Aerospace engineering	Chemical engineering	Civil engineering	Electrical engineering	Industrial engineering	Mechanical engineering	Metallurgical/materials engineering		Other	
1977	77,914	74,208	2,141	16,674	1,559	2,277	4,119	4,041	18,099	25,298	3,706	33	380	828	710	755	273	184	543	22,536	
1978 ^a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979	89,277	83,390	2,705	17,817	2,323	2,885	4,022	4,495	20,342	28,801	5,887	49	625	1,319	933	1,256	469	289	947	27,462	
1980	94,393	88,053	2,906	18,227	3,087	3,207	4,064	4,596	21,583	30,383	6,340	74	680	1,365	983	1,355	534	305	1,044	29,729	
1981	99,845	92,098	2,885	18,559	4,209	3,416	4,481	5,011	22,766	30,771	7,747	67	779	1,574	1,276	1,543	631	394	1,483	31,727	
1982	103,569	94,792	3,155	19,078	5,446	3,723	5,078	5,419	23,097	29,796	8,777	110	903	1,749	1,551	1,619	719	425	1,701	32,424	
1983	106,503	96,694	3,222	19,240	6,614	3,895	5,200	5,883	24,257	28,383	9,809	123	1,018	1,859	2,068	1,518	805	452	1,966	33,001	
1984 ^b	107,530	97,231	3,220	19,394	6,873	3,872	5,168	6,159	24,751	27,794	10,299	132	974	2,027	2,213	1,608	956	472	1,917	34,487	
1985 ^b	110,621	99,538	3,077	19,777	7,561	3,925	5,354	6,509	25,124	28,211	11,083	163	1,007	2,147	2,435	1,782	1,011	607	1,931	35,184	
1986 ^b	114,375	102,002	3,049	20,328	7,852	3,945	5,479	6,864	25,864	28,621	12,373	200	1,047	2,147	2,908	2,097	1,159	684	2,131	36,412	
1987 ^b	117,167	104,196	3,038	20,304	8,015	3,776	5,596	7,117	26,929	29,421	12,971	224	1,162	2,103	3,098	2,268	1,296	738	2,082	36,389	
1988	121,238	108,110	3,189	21,129	8,194	3,800	5,776	7,502	28,461	30,059	13,128	227	1,079	2,294	3,278	2,126	1,402	763	1,959	37,895	
1989	125,872	112,264	3,237	22,101	7,988	3,854	5,985	7,805	29,855	31,439	13,608	243	1,037	2,435	3,515	2,153	1,398	815	2,012	39,881	
1990	133,722	119,043	3,425	22,915	8,199	4,117	6,199	8,070	32,345	33,773	14,679	289	1,153	2,689	3,715	2,188	1,442	898	2,305	42,719	
1991	140,830	125,132	3,668	23,993	8,290	4,451	6,298	8,568	34,787	35,077	15,698	327	1,260	3,102	3,851	2,402	1,511	995	2,250	45,485	
1992	150,212	132,992	3,908	25,296	8,471	4,846	6,549	8,849	36,834	38,239	17,220	348	1,397	3,654	4,277	2,708	1,698	1,074	2,064	49,088	
1993	156,538	138,850	4,247	26,869	8,431	5,026	6,638	9,206	37,990	40,443	17,688	357	1,504	3,858	4,313	2,645	1,774	1,037	2,200	53,290	
1994	159,111	141,061	4,451	28,006	8,087	5,319	6,531	9,167	38,138	41,362	18,050	358	1,529	4,211	4,109	2,857	1,823	1,083	2,080	56,933	
1995	160,210	142,197	4,599	28,715	8,133	5,434	6,258	9,085	37,764	42,209	18,013	351	1,567	4,232	4,154	2,823	1,677	1,074	2,135	60,125	
1996	161,671	143,417	4,585	28,642	8,797	5,447	6,219	9,045	37,747	42,935	18,254	352	1,651	4,300	4,229	2,769	1,636	1,077	2,240	60,748	
1997	162,011	143,291	4,706	28,476	9,881	5,416	5,868	8,848	37,619	42,477	18,720	371	1,720	4,164	4,550	2,656	1,779	1,117	2,363	60,700	
1998	163,427	144,439	4,852	28,953	10,802	5,568	5,988	8,753	37,462	42,061	18,988	382	1,727	4,102	4,872	2,452	1,762	1,130	2,561	61,181	
1999	168,396	148,509	5,049	29,621	12,545	5,725	6,043	8,915	37,271	43,340	19,887	423	1,733	4,157	5,133	2,659	1,788	1,084	2,910	62,185	
2000	170,479	149,733	5,088	29,807	14,080	5,753	5,780	9,115	36,872	43,238	20,746	469	1,875	4,277	5,536	2,713	1,832	1,041	3,003	60,723	
2001	177,430	155,173	5,343	31,049	15,302	5,892	6,270	9,336	37,318	44,663	22,257	485	1,829	4,503	6,212	2,808	1,944	1,173	3,303	61,033	
2002	188,644	163,677	5,653	33,427	16,025	6,247	6,886	10,066	37,728	47,645	24,967	516	1,995	4,905	7,270	3,076	2,083	1,251	3,871	64,782	
2003	198,113	170,524	6,026	35,872	14,791	6,555	7,289	10,778	38,668	50,545	27,589	603	2,100	5,392	7,791	3,260	2,364	1,332	4,747	70,192	

NA = not available.

^a Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

^b Includes estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984–87. See Technical Notes for further information.

NOTE: Data on sex of graduate students were not collected for all students in all institutions in 1975 and 1976.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 5. Full-time graduate students in science, engineering, and health fields in all institutions, by field: 1975–2003

Year	All science and engineering	Science									Engineering									Health fields
		Total	Agricultural sciences	Biological sciences	Computer sciences	Earth/atmospheric/ocean sciences	Mathematical sciences	Physical sciences	Psychology	Social sciences	Total	Aerospace engineering	Chemical engineering	Civil engineering	Electrical engineering	Industrial engineering	Mechanical engineering	Metallurgical/materials engineering	Other	
1975	202,260	164,437	8,970	36,692	4,473	9,557	10,694	21,916	24,105	48,030	37,823	1,245	3,576	7,363	8,278	4,152	4,931	1,808	6,470	17,388
1976	204,815	167,867	9,548	37,681	4,748	10,082	10,952	22,261	25,643	46,952	36,948	1,165	3,757	7,025	8,147	3,578	4,919	1,879	6,478	18,597
1977	206,411	169,184	9,820	38,194	4,604	10,415	10,365	22,514	25,703	47,569	37,227	1,187	3,944	7,094	8,528	3,343	4,883	1,976	6,272	20,327
1978 ^a	201,737	164,151	9,815	37,572	4,930	10,361	9,769	22,143	24,754	44,807	37,586	1,140	4,019	7,335	8,509	3,249	4,950	1,995	6,389	21,293
1979	209,000	168,959	10,053	37,773	5,853	10,619	9,667	22,541	25,848	46,605	40,041	1,152	4,292	7,623	9,039	3,743	5,428	2,157	6,607	22,760
1980	214,417	171,767	10,349	37,422	6,587	10,871	9,901	22,917	26,671	47,049	42,650	1,327	4,513	7,958	9,963	3,736	5,841	2,274	7,038	23,999
1981	217,952	172,200	10,480	37,022	7,445	10,931	10,152	23,310	26,570	46,290	45,752	1,483	5,016	8,799	10,450	3,603	6,422	2,478	7,501	24,097
1982	221,874	172,090	10,325	36,415	9,171	11,317	10,813	24,040	25,667	44,342	49,784	1,522	5,637	9,381	11,533	3,807	7,267	2,505	8,132	22,883
1983	229,404	175,472	10,230	36,405	10,600	11,961	10,955	25,211	26,561	43,549	53,932	1,840	5,893	9,804	13,265	3,288	8,330	2,731	8,781	22,613
1984 ^b	230,957	175,766	10,170	36,759	11,436	11,732	11,309	25,854	25,969	42,537	55,191	1,854	5,758	10,086	13,925	3,393	8,698	2,888	8,589	22,965
1985 ^b	233,938	178,020	9,490	36,677	13,861	11,331	11,816	26,672	25,335	42,838	55,918	1,994	5,568	9,749	14,799	3,456	8,875	3,109	8,368	23,349
1986 ^b	242,729	182,532	9,596	37,435	15,020	11,241	12,388	27,770	26,255	42,827	60,197	2,154	5,625	9,971	16,290	3,810	9,789	3,398	9,160	23,439
1987 ^b	247,105	185,143	9,316	37,885	15,336	10,424	13,043	28,423	27,256	43,460	61,962	2,372	5,704	9,628	17,101	4,165	10,230	3,467	9,295	23,951
1988	250,557	187,525	9,372	38,840	15,133	10,181	13,512	28,585	28,118	43,784	63,032	2,533	5,384	9,946	17,706	4,313	10,416	3,509	9,225	24,570
1989	256,820	192,424	9,293	40,019	15,606	10,012	13,681	29,216	29,348	45,249	64,396	2,772	5,303	9,964	18,466	4,684	10,492	3,760	8,955	25,828
1990	265,323	199,313	9,288	40,648	16,689	10,239	13,865	29,490	30,618	48,476	66,010	3,010	5,476	10,128	18,675	4,806	10,867	3,969	9,079	27,459
1991	277,070	206,036	9,472	42,385	16,546	10,364	14,256	30,126	32,258	50,629	71,034	3,325	5,818	11,328	19,874	5,639	11,687	4,094	9,269	29,940
1992	290,408	215,965	9,672	44,040	17,505	10,976	14,679	30,681	34,162	54,250	74,443	3,306	5,982	12,454	20,977	6,113	12,383	4,309	8,919	32,147
1993	293,905	220,097	9,712	46,101	17,401	11,346	14,530	30,616	34,782	55,609	73,808	3,262	6,079	12,458	20,343	5,950	12,395	4,294	9,027	35,739
1994	292,979	221,409	9,746	47,694	16,701	11,446	14,226	30,049	35,288	56,259	71,570	3,000	6,136	12,641	19,408	5,960	11,875	4,143	8,407	39,109
1995	287,171	219,389	9,835	48,055	16,510	11,259	13,410	28,879	35,222	56,219	67,782	2,693	5,985	12,248	18,254	5,389	11,128	3,912	8,173	42,112
1996	284,039	218,180	9,527	47,454	17,195	10,795	12,966	27,931	35,412	56,900	65,859	2,576	5,939	11,791	18,107	5,166	10,690	3,724	7,866	44,497
1997	280,669	214,981	9,362	46,657	18,335	10,510	12,144	26,882	35,551	55,540	65,688	2,529	5,821	11,406	18,999	5,116	10,432	3,694	7,691	46,620
1998	278,943	213,508	9,199	46,779	19,972	10,444	11,751	26,391	35,148	53,824	65,435	2,565	5,630	11,154	19,608	4,894	10,073	3,736	7,775	48,446
1999	283,893	215,870	9,371	46,946	22,687	10,484	11,796	26,635	34,658	53,293	68,023	2,645	5,593	11,237	20,521	5,500	10,331	3,563	8,633	50,530
2000	291,355	219,079	9,357	46,787	26,558	10,558	11,740	26,492	34,919	52,668	72,276	2,759	5,861	11,754	22,962	6,049	10,795	3,601	8,495	49,928
2001	304,021	226,573	9,405	48,138	30,087	10,504	12,467	27,179	34,487	54,306	77,448	2,821	5,829	12,102	25,240	6,534	11,436	3,977	9,509	50,501
2002	325,498	240,065	9,685	51,596	32,579	11,116	13,709	28,619	34,707	58,054	85,433	3,003	6,279	12,981	28,240	7,200	12,493	4,242	10,995	53,490
2003	339,208	248,829	10,003	54,346	30,850	11,511	14,627	30,441	35,777	61,274	90,379	3,243	6,414	13,710	28,952	7,085	13,375	4,386	13,214	58,802

^a Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

^b Includes estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984–87. See Technical Notes for further information.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 6. Male full-time graduate students in science, engineering, and health fields in all institutions, by field: 1975–2003

Year	All science and engineering	Science									Engineering									Health fields
		Total	Agricultural sciences	Biological sciences	Computer sciences	Earth/atmospheric/ocean sciences	Mathematical sciences	Physical sciences	Psychology	Social sciences	Total	Aerospace engineering	Chemical engineering	Civil engineering	Electrical engineering	Industrial engineering	Mechanical engineering	Metallurgical/materials engineering	Other	
1975	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1976	156,134	121,218	8,031	26,003	4,006	8,450	8,476	19,212	14,591	32,449	34,916	1,142	3,516	6,512	7,850	3,199	4,797	1,769	6,131	7,536
1977	154,365	119,401	7,983	25,688	3,845	8,634	8,083	19,300	13,949	31,919	34,964	1,160	3,660	6,553	8,146	2,967	4,742	1,833	5,903	7,520
1978 ^a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979	151,945	115,345	7,812	24,314	4,803	8,400	7,497	19,048	13,277	30,194	36,600	1,116	3,852	6,729	8,585	3,164	5,170	1,943	6,041	7,630
1980	153,101	114,306	7,920	23,600	5,184	8,388	7,595	19,214	12,779	29,626	38,795	1,273	4,047	7,059	9,405	3,071	5,525	2,041	6,374	7,758
1981	154,034	112,896	8,007	22,997	5,718	8,360	7,612	19,307	12,007	28,888	41,138	1,432	4,482	7,673	9,739	2,915	6,075	2,187	6,635	7,442
1982	156,369	111,834	7,724	21,949	6,860	8,530	8,022	19,643	11,223	27,883	44,535	1,449	4,963	8,140	10,715	3,042	6,834	2,192	7,200	6,904
1983	161,506	113,195	7,637	21,717	7,961	8,992	8,037	20,374	11,361	27,116	48,311	1,760	5,122	8,509	12,302	2,673	7,847	2,403	7,695	6,709
1984 ^b	162,368	113,226	7,526	21,759	8,693	8,875	8,328	20,756	10,714	26,575	49,142	1,768	5,024	8,648	12,775	2,769	8,137	2,530	7,491	6,706
1985 ^b	164,162	114,528	7,026	21,570	10,806	8,498	8,614	21,243	10,232	26,539	49,634	1,868	4,811	8,257	13,591	2,821	8,316	2,666	7,304	6,783
1986 ^b	169,812	116,593	7,136	21,730	11,703	8,329	8,984	22,029	10,263	26,419	53,219	2,006	4,829	8,484	14,823	3,076	9,162	2,868	7,971	6,764
1987 ^b	172,077	117,406	6,877	21,853	12,005	7,750	9,481	22,393	10,422	26,625	54,671	2,205	4,822	8,230	15,552	3,430	9,498	2,889	8,045	7,353
1988	172,280	116,871	6,819	22,143	11,795	7,438	9,794	22,214	10,199	26,469	55,409	2,365	4,588	8,381	16,024	3,572	9,581	2,923	7,975	7,275
1989	175,047	118,795	6,708	22,514	12,355	7,263	9,746	22,552	10,467	27,190	56,252	2,592	4,499	8,315	16,644	3,772	9,637	3,116	7,677	7,738
1990	178,645	121,340	6,572	22,595	13,218	7,313	9,821	22,668	10,642	28,511	57,305	2,811	4,573	8,347	16,719	3,893	10,019	3,273	7,670	8,074
1991	185,020	123,664	6,537	23,287	13,057	7,190	10,035	22,852	10,957	29,749	61,356	3,071	4,830	9,309	17,717	4,591	10,745	3,345	7,748	8,519
1992	191,722	127,940	6,573	24,012	13,949	7,585	10,250	23,176	11,171	31,224	63,782	3,043	4,882	10,126	18,557	4,931	11,297	3,497	7,449	9,096
1993	190,785	128,174	6,429	24,678	13,811	7,799	10,096	22,891	11,189	31,281	62,611	2,971	4,908	9,934	17,906	4,770	11,210	3,482	7,430	9,993
1994	186,623	126,631	6,319	25,276	13,152	7,659	9,810	22,281	11,131	31,003	59,992	2,722	4,940	9,855	17,014	4,651	10,658	3,289	6,863	10,802
1995	179,770	123,490	6,275	25,123	12,860	7,379	9,213	21,222	10,903	30,515	56,280	2,417	4,756	9,431	15,768	4,229	9,993	3,082	6,604	11,430
1996	174,689	120,657	5,971	24,554	13,102	6,941	8,797	20,395	10,775	30,122	54,032	2,293	4,615	8,937	15,497	4,069	9,500	2,893	6,228	12,427
1997	170,168	116,988	5,734	23,819	13,536	6,650	8,171	19,454	10,833	28,791	53,180	2,226	4,451	8,495	16,102	4,009	9,143	2,819	5,935	13,224
1998	167,320	114,712	5,507	23,487	14,520	6,374	7,797	19,034	10,509	27,484	52,608	2,251	4,233	8,213	16,471	3,810	8,840	2,829	5,961	13,673
1999	169,055	114,555	5,486	23,097	16,313	6,171	7,662	19,065	10,073	26,688	54,500	2,320	4,197	8,192	17,147	4,364	9,069	2,715	6,496	13,885
2000	172,783	115,359	5,298	22,604	19,098	6,119	7,669	18,750	9,841	25,980	57,424	2,385	4,315	8,454	19,073	4,710	9,451	2,751	6,285	13,478
2001	179,863	118,608	5,201	22,707	21,776	5,936	8,085	19,093	9,303	26,507	61,255	2,435	4,289	8,677	20,767	5,105	9,998	2,988	6,996	13,602
2002	191,821	124,803	5,253	23,848	23,743	6,194	8,807	19,816	9,303	27,839	67,018	2,591	4,613	9,201	22,884	5,628	10,915	3,180	8,006	14,331
2003	198,611	128,330	5,360	24,684	22,964	6,323	9,488	21,014	9,382	29,115	70,281	2,790	4,604	9,592	23,385	5,458	11,619	3,258	9,575	15,653

NA = not available.

^a Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

^b Includes estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984–87. See Technical Notes for further information.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 7. Female full-time graduate students in science, engineering, and health fields in all institutions, by field: 1975–2003

Year	All science and engineering	Science									Engineering									Health fields
		Total	Agricultural sciences	Biological sciences	Computer sciences	Earth/atmospheric/ocean sciences	Mathematical sciences	Physical sciences	Psychology	Social sciences	Total	Aerospace engineering	Chemical engineering	Civil engineering	Electrical engineering	Industrial engineering	Mechanical engineering	Metallurgical/materials engineering	Other	
1975	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1976	48,681	46,649	1,517	11,678	742	1,632	2,476	3,049	11,052	14,503	2,032	23	241	513	297	379	122	110	347	11,061
1977	52,046	49,783	1,837	12,506	759	1,781	2,282	3,214	11,754	15,650	2,263	27	284	541	382	376	141	143	369	12,807
1978 ^a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1979	57,055	53,614	2,241	13,459	1,050	2,219	2,170	3,493	12,571	16,411	3,441	36	440	894	454	579	258	214	566	15,130
1980	61,316	57,461	2,429	13,822	1,403	2,483	2,306	3,703	13,892	17,423	3,855	54	466	899	558	665	316	233	664	16,241
1981	63,918	59,304	2,473	14,025	1,727	2,571	2,540	4,003	14,563	17,402	4,614	51	534	1,126	711	688	347	291	866	16,655
1982	65,505	60,256	2,601	14,466	2,311	2,787	2,791	4,397	14,444	16,459	5,249	73	674	1,241	818	765	433	313	932	15,979
1983	67,898	62,277	2,593	14,688	2,639	2,969	2,918	4,837	15,200	16,433	5,621	80	771	1,295	963	615	483	328	1,086	15,904
1984 ^b	68,589	62,540	2,644	15,000	2,743	2,857	2,981	5,098	15,255	15,962	6,049	86	734	1,438	1,150	624	561	358	1,098	16,259
1985 ^b	69,776	63,492	2,464	15,107	3,055	2,833	3,202	5,429	15,103	16,299	6,284	126	757	1,492	1,208	635	559	443	1,064	16,566
1986 ^b	72,917	65,939	2,460	15,705	3,317	2,912	3,404	5,741	15,992	16,408	6,978	148	796	1,487	1,467	734	627	530	1,189	16,675
1987 ^b	75,028	67,737	2,439	16,032	3,331	2,674	3,562	6,030	16,834	16,835	7,291	167	882	1,398	1,549	735	732	578	1,250	16,598
1988	78,277	70,654	2,553	16,697	3,338	2,743	3,718	6,371	17,919	17,315	7,623	168	796	1,565	1,682	741	835	586	1,250	17,295
1989	81,773	73,629	2,585	17,505	3,251	2,749	3,935	6,664	18,881	18,059	8,144	180	804	1,649	1,822	912	855	644	1,278	18,090
1990	86,678	77,973	2,716	18,053	3,471	2,926	4,044	6,822	19,976	19,965	8,705	199	903	1,781	1,956	913	848	696	1,409	19,385
1991	92,050	82,372	2,935	19,098	3,489	3,174	4,221	7,274	21,301	20,880	9,678	254	988	2,019	2,157	1,048	942	749	1,521	21,421
1992	98,686	88,025	3,099	20,028	3,556	3,391	4,429	7,505	22,991	23,026	10,661	263	1,100	2,328	2,420	1,182	1,086	812	1,470	23,051
1993	103,120	91,923	3,283	21,423	3,590	3,547	4,434	7,725	23,593	24,328	11,197	291	1,171	2,524	2,437	1,180	1,185	812	1,597	25,746
1994	106,356	94,778	3,427	22,418	3,549	3,787	4,416	7,768	24,157	25,256	11,578	278	1,196	2,786	2,394	1,309	1,217	854	1,544	28,307
1995	107,401	95,899	3,560	22,932	3,650	3,880	4,197	7,657	24,319	25,704	11,502	276	1,229	2,817	2,486	1,160	1,135	830	1,569	30,682
1996	109,350	97,523	3,556	22,900	4,093	3,854	4,169	7,536	24,637	26,778	11,827	283	1,324	2,854	2,610	1,097	1,190	831	1,638	32,070
1997	110,501	97,993	3,628	22,838	4,799	3,860	3,973	7,428	24,718	26,749	12,508	303	1,370	2,911	2,897	1,107	1,289	875	1,756	33,396
1998	111,623	98,796	3,692	23,292	5,452	4,070	3,954	7,357	24,639	26,340	12,827	314	1,397	2,941	3,137	1,084	1,233	907	1,814	34,773
1999	114,838	101,315	3,885	23,849	6,374	4,313	4,134	7,570	24,585	26,605	13,523	325	1,396	3,045	3,374	1,136	1,262	848	2,137	36,645
2000	118,572	103,720	4,059	24,183	7,460	4,439	4,071	7,742	25,078	26,688	14,852	374	1,546	3,300	3,889	1,339	1,344	850	2,210	36,450
2001	124,158	107,965	4,204	25,431	8,311	4,568	4,382	8,086	25,184	27,799	16,193	386	1,540	3,425	4,473	1,429	1,438	989	2,513	36,899
2002	133,677	115,262	4,432	27,748	8,836	4,922	4,902	8,803	25,404	30,215	18,415	412	1,666	3,780	5,356	1,572	1,578	1,062	2,989	39,159
2003	140,597	120,499	4,643	29,662	7,886	5,188	5,139	9,427	26,395	32,159	20,098	453	1,810	4,118	5,567	1,627	1,756	1,128	3,639	43,149

NA = not available.

^a Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

^b Includes estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984–87. See Technical Notes for further information.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 8. Full-time, U.S. citizen or permanent resident graduate students in science, engineering, and health fields in all institutions, by field: 1980–2003

Year	All science and engineering	Science									Engineering								Health fields	
		Total	Agricultural sciences	Biological sciences	Computer sciences	Earth/atmospheric/ocean sciences	Mathematical sciences	Physical sciences	Psychology	Social sciences	Total	Aerospace engineering	Chemical engineering	Civil engineering	Electrical engineering	Industrial engineering	Mechanical engineering	Metallurgical/materials engineering		Other
1980	166,158	141,405	8,007	32,969	4,521	9,484	6,647	17,186	25,461	37,130	24,753	759	2,517	4,670	5,666	2,297	3,211	1,165	4,468	21,956
1981	165,623	139,558	7,995	32,299	4,887	9,436	6,511	17,052	25,566	35,812	26,065	882	2,808	5,162	5,665	2,029	3,363	1,361	4,795	21,951
1982	166,705	138,209	7,805	31,522	5,981	9,691	6,926	17,586	24,588	34,110	28,496	945	3,290	5,428	6,421	2,190	3,767	1,319	5,136	20,585
1983	169,889	138,714	7,603	31,063	6,677	10,292	6,714	18,016	25,468	32,881	31,175	1,088	3,650	5,544	7,398	1,933	4,327	1,553	5,682	20,202
1984 ^a	169,870	137,903	7,579	31,138	6,982	10,162	6,772	18,294	24,924	32,052	31,967	1,115	3,623	5,687	7,890	1,934	4,591	1,679	5,448	20,607
1985 ^a	168,239	136,402	7,009	30,497	8,327	9,666	6,995	18,189	24,179	31,540	31,837	1,258	3,350	5,282	8,137	1,874	4,858	1,821	5,257	20,804
1986 ^a	170,382	137,132	6,905	30,424	8,912	9,374	7,243	18,272	25,085	30,917	33,250	1,343	3,432	5,303	8,572	2,056	5,218	1,882	5,444	20,717
1987 ^a	171,095	137,154	6,575	30,024	8,863	8,485	7,549	18,395	26,044	31,219	33,941	1,559	3,371	5,090	9,002	2,152	5,559	1,860	5,348	21,167
1988	170,144	136,619	6,601	29,986	8,415	8,029	7,738	18,141	26,802	30,907	33,525	1,502	2,971	5,208	9,295	2,239	5,299	1,848	5,163	21,512
1989	173,343	139,256	6,527	30,139	8,616	7,708	7,697	18,116	28,021	32,432	34,087	1,757	2,686	5,097	9,723	2,438	5,632	1,923	4,831	22,535
1990	177,747	143,255	6,313	30,103	8,742	7,808	7,961	17,841	29,133	35,354	34,492	1,870	2,696	5,375	9,652	2,389	5,781	2,015	4,714	23,885
1991	185,408	148,329	6,507	30,906	8,455	7,793	8,380	18,276	30,634	37,378	37,079	2,201	2,815	6,140	9,947	2,780	6,120	2,100	4,976	26,154
1992	197,399	157,510	6,726	32,337	8,881	8,299	8,939	18,767	32,548	41,013	39,889	2,246	2,968	7,003	10,548	3,088	6,803	2,278	4,955	28,437
1993	204,405	163,195	6,835	34,271	9,019	8,661	9,056	19,236	33,196	42,921	41,210	2,178	3,128	7,440	10,394	3,236	7,228	2,298	5,308	31,886
1994	206,809	165,657	6,864	36,020	8,757	8,586	8,876	19,136	33,430	43,988	41,152	1,862	3,381	7,848	10,446	3,211	7,090	2,364	4,950	35,456
1995	204,113	165,521	7,023	37,013	8,627	8,673	8,291	18,403	33,574	43,917	38,592	1,611	3,314	7,652	9,399	2,885	6,548	2,190	4,993	38,459
1996	200,674	164,198	6,905	37,032	8,400	8,399	7,885	17,632	33,789	44,156	36,476	1,417	3,382	7,509	8,758	2,528	6,024	1,988	4,870	40,486
1997	195,974	161,097	6,951	36,498	8,578	8,289	7,262	16,805	33,881	42,833	34,877	1,327	3,281	7,082	8,524	2,443	5,591	1,922	4,707	42,608
1998	191,945	158,559	6,915	36,384	9,042	8,258	7,061	16,468	33,410	41,021	33,386	1,268	3,059	6,871	8,139	2,255	5,212	1,894	4,688	44,423
1999	190,076	157,735	7,176	36,739	9,939	8,268	6,588	16,300	32,921	39,804	32,341	1,278	2,826	6,492	7,595	2,447	5,007	1,712	4,984	46,171
2000	185,673	154,545	7,259	35,967	9,630	8,155	6,345	15,601	33,059	38,529	31,128	1,358	2,792	6,313	7,253	2,324	4,614	1,645	4,829	45,397
2001	188,225	156,361	7,178	36,668	10,164	8,032	6,656	15,719	32,471	39,473	31,864	1,284	2,630	6,299	7,750	2,163	4,795	1,776	5,167	45,428
2002	200,232	164,919	7,363	38,757	11,919	8,579	7,390	16,236	32,512	42,163	35,313	1,434	2,874	6,703	8,654	2,565	5,173	1,880	6,030	47,482
2003	213,349	173,809	7,671	40,623	12,821	9,011	7,985	17,248	33,301	45,149	39,540	1,680	2,934	7,301	9,615	2,783	5,835	1,960	7,432	52,651

^a Includes estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984–87. See Technical Notes for further information.

NOTES: Distribution by citizenship data were not requested before 1980. Figures for 1991 and earlier years do not include permanent residents.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 9. Full-time graduate students with temporary visas in science, engineering, and health fields in all institutions, by field: 1980–2003

Year	All science and engineering	Science									Engineering								Health fields	
		Total	Agricultural sciences	Biological sciences	Computer sciences	Earth/atmospheric/ocean sciences	Mathematical sciences	Physical sciences	Psychology	Social sciences	Total	Aerospace engineering	Chemical engineering	Civil engineering	Electrical engineering	Industrial engineering	Mechanical engineering	Metallurgical/materials engineering		Other
1980	48,259	30,362	2,342	4,453	2,066	1,387	3,254	5,731	1,210	9,919	17,897	568	1,996	3,288	4,297	1,439	2,630	1,109	2,570	2,043
1981	52,329	32,642	2,485	4,723	2,558	1,495	3,641	6,258	1,004	10,478	19,687	601	2,208	3,637	4,785	1,574	3,059	1,117	2,706	2,146
1982	55,169	33,881	2,520	4,893	3,190	1,626	3,887	6,454	1,079	10,232	21,288	577	2,347	3,953	5,112	1,617	3,500	1,186	2,996	2,298
1983	59,515	36,758	2,627	5,342	3,923	1,669	4,241	7,195	1,093	10,668	22,757	752	2,243	4,260	5,867	1,355	4,003	1,178	3,099	2,411
1984 ^a	61,087	37,863	2,591	5,621	4,454	1,570	4,537	7,560	1,045	10,485	23,224	739	2,135	4,399	6,035	1,459	4,107	1,209	3,141	2,358
1985 ^a	65,699	41,618	2,481	6,180	5,534	1,665	4,821	8,483	1,156	11,298	24,081	736	2,218	4,467	6,662	1,582	4,017	1,288	3,111	2,545
1986 ^a	72,347	45,400	2,691	7,011	6,108	1,867	5,145	9,498	1,170	11,910	26,947	811	2,193	4,668	7,718	1,754	4,571	1,516	3,716	2,722
1987 ^a	76,010	47,989	2,741	7,861	6,473	1,939	5,494	10,028	1,212	12,241	28,021	813	2,333	4,538	8,099	2,013	4,671	1,607	3,947	2,784
1988	80,413	50,906	2,771	8,854	6,718	2,152	5,774	10,444	1,316	12,877	29,507	1,031	2,413	4,738	8,411	2,074	5,117	1,661	4,062	3,058
1989	83,477	53,168	2,766	9,880	6,990	2,304	5,984	11,100	1,327	12,817	30,309	1,015	2,617	4,867	8,743	2,246	4,860	1,837	4,124	3,293
1990	87,576	56,058	2,975	10,545	7,947	2,431	5,904	11,649	1,485	13,122	31,518	1,140	2,780	4,753	9,023	2,417	5,086	1,954	4,365	3,574
1991	91,662	57,707	2,965	11,479	8,091	2,571	5,876	11,850	1,624	13,251	33,955	1,124	3,003	5,188	9,927	2,859	5,567	1,994	4,293	3,786
1992	93,009	58,455	2,946	11,703	8,624	2,677	5,740	11,914	1,614	13,237	34,554	1,060	3,014	5,451	10,429	3,025	5,580	2,031	3,964	3,710
1993	89,500	56,902	2,877	11,830	8,382	2,685	5,474	11,380	1,586	12,688	32,598	1,084	2,951	5,018	9,949	2,714	5,167	1,996	3,719	3,853
1994	86,170	55,752	2,882	11,674	7,944	2,860	5,350	10,913	1,858	12,271	30,418	1,138	2,755	4,793	8,962	2,749	4,785	1,779	3,457	3,653
1995	83,058	53,868	2,812	11,042	7,883	2,586	5,119	10,476	1,648	12,302	29,190	1,082	2,671	4,596	8,855	2,504	4,580	1,722	3,180	3,653
1996	83,365	53,982	2,622	10,422	8,795	2,396	5,081	10,299	1,623	12,744	29,383	1,159	2,557	4,282	9,349	2,638	4,666	1,736	2,996	4,011
1997	84,695	53,884	2,411	10,159	9,757	2,221	4,882	10,077	1,670	12,707	30,811	1,202	2,540	4,324	10,475	2,673	4,841	1,772	2,984	4,012
1998	86,998	54,949	2,284	10,395	10,930	2,186	4,690	9,923	1,738	12,803	32,049	1,297	2,571	4,283	11,469	2,639	4,861	1,842	3,087	4,023
1999	93,817	58,135	2,195	10,207	12,748	2,216	5,208	10,335	1,737	13,489	35,682	1,367	2,767	4,745	12,926	3,053	5,324	1,851	3,649	4,359
2000	105,682	64,534	2,098	10,820	16,928	2,403	5,395	10,891	1,860	14,139	41,148	1,401	3,069	5,441	15,709	3,725	6,181	1,956	3,666	4,531
2001	115,796	70,212	2,227	11,470	19,923	2,472	5,811	11,460	2,016	14,833	45,584	1,537	3,199	5,803	17,490	4,371	6,641	2,201	4,342	5,073
2002	125,266	75,146	2,322	12,839	20,660	2,537	6,319	12,383	2,195	15,891	50,120	1,569	3,405	6,278	19,586	4,635	7,320	2,362	4,965	6,008
2003	125,859	75,020	2,332	13,723	18,029	2,500	6,642	13,193	2,476	16,125	50,839	1,563	3,480	6,409	19,337	4,302	7,540	2,426	5,782	6,151

^a Includes estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984–87. See Technical Notes for further information.

NOTES: Distribution by citizenship data were not requested before 1980. Figures for 1991 and earlier years do not include permanent residents.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 10. Graduate students in science, engineering, and health fields in all institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	494,079	487,208	485,627	493,256	493,311	509,620	540,513	566,835
Science and engineering	415,181	407,630	404,856	411,182	413,536	429,242	454,892	474,203
Science	311,957	306,482	304,818	309,491	309,424	319,749	335,224	346,828
Agricultural sciences	12,301	12,203	12,168	12,312	12,023	12,235	12,698	13,197
Biological sciences	57,749	56,705	56,695	56,959	56,282	57,639	61,133	64,684
Anatomy	878	856	785	749	795	735	951	908
Biochemistry	5,275	5,102	5,148	5,101	4,966	4,917	5,190	5,552
Biology	14,611	14,646	14,277	13,989	13,407	13,352	13,822	14,720
Biometry/epidemiology	3,005	2,896	3,514	3,704	3,615	3,817	4,071	4,439
Biophysics	833	748	737	710	751	877	953	1,032
Botany	2,213	2,082	2,042	1,974	1,904	1,921	1,973	1,901
Cell biology	4,207	4,300	4,379	4,637	4,820	4,911	5,375	5,722
Ecology	1,632	1,640	1,670	1,704	1,762	1,888	1,967	2,230
Entomology/parasitology	1,234	1,161	1,168	1,145	1,104	1,170	1,191	1,206
Genetics	1,741	1,776	1,727	1,783	1,712	1,841	1,909	2,073
Microbiology/immunology/virology	4,912	4,805	4,773	4,815	4,814	4,798	5,208	5,256
Nutrition	4,918	4,604	4,486	4,508	4,413	4,429	4,539	4,695
Pathology	1,656	1,674	1,580	1,580	1,531	1,637	1,613	1,541
Pharmacology	2,663	2,597	2,730	2,757	2,963	3,140	3,234	3,357
Physiology	2,377	2,298	2,151	2,083	2,015	1,967	2,076	2,328
Zoology	1,808	1,627	1,586	1,523	1,445	1,411	1,349	1,301
Biosciences, nec	3,786	3,893	3,942	4,197	4,265	4,828	5,712	6,423
Computer sciences	34,626	35,991	38,027	42,478	47,350	52,196	55,269	53,678
Earth, atmospheric, and ocean sciences	15,183	14,548	14,258	14,083	13,941	13,841	14,240	14,655
Atmospheric sciences	1,086	1,092	965	913	963	924	1,036	1,150
Geosciences	7,304	6,959	6,687	6,637	6,596	6,544	6,712	6,889
Oceanography	2,615	2,479	2,562	2,624	2,668	2,585	2,618	2,695
Earth/atmospheric/ocean sciences, nec	4,178	4,018	4,044	3,909	3,714	3,788	3,874	3,921
Mathematical sciences	18,008	16,719	16,485	16,257	15,650	16,651	18,163	19,465
Mathematics/applied mathematics	14,948	14,027	13,827	13,521	12,823	13,569	14,702	15,569
Statistics	3,060	2,692	2,658	2,736	2,827	3,082	3,461	3,896
Physical sciences	32,333	31,105	30,575	30,691	30,385	31,038	32,341	34,298
Astronomy	874	778	820	832	888	916	990	1,080
Chemistry	19,334	18,774	18,482	18,416	18,105	18,366	19,045	20,049
Physics	11,728	11,147	10,809	10,869	10,841	11,248	11,701	12,555
Physical sciences, nec	397	406	464	574	551	508	605	614
Psychology	53,122	53,126	52,557	51,727	50,466	50,467	51,165	52,025
Clinical psychology	12,787	13,098	12,733	12,798	12,488	12,488	12,609	13,203
Psychology, general	16,833	17,249	17,098	16,238	15,624	15,837	15,159	15,562
Psychology, nec	23,502	22,779	22,726	22,691	22,354	22,142	23,397	23,260
Social sciences	88,635	86,085	84,053	84,984	83,327	85,682	90,215	94,826
Agricultural economics	2,117	2,043	1,995	2,014	2,079	2,161	2,187	2,296
Anthropology (cultural/social)	7,773	7,560	7,577	7,633	7,626	7,491	7,481	7,806
Economics (except agricultural)	12,080	11,097	10,701	10,562	10,748	11,408	12,009	12,307
Geography	4,331	4,287	4,326	4,250	4,036	4,304	4,383	4,654
History and philosophy of science	409	443	508	557	532	571	663	677
Linguistics	3,156	3,068	2,935	2,799	2,674	2,744	2,875	3,028
Political science	33,252	32,083	30,828	31,372	31,131	31,805	34,934	36,855
Sociology	9,425	9,413	9,058	8,966	8,652	8,812	8,946	9,127
Sociology/anthropology	923	948	857	741	745	808	719	773
Social sciences, nec	15,169	15,143	15,268	16,090	15,104	15,578	16,018	17,303
Engineering	103,224	101,148	100,038	101,691	104,112	109,493	119,668	127,375
Aerospace engineering	3,208	3,083	3,137	3,349	3,407	3,451	3,685	4,048
Agricultural engineering	1,012	941	925	934	899	907	912	1,012

TABLE 10. Graduate students in science, engineering, and health fields in all institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Biomedical engineering	2,732	2,847	2,905	3,121	3,241	3,639	4,378	5,347
Chemical engineering	7,408	7,288	7,093	6,883	7,056	6,913	7,414	7,516
Civil engineering	18,528	17,193	16,517	16,226	16,451	16,665	17,713	18,838
Electrical engineering	29,941	30,787	31,384	31,822	33,611	36,100	39,948	41,745
Engineering science	1,751	1,647	1,701	1,627	1,632	1,798	2,121	2,240
Industrial engineering	12,675	11,957	11,221	11,803	12,119	12,940	14,033	14,295
Mechanical engineering	15,509	15,045	14,696	14,956	15,235	15,852	17,139	18,440
Metallurgical/materials engineering	4,747	4,688	4,680	4,481	4,377	4,721	4,992	5,154
Mining engineering	371	348	304	328	287	240	267	278
Nuclear engineering	980	868	821	830	792	801	795	885
Petroleum engineering	562	561	571	642	627	656	766	849
Engineering, nec	3,800	3,895	4,083	4,689	4,378	4,810	5,505	6,728
Health	78,898	79,578	80,771	82,074	79,775	80,378	85,621	92,632
Medical fields	15,363	15,470	16,643	17,276	16,407	17,363	19,246	20,773
Anesthesiology	754	840	907	897	863	917	1,091	1,287
Cardiology	18	33	36	63	53	50	43	57
Endocrinology	46	43	58	67	57	53	60	80
Gastroenterology	0	3	6	7	14	7	7	11
Hematology	3	3	1	5	6	6	13	25
Neurology	1,653	1,717	1,825	1,907	1,982	2,136	2,513	2,665
Obstetrics/gynecology	4	18	13	16	16	28	23	28
Oncology/cancer research	185	198	209	250	239	261	231	234
Ophthalmology	33	33	38	49	58	46	181	413
Otorhinolaryngology	0	2	0	3	9	4	8	9
Pediatrics	275	342	328	316	403	380	463	462
Preventive medicine/community health	10,582	10,448	11,494	11,907	10,757	11,038	11,821	12,312
Psychiatry	218	228	136	119	184	266	364	277
Pulmonary disease	0	0	0	6	7	8	5	14
Radiology	285	267	249	229	232	262	258	302
Surgery	167	171	122	122	147	130	86	84
Clinical medicine, nec	1,140	1,124	1,221	1,313	1,380	1,771	2,079	2,513
Other health	63,535	64,108	64,128	64,798	63,368	63,015	66,375	71,859
Dental sciences	1,388	1,491	1,518	1,467	1,430	1,494	1,446	1,654
Nursing	27,388	26,861	25,591	25,074	23,457	23,609	24,715	26,648
Pharmaceutical sciences	2,846	2,710	2,882	3,422	3,611	3,679	4,538	5,448
Speech pathology/audiology	12,857	13,212	13,198	13,600	13,636	13,193	13,368	13,694
Veterinary sciences	997	1,224	1,288	1,314	1,367	1,476	1,691	2,069
Health related, nec	18,059	18,610	19,651	19,921	19,867	19,564	20,617	22,346

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 11. Male graduate students in science, engineering, and health fields in all institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	271,660	264,497	261,019	262,675	262,109	271,157	287,087	298,530
Science and engineering	253,510	245,619	241,429	242,786	243,057	251,812	266,248	276,090
Science	168,540	163,191	160,379	160,982	159,691	164,576	171,547	176,304
Agricultural sciences	7,716	7,497	7,316	7,263	6,935	6,892	7,045	7,171
Biological sciences	29,107	28,229	27,742	27,338	26,475	26,590	27,706	28,812
Anatomy	478	473	443	404	428	383	484	442
Biochemistry	2,987	2,926	2,919	2,835	2,735	2,694	2,768	2,957
Biology	7,482	7,359	7,064	6,846	6,401	6,163	6,308	6,586
Biometry/epidemiology	1,231	1,120	1,361	1,381	1,374	1,390	1,519	1,668
Biophysics	589	532	528	497	520	615	647	693
Botany	1,215	1,086	1,031	992	918	947	954	905
Cell biology	2,226	2,245	2,238	2,277	2,326	2,390	2,584	2,702
Ecology	855	842	840	823	846	909	928	1,022
Entomology/parasitology	810	751	754	739	662	690	699	669
Genetics	833	808	744	767	739	795	797	857
Microbiology/immunology/virology	2,480	2,409	2,402	2,365	2,382	2,303	2,400	2,323
Nutrition	1,238	1,144	1,073	1,077	1,034	993	1,027	1,037
Pathology	847	842	776	776	702	742	707	631
Pharmacology	1,372	1,368	1,405	1,414	1,447	1,482	1,461	1,539
Physiology	1,396	1,364	1,265	1,185	1,133	1,056	1,082	1,184
Zoology	1,041	924	892	853	803	744	711	656
Biosciences, nec	2,027	2,036	2,007	2,107	2,025	2,294	2,630	2,941
Computer sciences	25,829	26,110	27,225	29,933	33,270	36,894	39,244	38,887
Earth, atmospheric, and ocean sciences	9,736	9,132	8,690	8,358	8,188	7,949	7,993	8,100
Atmospheric sciences	852	829	731	671	695	626	703	776
Geosciences	4,984	4,663	4,372	4,237	4,141	4,061	4,099	4,125
Oceanography	1,545	1,424	1,400	1,402	1,401	1,330	1,309	1,303
Earth/atmospheric/ocean sciences, nec	2,355	2,216	2,187	2,048	1,951	1,932	1,882	1,896
Mathematical sciences	11,789	10,851	10,497	10,214	9,870	10,381	11,277	12,176
Mathematics/applied mathematics	9,962	9,244	8,932	8,659	8,315	8,751	9,463	10,163
Statistics	1,827	1,607	1,565	1,555	1,555	1,630	1,814	2,013
Physical sciences	23,288	22,257	21,822	21,776	21,270	21,702	22,275	23,520
Astronomy	647	570	590	607	621	651	688	735
Chemistry	12,495	12,052	11,918	11,799	11,349	11,511	11,720	12,210
Physics	9,919	9,403	9,029	8,993	8,931	9,206	9,500	10,189
Physical sciences, nec	227	232	285	377	369	334	367	386
Psychology	15,375	15,507	15,095	14,456	13,594	13,149	13,437	13,357
Clinical psychology	3,700	3,786	3,560	3,513	3,205	3,089	3,142	3,168
Psychology, general	5,187	5,372	5,251	4,851	4,597	4,554	4,483	4,577
Psychology, nec	6,488	6,349	6,284	6,092	5,792	5,506	5,812	5,612
Social sciences	45,700	43,608	41,992	41,644	40,089	41,019	42,570	44,281
Agricultural economics	1,407	1,355	1,315	1,299	1,290	1,326	1,343	1,401
Anthropology (cultural/social)	3,087	3,059	3,021	2,989	2,941	2,929	2,864	2,942
Economics (except agricultural)	8,297	7,585	7,237	7,063	6,983	7,413	7,741	7,807
Geography	2,770	2,662	2,663	2,547	2,409	2,503	2,540	2,654
History and philosophy of science	257	281	315	345	313	327	362	390
Linguistics	1,133	1,051	982	966	930	951	984	1,023
Political science	17,620	16,679	15,867	15,799	15,204	15,304	16,315	17,025
Sociology	3,640	3,591	3,362	3,227	3,072	3,080	3,178	3,226
Sociology/anthropology	382	377	335	271	282	308	266	267
Social sciences, nec	7,107	6,968	6,895	7,138	6,665	6,878	6,977	7,546
Engineering	84,970	82,428	81,050	81,804	83,366	87,236	94,701	99,786
Aerospace engineering	2,856	2,712	2,755	2,926	2,938	2,966	3,169	3,445
Agricultural engineering	802	723	682	683	631	623	640	715

TABLE 11. Male graduate students in science, engineering, and health fields in all institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Biomedical engineering	1,999	2,021	2,035	2,117	2,171	2,385	2,849	3,385
Chemical engineering	5,757	5,568	5,366	5,150	5,181	5,084	5,419	5,416
Civil engineering	14,228	13,029	12,415	12,069	12,174	12,162	12,808	13,446
Electrical engineering	25,712	26,237	26,512	26,689	28,075	29,888	32,678	33,954
Engineering science	1,456	1,369	1,370	1,308	1,290	1,435	1,691	1,775
Industrial engineering	9,906	9,301	8,769	9,144	9,406	10,132	10,957	11,035
Mechanical engineering	13,873	13,266	12,934	13,168	13,403	13,908	15,056	16,076
Metallurgical/materials engineering	3,670	3,571	3,550	3,397	3,336	3,548	3,741	3,822
Mining engineering	317	285	249	273	241	204	230	236
Nuclear engineering	827	725	687	686	636	644	647	703
Petroleum engineering	502	484	516	560	540	565	659	720
Engineering, nec	3,065	3,137	3,210	3,634	3,344	3,692	4,157	5,058
Health	18,150	18,878	19,590	19,889	19,052	19,345	20,839	22,440
Medical fields	6,614	6,663	6,922	7,075	6,497	6,775	7,400	7,825
Anesthesiology	266	355	406	421	437	413	431	506
Cardiology	13	26	28	37	38	31	24	34
Endocrinology	24	24	33	35	29	25	28	47
Gastroenterology	0	1	6	2	8	1	1	1
Hematology	0	0	0	1	4	4	3	10
Neurology	949	987	1,058	1,086	1,090	1,123	1,330	1,348
Obstetrics/gynecology	3	9	8	6	10	15	9	16
Oncology/cancer research	96	89	97	113	109	119	86	90
Ophthalmology	12	14	14	19	27	23	106	142
Otorhinolaryngology	0	2	0	3	3	2	7	7
Pediatrics	54	59	55	55	90	53	66	80
Preventive medicine/community health	4,260	4,169	4,306	4,353	3,711	3,798	4,099	4,099
Psychiatry	51	39	21	23	34	65	69	60
Pulmonary disease	0	0	0	4	5	3	3	6
Radiology	182	177	164	162	140	156	156	172
Surgery	80	94	57	68	77	89	61	58
Clinical medicine, nec	624	618	669	687	685	855	921	1,149
Other health	11,536	12,215	12,668	12,814	12,555	12,570	13,439	14,615
Dental sciences	894	932	952	918	880	931	882	997
Nursing	1,765	2,036	2,159	2,261	2,195	2,258	2,559	2,752
Pharmaceutical sciences	1,523	1,423	1,518	1,732	1,764	1,820	2,097	2,449
Speech pathology/audiology	1,037	1,071	1,060	1,060	1,027	1,006	963	958
Veterinary sciences	531	608	609	578	607	610	675	759
Health related, nec	5,786	6,145	6,370	6,265	6,082	5,945	6,263	6,700

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 12. Female graduate students in science, engineering, and health fields in all institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	222,419	222,711	224,608	230,581	231,202	238,463	253,426	268,305
Science and engineering	161,671	162,011	163,427	168,396	170,479	177,430	188,644	198,113
Science	143,417	143,291	144,439	148,509	149,733	155,173	163,677	170,524
Agricultural sciences	4,585	4,706	4,852	5,049	5,088	5,343	5,653	6,026
Biological sciences	28,642	28,476	28,953	29,621	29,807	31,049	33,427	35,872
Anatomy	400	383	342	345	367	352	467	466
Biochemistry	2,288	2,176	2,229	2,266	2,231	2,223	2,422	2,595
Biology	7,129	7,287	7,213	7,143	7,006	7,189	7,514	8,134
Biometry/epidemiology	1,774	1,776	2,153	2,323	2,241	2,427	2,552	2,771
Biophysics	244	216	209	213	231	262	306	339
Botany	998	996	1,011	982	986	974	1,019	996
Cell biology	1,981	2,055	2,141	2,360	2,494	2,521	2,791	3,020
Ecology	777	798	830	881	916	979	1,039	1,208
Entomology/parasitology	424	410	414	406	442	480	492	537
Genetics	908	968	983	1,016	973	1,046	1,112	1,216
Microbiology/immunology/virology	2,432	2,396	2,371	2,450	2,432	2,495	2,808	2,933
Nutrition	3,680	3,460	3,413	3,431	3,379	3,436	3,512	3,658
Pathology	809	832	804	804	829	895	906	910
Pharmacology	1,291	1,229	1,325	1,343	1,516	1,658	1,773	1,818
Physiology	981	934	886	898	882	911	994	1,144
Zoology	767	703	694	670	642	667	638	645
Biosciences, nec	1,759	1,857	1,935	2,090	2,240	2,534	3,082	3,482
Computer sciences	8,797	9,881	10,802	12,545	14,080	15,302	16,025	14,791
Earth, atmospheric, and ocean sciences	5,447	5,416	5,568	5,725	5,753	5,892	6,247	6,555
Atmospheric sciences	234	263	234	242	268	298	333	374
Geosciences	2,320	2,296	2,315	2,400	2,455	2,483	2,613	2,764
Oceanography	1,070	1,055	1,162	1,222	1,267	1,255	1,309	1,392
Earth/atmospheric/ocean sciences, nec	1,823	1,802	1,857	1,861	1,763	1,856	1,992	2,025
Mathematical sciences	6,219	5,868	5,988	6,043	5,780	6,270	6,886	7,289
Mathematics/applied mathematics	4,986	4,783	4,895	4,862	4,508	4,818	5,239	5,406
Statistics	1,233	1,085	1,093	1,181	1,272	1,452	1,647	1,883
Physical sciences	9,045	8,848	8,753	8,915	9,115	9,336	10,066	10,778
Astronomy	227	208	230	225	267	265	302	345
Chemistry	6,839	6,722	6,564	6,617	6,756	6,855	7,325	7,839
Physics	1,809	1,744	1,780	1,876	1,910	2,042	2,201	2,366
Physical sciences, nec	170	174	179	197	182	174	238	228
Psychology	37,747	37,619	37,462	37,271	36,872	37,318	37,728	38,668
Clinical psychology	9,087	9,312	9,173	9,285	9,283	9,399	9,467	10,035
Psychology, general	11,646	11,877	11,847	11,387	11,027	11,283	10,676	10,985
Psychology, nec	17,014	16,430	16,442	16,599	16,562	16,636	17,585	17,648
Social sciences	42,935	42,477	42,061	43,340	43,238	44,663	47,645	50,545
Agricultural economics	710	688	680	715	789	835	844	895
Anthropology (cultural/social)	4,686	4,501	4,556	4,644	4,685	4,562	4,617	4,864
Economics (except agricultural)	3,783	3,512	3,464	3,499	3,765	3,995	4,268	4,500
Geography	1,561	1,625	1,663	1,703	1,627	1,801	1,843	2,000
History and philosophy of science	152	162	193	212	219	244	301	287
Linguistics	2,023	2,017	1,953	1,833	1,744	1,793	1,891	2,005
Political science	15,632	15,404	14,961	15,573	15,927	16,501	18,619	19,830
Sociology	5,785	5,822	5,696	5,739	5,580	5,732	5,768	5,901
Sociology/anthropology	541	571	522	470	463	500	453	506
Social sciences, nec	8,062	8,175	8,373	8,952	8,439	8,700	9,041	9,757
Engineering	18,254	18,720	18,988	19,887	20,746	22,257	24,967	27,589
Aerospace engineering	352	371	382	423	469	485	516	603
Agricultural engineering	210	218	243	251	268	284	272	297

TABLE 12. Female graduate students in science, engineering, and health fields in all institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Biomedical engineering	733	826	870	1,004	1,070	1,254	1,529	1,962
Chemical engineering	1,651	1,720	1,727	1,733	1,875	1,829	1,995	2,100
Civil engineering	4,300	4,164	4,102	4,157	4,277	4,503	4,905	5,392
Electrical engineering	4,229	4,550	4,872	5,133	5,536	6,212	7,270	7,791
Engineering science	295	278	331	319	342	363	430	465
Industrial engineering	2,769	2,656	2,452	2,659	2,713	2,808	3,076	3,260
Mechanical engineering	1,636	1,779	1,762	1,788	1,832	1,944	2,083	2,364
Metallurgical/materials engineering	1,077	1,117	1,130	1,084	1,041	1,173	1,251	1,332
Mining engineering	54	63	55	55	46	36	37	42
Nuclear engineering	153	143	134	144	156	157	148	182
Petroleum engineering	60	77	55	82	87	91	107	129
Engineering, nec	735	758	873	1,055	1,034	1,118	1,348	1,670
Health	60,748	60,700	61,181	62,185	60,723	61,033	64,782	70,192
Medical fields	8,749	8,807	9,721	10,201	9,910	10,588	11,846	12,948
Anesthesiology	488	485	501	476	426	504	660	781
Cardiology	5	7	8	26	15	19	19	23
Endocrinology	22	19	25	32	28	28	32	33
Gastroenterology	0	2	0	5	6	6	6	10
Hematology	3	3	1	4	2	2	10	15
Neurology	704	730	767	821	892	1,013	1,183	1,317
Obstetrics/gynecology	1	9	5	10	6	13	14	12
Oncology/cancer research	89	109	112	137	130	142	145	144
Ophthalmology	21	19	24	30	31	23	75	271
Otorhinolaryngology	0	0	0	0	6	2	1	2
Pediatrics	221	283	273	261	313	327	397	382
Preventive medicine/community health	6,322	6,279	7,188	7,554	7,046	7,240	7,722	8,213
Psychiatry	167	189	115	96	150	201	295	217
Pulmonary disease	0	0	0	2	2	5	2	8
Radiology	103	90	85	67	92	106	102	130
Surgery	87	77	65	54	70	41	25	26
Clinical medicine, nec	516	506	552	626	695	916	1,158	1,364
Other health	51,999	51,893	51,460	51,984	50,813	50,445	52,936	57,244
Dental sciences	494	559	566	549	550	563	564	657
Nursing	25,623	24,825	23,432	22,813	21,262	21,351	22,156	23,896
Pharmaceutical sciences	1,323	1,287	1,364	1,690	1,847	1,859	2,441	2,999
Speech pathology/audiology	11,820	12,141	12,138	12,540	12,609	12,187	12,405	12,736
Veterinary sciences	466	616	679	736	760	866	1,016	1,310
Health related, nec	12,273	12,465	13,281	13,656	13,785	13,619	14,354	15,646

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 13. Graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 1996–2003

Field, citizenship, and race/ethnicity	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	494,079	487,208	485,627	493,256	493,311	509,620	540,513	566,835
U.S. citizens and permanent residents	391,095	383,327	378,560	377,802	364,954	368,840	387,628	412,467
American Indian/Alaska Native	1,906	1,969	2,036	1,994	2,021	2,136	2,241	2,392
Asian/Pacific Islander	29,926	30,371	31,615	32,717	30,250	32,035	35,041	38,940
Black, non-Hispanic	22,972	23,560	24,261	25,200	25,928	27,075	28,729	31,207
Hispanic	17,742	18,154	18,765	20,322	21,327	22,329	24,288	26,699
White, non-Hispanic	297,164	286,607	279,450	275,325	261,112	260,380	270,085	282,768
Other or unknown	21,385	22,666	22,433	22,244	24,316	24,885	27,244	30,461
Temporary-visa holders	102,984	103,881	107,067	115,454	128,357	140,780	152,885	154,368
Science and engineering	415,181	407,630	404,856	411,182	413,536	429,242	454,892	474,203
U.S. citizens and permanent residents	317,075	308,668	302,879	301,254	290,711	294,711	309,280	327,332
American Indian/Alaska Native	1,538	1,599	1,607	1,553	1,602	1,683	1,735	1,872
Asian/Pacific Islander	25,929	26,012	26,726	27,570	25,058	26,584	29,352	32,450
Black, non-Hispanic	19,066	19,341	19,651	20,273	20,834	21,459	22,673	24,134
Hispanic	14,571	14,984	15,487	16,520	17,203	17,974	19,639	21,264
White, non-Hispanic	238,032	228,007	220,667	216,750	205,569	206,027	213,162	222,118
Other or unknown	17,939	18,725	18,741	18,588	20,445	20,984	22,719	25,494
Temporary-visa holders	98,106	98,962	101,977	109,928	122,825	134,531	145,612	146,871
Science	311,957	306,482	304,818	309,491	309,424	319,749	335,224	346,828
U.S. citizens and permanent residents	248,907	244,026	240,630	241,066	234,000	237,740	247,918	259,778
American Indian/Alaska Native	1,304	1,360	1,371	1,311	1,394	1,456	1,491	1,568
Asian/Pacific Islander	17,489	17,879	18,714	19,409	17,784	18,577	19,968	21,542
Black, non-Hispanic	16,167	16,462	16,830	17,308	17,857	18,544	19,599	20,922
Hispanic	11,635	12,172	12,587	13,596	14,185	14,791	16,178	17,288
White, non-Hispanic	188,943	181,914	176,569	174,687	166,486	167,568	172,603	178,681
Other or unknown	13,369	14,239	14,559	14,755	16,294	16,804	18,079	19,777
Temporary-visa holders	63,050	62,456	64,188	68,425	75,424	82,009	87,306	87,050
Agricultural sciences	12,301	12,203	12,168	12,312	12,023	12,235	12,698	13,197
U.S. citizens and permanent residents	9,283	9,414	9,514	9,774	9,612	9,722	10,085	10,619
American Indian/Alaska Native	48	62	71	69	56	58	76	77
Asian/Pacific Islander	291	309	315	310	250	262	286	326
Black, non-Hispanic	304	288	344	310	292	327	375	462
Hispanic	376	411	391	422	440	425	406	496
White, non-Hispanic	7,983	7,990	8,093	8,383	8,152	8,147	8,486	8,740
Other or unknown	281	354	300	280	422	503	456	518
Temporary-visa holders	3,018	2,789	2,654	2,538	2,411	2,513	2,613	2,578
Biological sciences	57,749	56,705	56,695	56,959	56,282	57,639	61,133	64,684
U.S. citizens and permanent residents	46,377	45,641	45,359	45,770	44,521	45,205	47,307	49,914
American Indian/Alaska Native	200	197	191	186	189	205	211	236
Asian/Pacific Islander	4,458	4,479	4,439	4,476	4,246	4,710	4,855	5,210
Black, non-Hispanic	1,974	2,105	2,141	2,218	2,241	2,351	2,480	2,762
Hispanic	1,849	1,987	2,053	2,185	2,183	2,338	2,590	2,849
White, non-Hispanic	36,116	34,778	34,323	34,319	33,255	33,193	34,586	35,787
Other or unknown	1,780	2,095	2,212	2,386	2,407	2,408	2,585	3,070
Temporary-visa holders	11,372	11,064	11,336	11,189	11,761	12,434	13,826	14,770
Computer sciences	34,626	35,991	38,027	42,478	47,350	52,196	55,269	53,678
U.S. citizens and permanent residents	22,779	23,074	23,605	25,323	25,088	26,142	28,203	29,535
American Indian/Alaska Native	54	60	92	74	80	87	83	104
Asian/Pacific Islander	4,266	4,626	5,219	6,144	5,332	5,427	5,953	5,956
Black, non-Hispanic	1,276	1,300	1,355	1,485	1,512	1,709	1,898	1,945
Hispanic	700	723	754	865	863	894	1,004	1,099
White, non-Hispanic	14,479	14,062	13,948	14,377	14,468	15,057	15,962	17,199
Other or unknown	2,004	2,303	2,237	2,378	2,833	2,968	3,303	3,232
Temporary-visa holders	11,847	12,917	14,422	17,155	22,262	26,054	27,066	24,143

TABLE 13. Graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 1996–2003

Field, citizenship, and race/ethnicity	1996	1997	1998	1999	2000	2001	2002	2003
Earth, atmospheric, and ocean sciences	15,183	14,548	14,258	14,083	13,941	13,841	14,240	14,655
U.S. citizens and permanent residents	12,417	12,033	11,759	11,563	11,249	11,059	11,472	11,892
American Indian/Alaska Native	65	82	84	63	61	70	81	63
Asian/Pacific Islander	409	417	424	400	351	341	355	375
Black, non-Hispanic	219	203	202	213	220	227	266	270
Hispanic	374	399	370	400	355	397	413	484
White, non-Hispanic	10,873	10,402	10,098	10,007	9,812	9,573	9,799	9,995
Other or unknown	477	530	581	480	450	451	558	705
Temporary-visa holders	2,766	2,515	2,499	2,520	2,692	2,782	2,768	2,763
Mathematical sciences	18,008	16,719	16,485	16,257	15,650	16,651	18,163	19,465
U.S. citizens and permanent residents	12,247	11,175	11,064	10,330	9,593	10,167	11,139	12,144
American Indian/Alaska Native	41	43	34	30	25	38	24	25
Asian/Pacific Islander	1,223	1,051	1,174	1,002	948	985	1,184	1,446
Black, non-Hispanic	711	657	613	594	572	590	626	658
Hispanic	425	427	454	447	460	482	542	604
White, non-Hispanic	9,196	8,351	8,097	7,659	6,955	7,386	7,923	8,415
Other or unknown	651	646	692	598	633	686	840	996
Temporary-visa holders	5,761	5,544	5,421	5,927	6,057	6,484	7,024	7,321
Physical sciences	32,333	31,105	30,575	30,691	30,385	31,038	32,341	34,298
U.S. citizens and permanent residents	21,155	20,210	19,837	19,559	18,730	18,835	19,251	20,226
American Indian/Alaska Native	60	70	64	69	75	81	83	79
Asian/Pacific Islander	1,745	1,638	1,760	1,682	1,524	1,458	1,424	1,629
Black, non-Hispanic	986	952	913	903	918	875	893	939
Hispanic	742	782	832	895	844	896	981	1,097
White, non-Hispanic	16,757	15,767	15,218	15,037	14,343	14,248	14,620	15,107
Other or unknown	865	1,001	1,050	973	1,026	1,277	1,250	1,375
Temporary-visa holders	11,178	10,895	10,738	11,132	11,655	12,203	13,090	14,072
Psychology	53,122	53,126	52,557	51,727	50,466	50,467	51,165	52,025
U.S. citizens and permanent residents	51,149	51,118	50,371	49,488	48,203	47,946	48,308	48,845
American Indian/Alaska Native	359	341	311	300	360	334	320	322
Asian/Pacific Islander	1,757	1,909	2,019	2,038	2,063	2,176	2,186	2,384
Black, non-Hispanic	3,452	3,644	3,813	3,749	4,214	4,347	4,491	4,670
Hispanic	2,937	3,075	3,228	3,567	4,145	4,309	4,655	4,682
White, non-Hispanic	39,327	38,724	37,622	36,267	33,801	33,578	33,473	33,409
Other or unknown	3,317	3,425	3,378	3,567	3,620	3,202	3,183	3,378
Temporary-visa holders	1,973	2,008	2,186	2,239	2,263	2,521	2,857	3,180
Social sciences	88,635	86,085	84,053	84,984	83,327	85,682	90,215	94,826
U.S. citizens and permanent residents	73,500	71,361	69,121	69,259	67,004	68,664	72,153	76,603
American Indian/Alaska Native	477	505	524	520	548	583	613	662
Asian/Pacific Islander	3,340	3,450	3,364	3,357	3,070	3,218	3,725	4,216
Black, non-Hispanic	7,245	7,313	7,449	7,836	7,888	8,118	8,570	9,216
Hispanic	4,232	4,368	4,505	4,815	4,895	5,050	5,587	5,977
White, non-Hispanic	54,212	51,840	49,170	48,638	45,700	46,386	47,754	50,029
Other or unknown	3,994	3,885	4,109	4,093	4,903	5,309	5,904	6,503
Temporary-visa holders	15,135	14,724	14,932	15,725	16,323	17,018	18,062	18,223
Engineering	103,224	101,148	100,038	101,691	104,112	109,493	119,668	127,375
U.S. citizens and permanent residents	68,168	64,642	62,249	60,188	56,711	56,971	61,362	67,554
American Indian/Alaska Native	234	239	236	242	208	227	244	304
Asian/Pacific Islander	8,440	8,133	8,012	8,161	7,274	8,007	9,384	10,908
Black, non-Hispanic	2,899	2,879	2,821	2,965	2,977	2,915	3,074	3,212
Hispanic	2,936	2,812	2,900	2,924	3,018	3,183	3,461	3,976
White, non-Hispanic	49,089	46,093	44,098	42,063	39,083	38,459	40,559	43,437
Other or unknown	4,570	4,486	4,182	3,833	4,151	4,180	4,640	5,717
Temporary-visa holders	35,056	36,506	37,789	41,503	47,401	52,522	58,306	59,821

TABLE 13. Graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 1996–2003

Field, citizenship, and race/ethnicity	1996	1997	1998	1999	2000	2001	2002	2003
Chemical engineering	7,408	7,288	7,093	6,883	7,056	6,913	7,414	7,516
U.S. citizens and permanent residents	4,521	4,424	4,208	3,869	3,726	3,418	3,701	3,752
American Indian/Alaska Native	31	18	21	16	20	13	21	19
Asian/Pacific Islander	482	512	469	486	501	494	566	556
Black, non-Hispanic	191	172	185	147	168	167	160	173
Hispanic	200	142	179	182	182	180	206	249
White, non-Hispanic	3,394	3,365	3,124	2,805	2,627	2,417	2,565	2,554
Other or unknown	223	215	230	233	228	147	183	201
Temporary-visa holders	2,887	2,864	2,885	3,014	3,330	3,495	3,713	3,764
Civil engineering	18,528	17,193	16,517	16,226	16,451	16,665	17,713	18,838
U.S. citizens and permanent residents	13,263	12,090	11,555	10,801	10,306	10,072	10,553	11,439
American Indian/Alaska Native	48	58	43	56	39	43	58	65
Asian/Pacific Islander	1,254	1,050	1,104	931	744	771	855	1,024
Black, non-Hispanic	491	443	410	450	448	431	453	427
Hispanic	712	694	723	701	776	747	778	845
White, non-Hispanic	9,983	9,208	8,665	8,088	7,759	7,492	7,707	8,316
Other or unknown	775	637	610	575	540	588	702	762
Temporary-visa holders	5,265	5,103	4,962	5,425	6,145	6,593	7,160	7,399
Electrical engineering	29,941	30,787	31,384	31,822	33,611	36,100	39,948	41,745
U.S. citizens and permanent residents	18,489	18,032	17,459	16,517	15,315	15,534	16,579	18,098
American Indian/Alaska Native	50	46	33	47	37	45	39	63
Asian/Pacific Islander	3,548	3,489	3,443	3,491	3,119	3,454	4,079	4,600
Black, non-Hispanic	778	874	874	886	830	812	846	812
Hispanic	793	810	812	769	717	825	941	1,093
White, non-Hispanic	11,759	11,092	10,729	9,897	8,982	8,876	9,121	9,700
Other or unknown	1,561	1,721	1,568	1,427	1,630	1,522	1,553	1,830
Temporary-visa holders	11,452	12,755	13,925	15,305	18,296	20,566	23,369	23,647
Industrial engineering	12,675	11,957	11,221	11,803	12,119	12,940	14,033	14,295
U.S. citizens and permanent residents	9,349	8,616	7,869	8,073	7,574	7,607	8,318	8,877
American Indian/Alaska Native	22	23	34	39	41	43	34	52
Asian/Pacific Islander	750	739	643	784	628	686	878	1,057
Black, non-Hispanic	535	489	465	541	557	591	616	685
Hispanic	421	396	364	426	439	469	477	561
White, non-Hispanic	6,864	6,391	5,764	5,761	5,329	5,255	5,668	5,679
Other or unknown	757	578	599	522	580	563	645	843
Temporary-visa holders	3,326	3,341	3,352	3,730	4,545	5,333	5,715	5,418
Mechanical engineering	15,509	15,045	14,696	14,956	15,235	15,852	17,139	18,440
U.S. citizens and permanent residents	10,026	9,351	9,046	8,760	8,097	8,183	8,604	9,638
American Indian/Alaska Native	35	35	25	33	27	32	32	42
Asian/Pacific Islander	1,073	947	973	1,008	804	945	912	1,027
Black, non-Hispanic	417	428	412	375	396	354	358	382
Hispanic	383	360	389	388	366	407	450	537
White, non-Hispanic	7,461	6,979	6,657	6,491	6,005	5,932	6,254	6,847
Other or unknown	657	602	590	465	499	513	598	803
Temporary-visa holders	5,483	5,694	5,650	6,196	7,138	7,669	8,535	8,802
Other engineering	19,163	18,878	19,127	20,001	19,640	21,023	23,421	26,541
U.S. citizens and permanent residents	12,520	12,129	12,112	12,168	11,693	12,157	13,607	15,750
American Indian/Alaska Native	48	59	80	51	44	51	60	63
Asian/Pacific Islander	1,333	1,396	1,380	1,461	1,478	1,657	2,094	2,644
Black, non-Hispanic	487	473	475	566	578	560	641	733
Hispanic	427	410	433	458	538	555	609	691
White, non-Hispanic	9,628	9,058	9,159	9,021	8,381	8,487	9,244	10,341
Other or unknown	597	733	585	611	674	847	959	1,278
Temporary-visa holders	6,643	6,749	7,015	7,833	7,947	8,866	9,814	10,791

TABLE 13. Graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 1996–2003

Field, citizenship, and race/ethnicity	1996	1997	1998	1999	2000	2001	2002	2003
Health fields	78,898	79,578	80,771	82,074	79,775	80,378	85,621	92,632
U.S. citizens and permanent residents	74,020	74,659	75,681	76,548	74,243	74,129	78,348	85,135
American Indian/Alaska Native	368	370	429	441	419	453	506	520
Asian/Pacific Islander	3,997	4,359	4,889	5,147	5,192	5,451	5,689	6,490
Black, non-Hispanic	3,906	4,219	4,610	4,927	5,094	5,616	6,056	7,073
Hispanic	3,171	3,170	3,278	3,802	4,124	4,355	4,649	5,435
White, non-Hispanic	59,132	58,600	58,783	58,575	55,543	54,353	56,923	60,650
Other or unknown	3,446	3,941	3,692	3,656	3,871	3,901	4,525	4,967
Temporary-visa holders	4,878	4,919	5,090	5,526	5,532	6,249	7,273	7,497

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 14. Male graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 1996–2003

Field, citizenship, and race/ethnicity	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	271,660	264,497	261,019	262,675	262,109	271,157	287,087	298,530
U.S. citizens and permanent residents	198,157	191,330	186,588	183,127	173,637	174,516	182,449	193,904
American Indian/Alaska Native	863	890	891	850	843	929	931	1,015
Asian/Pacific Islander	17,268	17,118	17,564	17,750	16,079	16,927	18,443	20,369
Black, non-Hispanic	8,970	9,115	9,245	9,528	9,289	9,436	10,023	10,743
Hispanic	8,445	8,559	8,756	9,178	9,352	9,648	10,327	11,465
White, non-Hispanic	151,265	143,707	138,292	134,388	125,512	124,759	128,795	134,764
Other or unknown	11,346	11,941	11,840	11,433	12,562	12,817	13,930	15,548
Temporary-visa holders	73,503	73,167	74,431	79,548	88,472	96,641	104,638	104,626
Science and engineering	253,510	245,619	241,429	242,786	243,057	251,812	266,248	276,090
U.S. citizens and permanent residents	182,519	174,934	169,490	165,823	157,023	158,015	165,004	175,027
American Indian/Alaska Native	768	804	797	744	734	808	811	888
Asian/Pacific Islander	15,946	15,682	15,896	16,046	14,404	15,189	16,675	18,388
Black, non-Hispanic	8,247	8,329	8,320	8,565	8,298	8,383	8,910	9,441
Hispanic	7,647	7,695	7,842	8,196	8,268	8,514	9,191	10,194
White, non-Hispanic	139,325	131,492	125,734	121,810	113,782	113,259	116,620	121,826
Other or unknown	10,586	10,932	10,901	10,462	11,537	11,862	12,797	14,290
Temporary-visa holders	70,991	70,685	71,939	76,963	86,034	93,797	101,244	101,063
Science	168,540	163,191	160,379	160,982	159,691	164,576	171,547	176,304
U.S. citizens and permanent residents	127,186	122,823	119,622	118,016	112,367	113,471	117,447	122,950
American Indian/Alaska Native	577	624	624	569	596	646	636	669
Asian/Pacific Islander	9,288	9,331	9,718	9,894	8,914	9,253	9,947	10,629
Black, non-Hispanic	6,292	6,366	6,378	6,576	6,348	6,449	6,898	7,270
Hispanic	5,380	5,522	5,629	5,974	5,988	6,173	6,691	7,274
White, non-Hispanic	98,856	93,670	89,802	87,611	82,325	82,401	84,120	87,273
Other or unknown	6,793	7,310	7,471	7,392	8,196	8,549	9,155	9,835
Temporary-visa holders	41,354	40,368	40,757	42,966	47,324	51,105	54,100	53,354
Agricultural sciences	7,716	7,497	7,316	7,263	6,935	6,892	7,045	7,171
U.S. citizens and permanent residents	5,565	5,543	5,508	5,580	5,371	5,316	5,444	5,627
American Indian/Alaska Native	22	34	45	46	34	35	36	38
Asian/Pacific Islander	147	168	160	143	112	115	136	158
Black, non-Hispanic	144	128	168	159	139	126	162	196
Hispanic	207	248	211	209	223	210	197	256
White, non-Hispanic	4,869	4,771	4,759	4,856	4,626	4,547	4,670	4,694
Other or unknown	176	194	165	167	237	283	243	285
Temporary-visa holders	2,151	1,954	1,808	1,683	1,564	1,576	1,601	1,544
Biological sciences	29,107	28,229	27,742	27,338	26,475	26,590	27,706	28,812
U.S. citizens and permanent residents	22,988	22,288	21,856	21,590	20,557	20,536	21,033	21,915
American Indian/Alaska Native	93	91	88	80	79	95	88	89
Asian/Pacific Islander	2,251	2,162	2,089	2,099	1,993	2,171	2,199	2,289
Black, non-Hispanic	708	753	764	761	760	792	813	859
Hispanic	849	897	924	968	963	1,009	1,123	1,227
White, non-Hispanic	18,154	17,332	16,869	16,511	15,578	15,347	15,614	16,054
Other or unknown	933	1,053	1,122	1,171	1,184	1,122	1,196	1,397
Temporary-visa holders	6,119	5,941	5,886	5,748	5,918	6,054	6,673	6,897
Computer sciences	25,829	26,110	27,225	29,933	33,270	36,894	39,244	38,887
U.S. citizens and permanent residents	17,043	16,876	17,028	17,911	17,682	18,499	19,997	21,439
American Indian/Alaska Native	40	43	68	50	50	58	52	68
Asian/Pacific Islander	2,834	2,978	3,299	3,826	3,323	3,440	3,810	3,920
Black, non-Hispanic	716	765	764	815	844	943	1,063	1,124
Hispanic	523	513	559	653	617	650	733	814
White, non-Hispanic	11,439	10,919	10,750	10,856	10,839	11,279	12,000	13,172
Other or unknown	1,491	1,658	1,588	1,711	2,009	2,129	2,339	2,341
Temporary-visa holders	8,786	9,234	10,197	12,022	15,588	18,395	19,247	17,448

TABLE 14. Male graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 1996–2003

Field, citizenship, and race/ethnicity	1996	1997	1998	1999	2000	2001	2002	2003
Earth, atmospheric, and ocean sciences	9,736	9,132	8,690	8,358	8,188	7,949	7,993	8,100
U.S. citizens and permanent residents	7,742	7,336	6,954	6,695	6,392	6,148	6,237	6,374
American Indian/Alaska Native	36	47	44	32	33	37	45	30
Asian/Pacific Islander	249	253	238	208	179	171	158	170
Black, non-Hispanic	115	105	103	112	120	125	135	130
Hispanic	230	236	202	200	186	196	191	223
White, non-Hispanic	6,820	6,363	6,033	5,873	5,612	5,362	5,389	5,438
Other or unknown	292	332	334	270	262	257	319	383
Temporary-visa holders	1,994	1,796	1,736	1,663	1,796	1,801	1,756	1,726
Mathematical sciences	11,789	10,851	10,497	10,214	9,870	10,381	11,277	12,176
U.S. citizens and permanent residents	7,690	7,006	6,859	6,348	5,932	6,240	6,760	7,560
American Indian/Alaska Native	24	29	16	12	15	22	18	18
Asian/Pacific Islander	701	622	704	565	531	552	653	770
Black, non-Hispanic	368	347	339	324	299	320	340	376
Hispanic	266	254	276	270	310	322	335	381
White, non-Hispanic	5,906	5,316	5,057	4,798	4,354	4,587	4,877	5,354
Other or unknown	425	438	467	379	423	437	537	661
Temporary-visa holders	4,099	3,845	3,638	3,866	3,938	4,141	4,517	4,616
Physical sciences	23,288	22,257	21,822	21,776	21,270	21,702	22,275	23,520
U.S. citizens and permanent residents	15,151	14,373	14,004	13,697	12,898	12,976	13,073	13,700
American Indian/Alaska Native	42	46	41	40	54	54	55	54
Asian/Pacific Islander	1,097	1,044	1,150	1,046	951	916	893	978
Black, non-Hispanic	550	508	481	501	493	462	486	508
Hispanic	455	499	525	549	507	539	605	680
White, non-Hispanic	12,386	11,587	11,048	10,872	10,176	10,084	10,123	10,515
Other or unknown	621	689	759	689	717	921	911	965
Temporary-visa holders	8,137	7,884	7,818	8,079	8,372	8,726	9,202	9,820
Psychology	15,375	15,507	15,095	14,456	13,594	13,149	13,437	13,357
U.S. citizens and permanent residents	14,667	14,757	14,297	13,666	12,842	12,372	12,345	12,167
American Indian/Alaska Native	111	118	87	88	103	83	83	95
Asian/Pacific Islander	465	510	551	536	532	548	553	575
Black, non-Hispanic	808	908	887	905	871	868	946	926
Hispanic	807	860	881	957	1,039	1,048	1,128	1,131
White, non-Hispanic	11,574	11,316	10,915	10,195	9,359	9,025	8,818	8,632
Other or unknown	902	1,045	976	985	938	800	817	808
Temporary-visa holders	708	750	798	790	752	777	1,092	1,190
Social sciences	45,700	43,608	41,992	41,644	40,089	41,019	42,570	44,281
U.S. citizens and permanent residents	36,340	34,644	33,116	32,529	30,693	31,384	32,558	34,168
American Indian/Alaska Native	209	216	235	221	228	262	259	277
Asian/Pacific Islander	1,544	1,594	1,527	1,471	1,293	1,340	1,545	1,769
Black, non-Hispanic	2,883	2,852	2,872	2,999	2,822	2,813	2,953	3,151
Hispanic	2,043	2,015	2,051	2,168	2,143	2,199	2,379	2,562
White, non-Hispanic	27,708	26,066	24,371	23,650	21,781	22,170	22,629	23,414
Other or unknown	1,953	1,901	2,060	2,020	2,426	2,600	2,793	2,995
Temporary-visa holders	9,360	8,964	8,876	9,115	9,396	9,635	10,012	10,113
Engineering	84,970	82,428	81,050	81,804	83,366	87,236	94,701	99,786
U.S. citizens and permanent residents	55,333	52,111	49,868	47,807	44,656	44,544	47,557	52,077
American Indian/Alaska Native	191	180	173	175	138	162	175	219
Asian/Pacific Islander	6,658	6,351	6,178	6,152	5,490	5,936	6,728	7,759
Black, non-Hispanic	1,955	1,963	1,942	1,989	1,950	1,934	2,012	2,171
Hispanic	2,267	2,173	2,213	2,222	2,280	2,341	2,500	2,920
White, non-Hispanic	40,469	37,822	35,932	34,199	31,457	30,858	32,500	34,553
Other or unknown	3,793	3,622	3,430	3,070	3,341	3,313	3,642	4,455
Temporary-visa holders	29,637	30,317	31,182	33,997	38,710	42,692	47,144	47,709

TABLE 14. Male graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 1996–2003

Field, citizenship, and race/ethnicity	1996	1997	1998	1999	2000	2001	2002	2003
Chemical engineering	5,757	5,568	5,366	5,150	5,181	5,084	5,419	5,416
U.S. citizens and permanent residents	3,457	3,348	3,149	2,849	2,672	2,433	2,615	2,659
American Indian/Alaska Native	23	10	13	11	9	5	13	13
Asian/Pacific Islander	345	361	321	310	336	334	362	352
Black, non-Hispanic	94	85	105	68	89	78	79	95
Hispanic	130	105	114	128	113	108	122	143
White, non-Hispanic	2,689	2,623	2,420	2,162	1,964	1,807	1,912	1,919
Other or unknown	176	164	176	170	161	101	127	137
Temporary-visa holders	2,300	2,220	2,217	2,301	2,509	2,651	2,804	2,757
Civil engineering	14,228	13,029	12,415	12,069	12,174	12,162	12,808	13,446
U.S. citizens and permanent residents	9,946	8,975	8,509	7,846	7,397	7,115	7,344	7,890
American Indian/Alaska Native	38	41	31	43	29	29	40	42
Asian/Pacific Islander	903	760	791	615	506	492	557	658
Black, non-Hispanic	330	299	277	277	270	273	271	272
Hispanic	508	488	504	498	540	508	504	563
White, non-Hispanic	7,575	6,896	6,459	5,990	5,641	5,381	5,479	5,820
Other or unknown	592	491	447	423	411	432	493	535
Temporary-visa holders	4,282	4,054	3,906	4,223	4,777	5,047	5,464	5,556
Electrical engineering	25,712	26,237	26,512	26,689	28,075	29,888	32,678	33,954
U.S. citizens and permanent residents	15,952	15,535	14,941	14,128	13,069	13,154	13,911	15,140
American Indian/Alaska Native	45	39	25	36	26	39	27	49
Asian/Pacific Islander	2,877	2,797	2,734	2,787	2,457	2,726	3,107	3,437
Black, non-Hispanic	611	680	680	686	629	620	645	629
Hispanic	672	689	692	631	618	683	766	889
White, non-Hispanic	10,443	9,926	9,495	8,798	8,001	7,865	8,093	8,665
Other or unknown	1,304	1,404	1,315	1,190	1,338	1,221	1,273	1,471
Temporary-visa holders	9,760	10,702	11,571	12,561	15,006	16,734	18,767	18,814
Industrial engineering	9,906	9,301	8,769	9,144	9,406	10,132	10,957	11,035
U.S. citizens and permanent residents	7,130	6,537	6,000	6,070	5,678	5,717	6,204	6,614
American Indian/Alaska Native	18	17	23	23	27	30	27	37
Asian/Pacific Islander	574	563	487	586	464	492	611	769
Black, non-Hispanic	294	270	257	309	310	349	352	419
Hispanic	303	281	247	291	298	302	302	383
White, non-Hispanic	5,320	4,953	4,492	4,446	4,118	4,093	4,419	4,356
Other or unknown	621	453	494	415	461	451	493	650
Temporary-visa holders	2,776	2,764	2,769	3,074	3,728	4,415	4,753	4,421
Mechanical engineering	13,873	13,266	12,934	13,168	13,403	13,908	15,056	16,076
U.S. citizens and permanent residents	8,882	8,185	7,893	7,619	7,046	7,066	7,440	8,268
American Indian/Alaska Native	28	27	20	25	18	23	23	35
Asian/Pacific Islander	910	804	835	829	674	777	743	850
Black, non-Hispanic	327	324	308	287	292	273	279	296
Hispanic	323	298	332	336	317	342	367	441
White, non-Hispanic	6,695	6,217	5,866	5,742	5,318	5,204	5,511	5,948
Other or unknown	599	515	532	400	427	447	517	698
Temporary-visa holders	4,991	5,081	5,041	5,549	6,357	6,842	7,616	7,808
Other engineering	15,494	15,027	15,054	15,584	15,127	16,062	17,783	19,859
U.S. citizens and permanent residents	9,966	9,531	9,376	9,295	8,794	9,059	10,043	11,506
American Indian/Alaska Native	39	46	61	37	29	36	45	43
Asian/Pacific Islander	1,049	1,066	1,010	1,025	1,053	1,115	1,348	1,693
Black, non-Hispanic	299	305	315	362	360	341	386	460
Hispanic	331	312	324	338	394	398	439	501
White, non-Hispanic	7,747	7,207	7,200	7,061	6,415	6,508	7,086	7,845
Other or unknown	501	595	466	472	543	661	739	964
Temporary-visa holders	5,528	5,496	5,678	6,289	6,333	7,003	7,740	8,353

TABLE 14. Male graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 1996–2003

Field, citizenship, and race/ethnicity	1996	1997	1998	1999	2000	2001	2002	2003
Health fields	18,150	18,878	19,590	19,889	19,052	19,345	20,839	22,440
U.S. citizens and permanent residents	15,638	16,396	17,098	17,304	16,614	16,501	17,445	18,877
American Indian/Alaska Native	95	86	94	106	109	121	120	127
Asian/Pacific Islander	1,322	1,436	1,668	1,704	1,675	1,738	1,768	1,981
Black, non-Hispanic	723	786	925	963	991	1,053	1,113	1,302
Hispanic	798	864	914	982	1,084	1,134	1,136	1,271
White, non-Hispanic	11,940	12,215	12,558	12,578	11,730	11,500	12,175	12,938
Other or unknown	760	1,009	939	971	1,025	955	1,133	1,258
Temporary-visa holders	2,512	2,482	2,492	2,585	2,438	2,844	3,394	3,563

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 15. Female graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 1996–2003

Field, citizenship, and race/ethnicity	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	222,419	222,711	224,608	230,581	231,202	238,463	253,426	268,305
U.S. citizens and permanent residents	192,938	191,997	191,972	194,675	191,317	194,324	205,179	218,563
American Indian/Alaska Native	1,043	1,079	1,145	1,144	1,178	1,207	1,310	1,377
Asian/Pacific Islander	12,658	13,253	14,051	14,967	14,171	15,108	16,598	18,571
Black, non-Hispanic	14,002	14,445	15,016	15,672	16,639	17,639	18,706	20,464
Hispanic	9,297	9,595	10,009	11,144	11,975	12,681	13,961	15,234
White, non-Hispanic	145,899	142,900	141,158	140,937	135,600	135,621	141,290	148,004
Other or unknown	10,039	10,725	10,593	10,811	11,754	12,068	13,314	14,913
Temporary-visa holders	29,481	30,714	32,636	35,906	39,885	44,139	48,247	49,742
Science and engineering	161,671	162,011	163,427	168,396	170,479	177,430	188,644	198,113
U.S. citizens and permanent residents	134,556	133,734	133,389	135,431	133,688	136,696	144,276	152,305
American Indian/Alaska Native	770	795	810	809	868	875	924	984
Asian/Pacific Islander	9,983	10,330	10,830	11,524	10,654	11,395	12,677	14,062
Black, non-Hispanic	10,819	11,012	11,331	11,708	12,536	13,076	13,763	14,693
Hispanic	6,924	7,289	7,645	8,324	8,935	9,460	10,448	11,070
White, non-Hispanic	98,707	96,515	94,933	94,940	91,787	92,768	96,542	100,292
Other or unknown	7,353	7,793	7,840	8,126	8,908	9,122	9,922	11,204
Temporary-visa holders	27,115	28,277	30,038	32,965	36,791	40,734	44,368	45,808
Science	143,417	143,291	144,439	148,509	149,733	155,173	163,677	170,524
U.S. citizens and permanent residents	121,721	121,203	121,008	123,050	121,633	124,269	130,471	136,828
American Indian/Alaska Native	727	736	747	742	798	810	855	899
Asian/Pacific Islander	8,201	8,548	8,996	9,515	8,870	9,324	10,021	10,913
Black, non-Hispanic	9,875	10,096	10,452	10,732	11,509	12,095	12,701	13,652
Hispanic	6,255	6,650	6,958	7,622	8,197	8,618	9,487	10,014
White, non-Hispanic	90,087	88,244	86,767	87,076	84,161	85,167	88,483	91,408
Other or unknown	6,576	6,929	7,088	7,363	8,098	8,255	8,924	9,942
Temporary-visa holders	21,696	22,088	23,431	25,459	28,100	30,904	33,206	33,696
Agricultural sciences	4,585	4,706	4,852	5,049	5,088	5,343	5,653	6,026
U.S. citizens and permanent residents	3,718	3,871	4,006	4,194	4,241	4,406	4,641	4,992
American Indian/Alaska Native	26	28	26	23	22	23	40	39
Asian/Pacific Islander	144	141	155	167	138	147	150	168
Black, non-Hispanic	160	160	176	151	153	201	213	266
Hispanic	169	163	180	213	217	215	209	240
White, non-Hispanic	3,114	3,219	3,334	3,527	3,526	3,600	3,816	4,046
Other or unknown	105	160	135	113	185	220	213	233
Temporary-visa holders	867	835	846	855	847	937	1,012	1,034
Biological sciences	28,642	28,476	28,953	29,621	29,807	31,049	33,427	35,872
U.S. citizens and permanent residents	23,389	23,353	23,503	24,180	23,964	24,669	26,274	27,999
American Indian/Alaska Native	107	106	103	106	110	110	123	147
Asian/Pacific Islander	2,207	2,317	2,350	2,377	2,253	2,539	2,656	2,921
Black, non-Hispanic	1,266	1,352	1,377	1,457	1,481	1,559	1,667	1,903
Hispanic	1,000	1,090	1,129	1,217	1,220	1,329	1,467	1,622
White, non-Hispanic	17,962	17,446	17,454	17,808	17,677	17,846	18,972	19,733
Other or unknown	847	1,042	1,090	1,215	1,223	1,286	1,389	1,673
Temporary-visa holders	5,253	5,123	5,450	5,441	5,843	6,380	7,153	7,873
Computer sciences	8,797	9,881	10,802	12,545	14,080	15,302	16,025	14,791
U.S. citizens and permanent residents	5,736	6,198	6,577	7,412	7,406	7,643	8,206	8,096
American Indian/Alaska Native	14	17	24	24	30	29	31	36
Asian/Pacific Islander	1,432	1,648	1,920	2,318	2,009	1,987	2,143	2,036
Black, non-Hispanic	560	535	591	670	668	766	835	821
Hispanic	177	210	195	212	246	244	271	285
White, non-Hispanic	3,040	3,143	3,198	3,521	3,629	3,778	3,962	4,027
Other or unknown	513	645	649	667	824	839	964	891
Temporary-visa holders	3,061	3,683	4,225	5,133	6,674	7,659	7,819	6,695

TABLE 15. Female graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 1996–2003

Field, citizenship, and race/ethnicity	1996	1997	1998	1999	2000	2001	2002	2003
Earth, atmospheric, and ocean sciences	5,447	5,416	5,568	5,725	5,753	5,892	6,247	6,555
U.S. citizens and permanent residents	4,675	4,697	4,805	4,868	4,857	4,911	5,235	5,518
American Indian/Alaska Native	29	35	40	31	28	33	36	33
Asian/Pacific Islander	160	164	186	192	172	170	197	205
Black, non-Hispanic	104	98	99	101	100	102	131	140
Hispanic	144	163	168	200	169	201	222	261
White, non-Hispanic	4,053	4,039	4,065	4,134	4,200	4,211	4,410	4,557
Other or unknown	185	198	247	210	188	194	239	322
Temporary-visa holders	772	719	763	857	896	981	1,012	1,037
Mathematical sciences	6,219	5,868	5,988	6,043	5,780	6,270	6,886	7,289
U.S. citizens and permanent residents	4,557	4,169	4,205	3,982	3,661	3,927	4,379	4,584
American Indian/Alaska Native	17	14	18	18	10	16	6	7
Asian/Pacific Islander	522	429	470	437	417	433	531	676
Black, non-Hispanic	343	310	274	270	273	270	286	282
Hispanic	159	173	178	177	150	160	207	223
White, non-Hispanic	3,290	3,035	3,040	2,861	2,601	2,799	3,046	3,061
Other or unknown	226	208	225	219	210	249	303	335
Temporary-visa holders	1,662	1,699	1,783	2,061	2,119	2,343	2,507	2,705
Physical sciences	9,045	8,848	8,753	8,915	9,115	9,336	10,066	10,778
U.S. citizens and permanent residents	6,004	5,837	5,833	5,862	5,832	5,859	6,178	6,526
American Indian/Alaska Native	18	24	23	29	21	27	28	25
Asian/Pacific Islander	648	594	610	636	573	542	531	651
Black, non-Hispanic	436	444	432	402	425	413	407	431
Hispanic	287	283	307	346	337	357	376	417
White, non-Hispanic	4,371	4,180	4,170	4,165	4,167	4,164	4,497	4,592
Other or unknown	244	312	291	284	309	356	339	410
Temporary-visa holders	3,041	3,011	2,920	3,053	3,283	3,477	3,888	4,252
Psychology	37,747	37,619	37,462	37,271	36,872	37,318	37,728	38,668
U.S. citizens and permanent residents	36,482	36,361	36,074	35,822	35,361	35,574	35,963	36,678
American Indian/Alaska Native	248	223	224	212	257	251	237	227
Asian/Pacific Islander	1,292	1,399	1,468	1,502	1,531	1,628	1,633	1,809
Black, non-Hispanic	2,644	2,736	2,926	2,844	3,343	3,479	3,545	3,744
Hispanic	2,130	2,215	2,347	2,610	3,106	3,261	3,527	3,551
White, non-Hispanic	27,753	27,408	26,707	26,072	24,442	24,553	24,655	24,777
Other or unknown	2,415	2,380	2,402	2,582	2,682	2,402	2,366	2,570
Temporary-visa holders	1,265	1,258	1,388	1,449	1,511	1,744	1,765	1,990
Social sciences	42,935	42,477	42,061	43,340	43,238	44,663	47,645	50,545
U.S. citizens and permanent residents	37,160	36,717	36,005	36,730	36,311	37,280	39,595	42,435
American Indian/Alaska Native	268	289	289	299	320	321	354	385
Asian/Pacific Islander	1,796	1,856	1,837	1,886	1,777	1,878	2,180	2,447
Black, non-Hispanic	4,362	4,461	4,577	4,837	5,066	5,305	5,617	6,065
Hispanic	2,189	2,353	2,454	2,647	2,752	2,851	3,208	3,415
White, non-Hispanic	26,504	25,774	24,799	24,988	23,919	24,216	25,125	26,615
Other or unknown	2,041	1,984	2,049	2,073	2,477	2,709	3,111	3,508
Temporary-visa holders	5,775	5,760	6,056	6,610	6,927	7,383	8,050	8,110
Engineering	18,254	18,720	18,988	19,887	20,746	22,257	24,967	27,589
U.S. citizens and permanent residents	12,835	12,531	12,381	12,381	12,055	12,427	13,805	15,477
American Indian/Alaska Native	43	59	63	67	70	65	69	85
Asian/Pacific Islander	1,782	1,782	1,834	2,009	1,784	2,071	2,656	3,149
Black, non-Hispanic	944	916	879	976	1,027	981	1,062	1,041
Hispanic	669	639	687	702	738	842	961	1,056
White, non-Hispanic	8,620	8,271	8,166	7,864	7,626	7,601	8,059	8,884
Other or unknown	777	864	752	763	810	867	998	1,262
Temporary-visa holders	5,419	6,189	6,607	7,506	8,691	9,830	11,162	12,112

TABLE 15. Female graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 1996–2003

Field, citizenship, and race/ethnicity	1996	1997	1998	1999	2000	2001	2002	2003
Chemical engineering	1,651	1,720	1,727	1,733	1,875	1,829	1,995	2,100
U.S. citizens and permanent residents	1,064	1,076	1,059	1,020	1,054	985	1,086	1,093
American Indian/Alaska Native	8	8	8	5	11	8	8	6
Asian/Pacific Islander	137	151	148	176	165	160	204	204
Black, non-Hispanic	97	87	80	79	79	89	81	78
Hispanic	70	37	65	54	69	72	84	106
White, non-Hispanic	705	742	704	643	663	610	653	635
Other or unknown	47	51	54	63	67	46	56	64
Temporary-visa holders	587	644	668	713	821	844	909	1,007
Civil engineering	4,300	4,164	4,102	4,157	4,277	4,503	4,905	5,392
U.S. citizens and permanent residents	3,317	3,115	3,046	2,955	2,909	2,957	3,209	3,549
American Indian/Alaska Native	10	17	12	13	10	14	18	23
Asian/Pacific Islander	351	290	313	316	238	279	298	366
Black, non-Hispanic	161	144	133	173	178	158	182	155
Hispanic	204	206	219	203	236	239	274	282
White, non-Hispanic	2,408	2,312	2,206	2,098	2,118	2,111	2,228	2,496
Other or unknown	183	146	163	152	129	156	209	227
Temporary-visa holders	983	1,049	1,056	1,202	1,368	1,546	1,696	1,843
Electrical engineering	4,229	4,550	4,872	5,133	5,536	6,212	7,270	7,791
U.S. citizens and permanent residents	2,537	2,497	2,518	2,389	2,246	2,380	2,668	2,958
American Indian/Alaska Native	5	7	8	11	11	6	12	14
Asian/Pacific Islander	671	692	709	704	662	728	972	1,163
Black, non-Hispanic	167	194	194	200	201	192	201	183
Hispanic	121	121	120	138	99	142	175	204
White, non-Hispanic	1,316	1,166	1,234	1,099	981	1,011	1,028	1,035
Other or unknown	257	317	253	237	292	301	280	359
Temporary-visa holders	1,692	2,053	2,354	2,744	3,290	3,832	4,602	4,833
Industrial engineering	2,769	2,656	2,452	2,659	2,713	2,808	3,076	3,260
U.S. citizens and permanent residents	2,219	2,079	1,869	2,003	1,896	1,890	2,114	2,263
American Indian/Alaska Native	4	6	11	16	14	13	7	15
Asian/Pacific Islander	176	176	156	198	164	194	267	288
Black, non-Hispanic	241	219	208	232	247	242	264	266
Hispanic	118	115	117	135	141	167	175	178
White, non-Hispanic	1,544	1,438	1,272	1,315	1,211	1,162	1,249	1,323
Other or unknown	136	125	105	107	119	112	152	193
Temporary-visa holders	550	577	583	656	817	918	962	997
Mechanical engineering	1,636	1,779	1,762	1,788	1,832	1,944	2,083	2,364
U.S. citizens and permanent residents	1,144	1,166	1,153	1,141	1,051	1,117	1,164	1,370
American Indian/Alaska Native	7	8	5	8	9	9	9	7
Asian/Pacific Islander	163	143	138	179	130	168	169	177
Black, non-Hispanic	90	104	104	88	104	81	79	86
Hispanic	60	62	57	52	49	65	83	96
White, non-Hispanic	766	762	791	749	687	728	743	899
Other or unknown	58	87	58	65	72	66	81	105
Temporary-visa holders	492	613	609	647	781	827	919	994
Other engineering	3,669	3,851	4,073	4,417	4,513	4,961	5,638	6,682
U.S. citizens and permanent residents	2,554	2,598	2,736	2,873	2,899	3,098	3,564	4,244
American Indian/Alaska Native	9	13	19	14	15	15	15	20
Asian/Pacific Islander	284	330	370	436	425	542	746	951
Black, non-Hispanic	188	168	160	204	218	219	255	273
Hispanic	96	98	109	120	144	157	170	190
White, non-Hispanic	1,881	1,851	1,959	1,960	1,966	1,979	2,158	2,496
Other or unknown	96	138	119	139	131	186	220	314
Temporary-visa holders	1,115	1,253	1,337	1,544	1,614	1,863	2,074	2,438

TABLE 15. Female graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 1996–2003

Field, citizenship, and race/ethnicity	1996	1997	1998	1999	2000	2001	2002	2003
Health fields	60,748	60,700	61,181	62,185	60,723	61,033	64,782	70,192
U.S. citizens and permanent residents	58,382	58,263	58,583	59,244	57,629	57,628	60,903	66,258
American Indian/Alaska Native	273	284	335	335	310	332	386	393
Asian/Pacific Islander	2,675	2,923	3,221	3,443	3,517	3,713	3,921	4,509
Black, non-Hispanic	3,183	3,433	3,685	3,964	4,103	4,563	4,943	5,771
Hispanic	2,373	2,306	2,364	2,820	3,040	3,221	3,513	4,164
White, non-Hispanic	47,192	46,385	46,225	45,997	43,813	42,853	44,748	47,712
Other or unknown	2,686	2,932	2,753	2,685	2,846	2,946	3,392	3,709
Temporary-visa holders	2,366	2,437	2,598	2,941	3,094	3,405	3,879	3,934

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 16. Graduate students in science, engineering, and health fields in public institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	345,452	340,187	338,608	344,372	346,658	359,608	384,729	406,541
Science and engineering	288,103	282,596	280,579	285,028	288,310	300,953	322,226	338,765
Science	215,195	211,276	210,033	212,909	213,082	221,321	233,216	243,449
Agricultural sciences	11,809	11,740	11,678	11,842	11,517	11,681	12,093	12,508
Biological sciences	41,599	40,651	40,738	40,685	40,224	41,069	43,435	46,469
Anatomy	680	659	584	562	591	552	700	643
Biochemistry	3,730	3,610	3,633	3,585	3,516	3,513	3,646	3,951
Biology	10,905	10,820	10,564	10,459	10,096	10,071	10,468	11,245
Biometry/epidemiology	1,765	1,718	2,143	2,200	2,192	2,356	2,635	2,856
Biophysics	459	419	417	416	449	533	613	680
Botany	2,076	1,938	1,903	1,832	1,811	1,834	1,907	1,827
Cell biology	2,562	2,559	2,709	2,849	3,013	3,118	3,427	3,682
Ecology	1,467	1,494	1,526	1,526	1,582	1,678	1,683	1,952
Entomology/parasitology	1,171	1,101	1,109	1,087	1,055	1,119	1,138	1,158
Genetics	1,131	1,160	1,097	1,124	1,064	1,136	1,129	1,272
Microbiology/immunology/virology	3,400	3,317	3,258	3,220	3,206	3,195	3,395	3,383
Nutrition	3,845	3,686	3,676	3,650	3,447	3,445	3,451	3,655
Pathology	1,059	1,063	1,074	1,053	1,015	1,033	984	995
Pharmacology	1,797	1,750	1,829	1,848	2,058	2,039	2,070	2,283
Physiology	1,439	1,373	1,341	1,324	1,197	1,134	1,202	1,397
Zoology	1,736	1,556	1,522	1,461	1,406	1,354	1,287	1,244
Biosciences, nec	2,377	2,428	2,353	2,489	2,526	2,959	3,700	4,246
Computer sciences	20,882	22,195	23,601	26,530	29,276	32,262	34,798	34,736
Earth, atmospheric, and ocean sciences	12,788	12,329	12,049	11,866	11,793	11,649	11,991	12,403
Atmospheric sciences	1,066	1,068	942	896	938	897	1,000	1,114
Geosciences	6,044	5,764	5,501	5,478	5,458	5,390	5,535	5,736
Oceanography	2,201	2,088	2,179	2,217	2,265	2,222	2,224	2,276
Earth/atmospheric/ocean sciences, nec	3,477	3,409	3,427	3,275	3,132	3,140	3,232	3,277
Mathematical sciences	13,871	12,725	12,520	12,355	12,286	13,185	14,400	15,546
Mathematics/applied mathematics	11,352	10,541	10,413	10,138	10,074	10,767	11,634	12,416
Statistics	2,519	2,184	2,107	2,217	2,212	2,418	2,766	3,130
Physical sciences	23,655	22,748	22,559	22,544	22,436	22,880	23,950	25,340
Astronomy	525	471	509	511	542	538	566	637
Chemistry	14,186	13,847	13,769	13,607	13,476	13,641	14,165	14,859
Physics	8,561	8,041	7,842	7,860	7,876	8,206	8,634	9,237
Physical sciences, nec	383	389	439	566	542	495	585	607
Psychology	28,203	28,497	28,101	27,479	26,722	27,318	28,232	28,591
Clinical psychology	3,919	4,051	3,900	3,910	3,860	3,837	3,948	4,042
Psychology, general	11,180	11,563	11,263	10,684	10,221	10,221	10,273	11,030
Psychology, nec	13,104	12,883	12,938	12,885	12,641	13,260	14,011	13,519
Social sciences	62,388	60,391	58,787	59,608	58,828	61,277	64,317	67,856
Agricultural economics	2,031	1,973	1,928	1,949	2,019	2,099	2,126	2,224
Anthropology (cultural/social)	5,678	5,494	5,514	5,640	5,642	5,547	5,552	5,879
Economics (except agricultural)	7,953	7,253	6,896	6,923	6,990	7,480	8,111	8,436
Geography	4,013	3,994	4,018	3,925	3,715	4,002	4,107	4,355
History and philosophy of science	211	222	281	350	332	373	449	448
Linguistics	2,281	2,228	2,149	2,063	1,979	2,044	2,197	2,324
Political science	21,115	20,340	19,373	20,067	19,850	20,737	22,370	23,668
Sociology	7,220	7,210	7,066	6,842	6,618	6,815	6,950	7,063
Sociology/anthropology	737	779	693	616	610	633	601	639
Social sciences, nec	11,149	10,898	10,869	11,233	11,073	11,547	11,854	12,820
Engineering	72,908	71,320	70,546	72,119	75,228	79,632	89,010	95,316
Aerospace engineering	2,435	2,332	2,311	2,339	2,385	2,415	2,644	2,908
Agricultural engineering	959	893	880	888	845	839	848	947

TABLE 16. Graduate students in science, engineering, and health fields in public institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Biomedical engineering	1,700	1,844	1,842	1,991	2,048	2,198	2,772	3,544
Chemical engineering	5,383	5,214	5,089	4,887	5,088	4,911	5,414	5,519
Civil engineering	14,091	13,200	12,651	12,695	12,965	13,271	14,097	15,214
Electrical engineering	19,489	20,131	20,225	21,170	23,130	25,158	28,764	30,347
Engineering science	1,252	1,122	1,069	1,110	1,000	1,096	1,234	1,482
Industrial engineering	8,346	7,779	7,682	7,967	8,469	9,112	10,050	9,780
Mechanical engineering	11,595	11,166	11,117	11,235	11,617	12,120	13,537	14,389
Metallurgical/materials engineering	3,320	3,280	3,227	3,108	3,147	3,453	3,703	3,826
Mining engineering	278	248	211	222	275	235	263	273
Nuclear engineering	826	751	715	716	672	691	686	773
Petroleum engineering	449	446	463	543	531	538	638	729
Engineering, nec	2,785	2,914	3,064	3,248	3,056	3,595	4,360	5,585
Health	57,349	57,591	58,029	59,344	58,348	58,655	62,503	67,776
Medical fields	9,808	9,770	10,172	10,611	10,417	10,910	12,099	12,990
Anesthesiology	295	285	325	303	352	405	590	690
Cardiology	0	10	10	34	26	25	16	30
Endocrinology	46	43	58	67	57	53	58	78
Gastroenterology	0	3	6	7	14	7	7	11
Hematology	3	3	1	5	6	6	7	13
Neurology	742	819	889	999	1,073	1,173	1,430	1,540
Obstetrics/gynecology	0	5	8	13	8	20	13	13
Oncology/cancer research	117	123	139	145	143	146	123	116
Ophthalmology	31	30	31	49	58	46	178	399
Otorhinolaryngology	0	2	0	3	6	4	8	9
Pediatrics	217	241	226	243	257	287	362	394
Preventive medicine/community health	7,131	7,000	7,343	7,534	7,052	7,191	7,551	7,753
Psychiatry	102	101	64	58	78	189	267	232
Pulmonary disease	0	0	0	1	1	1	5	14
Radiology	217	209	206	177	190	217	216	237
Surgery	161	168	118	118	139	122	78	75
Clinical medicine, nec	746	728	748	855	957	1,018	1,190	1,386
Other health	47,541	47,821	47,857	48,733	47,931	47,745	50,404	54,786
Dental sciences	1,080	1,170	1,204	1,199	1,213	1,239	1,205	1,365
Nursing	21,505	21,139	20,424	19,979	18,857	18,965	19,837	21,463
Pharmaceutical sciences	2,311	2,163	2,202	2,672	2,949	2,972	3,707	4,472
Speech pathology/audiology	10,778	11,063	10,887	11,342	11,298	10,915	10,662	10,821
Veterinary sciences	945	1,172	1,235	1,267	1,322	1,430	1,638	2,017
Health related, nec	10,922	11,114	11,905	12,274	12,292	12,224	13,355	14,648

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 17. Graduate students in science, engineering, and health fields in private institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	148,627	147,021	147,019	148,884	146,653	150,012	155,784	160,294
Science and engineering	127,078	125,034	124,277	126,154	125,226	128,289	132,666	135,438
Science	96,762	95,206	94,785	96,582	96,342	98,428	102,008	103,379
Agricultural sciences	492	463	490	470	506	554	605	689
Biological sciences	16,150	16,054	15,957	16,274	16,058	16,570	17,698	18,215
Anatomy	198	197	201	187	204	183	251	265
Biochemistry	1,545	1,492	1,515	1,516	1,450	1,404	1,544	1,601
Biology	3,706	3,826	3,713	3,530	3,311	3,281	3,354	3,475
Biometry/epidemiology	1,240	1,178	1,371	1,504	1,423	1,461	1,436	1,583
Biophysics	374	329	320	294	302	344	340	352
Botany	137	144	139	142	93	87	66	74
Cell biology	1,645	1,741	1,670	1,788	1,807	1,793	1,948	2,040
Ecology	165	146	144	178	180	210	284	278
Entomology/parasitology	63	60	59	58	49	51	53	48
Genetics	610	616	630	659	648	705	780	801
Microbiology/immunology/virology	1,512	1,488	1,515	1,595	1,608	1,603	1,813	1,873
Nutrition	1,073	918	810	858	966	984	1,088	1,040
Pathology	597	611	506	527	516	604	629	546
Pharmacology	866	847	901	909	905	1,101	1,164	1,074
Physiology	938	925	810	759	818	833	874	931
Zoology	72	71	64	62	39	57	62	57
Biosciences, nec	1,409	1,465	1,589	1,708	1,739	1,869	2,012	2,177
Computer sciences	13,744	13,796	14,426	15,948	18,074	19,934	20,471	18,942
Earth, atmospheric, and ocean sciences	2,395	2,219	2,209	2,217	2,148	2,192	2,249	2,252
Atmospheric sciences	20	24	23	17	25	27	36	36
Geosciences	1,260	1,195	1,186	1,159	1,138	1,154	1,177	1,153
Oceanography	414	391	383	407	403	363	394	419
Earth/atmospheric/ocean sciences, nec	701	609	617	634	582	648	642	644
Mathematical sciences	4,137	3,994	3,965	3,902	3,364	3,466	3,763	3,919
Mathematics/applied mathematics	3,596	3,486	3,414	3,383	2,749	2,802	3,068	3,153
Statistics	541	508	551	519	615	664	695	766
Physical sciences	8,678	8,357	8,016	8,147	7,949	8,158	8,391	8,958
Astronomy	349	307	311	321	346	378	424	443
Chemistry	5,148	4,927	4,713	4,809	4,629	4,725	4,880	5,190
Physics	3,167	3,106	2,967	3,009	2,965	3,042	3,067	3,318
Physical sciences, nec	14	17	25	8	9	13	20	7
Psychology	24,919	24,629	24,456	24,248	23,744	23,149	22,933	23,434
Clinical psychology	8,868	9,047	8,833	8,888	8,628	8,651	8,661	9,161
Psychology, general	5,653	5,686	5,835	5,554	5,403	5,616	4,886	4,532
Psychology, nec	10,398	9,896	9,788	9,806	9,713	8,882	9,386	9,741
Social sciences	26,247	25,694	25,266	25,376	24,499	24,405	25,898	26,970
Agricultural economics	86	70	67	65	60	62	61	72
Anthropology (cultural/social)	2,095	2,066	2,063	1,993	1,984	1,944	1,929	1,927
Economics (except agricultural)	4,127	3,844	3,805	3,639	3,758	3,928	3,898	3,871
Geography	318	293	308	325	321	302	276	299
History and philosophy of science	198	221	227	207	200	198	214	229
Linguistics	875	840	786	736	695	700	678	704
Political science	12,137	11,743	11,455	11,305	11,281	11,068	12,564	13,187
Sociology	2,205	2,203	1,992	2,124	2,034	1,997	1,996	2,064
Sociology/anthropology	186	169	164	125	135	175	118	134
Social sciences, nec	4,020	4,245	4,399	4,857	4,031	4,031	4,164	4,483
Engineering	30,316	29,828	29,492	29,572	28,884	29,861	30,658	32,059
Aerospace engineering	773	751	826	1,010	1,022	1,036	1,041	1,140
Agricultural engineering	53	48	45	46	54	68	64	65

TABLE 17. Graduate students in science, engineering, and health fields in private institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Biomedical engineering	1,032	1,003	1,063	1,130	1,193	1,441	1,606	1,803
Chemical engineering	2,025	2,074	2,004	1,996	1,968	2,002	2,000	1,997
Civil engineering	4,437	3,993	3,866	3,531	3,486	3,394	3,616	3,624
Electrical engineering	10,452	10,656	11,159	10,652	10,481	10,942	11,184	11,398
Engineering science	499	525	632	517	632	702	887	758
Industrial engineering	4,329	4,178	3,539	3,836	3,650	3,828	3,983	4,515
Mechanical engineering	3,914	3,879	3,579	3,721	3,618	3,732	3,602	4,051
Metallurgical/materials engineering	1,427	1,408	1,453	1,373	1,230	1,268	1,289	1,328
Mining engineering	93	100	93	106	12	5	4	5
Nuclear engineering	154	117	106	114	120	110	109	112
Petroleum engineering	113	115	108	99	96	118	128	120
Engineering, nec	1,015	981	1,019	1,441	1,322	1,215	1,145	1,143
Health	21,549	21,987	22,742	22,730	21,427	21,723	23,118	24,856
Medical fields	5,555	5,700	6,471	6,665	5,990	6,453	7,147	7,783
Anesthesiology	459	555	582	594	511	512	501	597
Cardiology	18	23	26	29	27	25	27	27
Endocrinology	0	0	0	0	0	0	2	2
Gastroenterology	0	0	0	0	0	0	0	0
Hematology	0	0	0	0	0	0	6	12
Neurology	911	898	936	908	909	963	1,083	1,125
Obstetrics/gynecology	4	13	5	3	8	8	10	15
Oncology/cancer research	68	75	70	105	96	115	108	118
Ophthalmology	2	3	7	0	0	0	3	14
Otorhinolaryngology	0	0	0	0	3	0	0	0
Pediatrics	58	101	102	73	146	93	101	68
Preventive medicine/community health	3,451	3,448	4,151	4,373	3,705	3,847	4,270	4,559
Psychiatry	116	127	72	61	106	77	97	45
Pulmonary disease	0	0	0	5	6	7	0	0
Radiology	68	58	43	52	42	45	42	65
Surgery	6	3	4	4	8	8	8	9
Clinical medicine, nec	394	396	473	458	423	753	889	1,127
Other health	15,994	16,287	16,271	16,065	15,437	15,270	15,971	17,073
Dental sciences	308	321	314	268	217	255	241	289
Nursing	5,883	5,722	5,167	5,095	4,600	4,644	4,878	5,185
Pharmaceutical sciences	535	547	680	750	662	707	831	976
Speech pathology/audiology	2,079	2,149	2,311	2,258	2,338	2,278	2,706	2,873
Veterinary sciences	52	52	53	47	45	46	53	52
Health related, nec	7,137	7,496	7,746	7,647	7,575	7,340	7,262	7,698

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 18. Full-time graduate students in science, engineering, and health fields in all institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	328,536	327,289	327,389	334,423	341,283	354,522	378,988	398,010
Science and engineering	284,039	280,669	278,943	283,893	291,355	304,021	325,498	339,208
Science	218,180	214,981	213,508	215,870	219,079	226,573	240,065	248,829
Agricultural sciences	9,527	9,362	9,199	9,371	9,357	9,405	9,685	10,003
Biological sciences	47,454	46,657	46,779	46,946	46,787	48,138	51,596	54,346
Anatomy	810	797	733	708	752	675	865	829
Biochemistry	4,977	4,811	4,881	4,800	4,715	4,642	4,941	5,326
Biology	10,050	10,318	10,031	9,904	9,674	9,788	10,401	11,126
Biometry/epidemiology	2,152	1,993	2,566	2,642	2,562	2,736	3,012	3,208
Biophysics	807	728	707	681	719	837	896	968
Botany	1,919	1,802	1,803	1,758	1,705	1,720	1,791	1,730
Cell biology	3,979	3,980	4,055	4,273	4,422	4,540	4,974	5,253
Ecology	1,257	1,186	1,215	1,250	1,252	1,385	1,427	1,484
Entomology/parasitology	1,027	995	1,000	971	979	989	1,001	1,024
Genetics	1,663	1,678	1,638	1,680	1,649	1,743	1,828	1,983
Microbiology/immunology/virology	4,490	4,373	4,377	4,483	4,501	4,500	4,902	4,980
Nutrition	3,514	3,320	3,208	3,187	3,136	3,269	3,361	3,414
Pathology	1,355	1,420	1,339	1,364	1,293	1,350	1,340	1,319
Pharmacology	2,510	2,461	2,562	2,579	2,627	2,746	2,823	2,926
Physiology	2,217	2,102	1,990	1,890	1,873	1,827	1,933	2,165
Zoology	1,526	1,417	1,334	1,291	1,236	1,231	1,175	1,094
Biosciences, nec	3,201	3,276	3,340	3,485	3,692	4,160	4,926	5,517
Computer sciences	17,195	18,335	19,972	22,687	26,558	30,087	32,579	30,850
Earth, atmospheric, and ocean sciences	10,795	10,510	10,444	10,484	10,558	10,504	11,116	11,511
Atmospheric sciences	980	966	856	793	844	812	920	1,019
Geosciences	5,576	5,413	5,212	5,238	5,258	5,222	5,437	5,574
Oceanography	2,075	1,973	2,048	2,123	2,164	2,058	2,134	2,259
Earth/atmospheric/ocean sciences, nec	2,164	2,158	2,328	2,330	2,292	2,412	2,625	2,659
Mathematical sciences	12,966	12,144	11,751	11,796	11,740	12,467	13,709	14,627
Mathematics/applied mathematics	10,719	10,064	9,722	9,675	9,510	10,024	11,001	11,622
Statistics	2,247	2,080	2,029	2,121	2,230	2,443	2,708	3,005
Physical sciences	27,931	26,882	26,391	26,635	26,492	27,179	28,619	30,441
Astronomy	854	768	787	808	823	860	946	1,023
Chemistry	16,479	15,992	15,777	15,959	15,649	16,078	16,830	17,694
Physics	10,400	9,923	9,661	9,660	9,809	10,007	10,559	11,430
Physical sciences, nec	198	199	166	208	211	234	284	294
Psychology	35,412	35,551	35,148	34,658	34,919	34,487	34,707	35,777
Clinical psychology	9,601	9,921	9,812	9,941	9,725	9,697	9,476	9,720
Psychology, general	11,810	12,347	12,173	11,546	11,613	11,280	10,769	11,497
Psychology, nec	14,001	13,283	13,163	13,171	13,581	13,510	14,462	14,560
Social sciences	56,900	55,540	53,824	53,293	52,668	54,306	58,054	61,274
Agricultural economics	1,784	1,718	1,670	1,685	1,780	1,869	1,974	2,043
Anthropology (cultural/social)	6,003	5,799	5,734	5,814	5,621	5,577	5,753	5,945
Economics (except agricultural)	9,548	8,813	8,564	8,390	8,630	9,200	9,713	10,009
Geography	2,959	2,967	2,908	2,786	2,662	2,913	2,913	3,133
History and philosophy of science	348	377	404	429	412	400	420	432
Linguistics	2,530	2,420	2,286	2,182	2,104	2,177	2,261	2,389
Political science	17,669	17,071	16,316	16,171	16,089	16,455	18,632	19,969
Sociology	6,610	6,717	6,460	6,278	6,111	6,147	6,435	6,683
Sociology/anthropology	620	666	615	518	524	578	557	559
Social sciences, nec	8,829	8,992	8,867	9,040	8,735	8,990	9,396	10,112
Engineering	65,859	65,688	65,435	68,023	72,276	77,448	85,433	90,379
Aerospace engineering	2,576	2,529	2,565	2,645	2,759	2,821	3,003	3,243
Agricultural engineering	799	748	756	767	706	758	769	870

TABLE 18. Full-time graduate students in science, engineering, and health fields in all institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Biomedical engineering	2,316	2,462	2,513	2,742	2,874	3,189	3,882	4,747
Chemical engineering	5,939	5,821	5,630	5,593	5,861	5,829	6,279	6,414
Civil engineering	11,791	11,406	11,154	11,237	11,754	12,102	12,981	13,710
Electrical engineering	18,107	18,999	19,608	20,521	22,962	25,240	28,240	28,952
Engineering science	1,057	1,018	1,114	1,035	1,098	1,218	1,441	1,770
Industrial engineering	5,166	5,116	4,894	5,500	6,049	6,534	7,200	7,085
Mechanical engineering	10,690	10,432	10,073	10,331	10,795	11,436	12,493	13,375
Metallurgical/materials engineering	3,724	3,694	3,736	3,563	3,601	3,977	4,242	4,386
Mining engineering	275	269	226	258	191	194	207	219
Nuclear engineering	771	708	662	641	660	651	655	752
Petroleum engineering	442	461	481	535	519	538	649	684
Engineering, nec	2,206	2,025	2,023	2,655	2,447	2,961	3,392	4,172
Health	44,497	46,620	48,446	50,530	49,928	50,501	53,490	58,802
Medical fields	9,803	10,212	10,944	11,554	11,029	11,822	13,334	14,865
Anesthesiology	673	781	708	674	661	786	830	1,001
Cardiology	18	32	36	62	53	50	42	51
Endocrinology	46	41	58	66	55	51	59	56
Gastroenterology	0	3	6	7	14	7	7	11
Hematology	3	3	1	3	6	6	8	25
Neurology	1,599	1,650	1,773	1,853	1,922	2,072	2,456	2,573
Obstetrics/gynecology	4	18	10	9	13	18	18	20
Oncology/cancer research	182	193	206	245	225	246	229	232
Ophthalmology	19	23	22	31	41	33	166	393
Otorhinolaryngology	0	2	0	3	8	4	8	9
Pediatrics	220	275	260	276	351	316	363	377
Preventive medicine/community health	5,815	5,878	6,611	6,968	6,271	6,535	7,154	7,721
Psychiatry	78	94	47	55	89	124	138	77
Pulmonary disease	0	0	0	6	7	8	4	10
Radiology	191	199	162	170	155	171	179	208
Surgery	157	157	109	113	128	97	65	67
Clinical medicine, nec	798	863	935	1,013	1,030	1,298	1,608	2,034
Other health	34,694	36,408	37,502	38,976	38,899	38,679	40,156	43,937
Dental sciences	1,178	1,290	1,284	1,226	1,301	1,322	1,317	1,514
Nursing	8,653	9,035	9,053	9,469	8,957	9,120	10,001	10,873
Pharmaceutical sciences	2,215	2,225	2,258	2,609	2,776	2,763	2,546	3,484
Speech pathology/audiology	9,557	9,811	10,008	10,432	10,421	10,096	10,193	10,634
Veterinary sciences	783	1,028	1,048	1,052	1,154	1,244	1,418	1,750
Health related, nec	12,308	13,019	13,851	14,188	14,290	14,134	14,681	15,682

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 19. Male full-time graduate students in science, engineering, and health fields in all institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	187,116	183,392	180,993	182,940	186,261	193,465	206,152	214,264
Science and engineering	174,689	170,168	167,320	169,055	172,783	179,863	191,821	198,611
Science	120,657	116,988	114,712	114,555	115,359	118,608	124,803	128,330
Agricultural sciences	5,971	5,734	5,507	5,486	5,298	5,201	5,253	5,360
Biological sciences	24,554	23,819	23,487	23,097	22,604	22,707	23,848	24,684
Anatomy	449	438	410	385	398	358	440	408
Biochemistry	2,829	2,765	2,780	2,692	2,613	2,546	2,644	2,847
Biology	5,311	5,305	5,097	4,961	4,791	4,647	4,892	5,077
Biometry/epidemiology	880	779	1,007	986	934	982	1,074	1,164
Biophysics	567	517	509	479	500	586	599	647
Botany	1,036	938	909	883	826	853	856	817
Cell biology	2,123	2,152	2,126	2,153	2,200	2,264	2,429	2,528
Ecology	669	610	613	599	592	653	649	666
Entomology/parasitology	680	636	645	619	583	571	575	560
Genetics	803	779	718	736	714	751	773	826
Microbiology/immunology/virology	2,299	2,220	2,218	2,221	2,240	2,154	2,287	2,212
Nutrition	1,018	879	852	802	787	779	786	787
Pathology	704	727	666	669	590	611	597	544
Pharmacology	1,288	1,293	1,317	1,316	1,310	1,308	1,291	1,353
Physiology	1,314	1,243	1,182	1,087	1,055	986	1,000	1,104
Zoology	871	805	731	720	673	647	613	549
Biosciences, nec	1,713	1,733	1,707	1,789	1,798	2,011	2,343	2,595
Computer sciences	13,102	13,536	14,520	16,313	19,098	21,776	23,743	22,964
Earth, atmospheric, and ocean sciences	6,941	6,650	6,374	6,171	6,119	5,936	6,194	6,323
Atmospheric sciences	773	729	641	567	599	539	618	682
Geosciences	3,778	3,611	3,388	3,312	3,266	3,183	3,268	3,283
Oceanography	1,236	1,152	1,129	1,122	1,109	1,042	1,074	1,096
Earth/atmospheric/ocean sciences, nec	1,154	1,158	1,216	1,170	1,145	1,172	1,234	1,262
Mathematical sciences	8,797	8,171	7,797	7,662	7,669	8,085	8,807	9,488
Mathematics/applied mathematics	7,464	6,920	6,601	6,474	6,454	6,811	7,414	7,957
Statistics	1,333	1,251	1,196	1,188	1,215	1,274	1,393	1,531
Physical sciences	20,395	19,454	19,034	19,065	18,750	19,093	19,816	21,014
Astronomy	630	564	566	590	573	607	654	692
Chemistry	10,818	10,384	10,278	10,315	9,921	10,155	10,420	10,852
Physics	8,839	8,386	8,086	8,024	8,114	8,184	8,577	9,286
Physical sciences, nec	108	120	104	136	142	147	165	184
Psychology	10,775	10,833	10,509	10,073	9,841	9,303	9,303	9,382
Clinical psychology	2,823	2,944	2,812	2,795	2,557	2,452	2,344	2,317
Psychology, general	3,800	3,966	3,891	3,537	3,540	3,288	3,246	3,454
Psychology, nec	4,152	3,923	3,806	3,741	3,744	3,563	3,713	3,611
Social sciences	30,122	28,791	27,484	26,688	25,980	26,507	27,839	29,115
Agricultural economics	1,195	1,135	1,103	1,091	1,100	1,143	1,212	1,231
Anthropology (cultural/social)	2,435	2,368	2,292	2,295	2,184	2,209	2,189	2,234
Economics (except agricultural)	6,640	6,068	5,844	5,655	5,692	5,991	6,246	6,394
Geography	1,878	1,828	1,762	1,636	1,581	1,684	1,684	1,767
History and philosophy of science	222	244	257	267	239	226	232	252
Linguistics	943	844	781	782	754	769	797	830
Political science	9,755	9,279	8,833	8,512	8,290	8,176	8,921	9,516
Sociology	2,689	2,670	2,467	2,312	2,229	2,196	2,323	2,391
Sociology/anthropology	258	263	241	180	200	223	202	199
Social sciences, nec	4,107	4,092	3,904	3,958	3,711	3,890	4,033	4,301
Engineering	54,032	53,180	52,608	54,500	57,424	61,255	67,018	70,281
Aerospace engineering	2,293	2,226	2,251	2,320	2,385	2,435	2,591	2,790
Agricultural engineering	619	560	545	546	476	511	536	603

TABLE 19. Male full-time graduate students in science, engineering, and health fields in all institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Biomedical engineering	1,678	1,733	1,748	1,840	1,921	2,089	2,492	2,977
Chemical engineering	4,615	4,451	4,233	4,197	4,315	4,289	4,613	4,604
Civil engineering	8,937	8,495	8,213	8,192	8,454	8,677	9,201	9,592
Electrical engineering	15,497	16,102	16,471	17,147	19,073	20,767	22,884	23,385
Engineering science	883	843	892	838	879	961	1,137	1,406
Industrial engineering	4,069	4,009	3,810	4,364	4,710	5,105	5,628	5,458
Mechanical engineering	9,500	9,143	8,840	9,069	9,451	9,998	10,915	11,619
Metallurgical/materials engineering	2,893	2,819	2,829	2,715	2,751	2,988	3,180	3,258
Mining engineering	227	218	181	215	156	163	177	187
Nuclear engineering	649	586	551	530	535	523	527	598
Petroleum engineering	393	392	433	462	447	460	554	568
Engineering, nec	1,779	1,603	1,611	2,065	1,871	2,289	2,583	3,236
Health	12,427	13,224	13,673	13,885	13,478	13,602	14,331	15,653
Medical fields	4,377	4,588	4,761	4,835	4,520	4,784	5,329	5,786
Anesthesiology	242	340	307	311	329	359	341	416
Cardiology	13	25	28	37	38	31	23	30
Endocrinology	24	23	33	35	27	24	27	29
Gastroenterology	0	1	6	2	8	1	1	1
Hematology	0	0	0	0	4	4	1	10
Neurology	926	952	1,027	1,060	1,063	1,097	1,308	1,310
Obstetrics/gynecology	3	9	6	1	7	9	6	10
Oncology/cancer research	94	86	97	111	103	112	85	90
Ophthalmology	7	8	6	9	18	19	98	135
Otorhinolaryngology	0	2	0	3	3	2	7	7
Pediatrics	45	52	49	52	85	50	55	74
Preventive medicine/community health	2,296	2,319	2,464	2,432	2,089	2,157	2,437	2,513
Psychiatry	37	29	12	16	25	43	34	24
Pulmonary disease	0	0	0	4	5	3	3	5
Radiology	133	145	118	126	105	113	112	130
Surgery	77	86	51	61	65	69	47	50
Clinical medicine, nec	480	511	557	575	546	691	744	952
Other health	8,050	8,636	8,912	9,050	8,958	8,818	9,002	9,867
Dental sciences	759	797	805	768	799	822	811	917
Nursing	786	899	990	1,103	1,095	1,125	1,315	1,448
Pharmaceutical sciences	1,217	1,164	1,182	1,305	1,371	1,388	1,299	1,646
Speech pathology/audiology	742	781	801	835	717	725	649	697
Veterinary sciences	410	505	484	442	508	508	542	615
Health related, nec	4,136	4,490	4,650	4,597	4,468	4,250	4,386	4,544

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 20. Female full-time graduate students in science, engineering, and health fields in all institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	141,420	143,897	146,396	151,483	155,022	161,057	172,836	183,746
Science and engineering	109,350	110,501	111,623	114,838	118,572	124,158	133,677	140,597
Science	97,523	97,993	98,796	101,315	103,720	107,965	115,262	120,499
Agricultural sciences	3,556	3,628	3,692	3,885	4,059	4,204	4,432	4,643
Biological sciences	22,900	22,838	23,292	23,849	24,183	25,431	27,748	29,662
Anatomy	361	359	323	323	354	317	425	421
Biochemistry	2,148	2,046	2,101	2,108	2,102	2,096	2,297	2,479
Biology	4,739	5,013	4,934	4,943	4,883	5,141	5,509	6,049
Biometry/epidemiology	1,272	1,214	1,559	1,656	1,628	1,754	1,938	2,044
Biophysics	240	211	198	202	219	251	297	321
Botany	883	864	894	875	879	867	935	913
Cell biology	1,856	1,828	1,929	2,120	2,222	2,276	2,545	2,725
Ecology	588	576	602	651	660	732	778	818
Entomology/parasitology	347	359	355	352	396	418	426	464
Genetics	860	899	920	944	935	992	1,055	1,157
Microbiology/immunology/virology	2,191	2,153	2,159	2,262	2,261	2,346	2,615	2,768
Nutrition	2,496	2,441	2,356	2,385	2,349	2,490	2,575	2,627
Pathology	651	693	673	695	703	739	743	775
Pharmacology	1,222	1,168	1,245	1,263	1,317	1,438	1,532	1,573
Physiology	903	859	808	803	818	841	933	1,061
Zoology	655	612	603	571	563	584	562	545
Biosciences, nec	1,488	1,543	1,633	1,696	1,894	2,149	2,583	2,922
Computer sciences	4,093	4,799	5,452	6,374	7,460	8,311	8,836	7,886
Earth, atmospheric, and ocean sciences	3,854	3,860	4,070	4,313	4,439	4,568	4,922	5,188
Atmospheric sciences	207	237	215	226	245	273	302	337
Geosciences	1,798	1,802	1,824	1,926	1,992	2,039	2,169	2,291
Oceanography	839	821	919	1,001	1,055	1,016	1,060	1,163
Earth/atmospheric/ocean sciences, nec	1,010	1,000	1,112	1,160	1,147	1,240	1,391	1,397
Mathematical sciences	4,169	3,973	3,954	4,134	4,071	4,382	4,902	5,139
Mathematics/applied mathematics	3,255	3,144	3,121	3,201	3,056	3,213	3,587	3,665
Statistics	914	829	833	933	1,015	1,169	1,315	1,474
Physical sciences	7,536	7,428	7,357	7,570	7,742	8,086	8,803	9,427
Astronomy	224	204	221	218	250	253	292	331
Chemistry	5,661	5,608	5,499	5,644	5,728	5,923	6,410	6,842
Physics	1,561	1,537	1,575	1,636	1,695	1,823	1,982	2,144
Physical sciences, nec	90	79	62	72	69	87	119	110
Psychology	24,637	24,718	24,639	24,585	25,078	25,184	25,404	26,395
Clinical psychology	6,778	6,977	7,000	7,146	7,168	7,245	7,132	7,403
Psychology, general	8,010	8,381	8,282	8,009	8,073	7,992	7,523	8,043
Psychology, nec	9,849	9,360	9,357	9,430	9,837	9,947	10,749	10,949
Social sciences	26,778	26,749	26,340	26,605	26,688	27,799	30,215	32,159
Agricultural economics	589	583	567	594	680	726	762	812
Anthropology (cultural/social)	3,568	3,431	3,442	3,519	3,437	3,368	3,564	3,711
Economics (except agricultural)	2,908	2,745	2,720	2,735	2,938	3,209	3,467	3,615
Geography	1,081	1,139	1,146	1,150	1,081	1,229	1,229	1,366
History and philosophy of science	126	133	147	162	173	174	188	180
Linguistics	1,587	1,576	1,505	1,400	1,350	1,408	1,464	1,559
Political science	7,914	7,792	7,483	7,659	7,799	8,279	9,711	10,453
Sociology	3,921	4,047	3,993	3,966	3,882	3,951	4,112	4,292
Sociology/anthropology	362	403	374	338	324	355	355	360
Social sciences, nec	4,722	4,900	4,963	5,082	5,024	5,100	5,363	5,811
Engineering	11,827	12,508	12,827	13,523	14,852	16,193	18,415	20,098
Aerospace engineering	283	303	314	325	374	386	412	453
Agricultural engineering	180	188	211	221	230	247	233	267

TABLE 20. Female full-time graduate students in science, engineering, and health fields in all institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Biomedical engineering	638	729	765	902	953	1,100	1,390	1,770
Chemical engineering	1,324	1,370	1,397	1,396	1,546	1,540	1,666	1,810
Civil engineering	2,854	2,911	2,941	3,045	3,300	3,425	3,780	4,118
Electrical engineering	2,610	2,897	3,137	3,374	3,889	4,473	5,356	5,567
Engineering science	174	175	222	197	219	257	304	364
Industrial engineering	1,097	1,107	1,084	1,136	1,339	1,429	1,572	1,627
Mechanical engineering	1,190	1,289	1,233	1,262	1,344	1,438	1,578	1,756
Metallurgical/materials engineering	831	875	907	848	850	989	1,062	1,128
Mining engineering	48	51	45	43	35	31	30	32
Nuclear engineering	122	122	111	111	125	128	128	154
Petroleum engineering	49	69	48	73	72	78	95	116
Engineering, nec	427	422	412	590	576	672	809	936
Health	32,070	33,396	34,773	36,645	36,450	36,899	39,159	43,149
Medical fields	5,426	5,624	6,183	6,719	6,509	7,038	8,005	9,079
Anesthesiology	431	441	401	363	332	427	489	585
Cardiology	5	7	8	25	15	19	19	21
Endocrinology	22	18	25	31	28	27	32	27
Gastroenterology	0	2	0	5	6	6	6	10
Hematology	3	3	1	3	2	2	7	15
Neurology	673	698	746	793	859	975	1,148	1,263
Obstetrics/gynecology	1	9	4	8	6	9	12	10
Oncology/cancer research	88	107	109	134	122	134	144	142
Ophthalmology	12	15	16	22	23	14	68	258
Otorhinolaryngology	0	0	0	0	5	2	1	2
Pediatrics	175	223	211	224	266	266	308	303
Preventive medicine/community health	3,519	3,559	4,147	4,536	4,182	4,378	4,717	5,208
Psychiatry	41	65	35	39	64	81	104	53
Pulmonary disease	0	0	0	2	2	5	1	5
Radiology	58	54	44	44	50	58	67	78
Surgery	80	71	58	52	63	28	18	17
Clinical medicine, nec	318	352	378	438	484	607	864	1,082
Other health	26,644	27,772	28,590	29,926	29,941	29,861	31,154	34,070
Dental sciences	419	493	479	458	502	500	506	597
Nursing	7,867	8,136	8,063	8,366	7,862	7,995	8,686	9,425
Pharmaceutical sciences	998	1,061	1,076	1,304	1,405	1,375	1,247	1,838
Speech pathology/audiology	8,815	9,030	9,207	9,597	9,704	9,371	9,544	9,937
Veterinary sciences	373	523	564	610	646	736	876	1,135
Health related, nec	8,172	8,529	9,201	9,591	9,822	9,884	10,295	11,138

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 21. Full-time graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 1996–2003

Field, citizenship, and race/ethnicity	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	328,536	327,289	327,389	334,423	341,283	354,522	378,988	398,010
U.S. citizens and permanent residents	241,160	238,582	236,368	236,247	231,070	233,653	247,714	266,000
American Indian/Alaska Native	1,306	1,361	1,339	1,290	1,365	1,413	1,496	1,546
Asian/Pacific Islander	19,496	20,049	20,941	21,643	19,730	20,863	22,919	25,133
Black, non-Hispanic	12,989	13,567	13,782	13,963	15,014	15,307	16,347	17,679
Hispanic	11,306	11,545	11,955	12,810	13,625	14,328	15,615	17,339
White, non-Hispanic	185,735	180,714	177,215	175,601	168,649	168,061	175,931	186,148
Other or unknown	10,328	11,346	11,136	10,940	12,687	13,681	15,406	18,155
Temporary-visa holders	87,376	88,707	91,021	98,176	110,213	120,869	131,274	132,010
Science and engineering	284,039	280,669	278,943	283,893	291,355	304,021	325,498	339,208
U.S. citizens and permanent residents	200,674	195,974	191,945	190,076	185,673	188,225	200,232	213,349
American Indian/Alaska Native	1,086	1,123	1,098	1,026	1,102	1,131	1,157	1,231
Asian/Pacific Islander	16,800	17,046	17,563	18,078	16,123	17,103	19,045	20,726
Black, non-Hispanic	10,983	11,401	11,299	11,211	12,079	12,057	12,831	13,520
Hispanic	9,274	9,552	9,895	10,288	10,821	11,381	12,560	13,710
White, non-Hispanic	153,793	147,456	142,733	140,342	134,934	134,994	141,747	148,954
Other or unknown	8,738	9,396	9,357	9,131	10,614	11,559	12,892	15,208
Temporary-visa holders	83,365	84,695	86,998	93,817	105,682	115,796	125,266	125,859
Science	218,180	214,981	213,508	215,870	219,079	226,573	240,065	248,829
U.S. citizens and permanent residents	164,198	161,097	158,559	157,735	154,545	156,361	164,919	173,809
American Indian/Alaska Native	946	983	962	905	991	1,002	1,019	1,065
Asian/Pacific Islander	11,985	12,326	12,759	13,090	11,837	12,457	13,439	14,359
Black, non-Hispanic	9,318	9,727	9,721	9,605	10,365	10,401	11,026	11,681
Hispanic	7,617	7,963	8,251	8,672	9,112	9,568	10,567	11,419
White, non-Hispanic	127,619	122,705	119,278	117,928	113,493	113,332	118,238	123,077
Other or unknown	6,713	7,393	7,588	7,535	8,747	9,601	10,630	12,208
Temporary-visa holders	53,982	53,884	54,949	58,135	64,534	70,212	75,146	75,020
Agricultural sciences	9,527	9,362	9,199	9,371	9,357	9,405	9,685	10,003
U.S. citizens and permanent residents	6,905	6,951	6,915	7,176	7,259	7,178	7,363	7,671
American Indian/Alaska Native	37	47	58	51	41	41	58	54
Asian/Pacific Islander	227	244	250	249	196	211	228	269
Black, non-Hispanic	227	233	221	218	244	267	289	348
Hispanic	283	300	293	315	344	306	294	374
White, non-Hispanic	5,944	5,862	5,881	6,125	6,118	5,976	6,154	6,263
Other or unknown	187	265	212	218	316	377	340	363
Temporary-visa holders	2,622	2,411	2,284	2,195	2,098	2,227	2,322	2,332
Biological sciences	47,454	46,657	46,779	46,946	46,787	48,138	51,596	54,346
U.S. citizens and permanent residents	37,032	36,498	36,384	36,739	35,967	36,668	38,757	40,623
American Indian/Alaska Native	158	165	160	141	160	176	178	192
Asian/Pacific Islander	3,864	3,817	3,811	3,864	3,630	4,080	4,209	4,520
Black, non-Hispanic	1,480	1,669	1,638	1,687	1,718	1,817	1,942	2,103
Hispanic	1,467	1,612	1,656	1,756	1,726	1,892	2,142	2,356
White, non-Hispanic	28,882	27,852	27,592	27,543	26,922	26,820	28,281	29,010
Other or unknown	1,181	1,383	1,527	1,748	1,811	1,883	2,005	2,442
Temporary-visa holders	10,422	10,159	10,395	10,207	10,820	11,470	12,839	13,723
Computer sciences	17,195	18,335	19,972	22,687	26,558	30,087	32,579	30,850
U.S. citizens and permanent residents	8,400	8,578	9,042	9,939	9,630	10,164	11,919	12,821
American Indian/Alaska Native	21	22	47	33	39	42	45	51
Asian/Pacific Islander	1,732	1,964	2,299	2,869	2,259	2,329	2,678	2,518
Black, non-Hispanic	475	494	476	537	608	655	800	801
Hispanic	237	242	266	295	283	304	384	465
White, non-Hispanic	5,455	5,232	5,386	5,600	5,679	5,997	6,813	7,775
Other or unknown	480	624	568	605	762	837	1,199	1,211
Temporary-visa holders	8,795	9,757	10,930	12,748	16,928	19,923	20,660	18,029

TABLE 21. Full-time graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 1996–2003

Field, citizenship, and race/ethnicity	1996	1997	1998	1999	2000	2001	2002	2003
Earth, atmospheric, and ocean sciences	10,795	10,510	10,444	10,484	10,558	10,504	11,116	11,511
U.S. citizens and permanent residents	8,399	8,289	8,258	8,268	8,155	8,032	8,579	9,011
American Indian/Alaska Native	42	46	57	42	46	53	64	50
Asian/Pacific Islander	291	288	304	292	272	266	278	307
Black, non-Hispanic	128	137	134	137	159	140	193	195
Hispanic	259	272	253	304	267	297	334	394
White, non-Hispanic	7,422	7,231	7,148	7,163	7,113	6,957	7,313	7,529
Other or unknown	257	315	362	330	298	319	397	536
Temporary-visa holders	2,396	2,221	2,186	2,216	2,403	2,472	2,537	2,500
Mathematical sciences	12,966	12,144	11,751	11,796	11,740	12,467	13,709	14,627
U.S. citizens and permanent residents	7,885	7,262	7,061	6,588	6,345	6,656	7,390	7,985
American Indian/Alaska Native	31	32	22	20	14	20	10	16
Asian/Pacific Islander	755	693	771	626	590	624	744	867
Black, non-Hispanic	422	386	355	342	349	359	369	383
Hispanic	216	242	260	274	273	300	334	364
White, non-Hispanic	6,138	5,572	5,286	4,991	4,722	4,931	5,416	5,788
Other or unknown	323	337	367	335	397	422	517	567
Temporary-visa holders	5,081	4,882	4,690	5,208	5,395	5,811	6,319	6,642
Physical sciences	27,931	26,882	26,391	26,635	26,492	27,179	28,619	30,441
U.S. citizens and permanent residents	17,632	16,805	16,468	16,300	15,601	15,719	16,236	17,248
American Indian/Alaska Native	55	58	57	62	65	67	71	70
Asian/Pacific Islander	1,422	1,345	1,442	1,400	1,251	1,198	1,148	1,345
Black, non-Hispanic	769	741	728	700	691	683	697	736
Hispanic	603	648	680	728	682	731	810	926
White, non-Hispanic	14,171	13,294	12,855	12,782	12,224	12,185	12,641	13,154
Other or unknown	612	719	706	628	688	855	869	1,017
Temporary-visa holders	10,299	10,077	9,923	10,335	10,891	11,460	12,383	13,193
Psychology	35,412	35,551	35,148	34,658	34,919	34,487	34,707	35,777
U.S. citizens and permanent residents	33,789	33,881	33,410	32,921	33,059	32,471	32,512	33,301
American Indian/Alaska Native	270	263	222	220	271	226	221	240
Asian/Pacific Islander	1,320	1,438	1,464	1,529	1,569	1,583	1,590	1,700
Black, non-Hispanic	2,084	2,221	2,417	2,200	2,574	2,515	2,484	2,567
Hispanic	2,049	2,096	2,305	2,454	2,941	2,988	3,233	3,276
White, non-Hispanic	26,561	26,281	25,444	24,840	23,869	23,191	23,023	23,323
Other or unknown	1,505	1,582	1,558	1,678	1,835	1,968	1,961	2,195
Temporary-visa holders	1,623	1,670	1,738	1,737	1,860	2,016	2,195	2,476
Social sciences	56,900	55,540	53,824	53,293	52,668	54,306	58,054	61,274
U.S. citizens and permanent residents	44,156	42,833	41,021	39,804	38,529	39,473	42,163	45,149
American Indian/Alaska Native	332	350	339	336	355	377	372	392
Asian/Pacific Islander	2,374	2,537	2,418	2,261	2,070	2,166	2,564	2,833
Black, non-Hispanic	3,733	3,846	3,752	3,784	4,022	3,965	4,252	4,548
Hispanic	2,503	2,551	2,538	2,546	2,596	2,750	3,036	3,264
White, non-Hispanic	33,046	31,381	29,686	28,884	26,846	27,275	28,597	30,235
Other or unknown	2,168	2,168	2,288	1,993	2,640	2,940	3,342	3,877
Temporary-visa holders	12,744	12,707	12,803	13,489	14,139	14,833	15,891	16,125
Engineering	65,859	65,688	65,435	68,023	72,276	77,448	85,433	90,379
U.S. citizens and permanent residents	36,476	34,877	33,386	32,341	31,128	31,864	35,313	39,540
American Indian/Alaska Native	140	140	136	121	111	129	138	166
Asian/Pacific Islander	4,815	4,720	4,804	4,988	4,286	4,646	5,606	6,367
Black, non-Hispanic	1,665	1,674	1,578	1,606	1,714	1,656	1,805	1,839
Hispanic	1,657	1,589	1,644	1,616	1,709	1,813	1,993	2,291
White, non-Hispanic	26,174	24,751	23,455	22,414	21,441	21,662	23,509	25,877
Other or unknown	2,025	2,003	1,769	1,596	1,867	1,958	2,262	3,000
Temporary-visa holders	29,383	30,811	32,049	35,682	41,148	45,584	50,120	50,839

TABLE 21. Full-time graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 1996–2003

Field, citizenship, and race/ethnicity	1996	1997	1998	1999	2000	2001	2002	2003
Chemical engineering	5,939	5,821	5,630	5,593	5,861	5,829	6,279	6,414
U.S. citizens and permanent residents	3,382	3,281	3,059	2,826	2,792	2,630	2,874	2,934
American Indian/Alaska Native	21	13	16	13	17	9	19	18
Asian/Pacific Islander	378	405	356	384	420	409	438	422
Black, non-Hispanic	145	130	126	101	125	135	135	133
Hispanic	159	115	146	152	145	152	181	205
White, non-Hispanic	2,539	2,500	2,306	2,074	1,954	1,844	1,985	2,040
Other or unknown	140	118	109	102	131	81	116	116
Temporary-visa holders	2,557	2,540	2,571	2,767	3,069	3,199	3,405	3,480
Civil engineering	11,791	11,406	11,154	11,237	11,754	12,102	12,981	13,710
U.S. citizens and permanent residents	7,509	7,082	6,871	6,492	6,313	6,299	6,703	7,301
American Indian/Alaska Native	36	41	26	30	21	24	34	36
Asian/Pacific Islander	719	627	721	624	482	518	583	656
Black, non-Hispanic	242	247	230	247	275	261	276	251
Hispanic	452	442	464	457	516	495	474	561
White, non-Hispanic	5,706	5,444	5,136	4,839	4,739	4,695	4,937	5,359
Other or unknown	354	281	294	295	280	306	399	438
Temporary-visa holders	4,282	4,324	4,283	4,745	5,441	5,803	6,278	6,409
Electrical engineering	18,107	18,999	19,608	20,521	22,962	25,240	28,240	28,952
U.S. citizens and permanent residents	8,758	8,524	8,139	7,595	7,253	7,750	8,654	9,615
American Indian/Alaska Native	26	25	13	18	19	27	16	32
Asian/Pacific Islander	1,831	1,767	1,824	1,908	1,601	1,752	2,242	2,548
Black, non-Hispanic	445	482	466	452	427	428	458	438
Hispanic	373	388	387	327	328	376	499	555
White, non-Hispanic	5,406	5,108	4,875	4,410	4,230	4,471	4,764	5,183
Other or unknown	677	754	574	480	648	696	675	859
Temporary-visa holders	9,349	10,475	11,469	12,926	15,709	17,490	19,586	19,337
Industrial engineering	5,166	5,116	4,894	5,500	6,049	6,534	7,200	7,085
U.S. citizens and permanent residents	2,528	2,443	2,255	2,447	2,324	2,163	2,565	2,783
American Indian/Alaska Native	8	8	9	15	16	16	8	14
Asian/Pacific Islander	285	324	306	379	258	266	364	404
Black, non-Hispanic	193	189	166	175	231	200	246	259
Hispanic	154	144	125	148	155	171	174	189
White, non-Hispanic	1,743	1,651	1,523	1,617	1,497	1,365	1,601	1,615
Other or unknown	145	127	126	113	167	145	172	302
Temporary-visa holders	2,638	2,673	2,639	3,053	3,725	4,371	4,635	4,302
Mechanical engineering	10,690	10,432	10,073	10,331	10,795	11,436	12,493	13,375
U.S. citizens and permanent residents	6,024	5,591	5,212	5,007	4,614	4,795	5,173	5,835
American Indian/Alaska Native	23	22	19	18	12	18	20	22
Asian/Pacific Islander	705	631	626	663	488	609	578	650
Black, non-Hispanic	298	315	285	250	263	247	230	247
Hispanic	237	234	238	231	209	246	270	315
White, non-Hispanic	4,438	4,073	3,716	3,613	3,412	3,456	3,778	4,183
Other or unknown	323	316	328	232	230	219	297	418
Temporary-visa holders	4,666	4,841	4,861	5,324	6,181	6,641	7,320	7,540
Other engineering	14,166	13,914	14,076	14,841	14,855	16,307	18,240	20,843
U.S. citizens and permanent residents	8,275	7,956	7,850	7,974	7,832	8,227	9,344	11,072
American Indian/Alaska Native	26	31	53	27	26	35	41	44
Asian/Pacific Islander	897	966	971	1,030	1,037	1,092	1,401	1,687
Black, non-Hispanic	342	311	305	381	393	385	460	511
Hispanic	282	266	284	301	356	373	395	466
White, non-Hispanic	6,342	5,975	5,899	5,861	5,609	5,831	6,444	7,497
Other or unknown	386	407	338	374	411	511	603	867
Temporary-visa holders	5,891	5,958	6,226	6,867	7,023	8,080	8,896	9,771

TABLE 21. Full-time graduate students in science, engineering, and health fields in all institutions, by field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 1996–2003

Field, citizenship, and race/ethnicity	1996	1997	1998	1999	2000	2001	2002	2003
Health fields	44,497	46,620	48,446	50,530	49,928	50,501	53,490	58,802
U.S. citizens and permanent residents	40,486	42,608	44,423	46,171	45,397	45,428	47,482	52,651
American Indian/Alaska Native	220	238	241	264	263	282	339	315
Asian/Pacific Islander	2,696	3,003	3,378	3,565	3,607	3,760	3,874	4,407
Black, non-Hispanic	2,006	2,166	2,483	2,752	2,935	3,250	3,516	4,159
Hispanic	2,032	1,993	2,060	2,522	2,804	2,947	3,055	3,629
White, non-Hispanic	31,942	33,258	34,482	35,259	33,715	33,067	34,184	37,194
Other or unknown	1,590	1,950	1,779	1,809	2,073	2,122	2,514	2,947
Temporary-visa holders	4,011	4,012	4,023	4,359	4,531	5,073	6,008	6,151

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 22. Full-time graduate students with temporary visas in science, engineering, and health fields in all institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	87,376	88,707	91,021	98,176	110,213	120,869	131,274	132,010
Science and engineering	83,365	84,695	86,998	93,817	105,682	115,796	125,266	125,859
Science	53,982	53,884	54,949	58,135	64,534	70,212	75,146	75,020
Agricultural sciences	2,622	2,411	2,284	2,195	2,098	2,227	2,322	2,332
Biological sciences	10,422	10,159	10,395	10,207	10,820	11,470	12,839	13,723
Anatomy	165	161	149	147	172	169	184	186
Biochemistry	1,455	1,370	1,402	1,387	1,542	1,519	1,679	1,845
Biology	1,659	1,764	1,785	1,714	1,775	1,904	2,168	2,261
Biometry/epidemiology	466	436	604	654	695	762	953	1,029
Biophysics	175	170	162	151	200	257	287	310
Botany	564	551	565	549	538	546	570	558
Cell biology	839	823	833	827	965	1,077	1,207	1,328
Ecology	143	133	135	156	161	173	191	211
Entomology/parasitology	285	259	266	278	265	247	256	271
Genetics	375	399	382	370	363	418	411	503
Microbiology/immunology/virology	1,009	939	904	900	892	968	1,160	1,122
Nutrition	1,025	960	925	893	944	1,014	1,026	1,045
Pathology	319	281	278	283	287	283	290	318
Pharmacology	560	541	562	552	611	620	653	741
Physiology	420	401	417	433	424	415	435	503
Zoology	204	177	160	132	164	182	199	162
Biosciences, nec	759	794	866	781	822	916	1,170	1,330
Computer sciences	8,795	9,757	10,930	12,748	16,928	19,923	20,660	18,029
Earth, atmospheric, and ocean sciences	2,396	2,221	2,186	2,216	2,403	2,472	2,537	2,500
Atmospheric sciences	268	281	234	257	283	266	292	254
Geosciences	1,300	1,178	1,119	1,110	1,182	1,235	1,264	1,315
Oceanography	510	471	483	463	489	477	453	465
Earth/atmospheric/ocean sciences, nec	318	291	350	386	449	494	528	466
Mathematical sciences	5,081	4,882	4,690	5,208	5,395	5,811	6,319	6,642
Mathematics/applied mathematics	4,148	3,960	3,788	4,084	4,144	4,328	4,688	4,854
Statistics	933	922	902	1,124	1,251	1,483	1,631	1,788
Physical sciences	10,299	10,077	9,923	10,335	10,891	11,460	12,383	13,193
Astronomy	212	184	206	234	259	271	295	317
Chemistry	5,719	5,591	5,546	5,627	5,745	6,162	6,836	7,271
Physics	4,323	4,257	4,120	4,405	4,812	4,937	5,167	5,527
Physical sciences, nec	45	45	51	69	75	90	85	78
Psychology	1,623	1,670	1,738	1,737	1,860	2,016	2,195	2,476
Clinical psychology	253	275	303	319	326	355	407	423
Psychology, general	571	579	584	599	719	784	851	1,009
Psychology, nec	799	816	851	819	815	877	937	1,044
Social sciences	12,744	12,707	12,803	13,489	14,139	14,833	15,891	16,125
Agricultural economics	804	821	786	807	904	950	975	1,019
Anthropology (cultural/social)	592	596	637	701	695	658	722	727
Economics (except agricultural)	4,904	4,773	4,651	4,916	5,227	5,700	6,006	6,028
Geography	398	442	492	497	541	629	633	652
History and philosophy of science	49	64	61	57	67	67	65	59
Linguistics	883	862	882	858	866	880	850	878
Political science	2,956	2,863	2,943	3,271	3,452	3,519	3,944	4,123
Sociology	936	990	942	1,013	1,078	1,069	1,157	1,200
Sociology/anthropology	67	73	87	63	67	72	60	64
Social sciences, nec	1,155	1,223	1,322	1,306	1,242	1,289	1,479	1,375

TABLE 22. Full-time graduate students with temporary visas in science, engineering, and health fields in all institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Engineering	29,383	30,811	32,049	35,682	41,148	45,584	50,120	50,839
Aerospace engineering	1,159	1,202	1,297	1,367	1,401	1,537	1,569	1,563
Agricultural engineering	406	351	358	369	333	366	374	440
Biomedical engineering	633	652	659	799	877	1,054	1,426	1,734
Chemical engineering	2,557	2,540	2,571	2,767	3,069	3,199	3,405	3,480
Civil engineering	4,282	4,324	4,283	4,745	5,441	5,803	6,278	6,409
Electrical engineering	9,349	10,475	11,469	12,926	15,709	17,490	19,586	19,337
Engineering science	426	398	485	469	576	653	745	878
Industrial engineering	2,638	2,673	2,639	3,053	3,725	4,371	4,635	4,302
Mechanical engineering	4,666	4,841	4,861	5,324	6,181	6,641	7,320	7,540
Metallurgical/materials engineering	1,736	1,772	1,842	1,851	1,956	2,201	2,362	2,426
Mining engineering	112	106	56	90	97	94	94	101
Nuclear engineering	284	274	273	298	312	337	315	340
Petroleum engineering	317	381	419	449	330	340	410	590
Engineering, nec	818	822	837	1,175	1,141	1,498	1,601	1,699
Health	4,011	4,012	4,023	4,359	4,531	5,073	6,008	6,151
Medical fields	1,327	1,230	1,283	1,450	1,333	1,746	2,303	2,299
Anesthesiology	3	2	8	1	2	1	4	13
Cardiology	11	23	13	17	14	16	18	18
Endocrinology	22	19	17	17	13	18	18	24
Gastroenterology	0	3	0	0	1	1	1	2
Hematology	0	0	0	0	4	0	2	7
Neurology	267	213	238	261	315	357	422	486
Obstetrics/gynecology	3	0	0	1	1	0	2	5
Oncology/cancer research	56	34	31	49	40	47	40	33
Ophthalmology	4	6	15	16	16	9	42	18
Otorhinolaryngology	0	0	0	2	0	0	0	0
Pediatrics	15	24	23	23	32	37	51	50
Preventive medicine/community health	816	788	825	936	755	1,086	1,489	1,353
Psychiatry	15	15	1	3	2	1	4	9
Pulmonary disease	0	0	0	0	0	0	1	5
Radiology	40	38	29	29	27	33	50	62
Surgery	4	5	5	7	9	7	2	4
Clinical medicine, nec	71	60	78	88	102	133	157	210
Other health	2,684	2,782	2,740	2,909	3,198	3,327	3,705	3,852
Dental sciences	309	329	317	272	336	294	318	284
Nursing	263	305	306	352	337	316	398	462
Pharmaceutical sciences	1,048	1,062	1,048	1,054	1,195	1,238	1,313	1,369
Speech pathology/audiology	290	295	312	336	351	360	374	412
Veterinary sciences	284	286	259	285	307	326	337	348
Health related, nec	490	505	498	610	672	793	965	977

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 23. Full-time graduate students in science, engineering, and health fields in all institutions, by field and primary source of support: 1996–2003

Field and primary source of support	1996	1997	1998	1999	2000	2001	2002	2003
All sources	328,536	327,289	327,389	334,423	341,283	354,522	378,988	398,010
Federal	65,240	64,522	63,759	65,796	67,588	68,873	75,573	81,967
DOD	8,802	9,021	8,259	8,026	8,141	7,960	7,977	9,222
DOE ^a	NA	NA	NA	2,749	2,995	3,116	3,545	4,011
HHS	22,361	22,530	22,704	23,442	23,490	24,337	26,974	29,299
NIH	17,929	18,087	18,215	19,019	19,472	19,876	22,101	24,283
Other HHS	4,432	4,443	4,489	4,423	4,018	4,461	4,873	5,016
NASA	2,309	2,586	2,646	2,579	2,780	2,819	3,079	3,224
NSF	13,412	13,362	13,459	13,835	14,599	15,429	17,134	19,315
USDA	3,004	2,646	2,485	2,634	2,630	2,735	3,100	3,502
Other ^a	15,352	14,377	14,206	12,531	12,953	12,477	13,764	13,394
Institutional	128,379	128,927	128,995	133,182	133,401	140,719	147,813	151,246
Other nonfederal	25,442	25,099	26,411	26,029	27,862	28,294	28,957	29,312
Domestic	20,193	20,251	22,157	22,099	24,014	24,458	25,598	26,196
Foreign	5,249	4,848	4,254	3,930	3,848	3,836	3,359	3,116
Self-support	109,475	108,741	108,224	109,416	112,432	116,636	126,645	135,485
Science and engineering	284,039	280,669	278,943	283,893	291,355	304,021	325,498	339,208
Federal	57,838	56,798	55,810	57,332	59,224	60,237	66,376	72,387
DOD	8,468	8,701	7,959	7,662	7,734	7,715	7,693	8,925
DOE ^a	NA	NA	NA	2,719	2,980	3,105	3,537	3,998
HHS	16,901	16,816	16,740	17,246	17,684	18,098	20,196	22,208
NIH	15,472	15,352	15,308	15,987	16,315	16,578	18,597	20,395
Other HHS	1,429	1,464	1,432	1,259	1,369	1,520	1,599	1,813
NASA	2,295	2,565	2,620	2,564	2,762	2,797	3,063	3,211
NSF	13,330	13,264	13,339	13,712	14,475	15,300	17,006	19,167
USDA	2,954	2,603	2,426	2,573	2,568	2,685	3,026	3,424
Other ^a	13,890	12,849	12,726	10,856	11,021	10,537	11,855	11,454
Institutional	118,959	119,227	118,944	122,271	122,429	129,746	136,292	139,071
Other nonfederal	23,405	23,124	24,201	23,811	25,403	25,745	26,245	26,498
Domestic	18,586	18,762	20,379	20,303	21,913	22,286	23,215	23,712
Foreign	4,819	4,362	3,822	3,508	3,490	3,459	3,030	2,786
Self-support	83,837	81,520	79,988	80,479	84,299	88,293	96,585	101,252
Science	218,180	214,981	213,508	215,870	219,079	226,573	240,065	248,829
Federal	41,992	40,909	40,289	41,427	42,517	43,165	47,524	50,854
DOD	3,930	3,927	3,643	3,309	3,259	3,331	3,293	3,427
DOE ^a	NA	NA	NA	1,732	1,772	1,813	2,011	2,277
HHS	16,066	15,901	15,839	16,285	16,550	16,810	18,730	20,252
NIH	14,741	14,586	14,554	15,143	15,317	15,445	17,315	18,751
Other HHS	1,325	1,315	1,285	1,142	1,233	1,365	1,415	1,501
NASA	1,202	1,304	1,375	1,429	1,492	1,443	1,572	1,572
NSF	8,739	8,653	8,620	8,768	9,264	9,866	11,058	12,441
USDA	2,652	2,371	2,229	2,333	2,351	2,425	2,689	2,970
Other ^a	9,403	8,753	8,583	7,571	7,829	7,477	8,171	7,915
Institutional	95,556	95,431	95,543	97,017	96,358	101,913	105,895	107,990
Other nonfederal	14,525	14,152	14,439	14,277	14,818	14,709	14,966	15,354
Domestic	11,246	11,230	11,825	11,886	12,417	12,338	12,915	13,504
Foreign	3,279	2,922	2,614	2,391	2,401	2,371	2,051	1,850
Self-support	66,107	64,489	63,237	63,149	65,386	66,786	71,680	74,631
Agricultural sciences	9,527	9,362	9,199	9,371	9,357	9,405	9,685	10,003
Federal	2,016	1,843	1,722	1,943	1,938	1,974	2,156	2,505
DOD	38	38	47	28	42	47	34	33
DOE ^a	NA	NA	NA	41	45	29	55	58
HHS	31	31	32	29	57	51	87	89
NIH	17	22	16	17	37	40	64	60
Other HHS	14	9	16	12	20	11	23	29
NASA	29	28	36	55	65	63	74	90
NSF	100	105	94	114	113	138	124	211
USDA	1,100	999	988	1,077	1,043	1,065	1,156	1,333

TABLE 23. Full-time graduate students in science, engineering, and health fields in all institutions, by field and primary source of support: 1996–2003

Field and primary source of support	1996	1997	1998	1999	2000	2001	2002	2003
Other ^a	718	642	525	599	573	581	626	691
Institutional	3,739	3,745	3,847	3,865	3,870	4,060	4,109	3,949
Other nonfederal	1,525	1,653	1,640	1,630	1,711	1,567	1,549	1,584
Domestic	1,166	1,311	1,339	1,371	1,475	1,380	1,426	1,413
Foreign	359	342	301	259	236	187	123	171
Self-support	2,247	2,121	1,990	1,933	1,838	1,804	1,871	1,965
Biological sciences	47,454	46,657	46,779	46,946	46,787	48,138	51,596	54,346
Federal	16,486	16,275	16,176	16,462	16,670	16,733	18,629	20,195
DOD	362	373	356	338	329	369	393	364
DOE ^a	NA	NA	NA	155	171	166	180	195
HHS	11,875	11,878	11,918	12,265	12,263	12,315	13,679	14,868
NIH	11,286	11,294	11,301	11,771	11,688	11,651	12,959	14,143
Other HHS	589	584	617	494	575	664	720	725
NASA	89	109	102	101	100	77	115	99
NSF	1,491	1,538	1,539	1,495	1,600	1,619	1,819	2,139
USDA	1,029	865	752	803	781	817	992	1,034
Other ^a	1,640	1,512	1,509	1,305	1,426	1,370	1,451	1,496
Institutional	20,270	20,146	20,111	20,354	20,137	21,178	21,791	22,312
Other nonfederal	3,681	3,537	3,736	3,301	3,378	3,591	3,852	4,016
Domestic	3,131	3,021	3,212	2,843	2,954	3,225	3,545	3,726
Foreign	550	516	524	458	424	366	307	290
Self-support	7,017	6,699	6,756	6,829	6,602	6,636	7,324	7,823
Computer sciences	17,195	18,335	19,972	22,687	26,558	30,087	32,579	30,850
Federal	3,106	3,173	3,309	3,349	3,675	4,248	4,958	5,360
DOD	1,349	1,434	1,307	1,208	1,220	1,284	1,303	1,381
DOE ^a	NA	NA	NA	109	111	120	138	159
HHS	113	106	110	107	122	173	240	306
NIH	80	78	75	64	84	101	185	234
Other HHS	33	28	35	43	38	72	55	72
NASA	121	122	124	111	142	166	203	226
NSF	1,051	1,087	1,171	1,309	1,495	1,867	2,344	2,727
USDA	13	12	10	20	16	25	41	39
Other ^a	459	412	587	485	569	613	689	522
Institutional	5,639	5,912	6,206	7,033	7,838	8,975	9,537	9,212
Other nonfederal	1,166	1,184	1,311	1,529	1,906	1,925	1,908	1,939
Domestic	919	1,025	1,137	1,393	1,640	1,604	1,684	1,741
Foreign	247	159	174	136	266	321	224	198
Self-support	7,284	8,066	9,146	10,776	13,139	14,939	16,176	14,339
Earth, atmospheric, and ocean sciences	10,795	10,510	10,444	10,484	10,558	10,504	11,116	11,511
Federal	3,273	3,119	2,959	2,965	2,992	2,916	3,041	3,306
DOD	393	366	336	336	280	257	201	254
DOE ^a	NA	NA	NA	124	144	137	167	155
HHS	49	40	38	37	57	60	47	68
NIH	30	27	21	17	40	37	32	52
Other HHS	19	13	17	20	17	23	15	16
NASA	331	355	390	409	457	456	470	420
NSF	1,242	1,201	1,122	1,128	1,140	1,127	1,205	1,376
USDA	75	52	77	55	50	65	74	85
Other ^a	1,183	1,105	996	876	864	814	877	948
Institutional	4,270	4,387	4,441	4,748	4,620	4,670	4,897	5,056
Other nonfederal	918	884	860	847	905	904	1,099	883
Domestic	701	700	696	687	760	719	905	767
Foreign	217	184	164	160	145	185	194	116
Self-support	2,334	2,120	2,184	1,924	2,041	2,014	2,079	2,266
Mathematical sciences	12,966	12,144	11,751	11,796	11,740	12,467	13,709	14,627
Federal	1,237	1,152	1,044	1,103	1,368	1,388	1,619	1,680
DOD	351	363	283	227	239	212	166	232

TABLE 23. Full-time graduate students in science, engineering, and health fields in all institutions, by field and primary source of support: 1996–2003

Field and primary source of support	1996	1997	1998	1999	2000	2001	2002	2003
DOE ^a	NA	NA	NA	44	40	40	42	53
HHS	82	96	100	105	92	108	165	154
NIH	61	66	68	78	76	89	133	119
Other HHS	21	30	32	27	16	19	32	35
NASA	21	19	11	15	23	23	20	23
NSF	435	386	384	441	635	763	944	975
USDA	9	16	7	7	7	20	14	9
Other ^a	339	272	259	264	332	222	268	234
Institutional	8,836	8,469	8,289	8,267	8,187	8,635	9,104	9,620
Other nonfederal	554	491	453	439	438	417	555	520
Domestic	347	314	314	313	309	297	441	425
Foreign	207	177	139	126	129	120	114	95
Self-support	2,339	2,032	1,965	1,987	1,747	2,027	2,431	2,807
Physical sciences	27,931	26,882	26,391	26,635	26,492	27,179	28,619	30,441
Federal	9,875	9,450	9,123	9,239	9,211	9,284	9,950	10,566
DOD	1,073	1,037	994	881	864	855	860	885
DOE ^a	NA	NA	NA	1,181	1,170	1,260	1,368	1,590
HHS	2,066	1,955	1,891	1,844	1,974	2,113	2,346	2,414
NIH	1,783	1,639	1,631	1,655	1,769	1,858	2,114	2,147
Other HHS	283	316	260	189	205	255	232	267
NASA	538	586	595	562	533	506	544	574
NSF	3,385	3,372	3,318	3,279	3,287	3,327	3,591	3,868
USDA	43	31	40	33	51	42	51	66
Other ^a	2,770	2,469	2,285	1,459	1,332	1,181	1,190	1,169
Institutional	14,338	14,132	14,101	14,118	13,850	14,503	15,037	16,007
Other nonfederal	2,095	1,863	1,852	1,926	1,915	1,977	2,034	2,104
Domestic	1,801	1,645	1,663	1,754	1,747	1,850	1,913	1,977
Foreign	294	218	189	172	168	127	121	127
Self-support	1,623	1,437	1,315	1,352	1,516	1,415	1,598	1,764
Psychology	35,412	35,551	35,148	34,658	34,919	34,487	34,707	35,777
Federal	2,752	2,720	2,927	3,229	3,278	3,248	3,600	3,576
DOD	139	113	128	117	135	140	170	149
DOE ^a	NA	NA	NA	41	25	1	9	10
HHS	1,523	1,465	1,445	1,554	1,605	1,616	1,756	1,882
NIH	1,218	1,198	1,226	1,275	1,328	1,392	1,512	1,625
Other HHS	305	267	219	279	277	224	244	257
NASA	21	20	24	41	36	27	37	26
NSF	289	277	283	310	277	283	297	326
USDA	5	7	8	13	16	13	4	16
Other ^a	775	838	1,039	1,153	1,184	1,168	1,327	1,167
Institutional	13,033	13,480	13,261	13,235	12,517	13,101	13,193	13,294
Other nonfederal	1,044	1,219	1,349	1,397	1,342	1,238	1,182	1,288
Domestic	1,003	1,162	1,296	1,341	1,291	1,173	1,126	1,205
Foreign	41	57	53	56	51	65	56	83
Self-support	18,583	18,132	17,611	16,797	17,782	16,900	16,732	17,619
Social sciences	56,900	55,540	53,824	53,293	52,668	54,306	58,054	61,274
Federal	3,247	3,177	3,029	3,137	3,385	3,374	3,571	3,666
DOD	225	203	192	174	150	167	166	129
DOE ^a	NA	NA	NA	37	66	60	52	57
HHS	327	330	305	344	380	374	410	471
NIH	266	262	216	266	295	277	316	371
Other HHS	61	68	89	78	85	97	94	100
NASA	52	65	93	135	136	125	109	114
NSF	746	687	709	692	717	742	734	819
USDA	378	389	347	325	387	378	357	388
Other ^a	1,519	1,503	1,383	1,430	1,549	1,528	1,743	1,688

TABLE 23. Full-time graduate students in science, engineering, and health fields in all institutions, by field and primary source of support: 1996–2003

Field and primary source of support	1996	1997	1998	1999	2000	2001	2002	2003
Institutional	25,431	25,160	25,287	25,397	25,339	26,791	28,227	28,540
Other nonfederal	3,542	3,321	3,238	3,208	3,223	3,090	2,787	3,020
Domestic	2,178	2,052	2,168	2,184	2,241	2,090	1,875	2,250
Foreign	1,364	1,269	1,070	1,024	982	1,000	912	770
Self-support	24,680	23,882	22,270	21,551	20,721	21,051	23,469	26,048
Engineering	65,859	65,688	65,435	68,023	72,276	77,448	85,433	90,379
Federal	15,846	15,889	15,521	15,905	16,707	17,072	18,852	21,533
DOD	4,538	4,774	4,316	4,353	4,475	4,384	4,400	5,498
DOE ^a	NA	NA	NA	987	1,208	1,292	1,526	1,721
HHS	835	915	901	961	1,134	1,288	1,466	1,956
NIH	731	766	754	844	998	1,133	1,282	1,644
Other HHS	104	149	147	117	136	155	184	312
NASA	1,093	1,261	1,245	1,135	1,270	1,354	1,491	1,639
NSF	4,591	4,611	4,719	4,944	5,211	5,434	5,948	6,726
USDA	302	232	197	240	217	260	337	454
Other ^a	4,487	4,096	4,143	3,285	3,192	3,060	3,684	3,539
Institutional	23,403	23,796	23,401	25,254	26,071	27,833	30,397	31,081
Other nonfederal	8,880	8,972	9,762	9,534	10,585	11,036	11,279	11,144
Domestic	7,340	7,532	8,554	8,417	9,496	9,948	10,300	10,208
Foreign	1,540	1,440	1,208	1,117	1,089	1,088	979	936
Self-support	17,730	17,031	16,751	17,330	18,913	21,507	24,905	26,621
Chemical engineering	5,939	5,821	5,630	5,593	5,861	5,829	6,279	6,414
Federal	1,800	1,671	1,701	1,669	1,672	1,692	1,965	2,055
DOD	169	170	160	161	113	140	181	265
DOE ^a	NA	NA	NA	220	242	257	310	327
HHS	162	137	141	149	155	179	219	245
NIH	148	121	111	127	128	136	185	210
Other HHS	14	16	30	22	27	43	34	35
NASA	91	80	98	101	102	108	119	103
NSF	777	708	756	744	770	721	823	841
USDA	45	43	39	37	35	35	45	35
Other ^a	556	533	507	257	255	252	268	239
Institutional	2,163	2,234	2,126	2,295	2,299	2,241	2,446	2,521
Other nonfederal	1,119	1,129	947	973	1,081	1,095	1,094	995
Domestic	960	949	834	899	977	984	1,011	932
Foreign	159	180	113	74	104	111	83	63
Self-support	857	787	856	656	809	801	774	843
Civil engineering	11,791	11,406	11,154	11,237	11,754	12,102	12,981	13,710
Federal	1,886	1,807	1,670	1,668	1,934	1,943	2,104	2,185
DOD	215	232	192	157	160	178	182	148
DOE ^a	NA	NA	NA	50	84	82	84	94
HHS	39	47	46	44	51	27	36	61
NIH	33	41	35	39	40	26	29	45
Other HHS	6	6	11	5	11	1	7	16
NASA	117	121	61	56	74	79	93	87
NSF	534	529	544	538	596	587	648	704
USDA	70	40	28	35	36	38	50	69
Other ^a	911	838	799	788	933	952	1,011	1,022
Institutional	4,754	4,722	4,588	4,865	4,941	4,977	5,386	5,486
Other nonfederal	1,154	1,114	1,136	1,119	1,357	1,479	1,370	1,483
Domestic	911	859	922	931	1,193	1,303	1,255	1,378
Foreign	243	255	214	188	164	176	115	105
Self-support	3,997	3,763	3,760	3,585	3,522	3,703	4,121	4,556
Electrical engineering	18,107	18,999	19,608	20,521	22,962	25,240	28,240	28,952
Federal	3,987	4,391	4,316	4,608	5,052	4,968	5,702	6,198
DOD	1,651	1,938	1,803	1,848	2,080	1,976	1,942	2,233
DOE ^a	NA	NA	NA	71	93	138	193	189

TABLE 23. Full-time graduate students in science, engineering, and health fields in all institutions, by field and primary source of support: 1996–2003

Field and primary source of support	1996	1997	1998	1999	2000	2001	2002	2003
HHS	93	117	102	104	187	149	180	356
NIH	71	70	79	87	145	109	145	246
Other HHS	22	47	23	17	42	40	35	110
NASA	173	229	244	272	284	332	384	373
NSF	1,320	1,346	1,304	1,473	1,586	1,641	1,945	2,256
USDA	13	15	12	10	12	13	21	57
Other ^a	737	746	851	830	810	719	1,037	734
Institutional	6,420	6,776	6,602	7,197	7,390	8,038	8,672	8,892
Other nonfederal	2,649	2,711	3,124	2,840	3,278	3,433	3,550	3,288
Domestic	2,263	2,376	2,846	2,561	3,027	3,184	3,312	3,058
Foreign	386	335	278	279	251	249	238	230
Self-support	5,051	5,121	5,566	5,876	7,242	8,801	10,316	10,574
Industrial engineering	5,166	5,116	4,894	5,500	6,049	6,534	7,200	7,085
Federal	644	608	586	711	805	803	827	990
DOD	209	198	180	252	235	241	242	251
DOE ^a	NA	NA	NA	12	31	46	42	58
HHS	49	36	32	33	34	40	58	73
NIH	27	30	25	20	21	29	31	36
Other HHS	22	6	7	13	13	11	27	37
NASA	27	23	32	28	26	29	29	58
NSF	171	145	175	220	258	276	277	388
USDA	1	1	4	2	7	8	6	11
Other ^a	187	205	163	164	214	163	173	151
Institutional	1,787	1,706	1,732	1,929	2,129	2,429	2,618	2,355
Other nonfederal	472	510	548	577	683	746	756	696
Domestic	357	406	448	488	576	605	640	618
Foreign	115	104	100	89	107	141	116	78
Self-support	2,263	2,292	2,028	2,283	2,432	2,556	2,999	3,044
Mechanical engineering	10,690	10,432	10,073	10,331	10,795	11,436	12,493	13,375
Federal	2,602	2,626	2,607	2,591	2,656	2,776	2,966	3,409
DOD	739	766	728	713	652	689	618	876
DOE ^a	NA	NA	NA	207	239	214	309	348
HHS	76	109	104	112	112	159	159	166
NIH	63	70	71	87	105	147	144	135
Other HHS	13	39	33	25	7	12	15	31
NASA	210	291	290	242	292	280	313	347
NSF	770	841	908	882	915	1,002	1,031	1,101
USDA	13	12	5	21	7	11	10	20
Other ^a	794	607	572	414	439	421	526	551
Institutional	3,954	3,913	3,829	4,042	4,228	4,483	4,974	5,034
Other nonfederal	1,459	1,460	1,611	1,604	1,764	1,692	1,731	1,740
Domestic	1,250	1,286	1,467	1,434	1,565	1,545	1,608	1,610
Foreign	209	174	144	170	199	147	123	130
Self-support	2,675	2,433	2,026	2,094	2,147	2,485	2,822	3,192
Other engineering	14,166	13,914	14,076	14,841	14,855	16,307	18,240	20,843
Federal	4,927	4,786	4,641	4,658	4,588	4,890	5,288	6,696
DOD	1,555	1,470	1,253	1,222	1,235	1,160	1,235	1,725
DOE ^a	NA	NA	NA	427	519	555	588	705
HHS	416	469	476	519	595	734	814	1,055
NIH	389	434	433	484	559	686	748	972
Other HHS	27	35	43	35	36	48	66	83
NASA	475	517	520	436	492	526	553	671
NSF	1,019	1,042	1,032	1,087	1,086	1,207	1,224	1,436
USDA	160	121	109	135	120	155	205	262
Other ^a	1,302	1,167	1,251	832	541	553	669	842
Institutional	4,325	4,445	4,524	4,926	5,084	5,665	6,301	6,793

TABLE 23. Full-time graduate students in science, engineering, and health fields in all institutions, by field and primary source of support: 1996–2003

Field and primary source of support	1996	1997	1998	1999	2000	2001	2002	2003
Other nonfederal	2,027	2,048	2,396	2,421	2,422	2,591	2,778	2,942
Domestic	1,599	1,656	2,037	2,104	2,158	2,327	2,474	2,612
Foreign	428	392	359	317	264	264	304	330
Self-support	2,887	2,635	2,515	2,836	2,761	3,161	3,873	4,412
Health fields	44,497	46,620	48,446	50,530	49,928	50,501	53,490	58,802
Federal	7,402	7,724	7,949	8,464	8,364	8,636	9,197	9,580
DOD	334	320	300	364	407	245	284	297
DOE ^a	NA	NA	NA	30	15	11	8	13
HHS	5,460	5,714	5,964	6,196	5,806	6,239	6,778	7,091
NIH	2,457	2,735	2,907	3,032	3,157	3,298	3,504	3,888
Other HHS	3,003	2,979	3,057	3,164	2,649	2,941	3,274	3,203
NASA	14	21	26	15	18	22	16	13
NSF	82	98	120	123	124	129	128	148
USDA	50	43	59	61	62	50	74	78
Other ^a	1,462	1,528	1,480	1,675	1,932	1,940	1,909	1,940
Institutional	9,420	9,700	10,051	10,911	10,972	10,973	11,521	12,175
Other nonfederal	2,037	1,975	2,210	2,218	2,459	2,549	2,712	2,814
Domestic	1,607	1,489	1,778	1,796	2,101	2,172	2,383	2,484
Foreign	430	486	432	422	358	377	329	330
Self-support	25,638	27,221	28,236	28,937	28,133	28,343	30,060	34,233

DOD = Department of Defense; DOE = Department of Energy; HHS = Department of Health and Human Services; NA = not available; NASA = National Aeronautics and Space Administration; NIH = National Institutes of Health; NSF = National Science Foundation; USDA = United States Department of Agriculture.

^a Data for DOE were not collected separately until 1999. Students supported by DOE before 1999 were included under other federal support.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 24. Full-time graduate students in science, engineering, and health fields in all institutions, by field and primary mechanism of support: 1996–2003

Field and primary mechanism of support	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	328,536	327,289	327,389	334,423	341,283	354,522	378,988	398,010
Fellowships	28,862	28,956	29,106	30,112	31,330	32,270	34,851	34,778
Research assistantships	87,694	88,001	88,097	91,279	94,323	99,923	108,198	114,337
Teaching assistantships	65,756	65,425	65,173	66,294	66,423	68,267	70,723	73,065
Traineeships	15,481	14,488	14,946	14,707	14,171	14,086	14,925	15,095
Other support	130,743	130,419	130,067	132,031	135,036	139,976	150,291	160,735
Self-support	109,475	108,741	108,224	109,416	112,432	116,636	126,645	135,485
Other nonfederal	21,268	21,678	21,843	22,615	22,604	23,340	23,646	25,250
Science and engineering	284,039	280,669	278,943	283,893	291,355	304,021	325,498	339,208
Fellowships	26,347	26,478	26,575	27,377	28,415	29,677	32,084	32,118
Research assistantships	83,293	83,105	83,053	85,866	88,449	93,638	101,566	107,298
Teaching assistantships	62,728	62,258	61,974	63,198	63,328	64,976	67,233	69,425
Traineeships	10,337	9,670	9,841	9,505	9,554	9,197	9,771	10,117
Other support	101,334	99,158	97,500	97,947	101,609	106,533	114,844	120,250
Self-support	83,837	81,520	79,988	80,479	84,299	88,293	96,585	101,252
Other nonfederal	17,497	17,638	17,512	17,468	17,310	18,240	18,259	18,998
Science	218,180	214,981	213,508	215,870	219,079	226,573	240,065	248,829
Fellowships	20,678	20,673	20,974	21,278	22,051	23,210	25,065	24,827
Research assistantships	56,759	56,190	55,669	57,197	57,762	61,465	66,434	69,860
Teaching assistantships	52,714	52,105	51,892	52,496	52,273	53,093	54,679	56,864
Traineeships	9,470	8,791	8,963	8,737	8,786	8,414	8,819	9,061
Other support	78,559	77,222	76,010	76,162	78,207	80,391	85,068	88,217
Self-support	66,107	64,489	63,237	63,149	65,386	66,786	71,680	74,631
Other nonfederal	12,452	12,733	12,773	13,013	12,821	13,605	13,388	13,586
Agricultural sciences	9,527	9,362	9,199	9,371	9,357	9,405	9,685	10,003
Fellowships	464	477	486	474	450	520	520	568
Research assistantships	5,300	5,250	5,091	5,219	5,279	5,432	5,612	5,806
Teaching assistantships	986	1,007	1,062	1,192	1,223	1,203	1,178	1,186
Traineeships	136	129	115	95	86	84	73	52
Other support	2,641	2,499	2,445	2,391	2,319	2,166	2,302	2,391
Self-support	2,247	2,121	1,990	1,933	1,838	1,804	1,871	1,965
Other nonfederal	394	378	455	458	481	362	431	426
Biological sciences	47,454	46,657	46,779	46,946	46,787	48,138	51,596	54,346
Fellowships	5,233	5,455	5,617	5,789	5,747	6,147	6,431	6,504
Research assistantships	18,525	18,420	18,171	18,308	18,564	19,410	21,206	22,697
Teaching assistantships	9,311	9,123	9,083	8,727	8,619	8,639	8,903	9,134
Traineeships	5,341	5,060	5,204	5,283	5,177	4,941	5,321	5,620
Other support	9,044	8,599	8,704	8,839	8,680	9,001	9,735	10,391
Self-support	7,017	6,699	6,756	6,829	6,602	6,636	7,324	7,823
Other nonfederal	2,027	1,900	1,948	2,010	2,078	2,365	2,411	2,568
Computer sciences	17,195	18,335	19,972	22,687	26,558	30,087	32,579	30,850
Fellowships	930	942	1,011	1,006	1,198	1,114	1,480	1,391
Research assistantships	3,979	4,043	4,300	4,895	5,302	6,407	7,153	7,505
Teaching assistantships	3,379	3,643	3,798	4,366	4,602	5,130	5,367	5,024
Traineeships	210	224	219	212	263	248	279	332
Other support	8,697	9,483	10,644	12,208	15,193	17,188	18,300	16,598
Self-support	7,284	8,066	9,146	10,776	13,139	14,939	16,176	14,339
Other nonfederal	1,413	1,417	1,498	1,432	2,054	2,249	2,124	2,259
Earth, atmospheric, and ocean sciences	10,795	10,510	10,444	10,484	10,558	10,504	11,116	11,511
Fellowships	870	814	922	930	1,046	1,065	1,118	1,175
Research assistantships	4,303	4,276	4,108	4,249	4,235	4,173	4,532	4,599
Teaching assistantships	2,527	2,648	2,559	2,612	2,528	2,562	2,685	2,810
Traineeships	131	92	114	109	98	97	98	115
Other support	2,964	2,680	2,741	2,584	2,651	2,607	2,683	2,812
Self-support	2,334	2,120	2,184	1,924	2,041	2,014	2,079	2,266
Other nonfederal	630	560	557	660	610	593	604	546

TABLE 24. Full-time graduate students in science, engineering, and health fields in all institutions, by field and primary mechanism of support: 1996–2003

Field and primary mechanism of support	1996	1997	1998	1999	2000	2001	2002	2003
Mathematical sciences	12,966	12,144	11,751	11,796	11,740	12,467	13,709	14,627
Fellowships	1,285	1,206	1,104	1,035	1,295	1,397	1,424	1,382
Research assistantships	1,296	1,389	1,215	1,269	1,250	1,422	1,736	1,810
Teaching assistantships	7,127	6,699	6,566	6,767	6,805	6,997	7,429	7,930
Traineeships	179	179	164	112	122	105	124	123
Other support	3,079	2,671	2,702	2,613	2,268	2,546	2,996	3,382
Self-support	2,339	2,032	1,965	1,987	1,747	2,027	2,431	2,807
Other nonfederal	740	639	737	626	521	519	565	575
Physical sciences	27,931	26,882	26,391	26,635	26,492	27,179	28,619	30,441
Fellowships	2,203	2,151	2,113	2,199	2,260	2,371	2,665	2,530
Research assistantships	11,504	11,282	11,046	11,270	11,097	11,826	12,651	13,494
Teaching assistantships	11,247	10,890	10,880	10,866	10,664	10,575	10,761	11,762
Traineeships	650	531	482	383	464	437	421	364
Other support	2,327	2,028	1,870	1,917	2,007	1,970	2,121	2,291
Self-support	1,623	1,437	1,315	1,352	1,516	1,415	1,598	1,764
Other nonfederal	704	591	555	565	491	555	523	527
Psychology	35,412	35,551	35,148	34,658	34,919	34,487	34,707	35,777
Fellowships	1,982	2,145	2,337	2,478	2,375	2,307	2,295	2,378
Research assistantships	4,762	4,790	4,762	4,795	4,710	4,979	5,370	5,589
Teaching assistantships	6,128	6,162	5,976	6,032	5,796	5,645	5,818	6,070
Traineeships	1,166	1,067	1,113	1,022	1,228	1,302	1,246	1,167
Other support	21,374	21,387	20,960	20,331	20,810	20,254	19,978	20,573
Self-support	18,583	18,132	17,611	16,797	17,782	16,900	16,732	17,619
Other nonfederal	2,791	3,255	3,349	3,534	3,028	3,354	3,246	2,954
Social sciences	56,900	55,540	53,824	53,293	52,668	54,306	58,054	61,274
Fellowships	7,711	7,483	7,384	7,367	7,680	8,289	9,132	8,899
Research assistantships	7,090	6,740	6,976	7,192	7,325	7,816	8,174	8,360
Teaching assistantships	12,009	11,933	11,968	11,934	12,036	12,342	12,538	12,948
Traineeships	1,657	1,509	1,552	1,521	1,348	1,200	1,257	1,288
Other support	28,433	27,875	25,944	25,279	24,279	24,659	26,953	29,779
Self-support	24,680	23,882	22,270	21,551	20,721	21,051	23,469	26,048
Other nonfederal	3,753	3,993	3,674	3,728	3,558	3,608	3,484	3,731
Engineering	65,859	65,688	65,435	68,023	72,276	77,448	85,433	90,379
Fellowships	5,669	5,805	5,601	6,099	6,364	6,467	7,019	7,291
Research assistantships	26,534	26,915	27,384	28,669	30,687	32,173	35,132	37,438
Teaching assistantships	10,014	10,153	10,082	10,702	11,055	11,883	12,554	12,561
Traineeships	867	879	878	768	768	783	952	1,056
Other support	22,775	21,936	21,490	21,785	23,402	26,142	29,776	32,033
Self-support	17,730	17,031	16,751	17,330	18,913	21,507	24,905	26,621
Other nonfederal	5,045	4,905	4,739	4,455	4,489	4,635	4,871	5,412
Chemical engineering	5,939	5,821	5,630	5,593	5,861	5,829	6,279	6,414
Fellowships	763	838	728	836	794	760	832	837
Research assistantships	3,074	2,991	2,900	2,944	3,076	3,154	3,464	3,603
Teaching assistantships	923	923	898	964	951	850	894	851
Traineeships	94	94	97	65	85	53	71	73
Other support	1,085	975	1,007	784	955	1,012	1,018	1,050
Self-support	857	787	856	656	809	801	774	843
Other nonfederal	228	188	151	128	146	211	244	207
Civil engineering	11,791	11,406	11,154	11,237	11,754	12,102	12,981	13,710
Fellowships	884	876	828	869	924	1,009	1,074	1,115
Research assistantships	4,124	3,983	3,871	4,086	4,636	4,533	4,781	5,033
Teaching assistantships	1,788	1,772	1,755	1,789	1,868	1,876	1,952	2,011
Traineeships	178	191	191	197	117	156	210	196
Other support	4,817	4,584	4,509	4,296	4,209	4,528	4,964	5,355
Self-support	3,997	3,763	3,760	3,585	3,522	3,703	4,121	4,556

TABLE 24. Full-time graduate students in science, engineering, and health fields in all institutions, by field and primary mechanism of support: 1996–2003

Field and primary mechanism of support	1996	1997	1998	1999	2000	2001	2002	2003
Other nonfederal	820	821	749	711	687	825	843	799
Electrical engineering	18,107	18,999	19,608	20,521	22,962	25,240	28,240	28,952
Fellowships	1,389	1,392	1,318	1,363	1,357	1,303	1,497	1,536
Research assistantships	6,922	7,512	7,691	8,417	9,207	9,588	10,655	10,809
Teaching assistantships	3,171	3,350	3,344	3,392	3,643	4,045	4,303	4,227
Traineeships	152	122	133	76	107	92	105	128
Other support	6,473	6,623	7,122	7,273	8,648	10,212	11,680	12,252
Self-support	5,051	5,121	5,566	5,876	7,242	8,801	10,316	10,574
Other nonfederal	1,422	1,502	1,556	1,397	1,406	1,411	1,364	1,678
Industrial engineering	5,166	5,116	4,894	5,500	6,049	6,534	7,200	7,085
Fellowships	234	239	252	257	325	427	445	461
Research assistantships	1,285	1,269	1,380	1,468	1,655	1,747	1,900	1,841
Teaching assistantships	785	775	777	893	956	1,058	1,027	959
Traineeships	14	21	24	21	18	58	56	42
Other support	2,848	2,812	2,461	2,861	3,095	3,244	3,772	3,782
Self-support	2,263	2,292	2,028	2,283	2,432	2,556	2,999	3,044
Other nonfederal	585	520	433	578	663	688	773	738
Mechanical engineering	10,690	10,432	10,073	10,331	10,795	11,436	12,493	13,375
Fellowships	907	846	902	874	1,021	955	1,013	993
Research assistantships	4,272	4,349	4,498	4,642	4,850	5,086	5,470	6,059
Teaching assistantships	1,860	1,887	1,780	1,950	1,968	2,178	2,349	2,316
Traineeships	165	215	180	142	121	126	116	117
Other support	3,486	3,135	2,713	2,723	2,835	3,091	3,545	3,890
Self-support	2,675	2,433	2,026	2,094	2,147	2,485	2,822	3,192
Other nonfederal	811	702	687	629	688	606	723	698
Other engineering	14,166	13,914	14,076	14,841	14,855	16,307	18,240	20,843
Fellowships	1,492	1,614	1,573	1,900	1,943	2,013	2,158	2,349
Research assistantships	6,857	6,811	7,044	7,112	7,263	8,065	8,862	10,093
Teaching assistantships	1,487	1,446	1,528	1,714	1,669	1,876	2,029	2,197
Traineeships	264	236	253	267	320	298	394	500
Other support	4,066	3,807	3,678	3,848	3,660	4,055	4,797	5,704
Self-support	2,887	2,635	2,515	2,836	2,761	3,161	3,873	4,412
Other nonfederal	1,179	1,172	1,163	1,012	899	894	924	1,292
Health fields	44,497	46,620	48,446	50,530	49,928	50,501	53,490	58,802
Fellowships	2,515	2,478	2,531	2,735	2,915	2,593	2,767	2,660
Research assistantships	4,401	4,896	5,044	5,413	5,874	6,285	6,632	7,039
Teaching assistantships	3,028	3,167	3,199	3,096	3,095	3,291	3,490	3,640
Traineeships	5,144	4,818	5,105	5,202	4,617	4,889	5,154	4,978
Other support	29,409	31,261	32,567	34,084	33,427	33,443	35,447	40,485
Self-support	25,638	27,221	28,236	28,937	28,133	28,343	30,060	34,233
Other nonfederal	3,771	4,040	4,331	5,147	5,294	5,100	5,387	6,252

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 25. Full-time graduate students in science and engineering fields in all institutions, by primary mechanism and primary source of support: 1996–2003

Primary mechanism and primary source of support	1996	1997	1998	1999	2000	2001	2002	2003
All sources	284,039	280,669	278,943	283,893	291,355	304,021	325,498	339,208
Federal	57,838	56,798	55,810	57,332	59,224	60,237	66,376	72,387
DOD	8,468	8,701	7,959	7,662	7,734	7,715	7,693	8,925
DOE ^a	NA	NA	NA	2,719	2,980	3,105	3,537	3,998
HHS	16,901	16,816	16,740	17,246	17,684	18,098	20,196	22,208
NIH	15,472	15,352	15,308	15,987	16,315	16,578	18,597	20,395
Other HHS	1,429	1,464	1,432	1,259	1,369	1,520	1,599	1,813
NASA	2,295	2,565	2,620	2,564	2,762	2,797	3,063	3,211
NSF	13,330	13,264	13,339	13,712	14,475	15,300	17,006	19,167
USDA	2,954	2,603	2,426	2,573	2,568	2,685	3,026	3,424
Other ^a	13,890	12,849	12,726	10,856	11,021	10,537	11,855	11,454
Institutional	118,959	119,227	118,944	122,271	122,429	129,746	136,292	139,071
Other nonfederal	23,405	23,124	24,201	23,811	25,403	25,745	26,245	26,498
Domestic	18,586	18,762	20,379	20,303	21,913	22,286	23,215	23,712
Foreign	4,819	4,362	3,822	3,508	3,490	3,459	3,030	2,786
Self-support	83,837	81,520	79,988	80,479	84,299	88,293	96,585	101,252
Fellowships	26,347	26,478	26,575	27,377	28,415	29,677	32,084	32,118
Federal	6,427	6,260	6,335	6,594	6,614	6,587	7,099	6,998
DOD	506	522	536	486	540	472	446	437
DOE ^a	NA	NA	NA	100	156	120	118	153
HHS	1,148	1,229	1,285	1,345	1,149	1,315	1,490	1,380
NIH	969	1,002	1,057	1,175	992	1,144	1,293	1,209
Other HHS	179	227	228	170	157	171	197	171
NASA	410	373	380	359	338	317	319	265
NSF	2,451	2,309	2,335	2,411	2,539	2,606	2,818	3,137
USDA	111	138	136	141	120	126	89	93
Other ^a	1,801	1,689	1,663	1,752	1,772	1,631	1,819	1,533
Institutional	14,373	15,227	15,234	15,991	16,982	18,317	20,214	20,344
Other nonfederal	5,547	4,991	5,006	4,792	4,819	4,773	4,771	4,776
Domestic	3,396	3,113	3,277	3,269	3,450	3,360	3,569	3,715
Foreign	2,151	1,878	1,729	1,523	1,369	1,413	1,202	1,061
Self-support	na	na	na	na	na	na	na	na
Research assistantships	83,293	83,105	83,053	85,866	88,449	93,638	101,566	107,298
Federal	41,824	41,472	39,962	40,977	42,405	43,861	49,031	54,347
DOD	5,965	6,308	5,784	5,658	5,730	5,799	6,153	6,853
DOE ^a	NA	NA	NA	2,533	2,717	2,892	3,319	3,747
HHS	11,036	11,103	10,584	10,787	11,335	11,773	13,364	15,085
NIH	10,155	10,151	9,647	10,036	10,473	10,733	12,260	13,708
Other HHS	881	952	937	751	862	1,040	1,104	1,377
NASA	1,775	2,059	2,122	2,107	2,291	2,336	2,603	2,811
NSF	10,223	10,392	10,373	10,715	11,304	12,022	13,458	15,214
USDA	2,707	2,370	2,188	2,290	2,314	2,465	2,810	3,147
Other ^a	10,118	9,240	8,911	6,887	6,714	6,574	7,324	7,490
Institutional	29,119	28,984	29,797	31,476	31,492	34,168	36,339	36,584
Other nonfederal	12,350	12,649	13,294	13,413	14,552	15,609	16,196	16,367
Domestic	11,611	11,909	12,666	12,816	13,922	14,967	15,474	15,721
Foreign	739	740	628	597	630	642	722	646
Self-support	na	na	na	na	na	na	na	na
Teaching assistantships	62,728	62,258	61,974	63,198	63,328	64,976	67,233	69,425
Federal	741	787	971	876	1,270	955	1,096	1,349
DOD	na	na	na	na	na	na	na	na
DOE ^a	NA	NA	NA	16	34	27	41	48
HHS	180	157	232	203	277	244	250	328
NIH	176	127	221	196	261	213	203	287
Other HHS	4	30	11	7	16	31	47	41

TABLE 25. Full-time graduate students in science and engineering fields in all institutions, by primary mechanism and primary source of support: 1996–2003

Primary mechanism and primary source of support	1996	1997	1998	1999	2000	2001	2002	2003
NASA	2	24	23	9	11	34	26	37
NSF	117	80	130	121	137	187	217	286
USDA	42	30	37	60	68	46	46	80
Other ^a	400	496	549	467	743	417	516	570
Institutional	61,366	60,881	60,391	61,631	61,099	63,073	65,026	67,014
Other nonfederal	621	590	612	691	959	948	1,111	1,062
Domestic	621	590	612	691	959	948	1,111	1,062
Foreign	na	na	na	na	na	na	na	na
Self-support	na	na	na	na	na	na	na	na
Traineeships	10,337	9,670	9,841	9,505	9,554	9,197	9,771	10,117
Federal	5,515	5,143	5,426	5,411	5,694	5,417	5,746	5,911
DOD	124	108	64	51	59	36	46	36
DOE ^a	NA	NA	NA	22	10	2	9	5
HHS	4,256	3,977	4,234	4,361	4,415	4,224	4,516	4,794
NIH	3,990	3,793	4,056	4,161	4,141	3,992	4,314	4,654
Other HHS	266	184	178	200	274	232	202	140
NASA	67	76	57	51	46	50	52	54
NSF	431	383	408	344	324	336	318	333
USDA	24	23	14	25	18	16	13	14
Other ^a	613	576	649	557	822	753	792	675
Institutional	4,252	3,877	3,730	3,457	3,303	3,300	3,618	3,622
Other nonfederal	570	650	685	637	557	480	407	584
Domestic	386	488	541	537	412	348	341	496
Foreign	184	162	144	100	145	132	66	88
Self-support	na	na	na	na	na	na	na	na
Other types of support	101,334	99,158	97,500	97,947	101,609	106,533	114,844	120,250
Federal	3,331	3,136	3,116	3,474	3,241	3,417	3,404	3,782
DOD	1,873	1,763	1,575	1,467	1,405	1,408	1,048	1,599
DOE ^a	NA	NA	NA	48	63	64	50	45
HHS	281	350	405	550	508	542	576	621
NIH	182	279	327	419	448	496	527	537
Other HHS	99	71	78	131	60	46	49	84
NASA	41	33	38	38	76	60	63	44
NSF	108	100	93	121	171	149	195	197
USDA	70	42	51	57	48	32	68	90
Other ^a	958	848	954	1,193	970	1,162	1,404	1,186
Institutional	9,849	10,258	9,792	9,716	9,553	10,888	11,095	11,507
Other nonfederal	4,317	4,244	4,604	4,278	4,516	3,935	3,760	3,709
Domestic	2,572	2,662	3,283	2,990	3,170	2,663	2,720	2,718
Foreign	1,745	1,582	1,321	1,288	1,346	1,272	1,040	991
Self-support	83,837	81,520	79,988	80,479	84,299	88,293	96,585	101,252

DOD = Department of Defense; DOE = Department of Energy; HHS = Department of Health and Human Services; na = not applicable; NA = not available; NASA = National Aeronautics and Space Administration; NIH = National Institutes of Health; NSF = National Science Foundation; USDA = United States Department of Agriculture.

^a Data for DOE were not collected separately until 1999. Students supported by DOE before 1999 were included under other federal support.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 26. Full-time students in graduate school for the first time, in science, engineering, and health fields in all institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	88,984	89,177	90,828	92,214	94,340	98,112	104,179	107,842
Science and engineering	73,448	73,600	74,373	75,447	78,332	82,411	86,822	89,344
Science	55,442	54,752	55,112	54,934	56,141	59,105	62,226	64,903
Agricultural sciences	2,180	2,157	2,299	2,253	2,335	2,338	2,320	2,424
Biological sciences	10,766	11,053	11,335	10,959	10,955	11,608	12,133	12,698
Anatomy	205	175	180	161	198	159	199	178
Biochemistry	947	998	1,022	896	929	851	880	958
Biology	2,579	2,687	2,498	2,521	2,282	2,376	2,532	2,567
Biometry/epidemiology	669	656	815	825	837	953	1,001	1,022
Biophysics	155	133	158	118	128	162	166	223
Botany	394	366	409	363	357	315	335	307
Cell biology	803	859	903	867	977	993	1,085	1,139
Ecology	245	251	261	251	280	348	317	345
Entomology/parasitology	202	194	233	179	185	202	203	175
Genetics	389	441	397	427	380	382	362	373
Microbiology/immunology/virology	844	864	857	904	823	884	914	909
Nutrition	831	797	940	834	830	906	890	895
Pathology	291	350	279	320	276	320	294	256
Pharmacology	422	458	513	487	549	507	554	552
Physiology	725	633	654	608	570	615	633	760
Zoology	313	303	274	263	230	247	231	258
Biosciences, nec	752	888	942	935	1,124	1,388	1,537	1,781
Computer sciences	4,917	5,018	5,758	6,677	8,431	9,077	9,037	8,148
Earth, atmospheric, and ocean sciences	2,631	2,681	2,859	2,746	2,649	2,794	3,085	3,104
Atmospheric sciences	213	224	189	203	222	205	213	268
Geosciences	1,326	1,339	1,348	1,296	1,230	1,383	1,437	1,412
Oceanography	371	410	471	474	479	511	533	567
Earth/atmospheric/ocean sciences, nec	721	708	851	773	718	695	902	857
Mathematical sciences	3,450	3,302	3,334	3,271	3,419	3,686	3,918	4,185
Mathematics/applied mathematics	2,845	2,741	2,721	2,650	2,757	2,892	3,114	3,266
Statistics	605	561	613	621	662	794	804	919
Physical sciences	6,015	6,037	5,932	6,004	5,829	6,011	6,280	6,841
Astronomy	157	125	162	171	183	193	194	225
Chemistry	3,702	3,758	3,682	3,672	3,482	3,651	3,746	3,983
Physics	2,088	2,074	2,046	2,074	2,101	2,102	2,231	2,543
Physical sciences, nec	68	80	42	87	63	65	109	90
Psychology	9,140	8,800	8,590	8,305	7,545	7,691	8,420	8,922
Clinical psychology	2,115	2,059	2,001	1,992	1,829	1,731	1,898	2,012
Psychology, general	3,178	3,188	3,060	2,745	2,534	2,652	2,657	3,006
Psychology, nec	3,847	3,553	3,529	3,568	3,182	3,308	3,865	3,904
Social sciences	16,343	15,704	15,005	14,719	14,978	15,900	17,033	18,581
Agricultural economics	436	467	417	482	455	496	575	536
Anthropology (cultural/social)	1,252	1,196	1,219	1,193	1,157	1,119	1,177	1,279
Economics (except agricultural)	2,466	2,368	2,352	2,355	2,508	2,562	2,843	2,921
Geography	870	914	805	830	784	872	812	908
History and philosophy of science	58	79	89	91	78	72	97	101
Linguistics	620	579	493	422	454	495	466	588
Political science	5,842	5,264	4,953	4,837	5,142	5,562	6,241	6,948
Sociology	1,505	1,525	1,428	1,307	1,300	1,431	1,535	1,543
Sociology/anthropology	210	171	177	144	164	160	155	179
Social sciences, nec	3,084	3,141	3,072	3,058	2,936	3,131	3,132	3,578

TABLE 26. Full-time students in graduate school for the first time, in science, engineering, and health fields in all institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Engineering	18,006	18,848	19,261	20,513	22,191	23,306	24,596	24,441
Aerospace engineering	687	735	717	727	775	767	712	845
Agricultural engineering	183	165	155	202	177	187	187	187
Biomedical engineering	572	671	695	734	926	889	1,139	1,341
Chemical engineering	1,478	1,467	1,503	1,491	1,595	1,541	1,616	1,600
Civil engineering	3,845	3,792	3,785	3,726	3,840	3,820	4,107	4,363
Electrical engineering	4,898	5,548	5,741	6,369	7,195	7,882	8,221	7,841
Engineering science	273	274	308	255	299	339	404	392
Industrial engineering	1,605	1,549	1,547	1,851	2,005	2,216	2,238	2,022
Mechanical engineering	2,785	2,829	2,923	3,119	3,269	3,583	3,698	3,476
Metallurgical/materials engineering	791	870	900	892	1,005	975	1,044	958
Mining engineering	51	73	44	45	48	40	41	73
Nuclear engineering	182	178	153	150	163	164	149	177
Petroleum engineering	122	121	132	149	149	153	198	166
Engineering, nec	534	576	658	803	745	750	842	1,000
Health	15,536	15,577	16,455	16,767	16,008	15,701	17,357	18,498
Medical fields	3,572	3,527	3,896	3,921	3,871	4,099	4,495	4,733
Anesthesiology	242	274	226	219	263	269	215	246
Cardiology	1	4	6	7	6	4	5	4
Endocrinology	4	6	6	7	2	4	12	9
Gastroenterology	0	0	0	0	2	0	0	6
Hematology	3	1	1	2	3	0	2	4
Neurology	358	345	376	345	341	366	443	452
Obstetrics/gynecology	1	3	1	0	2	2	5	0
Oncology/cancer research	21	32	50	44	38	45	46	30
Ophthalmology	12	5	4	2	4	12	1	60
Otorhinolaryngology	0	0	0	0	3	1	0	0
Pediatrics	101	141	111	114	151	132	134	137
Preventive medicine/community health	2,330	2,190	2,660	2,773	2,621	2,786	2,958	3,082
Psychiatry	23	25	20	16	28	18	25	27
Pulmonary disease	0	0	0	3	2	3	1	0
Radiology	64	47	48	41	31	61	59	55
Surgery	57	48	36	40	30	9	11	7
Clinical medicine, nec	355	406	351	308	344	387	578	614
Other health	11,964	12,050	12,559	12,846	12,137	11,602	12,862	13,765
Dental sciences	400	383	399	350	381	382	387	396
Nursing	2,653	2,867	2,808	2,955	2,700	2,442	2,799	3,094
Pharmaceutical sciences	519	486	548	597	605	521	513	529
Speech pathology/audiology	3,867	3,783	3,979	3,974	3,863	3,814	3,902	4,131
Veterinary sciences	123	135	204	169	270	359	385	460
Health related, nec	4,402	4,396	4,621	4,801	4,318	4,084	4,876	5,155

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 27. Graduate students in science, engineering, and health fields in all institutions, by detailed field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 2003

Field	Total	U.S. citizens and permanent residents						Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non- Hispanic	Hispanic	White, non- Hispanic	Other or unknown	
All surveyed fields	566,835	2,392	38,940	31,207	26,699	282,768	30,461	154,368
Science and engineering	474,203	1,872	32,450	24,134	21,264	222,118	25,494	146,871
Science	346,828	1,568	21,542	20,922	17,288	178,681	19,777	87,050
Agricultural sciences	13,197	77	326	462	496	8,740	518	2,578
Biological sciences	64,684	236	5,210	2,762	2,849	35,787	3,070	14,770
Anatomy	908	4	95	37	42	503	28	199
Biochemistry	5,552	11	466	159	229	2,515	275	1,897
Biology	14,720	56	836	797	806	8,894	793	2,538
Biometry/epidemiology	4,439	16	488	229	196	2,155	159	1,196
Biophysics	1,032	1	126	17	28	502	39	319
Botany	1,901	10	108	26	38	1,065	70	584
Cell biology	5,722	14	608	172	225	2,882	390	1,431
Ecology	2,230	10	59	43	61	1,631	164	262
Entomology/parasitology	1,206	4	29	15	41	800	31	286
Genetics	2,073	12	193	75	61	1,107	110	515
Microbiology/immunology/virology	5,256	14	492	245	286	2,818	258	1,143
Nutrition	4,695	13	299	246	201	2,575	161	1,200
Pathology	1,541	3	183	56	63	834	71	331
Pharmacology	3,357	19	341	185	134	1,809	96	773
Physiology	2,328	11	331	102	81	1,210	72	521
Zoology	1,301	8	31	11	32	985	54	180
Biosciences, nec	6,423	30	525	347	325	3,502	299	1,395
Computer sciences	53,678	104	5,956	1,945	1,099	17,199	3,232	24,143
Earth, atmospheric, and ocean sciences	14,655	63	375	270	484	9,995	705	2,763
Atmospheric sciences	1,150	5	67	32	21	713	44	268
Geosciences	6,889	26	126	75	187	4,691	351	1,433
Oceanography	2,695	8	48	35	158	1,871	86	489
Earth/atmospheric/ocean sciences, nec	3,921	24	134	128	118	2,720	224	573
Mathematical sciences	19,465	25	1,446	658	604	8,415	996	7,321
Mathematics/applied mathematics	15,569	24	1,136	564	538	7,131	888	5,288
Statistics	3,896	1	310	94	66	1,284	108	2,033
Physical sciences	34,298	79	1,629	939	1,097	15,107	1,375	14,072
Astronomy	1,080	3	53	9	25	610	47	333
Chemistry	20,049	51	1,103	663	750	8,955	688	7,839
Physics	12,555	24	441	236	300	5,209	547	5,798
Physical sciences, nec	614	1	32	31	22	333	93	102
Psychology	52,025	322	2,384	4,670	4,682	33,409	3,378	3,180
Clinical psychology	13,203	107	623	857	1,631	8,532	833	620
Psychology, general	15,562	92	793	1,559	985	10,042	908	1,183
Psychology, nec	23,260	123	968	2,254	2,066	14,835	1,637	1,377
Social sciences	94,826	662	4,216	9,216	5,977	50,029	6,503	18,223
Agricultural economics	2,296	7	39	76	42	964	83	1,085
Anthropology (cultural/social)	7,806	99	281	275	435	5,311	556	849
Economics (except agricultural)	12,307	31	689	363	369	3,780	501	6,574
Geography	4,654	22	139	141	150	3,200	224	778
History and philosophy of science	677	4	29	24	38	467	54	61
Linguistics	3,028	16	215	49	136	1,418	231	963
Political science	36,855	240	1,622	4,847	2,746	19,504	3,019	4,877
Sociology	9,127	65	443	1,080	664	5,132	398	1,345
Sociology/anthropology	773	18	13	121	45	470	36	70
Social sciences, nec	17,303	160	746	2,240	1,352	9,783	1,401	1,621

TABLE 27. Graduate students in science, engineering, and health fields in all institutions, by detailed field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 2003

Field	Total	U.S. citizens and permanent residents					Other or unknown	Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non- Hispanic	Hispanic	White, non- Hispanic		
Engineering	127,375	304	10,908	3,212	3,976	43,437	5,717	59,821
Aerospace engineering	4,048	15	207	59	119	1,747	214	1,687
Agricultural engineering	1,012	2	35	27	14	431	22	481
Biomedical engineering	5,347	7	667	159	155	2,196	279	1,884
Chemical engineering	7,516	19	556	173	249	2,554	201	3,764
Civil engineering	18,838	65	1,024	427	845	8,316	762	7,399
Electrical engineering	41,745	63	4,600	812	1,093	9,700	1,830	23,647
Engineering science	2,240	11	152	42	49	928	48	1,010
Industrial engineering	14,295	52	1,057	685	561	5,679	843	5,418
Mechanical engineering	18,440	42	1,027	382	537	6,847	803	8,802
Metallurgical/materials engineering	5,154	8	316	111	97	1,923	106	2,593
Mining engineering	278	4	5	2	3	138	15	111
Nuclear engineering	885	1	30	12	31	439	19	353
Petroleum engineering	849	0	12	11	13	125	13	675
Engineering, nec	6,728	15	1,220	310	210	2,414	562	1,997
Health	92,632	520	6,490	7,073	5,435	60,650	4,967	7,497
Medical fields	20,773	153	2,156	1,774	1,528	11,118	1,231	2,813
Anesthesiology	1,287	6	44	51	31	999	135	21
Cardiology	57	4	11	2	0	18	2	20
Endocrinology	80	0	9	3	2	26	3	37
Gastroenterology	11	0	0	1	0	8	0	2
Hematology	25	0	6	1	0	8	3	7
Neurology	2,665	10	273	81	105	1,563	138	495
Obstetrics/gynecology	28	0	6	1	0	13	0	8
Oncology/cancer research	234	1	30	16	11	139	4	33
Ophthalmology	413	2	140	6	17	195	34	19
Otorhinolaryngology	9	0	1	0	0	8	0	0
Pediatrics	462	5	28	42	11	310	13	53
Preventive medicine/community health	12,312	120	1,230	1,362	1,068	6,170	593	1,769
Psychiatry	277	0	6	17	61	173	7	13
Pulmonary disease	14	0	0	0	0	6	0	8
Radiology	302	1	40	8	11	172	6	64
Surgery	84	0	19	4	4	53	0	4
Clinical medicine, nec	2,513	4	313	179	207	1,257	293	260
Other health	71,859	367	4,334	5,299	3,907	49,532	3,736	4,684
Dental sciences	1,654	6	179	35	71	990	65	308
Nursing	26,648	162	1,462	2,146	1,320	19,454	1,474	630
Pharmaceutical sciences	5,448	4	539	543	234	2,308	157	1,663
Speech pathology/audiology	13,694	73	368	655	847	10,598	693	460
Veterinary sciences	2,069	6	75	71	43	1,430	52	392
Health related, nec	22,346	116	1,711	1,849	1,392	14,752	1,295	1,231

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2003.

TABLE 28. Male graduate students in science, engineering, and health fields in all institutions, by detailed field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 2003

Field	Total	U.S. citizens and permanent residents						Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non- Hispanic	Hispanic	White, non- Hispanic	Other or unknown	
All surveyed fields	298,530	1,015	20,369	10,743	11,465	134,764	15,548	104,626
Science and engineering	276,090	888	18,388	9,441	10,194	121,826	14,290	101,063
Science	176,304	669	10,629	7,270	7,274	87,273	9,835	53,354
Agricultural sciences	7,171	38	158	196	256	4,694	285	1,544
Biological sciences	28,812	89	2,289	859	1,227	16,054	1,397	6,897
Anatomy	442	1	46	15	26	238	14	102
Biochemistry	2,957	5	247	63	119	1,393	147	983
Biology	6,586	22	350	254	352	4,091	354	1,163
Biometry/epidemiology	1,668	3	165	63	78	785	76	498
Biophysics	693	1	83	9	22	338	29	211
Botany	905	4	42	12	20	503	33	291
Cell biology	2,702	3	287	55	96	1,440	182	639
Ecology	1,022	4	18	16	24	751	79	130
Entomology/parasitology	669	3	14	5	16	429	21	181
Genetics	857	4	100	20	24	412	56	241
Microbiology/immunology/virology	2,323	9	216	72	123	1,276	118	509
Nutrition	1,037	1	49	38	37	437	25	450
Pathology	631	1	78	21	30	321	31	149
Pharmacology	1,539	11	158	70	55	868	45	332
Physiology	1,184	3	178	35	45	634	32	257
Zoology	656	4	14	5	22	492	28	91
Biosciences, nec	2,941	10	244	106	138	1,646	127	670
Computer sciences	38,887	68	3,920	1,124	814	13,172	2,341	17,448
Earth, atmospheric, and ocean sciences	8,100	30	170	130	223	5,438	383	1,726
Atmospheric sciences	776	5	41	20	13	502	28	167
Geosciences	4,125	14	63	40	87	2,757	208	956
Oceanography	1,303	2	17	9	72	869	41	293
Earth/atmospheric/ocean sciences, nec	1,896	9	49	61	51	1,310	106	310
Mathematical sciences	12,176	18	770	376	381	5,354	661	4,616
Mathematics/applied mathematics	10,163	17	637	321	342	4,586	595	3,665
Statistics	2,013	1	133	55	39	768	66	951
Physical sciences	23,520	54	978	508	680	10,515	965	9,820
Astronomy	735	1	36	4	14	411	28	241
Chemistry	12,210	33	593	314	411	5,619	421	4,819
Physics	10,189	19	330	179	239	4,288	450	4,684
Physical sciences, nec	386	1	19	11	16	197	66	76
Psychology	13,357	95	575	926	1,131	8,632	808	1,190
Clinical psychology	3,168	32	104	148	379	2,098	178	229
Psychology, general	4,577	22	231	359	269	2,965	256	475
Psychology, nec	5,612	41	240	419	483	3,569	374	486
Social sciences	44,281	277	1,769	3,151	2,562	23,414	2,995	10,113
Agricultural economics	1,401	5	20	38	24	606	53	655
Anthropology (cultural/social)	2,942	35	93	61	175	1,985	200	393
Economics (except agricultural)	7,807	16	384	209	235	2,450	352	4,161
Geography	2,654	18	61	61	86	1,860	124	444
History and philosophy of science	390	2	12	16	22	268	27	43
Linguistics	1,023	6	55	14	43	489	80	336
Political science	17,025	108	687	1,609	1,165	9,502	1,375	2,579
Sociology	3,226	26	136	343	257	1,764	148	552
Sociology/anthropology	267	8	4	33	15	169	17	21
Social sciences, nec	7,546	53	317	767	540	4,321	619	929

TABLE 28. Male graduate students in science, engineering, and health fields in all institutions, by detailed field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 2003

Field	Total	U.S. citizens and permanent residents						Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non- Hispanic	Hispanic	White, non- Hispanic	Other or unknown	
Engineering	99,786	219	7,759	2,171	2,920	34,553	4,455	47,709
Aerospace engineering	3,445	11	171	50	93	1,468	178	1,474
Agricultural engineering	715	0	20	12	6	302	15	360
Biomedical engineering	3,385	4	395	70	98	1,391	171	1,256
Chemical engineering	5,416	13	352	95	143	1,919	137	2,757
Civil engineering	13,446	42	658	272	563	5,820	535	5,556
Electrical engineering	33,954	49	3,437	629	889	8,665	1,471	18,814
Engineering science	1,775	7	116	36	44	749	43	780
Industrial engineering	11,035	37	769	419	383	4,356	650	4,421
Mechanical engineering	16,076	35	850	296	441	5,948	698	7,808
Metallurgical/materials engineering	3,822	6	217	60	60	1,440	76	1,963
Mining engineering	236	3	3	2	3	111	15	99
Nuclear engineering	703	1	21	4	24	352	15	286
Petroleum engineering	720	0	9	10	7	113	11	570
Engineering, nec	5,058	11	741	216	166	1,919	440	1,565
Health	22,440	127	1,981	1,302	1,271	12,938	1,258	3,563
Medical fields	7,825	52	814	432	449	4,120	484	1,474
Anesthesiology	506	2	21	11	14	402	49	7
Cardiology	34	3	8	2	0	7	0	14
Endocrinology	47	0	1	2	2	12	3	27
Gastroenterology	1	0	0	0	0	1	0	0
Hematology	10	0	3	0	0	2	2	3
Neurology	1,348	3	147	34	61	783	74	246
Obstetrics/gynecology	16	0	5	1	0	7	0	3
Oncology/cancer research	90	0	11	2	4	50	3	20
Ophthalmology	142	0	28	1	4	88	8	13
Otorhinolaryngology	7	0	0	0	0	7	0	0
Pediatrics	80	0	3	3	3	45	2	24
Preventive medicine/community health	4,099	41	389	305	271	1,977	185	931
Psychiatry	60	0	1	6	13	31	3	6
Pulmonary disease	6	0	0	0	0	1	0	5
Radiology	172	1	24	3	4	98	4	38
Surgery	58	0	13	2	4	35	0	4
Clinical medicine, nec	1,149	2	160	60	69	574	151	133
Other health	14,615	75	1,167	870	822	8,818	774	2,089
Dental sciences	997	1	86	15	39	642	40	174
Nursing	2,752	21	176	149	204	1,900	134	168
Pharmaceutical sciences	2,449	1	255	190	71	988	80	864
Speech pathology/audiology	958	6	31	44	54	669	65	89
Veterinary sciences	759	1	31	20	19	448	17	223
Health related, nec	6,700	45	588	452	435	4,171	438	571

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2003.

TABLE 29. Female graduate students in science, engineering, and health fields in all institutions, by detailed field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 2003

Field	Total	U.S. citizens and permanent residents					Other or unknown	Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non- Hispanic	Hispanic	White, non- Hispanic		
All surveyed fields	268,305	1,377	18,571	20,464	15,234	148,004	14,913	49,742
Science and engineering	198,113	984	14,062	14,693	11,070	100,292	11,204	45,808
Science	170,524	899	10,913	13,652	10,014	91,408	9,942	33,696
Agricultural sciences	6,026	39	168	266	240	4,046	233	1,034
Biological sciences	35,872	147	2,921	1,903	1,622	19,733	1,673	7,873
Anatomy	466	3	49	22	16	265	14	97
Biochemistry	2,595	6	219	96	110	1,122	128	914
Biology	8,134	34	486	543	454	4,803	439	1,375
Biometry/epidemiology	2,771	13	323	166	118	1,370	83	698
Biophysics	339	0	43	8	6	164	10	108
Botany	996	6	66	14	18	562	37	293
Cell biology	3,020	11	321	117	129	1,442	208	792
Ecology	1,208	6	41	27	37	880	85	132
Entomology/parasitology	537	1	15	10	25	371	10	105
Genetics	1,216	8	93	55	37	695	54	274
Microbiology/immunology/virology	2,933	5	276	173	163	1,542	140	634
Nutrition	3,658	12	250	208	164	2,138	136	750
Pathology	910	2	105	35	33	513	40	182
Pharmacology	1,818	8	183	115	79	941	51	441
Physiology	1,144	8	153	67	36	576	40	264
Zoology	645	4	17	6	10	493	26	89
Biosciences, nec	3,482	20	281	241	187	1,856	172	725
Computer sciences	14,791	36	2,036	821	285	4,027	891	6,695
Earth, atmospheric, and ocean sciences	6,555	33	205	140	261	4,557	322	1,037
Atmospheric sciences	374	0	26	12	8	211	16	101
Geosciences	2,764	12	63	35	100	1,934	143	477
Oceanography	1,392	6	31	26	86	1,002	45	196
Earth/atmospheric/ocean sciences, nec	2,025	15	85	67	67	1,410	118	263
Mathematical sciences	7,289	7	676	282	223	3,061	335	2,705
Mathematics/applied mathematics	5,406	7	499	243	196	2,545	293	1,623
Statistics	1,883	0	177	39	27	516	42	1,082
Physical sciences	10,778	25	651	431	417	4,592	410	4,252
Astronomy	345	2	17	5	11	199	19	92
Chemistry	7,839	18	510	349	339	3,336	267	3,020
Physics	2,366	5	111	57	61	921	97	1,114
Physical sciences, nec	228	0	13	20	6	136	27	26
Psychology	38,668	227	1,809	3,744	3,551	24,777	2,570	1,990
Clinical psychology	10,035	75	519	709	1,252	6,434	655	391
Psychology, general	10,985	70	562	1,200	716	7,077	652	708
Psychology, nec	17,648	82	728	1,835	1,583	11,266	1,263	891
Social sciences	50,545	385	2,447	6,065	3,415	26,615	3,508	8,110
Agricultural economics	895	2	19	38	18	358	30	430
Anthropology (cultural/social)	4,864	64	188	214	260	3,326	356	456
Economics (except agricultural)	4,500	15	305	154	134	1,330	149	2,413
Geography	2,000	4	78	80	64	1,340	100	334
History and philosophy of science	287	2	17	8	16	199	27	18
Linguistics	2,005	10	160	35	93	929	151	627
Political science	19,830	132	935	3,238	1,581	10,002	1,644	2,298
Sociology	5,901	39	307	737	407	3,368	250	793
Sociology/anthropology	506	10	9	88	30	301	19	49
Social sciences, nec	9,757	107	429	1,473	812	5,462	782	692

TABLE 29. Female graduate students in science, engineering, and health fields in all institutions, by detailed field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 2003

Field	Total	U.S. citizens and permanent residents					Other or unknown	Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non- Hispanic	Hispanic	White, non- Hispanic		
Engineering	27,589	85	3,149	1,041	1,056	8,884	1,262	12,112
Aerospace engineering	603	4	36	9	26	279	36	213
Agricultural engineering	297	2	15	15	8	129	7	121
Biomedical engineering	1,962	3	272	89	57	805	108	628
Chemical engineering	2,100	6	204	78	106	635	64	1,007
Civil engineering	5,392	23	366	155	282	2,496	227	1,843
Electrical engineering	7,791	14	1,163	183	204	1,035	359	4,833
Engineering science	465	4	36	6	5	179	5	230
Industrial engineering	3,260	15	288	266	178	1,323	193	997
Mechanical engineering	2,364	7	177	86	96	899	105	994
Metallurgical/materials engineering	1,332	2	99	51	37	483	30	630
Mining engineering	42	1	2	0	0	27	0	12
Nuclear engineering	182	0	9	8	7	87	4	67
Petroleum engineering	129	0	3	1	6	12	2	105
Engineering, nec	1,670	4	479	94	44	495	122	432
Health	70,192	393	4,509	5,771	4,164	47,712	3,709	3,934
Medical fields	12,948	101	1,342	1,342	1,079	6,998	747	1,339
Anesthesiology	781	4	23	40	17	597	86	14
Cardiology	23	1	3	0	0	11	2	6
Endocrinology	33	0	8	1	0	14	0	10
Gastroenterology	10	0	0	1	0	7	0	2
Hematology	15	0	3	1	0	6	1	4
Neurology	1,317	7	126	47	44	780	64	249
Obstetrics/gynecology	12	0	1	0	0	6	0	5
Oncology/cancer research	144	1	19	14	7	89	1	13
Ophthalmology	271	2	112	5	13	107	26	6
Otorhinolaryngology	2	0	1	0	0	1	0	0
Pediatrics	382	5	25	39	8	265	11	29
Preventive medicine/community health	8,213	79	841	1,057	797	4,193	408	838
Psychiatry	217	0	5	11	48	142	4	7
Pulmonary disease	8	0	0	0	0	5	0	3
Radiology	130	0	16	5	7	74	2	26
Surgery	26	0	6	2	0	18	0	0
Clinical medicine, nec	1,364	2	153	119	138	683	142	127
Other health	57,244	292	3,167	4,429	3,085	40,714	2,962	2,595
Dental sciences	657	5	93	20	32	348	25	134
Nursing	23,896	141	1,286	1,997	1,116	17,554	1,340	462
Pharmaceutical sciences	2,999	3	284	353	163	1,320	77	799
Speech pathology/audiology	12,736	67	337	611	793	9,929	628	371
Veterinary sciences	1,310	5	44	51	24	982	35	169
Health related, nec	15,646	71	1,123	1,397	957	10,581	857	660

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2003.

TABLE 30. Graduate science students in all institutions, by region, state, institution, and citizenship, and by race/ethnicity of U.S. citizens and permanent residents: 2003

Region, state, and institution	Total	U.S. citizens and permanent residents					Other or unknown	Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non-Hispanic	Hispanic	White, non- Hispanic		
All institutions	346,828	1,568	21,542	20,922	17,288	178,681	19,777	87,050
New England	25,479	73	1,448	680	656	11,923	2,824	7,875
Connecticut	5,756	12	279	222	153	2,687	779	1,624
Central CT State U.	277	1	18	13	8	184	22	31
CT C.	5	0	0	0	0	5	0	0
Quinnipiac U.	29	0	0	2	0	22	4	1
Rensselaer Hartford	229	3	30	5	7	132	52	0
Sacred Heart U.	145	0	20	13	3	96	0	13
Southern CT State U.	534	1	29	68	29	332	41	34
St. Joseph C. (West Hartford, CT)	41	0	2	3	0	30	6	0
Trinity C. (Hartford, CT)	48	0	3	3	2	37	3	0
U. Bridgeport	340	0	14	5	6	120	6	189
U. CT all campuses	1,610	4	32	26	31	610	260	647
U. Hartford	223	0	8	11	6	120	70	8
U. New Haven	600	1	19	31	15	296	118	120
Wesleyan U.	135	0	7	6	3	69	0	50
Western CT State U.	67	0	2	1	1	57	5	1
Yale U.	1,473	2	95	35	42	577	192	530
Maine	540	4	6	4	3	419	2	102
U. ME	540	4	6	4	3	419	2	102
Massachusetts	15,981	41	1,066	399	435	6,813	1,910	5,317
American International C.	135	1	1	14	5	80	31	3
Anna Maria C.	107	0	1	0	2	46	57	1
Assumption C.	89	0	1	2	3	77	6	0
Boston C.	433	0	26	10	5	246	2	144
Boston U.	2,509	7	161	63	36	672	729	841
Brandeis U.	364	0	13	2	7	204	3	135
Bridgewater State C.	153	0	11	3	0	104	26	9
Clark U.	380	0	3	2	6	113	82	174
Fitchburg State C.	85	0	7	0	0	31	2	45
Framingham State C.	36	0	3	1	0	28	0	4
Harvard U.	3,363	17	283	125	157	1,305	404	1,072
MA C. of Pharmacy and Health Sciences	21	0	11	0	0	4	0	6
MA Institute of Technology	3,042	10	291	62	81	1,208	312	1,078
Mt. Holyoke C.	4	0	0	1	0	3	0	0
Northeastern U.	632	0	14	8	17	254	72	267
Salem State C.	53	0	0	2	0	33	13	5
Smith C.	10	0	0	0	0	9	0	1
Tufts U.	924	0	76	20	36	571	25	196
U. MA	2,453	5	85	70	65	1,258	105	865
U. MA Dartmouth	196	0	7	0	5	75	5	104
U. MA Lowell	587	1	52	9	6	296	32	191
Western New England C.	0	0	0	0	0	0	0	0
Williams C.	31	0	0	0	0	0	0	31
Woods Hole Oceanographic Institution	98	0	4	2	2	64	0	26
Worcester Polytechnic Institute	256	0	15	2	0	119	2	118
Worcester State C.	20	0	1	1	2	13	2	1

TABLE 30. Graduate science students in all institutions, by region, state, institution, and citizenship, and by race/ethnicity of U.S. citizens and permanent residents: 2003

Region, state, and institution	Total	U.S. citizens and permanent residents					Other or unknown	Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non-Hispanic	Hispanic	White, non- Hispanic		
New Hampshire	1,125	6	40	13	8	671	84	303
Dartmouth C.	402	3	24	1	4	230	16	124
Rivier C.	64	0	9	0	0	23	11	21
U. NH	659	3	7	12	4	418	57	158
Rhode Island	1,574	10	50	40	30	967	48	429
Brown U.	764	5	28	20	7	395	1	308
RI C.	27	2	0	1	0	18	6	0
U. RI	783	3	22	19	23	554	41	121
Vermont	503	0	7	2	27	366	1	100
Marlboro C.	0	0	0	0	0	0	0	0
U. VT	503	0	7	2	27	366	1	100
Middle Atlantic	58,380	136	4,017	3,918	2,381	27,596	4,901	15,431
New Jersey	8,338	37	788	543	377	3,465	893	2,235
Fairleigh Dickinson U. all campuses	1,207	3	40	91	49	505	293	226
Kean U.	393	0	28	103	49	170	12	31
Monmouth U.	97	0	8	0	0	21	4	64
Montclair State U.	463	0	16	19	21	293	31	83
NJ Institute of Technology	1,098	1	290	42	33	220	119	393
Princeton U.	1,087	3	76	21	27	509	20	431
Rutgers, The State U. NJ all campuses	2,697	29	230	182	119	1,295	93	749
Seton Hall U.	517	1	13	54	21	161	239	28
Stevens Institute of Technology	368	0	47	10	17	95	77	122
U. of Medicine and Dentistry NJ	313	0	34	14	33	123	5	104
William Paterson U. NJ	98	0	6	7	8	73	0	4
New York	34,533	71	2,354	2,613	1,698	15,263	3,285	9,249
Adelphi U.	365	0	12	31	11	160	126	25
Albany Medical C.	79	0	13	3	0	52	0	11
Alfred U. all campuses	91	0	1	3	3	84	0	0
Clarkson U.	75	0	4	2	0	28	0	41
C. New Rochelle	142	0	0	9	6	22	103	2
C. of St. Rose	193	1	4	4	0	155	29	0
Columbia U. in the City of NY	1,595	1	142	27	48	618	92	667
Cornell U. all campuses	3,032	10	225	72	115	1,240	106	1,264
CUNY Baruch C.	552	1	48	120	49	181	89	64
CUNY Brooklyn C.	733	0	110	201	33	214	0	175
CUNY City C.	564	1	77	106	91	127	31	131
CUNY C. Staten Island	90	0	14	5	3	25	18	25
CUNY Graduate Ctr.	1,679	3	70	123	104	668	240	471
CUNY Herbert H. Lehman C.	115	0	5	6	6	7	61	30
CUNY Hunter C.	564	0	49	55	53	294	96	17
CUNY John Jay C. of Criminal Justice	1,361	0	93	292	187	690	99	0
CUNY Queens C.	461	0	122	35	16	88	78	122
Fordham U.	419	1	14	25	36	186	72	85
Hofstra U.	327	0	7	12	18	175	106	9
Iona C.	219	0	4	20	13	125	50	7
Long Island U. all campuses	1,398	5	52	332	96	596	197	120
Manhattan C.	0	0	0	0	0	0	0	0
Marist C.	368	0	9	15	14	281	15	34
Mt. Sinai School of Medicine	213	0	6	6	11	85	42	63
New School U.	1,120	3	52	96	82	464	133	290

TABLE 30. Graduate science students in all institutions, by region, state, institution, and citizenship, and by race/ethnicity of U.S. citizens and permanent residents: 2003

Region, state, and institution	Total	U.S. citizens and permanent residents						Temporary- visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non-Hispanic	Hispanic	White, non- Hispanic	Other or unknown	
NY Institute of Technology all campuses	370	2	24	23	6	57	82	176
NY Medical C.	165	0	25	11	5	72	2	50
NY U.	2,957	0	331	150	109	1,166	281	920
Niagara U.	29	0	0	7	0	22	0	0
Pace U. all campuses	977	3	135	106	63	329	167	174
Polytechnic U.	323	2	61	16	3	73	80	88
Rensselaer Polytechnic Institute	404	0	14	15	10	197	4	164
Rochester Institute of Technology	433	0	21	5	9	231	23	144
Rockefeller U.	136	1	19	8	4	51	0	53
Russell Sage C. all campuses	165	1	6	15	4	106	33	0
Sarah Lawrence C.	55	0	1	0	2	41	2	9
St. Bonaventure U.	0	0	0	0	0	0	0	0
St. John's U. (Jamaica, NY)	511	0	34	54	52	255	63	53
SUNY Albany	2,317	11	50	143	95	1,357	212	449
SUNY Binghamton	963	3	45	51	35	388	91	350
SUNY Buffalo all campuses	2,054	11	92	75	32	922	103	819
SUNY C. Brockport	190	0	3	19	4	162	1	1
SUNY C. Buffalo	6	0	1	1	0	3	0	1
SUNY C. Fredonia	36	0	0	0	0	36	0	0
SUNY C. Geneseo	1	0	0	0	0	1	0	0
SUNY C. of Environmental Science and Forestry	324	2	1	3	5	241	0	72
SUNY C. Oneonta	11	0	0	0	0	8	3	0
SUNY C. Oswego	142	0	1	7	3	131	0	0
SUNY C. Plattsburgh	20	0	0	0	0	20	0	0
SUNY C. Potsdam	3	0	0	1	0	2	0	0
SUNY Health Science Ctr. Brooklyn	47	0	10	2	0	11	0	24
SUNY Institute of Technology Utica-Rome	113	0	9	3	0	55	3	43
SUNY New Paltz	131	0	13	1	7	62	18	30
SUNY Stony Brook all campuses	1,875	0	95	47	53	693	72	915
SUNY Upstate Medical U.	99	0	12	0	5	55	0	27
Syracuse U. all campuses	1,020	5	32	36	27	488	101	331
Teachers C. Columbia U.	1,269	0	117	160	98	655	135	104
Union C. (Schenectady, NY)	46	3	1	1	0	24	14	3
U. Rochester	945	1	26	18	25	436	6	433
Vassar C.	0	0	0	0	0	0	0	0
Wagner C.	18	0	1	0	1	15	1	0
Yeshiva U.	623	0	41	35	46	333	5	163
Pennsylvania	15,509	28	875	762	306	8,868	723	3,947
Bloomsburg U. PA	9	0	1	0	0	6	1	1
Bryn Mawr C.	99	0	5	0	0	78	0	16
Bucknell U.	48	0	0	0	2	46	0	0
California U. PA	116	0	1	10	1	93	11	0
Carnegie-Mellon U.	1,695	4	133	55	27	636	122	718
Clarion U. PA all campuses	29	0	0	0	0	28	0	1
Drexel U.	1,288	4	105	73	32	737	171	166
Duquesne U.	262	0	1	8	0	195	7	51

TABLE 30. Graduate science students in all institutions, by region, state, institution, and citizenship, and by race/ethnicity of U.S. citizens and permanent residents: 2003

Region, state, and institution	Total	U.S. citizens and permanent residents						Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non-Hispanic	Hispanic	White, non- Hispanic	Other or unknown	
East Stroudsburg U. PA	103	1	2	3	1	85	0	11
Edinboro U. PA	129	1	3	5	1	111	0	8
Gannon U.	56	0	0	0	0	26	0	30
Indiana U. PA all campuses	472	0	11	25	4	316	116	0
Kutztown U. PA	102	1	6	5	3	83	4	0
Lehigh U.	295	0	12	6	4	193	3	77
Marywood U.	186	3	4	3	2	165	6	3
Millersville U. PA	112	0	2	6	2	100	2	0
PA State U. all campuses	3,016	6	107	81	61	1,719	41	1,001
Philadelphia C. of Osteopathic Medicine	360	0	16	45	8	290	1	0
Shippensburg U. PA	281	0	6	8	1	234	7	25
Slippery Rock U. PA	74	0	0	1	0	61	12	0
St. Joseph's U.	412	0	75	100	18	174	44	1
Swarthmore C.	0	0	0	0	0	0	0	0
Temple U.	1,323	2	65	124	28	736	28	340
Thomas Jefferson U.	278	2	24	30	6	188	6	22
U. PA	1,749	1	130	38	38	870	33	639
U. Pittsburgh all campuses	2,154	1	117	106	49	1,169	14	698
U. Scranton	87	0	1	0	14	57	3	12
U. of the Sciences Philadelphia	110	0	6	2	0	26	52	24
Villanova U.	439	2	12	14	3	267	38	103
West Chester U. PA	221	0	29	14	1	176	1	0
Wilkes U.	4	0	1	0	0	3	0	0
East North Central	54,436	184	2,891	3,094	1,343	29,633	1,742	15,549
Illinois	18,927	43	1,496	1,402	586	9,333	938	5,129
Bradley U.	79	0	1	3	0	10	0	65
Chicago State U.	246	0	3	203	10	25	5	0
DePaul U.	2,876	3	382	273	123	1,443	197	455
Eastern IL U.	128	1	1	3	2	98	23	0
Finch U. of Health Sciences/Chicago Medical School	191	0	47	3	3	105	2	31
Governors State U.	460	0	11	176	15	184	17	57
IL Institute of Technology	834	0	115	32	15	207	19	446
IL State U.	521	3	13	19	7	343	0	136
Loyola U. Chicago	623	1	36	24	47	320	40	155
Midwestern U. (Chicago, IL)	30	0	9	2	1	18	0	0
North Central C.	25	0	2	1	0	20	2	0
Northeastern IL U.	401	4	96	21	28	208	10	34
Northern IL U.	955	2	46	35	11	603	5	253
Northwestern U.	1,017	4	68	30	22	474	7	412
Roosevelt U.	597	1	29	122	23	266	92	64
Rush U.	65	0	5	2	0	41	0	17
Southern IL U. Carbondale	1,150	3	32	53	26	738	292	6
Southern IL U. Edwardsville	529	3	13	52	9	321	0	131
U. Chicago	1,819	5	123	61	77	846	43	664
U. IL Chicago	1,889	6	127	132	79	770	59	716
U. IL Springfield	797	0	150	84	12	551	0	0
U. IL Urbana-Champaign	3,245	7	182	60	73	1,418	102	1,403
Western IL U.	450	0	5	11	3	324	23	84

TABLE 30. Graduate science students in all institutions, by region, state, institution, and citizenship, and by race/ethnicity of U.S. citizens and permanent residents: 2003

Region, state, and institution	Total	U.S. citizens and permanent residents						Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non-Hispanic	Hispanic	White, non- Hispanic	Other or unknown	
Indiana	6,364	17	226	208	170	3,509	105	2,129
Ball State U.	499	0	0	1	0	317	0	181
IN State U. all campuses	307	1	6	17	8	196	18	61
IN U. all campuses	2,681	8	143	96	67	1,626	33	708
Purdue U. all campuses	2,032	6	60	74	60	881	22	929
Rose-Hulman Institute of Technology	2	0	0	0	0	1	0	1
U. Evansville	79	0	1	4	0	66	8	0
U. of Notre Dame	657	2	15	10	29	339	16	246
U. of St. Francis (Ft. Wayne, IN)	30	0	1	2	0	24	3	0
Valparaiso U.	77	0	0	4	6	59	5	3
Michigan	10,614	70	566	695	245	5,405	232	3,401
Andrews U.	105	0	1	19	6	46	0	33
Central MI U.	399	1	28	16	4	249	1	100
Eastern MI U.	690	6	42	46	12	340	30	214
Ferris State U.	86	2	2	1	1	34	10	36
Grand Valley State U.	321	1	17	19	4	248	7	25
Lawrence Technological U.	62	0	22	3	2	15	2	18
MI State U.	2,338	17	56	83	61	1,127	38	956
MI Technological U.	275	0	2	0	7	128	15	123
Northern MI U.	122	13	1	3	1	101	0	3
Oakland U.	255	0	18	15	1	158	11	52
U. Detroit Mercy	385	3	10	77	2	139	45	109
U. MI all campuses	2,957	17	256	169	114	1,571	38	792
Wayne State U.	1,523	2	97	172	11	609	35	597
Western MI U.	1,096	8	14	72	19	640	0	343
Ohio	12,286	23	404	660	211	7,169	287	3,532
Air Force Institute of Technology	126	0	0	0	0	49	0	77
Antioch U. all campuses	1,287	6	23	46	48	1,061	76	27
Bowling Green State U. all campuses	560	2	13	12	8	297	13	215
Case Western Reserve U.	968	1	88	53	17	530	35	244
Cleveland State U.	848	0	35	126	9	387	39	252
John Carroll U.	37	0	3	2	0	32	0	0
Kent State U. all campuses	770	2	20	20	9	417	0	302
Medical C. OH	84	0	30	2	2	44	4	2
Miami U. all campuses	505	0	12	23	3	371	0	96
OH State U. all campuses	2,827	2	62	78	56	1,416	45	1,168
OH U. all campuses	760	3	8	22	5	402	0	320
Union Institute & U.	319	1	5	36	3	242	26	6
U. Akron all campuses	777	1	20	67	17	464	0	208
U. Cincinnati all campuses	884	1	23	45	12	487	31	285
U. Dayton	172	0	20	15	2	122	1	12
U. Toledo	404	0	17	24	5	214	3	141
Wright State U. all campuses	662	2	22	69	12	399	7	151
Xavier U.	159	2	1	11	1	143	1	0
Youngstown State U.	137	0	2	9	2	92	6	26
Wisconsin	6,245	31	199	129	131	4,217	180	1,358
Marquette U.	488	1	22	19	10	311	2	123
Medical C. WI	135	0	11	1	3	78	0	42
U. WI Eau Claire	26	0	2	0	0	24	0	0
U. WI Green Bay	61	3	3	0	0	53	1	1
U. WI La Crosse	103	1	3	0	0	99	0	0

TABLE 30. Graduate science students in all institutions, by region, state, institution, and citizenship, and by race/ethnicity of U.S. citizens and permanent residents: 2003

Region, state, and institution	Total	U.S. citizens and permanent residents						Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non-Hispanic	Hispanic	White, non- Hispanic	Other or unknown	
U. WI Madison	3,551	14	111	43	88	2,221	133	941
U. WI Milwaukee	1,563	7	46	60	26	1,144	41	239
U. WI Oshkosh	143	4	0	4	3	124	2	6
U. WI Platteville	0	0	0	0	0	0	0	0
U. WI Stevens Point	62	1	0	1	0	58	1	1
U. WI Stout	77	0	1	0	0	71	0	5
U. WI Whitewater	36	0	0	1	1	34	0	0
West North Central	23,719	151	899	810	467	13,807	935	6,650
Iowa	3,847	11	91	84	94	1,976	67	1,524
Drake U.	248	1	14	8	14	210	0	1
IA State U.	1,952	6	17	47	35	972	65	810
Loras C.	15	0	0	0	0	15	0	0
Maharishi U. of Management	214	0	2	0	0	6	0	206
U. IA	1,260	4	54	19	43	665	2	473
U. Northern IA	158	0	4	10	2	108	0	34
Kansas	4,715	44	125	125	105	2,997	166	1,153
Emporia State U.	252	0	0	5	3	195	33	16
Ft. Hays State U.	64	0	2	0	3	59	0	0
KS State U.	1,533	4	40	30	26	866	6	561
Pittsburg State U.	154	0	0	0	0	130	6	18
U. KS all campuses	2,137	38	57	66	60	1,437	94	385
Washburn U. Topeka	21	0	1	1	0	19	0	0
Wichita State U.	554	2	25	23	13	291	27	173
Minnesota	5,672	35	216	327	110	3,219	335	1,430
Bemidji State U.	12	0	0	0	0	12	0	0
Mayo Graduate School	147	1	11	4	14	64	18	35
MN State U. Mankato	193	0	10	4	2	87	21	69
MN State U. Moorhead	49	0	1	1	0	45	0	2
St. Cloud State U.	130	1	2	1	0	54	27	45
St. Mary's U. MN	72	0	5	10	1	34	22	0
U. MN all campuses	4,261	18	178	90	64	2,523	124	1,264
Walden U.	808	15	9	217	29	400	123	15
Missouri	5,290	24	204	186	100	3,122	180	1,474
Central MO State U.	352	1	5	19	4	256	34	33
Forest Institute of Professional Psychology	209	5	7	10	3	180	4	0
Kirksville C. of Osteopathic Medicine	12	0	1	1	0	10	0	0
Lincoln U. (Jefferson City, MO)	17	0	0	7	0	8	0	2
Northwest MO State U.	49	0	0	0	0	48	0	1
Southeast MO State U.	54	0	0	1	0	46	0	7
Southwest MO State U.	263	4	7	6	3	218	4	21
St. Louis U. all campuses	393	0	10	30	19	287	8	39
Truman State U.	6	0	0	0	0	5	1	0
U. MO-Columbia	1,201	5	30	26	25	666	26	423
U. MO-Kansas City	619	4	16	23	10	231	37	298
U. MO-Rolla	290	0	5	11	2	106	11	155
U. MO-St. Louis	537	2	35	22	13	314	33	118
Washington U. St. Louis	1,288	3	88	30	21	747	22	377
Nebraska	2,383	9	79	68	49	1,469	47	662
Creighton U.	164	0	16	4	4	95	0	45
U. NE Kearney	91	0	2	0	5	82	2	0

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U. NE Lincoln	1,211	7	33	25	26	709	12	399
U. NE Omaha	822	2	26	38	14	527	33	182
U. NE Medical Ctr.	95	0	2	1	0	56	0	36
North Dakota	1,147	15	117	13	4	552	136	310
ND State U. all campuses	752	4	103	9	4	360	30	242
U. ND all campuses	395	11	14	4	0	192	106	68
South Dakota	665	13	67	7	5	472	4	97
SD School of Mines and Technology	103	1	0	0	2	80	2	18
SD State U.	361	8	39	6	2	234	2	70
U. SD	201	4	28	1	1	158	0	9
South Atlantic	56,294	146	2,820	5,537	2,062	31,146	2,161	12,422
Delaware	1,174	3	58	61	19	667	9	357
DE State U.	11	0	2	2	0	6	0	1
U. DE	1,163	3	56	59	19	661	9	356
District of Columbia	6,038	15	352	774	177	2,531	1,071	1,118
American U.	1,912	6	60	165	65	572	760	284
Catholic U. America, The	279	2	6	12	14	160	33	52
George Washington U.	2,500	7	186	121	75	1,475	196	440
Georgetown U.	703	0	90	15	15	296	69	218
Howard U.	628	0	9	450	8	24	13	124
U. DC	16	0	1	11	0	4	0	0
Florida	12,722	32	412	1,180	1,214	6,960	397	2,527
Barry U.	214	0	12	67	58	39	16	22
Embry-Riddle Aeronautical U.	76	0	2	4	5	38	13	14
FL A&M U.	202	1	5	177	3	4	8	4
FL Atlantic U.	808	2	38	49	86	455	2	176
FL Institute of Technology	615	0	24	19	26	306	84	156
FL International U.	975	1	32	115	295	324	47	161
FL State U.	1,391	1	31	88	37	812	7	415
Nova Southeastern U.	2,120	8	66	335	279	1,192	123	117
U. Central FL	1,368	2	44	102	90	840	30	260
U. FL	2,842	11	92	102	163	1,633	36	805
U. Miami	786	0	29	49	104	364	12	228
U. South FL	1,089	2	27	56	61	772	2	169
U. West FL	236	4	10	17	7	181	17	0
Georgia	6,677	8	309	821	107	3,517	75	1,840
Augusta State U.	36	0	1	4	1	30	0	0
Clark Atlanta U.	155	1	3	134	0	1	8	8
Emory U.	774	0	32	57	16	470	2	197
GA C. and State U.	171	0	2	40	1	114	3	11
GA Institute of Technology all campuses	1,558	1	90	83	20	730	7	627
GA Southern U.	206	0	2	48	2	135	3	16
GA State U.	1,376	0	97	274	20	576	29	380
Medical C. GA	88	0	1	7	1	38	0	41
Mercer U. all campuses	19	0	0	0	0	0	19	0
Morehouse School of Medicine	21	0	0	21	0	0	0	0
State U. West GA	185	2	0	23	3	152	0	5
U. GA	1,873	4	79	82	34	1,118	1	555
Valdosta State U.	215	0	2	48	9	153	3	0

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Maryland	8,149	12	471	864	182	4,098	344	2,178
Coppin State C.	74	0	1	70	1	2	0	0
Frostburg State U.	82	0	1	2	0	72	1	6
Hood C.	292	0	10	10	3	182	80	7
Johns Hopkins U., The	1,784	4	205	69	53	871	1	581
Loyola C.	501	0	10	77	9	351	14	40
Morgan State U.	83	0	0	49	0	9	0	25
Towson U.	663	1	33	102	18	337	50	122
Uniformed Services U. of the Health Sciences	84	1	13	7	1	55	5	2
U. Baltimore	354	1	7	156	11	157	17	5
U. MD Baltimore	278	0	26	18	6	153	7	68
U. MD Baltimore County	1,011	0	60	102	11	488	26	324
U. MD College Park	2,752	5	84	145	68	1,375	132	943
U. MD Eastern Shore	166	0	21	56	1	28	6	54
Washington C.	25	0	0	1	0	18	5	1
North Carolina	9,030	32	549	952	137	5,586	68	1,706
Appalachian State U.	251	0	2	8	2	233	0	6
Duke U.	1,351	0	160	52	41	768	15	315
East Carolina U.	422	1	10	33	3	315	8	52
NC Agricultural and Technical State U.	208	1	27	121	5	29	0	25
NC Central U.	508	6	18	338	2	132	8	4
NC State U.	2,368	5	154	152	37	1,442	0	578
U. NC Chapel Hill	2,108	13	105	113	24	1,439	8	406
U. NC Charlotte	744	1	35	63	7	435	0	203
U. NC Greensboro	425	1	25	39	6	284	29	41
U. NC Wilmington	212	1	5	9	5	180	0	12
Wake Forest U.	306	1	6	20	3	214	0	62
Western Carolina U.	127	2	2	4	2	115	0	2
South Carolina	2,183	7	52	126	37	1,445	47	469
Clemson U.	931	6	7	33	9	561	40	275
C. Charleston	239	0	5	9	3	203	3	16
Furman U.	8	0	0	0	0	8	0	0
Medical U. SC	227	1	14	15	6	180	1	10
U. SC all campuses	705	0	26	59	19	434	3	164
Winthrop U.	73	0	0	10	0	59	0	4
Virginia	8,803	32	584	733	177	5,347	110	1,820
C. of William and Mary all campuses	398	0	15	17	5	283	3	75
Eastern VA Medical School	141	1	4	19	3	95	0	19
George Mason U.	2,597	9	274	166	63	1,500	0	585
Hampton U.	97	0	4	72	2	7	0	12
James Madison U.	220	1	15	9	6	178	1	10
Marymount U.	62	0	10	6	4	25	9	8
Old Dominion U.	887	6	18	102	16	447	32	266
Radford U.	107	0	3	14	0	90	0	0
U. Richmond	9	0	0	0	0	9	0	0
U. VA all campuses	1,193	4	85	38	29	771	10	256
VA Commonwealth U.	960	2	72	138	12	666	7	63
VA Polytechnic Institute and State U.	2,057	8	80	91	37	1,268	48	525
VA State U.	75	1	4	61	0	8	0	1
West Virginia	1,518	5	33	26	12	995	40	407
Marshall U.	477	4	9	5	2	376	40	41

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U. Charleston	0	0	0	0	0	0	0	0
WV U.	1,041	1	24	21	10	619	0	366
East South Central	13,998	46	544	1,745	165	7,859	227	3,412
Alabama	4,055	16	143	598	50	2,095	57	1,096
AL A&M U.	229	0	5	120	0	15	0	89
AL State U.	30	0	0	29	0	1	0	0
Auburn U. all campuses	1,133	6	20	150	19	663	19	256
Jacksonville State U.	232	0	4	65	3	154	3	3
Troy State U. Montgomery	22	0	4	4	0	14	0	0
Tuskegee U.	60	0	0	48	0	0	5	7
U. AL, The	678	2	15	55	8	376	6	216
U. AL Birmingham, The	938	3	70	89	12	492	1	271
U. AL Huntsville, The	461	4	11	23	5	239	4	175
U. South AL	272	1	14	15	3	141	19	79
Kentucky	3,551	4	100	192	31	2,107	110	1,007
Eastern KY U.	303	1	13	11	0	249	8	21
Morehead State U.	56	0	0	0	2	53	0	1
Murray State U.	213	0	2	21	2	160	2	26
Spalding U.	139	0	5	4	1	128	1	0
U. KY all campuses	1,595	2	48	56	16	785	91	597
U. Louisville	879	1	30	94	10	538	7	199
Western KY U.	366	0	2	6	0	194	1	163
Mississippi	1,924	11	109	361	26	1,004	12	401
Jackson State U.	322	0	17	220	1	48	10	26
MS State U.	793	7	52	74	13	486	1	160
U. MS all campuses	443	2	33	47	3	217	1	140
U. Southern MS	366	2	7	20	9	253	0	75
Tennessee	4,468	15	192	594	58	2,653	48	908
Austin Peay State U.	50	0	0	5	2	42	1	0
East TN State U.	282	1	4	13	4	212	3	45
Fisk U.	24	0	0	15	0	5	1	3
Meharry Medical C.	132	0	6	111	2	2	0	11
Middle TN State U.	251	4	35	25	2	184	1	0
TN State U.	396	0	24	241	1	130	0	0
TN Technological U.	87	0	0	1	0	68	0	18
U. Memphis, The	650	1	18	72	6	277	0	276
U. TN Chattanooga	192	1	10	33	3	139	0	6
U. TN Health Science Ctr.	148	3	11	5	2	54	1	72
U. TN Knoxville	1,436	1	23	42	13	1,044	35	278
Vanderbilt U.	820	4	61	31	23	496	6	199
West South Central	31,833	196	1,325	2,605	2,049	15,352	482	9,824
Arkansas	1,696	5	37	88	22	1,024	9	511
AR State U. main campus	200	0	4	20	1	148	5	22
U. AR for Medical Sciences	148	0	8	10	1	71	0	58
U. AR Little Rock	273	0	0	14	0	72	0	187
U. AR main campus	937	4	25	37	18	608	4	241
U. Central AR	138	1	0	7	2	125	0	3
Louisiana	4,783	11	139	1,113	69	2,081	109	1,261
Grambling State U.	97	0	0	95	2	0	0	0
LA State U. all campuses	2,253	9	51	216	39	1,149	75	714

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LA Tech U.	183	0	1	5	1	36	0	140
McNeese State U.	152	0	15	16	2	113	6	0
Nicholls State U.	116	0	3	22	1	89	0	1
Northwestern State U.	30	0	2	5	0	22	1	0
Southeastern LA U.	77	0	0	10	1	64	0	2
Southern U. and A&M C. all campuses	789	0	27	678	0	62	17	5
Tulane U.	606	2	36	49	23	336	10	150
U. LA Lafayette	402	0	3	4	0	147	0	248
U. LA Monroe	78	0	1	13	0	63	0	1
Oklahoma	2,982	118	80	120	56	1,706	25	877
Cameron U.	115	1	3	20	7	73	0	11
East Central U.	16	4	0	0	1	11	0	0
Northeastern State U.	134	26	0	10	1	96	1	0
OK State U. all campuses	972	34	13	19	18	480	0	408
U. OK all campuses	1,495	44	54	68	23	905	0	401
U. Tulsa	250	9	10	3	6	141	24	57
Texas	22,372	62	1,069	1,284	1,902	10,541	339	7,175
Abilene Christian U.	96	0	1	2	5	85	0	3
Angelo State U.	97	0	0	1	9	85	0	2
Baylor C. of Dentistry	17	0	1	0	0	6	0	10
Baylor C. of Medicine	398	1	36	10	26	170	0	155
Baylor U.	338	0	10	3	17	186	16	106
Lamar U.	276	0	3	9	10	41	1	212
Midwestern State U.	129	0	6	6	4	91	0	22
Prairie View A&M U.	255	0	4	207	15	23	2	4
Rice U.	617	0	41	24	36	270	7	239
Sam Houston State U.	386	1	1	17	25	277	0	65
Southern Methodist U.	323	1	23	10	3	146	2	138
Southwest TX State U.	864	2	57	41	110	501	17	136
St. Mary's U. (San Antonio, TX)	276	2	5	15	131	96	8	19
Stephen F. Austin State U.	351	1	4	16	12	284	0	34
Sul Ross State U.	35	0	1	0	10	23	0	1
Tarleton State U.	236	1	5	18	6	199	0	7
TX A&M U. all campuses	3,502	6	122	59	175	1,839	30	1,271
TX A&M U. Commerce	344	2	15	11	3	168	0	145
TX A&M U. Corpus Christi	349	1	12	9	76	178	0	73
TX A&M U. Kingsville	287	0	2	2	96	107	0	80
TX A&M U. System Health Science Ctr.	97	1	10	2	6	36	0	42
TX Christian U.	94	2	0	1	5	54	1	31
TX Southern U.	416	0	9	339	7	22	14	25
TX Tech U.	1,050	4	19	11	42	579	43	352
TX Woman's U.	471	1	25	48	38	314	0	45
U. Houston	1,111	4	81	24	52	363	44	543
U. Houston-Clear Lake	963	3	80	101	75	449	0	255
U. Houston-Victoria	46	0	0	2	10	34	0	0
U. North TX	1,257	6	43	41	62	671	58	376
U. TX Arlington	1,359	6	97	97	71	487	0	601
U. TX Austin	2,146	4	78	24	82	1,090	31	837
U. TX Dallas	1,151	2	108	58	41	337	3	602
U. TX El Paso	447	1	6	11	167	111	1	150
U. TX Health Science Ctr. Houston	643	2	76	16	49	304	14	182

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U. TX Health Science Ctr. San Antonio	201	2	13	6	27	70	1	82
U. TX M. D. Anderson Cancer Ctr.	0	0	0	0	0	0	0	0
U. TX Medical Branch	224	1	10	7	18	124	8	56
U. TX of the Permian Basin	62	0	0	3	5	54	0	0
U. TX San Antonio	408	2	17	10	119	172	2	86
U. TX Southwestern Medical Ctr. Dallas	426	0	38	6	24	211	25	122
U. TX Tyler	120	0	3	12	4	96	0	5
U. TX-Pan American	276	2	6	1	189	38	7	33
U. of the Incarnate Word	55	0	1	2	28	18	4	2
Wayland Baptist U.	7	0	0	0	1	6	0	0
West TX A&M U.	166	1	0	2	11	126	0	26
Mountain	22,467	227	819	284	1,070	14,501	1,276	4,290
Arizona	4,820	67	190	73	229	2,970	78	1,213
AZ State U. main campus	1,982	32	76	37	97	1,149	52	539
Northern AZ U.	577	16	20	13	25	487	10	6
U. AZ	2,261	19	94	23	107	1,334	16	668
Colorado	7,135	40	298	107	319	4,792	529	1,050
CO School of Mines	449	2	7	6	15	266	34	119
CO State U.	1,851	13	33	11	48	1,229	165	352
National Technological U.	217	0	37	4	13	129	24	10
U. CO all campuses	3,465	22	161	63	195	2,297	283	444
U. Denver	899	3	48	16	42	666	4	120
U. Northern CO	254	0	12	7	6	205	19	5
Idaho	1,382	15	12	5	27	1,030	58	235
Boise State U.	201	3	1	2	6	164	25	0
ID State U.	286	6	2	0	4	254	0	20
U. ID	895	6	9	3	17	612	33	215
Montana	1,248	28	23	3	14	1,062	14	104
MT State U. Bozeman	513	1	11	0	4	436	10	51
MT Tech of the U. MT	16	0	0	0	0	16	0	0
U. MT, The	719	27	12	3	10	610	4	53
Nevada	1,379	9	55	28	51	883	105	248
U. NV, Las Vegas	553	3	24	24	24	357	43	78
U. NV, Reno	826	6	31	4	27	526	62	170
New Mexico	2,720	51	67	44	361	1,297	275	625
Eastern NM U. all campuses	69	0	1	1	3	44	0	20
NM Highlands U.	120	3	2	3	41	50	3	18
NM Institute of Mining and Technology	197	2	0	1	9	115	0	70
NM State U. all campuses	830	15	15	19	128	254	181	218
U. NM all campuses	1,504	31	49	20	180	834	91	299
Utah	3,040	12	150	20	59	1,881	196	722
Brigham Young U. all campuses	1,003	2	58	8	27	641	100	167
U. UT	1,183	2	76	5	20	730	9	341
UT State U.	854	8	16	7	12	510	87	214
Wyoming	743	5	24	4	10	586	21	93
U. WY	743	5	24	4	10	586	21	93
Pacific	57,142	409	6,715	2,249	4,183	26,843	5,228	11,515
Alaska	612	25	16	1	13	472	13	72
U. AK Anchorage all campuses	111	10	2	0	2	95	2	0
U. AK Fairbanks all campuses	482	13	14	1	10	363	10	71

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U. AK Southeast	19	2	0	0	1	14	1	1
California	46,541	298	5,833	2,127	3,941	20,455	4,449	9,438
Alliant International U.	1,250	9	155	78	133	663	169	43
Azusa Pacific U.	250	0	25	18	43	132	5	27
Biola U.	40	0	7	0	3	22	0	8
CA Institute of Integral Studies	477	0	0	2	1	203	0	271
CA Institute of Technology	766	4	60	11	30	397	0	264
CA State Polytechnic U. Pomona	449	2	92	16	68	128	82	61
CA State Polytechnic U. San Luis Obispo	326	0	0	4	0	271	0	51
CA State U. Bakersfield	136	6	5	1	41	70	6	7
CA State U. Chico	358	2	15	4	24	213	45	55
CA State U. Dominguez Hills	503	3	37	224	99	78	52	10
CA State U. Fresno	615	2	63	19	153	200	68	110
CA State U. Fullerton	1,214	3	314	35	123	386	145	208
CA State U. Hayward	877	2	144	90	60	207	128	246
CA State U. Long Beach	904	7	166	61	166	319	88	97
CA State U. Los Angeles	943	4	144	83	328	195	105	84
CA State U. Northridge	673	2	76	25	73	258	138	101
CA State U. Sacramento	1,265	11	184	66	145	576	182	101
CA State U. San Bernardino	558	5	38	58	96	236	63	62
CA State U. Stanislaus	182	2	5	2	20	56	12	85
Chapman U.	308	1	15	21	30	185	48	8
Claremont Graduate U.	645	2	65	39	48	259	70	162
Dominican U. CA	88	1	2	0	5	54	24	2
Fielding Institute, The	1,084	13	32	112	64	813	35	15
Fuller Theological Seminary CA	346	2	40	16	17	228	4	39
Golden Gate U.	433	3	61	28	26	113	126	76
Harvey Mudd C.	0	0	0	0	0	0	0	0
Humboldt State U.	363	1	11	2	19	253	72	5
John F. Kennedy U.	616	7	39	27	32	485	26	0
Loma Linda U.	503	13	44	70	73	237	22	44
Loyola Marymount U.	31	0	5	3	3	10	3	7
National U.	1,291	6	71	233	224	620	47	90
Naval Postgraduate School	461	2	20	32	23	278	13	93
Occidental C.	1	0	0	0	1	0	0	0
Pacific Graduate School of Psychology	276	3	36	13	22	168	34	0
Pacific States U.	17	0	0	0	0	0	0	17
Pepperdine U.	813	10	61	80	91	413	140	18
Rand Graduate School of Policy Studies	83	0	4	1	2	38	0	38
San Diego State U.	1,405	13	155	44	156	546	209	282
San Francisco State U.	1,292	6	176	65	131	512	237	165
San Jose State U.	1,230	5	510	34	83	389	209	0
Santa Clara U.	412	0	89	0	27	141	32	123
Sonoma State U.	49	0	2	2	2	29	14	0
Stanford U.	2,203	14	289	35	68	964	72	761
U. CA, Berkeley	3,359	36	303	84	170	1,829	277	660
U. CA, Davis	2,571	19	244	46	75	1,246	301	640
U. CA, Irvine	1,654	6	241	19	91	640	190	467
U. CA, Los Angeles	3,717	28	736	93	254	1,514	216	876
U. CA, Riverside	992	3	84	9	54	335	119	388
U. CA, San Diego	1,956	15	239	24	105	1,066	117	390

TABLE 30. Graduate science students in all institutions, by region, state, institution, and citizenship, and by race/ethnicity of U.S. citizens and permanent residents: 2003

Region, state, and institution	Total	U.S. citizens and permanent residents						Temporary- visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non-Hispanic	Hispanic	White, non- Hispanic	Other or unknown	
U. CA, San Francisco	450	2	106	9	34	280	15	4
U. CA, Santa Barbara	1,509	4	118	14	76	794	210	293
U. CA, Santa Cruz	834	10	69	11	77	429	114	124
U. La Verne	293	0	21	58	64	101	30	19
U. San Diego	68	0	6	3	3	50	5	1
U. San Francisco	171	0	18	3	6	56	21	67
U. Southern CA	3,171	9	383	96	171	733	109	1,670
U. of the Pacific	35	0	7	0	4	21	0	3
Wright Institute all campuses	25	0	1	4	4	16	0	0
Hawaii	1,578	6	397	10	29	586	166	384
U. HI Manoa	1,578	6	397	10	29	586	166	384
Oregon	3,323	32	196	38	72	2,042	213	730
OGI School of Science and Engineering at OR Health and Science U.	289	0	79	1	7	109	33	60
OR Health and Science U.	137	1	18	0	4	101	1	12
OR State U.	1,093	9	40	1	14	633	40	356
Portland State U.	982	8	30	29	28	668	69	150
Southern OR U.	70	1	7	0	4	55	2	1
U. OR	752	13	22	7	15	476	68	151
Washington	5,088	48	273	73	128	3,288	387	891
Central WA U.	117	13	3	1	5	84	7	4
Eastern WA U.	199	5	2	6	6	160	20	0
Pacific Lutheran U.	45	0	2	5	0	31	5	2
Seattle U.	165	5	20	3	7	110	17	3
U. WA	3,375	16	221	46	84	2,116	283	609
Walla Walla C.	5	0	1	0	0	4	0	0
WA State U.	958	8	18	11	22	599	42	258
Western WA U.	224	1	6	1	4	184	13	15
Outlying areas	3,080	0	64	0	2,912	21	1	82
Guam	80	0	63	0	1	14	1	1
U. GU	80	0	63	0	1	14	1	1
Puerto Rico	3,000	0	1	0	2,911	7	0	81
Carlos Albizu U. (San Juan, PR)	644	0	0	0	644	0	0	0
Ponce School of Medicine	24	0	0	0	24	0	0	0
Pontifical Catholic U. PR, The	452	0	0	0	452	0	0	0
U. PR Mayaguez Campus	519	0	0	0	519	0	0	0
U. PR Medical Sciences Campus	154	0	0	0	154	0	0	0
U. PR Rio Piedras Campus	1,207	0	1	0	1,118	7	0	81

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2003.

TABLE 31. Graduate engineering students in all institutions, by region, state, institution, and citizenship, and by race/ethnicity of U.S. citizens and permanent residents: 2003

Region, state, and institution	Total	U.S. citizens and permanent residents					Other or unknown	Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non- Hispanic	Hispanic	White, non- Hispanic		
All institutions	127,375	304	10,908	3,212	3,976	43,437	5,717	59,821
New England	8,361	14	500	136	169	3,199	771	3,572
Connecticut	1,257	0	41	18	24	368	122	684
Rensselaer Hartford	194	0	15	4	15	134	26	0
U. Bridgeport	248	0	3	1	0	7	2	235
U. CT all campuses	500	0	10	3	6	151	48	282
U. Hartford	126	0	8	2	2	28	26	60
U. New Haven	73	0	1	6	1	30	12	23
Yale U.	116	0	4	2	0	18	8	84
Maine	139	1	2	1	0	82	2	51
U. ME	139	1	2	1	0	82	2	51
Massachusetts	6,218	11	420	106	128	2,362	639	2,552
Anna Maria C.	22	0	0	0	0	9	13	0
Boston U.	508	1	18	13	10	110	140	216
Fitchburg State C.	0	0	0	0	0	0	0	0
Harvard U.	263	3	17	4	5	137	5	92
MA Institute of Technology	2,573	6	241	44	60	990	194	1,038
Northeastern U.	808	1	42	24	14	214	126	387
Tufts U.	356	0	19	4	7	170	93	63
U. MA	434	0	13	2	11	148	28	232
U. MA Dartmouth	127	0	1	1	0	25	1	99
U. MA Lowell	614	0	50	6	6	256	26	270
Western New England C.	61	0	2	3	1	50	5	0
Woods Hole Oceanographic Institution	30	0	0	0	0	19	1	10
Worcester Polytechnic Institute	422	0	17	5	14	234	7	145
New Hampshire	333	1	13	3	5	179	7	125
Dartmouth C.	142	0	7	2	3	74	1	55
U. NH	191	1	6	1	2	105	6	70
Rhode Island	304	0	19	5	11	129	1	139
Brown U.	110	0	3	3	4	26	0	74
U. RI	194	0	16	2	7	103	1	65
Vermont	110	1	5	3	1	79	0	21
Marlboro C.	10	0	0	0	0	10	0	0
U. VT	100	1	5	3	1	69	0	21
Middle Atlantic	16,065	42	1,182	455	351	4,969	971	8,095
New Jersey	3,644	6	401	140	123	977	303	1,694
Fairleigh Dickinson U. all campuses	152	0	2	6	0	3	2	139
Monmouth U.	129	0	17	6	7	50	23	26
NJ Institute of Technology	1,155	1	167	75	63	281	88	480
Princeton U.	472	2	37	10	2	179	0	242
Rutgers, The State U. NJ all campuses	843	0	62	18	15	184	12	552
Stevens Institute of Technology	872	3	110	25	36	276	178	244
U. of Medicine and Dentistry NJ	21	0	6	0	0	4	0	11
New York	7,283	28	517	202	166	2,007	442	3,921
Alfred U. all campuses	71	14	1	3	0	37	1	15
Clarkson U.	151	0	0	3	0	51	0	97
Columbia U. in the City of NY	759	0	102	12	13	114	93	425
Cooper Union	37	0	11	2	1	20	0	3
Cornell U. all campuses	938	4	92	14	24	345	29	430
CUNY City C.	330	0	44	42	34	26	0	184
CUNY Graduate Ctr.	187	0	7	9	7	11	25	128

TABLE 31. Graduate engineering students in all institutions, by region, state, institution, and citizenship, and by race/ethnicity of U.S. citizens and permanent residents: 2003

Region, state, and institution	Total	U.S. citizens and permanent residents					Other or unknown	Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non- Hispanic	Hispanic	White, non- Hispanic		
Manhattan C.	164	3	20	10	20	91	5	15
NY Institute of Technology all campuses	221	1	16	15	8	53	44	84
Polytechnic U.	423	1	66	18	7	75	109	147
Rensselaer Polytechnic Institute	811	2	36	16	14	366	16	361
Rochester Institute of Technology	266	0	7	7	6	79	14	153
SUNY Albany	8	0	0	0	0	2	2	4
SUNY Binghamton	361	0	20	12	1	99	20	209
SUNY Buffalo all campuses	975	3	19	19	14	254	32	634
SUNY C. of Environmental Science and Forestry	78	0	2	1	0	54	0	21
SUNY New Paltz	36	0	4	0	0	3	3	26
SUNY Stony Brook all campuses	464	0	45	8	6	94	15	296
Syracuse U. all campuses	788	0	21	9	6	152	31	569
Union C. (Schenectady, NY)	25	0	1	1	3	18	1	1
U. Rochester	190	0	3	1	2	63	2	119
Pennsylvania	5,138	8	264	113	62	1,985	226	2,480
Bucknell U.	35	0	0	0	0	20	0	15
Carnegie-Mellon U.	801	1	50	7	8	233	24	478
Drexel U.	653	1	42	23	16	239	66	266
Gannon U.	64	0	1	1	0	10	1	51
Lehigh U.	468	0	35	11	7	210	20	185
PA State U. all campuses	1,590	1	50	27	14	614	26	858
Swarthmore C.	0	0	0	0	0	0	0	0
Temple U.	126	0	8	5	0	25	2	86
U. PA	366	0	35	9	3	142	2	175
U. Pittsburgh all campuses	645	5	27	19	13	332	17	232
Villanova U.	256	0	9	0	1	124	62	60
Widener U. all campuses	117	0	6	10	0	33	6	62
Wilkes U.	17	0	1	1	0	3	0	12
East North Central	21,984	28	1,372	438	382	7,757	664	11,343
Illinois	5,006	4	378	94	97	1,562	85	2,786
Bradley U.	195	0	1	1	0	33	2	158
IL Institute of Technology	625	1	40	7	13	169	6	389
Northern IL U.	216	0	5	15	1	64	0	131
Northwestern U.	660	2	66	13	17	261	0	301
Roosevelt U.	16	0	1	3	1	6	0	5
Southern IL U. Carbondale	426	0	15	11	3	92	13	292
Southern IL U. Edwardsville	210	0	5	3	1	61	0	140
U. IL Chicago	839	1	83	22	24	261	30	418
U. IL Urbana-Champaign	1,819	0	162	19	37	615	34	952
Indiana	2,600	5	98	57	50	900	44	1,446
Ball State U.	26	0	0	0	0	24	0	2
IN U. all campuses	106	1	5	3	1	36	1	59
Purdue U. all campuses	1,948	1	77	47	39	591	31	1,162
Rose-Hulman Institute of Technology	140	0	8	1	1	97	8	25
U. of Notre Dame	380	3	8	6	9	152	4	198
Michigan	6,323	16	543	204	132	2,449	283	2,696
Andrews U.	9	0	1	1	2	4	0	1
Eastern MI U.	75	0	1	8	1	33	4	28
Grand Valley State U.	46	0	2	1	3	39	0	1
Lawrence Technological U.	171	2	9	8	2	104	18	28
MI State U.	493	0	22	20	15	133	4	299

TABLE 31. Graduate engineering students in all institutions, by region, state, institution, and citizenship, and by race/ethnicity of U.S. citizens and permanent residents: 2003

Region, state, and institution	Total	U.S. citizens and permanent residents					Other or unknown	Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non- Hispanic	Hispanic	White, non- Hispanic		
MI Technological U.	430	3	6	3	7	184	14	213
Oakland U.	613	1	81	18	7	311	32	163
U. Detroit Mercy	148	2	6	9	5	58	21	47
U. MI all campuses	2,948	5	345	102	83	1,284	155	974
Wayne State U.	912	2	60	28	4	216	35	567
Western MI U.	478	1	10	6	3	83	0	375
Ohio	5,680	3	269	54	58	1,708	161	3,427
Air Force Institute of Technology	197	0	0	0	0	69	0	128
Case Western Reserve U.	588	0	107	4	8	232	31	206
Cleveland State U.	472	0	57	10	3	114	12	276
Miami U. all campuses	47	0	5	1	2	32	0	7
OH State U. all campuses	1,218	3	35	9	17	427	25	702
OH U. all campuses	238	0	2	1	0	59	0	176
U. Akron all campuses	379	0	19	5	3	100	15	237
U. Cincinnati all campuses	1,157	0	23	3	5	218	28	880
U. Dayton	382	0	15	10	13	181	39	124
U. Toledo	417	0	0	4	3	80	0	330
Wright State U. all campuses	545	0	6	4	4	173	9	349
Youngstown State U.	40	0	0	3	0	23	2	12
Wisconsin	2,375	0	84	29	45	1,138	91	988
Marquette U.	327	0	32	4	7	210	12	62
Milwaukee School of Engineering	269	0	6	5	3	210	39	6
U. WI Madison	1,292	0	28	12	23	438	33	758
U. WI Milwaukee	386	0	12	6	8	211	7	142
U. WI Platteville	58	0	5	2	3	42	0	6
U. WI Stout	43	0	1	0	1	27	0	14
West North Central	7,513	15	425	96	77	2,997	146	3,757
Iowa	1,298	1	13	21	13	476	26	748
IA State U.	910	0	7	13	10	336	18	526
Maharishi U. of Management	9	0	0	0	0	0	0	9
U. IA	379	1	6	8	3	140	8	213
Kansas	1,611	3	77	15	13	554	41	908
KS State U.	353	0	8	2	2	149	9	183
U. KS all campuses	569	3	19	5	7	299	18	218
Wichita State U.	689	0	50	8	4	106	14	507
Minnesota	1,554	1	91	21	12	744	15	670
Mayo Graduate School	34	0	2	1	3	15	0	13
MN State U. Mankato	5	0	0	0	0	2	0	3
St. Cloud State U.	14	0	0	0	0	1	0	13
U. MN all campuses	1,501	1	89	20	9	726	15	641
Missouri	1,927	4	53	31	34	760	50	995
Central MO State U.	26	0	0	1	0	13	1	11
Southwest MO State U.	7	0	0	0	0	3	0	4
St. Louis U. all campuses	18	0	0	1	1	6	0	10
U. MO-Columbia	443	0	12	2	16	119	4	290
U. MO-Kansas City	110	0	4	0	2	20	3	81
U. MO-Rolla	1,001	4	22	22	14	433	36	470
Washington U. St. Louis	322	0	15	5	1	166	6	129
Nebraska	401	0	51	3	3	137	0	207
U. NE Lincoln	401	0	51	3	3	137	0	207
North Dakota	387	2	129	4	1	189	11	51
ND State U. all campuses	303	2	125	4	1	138	11	22

TABLE 31. Graduate engineering students in all institutions, by region, state, institution, and citizenship, and by race/ethnicity of U.S. citizens and permanent residents: 2003

Region, state, and institution	Total	U.S. citizens and permanent residents					Other or unknown	Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non- Hispanic	Hispanic	White, non- Hispanic		
U. ND all campuses	84	0	4	0	0	51	0	29
South Dakota	335	4	11	1	1	137	3	178
SD School of Mines and Technology	186	3	0	1	1	82	3	96
SD State U.	149	1	11	0	0	55	0	82
South Atlantic	23,334	39	1,448	1,217	869	9,033	718	10,010
Delaware	490	1	7	4	7	159	1	311
U. DE	490	1	7	4	7	159	1	311
District of Columbia	1,684	5	154	139	58	752	168	408
Catholic U. America, The	89	0	4	5	5	33	12	30
George Washington U.	1,514	5	149	107	50	719	154	330
Howard U.	81	0	1	27	3	0	2	48
Florida	5,968	14	377	329	530	1,993	176	2,549
Embry-Riddle Aeronautical U.	48	0	0	0	0	24	5	19
FL A&M U.	87	0	4	57	4	13	9	0
FL Atlantic U.	213	1	15	14	17	54	1	111
FL Institute of Technology	350	0	13	16	16	146	46	113
FL International U.	516	0	21	20	156	73	59	187
FL State U.	311	2	64	83	7	56	1	98
U. Central FL	1,037	5	51	36	67	388	32	458
U. FL	2,260	6	119	62	115	845	19	1,094
U. Miami	318	0	30	16	57	127	2	86
U. South FL	828	0	60	25	91	267	2	383
Georgia	3,943	3	229	206	91	1,554	100	1,760
Emory U.	0	0	0	0	0	0	0	0
GA Institute of Technology all campuses	3,826	3	228	205	91	1,539	16	1,744
Mercer U. all campuses	84	0	0	0	0	0	84	0
U. GA	33	0	1	1	0	15	0	16
Maryland	2,518	4	162	172	55	757	89	1,279
Johns Hopkins U., The	419	2	37	6	10	143	2	219
Loyola C.	78	0	2	9	0	60	4	3
Morgan State U.	135	0	5	64	3	31	0	32
U. MD Baltimore County	204	0	13	11	14	26	4	136
U. MD College Park	1,682	2	105	82	28	497	79	889
North Carolina	2,513	7	191	190	29	1,082	2	1,012
Duke U.	342	2	25	8	6	137	0	164
NC Agricultural and Technical State U.	234	1	34	95	0	18	2	84
NC State U.	1,533	4	106	69	20	737	0	597
U. NC Chapel Hill	64	0	6	6	1	30	0	21
U. NC Charlotte	331	0	18	12	2	156	0	143
Wake Forest U.	9	0	2	0	0	4	0	3
South Carolina	1,257	1	36	27	14	398	41	740
Clemson U.	712	1	9	15	0	241	17	429
U. SC all campuses	545	0	27	12	14	157	24	311
Virginia	4,089	4	282	144	80	2,013	102	1,464
C. of William and Mary all campuses	42	0	1	0	1	21	0	19
George Mason U.	628	0	110	38	23	342	0	115
Old Dominion U.	645	3	33	32	14	320	43	200
U. VA all campuses	656	1	32	14	3	366	25	215
VA Commonwealth U.	122	0	5	11	2	46	2	56
VA Polytechnic Institute and State U.	1,996	0	101	49	37	918	32	859

TABLE 31. Graduate engineering students in all institutions, by region, state, institution, and citizenship, and by race/ethnicity of U.S. citizens and permanent residents: 2003

Region, state, and institution	Total	U.S. citizens and permanent residents					Other or unknown	Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non- Hispanic	Hispanic	White, non- Hispanic		
West Virginia	872	0	10	6	5	325	39	487
Marshall U.	128	0	1	2	1	79	39	6
WV U.	720	0	9	4	4	246	0	457
WV U. Institute of Technology	24	0	0	0	0	0	0	24
East South Central	5,681	13	338	205	46	2,282	73	2,724
Alabama	1,950	8	169	92	18	768	53	842
Auburn U. all campuses	554	4	8	18	6	186	6	326
Tuskegee U.	53	0	0	23	0	0	8	22
U. AL Birmingham, The	252	0	57	14	6	90	0	85
U. AL Huntsville, The	564	2	14	22	3	372	7	144
U. AL, The	323	1	68	10	3	105	2	134
U. South AL	204	1	22	5	0	15	30	131
Kentucky	966	2	73	20	8	415	6	442
U. KY all campuses	467	0	49	5	2	149	3	259
U. Louisville	499	2	24	15	6	266	3	183
Mississippi	587	0	36	17	6	194	1	333
MS State U.	449	0	36	16	6	149	1	241
U. MS all campuses	138	0	0	1	0	45	0	92
Tennessee	2,178	3	60	76	14	905	13	1,107
East TN State U.	35	0	0	4	1	27	0	3
TN State U.	61	0	2	14	0	8	0	37
TN Technological U.	185	0	0	5	2	67	0	111
U. Memphis, The	553	0	6	7	4	153	0	383
U. TN Chattanooga	48	0	8	7	1	28	0	4
U. TN Health Science Ctr.	64	0	27	1	0	14	0	22
U. TN Knoxville	784	3	9	22	4	404	10	332
Vanderbilt U.	448	0	8	16	2	204	3	215
West South Central	14,095	58	702	287	541	3,596	121	8,790
Arkansas	477	1	13	12	15	161	1	274
U. AR main campus	477	1	13	12	15	161	1	274
Louisiana	1,599	4	39	62	20	368	19	1,087
LA State U. all campuses	885	4	15	25	12	211	19	599
LA Tech U.	318	0	3	3	0	31	0	281
McNeese State U.	68	0	0	2	3	18	0	45
Southern U. and A&M C. all campuses	37	0	20	17	0	0	0	0
Tulane U.	171	0	1	10	5	91	0	64
U. LA Lafayette	120	0	0	5	0	17	0	98
Oklahoma	1,571	38	23	17	15	359	4	1,115
Northeastern State U.	36	12	1	2	0	21	0	0
OK State U. all campuses	716	16	6	5	1	150	0	538
U. OK all campuses	659	9	15	10	14	166	0	445
U. Tulsa	160	1	1	0	0	22	4	132
Texas	10,448	15	627	196	491	2,708	97	6,314
Lamar U.	308	0	5	1	0	11	0	291
Prairie View A&M U.	69	0	14	31	4	4	16	0
Rice U.	345	1	41	4	10	125	5	159
Southern Methodist U.	638	2	75	43	34	319	0	165
St. Mary's U. (San Antonio, TX)	57	0	4	4	21	18	0	10
TX A&M U. all campuses	2,308	1	27	24	55	635	15	1,551
TX A&M U. Kingsville	310	0	4	1	22	13	0	270
TX Tech U.	636	2	3	5	34	234	16	342

TABLE 31. Graduate engineering students in all institutions, by region, state, institution, and citizenship, and by race/ethnicity of U.S. citizens and permanent residents: 2003

Region, state, and institution	Total	U.S. citizens and permanent residents						Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non- Hispanic	Hispanic	White, non- Hispanic	Other or unknown	
U. Houston	829	0	83	21	45	188	30	462
U. Houston-Clear Lake	158	0	20	8	15	53	0	62
U. North TX	29	0	0	0	0	8	1	20
U. TX Arlington	1,562	3	126	25	29	221	0	1,158
U. TX Austin	1,947	1	105	12	53	678	7	1,091
U. TX Dallas	641	2	83	7	12	103	1	433
U. TX El Paso	275	0	6	4	78	26	0	161
U. TX Medical Branch	0	0	0	0	0	0	0	0
U. TX San Antonio	196	3	25	4	33	47	0	84
U. TX Southwestern Medical Ctr. Dallas	33	0	1	0	0	3	3	26
U. TX Tyler	16	0	2	0	1	10	2	1
U. TX-Pan American	76	0	3	2	42	5	1	23
West TX A&M U.	15	0	0	0	3	7	0	5
Mountain	9,669	48	512	102	400	4,170	567	3,870
Arizona	2,284	16	98	23	71	657	47	1,372
AZ State U. main campus	1,443	7	69	19	50	431	34	833
Northern AZ U.	23	2	8	0	0	12	1	0
U. AZ	818	7	21	4	21	214	12	539
Colorado	3,251	10	143	57	153	1,702	329	857
CO School of Mines	280	0	5	4	10	149	11	101
CO State U.	639	0	13	3	16	331	47	229
National Technological U.	744	1	56	31	72	439	81	64
U. CO all campuses	1,539	9	69	19	54	762	188	438
U. Denver	28	0	0	0	0	12	2	14
U. Southern CO	21	0	0	0	1	9	0	11
Idaho	597	3	29	2	10	352	41	160
Boise State U.	110	0	14	0	6	71	19	0
ID State U.	74	0	4	1	0	41	0	28
U. ID	413	3	11	1	4	240	22	132
Montana	198	0	20	0	0	144	0	34
MT State U. Bozeman	154	0	20	0	0	109	0	25
MT Tech of the U. MT	44	0	0	0	0	35	0	9
Nevada	489	1	22	6	13	165	24	258
U. NV, Las Vegas	264	1	16	5	10	84	13	135
U. NV, Reno	225	0	6	1	3	81	11	123
New Mexico	1,054	15	21	10	142	344	72	450
NM Institute of Mining and Technology	114	0	0	0	4	64	0	46
NM State U. all campuses	362	7	4	6	61	56	55	173
U. NM all campuses	578	8	17	4	77	224	17	231
Utah	1,670	0	175	4	10	745	54	682
Brigham Young U. all campuses	391	0	28	1	4	257	37	64
U. UT	855	0	137	2	6	294	15	401
UT State U.	424	0	10	1	0	194	2	217
Wyoming	126	3	4	0	1	61	0	57
U. WY	126	3	4	0	1	61	0	57
Pacific	20,307	47	4,429	276	775	5,434	1,686	7,660
Alaska	149	1	7	3	3	70	4	61
U. AK Anchorage all campuses	59	1	6	3	1	46	2	0
U. AK Fairbanks all campuses	90	0	1	0	2	24	2	61

TABLE 31. Graduate engineering students in all institutions, by region, state, institution, and citizenship, and by race/ethnicity of U.S. citizens and permanent residents: 2003

Region, state, and institution	Total	U.S. citizens and permanent residents					Other or unknown	Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non- Hispanic	Hispanic	White, non- Hispanic		
California	17,307	32	4,157	254	720	4,157	1,492	6,495
CA Institute of Technology	507	1	39	13	19	169	0	266
CA State Polytechnic U. Pomona	261	0	83	8	37	54	40	39
CA State Polytechnic U. San Luis Obispo	177	0	0	0	0	63	0	114
CA State U. Chico	29	0	6	0	0	5	3	15
CA State U. Dominguez Hills	22	0	4	2	4	7	3	2
CA State U. Fresno	35	0	4	0	4	15	7	5
CA State U. Fullerton	178	1	55	5	22	30	19	46
CA State U. Long Beach	354	3	100	13	37	74	33	94
CA State U. Los Angeles	270	0	61	12	54	32	14	97
CA State U. Northridge	284	1	53	7	22	89	39	73
CA State U. Sacramento	376	0	59	3	13	69	25	207
Humboldt State U.	5	0	0	0	0	3	0	2
Loyola Marymount U.	62	0	15	3	10	18	16	0
National U.	85	0	27	7	3	29	4	15
Naval Postgraduate School	524	0	22	23	22	221	123	113
San Diego State U.	371	0	56	3	24	110	39	139
San Francisco State U.	97	0	23	5	5	12	14	38
San Jose State U.	2,515	8	1,861	27	78	234	305	2
Santa Clara U.	392	0	111	3	20	110	29	119
Stanford U.	2,494	2	308	38	64	678	171	1,233
U. CA, Berkeley	1,702	6	207	29	67	576	199	618
U. CA, Davis	823	2	124	5	28	292	93	279
U. CA, Irvine	511	0	96	4	18	83	51	259
U. CA, Los Angeles	1,091	1	284	8	36	219	51	492
U. CA, Riverside	139	0	6	1	7	9	7	109
U. CA, San Diego	842	1	155	5	18	304	50	309
U. CA, San Francisco	62	1	20	1	7	31	2	0
U. CA, Santa Barbara	540	3	35	2	6	185	72	237
U. CA, Santa Cruz	149	0	31	1	2	23	12	80
U. Southern CA	2,410	2	312	26	93	413	71	1,493
Hawaii	183	0	75	0	3	30	15	60
U. HI Manoa	183	0	75	0	3	30	15	60
Oregon	1,067	5	74	8	13	408	56	503
OGI School of Science and Engineering at OR Health and Science U.	52	0	18	1	1	20	6	6
OR State U.	526	0	21	2	6	213	25	259
Portland State U.	481	5	35	3	6	174	25	233
U. Portland	8	0	0	2	0	1	0	5
Washington	1,601	9	116	11	36	769	119	541
Central WA U.	26	1	3	0	0	17	5	0
Seattle U.	51	0	8	1	0	19	9	14
St. Martin's C.	30	0	0	0	0	20	0	10
U. WA	1,145	3	100	9	27	535	105	366
WA State U.	349	5	5	1	9	178	0	151
Outlying areas	366	0	0	0	366	0	0	0
Puerto Rico	366	0	0	0	366	0	0	0
U. PR Mayaguez Campus	366	0	0	0	366	0	0	0

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2003.

TABLE 32. Graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	442,137	435,786	433,427	440,698	440,959	456,129	484,368	507,247
Science and engineering	375,821	369,007	365,731	371,328	373,048	387,826	411,311	427,977
Science	278,514	273,552	271,437	275,222	274,375	284,051	298,353	308,655
Agricultural sciences	11,591	11,462	11,406	11,546	11,234	11,422	11,853	12,409
Biological sciences	53,873	53,030	52,992	53,364	52,779	54,230	57,576	60,629
Anatomy	878	856	785	749	795	735	951	908
Biochemistry	5,231	5,065	5,107	5,060	4,925	4,855	5,148	5,473
Biology	11,735	11,939	11,554	11,385	10,897	10,877	11,334	12,045
Biometry/epidemiology	3,005	2,896	3,514	3,704	3,615	3,817	4,071	4,439
Biophysics	833	748	737	710	751	877	953	1,032
Botany	2,210	2,076	2,033	1,965	1,894	1,913	1,966	1,900
Cell biology	4,181	4,126	4,202	4,453	4,622	4,726	5,187	5,525
Ecology	1,514	1,492	1,535	1,576	1,609	1,746	1,787	2,057
Entomology/parasitology	1,234	1,161	1,168	1,145	1,104	1,170	1,191	1,206
Genetics	1,691	1,729	1,682	1,730	1,655	1,776	1,841	2,008
Microbiology/immunology/virology	4,886	4,780	4,751	4,795	4,799	4,785	5,188	5,232
Nutrition	4,469	4,325	4,183	4,232	4,169	4,182	4,271	4,317
Pathology	1,616	1,674	1,580	1,580	1,531	1,637	1,613	1,541
Pharmacology	2,663	2,597	2,730	2,757	2,963	3,140	3,234	3,357
Physiology	2,377	2,298	2,151	2,064	1,993	1,944	2,053	2,179
Zoology	1,804	1,620	1,580	1,519	1,443	1,409	1,347	1,300
Biosciences, nec	3,546	3,648	3,700	3,940	4,014	4,641	5,441	6,110
Computer sciences	30,152	31,184	32,780	36,068	39,920	44,166	47,676	46,685
Earth, atmospheric, and ocean sciences	13,942	13,249	13,029	12,910	12,818	12,751	13,130	13,528
Atmospheric sciences	1,079	1,081	954	906	956	918	1,027	1,138
Geosciences	6,915	6,586	6,316	6,286	6,266	6,200	6,317	6,503
Oceanography	2,506	2,345	2,426	2,498	2,545	2,471	2,518	2,584
Earth/atmospheric/ocean sciences, nec	3,442	3,237	3,333	3,220	3,051	3,162	3,268	3,303
Mathematical sciences	16,406	15,189	14,847	14,628	14,260	15,133	16,411	17,396
Mathematics/applied mathematics	13,428	12,569	12,264	11,961	11,503	12,135	13,061	13,640
Statistics	2,978	2,620	2,583	2,667	2,757	2,998	3,350	3,756
Physical sciences	31,158	29,986	29,567	29,789	29,495	30,167	31,377	33,339
Astronomy	874	778	820	832	888	916	990	1,080
Chemistry	18,500	17,954	17,711	17,759	17,438	17,745	18,407	19,396
Physics	11,471	10,965	10,652	10,690	10,674	11,059	11,478	12,335
Physical sciences, nec	313	289	384	508	495	447	502	528
Psychology	41,929	42,575	42,169	41,615	40,272	40,633	41,104	41,847
Clinical psychology	11,347	11,713	11,418	11,577	11,361	11,335	11,329	11,877
Psychology, general	13,044	13,524	13,447	12,646	12,114	12,337	11,856	11,957
Psychology, nec	17,538	17,338	17,304	17,392	16,797	16,961	17,919	18,013
Social sciences	79,463	76,877	74,647	75,302	73,597	75,549	79,226	82,822
Agricultural economics	2,110	2,038	1,992	2,011	2,076	2,153	2,181	2,293
Anthropology (cultural/social)	7,494	7,249	7,232	7,275	7,286	7,203	7,166	7,434
Economics (except agricultural)	11,498	10,649	10,221	10,058	10,209	10,885	11,366	11,514
Geography	3,939	3,882	3,861	3,830	3,648	3,923	3,951	4,188
History and philosophy of science	409	443	449	503	472	496	472	446
Linguistics	2,848	2,793	2,662	2,570	2,456	2,505	2,564	2,699
Political science	28,659	27,324	26,307	26,746	26,324	26,934	29,622	31,274
Sociology	8,621	8,499	8,060	7,986	7,769	7,864	7,954	8,020
Sociology/anthropology	830	855	835	719	728	788	710	753
Social sciences, nec	13,055	13,145	13,028	13,604	12,629	12,798	13,240	14,201
Engineering	97,307	95,455	94,294	96,106	98,673	103,775	112,958	119,322
Aerospace engineering	3,140	3,029	3,096	3,290	3,337	3,396	3,627	3,969
Agricultural engineering	1,012	941	925	934	899	907	912	1,012

TABLE 32. Graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Biomedical engineering	2,685	2,785	2,850	3,069	3,188	3,574	4,328	5,296
Chemical engineering	7,310	7,178	6,990	6,798	6,972	6,838	7,293	7,370
Civil engineering	17,365	16,150	15,593	15,432	15,759	15,969	16,973	18,036
Electrical engineering	27,701	28,637	29,083	29,611	31,323	33,724	37,163	38,252
Engineering science	1,741	1,636	1,685	1,604	1,601	1,759	1,985	2,187
Industrial engineering	11,725	10,988	10,326	10,995	11,373	12,096	13,279	13,479
Mechanical engineering	14,933	14,481	14,062	14,304	14,590	15,236	16,465	17,569
Metallurgical/materials engineering	4,650	4,583	4,576	4,393	4,298	4,652	4,923	5,091
Mining engineering	351	333	290	320	276	229	256	266
Nuclear engineering	980	868	821	830	792	801	795	885
Petroleum engineering	551	557	567	630	621	652	759	847
Engineering, nec	3,163	3,289	3,430	3,896	3,644	3,942	4,200	5,063
Health	66,316	66,779	67,696	69,370	67,911	68,303	73,057	79,270
Medical fields	14,561	14,463	15,759	16,393	15,684	16,561	18,115	19,512
Anesthesiology	519	510	573	561	623	672	671	793
Cardiology	18	33	36	63	53	50	43	57
Endocrinology	46	43	58	67	57	53	60	80
Gastroenterology	0	3	6	7	14	7	7	11
Hematology	3	3	1	5	6	6	13	25
Neurology	1,653	1,717	1,825	1,907	1,982	2,136	2,513	2,665
Obstetrics/gynecology	4	18	13	16	16	28	23	28
Oncology/cancer research	185	198	209	250	239	261	231	234
Ophthalmology	31	30	31	49	58	46	181	413
Otorhinolaryngology	0	2	0	3	9	4	8	9
Pediatrics	275	342	328	316	403	380	463	462
Preventive medicine/community health	10,305	10,034	11,209	11,600	10,528	10,779	11,463	11,886
Psychiatry	131	135	86	87	141	229	268	216
Pulmonary disease	0	0	0	6	7	8	5	14
Radiology	227	221	191	187	168	198	217	246
Surgery	167	171	122	122	147	130	86	84
Clinical medicine, nec	997	1,003	1,071	1,147	1,233	1,574	1,863	2,289
Other health	51,755	52,316	51,937	52,977	52,227	51,742	54,942	59,758
Dental sciences	1,388	1,491	1,518	1,467	1,430	1,494	1,446	1,654
Nursing	22,751	22,234	20,725	20,748	19,423	19,338	20,296	21,746
Pharmaceutical sciences	2,818	2,694	2,869	3,398	3,592	3,666	4,529	5,447
Speech pathology/audiology	9,403	9,630	9,662	9,902	10,167	9,787	10,009	10,429
Veterinary sciences	997	1,224	1,288	1,314	1,367	1,476	1,691	2,069
Health related, nec	14,398	15,043	15,875	16,148	16,248	15,981	16,971	18,413

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 33. Graduate students in science, engineering, and health fields in public doctorate-granting institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	309,029	304,127	301,198	306,599	309,821	320,427	342,899	361,527
Science and engineering	260,277	255,443	252,622	256,477	259,903	270,274	289,256	303,366
Science	190,264	186,869	184,916	187,318	187,416	193,777	204,397	213,327
Agricultural sciences	11,156	11,045	10,978	11,128	10,770	10,914	11,304	11,786
Biological sciences	38,495	37,679	37,703	37,735	37,355	38,145	40,521	43,080
Anatomy	680	659	584	562	591	552	700	643
Biochemistry	3,711	3,596	3,609	3,561	3,499	3,474	3,626	3,887
Biology	8,267	8,352	8,036	8,020	7,744	7,682	8,112	8,709
Biometry/epidemiology	1,765	1,718	2,143	2,200	2,192	2,356	2,635	2,856
Biophysics	459	419	417	416	449	533	613	680
Botany	2,073	1,933	1,897	1,825	1,803	1,827	1,901	1,826
Cell biology	2,562	2,533	2,678	2,816	2,980	3,080	3,387	3,640
Ecology	1,416	1,402	1,446	1,456	1,483	1,583	1,579	1,843
Entomology/parasitology	1,171	1,101	1,109	1,087	1,055	1,119	1,138	1,158
Genetics	1,131	1,160	1,097	1,115	1,052	1,121	1,112	1,253
Microbiology/immunology/virology	3,395	3,313	3,256	3,215	3,200	3,191	3,388	3,377
Nutrition	3,559	3,438	3,411	3,408	3,226	3,220	3,207	3,308
Pathology	1,059	1,063	1,074	1,053	1,015	1,033	984	995
Pharmacology	1,797	1,750	1,829	1,848	2,058	2,039	2,070	2,283
Physiology	1,439	1,373	1,341	1,305	1,175	1,111	1,179	1,248
Zoology	1,736	1,556	1,522	1,461	1,406	1,354	1,287	1,244
Biosciences, nec	2,275	2,313	2,254	2,387	2,427	2,870	3,603	4,130
Computer sciences	18,261	19,403	20,273	22,458	24,747	27,035	29,552	29,743
Earth, atmospheric, and ocean sciences	11,656	11,136	10,928	10,812	10,755	10,616	10,950	11,328
Atmospheric sciences	1,059	1,057	933	889	931	891	991	1,102
Geosciences	5,655	5,391	5,130	5,127	5,128	5,046	5,140	5,350
Oceanography	2,092	1,954	2,043	2,091	2,142	2,108	2,124	2,165
Earth/atmospheric/ocean sciences, nec	2,850	2,734	2,822	2,705	2,554	2,571	2,695	2,711
Mathematical sciences	12,506	11,518	11,163	11,032	10,996	11,780	12,759	13,594
Mathematics/applied mathematics	10,038	9,381	9,108	8,863	8,832	9,415	10,064	10,560
Statistics	2,468	2,137	2,055	2,169	2,164	2,365	2,695	3,034
Physical sciences	22,697	21,863	21,743	21,783	21,698	22,145	23,103	24,510
Astronomy	525	471	509	511	542	538	566	637
Chemistry	13,529	13,219	13,153	13,061	12,935	13,133	13,628	14,318
Physics	8,336	7,889	7,710	7,711	7,735	8,040	8,427	9,034
Physical sciences, nec	307	284	371	500	486	434	482	521
Psychology	21,128	21,858	21,499	20,871	20,347	20,410	21,134	21,385
Clinical psychology	3,055	3,161	2,983	3,031	3,061	2,953	3,004	3,090
Psychology, general	8,281	8,721	8,521	8,004	7,598	7,701	7,746	8,055
Psychology, nec	9,792	9,976	9,995	9,836	9,688	9,756	10,384	10,240
Social sciences	54,365	52,367	50,629	51,499	50,748	52,732	55,074	57,901
Agricultural economics	2,024	1,968	1,925	1,946	2,016	2,091	2,120	2,221
Anthropology (cultural/social)	5,399	5,183	5,169	5,282	5,302	5,259	5,237	5,507
Economics (except agricultural)	7,460	6,873	6,488	6,497	6,528	7,026	7,534	7,745
Geography	3,621	3,589	3,553	3,505	3,327	3,621	3,675	3,889
History and philosophy of science	211	222	222	296	272	298	273	234
Linguistics	1,973	1,953	1,876	1,834	1,761	1,805	1,886	1,995
Political science	17,170	16,271	15,455	16,070	15,801	16,604	17,925	19,063
Sociology	6,448	6,341	6,097	5,879	5,744	5,876	5,969	5,971
Sociology/anthropology	649	690	678	605	602	620	592	619
Social sciences, nec	9,410	9,277	9,166	9,585	9,395	9,532	9,863	10,657
Engineering	70,013	68,574	67,706	69,159	72,487	76,497	84,859	90,039
Aerospace engineering	2,399	2,310	2,295	2,308	2,350	2,390	2,609	2,859
Agricultural engineering	959	893	880	888	845	839	848	947

TABLE 33. Graduate students in science, engineering, and health fields in public doctorate-granting institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Biomedical engineering	1,671	1,824	1,842	1,991	2,046	2,196	2,772	3,544
Chemical engineering	5,352	5,185	5,064	4,859	5,060	4,898	5,359	5,431
Civil engineering	13,309	12,522	11,998	12,135	12,521	12,805	13,607	14,670
Electrical engineering	18,431	19,115	19,131	20,056	21,976	23,857	26,965	28,086
Engineering science	1,246	1,117	1,063	1,102	986	1,085	1,221	1,471
Industrial engineering	8,106	7,537	7,422	7,705	8,239	8,786	9,751	9,397
Mechanical engineering	11,365	10,927	10,890	11,004	11,374	11,864	13,220	13,945
Metallurgical/materials engineering	3,273	3,226	3,173	3,053	3,110	3,416	3,654	3,778
Mining engineering	258	233	197	214	264	224	252	261
Nuclear engineering	826	751	715	716	672	691	686	773
Petroleum engineering	438	442	459	531	525	534	631	727
Engineering, nec	2,380	2,492	2,577	2,597	2,519	2,912	3,284	4,150
Health	48,752	48,684	48,576	50,122	49,918	50,153	53,643	58,161
Medical fields	9,353	9,202	9,714	10,127	10,006	10,418	11,292	12,098
Anesthesiology	295	285	325	303	352	379	401	510
Cardiology	0	10	10	34	26	25	16	30
Endocrinology	46	43	58	67	57	53	58	78
Gastroenterology	0	3	6	7	14	7	7	11
Hematology	3	3	1	5	6	6	7	13
Neurology	742	819	889	999	1,073	1,173	1,430	1,540
Obstetrics/gynecology	0	5	8	13	8	20	13	13
Oncology/cancer research	117	123	139	145	143	146	123	116
Ophthalmology	31	30	31	49	58	46	178	399
Otorhinolaryngology	0	2	0	3	6	4	8	9
Pediatrics	217	241	226	243	257	287	362	394
Preventive medicine/community health	6,877	6,599	7,073	7,241	6,835	6,944	7,211	7,348
Psychiatry	102	101	64	58	78	189	215	171
Pulmonary disease	0	0	0	1	1	1	5	14
Radiology	159	163	148	135	126	153	175	181
Surgery	161	168	118	118	139	122	78	75
Clinical medicine, nec	603	607	618	706	827	863	1,005	1,196
Other health	39,399	39,482	38,862	39,995	39,912	39,735	42,351	46,063
Dental sciences	1,080	1,170	1,204	1,199	1,213	1,239	1,205	1,365
Nursing	18,322	17,907	16,740	16,813	15,935	15,902	16,768	18,019
Pharmaceutical sciences	2,311	2,163	2,202	2,672	2,949	2,972	3,707	4,472
Speech pathology/audiology	7,684	7,785	7,682	7,966	8,135	7,842	7,655	7,888
Veterinary sciences	945	1,172	1,235	1,267	1,322	1,430	1,638	2,017
Health related, nec	9,057	9,285	9,799	10,078	10,358	10,350	11,378	12,302

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 34. Graduate students in science, engineering, and health fields in private doctorate-granting institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	133,108	131,659	132,229	134,099	131,138	135,702	141,469	145,720
Science and engineering	115,544	113,564	113,109	114,851	113,145	117,552	122,055	124,611
Science	88,250	86,683	86,521	87,904	86,959	90,274	93,956	95,328
Agricultural sciences	435	417	428	418	464	508	549	623
Biological sciences	15,378	15,351	15,289	15,629	15,424	16,085	17,055	17,549
Anatomy	198	197	201	187	204	183	251	265
Biochemistry	1,520	1,469	1,498	1,499	1,426	1,381	1,522	1,586
Biology	3,468	3,587	3,518	3,365	3,153	3,195	3,222	3,336
Biometry/epidemiology	1,240	1,178	1,371	1,504	1,423	1,461	1,436	1,583
Biophysics	374	329	320	294	302	344	340	352
Botany	137	143	136	140	91	86	65	74
Cell biology	1,619	1,593	1,524	1,637	1,642	1,646	1,800	1,885
Ecology	98	90	89	120	126	163	208	214
Entomology/parasitology	63	60	59	58	49	51	53	48
Genetics	560	569	585	615	603	655	729	755
Microbiology/immunology/virology	1,491	1,467	1,495	1,580	1,599	1,594	1,800	1,855
Nutrition	910	887	772	824	943	962	1,064	1,009
Pathology	557	611	506	527	516	604	629	546
Pharmacology	866	847	901	909	905	1,101	1,164	1,074
Physiology	938	925	810	759	818	833	874	931
Zoology	68	64	58	58	37	55	60	56
Biosciences, nec	1,271	1,335	1,446	1,553	1,587	1,771	1,838	1,980
Computer sciences	11,891	11,781	12,507	13,610	15,173	17,131	18,124	16,942
Earth, atmospheric, and ocean sciences	2,286	2,113	2,101	2,098	2,063	2,135	2,180	2,200
Atmospheric sciences	20	24	21	17	25	27	36	36
Geosciences	1,260	1,195	1,186	1,159	1,138	1,154	1,177	1,153
Oceanography	414	391	383	407	403	363	394	419
Earth/atmospheric/ocean sciences, nec	592	503	511	515	497	591	573	592
Mathematical sciences	3,900	3,671	3,684	3,596	3,264	3,353	3,652	3,802
Mathematics/applied mathematics	3,390	3,188	3,156	3,098	2,671	2,720	2,997	3,080
Statistics	510	483	528	498	593	633	655	722
Physical sciences	8,461	8,123	7,824	8,006	7,797	8,022	8,274	8,829
Astronomy	349	307	311	321	346	378	424	443
Chemistry	4,971	4,735	4,558	4,698	4,503	4,612	4,779	5,078
Physics	3,135	3,076	2,942	2,979	2,939	3,019	3,051	3,301
Physical sciences, nec	6	5	13	8	9	13	20	7
Psychology	20,801	20,717	20,670	20,744	19,925	20,223	19,970	20,462
Clinical psychology	8,292	8,552	8,435	8,546	8,300	8,382	8,325	8,787
Psychology, general	4,763	4,803	4,926	4,642	4,516	4,636	4,110	3,902
Psychology, nec	7,746	7,362	7,309	7,556	7,109	7,205	7,535	7,773
Social sciences	25,098	24,510	24,018	23,803	22,849	22,817	24,152	24,921
Agricultural economics	86	70	67	65	60	62	61	72
Anthropology (cultural/social)	2,095	2,066	2,063	1,993	1,984	1,944	1,929	1,927
Economics (except agricultural)	4,038	3,776	3,733	3,561	3,681	3,859	3,832	3,769
Geography	318	293	308	325	321	302	276	299
History and philosophy of science	198	221	227	207	200	198	199	212
Linguistics	875	840	786	736	695	700	678	704
Political science	11,489	11,053	10,852	10,676	10,523	10,330	11,697	12,211
Sociology	2,173	2,158	1,963	2,107	2,025	1,988	1,985	2,049
Sociology/anthropology	181	165	157	114	126	168	118	134
Social sciences, nec	3,645	3,868	3,862	4,019	3,234	3,266	3,377	3,544
Engineering	27,294	26,881	26,588	26,947	26,186	27,278	28,099	29,283
Aerospace engineering	741	719	801	982	987	1,006	1,018	1,110
Agricultural engineering	53	48	45	46	54	68	64	65

TABLE 34. Graduate students in science, engineering, and health fields in private doctorate-granting institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Biomedical engineering	1,014	961	1,008	1,078	1,142	1,378	1,556	1,752
Chemical engineering	1,958	1,993	1,926	1,939	1,912	1,940	1,934	1,939
Civil engineering	4,056	3,628	3,595	3,297	3,238	3,164	3,366	3,366
Electrical engineering	9,270	9,522	9,952	9,555	9,347	9,867	10,198	10,166
Engineering science	495	519	622	502	615	674	764	716
Industrial engineering	3,619	3,451	2,904	3,290	3,134	3,310	3,528	4,082
Mechanical engineering	3,568	3,554	3,172	3,300	3,216	3,372	3,245	3,624
Metallurgical/materials engineering	1,377	1,357	1,403	1,340	1,188	1,236	1,269	1,313
Mining engineering	93	100	93	106	12	5	4	5
Nuclear engineering	154	117	106	114	120	110	109	112
Petroleum engineering	113	115	108	99	96	118	128	120
Engineering, nec	783	797	853	1,299	1,125	1,030	916	913
Health	17,564	18,095	19,120	19,248	17,993	18,150	19,414	21,109
Medical fields	5,208	5,261	6,045	6,266	5,678	6,143	6,823	7,414
Anesthesiology	224	225	248	258	271	293	270	283
Cardiology	18	23	26	29	27	25	27	27
Endocrinology	0	0	0	0	0	0	2	2
Gastroenterology	0	0	0	0	0	0	0	0
Hematology	0	0	0	0	0	0	6	12
Neurology	911	898	936	908	909	963	1,083	1,125
Obstetrics/gynecology	4	13	5	3	8	8	10	15
Oncology/cancer research	68	75	70	105	96	115	108	118
Ophthalmology	0	0	0	0	0	0	3	14
Otorhinolaryngology	0	0	0	0	3	0	0	0
Pediatrics	58	101	102	73	146	93	101	68
Preventive medicine/community health	3,428	3,435	4,136	4,359	3,693	3,835	4,252	4,538
Psychiatry	29	34	22	29	63	40	53	45
Pulmonary disease	0	0	0	5	6	7	0	0
Radiology	68	58	43	52	42	45	42	65
Surgery	6	3	4	4	8	8	8	9
Clinical medicine, nec	394	396	453	441	406	711	858	1,093
Other health	12,356	12,834	13,075	12,982	12,315	12,007	12,591	13,695
Dental sciences	308	321	314	268	217	255	241	289
Nursing	4,429	4,327	3,985	3,935	3,488	3,436	3,528	3,727
Pharmaceutical sciences	507	531	667	726	643	694	822	975
Speech pathology/audiology	1,719	1,845	1,980	1,936	2,032	1,945	2,354	2,541
Veterinary sciences	52	52	53	47	45	46	53	52
Health related, nec	5,341	5,758	6,076	6,070	5,890	5,631	5,593	6,111

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 35. Graduate students in science and engineering fields in doctorate-granting institutions, by enrollment status, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 1996–2003

Enrollment status, citizenship, and race/ethnicity	1996	1997	1998	1999	2000	2001	2002	2003
Full and part-time enrollment	375,821	369,007	365,731	371,328	373,048	387,826	411,311	427,977
U.S. citizens and permanent residents	280,909	273,446	267,427	265,585	255,562	259,217	271,814	286,977
American Indian/Alaska Native	1,337	1,386	1,382	1,317	1,363	1,444	1,508	1,620
Asian/Pacific Islander	23,030	23,008	23,046	23,577	21,348	22,438	24,439	26,715
Black, non-Hispanic	16,189	16,274	16,584	17,194	17,589	17,798	18,953	20,189
Hispanic	12,599	13,032	13,380	14,201	14,478	15,127	16,464	17,862
White, non-Hispanic	213,784	205,020	198,296	194,731	184,633	184,792	191,455	199,108
Other or unknown	13,970	14,726	14,739	14,565	16,151	17,618	18,995	21,483
Temporary-visa holders	94,912	95,561	98,304	105,743	117,486	128,609	139,497	141,000
Full-time	269,486	266,098	263,867	268,678	274,789	287,170	307,420	320,138
U.S. citizens and permanent residents	187,960	183,305	179,071	177,317	172,485	174,925	185,771	197,721
American Indian/Alaska Native	985	1,010	990	920	984	1,024	1,053	1,125
Asian/Pacific Islander	15,843	15,944	16,133	16,553	14,736	15,633	17,124	18,565
Black, non-Hispanic	10,002	10,256	10,215	10,181	10,819	10,715	11,487	12,072
Hispanic	8,520	8,796	9,065	9,455	9,726	10,199	11,272	12,357
White, non-Hispanic	144,752	138,933	134,349	132,113	126,732	127,007	133,369	139,927
Other or unknown	7,858	8,366	8,319	8,095	9,488	10,347	11,466	13,675
Temporary-visa holders	81,526	82,793	84,796	91,361	102,304	112,245	121,649	122,417
Part-time	106,335	102,909	101,864	102,650	98,259	100,656	103,891	107,839
U.S. citizens and permanent residents	92,949	90,141	88,356	88,268	83,077	84,292	86,043	89,256
American Indian/Alaska Native	352	376	392	397	379	420	455	495
Asian/Pacific Islander	7,187	7,064	6,913	7,024	6,612	6,805	7,315	8,150
Black, non-Hispanic	6,187	6,018	6,369	7,013	6,770	7,083	7,466	8,117
Hispanic	4,079	4,236	4,315	4,746	4,752	4,928	5,192	5,505
White, non-Hispanic	69,032	66,087	63,947	62,618	57,901	57,785	58,086	59,181
Other or unknown	6,112	6,360	6,420	6,470	6,663	7,271	7,529	7,808
Temporary-visa holders	13,386	12,768	13,508	14,382	15,182	16,364	17,848	18,583

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 36. Graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 2003

Field	Total	U.S. citizens and permanent residents					Other or unknown	Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non- Hispanic	Hispanic	White, non- Hispanic		
All surveyed fields	507,247	2,064	32,273	26,390	22,444	250,775	25,276	148,025
Science and engineering	427,977	1,620	26,715	20,189	17,862	199,108	21,483	141,000
Science	308,655	1,344	18,271	17,162	14,358	158,196	16,563	82,761
Agricultural sciences	12,409	63	301	447	466	8,142	453	2,537
Biological sciences	60,629	223	4,851	2,556	2,583	33,214	2,697	14,505
Anatomy	908	4	95	37	42	503	28	199
Biochemistry	5,473	11	450	154	210	2,505	267	1,876
Biology	12,045	48	633	658	638	7,100	609	2,359
Biometry/epidemiology	4,439	16	488	229	196	2,155	159	1,196
Biophysics	1,032	1	126	17	28	502	39	319
Botany	1,900	10	108	26	38	1,064	70	584
Cell biology	5,525	13	592	160	212	2,776	357	1,415
Ecology	2,057	10	56	33	58	1,504	139	257
Entomology/parasitology	1,206	4	29	15	41	800	31	286
Genetics	2,008	12	191	74	60	1,060	104	507
Microbiology/immunology/virology	5,232	14	488	245	285	2,802	255	1,143
Nutrition	4,317	13	217	238	160	2,390	126	1,173
Pathology	1,541	3	183	56	63	834	71	331
Pharmacology	3,357	19	341	185	134	1,809	96	773
Physiology	2,179	9	319	100	73	1,110	49	519
Zoology	1,300	8	31	11	32	984	54	180
Biosciences, nec	6,110	28	504	318	313	3,316	243	1,388
Computer sciences	46,685	84	4,841	1,636	900	14,909	2,763	21,552
Earth, atmospheric, and ocean sciences	13,528	55	327	241	446	9,149	607	2,703
Atmospheric sciences	1,138	5	64	30	21	709	41	268
Geosciences	6,503	24	111	65	170	4,408	307	1,418
Oceanography	2,584	8	45	34	154	1,786	73	484
Earth/atmospheric/ocean sciences, nec	3,303	18	107	112	101	2,246	186	533
Mathematical sciences	17,396	21	1,020	528	481	7,449	803	7,094
Mathematics/applied mathematics	13,640	20	733	436	421	6,220	711	5,099
Statistics	3,756	1	287	92	60	1,229	92	1,995
Physical sciences	33,339	76	1,523	885	1,050	14,634	1,277	13,894
Astronomy	1,080	3	53	9	25	610	47	333
Chemistry	19,396	49	1,026	622	718	8,641	633	7,707
Physics	12,335	23	416	225	289	5,118	509	5,755
Physical sciences, nec	528	1	28	29	18	265	88	99
Psychology	41,847	253	1,923	3,668	3,718	26,906	2,535	2,844
Clinical psychology	11,877	96	572	792	1,510	7,542	767	598
Psychology, general	11,957	68	603	1,034	637	8,013	635	967
Psychology, nec	18,013	89	748	1,842	1,571	11,351	1,133	1,279
Social sciences	82,822	569	3,485	7,201	4,714	43,793	5,428	17,632
Agricultural economics	2,293	7	39	76	42	962	83	1,084
Anthropology (cultural/social)	7,434	95	268	265	388	5,087	487	844
Economics (except agricultural)	11,514	28	563	293	315	3,514	438	6,363
Geography	4,188	22	121	112	127	2,888	170	748
History and philosophy of science	446	1	25	10	7	311	31	61
Linguistics	2,699	14	142	43	119	1,269	171	941
Political science	31,274	193	1,328	3,680	2,106	16,667	2,617	4,683
Sociology	8,020	55	381	863	515	4,593	319	1,294
Sociology/anthropology	753	18	13	118	44	457	36	67
Social sciences, nec	14,201	136	605	1,741	1,051	8,045	1,076	1,547

TABLE 36. Graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 2003

Field	Total	U.S. citizens and permanent residents					Other or unknown	Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non- Hispanic	Hispanic	White, non- Hispanic		
Engineering	119,322	276	8,444	3,027	3,504	40,912	4,920	58,239
Aerospace engineering	3,969	15	198	59	108	1,725	204	1,660
Agricultural engineering	1,012	2	35	27	14	431	22	481
Biomedical engineering	5,296	7	667	158	154	2,159	270	1,881
Chemical engineering	7,370	19	504	170	238	2,516	168	3,755
Civil engineering	18,036	61	878	410	786	7,986	655	7,260
Electrical engineering	38,252	56	3,415	741	906	8,846	1,498	22,790
Engineering science	2,187	11	150	41	48	891	44	1,002
Industrial engineering	13,479	39	962	660	518	5,216	786	5,298
Mechanical engineering	17,569	41	906	363	457	6,506	722	8,574
Metallurgical/materials engineering	5,091	8	298	109	93	1,892	103	2,588
Mining engineering	266	4	5	2	3	129	15	108
Nuclear engineering	885	1	30	12	31	439	19	353
Petroleum engineering	847	0	12	11	13	123	13	675
Engineering, nec	5,063	12	384	264	135	2,053	401	1,814
Health	79,270	444	5,558	6,201	4,582	51,667	3,793	7,025
Medical fields	19,512	149	2,055	1,702	1,483	10,355	1,061	2,707
Anesthesiology	793	3	37	32	21	659	23	18
Cardiology	57	4	11	2	0	18	2	20
Endocrinology	80	0	9	3	2	26	3	37
Gastroenterology	11	0	0	1	0	8	0	2
Hematology	25	0	6	1	0	8	3	7
Neurology	2,665	10	273	81	105	1,563	138	495
Obstetrics/gynecology	28	0	6	1	0	13	0	8
Oncology/cancer research	234	1	30	16	11	139	4	33
Ophthalmology	413	2	140	6	17	195	34	19
Otorhinolaryngology	9	0	1	0	0	8	0	0
Pediatrics	462	5	28	42	11	310	13	53
Preventive medicine/community health	11,886	120	1,198	1,329	1,047	5,952	554	1,686
Psychiatry	216	0	6	14	60	117	7	12
Pulmonary disease	14	0	0	0	0	6	0	8
Radiology	246	1	39	6	8	122	6	64
Surgery	84	0	19	4	4	53	0	4
Clinical medicine, nec	2,289	3	252	164	197	1,158	274	241
Other health	59,758	295	3,503	4,499	3,099	41,312	2,732	4,318
Dental sciences	1,654	6	179	35	71	990	65	308
Nursing	21,746	135	1,071	1,778	1,029	16,171	1,074	488
Pharmaceutical sciences	5,447	4	539	543	234	2,307	157	1,663
Speech pathology/audiology	10,429	46	268	513	616	8,137	479	370
Veterinary sciences	2,069	6	75	71	43	1,430	52	392
Health related, nec	18,413	98	1,371	1,559	1,106	12,277	905	1,097

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2003.

TABLE 37. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	308,568	306,806	306,093	312,993	318,735	331,313	354,260	371,784
Science and engineering	269,486	266,098	263,867	268,678	274,789	287,170	307,420	320,138
Science	205,057	201,809	199,984	202,209	204,170	211,473	224,171	232,433
Agricultural sciences	9,132	8,964	8,794	8,933	8,906	8,947	9,180	9,509
Biological sciences	45,809	45,009	45,105	45,301	45,297	46,621	49,996	52,433
Anatomy	810	797	733	708	752	675	865	829
Biochemistry	4,960	4,795	4,854	4,778	4,699	4,617	4,930	5,288
Biology	8,772	9,049	8,781	8,688	8,582	8,671	9,231	9,851
Biometry/epidemiology	2,152	1,993	2,566	2,642	2,562	2,736	3,012	3,208
Biophysics	807	728	707	681	719	837	896	968
Botany	1,917	1,800	1,799	1,757	1,700	1,716	1,789	1,730
Cell biology	3,978	3,966	4,026	4,243	4,384	4,498	4,928	5,217
Ecology	1,253	1,170	1,192	1,230	1,224	1,364	1,396	1,455
Entomology/parasitology	1,027	995	1,000	971	979	989	1,001	1,024
Genetics	1,615	1,632	1,596	1,633	1,597	1,686	1,770	1,927
Microbiology/immunology/virology	4,484	4,365	4,370	4,471	4,497	4,495	4,895	4,971
Nutrition	3,342	3,176	3,027	3,022	2,999	3,123	3,215	3,182
Pathology	1,340	1,420	1,339	1,364	1,293	1,350	1,340	1,319
Pharmacology	2,510	2,461	2,562	2,579	2,627	2,746	2,823	2,926
Physiology	2,217	2,102	1,990	1,876	1,856	1,811	1,917	2,059
Zoology	1,523	1,410	1,328	1,287	1,234	1,229	1,173	1,093
Biosciences, nec	3,102	3,150	3,235	3,371	3,593	4,078	4,815	5,386
Computer sciences	16,039	16,959	18,306	20,452	23,456	27,034	29,717	28,333
Earth, atmospheric, and ocean sciences	10,307	9,997	10,020	10,065	10,127	10,045	10,635	11,021
Atmospheric sciences	977	964	854	791	842	811	915	1,016
Geosciences	5,399	5,230	5,047	5,094	5,128	5,079	5,232	5,403
Oceanography	2,042	1,926	2,006	2,081	2,131	2,017	2,104	2,209
Earth/atmospheric/ocean sciences, nec	1,889	1,877	2,113	2,099	2,026	2,138	2,384	2,393
Mathematical sciences	12,501	11,724	11,275	11,344	11,338	11,995	13,096	13,932
Mathematics/applied mathematics	10,269	9,661	9,255	9,237	9,121	9,566	10,428	10,988
Statistics	2,232	2,063	2,020	2,107	2,217	2,429	2,668	2,944
Physical sciences	27,461	26,424	25,965	26,240	26,103	26,806	28,205	30,028
Astronomy	854	768	787	808	823	860	946	1,023
Chemistry	16,152	15,658	15,442	15,662	15,359	15,800	16,544	17,394
Physics	10,279	9,837	9,583	9,577	9,721	9,926	10,459	11,334
Physical sciences, nec	176	161	153	193	200	220	256	277
Psychology	29,956	30,318	29,938	29,603	29,436	29,087	29,263	30,276
Clinical psychology	8,783	9,104	9,069	9,247	9,143	9,044	8,792	9,004
Psychology, general	9,569	10,080	9,982	9,499	9,437	9,222	8,898	9,400
Psychology, nec	11,604	11,134	10,887	10,857	10,856	10,821	11,573	11,872
Social sciences	53,852	52,414	50,581	50,271	49,507	50,938	54,079	56,901
Agricultural economics	1,781	1,718	1,670	1,685	1,777	1,865	1,972	2,042
Anthropology (cultural/social)	5,868	5,636	5,563	5,631	5,473	5,470	5,625	5,776
Economics (except agricultural)	9,287	8,609	8,337	8,136	8,318	8,928	9,362	9,600
Geography	2,798	2,761	2,699	2,613	2,497	2,738	2,712	2,930
History and philosophy of science	348	377	385	412	373	372	364	353
Linguistics	2,433	2,332	2,196	2,107	2,037	2,088	2,134	2,257
Political science	16,301	15,743	15,084	15,034	14,859	15,070	16,925	18,193
Sociology	6,331	6,361	6,057	5,956	5,862	5,897	6,104	6,298
Sociology/anthropology	576	613	593	507	515	560	549	548
Social sciences, nec	8,129	8,264	7,997	8,190	7,796	7,950	8,332	8,904
Engineering	64,429	64,289	63,883	66,469	70,619	75,697	83,249	87,705
Aerospace engineering	2,545	2,505	2,544	2,623	2,740	2,799	2,970	3,206
Agricultural engineering	799	748	756	767	706	758	769	870

TABLE 37. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Biomedical engineering	2,281	2,411	2,475	2,708	2,841	3,156	3,858	4,721
Chemical engineering	5,910	5,775	5,594	5,571	5,838	5,804	6,243	6,385
Civil engineering	11,431	11,083	10,803	10,928	11,516	11,843	12,716	13,440
Electrical engineering	17,600	18,493	19,007	19,913	22,185	24,458	27,277	27,712
Engineering science	1,054	1,016	1,111	1,027	1,086	1,207	1,424	1,751
Industrial engineering	5,030	4,981	4,750	5,363	5,929	6,370	6,998	6,867
Mechanical engineering	10,559	10,307	9,951	10,217	10,636	11,289	12,333	13,132
Metallurgical/materials engineering	3,691	3,651	3,684	3,523	3,568	3,952	4,219	4,369
Mining engineering	261	260	217	252	182	185	198	208
Nuclear engineering	771	708	662	641	660	651	655	752
Petroleum engineering	438	457	478	523	513	535	644	682
Engineering, nec	2,059	1,894	1,851	2,413	2,219	2,690	2,945	3,610
Health	39,082	40,708	42,226	44,315	43,946	44,143	46,840	51,646
Medical fields	9,437	9,648	10,563	11,178	10,781	11,389	12,726	14,192
Anesthesiology	459	463	514	494	561	562	531	669
Cardiology	18	32	36	62	53	50	42	51
Endocrinology	46	41	58	66	55	51	59	56
Gastroenterology	0	3	6	7	14	7	7	11
Hematology	3	3	1	3	6	6	8	25
Neurology	1,599	1,650	1,773	1,853	1,922	2,072	2,456	2,573
Obstetrics/gynecology	4	18	10	9	13	18	18	20
Oncology/cancer research	182	193	206	245	225	246	229	232
Ophthalmology	17	20	21	31	41	33	166	393
Otorhinolaryngology	0	2	0	3	8	4	8	9
Pediatrics	220	275	260	276	351	316	363	377
Preventive medicine/community health	5,730	5,701	6,496	6,849	6,190	6,423	6,958	7,509
Psychiatry	70	80	40	50	85	123	127	67
Pulmonary disease	0	0	0	6	7	8	4	10
Radiology	189	198	160	168	151	167	178	208
Surgery	157	157	109	113	128	97	65	67
Clinical medicine, nec	743	812	873	943	971	1,206	1,507	1,915
Other health	29,645	31,060	31,663	33,137	33,165	32,754	34,114	37,454
Dental sciences	1,178	1,290	1,284	1,226	1,301	1,322	1,317	1,514
Nursing	7,443	7,740	7,535	8,157	7,711	7,677	8,550	9,209
Pharmaceutical sciences	2,214	2,219	2,253	2,598	2,774	2,760	2,546	3,484
Speech pathology/audiology	7,242	7,472	7,570	7,911	7,995	7,721	7,777	8,160
Veterinary sciences	783	1,028	1,048	1,052	1,154	1,244	1,418	1,750
Health related, nec	10,785	11,311	11,973	12,193	12,230	12,030	12,506	13,337

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and primary source of support: 1996–2003

Field and primary source of support	1996	1997	1998	1999	2000	2001	2002	2003
All sources	308,568	306,806	306,093	312,993	318,735	331,313	354,260	371,784
Federal	64,427	63,680	62,996	64,998	66,712	67,998	74,335	80,955
DOD	8,687	8,932	8,211	7,970	8,082	7,901	7,929	9,185
DOE ^a	NA	NA	NA	2,747	2,995	3,112	3,540	4,006
HHS	22,020	22,100	22,384	23,106	23,148	24,010	26,600	28,974
NIH	17,863	17,990	18,112	18,927	19,403	19,798	22,042	24,211
Other HHS	4,157	4,110	4,272	4,179	3,745	4,212	4,558	4,763
NASA	2,267	2,558	2,613	2,520	2,738	2,794	3,050	3,182
NSF	13,372	13,322	13,414	13,797	14,562	15,362	17,052	19,208
USDA	3,001	2,642	2,479	2,630	2,628	2,733	3,097	3,499
Other ^a	15,080	14,126	13,895	12,228	12,559	12,086	13,067	12,901
Institutional	123,551	124,225	124,120	128,170	128,030	135,096	142,241	145,415
Other nonfederal	25,041	24,701	26,019	25,652	27,332	27,684	28,479	28,817
Domestic	19,845	19,877	21,781	21,745	23,507	23,995	25,176	25,758
Foreign	5,196	4,824	4,238	3,907	3,825	3,689	3,303	3,059
Self-support	95,549	94,200	92,958	94,173	96,661	100,535	109,205	116,597
Science and engineering	269,486	266,098	263,867	268,678	274,789	287,170	307,420	320,138
Federal	57,407	56,378	55,390	56,900	58,799	59,761	65,660	71,852
DOD	8,375	8,622	7,919	7,619	7,682	7,657	7,647	8,892
DOE ^a	NA	NA	NA	2,717	2,980	3,101	3,532	3,993
HHS	16,837	16,731	16,654	17,164	17,621	18,035	20,135	22,135
NIH	15,427	15,287	15,249	15,931	16,272	16,523	18,546	20,325
Other HHS	1,410	1,444	1,405	1,233	1,349	1,512	1,589	1,810
NASA	2,253	2,537	2,587	2,505	2,720	2,772	3,034	3,169
NSF	13,291	13,227	13,294	13,674	14,439	15,233	16,924	19,060
USDA	2,951	2,599	2,420	2,569	2,566	2,683	3,023	3,421
Other ^a	13,700	12,662	12,516	10,652	10,791	10,280	11,365	11,182
Institutional	115,064	115,271	114,903	118,178	118,070	125,103	131,666	134,377
Other nonfederal	23,043	22,803	23,909	23,508	24,989	25,270	25,840	26,085
Domestic	18,274	18,463	20,101	20,022	21,520	21,954	22,853	23,350
Foreign	4,769	4,340	3,808	3,486	3,469	3,316	2,987	2,735
Self-support	73,972	71,646	69,665	70,092	72,931	77,036	84,254	87,824
Science	205,057	201,809	199,984	202,209	204,170	211,473	224,171	232,433
Federal	41,629	40,535	39,903	41,064	42,127	42,738	46,884	50,430
DOD	3,862	3,872	3,609	3,284	3,224	3,291	3,258	3,397
DOE ^a	NA	NA	NA	1,730	1,772	1,813	2,011	2,276
HHS	16,002	15,816	15,754	16,203	16,487	16,748	18,671	20,188
NIH	14,696	14,521	14,495	15,087	15,274	15,390	17,265	18,690
Other HHS	1,306	1,295	1,259	1,116	1,213	1,358	1,406	1,498
NASA	1,165	1,277	1,348	1,378	1,451	1,423	1,551	1,549
NSF	8,712	8,623	8,587	8,738	9,231	9,809	11,001	12,379
USDA	2,649	2,367	2,223	2,329	2,349	2,423	2,686	2,967
Other ^a	9,239	8,580	8,382	7,402	7,613	7,231	7,706	7,674
Institutional	92,008	91,841	91,838	93,259	92,323	97,660	101,716	103,773
Other nonfederal	14,238	13,885	14,202	14,053	14,505	14,326	14,639	14,986
Domestic	10,998	10,979	11,600	11,679	12,121	12,074	12,618	13,181
Foreign	3,240	2,906	2,602	2,374	2,384	2,252	2,021	1,805
Self-support	57,182	55,548	54,041	53,833	55,215	56,749	60,932	63,244
Agricultural sciences	9,132	8,964	8,794	8,933	8,906	8,947	9,180	9,509
Federal	2,010	1,837	1,716	1,936	1,937	1,968	2,147	2,490
DOD	38	38	47	28	42	47	34	33
DOE ^a	NA	NA	NA	41	45	29	55	58
HHS	31	31	32	29	57	51	87	89
NIH	17	22	16	17	37	40	64	60
Other HHS	14	9	16	12	20	11	23	29
NASA	29	28	36	55	65	63	74	90
NSF	100	105	94	114	113	138	124	211

TABLE 38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and primary source of support: 1996–2003

Field and primary source of support	1996	1997	1998	1999	2000	2001	2002	2003
USDA	1,099	999	987	1,077	1,043	1,064	1,155	1,333
Other ^a	713	636	520	592	572	576	618	676
Institutional	3,642	3,633	3,718	3,726	3,722	3,917	3,966	3,830
Other nonfederal	1,519	1,634	1,630	1,621	1,698	1,561	1,527	1,560
Domestic	1,160	1,292	1,329	1,362	1,463	1,374	1,404	1,389
Foreign	359	342	301	259	235	187	123	171
Self-support	1,961	1,860	1,730	1,650	1,549	1,501	1,540	1,629
Biological sciences	45,809	45,009	45,105	45,301	45,297	46,621	49,996	52,433
Federal	16,407	16,154	16,038	16,365	16,583	16,607	18,516	20,095
DOD	355	360	343	328	317	355	380	350
DOE ^a	NA	NA	NA	155	171	166	180	195
HHS	11,844	11,831	11,872	12,223	12,240	12,280	13,645	14,836
NIH	11,255	11,247	11,258	11,730	11,665	11,617	12,925	14,111
Other HHS	589	584	614	493	575	663	720	725
NASA	84	109	102	100	97	76	114	99
NSF	1,481	1,522	1,532	1,491	1,593	1,599	1,804	2,125
USDA	1,028	861	750	801	780	816	990	1,032
Other ^a	1,615	1,471	1,439	1,267	1,385	1,315	1,403	1,458
Institutional	19,514	19,377	19,364	19,602	19,427	20,434	21,040	21,509
Other nonfederal	3,657	3,468	3,679	3,270	3,356	3,571	3,815	3,979
Domestic	3,107	2,953	3,156	2,812	2,933	3,206	3,508	3,690
Foreign	550	515	523	458	423	365	307	289
Self-support	6,231	6,010	6,024	6,064	5,931	6,009	6,625	6,850
Computer sciences	16,039	16,959	18,306	20,452	23,456	27,034	29,717	28,333
Federal	3,093	3,141	3,272	3,318	3,610	4,182	4,906	5,309
DOD	1,342	1,425	1,299	1,201	1,203	1,277	1,300	1,380
DOE ^a	NA	NA	NA	109	111	120	138	159
HHS	113	106	110	104	120	172	239	303
NIH	80	78	75	64	82	101	185	231
Other HHS	33	28	35	40	38	71	54	72
NASA	121	122	124	111	142	165	196	217
NSF	1,051	1,081	1,164	1,302	1,491	1,854	2,330	2,713
USDA	13	12	10	20	16	25	41	39
Other ^a	453	395	565	471	527	569	662	498
Institutional	5,363	5,583	5,846	6,596	7,208	8,356	8,969	8,653
Other nonfederal	1,141	1,172	1,272	1,478	1,816	1,779	1,889	1,904
Domestic	901	1,015	1,107	1,344	1,552	1,544	1,667	1,708
Foreign	240	157	165	134	264	235	222	196
Self-support	6,442	7,063	7,916	9,060	10,822	12,717	13,953	12,467
Earth, atmospheric, and ocean sciences	10,307	9,997	10,020	10,065	10,127	10,045	10,635	11,021
Federal	3,254	3,085	2,933	2,940	2,955	2,890	3,004	3,275
DOD	389	364	336	335	279	257	200	254
DOE ^a	NA	NA	NA	123	144	137	167	154
HHS	49	40	38	37	57	60	47	68
NIH	30	27	21	17	40	37	32	52
Other HHS	19	13	17	20	17	23	15	16
NASA	326	350	388	406	453	456	470	419
NSF	1,238	1,198	1,115	1,123	1,130	1,120	1,191	1,363
USDA	74	52	74	53	49	65	74	85
Other ^a	1,178	1,081	982	863	843	795	855	932
Institutional	4,029	4,133	4,215	4,518	4,419	4,461	4,681	4,861
Other nonfederal	905	873	850	840	874	878	1,063	852
Domestic	689	689	686	680	729	693	869	736
Foreign	216	184	164	160	145	185	194	116
Self-support	2,119	1,906	2,022	1,767	1,879	1,816	1,887	2,033

TABLE 38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and primary source of support: 1996–2003

Field and primary source of support	1996	1997	1998	1999	2000	2001	2002	2003
Mathematical sciences	12,501	11,724	11,275	11,344	11,338	11,995	13,096	13,932
Federal	1,236	1,151	1,039	1,100	1,354	1,373	1,599	1,665
DOD	350	363	283	227	239	211	164	228
DOE ^a	NA	NA	NA	44	40	40	42	53
HHS	82	96	100	105	92	108	164	154
NIH	61	66	68	78	76	89	133	119
Other HHS	21	30	32	27	16	19	31	35
NASA	21	19	11	14	23	23	20	22
NSF	435	385	384	441	633	757	942	968
USDA	9	16	7	7	7	20	14	9
Other ^a	339	272	254	262	320	214	253	231
Institutional	8,576	8,241	8,055	8,040	7,976	8,404	8,871	9,372
Other nonfederal	552	482	441	425	429	412	522	472
Domestic	345	305	302	299	300	292	408	377
Foreign	207	177	139	126	129	120	114	95
Self-support	2,137	1,850	1,740	1,779	1,579	1,806	2,104	2,423
Physical sciences	27,461	26,424	25,965	26,240	26,103	26,806	28,205	30,028
Federal	9,817	9,398	9,087	9,184	9,167	9,264	9,917	10,547
DOD	1,071	1,036	994	880	864	855	860	885
DOE ^a	NA	NA	NA	1,180	1,170	1,260	1,368	1,590
HHS	2,049	1,937	1,875	1,827	1,961	2,113	2,346	2,414
NIH	1,779	1,633	1,629	1,652	1,769	1,858	2,114	2,147
Other HHS	270	304	246	175	192	255	232	267
NASA	527	572	582	542	518	495	537	569
NSF	3,376	3,368	3,314	3,275	3,282	3,322	3,581	3,857
USDA	43	31	40	33	51	42	51	65
Other ^a	2,751	2,454	2,282	1,447	1,321	1,177	1,174	1,167
Institutional	14,070	13,872	13,829	13,907	13,601	14,267	14,784	15,759
Other nonfederal	2,074	1,847	1,845	1,914	1,908	1,954	2,025	2,082
Domestic	1,795	1,631	1,656	1,742	1,740	1,827	1,904	1,955
Foreign	279	216	189	172	168	127	121	127
Self-support	1,500	1,307	1,204	1,235	1,427	1,321	1,479	1,640
Psychology	29,956	30,318	29,938	29,603	29,436	29,087	29,263	30,276
Federal	2,669	2,656	2,852	3,157	3,196	3,166	3,367	3,464
DOD	136	110	121	116	133	135	165	144
DOE ^a	NA	NA	NA	41	25	1	9	10
HHS	1,510	1,445	1,423	1,536	1,580	1,592	1,734	1,855
NIH	1,211	1,186	1,212	1,265	1,310	1,371	1,496	1,600
Other HHS	299	259	211	271	270	221	238	255
NASA	7	12	14	15	17	21	31	20
NSF	287	277	275	300	273	280	297	323
USDA	5	7	8	13	16	13	4	16
Other ^a	724	805	1,011	1,136	1,152	1,124	1,127	1,096
Institutional	11,992	12,428	12,142	12,113	11,354	11,725	11,917	11,999
Other nonfederal	958	1,192	1,315	1,375	1,317	1,192	1,103	1,218
Domestic	919	1,135	1,263	1,320	1,267	1,139	1,060	1,148
Foreign	39	57	52	55	50	53	43	70
Self-support	14,337	14,042	13,629	12,958	13,569	13,004	12,876	13,595
Social sciences	53,852	52,414	50,581	50,271	49,507	50,938	54,079	56,901
Federal	3,143	3,113	2,966	3,064	3,325	3,288	3,428	3,585
DOD	181	176	186	169	147	154	155	123
DOE ^a	NA	NA	NA	37	66	60	52	57
HHS	324	330	304	342	380	372	409	469
NIH	263	262	216	264	295	277	316	370
Other HHS	61	68	88	78	85	95	93	99
NASA	50	65	91	135	136	124	109	113
NSF	744	687	709	692	716	739	732	819

TABLE 38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and primary source of support: 1996–2003

Field and primary source of support	1996	1997	1998	1999	2000	2001	2002	2003
USDA	378	389	347	325	387	378	357	388
Other ^a	1,466	1,466	1,329	1,364	1,493	1,461	1,614	1,616
Institutional	24,822	24,574	24,669	24,757	24,616	26,096	27,488	27,790
Other nonfederal	3,432	3,217	3,170	3,130	3,107	2,979	2,695	2,919
Domestic	2,082	1,959	2,101	2,120	2,137	1,999	1,798	2,178
Foreign	1,350	1,258	1,069	1,010	970	980	897	741
Self-support	22,455	21,510	19,776	19,320	18,459	18,575	20,468	22,607
Engineering	64,429	64,289	63,883	66,469	70,619	75,697	83,249	87,705
Federal	15,778	15,843	15,487	15,836	16,672	17,023	18,776	21,422
DOD	4,513	4,750	4,310	4,335	4,458	4,366	4,389	5,495
DOE ^a	NA	NA	NA	987	1,208	1,288	1,521	1,717
HHS	835	915	900	961	1,134	1,287	1,464	1,947
NIH	731	766	754	844	998	1,133	1,281	1,635
Other HHS	104	149	146	117	136	154	183	312
NASA	1,088	1,260	1,239	1,127	1,269	1,349	1,483	1,620
NSF	4,579	4,604	4,707	4,936	5,208	5,424	5,923	6,681
USDA	302	232	197	240	217	260	337	454
Other ^a	4,461	4,082	4,134	3,250	3,178	3,049	3,659	3,508
Institutional	23,056	23,430	23,065	24,919	25,747	27,443	29,950	30,604
Other nonfederal	8,805	8,918	9,707	9,455	10,484	10,944	11,201	11,099
Domestic	7,276	7,484	8,501	8,343	9,399	9,880	10,235	10,169
Foreign	1,529	1,434	1,206	1,112	1,085	1,064	966	930
Self-support	16,790	16,098	15,624	16,259	17,716	20,287	23,322	24,580
Chemical engineering	5,910	5,775	5,594	5,571	5,838	5,804	6,243	6,385
Federal	1,800	1,671	1,700	1,666	1,670	1,691	1,958	2,055
DOD	169	170	160	161	113	140	181	265
DOE ^a	NA	NA	NA	220	242	257	310	327
HHS	162	137	141	149	155	179	219	245
NIH	148	121	111	127	128	136	185	210
Other HHS	14	16	30	22	27	43	34	35
NASA	91	80	97	101	102	108	119	103
NSF	777	708	756	742	768	720	816	841
USDA	45	43	39	37	35	35	45	35
Other ^a	556	533	507	256	255	252	268	239
Institutional	2,148	2,201	2,103	2,283	2,283	2,218	2,421	2,513
Other nonfederal	1,116	1,129	946	970	1,080	1,095	1,092	992
Domestic	957	949	833	896	976	984	1,009	929
Foreign	159	180	113	74	104	111	83	63
Self-support	846	774	845	652	805	800	772	825
Civil engineering	11,431	11,083	10,803	10,928	11,516	11,843	12,716	13,440
Federal	1,869	1,797	1,661	1,653	1,926	1,931	2,085	2,168
DOD	205	224	187	150	157	175	179	148
DOE ^a	NA	NA	NA	50	84	82	84	94
HHS	39	47	46	44	51	27	36	57
NIH	33	41	35	39	40	26	29	41
Other HHS	6	6	11	5	11	1	7	16
NASA	117	121	60	56	74	78	89	87
NSF	534	529	544	538	596	585	645	700
USDA	70	40	28	35	36	38	50	69
Other ^a	904	836	796	780	928	946	1,002	1,013
Institutional	4,682	4,668	4,541	4,827	4,907	4,942	5,346	5,447
Other nonfederal	1,149	1,105	1,124	1,111	1,353	1,474	1,352	1,479
Domestic	906	850	910	924	1,189	1,298	1,237	1,376
Foreign	243	255	214	187	164	176	115	103
Self-support	3,731	3,513	3,477	3,337	3,330	3,496	3,933	4,346

TABLE 38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and primary source of support: 1996–2003

Field and primary source of support	1996	1997	1998	1999	2000	2001	2002	2003
Electrical engineering	17,600	18,493	19,007	19,913	22,185	24,458	27,277	27,712
Federal	3,964	4,382	4,304	4,587	5,035	4,950	5,685	6,156
DOD	1,651	1,938	1,803	1,845	2,066	1,967	1,937	2,230
DOE ^a	NA	NA	NA	71	93	138	193	189
HHS	93	117	102	104	187	148	179	356
NIH	71	70	79	87	145	109	145	246
Other HHS	22	47	23	17	42	39	34	110
NASA	168	229	243	269	283	328	380	368
NSF	1,311	1,344	1,298	1,472	1,586	1,640	1,939	2,233
USDA	13	15	12	10	12	13	21	57
Other ^a	728	739	846	816	808	716	1,036	723
Institutional	6,309	6,627	6,485	7,073	7,293	7,911	8,530	8,734
Other nonfederal	2,631	2,708	3,119	2,821	3,234	3,403	3,536	3,274
Domestic	2,251	2,374	2,842	2,542	2,983	3,155	3,302	3,044
Foreign	380	334	277	279	251	248	234	230
Self-support	4,696	4,776	5,099	5,432	6,623	8,194	9,526	9,548
Industrial engineering	5,030	4,981	4,750	5,363	5,929	6,370	6,998	6,867
Federal	642	608	584	706	805	797	818	977
DOD	208	198	179	250	235	240	239	251
DOE ^a	NA	NA	NA	12	31	46	42	58
HHS	49	36	31	33	34	40	58	73
NIH	27	30	25	20	21	29	31	36
Other HHS	22	6	6	13	13	11	27	37
NASA	27	23	32	27	26	29	29	54
NSF	171	145	175	218	258	272	273	379
USDA	1	1	4	2	7	8	6	11
Other ^a	186	205	163	164	214	162	171	151
Institutional	1,766	1,684	1,708	1,913	2,107	2,393	2,553	2,303
Other nonfederal	466	510	548	575	682	725	747	694
Domestic	351	406	448	486	575	605	638	616
Foreign	115	104	100	89	107	120	109	78
Self-support	2,156	2,179	1,910	2,169	2,335	2,455	2,880	2,893
Mechanical engineering	10,559	10,307	9,951	10,217	10,636	11,289	12,333	13,132
Federal	2,599	2,625	2,606	2,583	2,649	2,770	2,963	3,391
DOD	739	766	728	711	652	684	618	876
DOE ^a	NA	NA	NA	207	239	214	309	348
HHS	76	109	104	112	112	159	158	161
NIH	63	70	71	87	105	147	143	130
Other HHS	13	39	33	25	7	12	15	31
NASA	210	291	289	242	292	280	313	339
NSF	768	841	908	882	914	1,001	1,030	1,097
USDA	13	12	5	21	7	11	10	20
Other ^a	793	606	572	408	433	421	525	550
Institutional	3,900	3,865	3,789	4,003	4,186	4,434	4,916	4,955
Other nonfederal	1,450	1,452	1,603	1,593	1,737	1,674	1,720	1,725
Domestic	1,246	1,283	1,460	1,427	1,542	1,528	1,598	1,595
Foreign	204	169	143	166	195	146	122	130
Self-support	2,610	2,365	1,953	2,038	2,064	2,411	2,734	3,061
Other engineering	13,899	13,650	13,778	14,477	14,515	15,933	17,682	20,169
Federal	4,904	4,760	4,632	4,641	4,587	4,884	5,267	6,675
DOD	1,541	1,454	1,253	1,218	1,235	1,160	1,235	1,725
DOE ^a	NA	NA	NA	427	519	551	583	701
HHS	416	469	476	519	595	734	814	1,055
NIH	389	434	433	484	559	686	748	972
Other HHS	27	35	43	35	36	48	66	83
NASA	475	516	518	432	492	526	553	669
NSF	1,018	1,037	1,026	1,084	1,086	1,206	1,220	1,431

TABLE 38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and primary source of support: 1996–2003

Field and primary source of support	1996	1997	1998	1999	2000	2001	2002	2003
USDA	160	121	109	135	120	155	205	262
Other ^a	1,294	1,163	1,250	826	540	552	657	832
Institutional	4,251	4,385	4,439	4,820	4,971	5,545	6,184	6,652
Other nonfederal	1,993	2,014	2,367	2,385	2,398	2,573	2,754	2,935
Domestic	1,565	1,622	2,008	2,068	2,134	2,310	2,451	2,609
Foreign	428	392	359	317	264	263	303	326
Self-support	2,751	2,491	2,340	2,631	2,559	2,931	3,477	3,907
Health fields	39,082	40,708	42,226	44,315	43,946	44,143	46,840	51,646
Federal	7,020	7,302	7,606	8,098	7,913	8,237	8,675	9,103
DOD	312	310	292	351	400	244	282	293
DOE ^a	NA	NA	NA	30	15	11	8	13
HHS	5,183	5,369	5,730	5,942	5,527	5,975	6,465	6,839
NIH	2,436	2,703	2,863	2,996	3,131	3,275	3,496	3,886
Other HHS	2,747	2,666	2,867	2,946	2,396	2,700	2,969	2,953
NASA	14	21	26	15	18	22	16	13
NSF	81	95	120	123	123	129	128	148
USDA	50	43	59	61	62	50	74	78
Other ^a	1,380	1,464	1,379	1,576	1,768	1,806	1,702	1,719
Institutional	8,487	8,954	9,217	9,992	9,960	9,993	10,575	11,038
Other nonfederal	1,998	1,898	2,110	2,144	2,343	2,414	2,639	2,732
Domestic	1,571	1,414	1,680	1,723	1,987	2,041	2,323	2,408
Foreign	427	484	430	421	356	373	316	324
Self-support	21,577	22,554	23,293	24,081	23,730	23,499	24,951	28,773

DOD = Department of Defense; DOE = Department of Energy; HHS = Department of Health and Human Services; NA = not available; NASA = National Aeronautics and Space Administration; NIH = National Institutes of Health; NSF = National Science Foundation; USDA = United States Department of Agriculture.

^a Data for DOE were not collected separately until 1999. Students supported by DOE before 1999 were included under other federal support.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 39. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and primary mechanism of support: 1996–2003

Field and primary mechanism of support	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	308,568	306,806	306,093	312,993	318,735	331,313	354,260	371,784
Fellowships	28,419	28,488	28,692	29,736	30,921	31,785	34,314	34,251
Research assistantships	85,911	86,095	86,222	89,225	92,390	98,055	106,214	112,242
Teaching assistantships	64,078	63,760	63,456	64,534	64,576	66,550	68,867	70,888
Traineeships	14,935	13,869	14,501	14,230	13,643	13,516	14,438	14,716
Other support	115,225	114,594	113,222	115,268	117,205	121,407	130,427	139,687
Science and engineering	269,486	266,098	263,867	268,678	274,789	287,170	307,420	320,138
Fellowships	25,967	26,079	26,247	27,073	28,072	29,282	31,635	31,702
Research assistantships	81,740	81,433	81,408	84,108	86,825	92,079	99,897	105,529
Teaching assistantships	61,171	60,746	60,418	61,571	61,615	63,388	65,512	67,433
Traineeships	10,245	9,522	9,756	9,433	9,438	9,011	9,673	10,019
Other support	90,363	88,318	86,038	86,493	88,839	93,410	100,703	105,455
Science	205,057	201,809	199,984	202,209	204,170	211,473	224,171	232,433
Fellowships	20,362	20,370	20,716	21,013	21,749	22,868	24,646	24,454
Research assistantships	55,335	54,634	54,148	55,568	56,230	60,017	64,900	68,244
Teaching assistantships	51,299	50,699	50,419	51,004	50,738	51,628	53,144	55,097
Traineeships	9,381	8,647	8,880	8,666	8,706	8,293	8,729	8,982
Other support	68,680	67,459	65,821	65,958	66,747	68,667	72,752	75,656
Agricultural sciences	9,132	8,964	8,794	8,933	8,906	8,947	9,180	9,509
Fellowships	460	472	481	469	443	511	503	554
Research assistantships	5,240	5,187	5,019	5,139	5,207	5,358	5,529	5,723
Teaching assistantships	972	973	1,040	1,159	1,184	1,158	1,130	1,146
Traineeships	120	113	98	75	69	70	70	50
Other support	2,340	2,219	2,156	2,091	2,003	1,850	1,948	2,036
Biological sciences	45,809	45,009	45,105	45,301	45,297	46,621	49,996	52,433
Fellowships	5,172	5,399	5,588	5,778	5,726	6,101	6,386	6,464
Research assistantships	18,267	18,097	17,862	18,047	18,339	19,120	20,910	22,441
Teaching assistantships	8,884	8,665	8,608	8,235	8,169	8,218	8,466	8,611
Traineeships	5,334	5,028	5,202	5,281	5,171	4,935	5,319	5,619
Other support	8,152	7,820	7,845	7,960	7,892	8,247	8,915	9,298
Computer sciences	16,039	16,959	18,306	20,452	23,456	27,034	29,717	28,333
Fellowships	905	920	983	976	1,133	1,050	1,387	1,330
Research assistantships	3,874	3,930	4,198	4,745	5,108	6,234	6,988	7,311
Teaching assistantships	3,291	3,542	3,682	4,217	4,357	4,919	5,149	4,795
Traineeships	198	202	219	207	251	240	279	315
Other support	7,771	8,365	9,224	10,307	12,607	14,591	15,914	14,582
Earth, atmospheric, and ocean sciences	10,307	9,997	10,020	10,065	10,127	10,045	10,635	11,021
Fellowships	866	813	921	925	1,045	1,065	1,118	1,164
Research assistantships	4,195	4,145	3,985	4,134	4,126	4,059	4,417	4,511
Teaching assistantships	2,399	2,519	2,451	2,490	2,416	2,454	2,569	2,680
Traineeships	131	89	113	107	98	90	89	111
Other support	2,716	2,431	2,550	2,409	2,442	2,377	2,442	2,555
Mathematical sciences	12,501	11,724	11,275	11,344	11,338	11,995	13,096	13,932
Fellowships	1,275	1,195	1,093	1,022	1,283	1,387	1,420	1,374
Research assistantships	1,253	1,334	1,157	1,230	1,213	1,398	1,705	1,745
Teaching assistantships	6,938	6,546	6,409	6,599	6,644	6,822	7,243	7,725
Traineeships	177	176	154	109	118	105	121	123
Other support	2,858	2,473	2,462	2,384	2,080	2,283	2,607	2,965
Physical sciences	27,461	26,424	25,965	26,240	26,103	26,806	28,205	30,028
Fellowships	2,164	2,107	2,093	2,187	2,238	2,358	2,643	2,521
Research assistantships	11,433	11,201	10,971	11,181	11,009	11,764	12,593	13,411
Teaching assistantships	11,068	10,730	10,701	10,709	10,518	10,414	10,585	11,585
Traineeships	633	521	481	383	464	436	421	364
Other support	2,163	1,865	1,719	1,780	1,874	1,834	1,963	2,147

TABLE 39. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and primary mechanism of support: 1996–2003

Field and primary mechanism of support	1996	1997	1998	1999	2000	2001	2002	2003
Psychology	29,956	30,318	29,938	29,603	29,436	29,087	29,263	30,276
Fellowships	1,907	2,062	2,264	2,377	2,299	2,199	2,211	2,282
Research assistantships	4,291	4,300	4,313	4,293	4,280	4,567	4,928	5,139
Teaching assistantships	5,849	5,899	5,686	5,783	5,554	5,414	5,562	5,742
Traineeships	1,148	1,019	1,072	989	1,196	1,248	1,188	1,123
Other support	16,761	17,038	16,603	16,161	16,107	15,659	15,374	15,990
Social sciences	53,852	52,414	50,581	50,271	49,507	50,938	54,079	56,901
Fellowships	7,613	7,402	7,293	7,279	7,582	8,197	8,978	8,765
Research assistantships	6,782	6,440	6,643	6,799	6,948	7,517	7,830	7,963
Teaching assistantships	11,898	11,825	11,842	11,812	11,896	12,229	12,440	12,813
Traineeships	1,640	1,499	1,541	1,515	1,339	1,169	1,242	1,277
Other support	25,919	25,248	23,262	22,866	21,742	21,826	23,589	26,083
Engineering	64,429	64,289	63,883	66,469	70,619	75,697	83,249	87,705
Fellowships	5,605	5,709	5,531	6,060	6,323	6,414	6,989	7,248
Research assistantships	26,405	26,799	27,260	28,540	30,595	32,062	34,997	37,285
Teaching assistantships	9,872	10,047	9,999	10,567	10,877	11,760	12,368	12,336
Traineeships	864	875	876	767	732	718	944	1,037
Other support	21,683	20,859	20,217	20,535	22,092	24,743	27,951	29,799
Chemical engineering	5,910	5,775	5,594	5,571	5,838	5,804	6,243	6,385
Fellowships	757	821	716	836	794	758	832	834
Research assistantships	3,071	2,988	2,900	2,944	3,074	3,147	3,464	3,600
Teaching assistantships	916	916	889	955	937	843	876	850
Traineeships	94	94	97	65	85	53	71	73
Other support	1,072	956	992	771	948	1,003	1,000	1,028
Civil engineering	11,431	11,083	10,803	10,928	11,516	11,843	12,716	13,440
Fellowships	879	859	819	862	924	1,006	1,074	1,105
Research assistantships	4,093	3,959	3,835	4,073	4,623	4,513	4,747	5,016
Teaching assistantships	1,759	1,759	1,748	1,768	1,845	1,866	1,939	1,992
Traineeships	175	187	189	196	117	156	210	196
Other support	4,525	4,319	4,212	4,029	4,007	4,302	4,746	5,131
Electrical engineering	17,600	18,493	19,007	19,913	22,185	24,458	27,277	27,712
Fellowships	1,380	1,380	1,313	1,361	1,338	1,292	1,485	1,521
Research assistantships	6,878	7,476	7,664	8,352	9,168	9,548	10,614	10,754
Teaching assistantships	3,127	3,300	3,316	3,348	3,603	4,012	4,265	4,176
Traineeships	152	122	133	76	89	61	105	115
Other support	6,063	6,215	6,581	6,776	7,987	9,545	10,808	11,146
Industrial engineering	5,030	4,981	4,750	5,363	5,929	6,370	6,998	6,867
Fellowships	234	238	251	257	325	421	441	456
Research assistantships	1,271	1,255	1,367	1,458	1,646	1,738	1,882	1,818
Teaching assistantships	778	770	772	891	946	1,044	1,002	940
Traineeships	14	21	24	21	18	35	48	39
Other support	2,733	2,697	2,336	2,736	2,994	3,132	3,625	3,614
Mechanical engineering	10,559	10,307	9,951	10,217	10,636	11,289	12,333	13,132
Fellowships	898	837	894	873	1,019	948	1,008	990
Research assistantships	4,252	4,323	4,476	4,622	4,838	5,070	5,450	6,023
Teaching assistantships	1,840	1,875	1,770	1,934	1,938	2,158	2,322	2,273
Traineeships	165	215	180	142	103	115	116	114
Other support	3,404	3,057	2,631	2,646	2,738	2,998	3,437	3,732
Other engineering	13,899	13,650	13,778	14,477	14,515	15,933	17,682	20,169
Fellowships	1,457	1,574	1,538	1,871	1,923	1,989	2,149	2,342
Research assistantships	6,840	6,798	7,018	7,091	7,246	8,046	8,840	10,074
Teaching assistantships	1,452	1,427	1,504	1,671	1,608	1,837	1,964	2,105
Traineeships	264	236	253	267	320	298	394	500

TABLE 39. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and primary mechanism of support: 1996–2003

Field and primary mechanism of support	1996	1997	1998	1999	2000	2001	2002	2003
Other support	3,886	3,615	3,465	3,577	3,418	3,763	4,335	5,148
Health fields	39,082	40,708	42,226	44,315	43,946	44,143	46,840	51,646
Fellowships	2,452	2,409	2,445	2,663	2,849	2,503	2,679	2,549
Research assistantships	4,171	4,662	4,814	5,117	5,565	5,976	6,317	6,713
Teaching assistantships	2,907	3,014	3,038	2,963	2,961	3,162	3,355	3,455
Traineeships	4,690	4,347	4,745	4,797	4,205	4,505	4,765	4,697
Other support	24,862	26,276	27,184	28,775	28,366	27,997	29,724	34,232

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 40. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field and primary mechanism of support: 2003

Field	Total	Fellowships	Research assistantships	Teaching assistantships	Traineeships	Other types of support
All surveyed fields	371,784	34,251	112,242	70,888	14,716	139,687
Science and engineering	320,138	31,702	105,529	67,433	10,019	105,455
Science	232,433	24,454	68,244	55,097	8,982	75,656
Agricultural sciences	9,509	554	5,723	1,146	50	2,036
Biological sciences	52,433	6,464	22,441	8,611	5,619	9,298
Anatomy	829	101	354	81	73	220
Biochemistry	5,288	714	2,878	523	531	642
Biology	9,851	1,125	2,991	3,778	385	1,572
Biometry/epidemiology	3,208	362	773	193	529	1,351
Biophysics	968	198	411	62	188	109
Botany	1,730	137	965	436	35	157
Cell biology	5,217	643	2,606	554	962	452
Ecology	1,455	258	517	407	46	227
Entomology/parasitology	1,024	77	669	165	8	105
Genetics	1,927	267	980	117	240	323
Microbiology/immunology/virology	4,971	647	2,492	444	829	559
Nutrition	3,182	166	1,347	394	97	1,178
Pathology	1,319	207	559	38	158	357
Pharmacology	2,926	446	1,423	185	546	326
Physiology	2,059	239	726	133	274	687
Zoology	1,093	130	357	524	11	71
Biosciences, nec	5,386	747	2,393	577	707	962
Computer sciences	28,333	1,330	7,311	4,795	315	14,582
Earth, atmospheric, and ocean sciences	11,021	1,164	4,511	2,680	111	2,555
Atmospheric sciences	1,016	51	643	141	3	178
Geosciences	5,403	601	1,962	1,892	34	914
Oceanography	2,209	269	1,205	249	30	456
Earth/atmospheric/ocean sciences, nec	2,393	243	701	398	44	1,007
Mathematical sciences	13,932	1,374	1,745	7,725	123	2,965
Mathematics/applied mathematics	10,988	1,147	1,186	6,415	102	2,138
Statistics	2,944	227	559	1,310	21	827
Physical sciences	30,028	2,521	13,411	11,585	364	2,147
Astronomy	1,023	181	546	225	14	57
Chemistry	17,394	1,426	7,440	7,218	247	1,063
Physics	11,334	895	5,349	4,120	103	867
Physical sciences, nec	277	19	76	22	0	160
Psychology	30,276	2,282	5,139	5,742	1,123	15,990
Clinical psychology	9,004	593	1,019	764	405	6,223
Psychology, general	9,400	969	1,929	2,884	434	3,184
Psychology, nec	11,872	720	2,191	2,094	284	6,583
Social sciences	56,901	8,765	7,963	12,813	1,277	26,083
Agricultural economics	2,042	108	1,055	217	5	657
Anthropology (cultural/social)	5,776	1,406	497	1,563	57	2,253
Economics (except agricultural)	9,600	1,618	1,240	3,101	180	3,461
Geography	2,930	212	623	1,041	26	1,028
History and philosophy of science	353	134	9	118	13	79
Linguistics	2,257	417	232	667	25	916
Political science	18,193	3,052	1,823	2,788	625	9,905
Sociology	6,298	1,044	930	2,189	171	1,964
Sociology/anthropology	548	34	90	221	1	202
Social sciences, nec	8,904	740	1,464	908	174	5,618

TABLE 40. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field and primary mechanism of support: 2003

Field	Total	Fellowships	Research assistantships	Teaching assistantships	Traineeships	Other types of support
Engineering	87,705	7,248	37,285	12,336	1,037	29,799
Aerospace engineering	3,206	274	1,562	404	36	930
Agricultural engineering	870	79	541	83	11	156
Biomedical engineering	4,721	793	2,035	410	297	1,186
Chemical engineering	6,385	834	3,600	850	73	1,028
Civil engineering	13,440	1,105	5,016	1,992	196	5,131
Electrical engineering	27,712	1,521	10,754	4,176	115	11,146
Engineering science	1,751	233	778	205	26	509
Industrial engineering	6,867	456	1,818	940	39	3,614
Mechanical engineering	13,132	990	6,023	2,273	114	3,732
Metallurgical/materials engineering	4,369	470	2,845	412	33	609
Mining engineering	208	25	100	16	0	67
Nuclear engineering	752	95	449	56	4	148
Petroleum engineering	682	70	260	47	5	300
Engineering, nec	3,610	303	1,504	472	88	1,243
Health	51,646	2,549	6,713	3,455	4,697	34,232
Medical fields	14,192	1,210	2,569	474	1,779	8,160
Anesthesiology	669	8	2	0	205	454
Cardiology	51	0	30	0	21	0
Endocrinology	56	2	28	6	3	17
Gastroenterology	11	0	1	0	10	0
Hematology	25	11	7	0	7	0
Neurology	2,573	566	1,024	142	617	224
Obstetrics/gynecology	20	11	5	0	3	1
Oncology/cancer research	232	34	99	1	84	14
Ophthalmology	393	27	9	41	103	213
Otorhinolaryngology	9	0	1	0	8	0
Pediatrics	377	48	70	3	18	238
Preventive medicine/community health	7,509	305	863	257	496	5,588
Psychiatry	67	14	10	0	3	40
Pulmonary disease	10	6	4	0	0	0
Radiology	208	18	109	1	7	73
Surgery	67	9	20	0	12	26
Clinical medicine, nec	1,915	151	287	23	182	1,272
Other health	37,454	1,339	4,144	2,981	2,918	26,072
Dental sciences	1,514	84	89	213	56	1,072
Nursing	9,209	335	395	374	1,976	6,129
Pharmaceutical sciences	3,484	209	1,030	765	60	1,420
Speech pathology/audiology	8,160	266	935	763	369	5,827
Veterinary sciences	1,750	55	674	58	19	944
Health related, nec	13,337	390	1,021	808	438	10,680

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2003.

TABLE 41. Full-time graduate students in science and engineering fields in doctorate-granting institutions, by primary mechanism and primary source of support: 1996–2003

Primary mechanism and primary source of support	1996	1997	1998	1999	2000	2001	2002	2003
All sources	269,486	266,098	263,867	268,678	274,789	287,170	307,420	320,138
Federal	57,407	56,378	55,390	56,900	58,799	59,761	65,660	71,852
DOD	8,375	8,622	7,919	7,619	7,682	7,657	7,647	8,892
DOE ^a	NA	NA	NA	2,717	2,980	3,101	3,532	3,993
HHS	16,837	16,731	16,654	17,164	17,621	18,035	20,135	22,135
NIH	15,427	15,287	15,249	15,931	16,272	16,523	18,546	20,325
Other HHS	1,410	1,444	1,405	1,233	1,349	1,512	1,589	1,810
NASA	2,253	2,537	2,587	2,505	2,720	2,772	3,034	3,169
NSF	13,291	13,227	13,294	13,674	14,439	15,233	16,924	19,060
USDA	2,951	2,599	2,420	2,569	2,566	2,683	3,023	3,421
Other ^a	13,700	12,662	12,516	10,652	10,791	10,280	11,365	11,182
Institutional	115,064	115,271	114,903	118,178	118,070	125,103	131,666	134,377
Other nonfederal	23,043	22,803	23,909	23,508	24,989	25,270	25,840	26,085
Domestic	18,274	18,463	20,101	20,022	21,520	21,954	22,853	23,350
Foreign	4,769	4,340	3,808	3,486	3,469	3,316	2,987	2,735
Self-support	73,972	71,646	69,665	70,092	72,931	77,036	84,254	87,824
Fellowships	25,967	26,079	26,247	27,073	28,072	29,282	31,635	31,702
Federal	6,358	6,216	6,306	6,546	6,579	6,544	7,060	6,931
DOD	505	521	535	485	540	472	446	437
DOE ^a	NA	NA	NA	99	156	120	118	153
HHS	1,135	1,225	1,281	1,342	1,146	1,312	1,489	1,374
NIH	956	998	1,053	1,172	989	1,141	1,292	1,203
Other HHS	179	227	228	170	157	171	197	171
NASA	406	362	380	358	336	316	317	264
NSF	2,446	2,306	2,335	2,410	2,538	2,591	2,810	3,120
USDA	111	138	136	141	120	126	87	91
Other ^a	1,755	1,664	1,639	1,711	1,743	1,607	1,793	1,492
Institutional	14,112	14,924	14,981	15,785	16,730	18,000	19,837	20,033
Other nonfederal	5,497	4,939	4,960	4,742	4,763	4,738	4,738	4,738
Domestic	3,356	3,070	3,231	3,231	3,404	3,336	3,549	3,700
Foreign	2,141	1,869	1,729	1,511	1,359	1,402	1,189	1,038
Self-support	na	na	na	na	na	na	na	na
Research assistantships	81,740	81,433	81,408	84,108	86,825	92,079	99,897	105,529
Federal	41,625	41,274	39,740	40,734	42,244	43,660	48,846	54,108
DOD	5,938	6,283	5,766	5,634	5,705	5,768	6,125	6,831
DOE ^a	NA	NA	NA	2,532	2,717	2,888	3,314	3,742
HHS	11,010	11,058	10,540	10,745	11,305	11,730	13,320	15,028
NIH	10,131	10,110	9,608	9,999	10,447	10,692	12,216	13,651
Other HHS	879	948	932	746	858	1,038	1,104	1,377
NASA	1,739	2,042	2,092	2,051	2,276	2,324	2,591	2,772
NSF	10,189	10,367	10,342	10,687	11,284	11,993	13,418	15,154
USDA	2,705	2,366	2,183	2,286	2,312	2,463	2,809	3,146
Other ^a	10,044	9,158	8,817	6,799	6,645	6,494	7,269	7,435
Institutional	27,860	27,586	28,462	30,036	30,128	32,901	34,987	35,241
Other nonfederal	12,255	12,573	13,206	13,338	14,453	15,518	16,064	16,180
Domestic	11,530	11,833	12,578	12,743	13,823	14,889	15,346	15,540
Foreign	725	740	628	595	630	629	718	640
Self-support	na	na	na	na	na	na	na	na
Teaching assistantships	61,171	60,746	60,418	61,571	61,615	63,388	65,512	67,433
Federal	726	747	927	848	1,242	946	1,074	1,328
DOD	na	na	na	na	na	na	na	na
DOE ^a	NA	NA	NA	16	34	27	41	48

TABLE 41. Full-time graduate students in science and engineering fields in doctorate-granting institutions, by primary mechanism and primary source of support: 1996–2003

Primary mechanism and primary source of support	1996	1997	1998	1999	2000	2001	2002	2003
HHS	180	156	229	203	277	244	250	328
NIH	176	126	221	196	261	213	203	287
Other HHS	4	30	8	7	16	31	47	41
NASA	2	24	23	9	11	34	26	36
NSF	117	80	130	119	133	185	206	275
USDA	41	30	36	60	68	46	46	80
Other ^a	386	457	509	441	719	410	505	561
Institutional	59,837	59,455	58,905	60,057	59,431	61,515	63,366	65,101
Other nonfederal	608	544	586	666	942	927	1,072	1,004
Domestic	608	544	586	666	942	927	1,072	1,004
Foreign	na	na	na	na	na	na	na	na
Self-support	na	na	na	na	na	na	na	na
Traineeships	10,245	9,522	9,756	9,433	9,438	9,011	9,673	10,019
Federal	5,498	5,132	5,409	5,404	5,683	5,413	5,735	5,896
DOD	124	108	64	51	57	36	46	36
DOE ^a	NA	NA	NA	22	10	2	9	5
HHS	4,250	3,970	4,225	4,360	4,410	4,220	4,513	4,794
NIH	3,984	3,786	4,047	4,160	4,136	3,988	4,311	4,654
Other HHS	266	184	178	200	274	232	202	140
NASA	65	76	57	51	46	50	52	54
NSF	431	379	408	344	324	336	318	328
USDA	24	23	14	25	18	16	13	14
Other ^a	604	576	641	551	818	753	784	665
Institutional	4,191	3,774	3,672	3,400	3,248	3,183	3,545	3,578
Other nonfederal	556	616	675	629	507	415	393	545
Domestic	374	454	531	529	362	304	334	457
Foreign	182	162	144	100	145	111	59	88
Self-support	na	na	na	na	na	na	na	na
Other types of support	90,363	88,318	86,038	86,493	88,839	93,410	100,703	105,455
Federal	3,200	3,009	3,008	3,368	3,051	3,198	2,945	3,589
DOD	1,808	1,710	1,554	1,449	1,380	1,381	1,030	1,588
DOE ^a	NA	NA	NA	48	63	64	50	45
HHS	262	322	379	514	483	529	563	611
NIH	180	267	320	404	439	489	524	530
Other HHS	82	55	59	110	44	40	39	81
NASA	41	33	35	36	51	48	48	43
NSF	108	95	79	114	160	128	172	183
USDA	70	42	51	57	48	32	68	90
Other ^a	911	807	910	1,150	866	1,016	1,014	1,029
Institutional	9,064	9,532	8,883	8,900	8,533	9,504	9,931	10,424
Other nonfederal	4,127	4,131	4,482	4,133	4,324	3,672	3,573	3,618
Domestic	2,406	2,562	3,175	2,853	2,989	2,498	2,552	2,649
Foreign	1,721	1,569	1,307	1,280	1,335	1,174	1,021	969
Self-support	73,972	71,646	69,665	70,092	72,931	77,036	84,254	87,824

DOD = Department of Defense; DOE = Department of Energy; HHS = Department of Health and Human Services; na = not applicable; NA = not available; NASA = National Aeronautics and Space Administration; NIH = National Institutes of Health; NSF = National Science Foundation; USDA = United States Department of Agriculture.

^a Data for DOE were not collected separately until 1999. Students supported by DOE before 1999 were included under other federal support.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 42. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by sex, primary source of support, and field: 2003

Sex and primary source of support	All surveyed fields	Sciences									Engineering							Health fields		
		Total	Agricultural sciences	Biological sciences	Computer sciences	Earth/atmospheric/ocean sciences	Mathematical sciences	Physical sciences	Psychology	Social sciences	Total	Aerospace engineering	Chemical engineering	Civil engineering	Electrical engineering	Industrial engineering	Mechanical engineering		Metallurgical/materials engineering	Other
Male and female,																				
all sources	371,784	232,433	9,509	52,433	28,333	11,021	13,932	30,028	30,276	56,901	87,705	3,206	6,385	13,440	27,712	6,867	13,132	4,369	12,594	51,646
Federal	80,955	50,430	2,490	20,095	5,309	3,275	1,665	10,547	3,464	3,585	21,422	1,196	2,055	2,168	6,156	977	3,391	1,686	3,793	9,103
DOD	9,185	3,397	33	350	1,380	254	228	885	144	123	5,495	471	265	148	2,230	251	876	482	772	293
DOE	4,006	2,276	58	195	159	154	53	1,590	10	57	1,717	44	327	94	189	58	348	268	389	13
HHS	28,974	20,188	89	14,836	303	68	154	2,414	1,855	469	1,947	10	245	57	356	73	161	38	1,007	6,839
NIH	24,211	18,690	60	14,111	231	52	119	2,147	1,600	370	1,635	8	210	41	246	36	130	29	935	3,886
Other HHS	4,763	1,498	29	725	72	16	35	267	255	99	312	2	35	16	110	37	31	9	72	2,953
NASA	3,182	1,549	90	99	217	419	22	569	20	113	1,620	462	103	87	368	54	339	62	145	13
NSF	19,208	12,379	211	2,125	2,713	1,363	968	3,857	323	819	6,681	121	841	700	2,233	379	1,097	653	657	148
USDA	3,499	2,967	1,333	1,032	39	85	9	65	16	388	454	1	35	69	57	11	20	3	258	78
Other	12,901	7,674	676	1,458	498	932	231	1,167	1,096	1,616	3,508	87	239	1,013	723	151	550	180	565	1,719
Institutional	145,415	103,773	3,830	21,509	8,653	4,861	9,372	15,759	11,999	27,790	30,604	1,009	2,513	5,447	8,734	2,303	4,955	1,372	4,271	11,038
Other nonfederal	28,817	14,986	1,560	3,979	1,904	852	472	2,082	1,218	2,919	11,099	296	992	1,479	3,274	694	1,725	806	1,833	2,732
Domestic	25,758	13,181	1,389	3,690	1,708	736	377	1,955	1,148	2,178	10,169	253	929	1,376	3,044	616	1,595	726	1,630	2,408
Foreign	3,059	1,805	171	289	196	116	95	127	70	741	930	43	63	103	230	78	130	80	203	324
Self-support	116,597	63,244	1,629	6,850	12,467	2,033	2,423	1,640	13,595	22,607	24,580	705	825	4,346	9,548	2,893	3,061	505	2,697	28,773
Male, all sources	204,298	121,700	5,105	23,948	21,319	6,083	9,089	20,761	8,146	27,249	68,341	2,757	4,584	9,403	22,491	5,307	11,405	3,249	9,145	14,257
Federal	48,672	28,601	1,418	9,514	4,279	1,881	1,147	7,470	1,100	1,792	16,983	1,060	1,497	1,549	5,107	770	2,904	1,295	2,801	3,088
DOD	7,402	2,598	19	167	1,176	182	189	684	83	98	4,644	431	201	111	1,883	199	769	384	666	160
DOE	3,122	1,706	37	94	130	98	40	1,279	0	28	1,408	36	254	57	153	49	318	219	322	8
HHS	13,420	9,690	44	7,041	231	32	85	1,506	594	157	1,355	8	163	40	267	60	128	28	661	2,375
NIH	11,799	8,983	34	6,692	171	23	70	1,347	522	124	1,119	7	136	28	186	33	102	21	606	1,697
Other HHS	1,621	707	10	349	60	9	15	159	72	33	236	1	27	12	81	27	26	7	55	678
NASA	2,364	1,011	50	59	165	237	16	411	9	64	1,349	403	75	57	317	44	299	49	105	4
NSF	13,263	8,051	115	1,017	2,171	783	671	2,735	125	434	5,130	104	606	480	1,822	286	889	490	453	82
USDA	1,943	1,579	773	461	28	51	6	38	6	216	327	1	20	50	46	11	19	2	178	37
Other	7,158	3,966	380	675	378	498	140	817	283	795	2,770	77	178	754	619	121	482	123	416	422
Institutional	81,224	54,532	1,968	9,739	6,502	2,597	6,119	10,679	3,451	13,477	23,448	830	1,757	3,748	7,059	1,704	4,287	982	3,081	3,244
Other nonfederal	18,202	8,494	862	1,954	1,480	512	303	1,473	345	1,565	8,734	262	732	1,071	2,731	539	1,493	591	1,315	974
Domestic	16,094	7,289	752	1,789	1,339	423	241	1,373	321	1,051	7,990	222	684	999	2,540	482	1,379	531	1,153	815
Foreign	2,108	1,205	110	165	141	89	62	100	24	514	744	40	48	72	191	57	114	60	162	159
Self-support	56,200	30,073	857	2,741	9,058	1,093	1,520	1,139	3,250	10,415	19,176	605	598	3,035	7,594	2,294	2,721	381	1,948	6,951
Female, all sources	167,486	110,733	4,404	28,485	7,014	4,938	4,843	9,267	22,130	29,652	19,364	449	1,801	4,037	5,221	1,560	1,727	1,120	3,449	37,389
Federal	32,283	21,829	1,072	10,581	1,030	1,394	518	3,077	2,364	1,793	4,439	136	558	619	1,049	207	487	391	992	6,015
DOD	1,783	799	14	183	204	72	39	201	61	25	851	40	64	37	347	52	107	98	106	133

TABLE 42. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by sex, primary source of support, and field: 2003

Sex and primary source of support	All surveyed fields	Sciences									Engineering								Health fields	
		Total	Agricultural sciences	Biological sciences	Computer sciences	Earth/atmospheric/ocean sciences	Mathematical sciences	Physical sciences	Psychology	Social sciences	Total	Aerospace engineering	Chemical engineering	Civil engineering	Electrical engineering	Industrial engineering	Mechanical engineering	Metallurgical/materials engineering		Other
Male and female,																				
DOE	884	570	21	101	29	56	13	311	10	29	309	8	73	37	36	9	30	49	67	5
HHS	15,554	10,498	45	7,795	72	36	69	908	1,261	312	592	2	82	17	89	13	33	10	346	4,464
NIH	12,412	9,707	26	7,419	60	29	49	800	1,078	246	516	1	74	13	60	3	28	8	329	2,189
Other HHS	3,142	791	19	376	12	7	20	108	183	66	76	1	8	4	29	10	5	2	17	2,275
NASA	818	538	40	40	52	182	6	158	11	49	271	59	28	30	51	10	40	13	40	9
NSF	5,945	4,328	96	1,108	542	580	297	1,122	198	385	1,551	17	235	220	411	93	208	163	204	66
USDA	1,556	1,388	560	571	11	34	3	27	10	172	127	0	15	19	11	0	1	1	80	41
Other	5,743	3,708	296	783	120	434	91	350	813	821	738	10	61	259	104	30	68	57	149	1,297
Institutional	64,191	49,241	1,862	11,770	2,151	2,264	3,253	5,080	8,548	14,313	7,156	179	756	1,699	1,675	599	668	390	1,190	7,794
Other nonfederal	10,615	6,492	698	2,025	424	340	169	609	873	1,354	2,365	34	260	408	543	155	232	215	518	1,758
Domestic	9,664	5,892	637	1,901	369	313	136	582	827	1,127	2,179	31	245	377	504	134	216	195	477	1,593
Foreign	951	600	61	124	55	27	33	27	46	227	186	3	15	31	39	21	16	20	41	165
Self-support	60,397	33,171	772	4,109	3,409	940	903	501	10,345	12,192	5,404	100	227	1,311	1,954	599	340	124	749	21,822

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DOD = Department of Defense; DOE = Department of Energy; HHS = Department of Health and Human Services; NASA = National Aeronautics and Space Administration; NIH = National Institutes of Health; NSF = National Science Foundation; USDA = United States Department of Agriculture.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2003.

TABLE 43. Full-time, U.S. citizen or permanent resident graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	223,146	220,153	217,379	217,386	212,014	214,158	226,919	243,591
Science and engineering	187,960	183,305	179,071	177,317	172,485	174,925	185,771	197,721
Science	152,449	149,342	146,720	145,960	142,233	143,993	151,816	159,936
Agricultural sciences	6,531	6,584	6,538	6,761	6,834	6,760	6,904	7,210
Biological sciences	35,485	34,954	34,826	35,207	34,577	35,298	37,312	38,858
Anatomy	645	636	584	561	580	506	681	643
Biochemistry	3,513	3,425	3,456	3,393	3,160	3,102	3,254	3,449
Biology	7,173	7,352	7,072	7,064	6,881	6,879	7,183	7,691
Biometry/epidemiology	1,686	1,557	1,962	1,988	1,867	1,974	2,059	2,179
Biophysics	632	558	545	530	519	580	609	658
Botany	1,353	1,249	1,234	1,208	1,162	1,170	1,219	1,172
Cell biology	3,139	3,145	3,197	3,421	3,421	3,427	3,728	3,894
Ecology	1,110	1,039	1,058	1,074	1,064	1,191	1,207	1,246
Entomology/parasitology	742	736	734	693	714	742	745	753
Genetics	1,250	1,247	1,227	1,266	1,237	1,273	1,368	1,432
Microbiology/immunology/virology	3,475	3,427	3,466	3,571	3,605	3,527	3,735	3,849
Nutrition	2,333	2,228	2,117	2,140	2,071	2,128	2,201	2,156
Pathology	1,022	1,139	1,061	1,081	1,006	1,067	1,050	1,001
Pharmacology	1,950	1,920	2,000	2,027	2,016	2,126	2,170	2,185
Physiology	1,797	1,701	1,573	1,443	1,432	1,396	1,482	1,558
Zoology	1,320	1,234	1,168	1,155	1,070	1,047	974	931
Biosciences, nec	2,345	2,361	2,372	2,592	2,772	3,163	3,647	4,061
Computer sciences	7,787	7,835	8,089	8,706	8,293	9,002	10,775	11,766
Earth, atmospheric, and ocean sciences	7,940	7,801	7,868	7,886	7,754	7,607	8,137	8,557
Atmospheric sciences	709	684	622	534	559	545	623	762
Geosciences	4,107	4,063	3,938	3,994	3,950	3,858	3,979	4,096
Oceanography	1,535	1,457	1,524	1,620	1,643	1,541	1,653	1,747
Earth/atmospheric/ocean sciences, nec	1,589	1,597	1,784	1,738	1,602	1,663	1,882	1,952
Mathematical sciences	7,503	6,933	6,699	6,233	6,026	6,266	6,916	7,426
Mathematics/applied mathematics	6,200	5,788	5,579	5,250	5,058	5,312	5,861	6,244
Statistics	1,303	1,145	1,120	983	968	954	1,055	1,182
Physical sciences	17,292	16,460	16,187	16,000	15,306	15,426	15,921	16,943
Astronomy	642	584	581	574	564	589	651	706
Chemistry	10,522	10,146	10,012	10,100	9,680	9,700	9,787	10,203
Physics	5,994	5,609	5,486	5,198	4,935	5,006	5,312	5,833
Physical sciences, nec	134	121	108	128	127	131	171	201
Psychology	28,446	28,752	28,304	27,988	27,710	27,213	27,256	28,012
Clinical psychology	8,545	8,848	8,779	8,948	8,837	8,711	8,404	8,596
Psychology, general	9,045	9,542	9,430	8,934	8,763	8,490	8,155	8,523
Psychology, nec	10,856	10,362	10,095	10,106	10,110	10,012	10,697	10,893
Social sciences	41,465	40,023	38,209	37,179	35,733	36,421	38,595	41,164
Agricultural economics	979	897	884	878	874	917	999	1,024
Anthropology (cultural/social)	5,281	5,044	4,933	4,936	4,786	4,816	4,908	5,052
Economics (except agricultural)	4,527	3,938	3,800	3,360	3,243	3,350	3,492	3,719
Geography	2,401	2,325	2,213	2,124	1,963	2,131	2,102	2,295
History and philosophy of science	299	313	326	357	307	306	299	294
Linguistics	1,577	1,503	1,357	1,278	1,190	1,223	1,296	1,393
Political science	13,449	12,993	12,251	11,857	11,520	11,640	13,117	14,198
Sociology	5,411	5,392	5,135	4,968	4,803	4,839	4,969	5,124
Sociology/anthropology	511	543	506	444	448	489	489	487
Social sciences, nec	7,030	7,075	6,804	6,977	6,599	6,710	6,924	7,578
Engineering	35,511	33,963	32,351	31,357	30,252	30,932	33,955	37,785
Aerospace engineering	1,402	1,312	1,257	1,270	1,353	1,277	1,421	1,663
Agricultural engineering	393	397	398	398	373	392	395	430

TABLE 43. Full-time, U.S. citizen or permanent resident graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Biomedical engineering	1,657	1,767	1,821	1,915	1,972	2,110	2,435	2,988
Chemical engineering	3,365	3,250	3,035	2,812	2,778	2,609	2,848	2,907
Civil engineering	7,192	6,807	6,585	6,256	6,162	6,137	6,538	7,103
Electrical engineering	8,472	8,280	7,795	7,260	6,911	7,417	8,088	8,865
Engineering science	628	618	626	561	513	555	683	877
Industrial engineering	2,440	2,351	2,155	2,351	2,240	2,060	2,447	2,642
Mechanical engineering	5,949	5,523	5,144	4,949	4,561	4,744	5,093	5,708
Metallurgical/materials engineering	1,956	1,885	1,856	1,676	1,614	1,751	1,862	1,948
Mining engineering	149	154	161	162	87	93	107	110
Nuclear engineering	487	434	389	343	348	314	340	412
Petroleum engineering	121	76	59	75	184	195	235	92
Engineering, nec	1,300	1,109	1,070	1,329	1,156	1,278	1,463	2,040
Health	35,186	36,848	38,308	40,069	39,529	39,233	41,148	45,870
Medical fields	8,129	8,442	9,298	9,739	9,459	9,669	10,501	11,974
Anesthesiology	456	461	507	494	559	561	529	656
Cardiology	7	9	23	45	39	34	24	33
Endocrinology	24	22	41	49	42	33	41	32
Gastroenterology	0	0	6	7	13	6	6	9
Hematology	3	3	1	3	2	6	6	18
Neurology	1,332	1,437	1,535	1,592	1,607	1,715	2,034	2,087
Obstetrics/gynecology	1	18	10	8	12	18	16	15
Oncology/cancer research	126	159	175	196	185	199	189	199
Ophthalmology	14	15	6	15	25	24	124	375
Otorhinolaryngology	0	2	0	1	8	4	8	9
Pediatrics	205	251	237	253	319	279	312	327
Preventive medicine/community health	4,919	4,916	5,674	5,917	5,435	5,347	5,537	6,224
Psychiatry	63	79	39	47	83	122	123	58
Pulmonary disease	0	0	0	6	7	8	3	5
Radiology	150	160	132	139	124	134	128	146
Surgery	153	152	104	106	119	90	63	63
Clinical medicine, nec	676	758	808	861	880	1,089	1,358	1,718
Other health	27,057	28,406	29,010	30,330	30,070	29,564	30,647	33,896
Dental sciences	869	961	967	954	965	1,028	999	1,230
Nursing	7,208	7,451	7,240	7,822	7,392	7,389	8,220	8,868
Pharmaceutical sciences	1,166	1,162	1,208	1,550	1,581	1,522	1,233	2,115
Speech pathology/audiology	6,985	7,210	7,294	7,617	7,688	7,389	7,446	7,824
Veterinary sciences	499	742	789	767	847	918	1,081	1,402
Health related, nec	10,330	10,880	11,512	11,620	11,597	11,318	11,668	12,457

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 44. Full-time graduate students with temporary visas in science, engineering, and health fields in doctorate-granting institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	85,422	86,653	88,714	95,607	106,721	117,155	127,341	128,193
Science and engineering	81,526	82,793	84,796	91,361	102,304	112,245	121,649	122,417
Science	52,608	52,467	53,264	56,249	61,937	67,480	72,355	72,497
Agricultural sciences	2,601	2,380	2,256	2,172	2,072	2,187	2,276	2,299
Biological sciences	10,324	10,055	10,279	10,094	10,720	11,323	12,684	13,575
Anatomy	165	161	149	147	172	169	184	186
Biochemistry	1,447	1,370	1,398	1,385	1,539	1,515	1,676	1,839
Biology	1,599	1,697	1,709	1,624	1,701	1,792	2,048	2,160
Biometry/epidemiology	466	436	604	654	695	762	953	1,029
Biophysics	175	170	162	151	200	257	287	310
Botany	564	551	565	549	538	546	570	558
Cell biology	839	821	829	822	963	1,071	1,200	1,323
Ecology	143	131	134	156	160	173	189	209
Entomology/parasitology	285	259	266	278	265	247	256	271
Genetics	365	385	369	367	360	413	402	495
Microbiology/immunology/virology	1,009	938	904	900	892	968	1,160	1,122
Nutrition	1,009	948	910	882	928	995	1,014	1,026
Pathology	318	281	278	283	287	283	290	318
Pharmacology	560	541	562	552	611	620	653	741
Physiology	420	401	417	433	424	415	435	501
Zoology	203	176	160	132	164	182	199	162
Biosciences, nec	757	789	863	779	821	915	1,168	1,325
Computer sciences	8,252	9,124	10,217	11,746	15,163	18,032	18,942	16,567
Earth, atmospheric, and ocean sciences	2,367	2,196	2,152	2,179	2,373	2,438	2,498	2,464
Atmospheric sciences	268	280	232	257	283	266	292	254
Geosciences	1,292	1,167	1,109	1,100	1,178	1,221	1,253	1,307
Oceanography	507	469	482	461	488	476	451	462
Earth/atmospheric/ocean sciences, nec	300	280	329	361	424	475	502	441
Mathematical sciences	4,998	4,791	4,576	5,111	5,312	5,729	6,180	6,506
Mathematics/applied mathematics	4,069	3,873	3,676	3,987	4,063	4,254	4,567	4,744
Statistics	929	918	900	1,124	1,249	1,475	1,613	1,762
Physical sciences	10,169	9,964	9,778	10,240	10,797	11,380	12,284	13,085
Astronomy	212	184	206	234	259	271	295	317
Chemistry	5,630	5,512	5,430	5,562	5,679	6,100	6,757	7,191
Physics	4,285	4,228	4,097	4,379	4,786	4,920	5,147	5,501
Physical sciences, nec	42	40	45	65	73	89	85	76
Psychology	1,510	1,566	1,634	1,615	1,726	1,874	2,007	2,264
Clinical psychology	238	256	290	299	306	333	388	408
Psychology, general	524	538	552	565	674	732	743	877
Psychology, nec	748	772	792	751	746	809	876	979
Social sciences	12,387	12,391	12,372	13,092	13,774	14,517	15,484	15,737
Agricultural economics	802	821	786	807	903	948	973	1,018
Anthropology (cultural/social)	587	592	630	695	687	654	717	724
Economics (except agricultural)	4,760	4,671	4,537	4,776	5,075	5,578	5,870	5,881
Geography	397	436	486	489	534	607	610	635
History and philosophy of science	49	64	59	55	66	66	65	59
Linguistics	856	829	839	829	847	865	838	864
Political science	2,852	2,750	2,833	3,177	3,339	3,430	3,808	3,995
Sociology	920	969	922	988	1,059	1,058	1,135	1,174
Sociology/anthropology	65	70	87	63	67	71	60	61
Social sciences, nec	1,099	1,189	1,193	1,213	1,197	1,240	1,408	1,326
Engineering	28,918	30,326	31,532	35,112	40,367	44,765	49,294	49,920
Aerospace engineering	1,143	1,193	1,287	1,353	1,387	1,522	1,549	1,543
Agricultural engineering	406	351	358	369	333	366	374	440

TABLE 44. Full-time graduate students with temporary visas in science, engineering, and health fields in doctorate-granting institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Biomedical engineering	624	644	654	793	869	1,046	1,423	1,733
Chemical engineering	2,545	2,525	2,559	2,759	3,060	3,195	3,395	3,478
Civil engineering	4,239	4,276	4,218	4,672	5,354	5,706	6,178	6,337
Electrical engineering	9,128	10,213	11,212	12,653	15,274	17,041	19,189	18,847
Engineering science	426	398	485	466	573	652	741	874
Industrial engineering	2,590	2,630	2,595	3,012	3,689	4,310	4,551	4,225
Mechanical engineering	4,610	4,784	4,807	5,268	6,075	6,545	7,240	7,424
Metallurgical/materials engineering	1,735	1,766	1,828	1,847	1,954	2,201	2,357	2,421
Mining engineering	112	106	56	90	95	92	91	98
Nuclear engineering	284	274	273	298	312	337	315	340
Petroleum engineering	317	381	419	448	329	340	409	590
Engineering, nec	759	785	781	1,084	1,063	1,412	1,482	1,570
Health	3,896	3,860	3,918	4,246	4,417	4,910	5,692	5,776
Medical fields	1,308	1,206	1,265	1,439	1,322	1,720	2,225	2,218
Anesthesiology	3	2	7	0	2	1	2	13
Cardiology	11	23	13	17	14	16	18	18
Endocrinology	22	19	17	17	13	18	18	24
Gastroenterology	0	3	0	0	1	1	1	2
Hematology	0	0	0	0	4	0	2	7
Neurology	267	213	238	261	315	357	422	486
Obstetrics/gynecology	3	0	0	1	1	0	2	5
Oncology/cancer research	56	34	31	49	40	47	40	33
Ophthalmology	3	5	15	16	16	9	42	18
Otorhinolaryngology	0	0	0	2	0	0	0	0
Pediatrics	15	24	23	23	32	37	51	50
Preventive medicine/community health	811	785	822	932	755	1,076	1,421	1,285
Psychiatry	7	1	1	3	2	1	4	9
Pulmonary disease	0	0	0	0	0	0	1	5
Radiology	39	38	28	29	27	33	50	62
Surgery	4	5	5	7	9	7	2	4
Clinical medicine, nec	67	54	65	82	91	117	149	197
Other health	2,588	2,654	2,653	2,807	3,095	3,190	3,467	3,558
Dental sciences	309	329	317	272	336	294	318	284
Nursing	235	289	295	335	319	288	330	341
Pharmaceutical sciences	1,048	1,057	1,045	1,048	1,193	1,238	1,313	1,369
Speech pathology/audiology	257	262	276	294	307	332	331	336
Veterinary sciences	284	286	259	285	307	326	337	348
Health related, nec	455	431	461	573	633	712	838	880

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 45. Graduate students in science and engineering fields in doctorate-granting institutions, institutions ranked by 2003 graduate student total: 1996–2003

Rank	Institution	1996	1997	1998	1999	2000	2001	2002	2003
	All institutions	375,821	369,007	365,731	371,328	373,048	387,826	411,311	427,977
1	U. MI all campuses	4,966	4,809	4,688	4,930	5,006	5,132	5,649	5,905
2	TX A&M U. all campuses	4,752	4,620	4,567	4,475	4,919	5,038	5,309	5,810
3	U. MN all campuses	4,713	4,487	4,469	4,609	4,446	5,113	5,584	5,762
4	MA Institute of Technology	4,168	4,074	4,145	4,304	4,381	4,481	5,571	5,615
5	U. Southern CA	4,126	4,259	4,333	4,492	4,551	4,477	5,265	5,581
6	GA Institute of Technology all campuses	3,472	3,412	3,572	3,695	4,059	4,531	5,022	5,384
7	U. FL	3,400	3,411	3,496	3,780	4,051	4,293	4,594	5,102
8	U. IL Urbana-Champaign	4,573	4,389	4,301	4,359	4,314	4,509	4,827	5,064
9	U. CA, Berkeley	4,453	4,345	4,390	4,461	4,478	4,595	4,828	5,061
10	U. CO all campuses	4,307	4,222	4,219	4,205	4,533	4,615	4,779	5,004
11	U. WI Madison	4,698	4,507	4,250	4,356	4,335	4,408	4,607	4,843
12	U. CA, Los Angeles	3,551	3,412	3,613	3,731	3,798	3,946	4,646	4,808
13	Stanford U.	4,510	4,322	4,469	4,711	4,604	4,793	4,719	4,697
14	PA State U. all campuses	4,054	3,951	3,837	3,854	3,775	4,091	4,511	4,606
15	U. WA	3,639	3,734	3,821	3,875	3,895	3,950	4,148	4,520
16	U. MD College Park	4,026	3,880	3,887	3,823	4,086	4,036	4,291	4,434
17	U. TX Austin	3,529	3,860	3,794	3,679	3,756	3,873	3,998	4,093
18	VA Polytechnic Institute and State U.	3,572	3,419	3,201	3,190	3,540	3,778	3,940	4,053
19	OH State U. all campuses	4,053	3,764	3,773	3,724	3,797	3,775	3,852	4,045
20	George Washington U.	4,150	3,851	3,591	3,702	3,682	4,017	4,096	4,014
21	Purdue U. all campuses	3,618	3,482	3,450	3,495	3,522	3,642	3,887	3,980
22	Cornell U. all campuses	3,495	3,225	3,353	3,460	3,429	3,679	3,797	3,970
23	NC State U.	3,492	3,553	3,425	3,473	3,540	3,751	3,866	3,901
24	Harvard U.	3,097	3,024	3,016	3,087	3,211	3,548	3,564	3,626
25	Rutgers, The State U. NJ all campuses	3,645	3,441	3,295	3,443	3,406	3,372	3,391	3,540
26	AZ State U. main campus	3,084	3,100	3,109	3,090	3,173	3,413	3,537	3,425
27	U. CA, Davis	2,473	2,529	2,515	2,587	2,714	2,873	3,116	3,394
28	George Mason U.	2,922	2,930	2,872	2,855	2,937	2,929	3,098	3,225
29	LA State U. all campuses	3,133	3,003	2,834	2,917	2,661	2,820	2,926	3,138
30	U. AZ	2,898	2,851	2,770	2,812	2,785	2,843	3,070	3,079
31	SUNY Buffalo all campuses	2,527	2,443	2,449	2,619	2,537	2,505	2,749	3,029
32	Boston U.	2,437	2,407	2,437	2,400	2,489	2,479	2,726	3,017
33	NY U.	2,886	2,791	2,914	2,939	2,750	2,905	2,826	2,957
34	U. TX Arlington	1,554	1,463	1,407	1,611	1,859	2,077	2,687	2,921
35	U. MA	2,697	2,671	2,700	2,779	2,528	2,539	2,864	2,887
36	DePaul U.	1,640	1,743	1,942	2,132	2,772	2,954	3,205	2,876
37	IA State U.	2,693	2,608	2,437	2,503	2,608	2,612	2,769	2,862
38	MI State U.	2,981	2,862	2,826	2,820	2,712	2,721	2,891	2,831
39	U. Pittsburgh all campuses	2,761	2,693	2,532	2,569	2,543	2,513	2,624	2,799
40	U. CA, San Diego	1,812	1,846	1,826	1,857	1,922	2,200	2,469	2,798
41	IN U. all campuses	3,258	2,883	2,707	2,678	2,590	2,614	2,711	2,787
42	U. IL Chicago	2,097	2,215	2,208	2,282	2,395	2,554	2,748	2,728
43	U. KS all campuses	2,826	2,718	2,518	2,514	2,552	2,496	2,604	2,706
44	Carnegie-Mellon U.	1,700	1,763	1,922	2,000	2,100	2,329	2,364	2,496
45	CO State U.	1,751	1,770	1,738	1,755	1,822	2,190	2,371	2,490
46	Wayne State U.	2,420	2,385	2,082	2,277	2,709	2,680	2,763	2,435
47	U. Central FL	1,579	1,510	1,508	1,739	1,795	1,930	2,161	2,405
48	Columbia U. in the City of NY	2,442	2,385	2,419	2,333	2,182	1,974	2,132	2,354
49	SUNY Stony Brook all campuses	1,946	1,885	1,906	2,015	2,005	2,094	2,266	2,339
50	SUNY Albany	2,038	2,056	2,079	2,098	2,031	1,951	1,976	2,325
51	NJ Institute of Technology	1,705	1,874	1,917	1,943	2,387	2,272	2,278	2,253
52	U. TN Knoxville	2,082	1,937	1,997	1,887	1,676	1,867	2,082	2,220
53	Johns Hopkins U., The	1,677	1,734	1,835	1,802	1,755	1,843	2,014	2,203

TABLE 45. Graduate students in science and engineering fields in doctorate-granting institutions, institutions ranked by 2003 graduate student total: 1996–2003

Rank	Institution	1996	1997	1998	1999	2000	2001	2002	2003
54	U. NC Chapel Hill	2,269	2,175	2,166	2,150	1,988	2,047	2,160	2,172
55	U. CA, Irvine	1,357	1,309	1,319	1,360	1,406	1,569	1,928	2,165
56	U. OK all campuses	1,732	1,547	1,527	1,558	1,522	1,912	2,068	2,154
57	Nova Southeastern U.	1,712	1,710	1,722	1,838	1,880	1,924	2,012	2,120
58	U. PA	2,104	1,929	1,933	1,996	1,910	2,002	2,055	2,115
59	U. CT all campuses	1,991	1,874	1,820	1,915	1,750	1,905	2,019	2,110
60	U. NM all campuses	1,735	1,607	1,612	1,658	1,779	1,837	1,984	2,082
61	U. KY all campuses	1,708	1,657	1,575	1,751	1,532	1,771	2,123	2,062
62	U. CA, Santa Barbara	1,439	1,412	1,538	1,570	1,625	1,741	1,893	2,049
63	U. Cincinnati all campuses	2,183	1,945	1,930	1,904	1,815	1,821	1,958	2,041
64	U. UT	1,690	1,586	1,550	1,550	1,681	1,799	1,935	2,038
65	U. WI Milwaukee	1,384	1,327	1,286	1,201	1,733	1,693	1,846	1,949
66	Drexel U.	1,907	2,104	2,101	1,941	1,902	1,807	1,872	1,941
67	U. Houston	1,826	1,858	1,826	1,938	1,917	1,803	1,948	1,940
68	U. South FL	1,699	1,700	1,655	1,789	1,712	1,779	1,799	1,917
69	American U.	2,034	1,951	1,857	1,857	1,822	1,793	1,982	1,912
70	U. GA	1,798	1,818	1,760	1,758	1,822	1,798	1,903	1,906
71	KS State U.	1,709	1,679	1,669	1,753	1,765	1,704	1,809	1,886
72	CUNY Graduate Ctr.	1,529	2,022	2,022	1,748	1,569	1,628	1,694	1,866
73	U. VA all campuses	1,731	1,669	1,610	1,561	1,631	1,686	1,795	1,849
74	U. Chicago	1,954	1,941	1,918	1,984	1,781	1,935	1,935	1,819
75	Syracuse U. all campuses	1,516	1,341	1,591	1,613	1,695	1,695	1,680	1,808
76	U. TX Dallas	1,033	1,134	1,109	1,221	1,636	1,637	1,784	1,792
77	San Diego State U.	1,277	1,246	1,237	1,456	1,474	1,543	1,599	1,776
78	U. HI Manoa	1,734	1,598	1,575	1,488	1,412	1,455	1,657	1,761
79	WV U.	1,285	1,414	1,406	1,473	1,458	1,457	1,600	1,761
80	FL State U.	1,389	1,306	1,266	1,297	1,429	1,501	1,554	1,702
81	Duke U.	1,326	1,274	1,343	1,422	1,496	1,503	1,644	1,693
82	OK State U. all campuses	1,719	1,718	1,811	1,640	1,460	1,569	1,711	1,688
83	Auburn U. all campuses	1,687	1,529	1,451	1,399	1,498	1,545	1,621	1,687
84	TX Tech U.	1,264	1,294	1,325	1,198	1,190	1,329	1,563	1,686
85	Northwestern U.	1,638	1,516	1,479	1,515	1,438	1,471	1,578	1,677
86	U. DE	1,409	1,377	1,429	1,413	1,396	1,443	1,553	1,653
87	U. MO-Columbia	1,605	1,552	1,454	1,541	1,452	1,479	1,574	1,644
88	Clemson U.	1,658	1,596	1,529	1,562	1,522	1,568	1,617	1,643
89	U. IA	1,601	1,505	1,437	1,410	1,447	1,515	1,571	1,639
90	OR State U.	1,796	1,651	1,397	1,439	1,464	1,494	1,558	1,619
91	U. NE Lincoln	1,758	1,624	1,550	1,567	1,522	1,409	1,532	1,612
92	Washington U. St. Louis	1,226	1,196	1,232	1,263	1,233	1,296	1,446	1,610
93	Yale U.	1,456	1,312	1,315	1,322	1,350	1,423	1,392	1,589
94	Southern IL U. Carbondale	1,213	1,154	1,246	1,328	1,481	1,425	1,503	1,576
95	Western MI U.	1,311	1,417	1,500	1,412	1,227	1,553	1,564	1,574
96	Princeton U.	1,266	1,240	1,309	1,323	1,427	1,485	1,514	1,559
97	Case Western Reserve U.	1,426	1,433	1,349	1,319	1,250	1,253	1,254	1,556
98	Old Dominion U.	1,248	1,274	1,281	1,223	1,277	1,463	1,559	1,532
99	FL International U.	1,046	1,041	1,015	1,114	1,262	1,308	1,540	1,491
100	Portland State U.	1,026	1,001	1,038	1,203	1,070	1,129	1,343	1,463
101	IL Institute of Technology	2,138	2,058	1,983	2,110	2,154	2,725	2,057	1,459
102	Temple U.	1,264	979	952	957	1,379	1,214	1,335	1,449
103	Northeastern U.	1,801	1,741	1,724	1,709	1,690	1,590	1,646	1,440
104	U. AR main campus	1,236	1,062	1,195	1,227	1,282	1,443	1,236	1,414
105	Long Island U. all campuses	1,089	1,069	1,005	1,279	1,279	1,307	1,355	1,398
106	Brigham Young U. all campuses	1,188	1,179	1,059	1,042	965	1,032	1,114	1,394
107	U. Louisville	1,095	963	998	1,183	1,127	1,293	1,203	1,378

TABLE 45. Graduate students in science and engineering fields in doctorate-granting institutions, institutions ranked by 2003 graduate student total: 1996–2003

Rank	Institution	1996	1997	1998	1999	2000	2001	2002	2003
108	GA State U.	1,024	1,032	1,004	1,056	1,015	1,113	1,213	1,376
109	CUNY John Jay C. of Criminal Justice	614	889	971	1,107	997	978	1,161	1,361
110	Fairleigh Dickinson U. all campuses	871	841	844	901	1,109	1,333	1,335	1,359
111	SUNY Binghamton	1,072	1,093	1,067	1,113	1,106	1,137	1,271	1,324
112	Cleveland State U.	758	774	759	735	894	971	1,056	1,320
113	U. ID	1,018	1,149	1,208	1,200	1,042	1,084	1,195	1,308
114	WA State U.	1,391	1,228	1,200	1,104	1,168	1,134	1,213	1,307
115	U. MO-Rolla	914	886	848	857	1,016	1,159	1,358	1,291
116	Antioch U. all campuses	1,430	1,320	1,083	1,099	1,136	1,178	1,217	1,287
117	U. North TX	1,205	1,297	1,309	1,608	1,410	1,316	1,370	1,286
118	Tufts U.	1,073	1,067	995	972	1,101	1,140	1,289	1,280
119	UT State U.	1,229	1,143	1,120	1,188	1,175	1,203	1,272	1,278
120	CA Institute of Technology	1,022	1,031	982	982	1,042	1,139	1,184	1,273
121	Teachers C. Columbia U.	1,842	1,906	1,998	2,106	1,245	1,350	1,191	1,269
122	Vanderbilt U.	1,154	1,129	1,121	1,124	1,113	1,054	1,164	1,268
123	CA State U. Long Beach	1,383	1,317	1,351	1,285	1,213	1,068	1,220	1,258
124	Alliant International U.	na	na	na	na	na	na	1,282	1,250
125	U. SC all campuses	1,448	1,450	1,325	1,222	1,217	1,198	1,207	1,250
126	Wichita State U.	829	886	1,008	926	1,008	1,224	1,301	1,243
127	MS State U.	1,132	1,149	1,458	1,154	1,230	1,230	1,380	1,242
128	Stevens Institute of Technology	1,390	1,326	1,163	1,219	911	958	1,071	1,240
129	Rensselaer Polytechnic Institute	1,508	1,623	1,557	1,646	1,728	1,751	1,417	1,215
130	U. MD Baltimore County	964	869	909	851	882	1,037	1,200	1,215
131	U. PR Rio Piedras Campus	1,065	1,086	1,113	1,176	1,150	1,162	1,292	1,207
132	Wright State U. all campuses	873	851	867	854	901	984	1,145	1,207
133	U. Memphis, The	757	997	816	783	828	1,100	1,082	1,203
134	U. MA Lowell	1,646	1,515	1,576	1,557	1,366	1,261	1,103	1,201
135	NM State U. all campuses	1,052	990	963	915	914	1,023	990	1,192
136	U. AL Birmingham, The	920	1,028	1,101	1,062	1,118	1,100	1,208	1,190
137	Northern IL U.	1,055	1,034	993	1,006	1,025	1,116	1,194	1,171
138	U. Akron all campuses	1,369	1,361	1,231	1,205	961	1,136	1,209	1,156
139	U. Rochester	1,146	1,097	1,033	1,026	972	1,016	1,061	1,135
140	U. CA, Riverside	757	785	739	772	881	944	1,002	1,131
141	New School U.	1,031	1,060	1,000	999	957	995	1,070	1,120
142	U. Miami	1,095	1,012	996	958	1,002	1,005	1,024	1,104
143	Fielding Institute, The	905	948	937	964	895	874	896	1,084
144	VA Commonwealth U.	1,146	1,022	1,070	1,409	1,025	1,152	1,209	1,082
145	U. NC Charlotte	728	674	625	684	804	895	1,008	1,075
146	ND State U. all campuses	572	523	507	580	554	614	627	1,055
147	U. NV, Reno	918	956	966	926	899	989	1,015	1,051
148	U. of Notre Dame	873	846	826	834	835	922	984	1,037
149	U. AL Huntsville, The	706	697	680	755	753	777	928	1,025
150	FL Atlantic U.	895	857	810	893	871	883	975	1,021
151	U. AL, The	1,070	1,040	1,000	966	943	927	978	1,001
152	OH U. all campuses	928	940	896	898	968	928	982	998
153	Naval Postgraduate School	927	872	890	795	795	766	379	985
154	U. CA, Santa Cruz	732	726	734	735	750	797	879	983
155	Pace U. all campuses	829	564	561	605	801	1,161	1,195	977
156	U. RI	900	800	800	875	923	845	936	977
157	FL Institute of Technology	756	743	740	721	775	973	932	965
158	Rice U.	723	737	746	730	763	848	941	962
159	Southern Methodist U.	1,222	1,260	1,167	1,137	1,038	1,040	1,001	961
160	U. Denver	768	727	768	825	862	655	916	927
161	CUNY City C.	857	785	802	897	812	841	862	894

TABLE 45. Graduate students in science and engineering fields in doctorate-granting institutions, institutions ranked by 2003 graduate student total: 1996–2003

Rank	Institution	1996	1997	1998	1999	2000	2001	2002	2003
162	U. PR Mayaguez Campus	663	727	712	687	733	757	814	885
163	Brown U.	733	717	701	722	753	772	813	874
164	U. WY	761	846	789	755	754	764	819	869
165	Oakland U.	819	841	841	700	772	779	888	868
166	Southwest TX State U.	698	624	643	730	649	691	771	864
167	U. NH	795	757	737	760	770	768	829	850
168	Southern U. and A&M C. all campuses	440	424	436	589	752	697	643	826
169	U. NE Omaha	526	514	483	580	677	788	838	822
170	U. Toledo	963	925	915	913	862	895	880	821
171	U. NV, Las Vegas	521	510	495	450	524	595	647	817
172	Marquette U.	591	626	707	679	758	764	790	815
173	Pepperdine U.	806	739	713	682	646	678	718	813
174	Walden U.	223	310	555	669	730	808	891	808
175	Santa Clara U.	927	956	871	846	697	633	734	804
176	U. IL Springfield	887	841	780	919	756	850	852	797
177	Tulane U.	829	726	743	746	794	775	757	777
178	Emory U.	713	711	707	680	665	676	725	774
179	Kent State U. all campuses	799	824	786	764	751	777	834	770
180	Eastern MI U.	549	601	624	607	656	658	701	765
181	Lehigh U.	1,072	1,030	987	901	682	687	742	763
182	U. OR	703	675	682	648	666	678	701	752
183	Polytechnic U.	1,427	1,372	1,200	1,200	778	820	798	746
184	CO School of Mines	778	765	762	700	668	668	749	729
185	U. MO-Kansas City	470	467	465	422	482	561	643	729
186	U. TX El Paso	588	579	576	647	621	346	695	722
187	U. MT, The	550	552	583	577	584	637	647	719
188	Howard U.	727	698	642	610	592	639	636	709
189	MI Technological U.	555	543	546	589	600	597	638	705
190	Georgetown U.	716	722	641	602	575	591	655	703
191	Rochester Institute of Technology	621	560	548	503	494	589	693	699
192	U. ME	666	584	586	572	588	605	639	679
193	Worcester Polytechnic Institute	603	596	816	811	603	651	696	678
194	MT State U. Bozeman	569	551	569	583	550	570	610	667
195	Towson U.	401	451	458	482	516	571	464	663
196	Claremont Graduate U.	684	712	655	625	604	607	607	645
197	Carlos Albizu U. (San Juan, PR)	320	319	502	566	594	616	659	644
198	U. TX Health Science Ctr. Houston	588	584	566	558	553	595	623	643
199	Loyola U. Chicago	811	810	768	799	878	658	699	623
200	Yeshiva U.	579	594	634	665	624	612	620	623
201	Roosevelt U.	585	628	600	555	536	649	696	613
202	Marshall U. Graduate C.	264	544	723	621	551	553	687	605
203	U. TX San Antonio	466	483	444	395	366	425	512	604
204	U. VT	570	538	541	535	539	520	532	603
205	Northern AZ U.	549	517	538	527	519	533	546	600
206	TX A&M U. Kingsville	378	484	381	419	398	417	487	597
207	NY Institute of Technology all campuses	960	872	819	744	624	633	660	591
208	U. Bridgeport	172	298	327	430	620	764	691	588
209	Lamar U.	290	294	280	335	342	408	562	584
210	U. MS all campuses	682	631	599	586	615	609	569	581
211	Loyola C.	745	699	684	654	342	307	624	579
212	U. AK Fairbanks all campuses	587	571	503	502	441	453	558	572
213	CUNY Hunter C.	203	186	206	262	239	266	355	564
214	Bowling Green State U. all campuses	609	573	492	489	503	490	533	560
215	U. Dayton	635	551	482	541	508	493	521	554

TABLE 45. Graduate students in science and engineering fields in doctorate-granting institutions, institutions ranked by 2003 graduate student total: 1996–2003

Rank	Institution	1996	1997	1998	1999	2000	2001	2002	2003
216	Miami U. all campuses	425	434	483	521	502	545	545	552
217	Dartmouth C.	351	357	308	420	444	447	521	544
218	U. MO-St. Louis	438	392	382	420	479	479	506	537
219	U. Detroit Mercy	484	454	441	408	407	402	415	533
220	Ball State U.	486	482	453	517	500	521	495	525
221	U. LA Lafayette	469	438	402	454	530	531	572	522
222	IL State U.	564	547	547	500	510	514	523	521
223	Seton Hall U.	577	546	543	531	498	459	505	517
224	U. CA, San Francisco	338	330	362	315	390	387	412	512
225	St. John's U. (Jamaica, NY)	469	455	466	528	518	547	515	511
226	SD State U.	497	459	421	383	395	461	484	510
227	Loma Linda U.	278	533	470	458	404	420	469	503
228	LA Tech U.	306	327	280	249	315	324	522	501
229	U. ND all campuses	324	324	451	463	499	464	481	479
230	CA Institute of Integral Studies	487	381	360	343	354	243	468	477
231	U. South AL	367	338	336	352	397	427	409	476
232	Indiana U. PA all campuses	296	317	321	374	352	369	393	472
233	TX Woman's U.	573	526	521	467	370	414	437	471
234	U. TX Southwestern Medical Ctr. Dallas	379	352	355	364	349	389	424	459
235	TN State U.	375	382	401	373	332	373	411	457
236	Pontifical Catholic U. PR, The	10	11	10	17	311	397	438	452
237	NC Agricultural and Technical State U.	407	386	412	406	415	455	448	442
238	C. of William and Mary all campuses	434	394	401	423	408	385	454	440
239	Boston C.	495	464	454	416	405	407	430	433
240	Golden Gate U.	381	488	389	318	373	235	186	433
241	U. NC Greensboro	288	295	339	365	380	396	431	425
242	East Carolina U.	331	331	405	362	343	383	419	422
243	Fordham U.	472	471	458	424	417	453	439	419
244	TX Southern U.	255	358	276	533	544	351	374	416
245	St. Louis U. all campuses	475	430	430	426	407	424	405	411
246	U. Tulsa	310	300	312	307	306	356	395	410
247	SUNY C. of Environmental Science & Forestry	395	400	426	434	435	462	462	402
248	Central MI U.	422	425	462	391	466	477	460	399
249	Baylor C. of Medicine	284	302	317	333	335	352	392	398
250	Sam Houston State U.	369	315	387	367	284	386	475	386
251	Clark U.	320	269	277	281	283	326	341	380
252	Catholic U. America, The	598	518	480	439	403	395	396	368
253	U. Southern MS	604	582	573	437	500	532	496	366
254	Adelphi U.	287	318	228	296	229	265	321	365
255	Brandeis U.	565	549	550	455	494	519	543	364
256	ID State U.	325	277	266	258	267	265	298	360
257	Philadelphia C. of Osteopathic Medicine	120	157	188	196	349	321	343	360
258	U. Baltimore	417	439	314	380	358	334	345	354
259	Stephen F. Austin State U.	247	271	254	271	239	241	266	351
260	U. Hartford	288	249	295	225	346	352	350	349
261	Fuller Theological Seminary CA	408	396	369	334	304	327	340	346
262	TX A&M U. Commerce	244	278	310	339	375	427	381	344
263	OGI School of Science and Engineering at OR Health and Science U.	205	301	279	235	369	443	473	341
264	Baylor U.	332	298	282	268	281	298	307	338
265	U. of Medicine and Dentistry NJ	197	198	214	241	312	299	333	334
266	Hofstra U.	335	371	360	357	369	371	370	327
267	Prairie View A&M U.	190	114	139	165	139	159	209	324
268	Air Force Institute of Technology	533	504	426	392	423	345	363	323
269	U. MA Dartmouth	172	245	264	258	261	297	331	323

TABLE 45. Graduate students in science and engineering fields in doctorate-granting institutions, institutions ranked by 2003 graduate student total: 1996–2003

Rank	Institution	1996	1997	1998	1999	2000	2001	2002	2003
270	Jackson State U.	322	324	313	287	283	258	331	322
271	Union Institute & U.	302	274	410	419	374	374	374	319
272	East TN State U.	325	392	268	287	214	222	269	317
273	Wake Forest U.	276	275	245	267	270	280	291	315
274	Boise State U.	NA	NA	NA	NA	NA	198	198	311
275	NM Institute of Mining and Technology	233	224	232	251	270	269	301	311
276	Chapman U.	447	387	368	366	346	310	296	308
277	IN State U. all campuses	346	369	312	320	252	542	432	307
278	U. La Verne	130	204	188	320	225	217	242	293
279	FL A&M U.	251	243	218	231	281	249	286	289
280	SD School of Mines and Technology	196	183	205	205	276	321	343	289
281	Thomas Jefferson U.	307	281	260	289	236	197	289	278
282	U. MD Baltimore	280	295	312	256	253	254	254	278
283	Pacific Graduate School of Psychology	349	299	285	296	288	288	295	276
284	U. AR Little Rock	230	230	192	197	240	235	242	273
285	TN Technological U.	307	308	315	342	270	257	247	272
286	Duquesne U.	393	337	341	327	324	294	274	262
287	U. Northern CO	180	181	192	208	220	207	223	254
288	Middle TN State U.	441	323	287	271	276	271	268	251
289	Azusa Pacific U.	363	387	392	334	326	289	258	250
290	U. TN Chattanooga	282	286	284	239	219	251	242	240
291	Lawrence Technological U.	NA	NA	NA	NA	NA	NA	NA	233
292	AL A&M U.	194	250	134	69	147	131	164	229
293	Medical U. SC	238	235	225	238	216	203	199	227
294	Clarkson U.	226	216	180	197	204	191	200	226
295	U. TX Medical Branch	140	160	148	150	149	152	176	224
296	Maharishi U. of Management	35	48	78	81	167	215	219	223
297	James Madison U.	104	166	212	254	234	230	233	220
298	Morgan State U.	69	89	80	103	111	200	226	218
299	Barry U.	0	0	0	0	0	185	199	214
300	Mt. Sinai School of Medicine	178	183	192	190	197	210	209	213
301	U. NC Wilmington	146	148	165	161	187	186	195	212
302	U. TN Health Science Ctr.	134	158	181	180	180	170	200	212
303	Forest Institute of Professional Psychology	166	181	224	246	251	251	235	209
304	U. SD	225	209	203	203	195	200	201	201
305	U. TX Health Science Ctr. San Antonio	182	189	190	186	179	184	217	201
306	AR State U. main campus	260	262	314	158	165	148	176	200
307	Finch U. of Health Sciences/Chicago Medical School	288	277	253	237	215	196	194	191
308	Marywood U.	200	178	187	202	168	166	147	186
309	Mayo Graduate School	133	141	142	139	153	148	185	181
310	U. MD Eastern Shore	98	113	123	97	128	127	171	166
311	NY Medical C.	238	188	174	167	163	183	176	165
312	Creighton U.	129	93	98	108	112	108	133	164
313	Alfred U. all campuses	170	129	130	134	147	148	144	162
314	Xavier U.	75	85	117	116	135	142	172	159
315	Clark Atlanta U.	374	347	299	256	200	184	199	155
316	U. PR Medical Sciences Campus	135	96	110	133	135	107	142	154
317	U. AR for Medical Sciences	138	131	145	136	117	105	131	148
318	Eastern VA Medical School	136	139	130	127	124	126	133	141
319	Spalding U.	125	137	137	143	149	131	141	139
320	U. Central AR	176	168	192	183	154	138	147	138
321	OR Health and Science U.	135	123	136	137	149	154	150	137
322	Rockefeller U.	93	105	110	109	119	134	137	136
323	American International C.	122	184	184	157	102	130	134	135

TABLE 45. Graduate students in science and engineering fields in doctorate-granting institutions, institutions ranked by 2003 graduate student total: 1996–2003

Rank	Institution	1996	1997	1998	1999	2000	2001	2002	2003
324	Medical C. WI	117	144	199	166	151	197	235	135
325	Wesleyan U.	120	119	117	112	114	119	117	135
326	Meharry Medical C.	139	131	125	125	145	137	109	132
327	Woods Hole Oceanographic Institution	137	137	134	125	114	114	123	128
328	Widener U. all campuses	132	106	88	84	57	120	122	117
329	CUNY Herbert H. Lehman C.	70	52	57	56	67	91	113	115
330	Andrews U.	144	111	98	101	103	115	112	114
331	Tuskegee U.	91	112	119	118	102	110	117	113
332	U. of the Sciences Philadelphia	26	21	29	34	45	56	147	110
333	Mercer U. all campuses	147	167	161	171	170	118	110	103
334	Bryn Mawr C.	114	108	97	95	96	91	88	99
335	SUNY Upstate Medical U.	68	68	72	77	81	84	90	99
336	Hampton U.	98	76	118	129	115	106	91	97
337	TX A&M U. System Health Science Ctr.	NA	NA	NA	56	72	87	99	97
338	U. NE Medical Ctr.	87	86	78	78	88	72	79	95
339	TX Christian U.	142	136	122	113	101	92	98	94
340	Medical C. GA	67	73	68	88	51	52	47	88
341	Ferris State U.	NA	NA	NA	NA	NA	154	132	86
342	Medical C. OH	155	112	94	94	89	87	74	84
343	Uniformed Services U. of the Health Sciences	55	63	62	61	68	74	80	84
344	Rand Graduate School of Policy Studies	52	49	54	57	64	69	74	83
345	Albany Medical C.	93	96	80	76	83	79	87	79
346	U. LA Monroe	172	181	157	138	136	130	84	78
347	Slippery Rock U. PA	168	158	189	179	107	10	75	74
348	U. San Diego	51	51	73	133	61	65	58	68
349	Rush U.	77	75	85	94	88	85	75	65
350	SUNY Health Science Ctr. Brooklyn	76	78	66	63	55	53	46	47
351	Biola U.	174	167	48	46	40	39	38	40
352	U. of the Pacific	55	50	49	50	50	46	32	35
353	Wright Institute all campuses	248	245	293	292	282	318	29	25
354	Ponce School of Medicine	13	17	17	17	21	23	26	24
355	MA C. of Pharmacy and Health Sciences	20	23	23	25	20	20	17	21
356	Morehouse School of Medicine	22	16	16	15	15	18	19	21
357	Baylor C. of Dentistry	7	7	10	16	12	16	15	17
358	Kirksville C. of Osteopathic Medicine	NA	NA	NA	NA	NA	NA	NA	12
-	CA School of Professional Psychology Alameda	370	286	262	246	223	197	na	na
-	CA School of Professional Psychology Fresno	411	339	308	374	357	312	na	na
-	CA School of Professional Psychology Los Angeles	280	725	686	665	370	583	na	na
-	CA School of Professional Psychology San Diego	618	642	620	573	681	849	na	na
-	Chicago School of Professional Psychology	180	183	199	205	na	na	na	na
-	Institute of Paper Science and Technology	76	68	74	75	69	68	68	NA
-	U.S. International U.	378	409	300	304	235	na	na	na

NA = not available; data were not collected from this institution in this year or institution did not meet the criteria for inclusion.

na = not applicable; school did not exist under this name in this year.

- = no rank.

NOTES: Includes medical schools. Ties are ranked alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 46. Science, engineering, and health postdoctoral appointees in doctorate-granting institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	37,066	38,420	40,018	40,741	43,077	43,277	44,965	46,776
Science and engineering	26,528	27,207	27,809	28,923	30,188	30,156	31,867	33,655
Science	23,851	24,238	24,956	25,729	26,875	26,990	28,299	29,785
Agricultural sciences	699	724	695	749	822	835	945	1,052
Biological sciences	14,882	15,078	15,755	16,091	16,729	17,022	17,636	18,615
Anatomy	433	464	454	497	428	413	423	464
Biochemistry	2,477	2,539	2,532	2,485	2,469	2,558	2,752	2,652
Biology	1,620	1,595	1,807	1,887	1,933	1,956	2,039	2,098
Biometry/epidemiology	153	180	175	181	125	152	231	246
Biophysics	252	240	239	266	164	187	233	195
Botany	574	574	555	559	518	553	561	547
Cell biology	1,848	1,897	2,204	2,237	2,241	2,139	2,292	2,340
Ecology	111	133	115	123	152	161	186	189
Entomology/parasitology	183	216	181	178	197	223	234	258
Genetics	719	737	732	796	795	883	926	1,045
Microbiology/immunology/virology	1,971	1,990	2,089	2,158	2,253	2,187	2,434	2,361
Nutrition	198	209	234	238	224	245	225	243
Pathology	1,220	1,377	1,332	1,321	1,757	1,803	1,837	1,926
Pharmacology	1,424	1,369	1,470	1,511	1,460	1,391	1,386	1,512
Physiology	1,089	1,118	1,138	1,132	1,140	1,193	1,165	1,217
Zoology	116	103	135	138	104	88	92	67
Biosciences, nec	494	337	363	384	769	890	620	1,255
Computer sciences	250	320	371	332	341	335	359	372
Earth, atmospheric, and ocean sciences	859	938	898	923	1,155	1,036	1,113	1,184
Atmospheric sciences	80	98	85	107	94	87	79	108
Geosciences	449	490	464	477	514	471	443	467
Oceanography	244	258	249	235	246	218	270	249
Earth/atmospheric/ocean sciences, nec	86	92	100	104	301	260	321	360
Mathematical sciences	326	307	279	351	385	353	391	447
Mathematics/applied mathematics	306	284	255	321	357	329	363	407
Statistics	20	23	24	30	28	24	28	40
Physical sciences	5,802	5,931	5,956	6,118	6,244	6,192	6,587	6,726
Astronomy	312	319	360	375	315	311	330	319
Chemistry	3,563	3,732	3,719	3,812	3,862	3,846	3,965	4,060
Physics	1,841	1,781	1,837	1,847	1,937	1,899	2,148	2,186
Physical sciences, nec	86	99	40	84	130	136	144	161
Psychology	589	579	611	711	729	808	814	979
Clinical psychology	50	45	51	70	73	81	68	72
Psychology, general	356	354	387	407	410	498	531	653
Psychology, nec	183	180	173	234	246	229	215	254
Social sciences	444	361	391	454	470	409	454	410
Agricultural economics	56	50	38	43	41	35	21	25
Anthropology (cultural/social)	74	59	62	87	73	56	66	57
Economics (except agricultural)	16	19	29	31	32	23	29	36
Geography	22	12	18	30	34	36	30	31
History and philosophy of science	35	28	23	10	14	9	13	14
Linguistics	36	19	18	15	19	17	22	29
Political science	35	31	64	70	49	52	61	51
Sociology	127	102	79	104	102	88	80	80
Sociology/anthropology	0	0	0	0	0	4	29	2
Social sciences, nec	43	41	60	64	106	89	103	85
Engineering	2,677	2,969	2,853	3,194	3,313	3,166	3,568	3,870
Aerospace engineering	109	125	133	128	111	128	140	141
Agricultural engineering	48	58	56	62	56	58	64	80

TABLE 46. Science, engineering, and health postdoctoral appointees in doctorate-granting institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Biomedical engineering	143	158	180	242	220	264	286	390
Chemical engineering	545	636	613	671	703	575	743	673
Civil engineering	230	248	225	299	295	280	358	319
Electrical engineering	395	507	488	548	525	435	612	674
Engineering science	93	115	110	122	163	162	169	180
Industrial engineering	30	28	30	27	48	20	42	45
Mechanical engineering	425	440	434	476	480	501	441	548
Metallurgical/materials engineering	496	464	404	419	507	479	507	561
Mining engineering	10	11	10	6	8	14	10	12
Nuclear engineering	28	33	19	30	40	78	28	52
Petroleum engineering	6	21	14	19	20	17	15	17
Engineering, nec	119	125	137	145	137	155	153	178
Health	10,538	11,213	12,209	11,818	12,889	13,121	13,098	13,121
Medical fields	9,362	9,990	10,957	10,623	11,555	11,663	11,581	11,481
Anesthesiology	213	240	253	230	255	254	270	262
Cardiology	491	656	603	607	566	471	446	413
Endocrinology	292	312	251	255	263	213	262	264
Gastroenterology	261	316	272	294	310	265	270	246
Hematology	304	354	316	372	302	367	314	251
Neurology	1,034	1,113	1,167	1,164	1,194	1,322	1,307	1,326
Obstetrics/gynecology	281	236	232	223	386	354	354	398
Oncology/cancer research	337	416	555	556	487	612	731	813
Ophthalmology	336	382	374	367	381	385	382	348
Otorhinolaryngology	82	94	101	112	112	120	119	124
Pediatrics	739	809	875	887	925	961	1,024	958
Preventive medicine/community health	307	344	316	347	425	303	328	298
Psychiatry	646	644	665	601	683	766	834	867
Pulmonary disease	242	262	209	240	266	247	215	234
Radiology	337	428	434	461	450	500	614	576
Surgery	935	974	1,002	1,097	1,089	1,156	1,129	1,166
Clinical medicine, nec	2,525	2,410	3,332	2,810	3,461	3,367	2,982	2,937
Other health	1,176	1,223	1,252	1,195	1,334	1,458	1,517	1,640
Dental sciences	196	203	176	212	230	194	176	183
Nursing	23	38	43	49	64	54	50	66
Pharmaceutical sciences	503	504	511	435	434	542	586	638
Speech pathology/audiology	46	36	57	56	57	36	56	50
Veterinary sciences	192	220	223	250	284	334	342	384
Health related, nec	216	222	242	193	265	298	307	319

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 47. Science, engineering, and health postdoctoral appointees in doctorate-granting institutions, by detailed field, primary source of support, and citizenship: 2003

Field	Postdoctoral appointees	Primary support federal				Primary support nonfederal	Citizenship	
		Total	Fellowships	Research grants	Traineeships		U.S. citizens and permanent residents	Temporary visa holders
All surveyed fields	46,776	32,670	3,776	26,206	2,688	14,106	19,757	27,019
Science and engineering	33,655	24,420	2,243	20,793	1,384	9,235	13,575	20,080
Science	29,785	21,657	2,103	18,212	1,342	8,128	12,412	17,373
Agricultural sciences	1,052	647	22	621	4	405	462	590
Biological sciences	18,615	13,390	1,388	10,869	1,133	5,225	7,776	10,839
Anatomy	464	386	27	326	33	78	169	295
Biochemistry	2,652	2,005	196	1,708	101	647	1,038	1,614
Biology	2,098	1,637	277	1,320	40	461	948	1,150
Biometry/epidemiology	246	186	19	88	79	60	168	78
Biophysics	195	129	11	101	17	66	130	65
Botany	547	376	13	356	7	171	166	381
Cell biology	2,340	1,623	221	1,289	113	717	1,037	1,303
Ecology	189	101	13	86	2	88	139	50
Entomology/parasitology	258	175	12	162	1	83	120	138
Genetics	1,045	704	86	557	61	341	454	591
Microbiology/immunology/virology	2,361	1,782	159	1,404	219	579	1,049	1,312
Nutrition	243	170	22	140	8	73	109	134
Pathology	1,926	1,277	130	967	180	649	767	1,159
Pharmacology	1,512	1,173	103	944	126	339	612	900
Physiology	1,217	981	62	833	86	236	420	797
Zoology	67	25	2	23	0	42	46	21
Biosciences, nec	1,255	660	35	565	60	595	404	851
Computer sciences	372	293	22	271	0	79	162	210
Earth, atmospheric, and ocean sciences	1,184	944	54	884	6	240	612	572
Atmospheric sciences	108	93	0	93	0	15	44	64
Geosciences	467	344	19	325	0	123	221	246
Oceanography	249	225	26	199	0	24	107	142
Earth/atmospheric/ocean sciences, nec	360	282	9	267	6	78	240	120
Mathematical sciences	447	284	40	236	8	163	215	232
Mathematics/applied mathematics	407	251	35	210	6	156	197	210
Statistics	40	33	5	26	2	7	18	22
Physical sciences	6,726	5,165	407	4,709	49	1,561	2,254	4,472
Astronomy	319	269	38	228	3	50	172	147
Chemistry	4,060	2,962	280	2,645	37	1,098	1,267	2,793
Physics	2,186	1,797	89	1,699	9	389	728	1,458
Physical sciences, nec	161	137	0	137	0	24	87	74
Psychology	979	761	133	511	117	218	652	327
Clinical psychology	72	51	10	18	23	21	58	14
Psychology, general	653	512	87	352	73	141	442	211
Psychology, nec	254	198	36	141	21	56	152	102
Social sciences	410	173	37	111	25	237	279	131
Agricultural economics	25	13	2	11	0	12	11	14
Anthropology (cultural/social)	57	18	6	12	0	39	49	8
Economics (except agricultural)	36	8	0	8	0	28	17	19
Geography	31	19	2	17	0	12	19	12
History and philosophy of science	14	3	1	2	0	11	7	7
Linguistics	29	15	2	11	2	14	17	12
Political science	51	12	4	8	0	39	35	16
Sociology	80	54	13	22	19	26	57	23
Sociology/anthropology	2	0	0	0	0	2	2	0
Social sciences, nec	85	31	7	20	4	54	65	20

TABLE 47. Science, engineering, and health postdoctoral appointees in doctorate-granting institutions, by detailed field, primary source of support, and citizenship: 2003

Field	Postdoctoral appointees	Primary support federal				Primary support nonfederal	Citizenship	
		Total	Fellowships	Research grants	Traineeships		U.S. citizens and permanent residents	Temporary visa holders
Engineering	3,870	2,763	140	2,581	42	1,107	1,163	2,707
Aerospace engineering	141	124	3	121	0	17	56	85
Agricultural engineering	80	59	2	57	0	21	18	62
Biomedical engineering	390	326	36	261	29	64	179	211
Chemical engineering	673	429	33	391	5	244	206	467
Civil engineering	319	209	13	195	1	110	133	186
Electrical engineering	674	464	23	439	2	210	147	527
Engineering science	180	150	3	147	0	30	73	107
Industrial engineering	45	21	0	21	0	24	16	29
Mechanical engineering	548	380	15	363	2	168	133	415
Metallurgical/materials engineering	561	413	10	400	3	148	149	412
Mining engineering	12	8	1	7	0	4	9	3
Nuclear engineering	52	45	0	45	0	7	13	39
Petroleum engineering	17	11	0	11	0	6	3	14
Engineering, nec	178	124	1	123	0	54	28	150
Health	13,121	8,250	1,533	5,413	1,304	4,871	6,182	6,939
Medical fields	11,481	7,253	1,416	4,649	1,188	4,228	5,396	6,085
Anesthesiology	262	157	25	110	22	105	113	149
Cardiology	413	235	45	128	62	178	191	222
Endocrinology	264	174	29	106	39	90	115	149
Gastroenterology	246	120	8	81	31	126	94	152
Hematology	251	138	22	99	17	113	61	190
Neurology	1,326	827	87	644	96	499	549	777
Obstetrics/gynecology	398	157	21	123	13	241	233	165
Oncology/cancer research	813	519	23	403	93	294	387	426
Ophthalmology	348	172	15	144	13	176	100	248
Otorhinolaryngology	124	61	4	38	19	63	39	85
Pediatrics	958	622	127	405	90	336	498	460
Preventive medicine/community health	298	194	48	101	45	104	184	114
Psychiatry	867	588	65	314	209	279	641	226
Pulmonary disease	234	167	94	46	27	67	153	81
Radiology	576	398	27	344	27	178	227	349
Surgery	1,166	604	82	440	82	562	472	694
Clinical medicine, nec	2,937	2,120	694	1,123	303	817	1,339	1,598
Other health	1,640	997	117	764	116	643	786	854
Dental sciences	183	135	14	96	25	48	60	123
Nursing	66	55	21	12	22	11	61	5
Pharmaceutical sciences	638	402	10	389	3	236	220	418
Speech pathology/audiology	50	48	2	41	5	2	21	29
Veterinary sciences	384	162	19	122	21	222	207	177
Health related, nec	319	195	51	104	40	124	217	102

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2003.

TABLE 48. Postdoctoral appointees in doctorate-granting institutions, by area of study, institutions ranked by number of appointees: 2003

Rank	Institution	All appointees in surveyed fields	Science and engineering			Health fields
			Total	Science	Engineering	
	All institutions	46,776	33,655	29,785	3,870	13,121
1	Harvard U.	3,852	1,718	1,664	54	2,134
2	U. CA, Los Angeles	1,567	1,124	969	155	443
3	Johns Hopkins U., The	1,338	535	474	61	803
4	Stanford U.	1,236	736	663	73	500
5	U. CO all campuses	1,026	834	776	58	192
6	Yale U.	1,018	628	612	16	390
7	U. CA, San Diego	949	671	607	64	278
8	MA Institute of Technology	940	932	648	284	8
9	U. WA	865	530	482	48	335
10	U. PA	801	442	379	63	359
11	U. MI all campuses	748	457	343	114	291
12	U. CA, Berkeley	720	664	617	47	56
13	Duke U.	694	453	403	50	241
14	U. Pittsburgh all campuses	688	435	363	72	253
15	Washington U. St. Louis	645	325	322	3	320
16	U. CA, Davis	637	543	471	72	94
17	Cornell U. all campuses	614	411	344	67	203
18	U. MN all campuses	612	431	377	54	181
19	U. FL	575	353	304	49	222
20	U. NC Chapel Hill	571	353	353	0	218
21	U. TX Southwestern Medical Ctr. Dallas	547	331	331	0	216
22	U. TX M. D. Anderson Cancer Ctr.	541	266	266	0	275
23	U. Southern CA	535	316	277	39	219
24	Emory U.	532	278	274	4	254
25	CA Institute of Technology	528	528	434	94	0
26	U. CA, San Francisco	521	135	135	0	386
27	Vanderbilt U.	504	343	320	23	161
28	U. WI Madison	482	372	339	33	110
29	Mt. Sinai School of Medicine	468	468	468	0	0
30	U. MA	467	326	307	19	141
31	Yeshiva U.	412	276	276	0	136
32	U. AZ	403	366	344	22	37
33	MI State U.	401	369	330	39	32
34	U. CA, Irvine	384	339	296	43	45
35	OH State U. all campuses	381	305	274	31	76
36	Rockefeller U.	374	304	304	0	70
37	PA State U. all campuses	369	359	269	90	10
38	NC State U.	363	297	219	78	66
39	Baylor C. of Medicine	358	254	254	0	104
40	U. VA all campuses	354	303	265	38	51
41	Columbia U. in the City of NY	353	281	255	26	72
42	Tufts U.	351	122	111	11	229
43	Case Western Reserve U.	348	269	234	35	79
44	Princeton U.	340	340	270	70	0
45	U. Chicago	335	244	244	0	91
46	U. IA	334	174	167	7	160
47	IN U. all campuses	319	241	241	0	78
48	SUNY Buffalo all campuses	319	273	256	17	46
49	U. MD College Park	319	312	238	74	7
50	U. IL Urbana-Champaign	316	294	211	83	22

TABLE 48. Postdoctoral appointees in doctorate-granting institutions, by area of study, institutions ranked by number of appointees: 2003

Rank	Institution	All appointees in surveyed fields	Science and engineering			Health fields
			Total	Science	Engineering	
51	Mayo Graduate School	303	91	91	0	212
52	U. UT	296	288	273	15	8
53	Purdue U. all campuses	288	230	191	39	58
54	U. IL Chicago	287	132	123	9	155
55	U. Rochester	282	172	164	8	110
56	U. TX Medical Branch	278	164	162	2	114
57	NY U.	274	240	240	0	34
58	LA State U. all campuses	271	246	229	17	25
59	TX A&M U. all campuses	264	259	227	32	5
60	U. Cincinnati all campuses	262	107	83	24	155
61	U. GA	251	230	229	1	21
62	Wayne State U.	243	178	169	9	65
63	U. CT all campuses	238	177	132	45	61
64	Northwestern U.	234	227	121	106	7
65	IA State U.	225	218	145	73	7
66	U. CA, Riverside	222	217	201	16	5
67	CO State U.	220	199	190	9	21
68	U. TX Austin	215	201	166	35	14
69	Thomas Jefferson U.	211	129	129	0	82
70	Carnegie Mellon U.	200	200	130	70	0
71	U. AL Birmingham, The	198	118	113	5	80
72	SUNY Stony Brook all campuses	192	170	155	15	22
73	U. CA, Santa Barbara	192	192	101	91	0
74	Rutgers, The State U. NJ all campus	183	158	136	22	25
75	U. KS all campuses	181	156	154	2	25
76	U. KY all campuses	170	135	100	35	35
77	Medical U. SC	168	88	88	0	80
78	U. MD Baltimore	161	110	110	0	51
79	Dartmouth C.	159	126	126	0	33
80	U. CA, Santa Cruz	158	158	151	7	0
81	U. of Notre Dame	157	157	130	27	0
82	U. MO-Columbia	156	147	135	12	9
83	VA Commonwealth U.	155	117	96	21	38
84	WA State U.	147	139	114	25	8
85	FL State U.	143	143	130	13	0
86	U. of Medicine and Dentistry NJ	140	106	106	0	34
87	U. TX Health Science Ctr. San Antonio	140	99	99	0	41
88	Boston U.	139	133	133	0	6
89	KS State U.	138	137	131	6	1
90	U. TN Knoxville	138	115	91	24	23
91	Rice U.	135	135	98	37	0
92	U. NE Lincoln	127	118	103	15	9
93	U. South FL	127	84	65	19	43
94	U. Miami	126	125	120	5	1
95	U. DE	125	122	81	41	3
96	Wake Forest U.	120	59	59	0	61
97	U. HI Manoa	118	104	97	7	14
98	OR State U.	116	108	79	29	8
99	U. OK all campuses	114	83	73	10	31
100	U. NM all campuses	112	104	86	18	8
101	AZ State U. main campus	109	102	60	42	7
102	U. VT	103	85	81	4	18

TABLE 48. Postdoctoral appointees in doctorate-granting institutions, by area of study, institutions ranked by number of appointees: 2003

Rank	Institution	All appointees in surveyed fields	Science and engineering			Health fields
			Total	Science	Engineering	
103	SUNY Albany	102	93	86	7	9
104	Medical C. WI	101	65	65	0	36
105	Brown U.	95	77	54	23	18
106	Tulane U.	95	95	81	14	0
107	U. Louisville	94	42	40	2	52
108	Medical C. GA	93	75	75	0	18
109	Brandeis U.	92	62	62	0	30
110	MT State U. Bozeman	90	84	78	6	6
111	U. TN Health Science Ctr.	90	81	81	0	9
112	Loyola U. Chicago	89	70	70	0	19
113	U. SC all campuses	89	85	52	33	4
114	TX Tech U.	86	79	67	12	7
115	VA Polytechnic Institute and State U.	86	85	69	16	1
116	U. MS all campuses	80	55	45	10	25
117	U. TX Health Science Ctr. Houston	80	0	0	0	80
118	U. NE Medical Ctr.	77	48	48	0	29
119	OR Health and Science U.	76	66	66	0	10
120	U. Houston	75	72	64	8	3
121	Rensselaer Polytechnic Institute	74	74	44	30	0
122	U. NV, Reno	74	74	66	8	0
123	U. AR main campus	73	73	56	17	0
124	Temple U.	71	36	35	1	35
125	U. ID	71	71	69	2	0
126	GA State U.	67	67	67	0	0
127	TX A&M U. System Health Science Ctr.	64	64	64	0	0
128	Georgetown U.	57	53	53	0	4
129	ND State U. all campuses	56	51	43	8	5
130	U. OR	56	56	56	0	0
131	OK State U. all campuses	55	55	50	5	0
132	U. Akron all campuses	55	55	40	15	0
133	Auburn U. all campuses	52	44	38	6	8
134	MS State U.	49	41	34	7	8
135	U. MO-Kansas City	48	47	47	0	1
136	CUNY Graduate Ctr.	47	46	46	0	1
137	Lehigh U.	45	45	29	16	0
138	U. AR for Medical Sciences	45	45	45	0	0
139	Morehouse School of Medicine	44	44	44	0	0
140	St. Louis U. all campuses	44	37	37	0	7
141	U. WY	44	44	37	7	0
142	George Washington U.	43	29	29	0	14
143	Southern Methodist U.	43	43	43	0	0
144	Woods Hole Oceanographic Institution	41	41	36	5	0
145	Northeastern U.	40	31	29	2	9
146	CUNY City C.	38	38	38	0	0
147	Clemson U.	38	38	26	12	0
148	Old Dominion U.	38	38	20	18	0
149	U. AL, The	38	38	30	8	0
150	U. WI Milwaukee	37	37	22	15	0
151	Syracuse U. all campuses	36	36	28	8	0
152	U. RI	35	31	25	6	4
153	NY Medical C.	34	34	34	0	0
154	Albany Medical C.	33	33	33	0	0

TABLE 48. Postdoctoral appointees in doctorate-granting institutions, by area of study, institutions ranked by number of appointees: 2003

Rank	Institution	All appointees in surveyed fields	Science and engineering			Health fields
			Total	Science	Engineering	
155	U. South AL	33	33	26	7	0
156	Stevens Institute of Technology	32	32	13	19	0
157	U. ME	32	32	27	5	0
158	U. TX Dallas	32	27	22	5	5
159	GA Institute of Technology all campuses	31	31	31	0	0
160	SUNY Upstate Medical U.	31	31	31	0	0
161	Wright State U. all campuses	31	31	21	10	0
162	U. PR Rio Piedras Campus	30	30	30	0	0
163	U. TX Arlington	30	30	23	7	0
164	C. of William and Mary all campuses	28	28	16	12	0
165	Miami U. all campuses	28	28	28	0	0
166	OH U. all campuses	28	28	24	4	0
167	U. NH	28	28	27	1	0
168	Boston C.	27	27	27	0	0
169	WV U.	27	27	15	12	0
170	Worcester Polytechnic Institute	27	27	2	25	0
171	CO School of Mines	26	26	10	16	0
172	OGI School of Science and Engineering at OR Health and Science U.	26	26	25	1	0
173	FL International U.	25	25	25	0	0
174	Clarkson U.	24	24	13	11	0
175	Finch U. of Health Sciences/Chicago	24	22	22	0	2
176	Howard U.	24	20	18	2	4
177	Kent State U. all campuses	24	23	23	0	1
178	Uniformed Services U. of the Health Sciences	24	24	24	0	0
179	U. Memphis, The	24	24	21	3	0
180	U. North TX Health Science Ctr. Ft. Worth	24	0	0	0	24
181	U. MD Baltimore County	23	23	15	8	0
182	U. Toledo	23	22	20	2	1
183	UT State U.	22	22	20	2	0
184	Loma Linda U.	21	15	15	0	6
185	Tuskegee U.	21	10	6	4	11
186	U. MO-St. Louis	21	19	19	0	2
187	U. Southern MS	21	21	21	0	0
188	Wichita State U.	21	21	13	8	0
189	Meharry Medical C.	20	20	20	0	0
190	Jackson State U.	19	19	19	0	0
191	NJ Institute of Technology	19	19	4	15	0
192	Polytechnic U.	19	19	19	0	0
193	Rush U.	19	19	19	0	0
194	U. TX San Antonio	19	19	18	1	0
195	Northern AZ U.	18	18	18	0	0
196	U. Denver	18	18	18	0	0
197	U. MO-Rolla	17	17	9	8	0
198	U. ND all campuses	17	17	17	0	0
199	U. North TX	17	17	17	0	0
200	U. Tulsa	17	17	10	7	0
201	Creighton U.	16	9	9	0	7
202	Wesleyan U.	16	16	16	0	0
203	East Carolina U.	15	15	15	0	0
204	Eastern VA Medical School	15	9	9	0	6
205	U. MT, The	15	6	6	0	9

TABLE 48. Postdoctoral appointees in doctorate-granting institutions, by area of study, institutions ranked by number of appointees: 2003

Rank	Institution	All appointees in surveyed fields	Science and engineering			Health fields
			Total	Science	Engineering	
206	NC Agricultural and Technical State U.	14	14	3	11	0
207	Northern IL U.	12	12	12	0	0
208	San Diego State U.	12	10	10	0	2
209	U. TX El Paso	12	12	12	0	0
210	Clark Atlanta U.	11	11	11	0	0
211	Marquette U.	11	10	9	1	1
212	Southern IL U. Carbondale	11	11	10	1	0
213	Clark U.	10	10	10	0	0
214	Duquesne U.	9	8	8	0	1
215	U. SD	9	9	9	0	0
216	Baylor U.	8	8	8	0	0
217	SD State U.	8	6	6	0	2
218	Central MI U.	7	7	7	0	0
219	FL Atlantic U.	7	6	6	0	1
220	U. LA Lafayette	7	7	6	1	0
221	Bowling Green State U. all campuses	6	6	6	0	0
222	FL Institute of Technology	6	6	6	0	0
223	MI Technological U.	6	6	4	2	0
224	Morgan State U.	6	0	0	0	6
225	U. NV, Las Vegas	6	6	6	0	0
226	Mercer U. all campuses	5	4	4	0	1
227	Nova Southeastern U.	5	5	5	0	0
228	Rochester Institute of Technology	5	5	3	2	0
229	SUNY C. of Optometry	5	0	0	0	5
230	CUNY Hunter C.	4	4	4	0	0
231	NM Institute of Mining and Technology	4	4	2	2	0
232	U. LA Monroe	4	4	4	0	0
233	Alfred U. all campuses	3	3	0	3	0
234	Baylor C. of Dentistry	3	2	2	0	1
235	DePaul U.	3	3	3	0	0
236	IL State U.	3	3	3	0	0
237	Southern U. and A&M C. all campuses	3	3	3	0	0
238	U. AR Little Rock	3	3	3	0	0
239	Azusa Pacific U.	2	2	2	0	0
240	CA State U. Long Beach	2	2	2	0	0
241	Cleveland State U.	2	2	2	0	0
242	Hampton U.	2	2	2	0	0
243	Lamar U.	2	2	0	2	0
244	NY Institute of Technology all campuses	2	0	0	0	2
245	Prairie View A&M U.	2	2	1	1	0
246	TX Southern U.	2	2	2	0	0
247	U. of the Pacific	2	0	0	0	2
248	Fordham U.	1	1	1	0	0

NOTES: Includes medical schools. Ties are ranked alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2003.

TABLE 49. Nonfaculty research scientist, engineer, and health professional staff with doctorates in doctorate-granting institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	6,596	6,712	7,093	7,569	7,874	7,383	7,711	8,231
Science and engineering	5,149	5,246	5,300	5,697	5,822	5,367	5,736	6,180
Science	4,419	4,398	4,490	4,757	4,926	4,583	4,862	5,262
Agricultural sciences	210	203	159	167	219	201	245	218
Biological sciences	1,902	1,981	2,238	2,331	2,244	2,276	2,565	2,813
Anatomy	53	48	33	81	89	94	107	94
Biochemistry	323	331	330	364	351	383	410	445
Biology	318	291	390	237	248	246	310	307
Biometry/epidemiology	25	23	32	40	55	68	94	120
Biophysics	44	54	41	37	17	34	32	51
Botany	66	62	73	79	51	57	53	75
Cell biology	201	221	246	251	175	233	278	318
Ecology	18	20	13	19	11	13	19	24
Entomology/parasitology	51	55	53	60	45	29	56	62
Genetics	80	122	78	86	84	92	109	110
Microbiology/immunology/virology	192	229	214	265	255	239	291	343
Nutrition	56	54	43	59	45	52	37	24
Pathology	136	114	135	149	199	219	246	220
Pharmacology	164	151	288	329	307	238	218	247
Physiology	119	147	167	182	179	189	181	195
Zoology	9	14	18	25	21	14	23	20
Biosciences, nec	47	45	84	68	112	76	101	158
Computer sciences	107	87	124	133	153	148	122	127
Earth, atmospheric, and ocean sciences	430	427	411	436	486	453	501	491
Atmospheric sciences	46	76	48	41	36	29	53	64
Geosciences	190	147	154	175	217	186	210	213
Oceanography	167	163	172	169	204	207	199	159
Earth/atmospheric/ocean sciences, nec	27	41	37	51	29	31	39	55
Mathematical sciences	88	92	88	122	80	52	34	45
Mathematics/applied mathematics	82	89	83	112	70	46	23	35
Statistics	6	3	5	10	10	6	11	10
Physical sciences	1,288	1,205	1,081	1,155	1,269	1,058	1,060	1,214
Astronomy	154	144	122	142	167	163	126	144
Chemistry	547	504	482	495	555	458	496	550
Physics	569	555	473	499	519	407	414	479
Physical sciences, nec	18	2	4	19	28	30	24	41
Psychology	232	225	252	249	324	254	210	240
Clinical psychology	22	20	26	26	35	25	39	42
Psychology, general	142	124	133	130	171	129	76	88
Psychology, nec	68	81	93	93	118	100	95	110
Social sciences	162	178	137	164	151	141	125	114
Agricultural economics	17	27	31	34	23	17	13	12
Anthropology (cultural/social)	34	13	11	18	24	24	13	21
Economics (except agricultural)	16	6	3	7	3	5	2	4
Geography	11	17	14	16	13	14	9	7
History and philosophy of science	4	2	4	1	6	3	10	2
Linguistics	4	11	5	7	6	6	4	3
Political science	15	10	3	9	16	15	26	20
Sociology	15	34	27	29	25	15	12	15
Sociology/anthropology	3	5	4	4	3	1	1	0
Social sciences, nec	43	53	35	39	32	41	35	30
Engineering	730	848	810	940	896	784	874	918
Aerospace engineering	86	84	68	87	39	15	17	30

TABLE 49. Nonfaculty research scientist, engineer, and health professional staff with doctorates in doctorate-granting institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Agricultural engineering	15	19	28	28	24	26	29	24
Biomedical engineering	21	31	34	58	42	36	43	49
Chemical engineering	82	159	149	141	110	90	81	90
Civil engineering	69	66	61	81	131	95	110	91
Electrical engineering	144	168	152	169	145	116	127	169
Engineering science	38	50	49	60	60	62	74	74
Industrial engineering	2	8	5	5	7	12	21	9
Mechanical engineering	108	109	109	127	176	131	120	119
Metallurgical/materials engineering	95	83	120	115	109	103	107	146
Mining engineering	7	3	1	2	0	4	2	3
Nuclear engineering	29	28	4	11	13	3	46	15
Petroleum engineering	10	4	6	10	10	2	10	0
Engineering, nec	24	36	24	46	30	89	87	99
Health	1,447	1,466	1,793	1,872	2,052	2,016	1,975	2,051
Medical fields	1,180	1,179	1,504	1,604	1,756	1,700	1,664	1,707
Anesthesiology	13	20	28	38	47	44	37	23
Cardiology	48	45	26	33	40	37	29	43
Endocrinology	29	27	31	15	36	24	35	21
Gastroenterology	22	32	11	14	29	21	46	55
Hematology	24	15	30	26	18	33	45	50
Neurology	115	128	162	207	168	191	164	160
Obstetrics/gynecology	19	20	20	38	22	17	11	28
Oncology/cancer research	46	57	62	73	94	101	103	106
Ophthalmology	23	29	54	32	53	39	54	44
Otorhinolaryngology	3	1	2	3	4	6	11	8
Pediatrics	116	73	78	114	101	116	115	139
Preventive medicine/community health	118	79	102	115	149	112	120	148
Psychiatry	80	80	57	62	75	70	86	128
Pulmonary disease	14	19	29	33	39	34	31	19
Radiology	53	74	48	55	98	88	99	99
Surgery	127	152	219	185	183	233	203	210
Clinical medicine, nec	330	328	545	561	600	534	475	426
Other health	267	287	289	268	296	316	311	344
Dental sciences	14	54	45	37	28	10	11	10
Nursing	15	16	12	2	13	12	21	20
Pharmaceutical sciences	99	97	98	114	129	142	154	147
Speech pathology/audiology	14	13	26	13	4	12	9	14
Veterinary sciences	70	63	70	72	81	100	80	96
Health related, nec	55	44	38	30	41	40	36	57

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 50. Graduate students in science, engineering, and health fields in historically black colleges and universities, by detailed field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 2003

Field	Total	U.S. citizens and permanent residents						Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non- Hispanic	Hispanic	White, non- Hispanic	Other or unknown	
All surveyed fields	7,351	14	405	5,129	106	878	138	681
Science and engineering	5,768	11	267	4,000	64	644	129	653
Science	5,011	10	187	3,672	50	570	92	430
Agricultural sciences	349	1	5	260	12	43	6	22
Biological sciences	734	1	17	573	6	38	20	79
Anatomy	7	0	0	4	0	0	0	3
Biochemistry	30	0	0	24	0	0	0	6
Biology	330	0	9	277	2	21	12	9
Biometry/epidemiology	0	0	0	0	0	0	0	0
Biophysics	0	0	0	0	0	0	0	0
Botany	0	0	0	0	0	0	0	0
Cell biology	0	0	0	0	0	0	0	0
Ecology	0	0	0	0	0	0	0	0
Entomology/parasitology	0	0	0	0	0	0	0	0
Genetics	31	0	0	21	1	1	4	4
Microbiology/immunology/virology	48	0	1	39	0	2	0	6
Nutrition	124	0	1	74	1	8	1	39
Pathology	0	0	0	0	0	0	0	0
Pharmacology	63	0	2	53	1	2	3	2
Physiology	31	0	0	25	1	1	0	4
Zoology	0	0	0	0	0	0	0	0
Biosciences, nec	70	1	4	56	0	3	0	6
Computer sciences	689	5	110	283	4	141	21	125
Earth, atmospheric, and ocean sciences	70	0	6	51	1	8	3	1
Atmospheric sciences	14	0	0	14	0	0	0	0
Geosciences	0	0	0	0	0	0	0	0
Oceanography	0	0	0	0	0	0	0	0
Earth/atmospheric/ocean sciences, nec	56	0	6	37	1	8	3	1
Mathematical sciences	150	0	7	105	1	18	5	14
Mathematics/applied mathematics	150	0	7	105	1	18	5	14
Statistics	0	0	0	0	0	0	0	0
Physical sciences	274	0	15	167	4	24	7	57
Astronomy	0	0	0	0	0	0	0	0
Chemistry	143	0	6	94	1	6	2	34
Physics	131	0	9	73	3	18	5	23
Physical sciences, nec	0	0	0	0	0	0	0	0
Psychology	1,088	1	12	891	8	164	8	4
Clinical psychology	0	0	0	0	0	0	0	0
Psychology, general	458	1	8	345	3	96	3	2
Psychology, nec	630	0	4	546	5	68	5	2
Social sciences	1,657	2	15	1,342	14	134	22	128
Agricultural economics	46	1	0	35	0	2	0	8
Anthropology (cultural/social)	0	0	0	0	0	0	0	0
Economics (except agricultural)	58	0	0	16	0	0	0	42
Geography	0	0	0	0	0	0	0	0
History and philosophy of science	6	0	0	0	0	6	0	0
Linguistics	0	0	0	0	0	0	0	0
Political science	867	1	9	726	5	78	21	27
Sociology	198	0	0	181	0	6	0	11
Sociology/anthropology	70	0	1	63	2	4	0	0
Social sciences, nec	412	0	5	321	7	38	1	40

TABLE 50. Graduate students in science, engineering, and health fields in historically black colleges and universities, by detailed field, citizenship, and race/ethnicity of U.S. citizens and permanent residents: 2003

Field	Total	U.S. citizens and permanent residents					Other or unknown	Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non- Hispanic	Hispanic	White, non- Hispanic		
Engineering	757	1	80	328	14	74	37	223
Aerospace engineering	0	0	0	0	0	0	0	0
Agricultural engineering	0	0	0	0	0	0	0	0
Biomedical engineering	0	0	0	0	0	0	0	0
Chemical engineering	39	0	16	10	0	0	0	13
Civil engineering	154	1	8	59	5	44	4	33
Electrical engineering	126	0	13	44	2	2	9	56
Engineering science	0	0	0	0	0	0	0	0
Industrial engineering	66	0	3	52	1	3	0	7
Mechanical engineering	122	0	2	50	1	11	8	50
Metallurgical/materials engineering	10	0	0	6	0	0	0	4
Mining engineering	0	0	0	0	0	0	0	0
Nuclear engineering	0	0	0	0	0	0	0	0
Petroleum engineering	0	0	0	0	0	0	0	0
Engineering, nec	240	0	38	107	5	14	16	60
Health	1,583	3	138	1,129	42	234	9	28
Medical fields	100	0	6	89	0	5	0	0
Anesthesiology	0	0	0	0	0	0	0	0
Cardiology	0	0	0	0	0	0	0	0
Endocrinology	0	0	0	0	0	0	0	0
Gastroenterology	0	0	0	0	0	0	0	0
Hematology	0	0	0	0	0	0	0	0
Neurology	0	0	0	0	0	0	0	0
Obstetrics/gynecology	0	0	0	0	0	0	0	0
Oncology/cancer research	7	0	0	7	0	0	0	0
Ophthalmology	8	0	5	3	0	0	0	0
Otorhinolaryngology	0	0	0	0	0	0	0	0
Pediatrics	0	0	0	0	0	0	0	0
Preventive medicine/community health	50	0	1	44	0	5	0	0
Psychiatry	1	0	0	1	0	0	0	0
Pulmonary disease	0	0	0	0	0	0	0	0
Radiology	0	0	0	0	0	0	0	0
Surgery	0	0	0	0	0	0	0	0
Clinical medicine, nec	34	0	0	34	0	0	0	0
Other health	1,483	3	132	1,040	42	229	9	28
Dental sciences	0	0	0	0	0	0	0	0
Nursing	291	0	6	205	1	79	0	0
Pharmaceutical sciences	591	0	115	391	30	31	2	22
Speech pathology/audiology	217	3	4	137	4	65	2	2
Veterinary sciences	18	0	0	13	0	0	5	0
Health related, nec	366	0	7	294	7	54	0	4

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2003.

TABLE 51. Black, non-Hispanic U.S. citizen and permanent resident graduate students in science, engineering, and health fields in all institutions and in historically black colleges and universities, by field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Black students in all institutions	22,972	23,560	24,261	25,200	25,928	27,075	28,729	31,207
Science and engineering	19,066	19,341	19,651	20,273	20,834	21,459	22,673	24,134
Science	16,167	16,462	16,830	17,308	17,857	18,544	19,599	20,922
Agricultural sciences	304	288	344	310	292	327	375	462
Biological sciences	1,974	2,105	2,141	2,218	2,241	2,351	2,480	2,762
Computer sciences	1,276	1,300	1,355	1,485	1,512	1,709	1,898	1,945
Earth, atmospheric, and ocean sciences	219	203	202	213	220	227	266	270
Mathematical sciences	711	657	613	594	572	590	626	658
Physical sciences	986	952	913	903	918	875	893	939
Psychology	3,452	3,644	3,813	3,749	4,214	4,347	4,491	4,670
Social sciences	7,245	7,313	7,449	7,836	7,888	8,118	8,570	9,216
Engineering	2,899	2,879	2,821	2,965	2,977	2,915	3,074	3,212
Health fields	3,906	4,219	4,610	4,927	5,094	5,616	6,056	7,073
Black students in HBCU	3,384	3,632	3,528	3,746	4,134	4,303	4,429	5,129
Science and engineering	3,174	3,279	3,082	3,233	3,563	3,519	3,623	4,000
Science	2,883	2,995	2,799	2,939	3,219	3,217	3,285	3,672
Agricultural sciences	143	143	164	181	135	172	178	260
Biological sciences	511	538	536	546	518	540	525	573
Computer sciences	217	219	199	216	161	202	286	283
Earth, atmospheric, and ocean sciences	34	43	40	36	57	60	63	51
Mathematical sciences	157	128	107	129	120	121	120	105
Physical sciences	279	286	229	179	186	170	173	167
Psychology	430	490	399	451	705	747	761	891
Social sciences	1,112	1,148	1,125	1,201	1,337	1,205	1,179	1,342
Engineering	291	284	283	294	344	302	338	328
Health fields	210	353	446	513	571	784	806	1,129
Percentage of black students in HBCU	14.7	15.4	14.5	14.9	15.9	15.9	15.4	16.4
Science and engineering	16.6	17.0	15.7	15.9	17.1	16.4	16.0	16.6
Science	17.8	18.2	16.6	17.0	18.0	17.3	16.8	17.6
Agricultural sciences	47.0	49.7	47.7	58.4	46.2	52.6	47.5	56.3
Biological sciences	25.9	25.6	25.0	24.6	23.1	23.0	21.2	20.7
Computer sciences	17.0	16.8	14.7	14.5	10.6	11.8	15.1	14.6
Earth, atmospheric, and ocean sciences	15.5	21.2	19.8	16.9	25.9	26.4	23.7	18.9
Mathematical sciences	22.1	19.5	17.5	21.7	21.0	20.5	19.2	16.0
Physical sciences	28.3	30.0	25.1	19.8	20.3	19.4	19.4	17.8
Psychology	12.5	13.4	10.5	12.0	16.7	17.2	16.9	19.1
Social sciences	15.3	15.7	15.1	15.3	16.9	14.8	13.8	14.6
Engineering	10.0	9.9	10.0	9.9	11.6	10.4	11.0	10.2
Health fields	5.4	8.4	9.7	10.4	11.2	14.0	13.3	16.0

HBCU = historically black colleges and universities.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 52. Black, non-Hispanic U.S. citizen and permanent resident graduate students in science, engineering, and health fields in all institutions and in historically black colleges and universities, by field and sex: 1998–2003

Field	Male						Female					
	1998	1999	2000	2001	2002	2003	1998	1999	2000	2001	2002	2003
Black students in all institutions	9,245	9,528	9,289	9,436	10,023	10,743	15,016	15,672	16,639	17,639	18,706	20,464
Science and engineering	8,320	8,565	8,298	8,383	8,910	9,441	11,331	11,708	12,536	13,076	13,763	14,693
Science	6,378	6,576	6,348	6,449	6,898	7,270	10,452	10,732	11,509	12,095	12,701	13,652
Agricultural sciences	168	159	139	126	162	196	176	151	153	201	213	266
Biological sciences	764	761	760	792	813	859	1,377	1,457	1,481	1,559	1,667	1,903
Computer sciences	764	815	844	943	1,063	1,124	591	670	668	766	835	821
Earth, atmospheric, and ocean sciences	103	112	120	125	135	130	99	101	100	102	131	140
Mathematical sciences	339	324	299	320	340	376	274	270	273	270	286	282
Physical sciences	481	501	493	462	486	508	432	402	425	413	407	431
Psychology	887	905	871	868	946	926	2,926	2,844	3,343	3,479	3,545	3,744
Social sciences	2,872	2,999	2,822	2,813	2,953	3,151	4,577	4,837	5,066	5,305	5,617	6,065
Engineering	1,942	1,989	1,950	1,934	2,012	2,171	879	976	1,027	981	1,062	1,041
Health fields	925	963	991	1,053	1,113	1,302	3,685	3,964	4,103	4,563	4,943	5,771
Black students in HBCU	1,340	1,477	1,435	1,424	1,498	1,692	2,188	2,269	2,699	2,879	2,931	3,437
Science and engineering	1,237	1,368	1,323	1,234	1,309	1,412	1,845	1,865	2,240	2,285	2,314	2,588
Science	1,047	1,190	1,131	1,050	1,112	1,202	1,752	1,749	2,088	2,167	2,173	2,470
Agricultural sciences	77	95	68	58	71	115	87	86	67	114	107	145
Biological sciences	168	171	150	150	146	166	368	375	368	390	379	407
Computer sciences	107	107	89	99	152	144	92	109	72	103	134	139
Earth, atmospheric, and ocean sciences	20	21	31	35	32	27	20	15	26	25	31	24
Mathematical sciences	57	66	58	63	56	62	50	63	62	58	64	43
Physical sciences	114	94	104	91	89	92	115	85	82	79	84	75
Psychology	97	125	118	137	158	146	302	326	587	610	603	745
Social sciences	407	511	513	417	408	450	718	690	824	788	771	892
Engineering	190	178	192	184	197	210	93	116	152	118	141	118
Health fields	103	109	112	190	189	280	343	404	459	594	617	849
Percentage of black students in HBCU	14.5	15.5	15.4	15.1	14.9	15.7	14.6	14.5	16.2	16.3	15.7	16.8
Science and engineering	14.9	16.0	15.9	14.7	14.7	15.0	16.3	15.9	17.9	17.5	16.8	17.6
Science	16.4	18.1	17.8	16.3	16.1	16.5	16.8	16.3	18.1	17.9	17.1	18.1
Agricultural sciences	45.8	59.7	48.9	46.0	43.8	58.7	49.4	57.0	43.8	56.7	50.2	54.5
Biological sciences	22.0	22.5	19.7	18.9	18.0	19.3	26.7	25.7	24.8	25.0	22.7	21.4
Computer sciences	14.0	13.1	10.5	10.5	14.3	12.8	15.6	16.3	10.8	13.4	16.0	16.9
Earth, atmospheric, and ocean sciences	19.4	18.8	25.8	28.0	23.7	20.8	20.2	14.9	26.0	24.5	23.7	17.1
Mathematical sciences	16.8	20.4	19.4	19.7	16.5	16.5	18.2	23.3	22.7	21.5	22.4	15.2
Physical sciences	23.7	18.8	21.1	19.7	18.3	18.1	26.6	21.1	19.3	19.1	20.6	17.4
Psychology	10.9	13.8	13.5	15.8	16.7	15.8	10.3	11.5	17.6	17.5	17.0	19.9
Social sciences	14.2	17.0	18.2	14.8	13.8	14.3	15.7	14.3	16.3	14.9	13.7	14.7
Engineering	9.8	8.9	9.8	9.5	9.8	9.7	10.6	11.9	14.8	12.0	13.3	11.3
Health fields	11.1	11.3	11.3	18.0	17.0	21.5	9.3	10.2	11.2	13.0	12.5	14.7

HBCU = historically black colleges and universities.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 53. Black, non-Hispanic U.S. citizen and permanent resident full-time graduate students in science, engineering, and health fields in all institutions and in historically black colleges and universities, by field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Black students in all institutions	12,989	13,567	13,782	13,963	15,014	15,307	16,347	17,679
Science and engineering	10,983	11,401	11,299	11,211	12,079	12,057	12,831	13,520
Science	9,318	9,727	9,721	9,605	10,365	10,401	11,026	11,681
Agricultural sciences	227	233	221	218	244	267	289	348
Biological sciences	1,480	1,669	1,638	1,687	1,718	1,817	1,942	2,103
Computer sciences	475	494	476	537	608	655	800	801
Earth, atmospheric, and ocean sciences	128	137	134	137	159	140	193	195
Mathematical sciences	422	386	355	342	349	359	369	383
Physical sciences	769	741	728	700	691	683	697	736
Psychology	2,084	2,221	2,417	2,200	2,574	2,515	2,484	2,567
Social sciences	3,733	3,846	3,752	3,784	4,022	3,965	4,252	4,548
Engineering	1,665	1,674	1,578	1,606	1,714	1,656	1,805	1,839
Health fields	2,006	2,166	2,483	2,752	2,935	3,250	3,516	4,159
Black students in HBCU	2,086	2,308	2,184	2,288	2,682	2,634	2,779	3,152
Science and engineering	1,954	2,070	1,871	1,917	2,270	2,067	2,167	2,268
Science	1,735	1,849	1,665	1,697	1,990	1,854	1,888	2,015
Agricultural sciences	99	124	107	120	114	133	141	194
Biological sciences	387	415	400	420	416	414	387	427
Computer sciences	90	114	80	109	110	125	165	152
Earth, atmospheric, and ocean sciences	9	22	17	13	36	25	36	34
Mathematical sciences	99	79	67	80	75	78	70	63
Physical sciences	217	215	185	145	139	129	130	116
Psychology	259	287	254	194	282	300	293	308
Social sciences	575	593	555	616	818	650	666	721
Engineering	219	221	206	220	280	213	279	253
Health fields	132	238	313	371	412	567	612	884
Percentage of black students in HBCU	16.1	17.0	15.8	16.4	17.9	17.2	17.0	17.8
Science and engineering	17.8	18.2	16.6	17.1	18.8	17.1	16.9	16.8
Science	18.6	19.0	17.1	17.7	19.2	17.8	17.1	17.3
Agricultural sciences	43.6	53.2	48.4	55.0	46.7	49.8	48.8	55.7
Biological sciences	26.1	24.9	24.4	24.9	24.2	22.8	19.9	20.3
Computer sciences	18.9	23.1	16.8	20.3	18.1	19.1	20.6	19.0
Earth, atmospheric, and ocean sciences	7.0	16.1	12.7	9.5	22.6	17.9	18.7	17.4
Mathematical sciences	23.5	20.5	18.9	23.4	21.5	21.7	19.0	16.4
Physical sciences	28.2	29.0	25.4	20.7	20.1	18.9	18.7	15.8
Psychology	12.4	12.9	10.5	8.8	11.0	11.9	11.8	12.0
Social sciences	15.4	15.4	14.8	16.3	20.3	16.4	15.7	15.9
Engineering	13.2	13.2	13.1	13.7	16.3	12.9	15.5	13.8
Health fields	6.6	11.0	12.6	13.5	14.0	17.4	17.4	21.3

HBCU = historically black colleges and universities.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE 54. Black, non-Hispanic U.S. citizen and permanent resident full-time graduate students in science, engineering, and health fields in all institutions and in historically black colleges and universities, by field and sex: 1998–2003

Field	Male						Female					
	1998	1999	2000	2001	2002	2003	1998	1999	2000	2001	2002	2003
Black students in all institutions	5,313	5,306	5,419	5,356	5,786	6,131	8,469	8,657	9,595	9,951	10,561	11,548
Science and engineering	4,736	4,720	4,809	4,679	5,094	5,312	6,563	6,491	7,270	7,378	7,737	8,208
Science	3,702	3,686	3,752	3,631	3,956	4,112	6,019	5,919	6,613	6,770	7,070	7,569
Agricultural sciences	95	108	113	101	124	149	126	110	131	166	165	199
Biological sciences	604	583	603	613	657	670	1,034	1,104	1,115	1,204	1,285	1,433
Computer sciences	269	304	344	376	457	478	207	233	264	279	343	323
Earth, atmospheric, and ocean sciences	67	63	83	76	93	89	67	74	76	64	100	106
Mathematical sciences	206	188	181	198	205	210	149	154	168	161	164	173
Physical sciences	390	390	377	364	392	399	338	310	314	319	305	337
Psychology	563	528	544	525	525	521	1,854	1,672	2,030	1,990	1,959	2,046
Social sciences	1,508	1,522	1,507	1,378	1,503	1,596	2,244	2,262	2,515	2,587	2,749	2,952
Engineering	1,034	1,034	1,057	1,048	1,138	1,200	544	572	657	608	667	639
Health fields	577	586	610	677	692	819	1,906	2,166	2,325	2,573	2,824	3,340
Black students in HBCU	836	946	993	909	979	1,097	1,348	1,342	1,689	1,725	1,800	2,055
Science and engineering	767	865	905	760	836	883	1,104	1,052	1,365	1,307	1,331	1,385
Science	622	725	752	629	670	719	1,043	972	1,238	1,225	1,218	1,296
Agricultural sciences	43	63	57	45	56	86	64	57	57	88	85	108
Biological sciences	129	125	123	119	112	132	271	295	293	295	275	295
Computer sciences	41	54	59	61	88	86	39	55	51	64	77	66
Earth, atmospheric, and ocean sciences	8	7	21	17	18	18	9	6	15	8	18	16
Mathematical sciences	41	45	36	40	35	41	26	35	39	38	35	22
Physical sciences	96	80	83	70	71	64	89	65	56	59	59	52
Psychology	63	48	47	61	57	43	191	146	235	239	236	265
Social sciences	201	303	326	216	233	249	354	313	492	434	433	472
Engineering	145	140	153	131	166	164	61	80	127	82	113	89
Health fields	69	81	88	149	143	214	244	290	324	418	469	670
Percentage of black students in HBCU	15.7	17.8	18.3	17.0	16.9	17.9	15.9	15.5	17.6	17.3	17.0	17.8
Science and engineering	16.2	18.3	18.8	16.2	16.4	16.6	16.8	16.2	18.8	17.7	17.2	16.9
Science	16.8	19.7	20.0	17.3	16.9	17.5	17.3	16.4	18.7	18.1	17.2	17.1
Agricultural sciences	45.3	58.3	50.4	44.6	45.2	57.7	50.8	51.8	43.5	53.0	51.5	54.3
Biological sciences	21.4	21.4	20.4	19.4	17.0	19.7	26.2	26.7	26.3	24.5	21.4	20.6
Computer sciences	15.2	17.8	17.2	16.2	19.3	18.0	18.8	23.6	19.3	22.9	22.4	20.4
Earth, atmospheric, and ocean sciences	11.9	11.1	25.3	22.4	19.4	20.2	13.4	8.1	19.7	12.5	18.0	15.1
Mathematical sciences	19.9	23.9	19.9	20.2	17.1	19.5	17.4	22.7	23.2	23.6	21.3	12.7
Physical sciences	24.6	20.5	22.0	19.2	18.1	16.0	26.3	21.0	17.8	18.5	19.3	15.4
Psychology	11.2	9.1	8.6	11.6	10.9	8.3	10.3	8.7	11.6	12.0	12.0	13.0
Social sciences	13.3	19.9	21.6	15.7	15.5	15.6	15.8	13.8	19.6	16.8	15.8	16.0
Engineering	14.0	13.5	14.5	12.5	14.6	13.7	11.2	14.0	19.3	13.5	16.9	13.9
Health fields	12.0	13.8	14.4	22.0	20.7	26.1	12.8	13.4	13.9	16.2	16.6	20.1

HBCU = historically black colleges and universities.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

APPENDIX A. TECHNICAL NOTES

SURVEY UNIVERSE

The data collected in the 2003 Survey of Graduate Students and Postdoctorates in Science and Engineering represent national estimates of graduate enrollment and postdoctoral employment as of fall 2003 in all U.S. academic institutions that granted doctorates or master's degrees in any science, engineering, or selected health-related field.¹ The survey collects data for all branch campuses, affiliated research centers, and separately organized components, such as medical or dental schools, nursing schools, and schools of public health. The survey universe consisted of 712 reporting units (schools) at 591 graduate institutions: 226 reporting units at 226 master's-granting institutions, and 486 reporting units at 365 doctorate-granting institutions.

Data on graduate science and engineering (S&E) enrollment and postdoctoral appointees have been collected since 1966. From fall 1966 through fall 1971, the NSF Graduate Traineeship Program collected these data from a limited number of doctorate-granting institutions and requested data on only those S&E fields supported by NSF. The NSF Universities and Nonprofit Institutions Studies Group began collecting these data with the fall 1972 survey. Between 1972 and 1975, eligibility definitions were changed to include health-related fields and to increase the number of S&E fields surveyed. In addition, the survey was broadened to include all institutions known to have programs leading to a master's or doctoral degree in science and engineering. Because of these changes, data for 1974 and earlier years are not comparable with 1975 and later data.

Table A-1 shows the number of institutions, reporting units, and departments at each level included in the data, as well as the total enrollment reported for each year between 1966 and 2003. The data for 1966–74 are not inflated to reflect universe totals. Beginning with the fall 1984 academic year, the survey included master's-granting institutions on a sample basis. From 1984 through 1987, the survey design incorporated a stratified random sample with a certainty stratum that included all doctorate-granting institutions; all master's-granting, historically black colleges and universities; and all land-grant institutions. NSF divided the remaining master's-granting institutions into two sample strata based on

enrollment size. In 1988 NSF reestimated data for sampled institutions for the years 1984–87 on the basis of 1983 and 1988 data. During the 1989 survey cycle, NSF revised the S&E field definitions, resulting in the deletion of some departments. NSF adjusted data for 1975–88 to conform to the revised definitions. The fall 1988 survey universe included for the first time since 1983 all eligible institutions, not just a sample. Since 1988 the survey universe has included any institutions establishing S&E and selected health-related master's or doctoral programs and has excluded any that have closed all their S&E graduate programs. (See Survey Methodology.)

Tables A-2 and A-3 present data on departmental coverage by S&E and health-related fields for doctorate- and master's-granting institutions for the years 1996–2003.

SURVEY INSTRUMENT

The 2002 and 2003 survey instruments are essentially the same. The survey instrument consists of two forms: Form 811, a list of departments provided in the previous survey cycle for the School Coordinator to update; and Form 812, a series of questions completed by the Departmental Coordinator that obtain counts of students and data on key characteristics of interest, such as race, sex, citizenship, and source of funding. In addition to the questionnaires, which include instructions, the survey package contains the following:

- an enclosure detailing mailing package contents
- a flyer explaining NSF's academic S&E surveys
- a cover letter to survey coordinators at graduate schools or at medical schools
- a computer-generated list of departments or programs (NSF Form 811) specific to each institution surveyed and based on the departments known to exist in the previous survey cycle
- a crosswalk showing National Center for Education Statistics instructional program codes corresponding to each S&E field as defined by NSF
- a postcard for respondent use, acknowledging receipt of the survey and indicating any changes in coordinator name, address, telephone number, or e-mail address

¹ See <http://www.nsf.gov/statistics/gradpostdoc/> for additional survey information and for available data related to graduate students and postdoctorates in science and engineering.

- a flyer informing coordinators of their ID numbers and passwords to use in responding to the survey through the NSF-NIH Graduate Student Survey Web-Based Data Reporting System
- an enclosure encouraging respondents to view last year's data on the Web through the NSF Division of Science Resources Statistics home page

Since the 1998 survey, coordinators and departmental respondents have had the option of providing data using the NSF-NIH Graduate Student Survey Web-based Reporting system. In 2003, 595 of the reporting units elected to do so.

SURVEY METHODOLOGY

In addition to the verification information cited above, the acknowledgment postcard also requested that institutional coordinators indicate how the data were collected, whether the data were maintained centrally or collected from individual departments, and whether they were derived from a computerized database or were hand tabulated. Of the 712 reporting units, 99.6 percent have provided this information during the past 10 years. The majority of reporting units indicate a combination of sources for their data. Over the years, the use of computerized systems has shown a gradual but small increase.

Institutional coordinators review the departmental listing provided in the survey packet and indicate any changes in their departmental structure, such as departments newly formed, phased out, split, or merged; they check off any departments that had neither graduate students nor postdoctorates and for which survey questionnaires would therefore not be submitted. Institutional coordinators returned revised Form 811s to the survey contractor for use as a checklist in tracking departmental responses.

Institutions completed a survey questionnaire for each department either centrally or at the department level and returned the questionnaire to the survey contractor for data entry, editing, and tabulation. The survey contractor referred arithmetic errors, inconsistencies between items, and sharp year-to-year fluctuations to the institutional coordinators for correction or clarification.

RESPONSE RATE

Of the 712 reporting units included in the fall 2003 survey, 702 (98.6 percent) provided at least partial data. The 702 reporting units represent, at the departmental

level, 12,052 responding departments, or 98.3 percent of the 12,261 departments surveyed.

Of the total departments surveyed, 10,343 departments (84.4 percent) provided a complete response, 1,709 (14.0 percent) had one or more data cells imputed, and 209 (1.7 percent) required complete imputation. Table A-4 presents the department response rates for earlier years for comparison.

The survey contractor imputed missing data for departments that provided partial responses using data from the previous year, where available, or from peer institutions if data had not been reported the previous year. The contractor imputed data for nonrespondent departments (those that did not provide any data) using data from the previous year, where available. Tables A-5 and A-6 show the number of departments in doctorate- and master's-granting institutions that required total or partial imputation, graduate enrollment and postdoctorates imputed, and imputation rates. Tables A-7 through A-9 provide imputation rates by specific data items.

CHANGES IN DATA ITEMS

Over time, changes have made to the content of the survey to keep it relevant to the needs of the data users. Such changes prevent precise maintenance of trend data. Therefore, some data items are not available for all institutions in all years. Major changes in the data collected and the year the changes became effective include the following:

- Data Collection

- 1975. Graduate institutions that granted only masters' degrees were asked to provide estimates for the number of full- and part-time students and the number of postdoctorates and/or research associates.
- 1976–77. Data for master's-granting institutions were collected on an abbreviated form of the survey (short form), which did not collect data on citizenship of graduate students.
- 1978. Doctorate-granting institutions received a short form of the survey collecting selected data items; master's-granting institutions were not surveyed.
- 1979. All graduate schools were surveyed using the same form; the full-scale survey was resumed.

- Sex

1976–77. Master’s-granting institutions were requested to provide data on all graduate students by sex.

1978. Doctorate-granting institutions received a short form of the survey collecting selected data items, which did not request any information on sex; 1978 figures in the tables represent estimates based on 1977 and 1979 data. Master’s-granting institutions were not surveyed.

1979. Data on sex were requested for all graduate students in all institutions.

1993. The survey began collecting race/ethnicity data by sex.

- Race/ethnicity

1979. The survey began collecting race/ethnicity data as an optional data item; collection of this information became an official part of the survey in 1980.

1993. The survey began collecting race/ethnicity data by sex.

1999. The survey presented respondents with new race/ethnicity categories. The “Asian/Pacific Islander” category used in previous years’ surveys became two categories: “Asian” and “Native Hawaiian/Pacific Islander.” In addition, the survey included two new categories, “More than One Race Hispanic” and “More than One Race NonHispanic.” The 1999 survey excluded the “Other” category included in previous years’ surveys. These changes are also not reflected in the 2003 published tables. In each of the 5 years of collecting these data, only about 8 percent of the departments reported data in any of the new categories. For this year’s table production, as in the previous 4 years, the data reported in the new categories are combined into previous survey categories. The data are combined for the tables as follows: the “Asian” category and the “Native Hawaiian/Pacific Islander” category form the Asian/Pacific Islander category; the “One Race Only Hispanic” category and the

“More than One Race Hispanic” category form the “Hispanic” category; and the “More than One Race Non-Hispanic” category and the “Unknown” category form the “Other or Unknown” category.

- Citizenship

1972–77. The survey collected citizenship data only for graduate students enrolled full time in doctorate-granting institutions.

1975-77. Citizenship data were not collected from master’s-degree only institutions for either full-time or part-time students. Degree data for master’s-degree granting institutions were estimated in 1975. For survey years 1976 and 1977, data for master’s-granting institutions were collected on an abbreviated form of the survey (short form), which did not collect data on citizenship.

1978. Doctorate-granting institutions received a short form of the survey, which did not collect any citizenship data; 1978 figures in the tables represent estimates based on 1977 and 1979 data. Master’s-granting institutions were not surveyed.

1979. The survey began collecting data on citizenship of all full-time graduate students.

1983. The survey began collecting data on citizenship on graduate students enrolled part time.

- First-time enrollment

1999. The survey began collecting data on first-time enrollment by race/ethnicity. These first-time enrollment data are not reflected in the 2003 published tables.

- Graduate-student support

1978. The survey did not collect data on mechanisms of support for full-time students. All mechanisms-of-support data for that year were combined and appear as “other types of support” in any data tables. Master’s-granting institutions were not surveyed. The 1978 figures shown in the tables for master’s-granting institutions represent estimates based on 1977 and 1979 data.

1979. The survey began collecting separate data on mechanisms of support for fellowships and traineeships (prior years combined these mechanisms); and “other non-faculty research staff with doctorates” with post-doctoral appointees.
1985. The survey began collecting separate data on students receiving their primary support from the U.S. Department of Agriculture.
1996. The survey began collecting separate data on students receiving their primary support from the National Aeronautics and Space Administration.
1999. The survey began collecting separate data on students receiving their primary support from the Department of Energy.

DATA REVISIONS

During the fall 1988 survey cycle, a review of the survey universe and of the S&E definition resulted in the exclusion of those departments that were not primarily oriented toward granting research degrees. A number of departments—mostly those in the field of “Social sciences,

not elsewhere classified”—were primarily engaged in training teachers, practitioners, administrators, or managers rather than researchers; thus, they were no longer eligible for the survey. During the 1989–2003 survey cycles this process continued, and adjustments were made to ensure trend consistency for the entire 1975–2003 period. These changes resulted in a reduction in total enrollments and social science enrollments for all years. Table A-10 shows the net effect on enrollment data of these adjustments over the years.

In fall 1992 an institution’s previous year’s data for highest S&E degree were changed to reflect the institution’s highest S&E degree in the current year. This change resulted in a smaller decrease in enrollment at doctorate-granting institutions than at master’s-granting institutions, given that over the years a number of master’s-granting institutions had become doctorate-granting institutions.

During the fall 1992 survey cycle, the definition of medical schools changed to include only those institutional components with membership in the Association of American Medical Colleges. Data collected before this change are not comparable with data collected after the fall 1992 survey.

TABLE A-1. The NSF data collection series: 1966–2003

Year	Institutions surveyed	Reporting units (schools) surveyed	Departments surveyed			Graduate enrollment in surveyed fields		
			Total	Master's	Doctorate	Total	Full time	Part time
Graduate Traineeship Program								
1966	204	204	2,866	441	2,425	169,303	124,255	45,048
1967	209	209	3,014	434	2,580	179,622	133,972	45,650
1968	219	219	3,190	454	2,736	184,759	140,714	44,045
1969	224	224	3,354	460	2,894	196,341	147,515	48,826
1970	227	227	3,544	473	3,071	201,918	153,250	48,668
1971 ^a	224	224	3,397	407	2,990	214,680	164,764	49,916
Doctorate institutions								
1972	251	320	4,559	756	3,803	207,262	159,211	48,051
1973	254	332	6,514	843	5,671	213,892	161,414	52,478
1974	275	366	7,459	1,379	6,080	259,317	190,412	68,905
1975	339	437	7,980	1,807	6,173	299,755	208,705	91,050
1976	349	448	8,079	1,865	6,214	304,017	212,529	91,488
1977	351	454	8,312	2,002	6,310	312,584	215,080	97,504
1978	336	445	8,319	1,937	6,382	306,074	211,083	94,991
1979	365	481	8,561	2,079	6,482	322,318	219,296	103,022
1980	364	480	8,665	2,125	6,540	331,803	225,451	106,352
1981	364	478	8,593	2,122	6,471	338,163	229,158	109,005
1982	363	478	8,455	2,113	6,342	344,734	232,436	112,298
1983	364	479	8,331	2,078	6,253	351,581	238,539	113,042
1984	344	463	8,299	2,012	6,287	352,559	239,140	113,419
1985	344	458	8,413	2,053	6,360	361,623	242,503	119,120
1986	344	460	8,488	2,062	6,426	372,359	251,329	121,030
1987	347	465	8,604	2,066	6,538	378,061	255,840	122,221
1988	369	488	8,903	2,204	6,699	385,283	261,896	123,387
1989	370	489	9,030	2,222	6,808	393,152	269,046	124,106
1990	369	487	9,177	2,275	6,902	407,615	277,924	129,691
1991	369	487	9,377	2,304	7,073	423,614	290,639	132,975
1992	369	487	9,617	2,356	7,261	443,346	305,202	138,144
1993	369	487	9,815	2,374	7,441	452,548	311,814	140,734
1994	368	486	10,029	2,435	7,594	453,113	313,215	139,898
1995	367	485	10,205	2,487	7,718	447,464	309,807	137,657
1996	368	486	10,222	2,540	7,682	442,137	308,568	133,569
1997	367	489	10,199	2,615	7,584	435,786	306,806	128,980
1998	367	488	10,288	2,634	7,654	433,427	306,093	127,334
1999	368	489	10,401	2,601	7,800	440,698	312,993	127,705
2000	367	488	10,446	2,645	7,801	440,959	318,735	122,224
2001	370	491	10,481	2,629	7,852	456,129	331,313	124,816
2002	365	486	10,632	2,680	7,952	484,368	354,260	130,108
2003	365	486	10,750	2,687	8,063	507,247	371,784	135,463
Master's institutions								
1975 ^b	245	245	1,023	1,023	NA	28,755	10,943	17,812
1976	245	245	1,031	1,031	NA	29,699	10,883	18,816
1977	250	250	1,080	1,080	NA	32,790	11,658	21,132
1978 ^c	263	263	1,190	1,190	NA	33,838	11,947	21,891
1979	264	264	1,125	1,125	NA	35,260	12,464	22,796
1980	262	262	1,133	1,133	NA	35,275	12,965	22,310
1981	258	258	1,135	1,135	NA	36,967	12,891	24,076
1982	246	246	1,129	1,129	NA	37,557	12,321	25,236
1983	244	244	1,136	1,136	NA	38,851	13,478	25,373
1984	67	67	492	492	NA	42,111	14,782	27,329
1985	67	67	498	498	NA	42,398	14,784	27,614

TABLE A-1. The NSF data collection series: 1966–2003

Year	Institutions surveyed	Reporting units (schools) surveyed	Departments surveyed			Graduate enrollment in surveyed fields		
			Total	Master's	Doctorate	Total	Full time	Part time
1986	67	67	497	497	NA	43,161	14,839	28,322
1987	68	68	500	500	NA	43,436	15,216	28,220
1988	235	235	1,112	1,112	NA	39,240	13,231	26,009
1989	237	237	1,157	1,157	NA	41,326	13,602	27,724
1990	239	240	1,181	1,181	NA	44,498	14,858	29,640
1991	238	239	1,221	1,221	NA	47,598	16,371	31,227
1992	237	238	1,255	1,255	NA	50,176	17,353	32,823
1993	235	236	1,288	1,288	NA	51,756	17,830	33,926
1994	235	236	1,336	1,336	NA	51,286	18,873	32,413
1995	234	235	1,361	1,361	NA	52,176	19,476	32,700
1996	233	234	1,357	1,357	NA	51,942	19,968	31,974
1997	232	233	1,390	1,390	NA	51,422	20,483	30,939
1998	232	233	1,397	1,397	NA	52,200	21,296	30,904
1999	229	230	1,426	1,426	NA	52,558	21,430	31,128
2000	227	228	1,448	1,448	NA	52,352	22,548	29,804
2001	229	229	1,481	1,481	NA	53,491	23,209	30,282
2002	229	229	1,494	1,494	NA	56,145	24,728	31,417
2003	226	226	1,511	1,511	NA	59,588	26,226	33,362

NA = not available.

^a The 1972 survey also collected selected data for 1971.

^b The 1976 survey also collected 1975 data from master's-granting institutions.

^c Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

NOTES: Data for 1966–74 are not inflated to reflect universe totals. Master's-granting institutions were surveyed on a sample basis in 1984-87. See appendix A, Technical Notes, for further information.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE A-2. Science, engineering, and health departments in doctorate-granting institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	10,222	10,199	10,288	10,401	10,446	10,481	10,632	10,750
Science and engineering	7,328	7,350	7,416	7,485	7,531	7,550	7,627	7,752
Science	5,900	5,899	5,944	5,993	6,014	6,039	6,113	6,196
Agricultural sciences	330	340	346	340	343	350	357	362
Biological sciences	1,982	1,953	1,972	1,990	1,978	1,984	2,040	2,061
Anatomy	91	87	84	82	80	80	83	80
Biochemistry	192	192	192	193	186	183	188	185
Biology	246	252	256	257	256	253	254	259
Biometry/epidemiology	72	72	73	75	76	79	88	91
Biophysics	34	31	31	31	30	31	33	33
Botany	88	85	84	78	76	77	76	76
Cell biology	132	133	146	147	154	154	159	160
Ecology	31	30	31	36	37	39	42	43
Entomology/parasitology	48	48	49	47	46	46	44	44
Genetics	84	83	83	85	87	91	93	99
Microbiology/immunology/virology	261	251	254	261	260	255	261	259
Nutrition	128	126	128	129	128	126	125	127
Pathology	140	139	136	135	133	134	133	131
Pharmacology	164	159	159	162	160	161	166	165
Physiology	144	138	133	133	130	125	128	124
Zoology	43	39	38	38	34	33	31	32
Biosciences, nec	84	88	95	101	105	117	136	153
Computer sciences	296	300	307	316	327	336	348	361
Earth, atmospheric, and ocean sciences	353	356	365	364	367	366	364	369
Atmospheric sciences	33	32	33	32	33	33	34	34
Geosciences	213	210	209	206	205	206	203	204
Oceanography	49	50	55	58	57	55	55	57
Earth/atmospheric/ocean sciences, nec	58	64	68	68	72	72	72	74
Mathematical sciences	406	405	403	403	400	402	402	402
Mathematics/applied mathematics	323	323	322	321	316	317	316	316
Statistics	83	82	81	82	84	85	86	86
Physical sciences	590	592	596	597	595	596	585	586
Astronomy	35	35	36	36	38	38	38	38
Chemistry	279	280	279	283	280	282	274	273
Physics	254	257	259	253	249	246	243	247
Physical sciences, nec	22	20	22	25	28	30	30	28
Psychology	583	590	593	610	616	618	615	628
Clinical psychology	129	132	131	134	134	136	136	141
Psychology, general	180	183	185	186	190	188	188	188
Psychology, nec	274	275	277	290	292	294	291	299
Social sciences	1,360	1,363	1,362	1,373	1,388	1,387	1,402	1,427
Agricultural economics	55	55	55	55	55	55	57	57
Anthropology (cultural/social)	136	139	136	136	134	132	133	135
Economics (except agricultural)	204	204	202	202	201	201	196	196
Geography	101	102	103	103	103	102	106	106
History and philosophy of science	23	23	23	24	26	26	25	25
Linguistics	72	71	70	71	72	72	71	72
Political science	343	346	347	350	354	352	357	366
Sociology	187	184	184	183	182	182	182	180
Sociology/anthropology	24	24	23	23	23	23	22	23
Social sciences, nec	215	215	219	226	238	242	253	267
Engineering	1,428	1,451	1,472	1,492	1,517	1,511	1,514	1,556
Aerospace engineering	52	54	54	56	57	55	54	55
Agricultural engineering	38	38	38	39	40	38	38	37

TABLE A-2. Science, engineering, and health departments in doctorate-granting institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Biomedical engineering	61	64	72	77	81	81	84	96
Chemical engineering	145	145	145	148	149	148	145	145
Civil engineering	231	236	238	245	250	254	253	259
Electrical engineering	239	243	246	247	251	251	251	257
Engineering science	36	36	38	40	39	38	37	41
Industrial/manufacturing engineering	168	169	169	167	173	175	172	176
Mechanical engineering	191	191	192	192	191	192	192	192
Metallurgical/materials engineering	108	113	114	113	110	109	107	112
Mining engineering	24	24	24	24	25	24	23	22
Nuclear engineering	24	23	24	24	24	23	23	23
Petroleum engineering	20	18	17	16	18	17	18	18
Engineering, nec	91	97	101	104	109	106	117	123
Health	2,894	2,849	2,872	2,916	2,915	2,931	3,005	2,998
Medical fields	2,117	2,057	2,056	2,077	2,038	2,037	2,078	2,049
Anesthesiology	89	88	88	86	86	88	88	87
Cardiology	71	71	71	72	71	70	68	69
Endocrinology	74	71	71	72	70	68	67	66
Gastroenterology	71	68	68	68	68	67	65	64
Hematology	72	71	69	72	71	70	67	66
Neurology	152	155	157	164	162	164	171	174
Obstetrics/gynecology	95	90	91	91	88	88	89	86
Oncology/cancer research	57	62	63	71	70	74	89	89
Ophthalmology	78	78	78	78	76	76	77	75
Otorhinolaryngology	72	68	64	64	62	63	62	60
Pediatrics	118	111	112	110	110	109	110	109
Preventive medicine/community health	188	186	193	197	195	192	194	191
Psychiatry	104	102	101	100	98	98	104	103
Pulmonary disease	68	66	67	66	64	64	63	61
Radiology	138	134	129	131	128	127	128	123
Surgery	259	245	244	246	240	239	234	231
Clinical medicine, nec	411	391	390	389	379	380	402	395
Other health fields	777	792	816	839	877	894	927	949
Dental sciences	86	81	78	79	82	83	85	82
Nursing	150	155	160	163	164	165	166	177
Pharmaceutical sciences	93	91	93	92	87	87	87	90
Speech pathology/audiology	142	143	146	148	157	156	159	159
Veterinary sciences	49	50	52	55	62	62	68	71
Health related, nec	257	272	287	302	325	341	362	370

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE A-3. Science, engineering, and health departments in master's-granting institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
All surveyed fields	1,357	1,390	1,397	1,426	1,448	1,481	1,494	1,511
Science and engineering	1,152	1,173	1,178	1,190	1,200	1,224	1,230	1,234
Science	994	1,010	1,012	1,020	1,030	1,047	1,049	1,050
Agricultural sciences	30	29	29	29	27	26	32	33
Biological sciences	156	159	157	160	164	166	167	171
Anatomy	0	0	0	0	0	0	0	0
Biochemistry	3	3	3	3	3	3	3	4
Biology	119	120	120	120	118	119	118	118
Biometry/epidemiology	0	0	0	0	0	0	0	0
Biophysics	0	0	0	0	0	0	0	0
Botany	2	2	2	2	2	2	2	2
Cell biology	1	3	3	3	4	4	4	4
Ecology	2	4	4	4	5	5	6	6
Entomology/parasitology	0	0	0	0	0	0	0	0
Genetics	1	1	1	2	2	2	2	2
Microbiology/immunology/virology	2	3	2	2	3	3	3	3
Nutrition	12	10	10	10	10	9	10	10
Pathology	1	0	0	0	0	0	0	0
Pharmacology	0	0	0	1	1	1	0	0
Physiology	0	0	0	1	2	2	2	4
Zoology	2	2	2	2	2	2	1	1
Biosciences, nec	11	11	10	10	12	14	16	17
Computer sciences	77	76	77	80	89	95	96	102
Earth, atmospheric, and ocean sciences	55	57	58	58	60	60	61	63
Atmospheric sciences	2	2	2	1	1	1	1	1
Geosciences	26	27	27	28	30	30	31	31
Oceanography	5	6	6	6	6	5	5	5
Earth/atmospheric/ocean sciences, nec	22	22	23	23	23	24	24	26
Mathematical sciences	93	95	93	93	91	89	88	88
Mathematics/applied mathematics	88	90	88	88	86	84	83	83
Statistics	5	5	5	5	5	5	5	5
Physical sciences	97	101	100	97	92	89	89	86
Astronomy	0	0	0	0	0	0	0	0
Chemistry	61	62	61	60	59	58	57	56
Physics	26	27	27	25	23	22	23	22
Physical sciences, nec	10	12	12	12	10	9	9	8
Psychology	213	221	220	224	224	222	223	215
Clinical psychology	33	35	35	36	36	35	35	33
Psychology, general	76	76	76	78	79	79	77	74
Psychology, nec	104	110	109	110	109	108	111	108
Social sciences	273	272	278	279	283	300	293	292
Agricultural economics	3	3	3	3	2	1	1	1
Anthropology (cultural/social)	10	11	11	12	12	12	12	12
Economics (except agricultural)	29	29	30	30	30	30	28	26
Geography	21	21	21	22	21	23	24	23
History and philosophy of science	0	0	2	2	3	6	6	8
Linguistics	7	7	7	7	7	7	7	6
Political science	101	98	98	99	103	103	102	100
Sociology	33	35	36	38	37	39	39	37
Sociology/anthropology	3	3	2	2	2	2	1	2
Social sciences, nec	66	65	68	64	66	77	73	77
Engineering	158	163	166	170	170	177	181	184
Aerospace engineering	3	3	3	3	3	3	3	3
Agricultural engineering	0	0	0	0	0	0	0	0

TABLE A-3. Science, engineering, and health departments in master's-granting institutions, by detailed field: 1996–2003

Field	1996	1997	1998	1999	2000	2001	2002	2003
Biomedical engineering	3	4	4	4	4	4	4	3
Chemical engineering	7	7	7	6	6	6	6	7
Civil engineering	31	30	30	29	28	28	28	28
Electrical engineering	39	40	40	43	44	45	46	47
Engineering science	2	2	2	2	2	3	4	4
Industrial/manufacturing engineering	26	26	29	30	28	30	29	31
Mechanical engineering	19	20	21	22	23	24	22	25
Metallurgical/materials engineering	5	6	5	5	4	4	5	4
Mining engineering	2	2	2	2	2	2	2	2
Nuclear engineering	0	0	0	0	0	0	0	0
Petroleum engineering	1	1	1	1	1	1	1	1
Engineering, nec	20	22	22	23	25	27	31	29
Health	205	217	219	236	248	257	264	277
Medical fields	20	21	23	24	21	21	25	25
Anesthesiology	3	4	4	4	4	4	5	6
Cardiology	0	0	0	0	0	0	0	0
Endocrinology	0	0	0	0	0	0	0	0
Gastroenterology	0	0	0	0	0	0	0	0
Hematology	0	0	0	0	0	0	0	0
Neurology	0	0	0	0	0	0	0	0
Obstetrics/gynecology	0	0	0	0	0	0	0	0
Oncology/cancer research	0	0	0	0	0	0	0	0
Ophthalmology	1	1	1	0	0	0	0	0
Otorhinolaryngology	0	0	0	0	0	0	0	0
Pediatrics	0	0	0	0	0	0	0	0
Preventive medicine/community health	7	7	8	9	8	8	10	10
Psychiatry	1	1	1	1	1	1	2	1
Pulmonary disease	0	0	0	0	0	0	0	0
Radiology	1	1	1	1	1	1	1	1
Surgery	0	0	0	0	0	0	0	0
Clinical medicine, nec	7	7	8	9	7	7	7	7
Other health fields	185	196	196	212	227	236	239	252
Dental sciences	0	0	0	0	0	0	0	0
Nursing	64	68	68	75	80	85	84	88
Pharmaceutical sciences	1	1	1	1	1	1	1	1
Speech pathology/audiology	57	60	60	63	63	63	63	62
Veterinary sciences	0	0	0	0	0	0	0	0
Health related, nec	63	67	67	73	83	87	91	101

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE A-4. Original departmental response rates: 1975–2003

Year	Total	Complete response		Partial response		Nonresponse	
		Number	Percent	Number	Percent	Number	Percent
1975 ^a	9,162	8,998	98.2	NA	NA	NA	NA
1976	9,275	9,148	98.6	NA	NA	NA	NA
1977	9,513	9,432	99.1	NA	NA	NA	NA
1978 ^b	8,242	8,077	98.0	NA	NA	NA	NA
1979	9,796	9,446	96.4	NA	NA	NA	NA
1980	9,930	9,593	96.6	NA	NA	NA	NA
1981	9,917	8,594	86.7	613	6.2	710	7.2
1982	9,776	8,104	82.9	744	7.6	928	9.5
1983	9,663	8,070	83.5	816	8.4	777	8.0
1984	8,748	7,490	85.6	643	7.4	615	7.0
1985	9,025	7,818	86.6	672	7.4	535	5.9
1986	9,097	7,817	85.9	779	8.6	501	5.5
1987	9,254	8,030	86.8	715	7.7	509	5.5
1988	10,295	8,812	85.6	970	9.4	513	5.0
1989	10,318	8,908	86.3	891	8.6	519	5.0
1990	10,483	8,884	84.7	1,053	10.0	546	5.2
1991	10,705	9,052	84.6	1,186	11.1	467	4.4
1992	10,936	9,066	82.9	1,538	14.1	332	3.0
1993	11,146	9,156	82.1	1,555	14.0	435	3.9
1994	11,411	8,863	77.7	2,109	18.5	439	3.8
1995	11,598	9,514	82.0	1,730	14.9	354	3.1
1996	11,592	9,851	85.0	1,522	13.1	219	1.9
1997	11,597	9,720	83.8	1,665	14.4	212	1.8
1998	11,718	9,822	83.8	1,706	14.6	190	1.6
1999	11,833	9,396	79.4	2,289	19.3	148	1.3
2000	11,899	9,818	82.5	1,965	16.5	116	1.0
2001	11,967	10,121	84.6	1,731	14.5	115	1.0
2002	12,126	10,434	86.0	1,567	12.9	125	1.0
2003	12,261	10,343	84.4	1,709	13.9	209	1.7

NA = not available.

^a The 1976 survey also collected 1975 data from master's-granting institutions.

^b Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

NOTES: Figures for 1984–87 include estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984–87. See appendix A, Technical Notes, for further information. Departments providing partial responses are included in the complete response column prior to 1981 and reported separately beginning in 1981. Response rates for 2003 are as of 1 October 2004.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE A-5. Imputation for nonresponse in doctorate-granting institutions, by field and graduate enrollment or postdoctoral status: 2001–03

Field	Graduate departments		Total in survey			Number imputed			Imputation rate (%)		
	In universe	Totally imputed	Full-time student	Part-time student	Post-doctorate	Full-time student	Part-time student	Post-doctorate	Full-time student	Part-time student	Post-doctorate
Fall 2003, all fields	10,750	190	371,784	135,463	46,776	5,980	3,599	1,773	1.6	2.7	3.8
Agricultural sciences	362	0	9,509	2,900	1,052	0	0	0	0.0	0.0	0.0
Biological sciences	2,061	37	52,433	8,196	18,615	1,020	384	685	1.9	4.7	3.7
Computer sciences	361	4	28,333	18,352	372	296	359	0	1.0	2.0	0.0
Earth, atmospheric, and ocean sciences	369	6	11,021	2,507	1,184	69	27	2	0.6	1.1	0.2
Mathematical sciences	402	6	13,932	3,464	447	146	119	3	1.0	3.4	0.7
Physical sciences	586	5	30,028	3,311	6,726	83	20	2	0.3	0.6	*
Psychology	628	25	30,276	11,571	979	948	577	0	3.1	5.0	0.0
Social sciences	1,427	28	56,901	25,921	410	721	718	1	1.3	2.8	0.2
Engineering	1,556	9	87,705	31,617	3,870	604	123	0	0.7	0.4	0.0
Health fields	2,998	70	51,646	27,624	13,121	2,093	1,272	1,080	4.1	4.6	8.2
Fall 2002, all fields	10,632	115	354,260	130,108	44,965	3,345	2,185	1,003	0.9	1.7	2.2
Agricultural sciences	357	0	9,180	2,673	945	0	0	0	0.0	0.0	0.0
Biological sciences	2,040	7	49,996	7,580	17,636	178	75	416	0.4	1.0	2.4
Computer sciences	348	5	29,717	17,959	359	206	380	0	0.7	2.1	0.0
Earth, atmospheric, and ocean sciences	364	3	10,635	2,495	1,113	88	35	6	0.8	1.4	0.5
Mathematical sciences	402	2	13,096	3,315	391	17	27	0	0.1	0.8	0.0
Physical sciences	585	5	28,205	3,172	6,587	53	18	1	0.2	0.6	*
Psychology	615	15	29,263	11,841	814	501	269	0	1.7	2.3	0.0
Social sciences	1,402	24	54,079	25,147	454	544	480	0	1.0	1.9	0.0
Engineering	1,514	15	83,249	29,709	3,568	1,230	237	14	1.5	0.8	0.4
Health fields	3,005	39	46,840	26,217	13,098	528	664	566	1.1	2.5	4.3
Fall 2001, all fields	10,481	109	331,313	124,816	43,277	2,232	2,695	156	0.7	2.2	0.4
Agricultural sciences	350	2	8,947	2,475	835	14	8	0	0.2	0.3	0.0
Biological sciences	1,984	19	46,621	7,609	17,022	299	338	90	0.6	4.4	0.5
Computer sciences	336	7	27,034	17,132	335	401	283	0	1.5	1.7	0.0
Earth, atmospheric, and ocean sciences	366	2	10,045	2,706	1,036	60	24	0	0.6	0.9	0.0
Mathematical sciences	402	4	11,995	3,138	353	44	55	0	0.4	1.8	0.0
Physical sciences	596	3	26,806	3,361	6,192	12	16	0	*	0.5	0.0
Psychology	618	16	29,087	11,546	808	352	312	3	1.2	2.7	0.4
Social sciences	1,387	23	50,938	24,611	409	295	442	0	0.6	1.8	0.0
Engineering	1,511	8	75,697	28,078	3,166	137	180	27	0.2	0.6	0.9
Health fields	2,931	25	44,143	24,160	13,121	618	1,037	36	1.4	4.3	0.3

* = imputation rate less than 0.05%.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE A-6. Imputation for nonresponse in master's-granting institutions, by field and graduate enrollment or postdoctoral status: 2001–03

Field	Graduate departments		Total in survey			Number imputed			Imputation rate (%)		
	In universe	Totally imputed	Full-time student	Part-time student	Post-doctorate	Full-time student	Part-time student	Post-doctorate	Full-time student	Part-time student	Post-doctorate
Fall 2003, all fields	1,511	19	26,226	33,362	31	825	799	0	3.1	2.4	0.0
Agricultural sciences	33	0	494	294	0	0	0	0	0.0	0.0	0.0
Biological sciences	171	2	1,913	2,142	10	4	13	0	0.2	0.6	0.0
Computer sciences	102	4	2,517	4,476	2	117	341	0	4.6	7.6	0.0
Earth, atmospheric, and ocean sciences	63	1	490	637	0	4	8	0	0.8	1.3	0.0
Mathematical sciences	88	1	695	1,374	0	1	0	0	0.1	0.0	0.0
Physical sciences	86	1	413	546	17	1	4	0	0.2	0.7	0.0
Psychology	215	2	5,501	4,677	1	273	214	0	5.0	4.6	0.0
Social sciences	292	5	4,373	7,631	0	343	176	0	7.8	2.3	0.0
Engineering	184	1	2,674	5,379	0	46	39	0	1.7	0.7	0.0
Health fields	277	2	7,156	6,206	1	36	4	0	0.5	0.1	0.0
Fall 2003, all fields	1,494	10	24,728	31,417	38	48	92	0	0.2	0.3	0.0
Agricultural sciences	32	0	505	340	0	0	0	0	0.0	0.0	0.0
Biological sciences	167	2	1,600	1,957	8	4	13	0	0.3	0.7	0.0
Computer sciences	96	0	2,862	4,731	2	0	0	0	0.0	0.0	0.0
Earth, atmospheric, and ocean sciences	61	1	481	629	1	4	8	0	0.8	1.3	0.0
Mathematical sciences	88	1	613	1,139	2	1	0	0	0.2	0.0	0.0
Physical sciences	89	1	414	550	23	1	4	0	0.2	0.7	0.0
Psychology	223	1	5,444	4,617	1	6	12	0	0.1	0.3	0.0
Social sciences	293	4	3,975	7,014	0	32	55	0	0.8	0.8	0.0
Engineering	181	0	2,184	4,526	0	0	0	0	0.0	0.0	0.0
Health fields	264	0	6,650	5,914	1	0	0	0	0.0	0.0	0.0
Fall 2003, all fields	1,481	6	23,209	30,282	38	61	96	0	0.3	0.3	0.0
Agricultural sciences	26	0	458	355	0	0	0	0	0.0	0.0	0.0
Biological sciences	166	3	1,517	1,892	7	11	19	0	0.7	1.0	0.0
Computer sciences	95	0	3,053	4,977	3	0	0	0	0.0	0.0	0.0
Earth, atmospheric, and ocean sciences	60	0	459	631	0	0	0	0	0.0	0.0	0.0
Mathematical sciences	89	0	472	1,046	0	0	0	0	0.0	0.0	0.0
Physical sciences	89	1	373	498	26	4	0	0	1.1	0.0	0.0
Psychology	222	1	5,400	4,434	1	38	17	0	0.7	0.4	0.0
Social sciences	300	0	3,368	6,765	1	0	0	0	0.0	0.0	0.0
Engineering	177	0	1,751	3,967	0	0	0	0	0.0	0.0	0.0
Health fields	257	1	6,358	5,717	0	8	60	0	0.1	1.0	0.0

* = imputation rate less than 0.05%.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE A-7. Imputation rates of full-time graduate students at all graduate institutions, by source, mechanism of support, and sex: 2003

Source of support	All sources	Fellowship	Research assistantship	Teaching assistantship	Traineeship	Other support	Female students
All sources	1.7	8.8	11.3	10.6	13.0	18.5	3.3
Federal sources							
Department of Defense	14.9	15.5	12.9	na	10.3	22.3	14.6
Department of Energy	4.1	0.6	3.9	0.0	0.0	40.0	3.4
Department of Health and Human Services							
National Institutes of Health	9.0	5.6	10.0	0.3	8.0	5.7	9.3
Other	16.3	13.5	7.9	1.5	22.0	19.6	16.7
National Aeronautics and Space Administration	10.7	11.5	10.4	0.0	19.6	19.6	9.3
National Science Foundation	10.1	7.3	10.5	10.3	19.0	7.0	9.2
U.S. Department of Agriculture	8.4	0.0	8.8	6.3	35.7	0.0	7.6
Other	12.5	7.0	11.4	3.9	25.9	16.4	13.1
Nonfederal							
Domestic	13.9	11.4	13.8	21.9	13.7	15.0	14.2
Foreign	12.7	13.4	8.0	na	20.5	14.0	13.9
Institutional	11.8	9.1	13.6	11.3	10.6	13.8	13.1
Self support	19.6	na	na	na	na	19.7	21.7

na = not applicable.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE A-8. Imputation rates of all graduate students at all graduate institutions, by race/ethnicity, enrollment status, and sex: 2003

Race/ethnicity	Part time			Full time			First time	
	Total	Male	Female	Total	Male	Female	Total	Female
All graduate students	3.1	4.5	4.7	1.7	2.7	3.3	2.2	2.7
U.S. citizens and permanent residents								
One race only, non-Hispanic/Latino								
American Indian/Alaska Native	3.7	4.5	3.0	2.2	3.3	4.9	1.0	1.7
Asian	4.7	4.9	4.4	3.5	4.5	5.9	2.9	3.8
Black	7.5	7.5	7.6	8.9	8.9	9.6	5.1	5.4
Native Hawaiian/Pacific Islander	10.3	9.8	10.6	2.9	3.1	2.9	1.6	1.5
White	4.3	3.7	4.9	3.5	4.1	4.6	4.2	4.6
One race only, Hispanic/Latino	7.5	6.1	8.6	10.7	8.3	14.3	10.9	13.4
More than one race								
Hispanic/Latino	7.1	8.5	6.2	4.6	4.9	4.4	0.5	0.0
Non-Hispanic/Latino	8.3	10.9	5.8	0.8	0.8	0.9	0.0	0.0
Unknown	5.8	4.0	7.7	3.4	4.0	6.2	3.2	4.1
Temporary-visa holders	8.5	9.3	6.6	3.6	4.4	3.3	4.7	4.7

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE A-9. Imputation rates of S&E postdoctorates and nonfaculty research staff with doctorates at all graduate institutions: 2003

Status	Total	Women	With MD, DO, DDS, or DVM degrees
Postdoctorate, all sources of support	3.8	4.7	8.2
Federal			
Fellowship	21.8	20.5	38.4
Research grant	8.8	8.8	8.6
Traineeship	12.0	9.8	14.0
Nonfederal	17.7	18.1	14.3
Foreign	5.8	6.0	11.5
Nonfaculty research staff with doctorate	2.2	3.3	2.5

DDS = Doctor of Dental Surgery, DO = Doctor of Osteopathic Medicine, DVM = Doctor of Veterinary Medicine, MD = Doctor of Medicine, S&E = science and engineering.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

TABLE A-10. Comparison of graduate enrollment data as originally published and as modified through the fall 2003 graduate student survey cycle: 1975–2003

Year	All institutions			Doctorate-granting institutions			Master's-granting institutions		
	Original total	Revised total	% change	Original total	Revised total	% change	Original total	Revised total	% change
All graduate enrollment in surveyed fields									
1975 ^a	336,843	328,510	-2.5	290,662	299,755	3.1	46,181	28,755	-37.7
1976	345,979	333,716	-3.5	297,280	304,017	2.3	48,699	29,699	-39.0
1977	362,978	345,374	-4.8	306,710	312,584	1.9	56,268	32,790	-41.7
1978 ^b	NA	339,912	NA	311,982	306,074	-1.9	NA	33,838	NA
1979	375,267	357,578	-4.7	321,770	322,318	0.2	53,497	35,260	-34.1
1980	383,210	367,078	-4.2	333,658	331,803	-0.6	49,552	35,275	-28.8
1981	392,034	375,130	-4.3	340,203	338,163	-0.6	51,831	36,967	-28.7
1982	399,682	382,291	-4.4	347,414	344,734	-0.8	52,268	37,557	-28.1
1983	413,564	390,432	-5.6	358,276	351,581	-1.9	55,288	38,851	-29.7
1984	415,064	394,670	-4.9	363,470	352,559	-3.0	51,594	42,111	-18.4
1985	434,836	404,021	-7.1	371,052	361,623	-2.5	63,784	42,398	-33.5
1986	446,102	415,520	-6.9	384,203	372,359	-3.1	61,899	43,161	-30.3
1987	449,585	421,497	-6.2	388,681	378,061	-2.7	60,904	43,436	-28.7
1988	445,595	424,523	-4.7	391,683	385,283	-1.6	53,912	39,240	-27.2
1989	440,983	434,478	-1.5	385,025	393,152	2.1	55,958	41,326	-26.1
1990	458,943	452,113	-1.5	398,405	407,615	2.3	60,538	44,498	-26.5
1991	475,691	471,212	-0.9	411,296	423,614	3.0	64,395	47,598	-26.1
1992	495,397	493,522	-0.4	427,792	443,346	3.6	67,605	50,176	-25.8
1993	506,678	504,304	-0.5	440,875	452,548	2.6	65,803	51,756	-21.3
1994	506,626	504,399	-0.4	441,480	453,113	2.6	65,146	51,286	-21.3
1995	501,510	499,640	-0.4	436,328	447,464	2.6	65,182	52,176	-20.0
1996	494,526	494,079	-0.1	430,631	442,137	2.7	63,895	51,942	-18.7
1997	487,104	487,208	0.1	424,650	435,786	2.6	62,454	51,422	-17.7
1998	485,754	485,627	-0.1	422,834	433,427	2.5	62,920	52,200	-17.0
1999	493,425	493,256	-0.1	432,657	440,698	1.9	60,768	52,558	-13.5
2000	494,594	493,311	-0.3	435,612	440,959	1.2	58,982	52,352	-11.2
2001	510,156	509,620	-0.1	452,411	456,129	0.8	57,745	53,491	-7.4
2002	540,720	540,513	-0.1	482,211	484,368	0.4	58,509	56,145	-4.0
2003	566,835	NA	NA	507,247	NA	NA	59,588	NA	NA
Full-time enrollment									
1975 ^a	228,316	219,648	-3.8	210,641	208,705	-0.9	17,675	10,943	-38.1
1976	233,748	223,412	-4.4	215,355	212,529	-1.3	18,393	10,883	-40.8
1977	238,202	226,738	-4.8	218,226	215,080	-1.4	19,976	11,658	-41.6
1978 ^b	NA	223,030	NA	217,588	211,083	-3.0	NA	11,947	NA
1979	243,331	231,760	-4.8	224,057	219,296	-2.1	19,274	12,464	-35.3
1980	249,111	238,416	-4.3	230,601	225,451	-2.2	18,510	12,965	-30.0
1981	253,428	242,049	-4.5	234,529	229,158	-2.3	18,899	12,891	-31.8
1982	255,959	244,757	-4.4	237,676	232,436	-2.2	18,283	12,321	-32.6
1983	263,800	252,017	-4.5	243,646	238,539	-2.1	20,154	13,478	-33.1
1984	264,146	253,922	-3.9	246,848	239,140	-3.1	17,298	14,782	-14.5
1985	269,319	257,287	-4.5	249,666	242,503	-2.9	19,653	14,784	-24.8
1986	279,235	266,168	-4.7	259,980	251,329	-3.3	19,255	14,839	-22.9
1987	285,200	271,056	-5.0	264,862	255,840	-3.4	20,338	15,216	-25.2
1988	288,619	275,127	-4.7	268,385	261,896	-2.4	20,234	13,231	-34.6
1989	286,619	282,648	-1.4	267,554	269,046	0.6	19,065	13,602	-28.7
1990	295,836	292,782	-1.0	275,262	277,924	1.0	20,574	14,858	-27.8
1991	308,669	307,010	-0.5	286,756	290,639	1.4	21,913	16,371	-25.3
1992	323,399	322,555	-0.3	299,753	305,202	1.8	23,646	17,353	-26.6
1993	330,249	329,644	-0.2	307,181	311,814	1.5	23,068	17,830	-22.7
1994	331,969	332,088	0.1	307,964	313,215	1.7	24,005	18,873	-21.4
1995	330,235	329,283	-0.3	305,652	309,807	1.4	24,583	19,476	-20.8
1996	328,368	328,536	0.1	303,586	308,568	1.6	24,782	19,968	-19.4

TABLE A-10. Comparison of graduate enrollment data as originally published and as modified through the fall 2003 graduate student survey cycle: 1975–2003

Year	All institutions			Doctorate-granting institutions			Master's-granting institutions		
	Original total	Revised total	% change	Original total	Revised total	% change	Original total	Revised total	% change
1997	326,842	327,289	0.1	301,573	306,806	1.7	25,269	20,483	-18.9
1998	327,609	327,389	-0.1	301,544	306,093	1.5	26,065	21,296	-18.3
1999	334,405	334,423	*	309,466	312,993	1.1	24,939	21,430	-14.1
2000	342,121	341,283	-0.2	316,531	318,735	0.7	25,590	22,548	-11.9
2001	355,115	354,522	-0.2	330,043	331,313	0.4	25,072	23,209	-7.4
2002	378,822	378,988	0.1	352,764	354,260	0.4	26,058	24,728	-5.1
2003	398,010	NA	NA	371,784	NA	NA	26,226	NA	NA
Part-time enrollment									
1975 ^a	108,527	108,862	0.3	80,021	91,050	13.8	28,506	17,812	-37.5
1976	112,231	110,304	-1.7	81,925	91,488	11.7	30,306	18,816	-37.9
1977	124,776	118,636	-4.9	88,484	97,504	10.2	36,292	21,132	-41.8
1978 ^b	NA	116,882	NA	94,394	94,991	0.6	NA	21,891	NA
1979	131,936	125,818	-4.6	97,713	103,022	5.4	34,223	22,796	-33.4
1980	134,099	128,662	-4.1	103,057	106,352	3.2	31,042	22,310	-28.1
1981	138,606	133,081	-4.0	105,674	109,005	3.2	32,932	24,076	-26.9
1982	143,723	137,534	-4.3	109,738	112,298	2.3	33,985	25,236	-25.7
1983	149,764	138,415	-7.6	114,630	113,042	-1.4	35,134	25,373	-27.8
1984	150,918	140,748	-6.7	116,622	113,419	-2.7	34,296	27,329	-20.3
1985	165,517	146,734	-11.3	121,386	119,120	-1.9	44,131	27,614	-37.4
1986	166,867	149,352	-10.5	124,223	121,030	-2.6	42,644	28,322	-33.6
1987	164,385	150,441	-8.5	123,819	122,221	-1.3	40,566	28,220	-30.4
1988	156,976	149,396	-4.8	123,298	123,387	0.1	33,678	26,009	-22.8
1989	154,364	151,830	-1.6	117,471	124,106	5.6	36,893	27,724	-24.9
1990	163,107	159,331	-2.3	123,143	129,691	5.3	39,964	29,640	-25.8
1991	167,022	164,202	-1.7	124,540	132,975	6.8	42,482	31,227	-26.5
1992	171,998	170,967	-0.6	128,039	138,144	7.9	43,959	32,823	-25.3
1993	176,429	174,660	-1.0	133,694	140,734	5.3	42,735	33,926	-20.6
1994	174,657	172,311	-1.3	133,516	139,898	4.8	41,141	32,413	-21.2
1995	171,275	170,357	-0.5	130,676	137,657	5.3	40,599	32,700	-19.5
1996	166,158	165,543	-0.4	127,045	133,569	5.1	39,113	31,974	-18.3
1997	160,262	159,919	-0.2	123,077	128,980	4.8	37,185	30,939	-16.8
1998	158,145	158,238	0.1	121,290	127,334	5.0	36,855	30,904	-16.1
1999	159,020	158,833	-0.1	123,191	127,705	3.7	35,829	31,128	-13.1
2000	152,473	152,028	-0.3	119,081	122,224	2.6	33,392	29,804	-10.7
2001	155,041	155,098	0.1	122,368	124,816	2.0	32,673	30,282	-7.3
2002	161,898	161,525	-0.2	129,447	130,108	0.5	32,451	31,417	-3.2
2003	168,825	NA	NA	135,463	NA	NA	33,362	NA	NA

* = % change less than 0.05%.

NA = not available.

^a The 1976 survey also collected 1975 data from master's-granting institutions.^b Master's-granting institutions were not surveyed in 1978; totals represent estimates based on 1977 and 1979 data.

NOTES: Figures for 1984–87 include estimated data for master's-granting institutions, which were surveyed on a sample basis from 1984–87. See appendix A, Technical Notes, for further information. The % change column is a measure of retroactive changes in survey definitions. Three survey changes in the late 1980s and early 1990s had a retroactive effect on figures reported for earlier years. (1) Before 1992 degree-granting status (doctorate or master's) was determined by an institution's status each year. Beginning in 1992, degree-granting status was determined by the status reported in the latest survey year. This change shifted many institutions (and students) from master's-granting to doctorate-granting categories for years before 1992. (2) In 1988 guidelines to determine science and engineering departments were tightened. This change meant retroactively dropping departments in fields such as educational psychology, social work, and cultural studies from the survey population. (3) Improved estimates were generated for years in which enrollments at master's-granting institutions were sampled (1984–87).

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.

APPENDIX B. SURVEY MATERIALS

NATIONAL SCIENCE FOUNDATION
ARLINGTON, VA 22230

Dear Departmental Respondent:

The National Science Foundation (NSF) and the National Institutes of Health (NIH) request your participation in their annual Survey of Graduate Students and Postdoctorates in Science and Engineering. Your timely response will ensure that your department is accurately represented in data used by Federal and State decisionmakers. In addition, we hope you will find the data useful for comparisons with other institutions in your State or region. Also, since industrial firms use these data in preparing for employment recruiting visits, your participation in the survey provides valuable benefits to your graduates.

Your survey data should be returned to NSF on or before January 31, 2004. This year the survey will continue to be offered online. **The Web-based data collection system (<http://www.gss2003.org>) offers many advantages over the paper survey form.** We encourage you to take advantage of the Web system. Departmental IDs and passwords to access the system are available from your school coordinator or from Mr. Jason Bauer or Ms. Jacqueline Fiore of ORC Macro. **If you do not use the Web system, please return your completed data sheet to your survey coordinator before this date so that it can be transmitted to NSF in time to meet the survey deadline.** If you are returning your survey individually, please mail it to:

NSF-NIH Graduate Student Survey
ORC Macro
7315 Wisconsin Avenue, Suite 400W
Bethesda, MD 20814-3202

The data requested for the fall 2003 survey are exactly the same as those for the fall 2002 survey. When you return the survey Form 812 to your institution's survey coordinator, please keep a copy for your files. The instructions on the survey form and "How to Avoid Common Survey Errors" on page 7 should assist you in completing the survey. Because survey data with arithmetic errors or large trend inconsistencies will be returned for correction, verification, or explanation, please adhere to the guidelines. If you have any questions about the survey forms, please contact Mr. Bauer by telephone at (301) 657-3077, ext. 322 or Ms. Fiore at (301) 657-3077, ext. 118. You may also contact them toll-free at (866) 695-6275 or by e-mail at gss@qrc.com.

Please provide separate data sheets for (1) clinical psychology and (2) all other psychology departments or degree programs, due to special interest in the clinical area. Similarly, please submit separate data for degree programs in engineering, such as electrical engineering or mechanical engineering, and likewise, separate data for degree programs in computer science and in mathematics.

Survey results are made available in a variety of modes. A two-page *InfoBrief* and selected summary tables are published. All tables and reports are made available in various electronic formats on the Internet (<http://www.nsf.gov/sbe/srs/stats.htm>). These results are also entered in the Web-Based Computer-Aided Science Policy Analysis and Research (WebCASPAR) database system. The URL for WebCASPAR is <http://caspar.nsf.gov/webcaspar>.

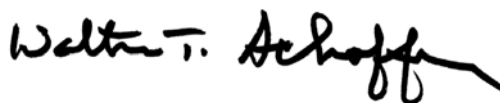
Thank you for your efforts in providing timely and meaningful statistics to NSF and NIH.

Sincerely,



Mary J. Golladay, Ph.D.
Program Director
Human Resources Statistics Program
Division of Science Resources Statistics
National Science Foundation

Sincerely,



Walter T. Schaffer, Ph.D.
NIH Research Training Officer
Research Training Office
Office of the Director
National Institutes of Health

Enclosures: D

INSTRUCTIONS

FOR THE NSF-NIH SURVEY OF GRADUATE STUDENTS AND POSTDOCTORATES IN SCIENCE AND ENGINEERING, FALL 2003

PURPOSE OF THE SURVEY

The survey provides a comprehensive picture of the training of future scientists and engineers in the Nation's graduate schools. Data are used by Congress and the executive branch during budget preparation, and by State government agencies and other analysts to assess the future supply of science and engineering (S&E) personnel.

This information is solicited under the authority of the National Science Foundation Act of 1950, as amended. All information provided will be used for statistical purposes only. Response is entirely voluntary and failure to provide some or all of the information will in no way adversely affect your institution.

The average time required for questionnaire completion is 2 hours. Response burden comments should be directed to Suzanne Plimpton at (703) 292-7556.

Students Included in This Survey

Count as graduate students persons enrolled **for credit** in any S&E master's or Ph.D. degree program in fall 2003. Report M.D., D.D.S., D.O., or D.V.M. candidates, interns, and residents in items 5 through 7 **only** if they are concurrently working for an S&E master's or Ph.D. degree or are enrolled in a joint medical/Ph.D. program. Individuals who already hold graduate or medical degrees and are working on another master's or Ph.D. degree are considered graduate students (items 5 through 7), not postdoctorates (item 8).

Include S&E students performing thesis or dissertation research away from the campus (for example, at Government- and contractor-owned facilities) in the United States as long as they are enrolled for credit in an advanced-degree program.

Use only **whole** numbers. When reporting data for items 5, 6, 7, and 8, use headcounts, **not** full-time equivalents (FTEs).

Students Excluded From This Survey

Exclude students enrolled in a foreign country (at a branch or extension center), and non-matriculated students.

Students Enrolled in Multiple Departments/Institutions

A student should be reported in only **one** department. Students enrolled in interdisciplinary/interinstitutional programs should be counted only once, by their "home" department and institution.

INCOMPLETE DATA

Please write "unavailable" or "unknown" in data cells as applicable. On this form, "N/A" means "not applicable." Data cells left blank are presumed to be zeroes.

ITEM 4: HIGHEST GRADUATE DEGREE AVAILABLE

For the purposes of this survey, departments of programs that do

not offer graduate degrees (Ph.D. or master's) are considered as "No Ph.D.s or master's degree offered" programs, regardless of first professional or other degrees granted. "No Ph.D. or master's degree offered" programs should not report students, postdoctoral appointees, or anyone else in items 5, 6, and 7. Count individuals in a "No Ph.D. or master's degree offered" program only in item 8, and only if they qualify as postdoctoral appointees or other non-faculty staff by this survey's definitions.

ITEM 5: FULL-TIME MECHANISMS OF SUPPORT

In item 5, count only graduate students pursuing an S&E degree according to a full-time schedule; this may include any combination of study, teaching, and research, depending on your institution's policy and definition of full-time status. For example, many institutions base full-time status on the number of credit hours taken; others calculate full-time according to the amount of fees paid by the student.

Report the total number of full-time degree-seeking students in line (6), column (M). Then, in lines (1) through (6), count each full-time student **only once** by **largest** source of support so that all columns and rows in item 5 sum to the full-time total in line (6), column (M). The full-time total in item 5, line (6), column (M) must equal the full-time total reported in item 7, line (6), column (K).

Do not forget full-time, self-supported students, who should be reported in column (L). Self-supported students are supported primarily through loans, personal savings, and/or family contributions.

Mechanisms of Support—Lines (1) Through (5)

A **fellowship**, line (1), is any competitive award (often from a national competition) made to a student that requires no work of the recipient. A **traineeship**, line (2), is an educational award given to a student selected by the institution. An **assistantship** should be classified as **research**, line (3), or **teaching**, line (4), depending on assigned duties; e.g., a student devoting most of his or her time to teaching should be reported on line (4). All other full-time students, including members of the Armed Forces whose tuition is paid by the Department of Defense, and self-supported students, should be reported on line (5).

Federal Sources of Support—Columns (A) Through (H)

Department of Defense (DoD)—Column (A): Sources include the Departments of the Army, Navy, or Air Force, as well as programs within the Office of the Secretary of Defense. Students receiving their main support from the Veterans Administration under

the G.I. Bill should be reported under column (H), "Other Federal sources."

Department of Health and Human Services (HHS)—Columns (B) and (C): Report students with support from the institutes or divisions of the National Institutes of Health (NIH) under column (B); report support from all other components of HHS in column (C). Refer to the organizational roster under "Survey Definitions" on page 3.

National Science Foundation (NSF)—Column (D): Report students receiving NSF graduate fellowships, as well as those supported under NSF research grants.

U.S. Department of Agriculture (USDA)—Column (E): Include research assistants working on projects financed out of Hatch, McIntyre-Stennis, or Smith-Lever formula funds, competitive research grants, and institution fellowship/training grants.

National Aeronautics and Space Administration (NASA)—Column (F): Report students with support from this agency.

Department of Energy (DOE)—Column (G): Report students receiving support under DOE research grants, including those supported by grants at national laboratories.

Other Federal Sources—Column (H): Report students receiving support from Federal agencies other than those listed in columns (A) through (G), such as the Fulbright program, the G.I. Bill, and Department of Education programs. Students primarily supported by Federal loans should be reported in column (L), "Self-supported students."

Non-Federal Sources of Support—Cols. (I) Through (L)

Institutional support—Column (I): Report students supported from YOUR institution, including those receiving tuition waivers. State and local government support should also be reported in this column. Students primarily supported with funds from the Federal Government, such as training grants, however, should be reported under the appropriate Federal agency.

Foreign sources—Column (J): Report students supported from any non-U.S. source, such as foreign governments, industrial firms, or specialized agencies of the United Nations.

Other U.S. sources—Column (K): Report students supported from nonprofit institutions, private industry, and all other non-Federal U.S. sources not included in columns (I) or (J).

Self-supported students—Column (L): Report both foreign and U.S. citizen students whose largest source of support comes from ANY loans (including Federal loans) or from personal or family financial contributions. **These students must be included in the full-time total, line (6), column (M).**

Full-Time Women—Line (7)

Report all full-time female students by the source of their primary support. The total number of full-time women should be reported in line (7), column (M). In each column, data on line (7) should not exceed the total on line (6).

The total number of full-time women in item 5, line (7), column (M) must match the total number of full-time women in item 7, line (5), column (K).

ITEMS 6 & 7: CITIZENSHIP AND RACIAL/ETHNIC BACKGROUND OF U.S. CITIZENS AND PERMANENT RESIDENTS

Report all U.S. citizens and permanent residents in columns (A) through (I), and count each student only once according to his or her racial/ethnic category as defined by the Office of Management and Budget, listed under “Survey Definitions (3)” on this page.

Count foreign students, i.e., students who are in this country on temporary visas, only **once** in column (J), regardless of race/ethnicity. *Students who are native residents of a U.S. possession or are permanent residents holding green cards should be included under U.S. citizens and permanent residents.*

Please record, under the One Race Only: Non-Hispanic header, columns (A) through (E), those U.S. citizen or permanent resident students who have reported themselves in only one of the following categories: non-Hispanic Black/African American, non-Hispanic American Indian or Alaska Native, non-Hispanic Asian, non-Hispanic Native Hawaiian/Pacific Islander, or non-Hispanic White. Under the header One Race Only: Hispanic, column (F), please record those U.S. citizens and permanent residents who have reported themselves as Hispanic and either no race or only one race (Black/African American, American Indian or Alaska Native, Asian, Native Hawaiian/Pacific Islander, or White). If you allow students to report multiple races and they are U.S. citizens or permanent residents, please record them in columns (G) and (H). If students have reported themselves as Hispanic and two or more of the racial categories, please record them in column (G), More Than One Race Reported, Hispanic. Students who are non-Hispanic but are two or more races should be recorded in column (H), More Than One Race Reported, non-Hispanic. Record students who are U.S. citizens or permanent residents but have an unknown race or ethnicity in column (I). Finally, record all of those students who are on temporary visas in column (J) regardless of their race or ethnicity.

ITEM 6: PART-TIME STUDENTS**Part-Time Men, Women, and Total—Lines (1) Through (3)**

For item 6, report ALL part-time students, regardless of their source of support. Part-time students are pursuing an S&E graduate degree but NOT on a full-time schedule. Consider students part time according to your own institution’s definition of part-time status.

ITEM 7: FULL-TIME STUDENTS**Full-Time Total—Line (6)**

Total full-time enrollment reported in item 7, line (6), should match that reported in item 5, line (6).

First-Time Full-Time Students—Line (7)

A first-time student has enrolled in the program in which he or she is pursuing a degree as of the beginning of the fall term in 2002. All other students should be considered to be beyond their first time of enrollment. The total number of first-time, full-time students in item 7, line (7), column (K), should not be greater than the full-time total reported in item 7, line (6), column (K).

First-Time Full-Time Women—Line (8)

The total number of first-time, full-time women reported in item 7, line (8) should not be greater than the full-time women total reported in item 7, line (5), column (K).

SURVEY DEFINITIONS**(1) NATIONAL INSTITUTES OF HEALTH ORGANIZATIONAL ROSTER**

—Item 5, column (B)

Fogarty International Center
National Cancer Institute
National Center for Human Genome Research
National Center for Nursing Research
National Center for Research Resources
National Eye Institute
National Heart, Lung, and Blood Institute
National Institute of Arthritis and Musculoskeletal and Skin Diseases
National Institute of Child Health and Human Development
National Institute of Dental Research
National Institute of Diabetes and Digestive and Kidney Diseases
National Institute of Environmental Health Sciences
National Institute of General Medical Sciences
National Institute of Mental Health
National Institute of Neurological Disorders and Stroke
National Institute on Aging

National Institute on Alcohol Abuse and Alcoholism
National Institute of Allergy and Infectious Diseases
National Institute on Deafness and Other Communication Disorders
National Institute on Drug Abuse
National Library of Medicine

(2) OTHER HHS ADMINISTRATIVE UNITS

—Item 5, column (C)

Substance Abuse and Mental Health Services Administration
(Please note that the former Alcohol, Drug Abuse, and Mental Health Administration institutes are now part of the National Institutes of Health.)
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health
Food and Drug Administration
Health Resources and Services Administration

(3) RACIAL/ETHNIC CATEGORIES FOR U.S. CITIZENS AND PERMANENT RESIDENTS DEFINED BY THE OFFICE OF MANAGEMENT AND BUDGET

—Items 6 & 7

Black or African American: A person having origins in any of the black racial groups of Africa.

American Indian or Alaska Native: A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.

Asian: A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent; for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Samoa, Thailand, and Vietnam.

Native Hawaiian or Other Pacific Islander: A person having origins in any of the original peoples of Hawaii, Guam, or other Pacific islands.

White: A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

Hispanic or Latino: A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.

More Than One Race Reported: Students reporting two or more of the race/ethnicity categories above.

FOR FURTHER INFORMATION . . .

If you have any questions about this survey, please contact Mr. Jason Bauer of ORC Macro by telephone at (301) 657-3077, ext. 322 or Ms. Jacqueline Fiore of ORC Macro

by telephone at (301) 657-3077, ext. 118. You may also contact them toll-free at (866) 695-6275 or by e-mail at gss@qrc.com.

UPON COMPLETING THIS FORM, PLEASE RETURN IT TO YOUR SURVEY COORDINATOR FOR TRANSMITTAL BY JANUARY 31, 2004.

NATIONAL SCIENCE FOUNDATION and NATIONAL INSTITUTES OF HEALTH
Survey of Graduate Students and Postdoctorates in Science and Engineering, Fall 2003
DEPARTMENT OR PROGRAM DATA SHEET

Due date: January 31, 2004

IDENTIFYING INFORMATION

1. Institution name: _____

2. Name of S&E department or program:

If changed since last year, please indicate previous name and whether this represents a merger, split, or expanded program:

3. Person in department or program preparing this form:

Name: _____

Title: _____

Phone: (_____) _____

E-mail Address: _____

4. Highest **graduate** degree¹ available in this department or program (CHECK ONE):(1) Ph.D.² (2) Master's (3) No Ph.D.² or master's degree offered

If no Ph.D. or master's offered, do not report data in items 5, 6, and 7.

**Institution and
department code
(LEAVE BLANK)**

Report all data on a headcount basis (use whole numbers, *not* fractions, decimals, FTEs, etc.). If your department does not enroll graduate students, please go to item 8.

ITEM 5. NUMBER OF FULL-TIME GRADUATE STUDENTS enrolled for advanced degrees (master's and doctoral) in fall 2003. Report each student **only once** according to the source and mechanism of the **largest amount of support** received in fall 2003.

Students receiving equal support from multiple sources or through multiple mechanisms should be reported only once. When determining the largest source of support, consider **all** graduate school academic expenses including tuition, tuition remission, and stipends.

MECHANISMS OF SUPPORT	Line	STUDENTS RECEIVING FINANCIAL ASSISTANCE											SELF-SUPPORTED STUDENTS (including loans and family sources) (L)	TOTAL FULL-TIME GRADUATE ENROLLMENT (Sum of (A) through (L)) (M)
		FEDERAL SOURCES (excluding loans)								NON-FEDERAL SOURCES				
		Department of Defense (A)	HHS		National Science Foundation (D)	Department of Agriculture (E)	NASA (F)	Department of Energy (G)	Other Federal sources (H)	Institutional support (including State & local government) (I)	Foreign sources (J)	Other U.S. Sources (K)		
			National Institutes of Health (B)	Other HHS (C)										
Graduate Fellowships	(1)													
Graduate Traineeships	(2)													
Graduate Research Assistantships	(3)													
Graduate Teaching Assistantships	(4)													
Other Types of Support	(5)													
FULL-TIME TOTAL³	(6)													
Of the students in line (6), how many in each data cell are WOMEN?⁴	(7)													

¹ Report the highest degree offered even if there are no graduate students currently enrolled. Check "No Ph.D. or master's degree offered" only if your department or program does not offer graduate degrees.

² Or Ph.D. equivalent such as Sc.D. and D.Eng., but not Ed.D., M.D., or other professional degree

³ The total from line (6) should be inserted in item 7, line (6), column (K).

⁴ The total from line (7) should be inserted in item 7, line (5), column (K).

ITEM 6. RACE/ ETHNICITY of PART- TIME graduate students in fall 2003, by sex.	How many students belong to the following RACIAL/ETHNIC categories? In each line, count each student only once.		U.S. CITIZENS AND PERMANENT RESIDENTS									FOREIGN	TOTAL
			ONE RACE ONLY: Non-Hispanic/Latino					ONE RACE ONLY	MORE THAN ONE RACE		Unknown or did not state	Temporary visa holders	(Sum of (A) through (J))
			Black/ African American (A)	Amer. Indian or Alaska Native (B)	Asian (C)	Native Hawaiian/ Pacific Islander (D)	White (E)	Hispanic/ Latino (F)	Hispanic/ Latino (G)	Non- Hispanic/ Latino (H)			
MEN ENROLLED PART TIME	(1)												
WOMEN ENROLLED PART TIME	(2)												
PART TIME, TOTAL	(3)												

ITEM 7. RACE/ ETHNICITY of FULL- TIME (Item 5) graduate students in fall 2003, by sex.	MEN ENROLLED FULL TIME	(4)											
	WOMEN ENROLLED FULL TIME (column (K) should equal Item 5, line (7), column (M))	(5)											
	FULL TIME, TOTAL (column (K) should equal Item 5, line (6), column (M))	(6)											
	Of the full-time students on line (6), how many are FIRST TIME?	(7)											
	Of the first-time students on line (7), how many are WOMEN?	(8)											

List other Federal sources (agencies), from item 5, column (H), and number of full-time students supported by each:

Please explain variances from the previous year's data or include other comments:

If you prefer to enter your data on the Web, go to <http://www.gss2003.org>.

INSTRUCTIONS FOR ITEM 8: POSTDOCTORATES AND NON-FACULTY RESEARCH STAFF WITH DOCTORATES

POSTDOCTORATES—Columns (A) through (F): Include all postdoctorates receiving research training through the department or program. Use the following criteria to determine postdoctorate status:

- The appointee holds a Ph.D. or equivalent doctorate (e.g., Sc.D., M.D., D.D.S., D.O., D.V.M., or foreign degrees equivalent to U.S. doctorates).
- The doctorate was awarded recently, generally within the last 5 years.
- The appointment is for a limited term, the limit generally being 5–7 years.
- The appointment is primarily for the purpose of training in research or scholarship.
- The appointee works under the supervision of a senior scholar in a department or research unit affiliated with the university.

These postdoctorates may have different titles—do not include clinical fellows and those with appointments in residency training programs in medical and health professions, unless research training under the supervision of a senior mentor is the primary purpose of the appointment.

Report postdoctorates by source of support in columns (A) through (D), with the total number of postdoctorates reported in column (E). Of this total, report the number who are foreign in column (F).

Foreign postdoctorates—Column (F): Include all postdoctorates who are in this country on temporary visas. Postdoctorates who are native residents of a U.S. possession or are permanent residents holding green cards should be included under U.S. citizens and permanent residents.

If you included postdoctorates who are part of your department or program but work in interdisciplinary research centers or other organized research units outside of the department or program, please provide a list of the names of those research centers or units:

OTHER NON-FACULTY RESEARCH STAFF WITH DOCTORATES—Column (G): Include all doctoral scientists and engineers who are involved principally in research activities but are not considered either postdoctoral appointees or members of the regular faculty. On line (2), report the number of women in each category. On line (3), report those postdoctorates and non-faculty research staff who hold first professional degrees in medical and related fields (M.D., D.D.S., D.O., or D.V.M.). Please note that in each column, data on lines (2) and (3) should not exceed the total on line (1).

ITEM 8. NUMBER OF POSTDOCTORATES AND NON-FACULTY RESEARCH STAFF WITH DOCTORATES in fall 2003.		POSTDOCTORATES						OTHER NON- FACULTY RESEARCH STAFF WITH DOCTORATES
		SOURCE OF SUPPORT				TOTAL for all sources (A) through (D)	Of the total in (E), how many are FOREIGN?	
		FEDERAL			NON-FEDERAL			
		Fellowships (A)	Traineeships (B)	Research grants (C)				
TOTAL	(1)							
Of the total in each cell of line (1), how many are WOMEN?	(2)							
Of the total in each cell of line (1), how many hold an M.D., D.O., D.D.S., or D.V.M. degree?	(3)							

Approximately how many person hours were required to complete this form?

Please explain variances from the previous year's data or include other comments:

HOW TO AVOID COMMON SURVEY ERRORS

Survey forms requiring mathematical corrections and/or verification for possible data inconsistencies are returned to departments before they can be considered final. To avoid common mistakes found on the survey forms, please follow these guidelines:

<p>(1) Use only whole numbers, not decimals or fractions. When reporting graduate students in items 5, 6, and 7, and postdoctoral appointees in item 8, use headcounts rather than full-time-equivalents (FTEs).</p> <p>(2) In item 5, count only full-time, degree-seeking graduate students, and count each only once, by the largest source of support, so that all columns and rows sum to the full-time total in line (6), column (M).</p> <p>(3) Don't forget full-time, self-supported students, who should be reported in item 5, column (L). Self-supported students are supported primarily through loans, personal savings, and/or family contributions.</p> <p>(4) Don't forget to report sources of support for all full-time women in item 5, line (7).</p> <p>(5) For the purposes of this survey, fellowships are competitive awards that require no work from the recipient. Do not report students in the fellowship row of item 5 if their largest source of support does not fit this definition.</p>	<p>(6) Report only full-time, first-time students in item 7, lines (7) and (8). The total number of full-time, first-time students reported in item 7, line (7) should not be greater than the full-time total reported in item 7, line (6), column (K). Likewise, the total number of full-time, first-time women reported in item 7, line (8) should not be greater than the full-time women total reported in item 7, line (5), column (K).</p> <p>(7) Do not report any part-time students in item 5. Count all part-time students in item 6 only.</p> <p>(8) The full-time total reported in item 5, line (6), column (M) must equal the full-time total reported in item 7, line (6), column (K). Similarly, the total number of full-time women in item 5, line (7), column (M) must match the total number of full-time women in item 7, line (5), column (K).</p> <p>(9) In items 6 and 7, count only U.S. citizens and permanent residents in columns (A) through (I). Count all foreign students on temporary visas in column (J) only, regardless of race/ethnicity.</p>	<p>(10) In items 6 and 7, column (C), count only U.S. citizens and permanent residents. Do not count Asian foreign nationals.</p> <p>(11) For the purposes of this survey, departments or programs that do not offer graduate degrees (Ph.D. or master's) are considered as "no Ph.D. or master's degree" programs, regardless of first professional or other degrees granted. "No Ph.D. or master's degree" programs should not report students, postdoctoral appointees, or anyone else in items 5, 6, and 7. Count individuals in a "no Ph.D. or master's degree" program only in item 8, and only if they qualify as postdoctoral appointees or other non-faculty research staff by this survey's definitions.</p> <p>(12) Report the total number of postdoctorates in item 8, line (1), column (E). Don't forget the total women postdoctorates in item 8, line (2), column (E), and total postdoctorates holding M.D., D.O., D.D.S., and D.V.M. degrees in item 8, line (3), column (E). Of each of these, foreign postdoctorates should be reported in item 8, column (F).</p> <p>(13) If the data for 2003 vary significantly from those provided last year, please note the reasons for the change in the "Comments" section of the survey Form 812.</p>
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If you have any questions, please contact Mr. Jason Bauer of ORC Macro by telephone at (301) 657-3077, ext. 322 or Ms. Jacqueline Fiore of ORC Macro by telephone at (301) 657-3077, ext. 118. You may also contact them toll-free at (866) 695-6275 or by e-mail at gss@qrc.com.

WHY DOES NSF COLLECT THESE DATA FROM YOUR DEPARTMENT?

The data that your department reports to NSF on the NSF-NIH Survey of Graduate Students and Postdoctorates in Science and Engineering (graduate student survey) are used in several ways, both at an institutional and national level.

At the institutional level, your data are combined with other science and engineering (S&E) data to create institutional profiles. Many institutional research officers use these data in peer analyses to help determine future directions at their own institutions. Based on full-time student enrollment, the profiles rank your graduate school among all U.S. graduate schools,¹ and present six aggregations specific to your school:

- Characteristics of full-time graduate S&E students
- Characteristics of part-time graduate S&E students
- Full-time graduate S&E students receiving primary support from Federal sources, by field

- Full-time graduate S&E students, by type and primary source of support
- Characteristics of S&E postdoctorates
- Characteristics of federally-supported S&E postdoctorates

Institutional profiles are online at
<http://www.nsf.gov/sbe/srs/profiles/toc.htm>.

At the national level, Congress, the Executive Branch, educational associations, and Federal agencies use summary tables comprised of graduate student survey data to analyze enrollment trends, identify up-and-coming science and engineering fields, and project enrollment deficits in fields vital to national interest. These trends help Federal agencies and other policy makers determine where to allocate future monies. For example, Federal agencies use these data to consider changes in levels and mechanisms of support for graduate students. Federal agencies also use these data, in conjunction with other information, for

program development and evaluation and in determining institutional eligibility for programs targeted to special populations or instructional programs. Summary tables are also used by many nonacademic employers to locate potential sources of future employees.

Summary tables are online at
<http://www.nsf.gov/sbe/srs/gss/start.htm>.

Finally, the data you provide are added to WebCASPAR, a rapidly expanding database of statistics on S&E programs at U.S. academic institutions. WebCASPAR is available to the public for free, providing easy access to a large body of statistical data. Over 3,000 registered researchers and policy makers use these data for studies on the current state of graduate education in S&E. Users can run customized queries to analyze data trends by field, enrollment, funding patterns, or more.

WebCASPAR is online at
<http://caspar.nsf.gov/webcaspar>.

¹ All U.S. graduate schools with active departments in S&E fields.

SUBMITTING YOUR DATA THROUGH THE WEB

This year, the NSF-NIH Survey of Graduate Students and Postdoctorates in Science and Engineering will continue to offer online reporting for departments. The online system allows you to enter your data directly onto your computer screen, computes totals for you, reports errors instantly, and gives you access to your previous year's data.

To access the Web survey, go to <http://www.gss2003.org>. Enter your departmental ID and password information (available from your

school coordinator). At the First Time User Information screen, you will be prompted to enter your name, phone number, and e-mail address. You will also be asked to change your assigned password to one that you choose. After providing this information, click on Continue to move to the Department Menu screen.

At the Department Menu screen you will notice that the questionnaire items have been divided into four sections: Department Information, Race/Ethnicity

and Gender (items 6 and 7 on the paper survey), Mechanisms of Support (item 5 on the paper survey), and Postdoctorates (item 8 on the paper survey). To begin entering data, click on a submission icon. For additional instructions on accessing the Web survey, please consult the online help documentation at <http://www.gss2003.org/gssweb/help/>. For additional help, send an e-mail to NSF's contractor, ORC Macro, at gss@orc.com, or call Mr. Jason Bauer at (301) 657-3077, ext. 322 or Ms. Jacqueline Fiore at (301) 657-3077, ext. 118. You may also contact them toll-free at (866) 695-6275.



This questionnaire has been printed on recycled paper.

Survey of Graduate Students and Postdoctorates in Science and Engineering

CROSSWALK BETWEEN NSF DISCIPLINE CODES AND THE NCES CLASSIFICATION OF INSTRUCTIONAL PROGRAMS

The following set of discipline codes categorizes the science and engineering departments or programs in the Survey of Graduate Students and Postdoctorates in Science and Engineering. Representative department names are shown under each of the discipline codes.

ENGINEERING

- 101 AEROSPACE ENGINEERING**
14.02 AEROSPACE, AERONAUTICAL, AND ASTRONAUTICAL ENGR.
- 102 AGRICULTURAL ENGINEERING**
14.03 AGRICULTURAL ENGINEERING
- 103 BIOMEDICAL ENGINEERING**
14.05 BIOENGINEERING AND BIOMEDICAL ENGINEERING
- 104 CHEMICAL ENGINEERING**
03.0509 WOOD SCIENCE
14.07 CHEMICAL ENGINEERING
14.32 POLYMER/PLASTICS ENGINEERING
- 105 CIVIL ENGINEERING**
04.02 ARCHITECTURE
14.04 ARCHITECTURAL ENGINEERING
14.08 CIVIL ENGINEERING
14.0803 STRUCTURAL ENGINEERING
14.0805 WATER RESOURCES ENGINEERING
14.14 ENVIRONMENTAL/ENVIRONMENTAL HEALTH ENGINEERING
- 106 ELECTRICAL ENGINEERING**
14.09 COMPUTER ENGINEERING
14.10 ELECTRICAL, ELECTRONICS, AND COMMUNICATIONS ENGR.
- 107 ENGINEERING SCIENCE AND ENGINEERING PHYSICS**
14.12 ENGINEERING PHYSICS
14.13 ENGINEERING SCIENCE
- 108 INDUSTRIAL/MANUFACTURING ENGINEERING**
14.17 INDUSTRIAL/MANUFACTURING ENGINEERING
14.27 SYSTEMS ENGINEERING
14.30 ENGINEERING/INDUSTRIAL MANAGEMENT
30.06 SYSTEMS SCIENCE
- 109 MECHANICAL ENGINEERING**
14.11 ENGINEERING MECHANICS
14.19 MECHANICAL ENGINEERING
- 110 METALLURGICAL AND MATERIALS ENGINEERING**
14.06 CERAMIC SCIENCES AND ENGINEERING
14.18 MATERIALS ENGINEERING
14.20 METALLURGICAL ENGINEERING
14.28 TEXTILE SCIENCES AND ENGINEERING
14.31 MATERIALS SCIENCE
40.0701 METALLURGY
- 111 MINING ENGINEERING**
14.15 GEOLOGICAL ENGINEERING
14.16 GEOPHYSICAL ENGINEERING
14.21 MINING AND MINERAL ENGINEERING
- 112 NUCLEAR ENGINEERING**
14.23 NUCLEAR ENGINEERING
- 113 PETROLEUM ENGINEERING**
14.25 PETROLEUM ENGINEERING
- 114 ENGINEERING, N.E.C.**
14.01 ENGINEERING, GENERAL
14.22 NAVAL ARCHITECTURE AND MARINE ENGINEERING
14.24 OCEAN ENGINEERING
14.29 ENGINEERING DESIGN
14.99 ENGINEERING, OTHER

PHYSICAL SCIENCES

- 201 ASTRONOMY**
40.02 ASTRONOMY
40.03 ASTROPHYSICS
- 202 CHEMISTRY**
40.05 CHEMISTRY (SEE ALSO 602)
40.0507 POLYMER CHEMISTRY
- 203 PHYSICS**
40.08 PHYSICS (SEE ALSO 605)
40.0807 OPTICS
40.0809 ACOUSTICS
- 204 PHYSICAL SCIENCES, N.E.C.**
40.01 PHYSICAL SCIENCES, GENERAL
40.0799 MISCELLANEOUS PHYSICAL SCIENCES, OTHER
40.99 PHYSICAL SCIENCES, OTHER

EARTH, ATMOSPHERIC, AND OCEAN SCIENCES

- 301 ATMOSPHERIC SCIENCES**
40.04 ATMOSPHERIC SCIENCES AND METEOROLOGY
- 302 GEOSCIENCES**
40.06 GEOLOGICAL AND RELATED SCIENCES
40.0703 EARTH AND PLANETARY SCIENCES
- 303 OCEAN SCIENCES**
26.0607 MARINE/AQUATIC BIOLOGY
40.0702 OCEANOGRAPHY
- 304 EARTH, ATMOSPHERIC, AND OCEAN SCIENCES, N.E.C.**

MATHEMATICAL SCIENCES

- 402 MATHEMATICS AND APPLIED MATHEMATICS**
27.01 MATHEMATICS
27.03 APPLIED MATHEMATICS
27.0302 OPERATIONS RESEARCH
27.99 MATHEMATICS, OTHER
30.08 MATHEMATICS AND COMPUTER SCIENCE
- 403 STATISTICS**
27.05 MATHEMATICAL STATISTICS
52.0802 ACTUARIAL SCIENCE

COMPUTER SCIENCE

- 401 COMPUTER SCIENCE**
11.01 COMPUTER AND INFORMATION SCIENCES, GENERAL
11.04 INFORMATION SCIENCES AND SYSTEMS
11.07 COMPUTER SCIENCE
52.1201 MANAGEMENT INFORMATION SYSTEMS
52.1301 MANAGEMENT SCIENCE

AGRICULTURAL SCIENCES (SEE ALSO 102 AND 901)

- 501 AGRICULTURAL SCIENCES**
02.01 AGRICULTURE/AGRICULTURAL SCIENCES
02.02 ANIMAL SCIENCES
02.03 FOOD SCIENCES
02.04 PLANT SCIENCES
02.05 SOIL SCIENCES
02.99 AGRICULTURAL SCIENCES, OTHER
03.01 NATURAL RESOURCES CONSERVATION
03.02 CONSERVATION AND REGULATION
03.03 FISHING AND FISHERIES SCIENCES AND MANAGEMENT
03.05 FORESTRY AND RELATED SCIENCES
03.06 WILDLIFE AND WILDLANDS MANAGEMENT
03.99 CONSERVATION AND RENEWABLE NATURAL RESOURCES, OTHER

BIOLOGICAL SCIENCES

- 601 ANATOMY**
26.0601 ANATOMY
51.1301 MEDICAL ANATOMY
- 602 BIOCHEMISTRY**
26.0202 BIOCHEMISTRY
51.1302 MEDICAL BIOCHEMISTRY
- 603 BIOLOGY**
26.01 BIOLOGY, GENERAL
- 604 BIOMETRY AND EPIDEMIOLOGY**
26.0614 BIOMETRICS
26.0615 BIostatISTICS
51.1303 MEDICAL BIOMATHEMATICS AND BIOMETRICS
51.2203 EPIDEMIOLOGY
- 605 BIOPHYSICS**
26.0203 BIOPHYSICS
51.1304 MEDICAL BIOPHYSICS/PHYSICS
- 606 BOTANY**
26.03 BOTANY
(EXCLUDING 26.05 MICROBIOLOGY/BACTERIOLOGY—SEE 611)
26.0305 PLANT PATHOLOGY
26.0307 PLANT PHYSIOLOGY
- 607 CELL AND MOLECULAR BIOLOGY**
26.04 CELL AND MOLECULAR BIOLOGY
26.0401 CELL BIOLOGY
26.0402 MOLECULAR BIOLOGY
51.1305 MEDICAL CELL BIOLOGY
51.1309 MEDICAL MOLECULAR BIOLOGY

- 608 ECOLOGY**
26.0603 ECOLOGY
- 609 ENTOMOLOGY AND PARASITOLOGY**
26.0610 PARASITOLOGY
26.0702 ENTOMOLOGY
- 610 GENETICS**
26.0613 GENETICS, PLANT AND ANIMAL
26.0617 EVOLUTIONARY BIOLOGY
51.1306 MEDICAL GENETICS
- 611 MICROBIOLOGY, IMMUNOLOGY, AND VIROLOGY**
26.05 MICROBIOLOGY/BACTERIOLOGY
26.0618 BIOLOGICAL IMMUNOLOGY
26.0619 VIROLOGY
51.1308 MEDICAL MICROBIOLOGY
- 612 NUTRITION**
19.05 FOODS AND NUTRITION STUDIES
26.0609 NUTRITIONAL SCIENCES
51.1311 MEDICAL NUTRITION
- 613 PATHOLOGY**
26.0704 PATHOLOGY, HUMAN AND ANIMAL
51.1312 MEDICAL PATHOLOGY
- 614 PHARMACOLOGY**
26.0612 TOXICOLOGY
26.0705 PHARMACOLOGY, HUMAN AND ANIMAL
51.1314 MEDICAL TOXICOLOGY
- 615 PHYSIOLOGY**
26.0706 PHYSIOLOGY, HUMAN AND ANIMAL
51.1313 MEDICAL PHYSIOLOGY
- 616 ZOOLOGY**
26.07 ZOOLOGY
- 617 BIOSCIENCES, N.E.C.**
26.0616 BIOTECHNOLOGY RESEARCH
26.0699 MISCELLANEOUS BIOLOGICAL SPECIALIZATIONS, OTHER
26.99 BIOLOGICAL SCIENCES/LIFE SCIENCES, OTHER
30.01 BIOLOGICAL AND PHYSICAL SCIENCES
30.10 BIOPSYCHOLOGY

PSYCHOLOGY

- 801 PSYCHOLOGY, COMBINED**
42.01 PSYCHOLOGY, GENERAL
- 802 PSYCHOLOGY, EXCEPT CLINICAL**
42.03 COGNITIVE PSYCHOLOGY AND PSYCHOLINGUISTICS
42.04 COMMUNITY PSYCHOLOGY
42.07 DEVELOPMENTAL AND CHILD PSYCHOLOGY
42.08 EXPERIMENTAL PSYCHOLOGY
42.09 INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY
42.11 PHYSIOLOGICAL PSYCHOLOGY/PSYCHOBIOLOGY
42.16 SOCIAL PSYCHOLOGY
42.17 SCHOOL PSYCHOLOGY
42.99 PSYCHOLOGY, OTHER
51.2301 ART THERAPY
51.2303 HYPNOTHERAPY
51.2705 PSYCHOANALYSIS
- 803 CLINICAL PSYCHOLOGY**
42.02 CLINICAL PSYCHOLOGY

SOCIAL SCIENCES

- 901 AGRICULTURAL ECONOMICS**
01.0101 AGRICULTURAL BUSINESS AND MANAGEMENT, GENERAL
01.0102 AGRICULTURAL BUSINESS/AGRIBUSINESS OPERATIONS
01.0103 AGRICULTURAL ECONOMICS
- 902 ANTHROPOLOGY (CULTURAL AND SOCIAL)**
45.02 ANTHROPOLOGY
45.03 ARCHAEOLOGY
- 903 ECONOMICS**
45.06 ECONOMICS
52.06 BUSINESS/MANAGERIAL ECONOMICS
- 904 GEOGRAPHY**
45.0701 GEOGRAPHY
45.0702 CARTOGRAPHY
- 905 HISTORY AND PHILOSOPHY OF SCIENCE**
45.0804 HISTORY AND PHILOSOPHY OF SCIENCE
- 906 LINGUISTICS**
16.0102 LINGUISTICS
- 907 POLITICAL SCIENCE/PUBLIC ADMINISTRATION**
44.04 PUBLIC ADMINISTRATION
44.05 PUBLIC POLICY ANALYSIS
44.99 PUBLIC ADMINISTRATION AND SERVICES, OTHER
45.09 INTERNATIONAL RELATIONS AND AFFAIRS
45.10 POLITICAL SCIENCE AND GOVERNMENT

- 908 SOCIOLOGY**
45.05 DEMOGRAPHY AND POPULATION STUDIES
45.11 SOCIOLOGY

909 SOCIOLOGY/ANTHROPOLOGY

- 910 SOCIAL SCIENCES, N.E.C.**
04.03 CITY/URBAN, COMMUNITY, AND REGIONAL PLANNING
04.07 ARCHITECTURAL URBAN DESIGN AND PLANNING
05 AREA, ETHNIC, AND CULTURAL STUDIES
30.11 GERONTOLOGY
43.01 CRIMINAL JUSTICE AND CORRECTIONS
44.02 COMMUNITY ORGANIZATION, RESOURCES, AND SERVICES
45.01 SOCIAL SCIENCES, GENERAL
45.04 CRIMINOLOGY
45.12 URBAN AFFAIRS/STUDIES
45.99 SOCIAL SCIENCES, OTHER

HEALTH FIELDS (SEE ALSO 103)

- 701 ANESTHESIOLOGY**
51.1604 NURSING ANESTHETIST (POST-R.N.)
- 702 CARDIOLOGY**
- 703 ONCOLOGY/CANCER RESEARCH**
- 704 ENDOCRINOLOGY**
- 705 GASTROENTEROLOGY**
- 706 HEMATOLOGY**
- 707 NEUROLOGY**
26.0608 NEUROSCIENCE
- 708 OBSTETRICS AND GYNECOLOGY**
- 709 OPHTHALMOLOGY**
51.1701 OPTOMETRY (O.D.)
- 710 OTORHINOLARYNGOLOGY**
- 711 PEDIATRICS**
- 712 PREVENTIVE MEDICINE AND COMMUNITY HEALTH**
51.22 PUBLIC HEALTH
51.2202 ENVIRONMENTAL HEALTH
- 713 PSYCHIATRY**
51.1610 NURSING, PSYCHIATRY/MENTAL HEALTH (POST-R.N.)
- 714 PULMONARY DISEASE**
- 715 RADIOLOGY**
26.0611 RADIATION BIOLOGY/RADIOBIOLOGY
- 716 SURGERY**
- 717 CLINICAL MEDICINE, N.E.C.**
51.1399 MEDICAL BASIC SCIENCES, OTHER
51.1201 MEDICINE (M.D.)
51.14 MEDICAL CLINICAL SCIENCES (M.S., Ph.D.)
51.19 OSTEOPATHIC MEDICINE (D.O.)
51.21 PODIATRY (D.P.M., D.P., Pod.D.)
- 718 DENTAL SCIENCES**
51.04 DENTISTRY (D.D.S., D.M.D.)
51.05 DENTAL CLINICAL SCIENCES/GRAD. DENTISTRY (M.S., Ph.D.)
- 719 NURSING**
51.16 NURSING
(EXCLUDING 51.1610, NURSING, PSYCHIATRY/MENTAL HEALTH—SEE 713, AND 51.1604 NURSING ANESTHETIST—SEE 701)
- 720 PHARMACEUTICAL SCIENCES**
51.20 PHARMACY
- 721 VETERINARY SCIENCES**
51.24 VETERINARY MEDICINE (D.V.M.)
51.25 VETERINARY CLINICAL SCIENCES (M.S., Ph.D.)
- 722 HEALTH-RELATED, N.E.C.**
31.0505 EXERCISE SCIENCE/PHYSIOLOGY AND MOVEMENT STUDIES
51.2306 OCCUPATIONAL THERAPY
51.2308 PHYSICAL THERAPY
51.2399 REHABILITATION/THERAPEUTIC SERVICES, OTHER
51.2704 NATUROPATHIC MEDICINE
51.99 HEALTH PROFESSIONS AND RELATED SCIENCES, OTHER
- 723 COMMUNICATION DISORDERS SCIENCES**
51.02 COMMUNICATION DISORDERS SCIENCES AND SERVICES
51.0201 COMMUNICATION DISORDERS, GENERAL
51.0202 AUDIOLOGY/HEARING SCIENCES
51.0203 SPEECH-LANGUAGE PATHOLOGY
51.0204 SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY

N.E.C. = not elsewhere classified

REV. 9-00