

Graduate Students and Postdoctorates in Science and Engineering: Fall 2004

Detailed Statistical Tables

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GENERAL NOTES

Data presented here are derived from the fall 2004 National Science Foundation-National Institutes of Health 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 12,240 graduate departments at 589 institutions in the United States and outlying areas.

Collection of graduate enrollment and postdoctoral employment data began in 1966. Given the need to remain relevant to the needs of those who use the resulting data, the survey has been modified since its 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, only the latest trend data published in this report should be used 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: 1975–2004 (selected years)

Location	Total	Undergraduate	Graduate enrollment					First professional enrollment
		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	85,541	1,515,151	322,593
2003	17,118,126	14,666,119	2,119,244	347,317	127,377	92,440	1,552,110	332,763
2004	17,492,964	14,974,136	2,180,524	352,630	123,701	98,003	1,606,190	338,304
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	84,563	1,499,644	318,982
2003	16,900,471	14,473,884	2,097,511	344,237	127,011	91,397	1,534,866	329,076
2004	17,272,044	14,780,630	2,156,885	349,527	123,345	97,090	1,586,923	334,529
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
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

TABLE 1. Total enrollment in all institutions of higher education, by level of enrollment, broad field, and location: 1975–2004 (selected years)

Location	Total	Undergraduate enrollment	Graduate enrollment					First professional enrollment
			All fields	Science	Engineering	Health fields	Other	
2003	217,655	192,235	21,733	3,080	366	1,043	17,244	3,687
2004	220,920	193,506	23,639	3,103	356	913	19,267	3,775

NA = not available.

^a National Science Foundation figures for 1985 include estimates for institutions that grant master's degrees.

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: 1975–2004

Year	Science										Engineering								Health fields	
	All science and engineering	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	85,541
2003	474,694	347,317	13,197	64,701	53,696	14,620	19,465	34,298	52,211	95,129	127,377	4,048	7,516	18,890	41,763	14,313	18,393	5,131	17,323	92,440
2004	476,331	352,630	13,445	66,520	50,331	15,110	19,873	35,772	54,052	97,527	123,701	4,089	7,452	18,560	38,995	13,852	17,946	5,059	17,748	98,003

^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: 1977–2004

Year	Science										Engineering									Health fields	
	All science and engineering	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	NA	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 ^a	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 ^a	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 ^a	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 ^a	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	20,830	
2003	276,260	176,470	7,171	28,818	38,880	8,082	12,176	23,520	13,395	44,428	99,790	3,445	5,416	13,492	33,969	11,047	16,039	3,800	12,582	22,427	
2004	274,311	177,928	7,187	29,271	36,965	8,182	12,387	24,474	13,960	45,502	96,383	3,489	5,346	13,106	31,794	10,623	15,469	3,739	12,817	22,623	

NA = not available.

^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.

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: 1977–2004

Year	Science										Engineering								Health fields		
	All science and engineering	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	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 ^a	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 ^a	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 ^a	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 ^a	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	64,711	
2003	198,434	170,847	6,026	35,883	14,816	6,538	7,289	10,778	38,816	50,701	27,587	603	2,100	5,398	7,794	3,266	2,354	1,331	4,741	70,013	
2004	202,020	174,702	6,258	37,249	13,366	6,928	7,486	11,298	40,092	52,025	27,318	600	2,106	5,454	7,201	3,229	2,477	1,320	4,931	75,380	

NA = not available.

^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.

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: 1975–2004

Year	Science										Engineering								Health fields	
	All science and engineering	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	325,517	240,065	9,685	51,596	32,579	11,116	13,709	28,619	34,707	58,054	85,452	3,003	6,279	12,981	28,240	7,200	12,512	4,242	10,995	53,490
2003	339,028	248,812	10,003	54,350	30,708	11,497	14,627	30,441	35,774	61,412	90,216	3,243	6,414	13,710	28,929	7,098	13,356	4,386	13,080	58,356
2004	340,615	253,570	10,040	55,819	29,281	11,685	14,881	31,686	37,805	62,373	87,045	3,243	6,379	13,587	26,732	6,591	12,787	4,359	13,367	61,546

^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: 1976–2004

Year	Science										Engineering									Health fields
	All science and engineering	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	
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	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 ^a	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 ^a	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 ^a	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 ^a	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	191,838	124,803	5,253	23,848	23,743	6,194	8,807	19,816	9,303	27,839	67,035	2,591	4,613	9,201	22,884	5,628	10,932	3,180	8,006	14,331
2003	198,485	128,345	5,360	24,684	22,858	6,314	9,488	21,014	9,414	29,213	70,140	2,790	4,604	9,592	23,361	5,467	11,608	3,258	9,460	15,549
2004	196,910	129,721	5,304	24,936	22,057	6,329	9,704	21,802	9,975	29,614	67,189	2,789	4,562	9,412	21,645	4,997	10,998	3,217	9,569	15,893

NA = not available.

^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.

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: 1976–2004

Year	Science										Engineering								Health fields	
	All science and engineering	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
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	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 ^a	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 ^a	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 ^a	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 ^a	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	133,679	115,262	4,432	27,748	8,836	4,922	4,902	8,803	25,404	30,215	18,417	412	1,666	3,780	5,356	1,572	1,580	1,062	2,989	39,159
2003	140,543	120,467	4,643	29,666	7,850	5,183	5,139	9,427	26,360	32,199	20,076	453	1,810	4,118	5,568	1,631	1,748	1,128	3,620	42,807
2004	143,705	123,849	4,736	30,883	7,224	5,356	5,177	9,884	27,830	32,759	19,856	454	1,817	4,175	5,087	1,594	1,789	1,142	3,798	45,653

NA = not available.

^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.

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

TABLE 8. U.S. citizen or permanent resident full-time graduate students in science, engineering, and health fields in all institutions, by field: 1980–2004

Year	Science										Engineering								Health fields	
	All science and engineering	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 ^a	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 ^a	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 ^a	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 ^a	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	200,245	164,919	7,363	38,757	11,919	8,579	7,390	16,236	32,512	42,163	35,326	1,434	2,874	6,703	8,654	2,565	5,186	1,880	6,030	47,482
2003	212,988	173,674	7,653	40,561	12,744	8,984	7,923	17,235	33,316	45,258	39,314	1,680	2,935	7,301	9,601	2,750	5,861	1,960	7,226	52,177
2004	218,266	178,771	7,628	41,304	12,799	9,129	8,249	18,153	35,164	46,345	39,495	1,695	3,071	7,486	9,087	2,599	5,888	1,996	7,673	55,575

^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: 1980–2004

Year	Science										Engineering									Health fields
	All science and engineering	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 ^a	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 ^a	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 ^a	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 ^a	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	125,272	75,146	2,322	12,839	20,660	2,537	6,319	12,383	2,195	15,891	50,126	1,569	3,405	6,278	19,586	4,635	7,326	2,362	4,965	6,008
2003	126,040	75,138	2,350	13,789	17,964	2,513	6,704	13,206	2,458	16,154	50,902	1,563	3,479	6,409	19,328	4,348	7,495	2,426	5,854	6,179
2004	122,349	74,799	2,412	14,515	16,482	2,556	6,632	13,533	2,641	16,028	47,550	1,548	3,308	6,101	17,645	3,992	6,899	2,363	5,694	5,971

^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.

NOTE: Distribution by citizenship data were not requested before 1980.

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: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	487,208	485,627	493,256	493,311	509,620	540,433	567,134	574,334
Science and engineering	407,630	404,856	411,182	413,536	429,242	454,892	474,694	476,331
Science	306,482	304,818	309,491	309,424	319,749	335,224	347,317	352,630
Agricultural sciences	12,203	12,168	12,312	12,023	12,235	12,698	13,197	13,445
Biological sciences	56,705	56,695	56,959	56,282	57,639	61,133	64,701	66,520
Anatomy	856	785	749	795	735	951	908	917
Biochemistry	5,102	5,148	5,101	4,966	4,917	5,190	5,552	5,612
Biology	14,646	14,277	13,989	13,407	13,352	13,822	14,770	15,438
Biometry/epidemiology	2,896	3,514	3,704	3,615	3,817	4,071	4,439	4,674
Biophysics	748	737	710	751	877	953	1,032	1,180
Botany	2,082	2,042	1,974	1,904	1,921	1,973	1,901	1,831
Cell biology	4,300	4,379	4,637	4,820	4,911	5,375	5,689	5,830
Ecology	1,640	1,670	1,704	1,762	1,888	1,967	2,230	2,185
Entomology/parasitology	1,161	1,168	1,145	1,104	1,170	1,191	1,206	1,241
Genetics	1,776	1,727	1,783	1,712	1,841	1,909	2,073	2,129
Microbiology/immunology/virology	4,805	4,773	4,815	4,814	4,798	5,208	5,256	5,375
Nutrition	4,604	4,486	4,508	4,413	4,429	4,539	4,695	4,726
Pathology	1,674	1,580	1,580	1,531	1,637	1,613	1,541	1,540
Pharmacology	2,597	2,730	2,757	2,963	3,140	3,234	3,357	3,122
Physiology	2,298	2,151	2,083	2,015	1,967	2,076	2,328	2,441
Zoology	1,627	1,586	1,523	1,445	1,411	1,349	1,301	1,236
Biosciences, nec	3,893	3,942	4,197	4,265	4,828	5,712	6,423	7,043
Computer sciences	35,991	38,027	42,478	47,350	52,196	55,269	53,696	50,331
Earth, atmospheric, and ocean sciences	14,548	14,258	14,083	13,941	13,841	14,240	14,620	15,110
Atmospheric sciences	1,092	965	913	963	924	1,036	1,150	1,086
Geosciences	6,959	6,687	6,637	6,596	6,544	6,712	6,889	7,337
Oceanography	2,479	2,562	2,624	2,668	2,585	2,618	2,695	2,801
Earth/atmospheric/ocean sciences, nec	4,018	4,044	3,909	3,714	3,788	3,874	3,886	3,886
Mathematical sciences	16,719	16,485	16,257	15,650	16,651	18,163	19,465	19,873
Mathematics/applied mathematics	14,027	13,827	13,521	12,823	13,569	14,702	15,569	15,885
Statistics	2,692	2,658	2,736	2,827	3,082	3,461	3,896	3,988
Physical sciences	31,105	30,575	30,691	30,385	31,038	32,341	34,298	35,772
Astronomy	778	820	832	888	916	990	1,080	1,119
Chemistry	18,774	18,482	18,416	18,105	18,366	19,045	20,049	20,776
Physics	11,147	10,809	10,869	10,841	11,248	11,701	12,555	13,309
Physical sciences, nec	406	464	574	551	508	605	614	568
Psychology	53,126	52,557	51,727	50,466	50,467	51,165	52,211	54,052
Clinical psychology	13,098	12,733	12,798	12,488	12,488	12,609	13,118	13,671
Psychology, general	17,249	17,098	16,238	15,624	15,837	15,159	15,580	16,276
Psychology, nec	22,779	22,726	22,691	22,354	22,142	23,397	23,513	24,105
Social sciences	86,085	84,053	84,984	83,327	85,682	90,215	95,129	97,527
Agricultural economics	2,043	1,995	2,014	2,079	2,161	2,187	2,318	2,195
Anthropology (cultural/social)	7,560	7,577	7,633	7,626	7,491	7,481	7,789	7,826
Economics (except agricultural)	11,097	10,701	10,562	10,748	11,408	12,009	12,316	12,250
Geography	4,287	4,326	4,250	4,036	4,304	4,383	4,721	4,809
History and philosophy of science	443	508	557	532	571	663	737	994
Linguistics	3,068	2,935	2,799	2,674	2,744	2,875	3,028	2,941
Political science	32,083	30,828	31,372	31,131	31,805	34,934	36,880	39,238
Sociology	9,413	9,058	8,966	8,652	8,812	8,946	9,127	8,895
Sociology/anthropology	948	857	741	745	808	719	773	839
Social sciences, nec	15,143	15,268	16,090	15,104	15,578	16,018	17,440	17,540
Engineering	101,148	100,038	101,691	104,112	109,493	119,668	127,377	123,701
Aerospace engineering	3,083	3,137	3,349	3,407	3,451	3,685	4,048	4,089

TABLE 10. Graduate students in science, engineering, and health fields in all institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Agricultural engineering	941	925	934	899	907	912	1,012	998
Biomedical engineering	2,847	2,905	3,121	3,241	3,639	4,378	5,347	5,892
Chemical engineering	7,288	7,093	6,883	7,056	6,913	7,414	7,516	7,452
Civil engineering	17,193	16,517	16,226	16,451	16,665	17,713	18,890	18,560
Electrical engineering	30,787	31,384	31,822	33,611	36,100	39,948	41,763	38,995
Engineering science	1,647	1,701	1,627	1,632	1,798	2,121	2,240	2,198
Industrial engineering	11,957	11,221	11,803	12,119	12,940	14,033	14,313	13,852
Mechanical engineering	15,045	14,696	14,956	15,235	15,852	17,139	18,393	17,946
Metallurgical/materials engineering	4,688	4,680	4,481	4,377	4,721	4,992	5,131	5,059
Mining engineering	348	304	328	287	240	267	278	308
Nuclear engineering	868	821	830	792	801	795	885	971
Petroleum engineering	561	571	642	627	656	766	849	845
Engineering, nec	3,895	4,083	4,689	4,378	4,810	5,505	6,712	6,536
Health	79,578	80,771	82,074	79,775	80,378	85,541	92,440	98,003
Medical fields	15,470	16,643	17,276	16,407	17,363	19,166	20,574	20,883
Anesthesiology	840	907	897	863	917	1,011	1,216	1,222
Cardiology	33	36	63	53	50	43	36	79
Endocrinology	43	58	67	57	53	60	80	63
Gastroenterology	3	6	7	14	7	7	11	16
Hematology	3	1	5	6	6	13	25	30
Neurology	1,717	1,825	1,907	1,982	2,136	2,513	2,665	2,642
Obstetrics/gynecology	18	13	16	16	28	23	28	17
Oncology/cancer research	198	209	250	239	261	231	234	274
Ophthalmology	33	38	49	58	46	181	413	423
Otorhinolaryngology	2	0	3	9	4	8	9	12
Pediatrics	342	328	316	403	380	463	429	424
Preventive medicine/community health	10,448	11,494	11,907	10,757	11,038	11,821	12,312	12,402
Psychiatry	228	136	119	184	266	364	277	403
Pulmonary disease	0	0	6	7	8	5	14	7
Radiology	267	249	229	232	262	258	302	275
Surgery	171	122	122	147	130	86	84	75
Clinical medicine, nec	1,124	1,221	1,313	1,380	1,771	2,079	2,439	2,519
Other health	64,108	64,128	64,798	63,368	63,015	66,375	71,866	77,120
Dental sciences	1,491	1,518	1,467	1,430	1,494	1,446	1,654	1,697
Nursing	26,861	25,591	25,074	23,457	23,609	24,715	26,649	29,325
Pharmaceutical sciences	2,710	2,882	3,422	3,611	3,679	4,538	5,493	5,220
Speech pathology/audiology	13,212	13,198	13,600	13,636	13,193	13,368	13,694	14,291
Veterinary sciences	1,224	1,288	1,314	1,367	1,476	1,691	1,719	1,732
Health related, nec	18,610	19,651	19,921	19,867	19,564	20,617	22,657	24,855

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: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	264,497	261,019	262,675	262,109	271,157	287,078	298,687	296,934
Science and engineering	245,619	241,429	242,786	243,057	251,812	266,248	276,260	274,311
Science	163,191	160,379	160,982	159,691	164,576	171,547	176,470	177,928
Agricultural sciences	7,497	7,316	7,263	6,935	6,892	7,045	7,171	7,187
Biological sciences	28,229	27,742	27,338	26,475	26,590	27,706	28,818	29,271
Anatomy	473	443	404	428	383	484	442	437
Biochemistry	2,926	2,919	2,835	2,735	2,694	2,768	2,957	2,969
Biology	7,359	7,064	6,846	6,401	6,163	6,308	6,612	6,833
Biometry/epidemiology	1,120	1,361	1,381	1,374	1,390	1,519	1,668	1,807
Biophysics	532	528	497	520	615	647	693	746
Botany	1,086	1,031	992	918	947	954	905	857
Cell biology	2,245	2,238	2,277	2,326	2,390	2,584	2,683	2,735
Ecology	842	840	823	846	909	928	1,022	993
Entomology/parasitology	751	754	739	662	690	699	669	676
Genetics	808	744	767	739	795	797	857	846
Microbiology/immunology/virology	2,409	2,402	2,365	2,382	2,303	2,400	2,323	2,322
Nutrition	1,144	1,073	1,077	1,034	993	1,027	1,037	1,046
Pathology	842	776	776	702	742	707	631	629
Pharmacology	1,368	1,405	1,414	1,447	1,482	1,461	1,539	1,428
Physiology	1,364	1,265	1,185	1,133	1,056	1,082	1,184	1,193
Zoology	924	892	853	803	744	711	656	596
Biosciences, nec	2,036	2,007	2,107	2,025	2,294	2,630	2,940	3,158
Computer sciences	26,110	27,225	29,933	33,270	36,894	39,244	38,880	36,965
Earth, atmospheric, and ocean sciences	9,132	8,690	8,358	8,188	7,949	7,993	8,082	8,182
Atmospheric sciences	829	731	671	695	626	703	776	723
Geosciences	4,663	4,372	4,237	4,141	4,061	4,099	4,125	4,282
Oceanography	1,424	1,400	1,402	1,401	1,330	1,309	1,303	1,292
Earth/atmospheric/ocean sciences, nec	2,216	2,187	2,048	1,951	1,932	1,882	1,878	1,885
Mathematical sciences	10,851	10,497	10,214	9,870	10,381	11,277	12,176	12,387
Mathematics/applied mathematics	9,244	8,932	8,659	8,315	8,751	9,463	10,163	10,300
Statistics	1,607	1,565	1,555	1,555	1,630	1,814	2,013	2,087
Physical sciences	22,257	21,822	21,776	21,270	21,702	22,275	23,520	24,474
Astronomy	570	590	607	621	651	688	735	764
Chemistry	12,052	11,918	11,799	11,349	11,511	11,720	12,210	12,544
Physics	9,403	9,029	8,993	8,931	9,206	9,500	10,189	10,810
Physical sciences, nec	232	285	377	369	334	367	386	356
Psychology	15,507	15,095	14,456	13,594	13,149	13,437	13,395	13,960
Clinical psychology	3,786	3,560	3,513	3,205	3,089	3,142	3,163	3,124
Psychology, general	5,372	5,251	4,851	4,597	4,554	4,483	4,582	5,169
Psychology, nec	6,349	6,284	6,092	5,792	5,506	5,812	5,650	5,667
Social sciences	43,608	41,992	41,644	40,089	41,019	42,570	44,428	45,502
Agricultural economics	1,355	1,315	1,299	1,290	1,326	1,343	1,418	1,341
Anthropology (cultural/social)	3,059	3,021	2,989	2,941	2,929	2,864	2,919	2,858
Economics (except agricultural)	7,585	7,237	7,063	6,983	7,413	7,741	7,808	7,777
Geography	2,662	2,663	2,547	2,409	2,503	2,540	2,693	2,802
History and philosophy of science	281	315	345	313	327	362	425	580
Linguistics	1,051	982	966	930	951	984	1,023	1,018
Political science	16,679	15,867	15,799	15,204	15,304	16,315	17,038	18,278
Sociology	3,591	3,362	3,227	3,072	3,080	3,178	3,226	3,088
Sociology/anthropology	377	335	271	282	308	266	267	292
Social sciences, nec	6,968	6,895	7,138	6,665	6,878	6,977	7,611	7,468
Engineering	82,428	81,050	81,804	83,366	87,236	94,701	99,790	96,383
Aerospace engineering	2,712	2,755	2,926	2,938	2,966	3,169	3,445	3,489

TABLE 11. Male graduate students in science, engineering, and health fields in all institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Agricultural engineering	723	682	683	631	623	640	715	703
Biomedical engineering	2,021	2,035	2,117	2,171	2,385	2,849	3,385	3,679
Chemical engineering	5,568	5,366	5,150	5,181	5,084	5,419	5,416	5,346
Civil engineering	13,029	12,415	12,069	12,174	12,162	12,808	13,492	13,106
Electrical engineering	26,237	26,512	26,689	28,075	29,888	32,678	33,969	31,794
Engineering science	1,369	1,370	1,308	1,290	1,435	1,691	1,775	1,733
Industrial engineering	9,301	8,769	9,144	9,406	10,132	10,957	11,047	10,623
Mechanical engineering	13,266	12,934	13,168	13,403	13,908	15,056	16,039	15,469
Metallurgical/materials engineering	3,571	3,550	3,397	3,336	3,548	3,741	3,800	3,739
Mining engineering	285	249	273	241	204	230	236	266
Nuclear engineering	725	687	686	636	644	647	703	775
Petroleum engineering	484	516	560	540	565	659	720	711
Engineering, nec	3,137	3,210	3,634	3,344	3,692	4,157	5,048	4,950
Health	18,878	19,590	19,889	19,052	19,345	20,830	22,427	22,623
Medical fields	6,663	6,922	7,075	6,497	6,775	7,391	7,751	7,463
Anesthesiology	355	406	421	437	413	422	498	481
Cardiology	26	28	37	38	31	24	26	61
Endocrinology	24	33	35	29	25	28	47	24
Gastroenterology	1	6	2	8	1	1	1	7
Hematology	0	0	1	4	4	3	10	14
Neurology	987	1,058	1,086	1,090	1,123	1,330	1,348	1,311
Obstetrics/gynecology	9	8	6	10	15	9	16	7
Oncology/cancer research	89	97	113	109	119	86	90	117
Ophthalmology	14	14	19	27	23	106	142	148
Otorhinolaryngology	2	0	3	3	2	7	7	11
Pediatrics	59	55	55	90	53	66	64	61
Preventive medicine/community health	4,169	4,306	4,353	3,711	3,798	4,099	4,099	3,830
Psychiatry	39	21	23	34	65	69	60	82
Pulmonary disease	0	0	4	5	3	3	6	1
Radiology	177	164	162	140	156	156	172	146
Surgery	94	57	68	77	89	61	58	45
Clinical medicine, nec	618	669	687	685	855	921	1,107	1,117
Other health	12,215	12,668	12,814	12,555	12,570	13,439	14,676	15,160
Dental sciences	932	952	918	880	931	882	998	1,003
Nursing	2,036	2,159	2,261	2,195	2,258	2,559	2,752	2,775
Pharmaceutical sciences	1,423	1,518	1,732	1,764	1,820	2,097	2,481	2,319
Speech pathology/audiology	1,071	1,060	1,060	1,027	1,006	963	958	993
Veterinary sciences	608	609	578	607	610	675	687	692
Health related, nec	6,145	6,370	6,265	6,082	5,945	6,263	6,800	7,378

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: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	222,711	224,608	230,581	231,202	238,463	253,355	268,447	277,400
Science and engineering	162,011	163,427	168,396	170,479	177,430	188,644	198,434	202,020
Science	143,291	144,439	148,509	149,733	155,173	163,677	170,847	174,702
Agricultural sciences	4,706	4,852	5,049	5,088	5,343	5,653	6,026	6,258
Biological sciences	28,476	28,953	29,621	29,807	31,049	33,427	35,883	37,249
Anatomy	383	342	345	367	352	467	466	480
Biochemistry	2,176	2,229	2,266	2,231	2,223	2,422	2,595	2,643
Biology	7,287	7,213	7,143	7,006	7,189	7,514	8,158	8,605
Biometry/epidemiology	1,776	2,153	2,323	2,241	2,427	2,552	2,771	2,867
Biophysics	216	209	213	231	262	306	339	434
Botany	996	1,011	982	986	974	1,019	996	974
Cell biology	2,055	2,141	2,360	2,494	2,521	2,791	3,006	3,095
Ecology	798	830	881	916	979	1,039	1,208	1,192
Entomology/parasitology	410	414	406	442	480	492	537	565
Genetics	968	983	1,016	973	1,046	1,112	1,216	1,283
Microbiology/immunology/virology	2,396	2,371	2,450	2,432	2,495	2,808	2,933	3,053
Nutrition	3,460	3,413	3,431	3,379	3,436	3,512	3,658	3,680
Pathology	832	804	804	829	895	906	910	911
Pharmacology	1,229	1,325	1,343	1,516	1,658	1,773	1,818	1,694
Physiology	934	886	898	882	911	994	1,144	1,248
Zoology	703	694	670	642	667	638	645	640
Biosciences, nec	1,857	1,935	2,090	2,240	2,534	3,082	3,483	3,885
Computer sciences	9,881	10,802	12,545	14,080	15,302	16,025	14,816	13,366
Earth, atmospheric, and ocean sciences	5,416	5,568	5,725	5,753	5,892	6,247	6,538	6,928
Atmospheric sciences	263	234	242	268	298	333	374	363
Geosciences	2,296	2,315	2,400	2,455	2,483	2,613	2,764	3,055
Oceanography	1,055	1,162	1,222	1,267	1,255	1,309	1,392	1,509
Earth/atmospheric/ocean sciences, nec	1,802	1,857	1,861	1,763	1,856	1,992	2,008	2,001
Mathematical sciences	5,868	5,988	6,043	5,780	6,270	6,886	7,289	7,486
Mathematics/applied mathematics	4,783	4,895	4,862	4,508	4,818	5,239	5,406	5,585
Statistics	1,085	1,093	1,181	1,272	1,452	1,647	1,883	1,901
Physical sciences	8,848	8,753	8,915	9,115	9,336	10,066	10,778	11,298
Astronomy	208	230	225	267	265	302	345	355
Chemistry	6,722	6,564	6,617	6,756	6,855	7,325	7,839	8,232
Physics	1,744	1,780	1,876	1,910	2,042	2,201	2,366	2,499
Physical sciences, nec	174	179	197	182	174	238	228	212
Psychology	37,619	37,462	37,271	36,872	37,318	37,728	38,816	40,092
Clinical psychology	9,312	9,173	9,285	9,283	9,399	9,467	9,955	10,547
Psychology, general	11,877	11,847	11,387	11,027	11,283	10,676	10,998	11,107
Psychology, nec	16,430	16,442	16,599	16,562	16,636	17,585	17,863	18,438
Social sciences	42,477	42,061	43,340	43,238	44,663	47,645	50,701	52,025
Agricultural economics	688	680	715	789	835	844	900	854
Anthropology (cultural/social)	4,501	4,556	4,644	4,685	4,562	4,617	4,870	4,968
Economics (except agricultural)	3,512	3,464	3,499	3,765	3,995	4,268	4,508	4,473
Geography	1,625	1,663	1,703	1,627	1,801	1,843	2,028	2,007
History and philosophy of science	162	193	212	219	244	301	312	414
Linguistics	2,017	1,953	1,833	1,744	1,793	1,891	2,005	1,923
Political science	15,404	14,961	15,573	15,927	16,501	18,619	19,842	20,960
Sociology	5,822	5,696	5,739	5,580	5,732	5,768	5,901	5,807
Sociology/anthropology	571	522	470	463	500	453	506	547
Social sciences, nec	8,175	8,373	8,952	8,439	8,700	9,041	9,829	10,072
Engineering	18,720	18,988	19,887	20,746	22,257	24,967	27,587	27,318
Aerospace engineering	371	382	423	469	485	516	603	600

TABLE 12. Female graduate students in science, engineering, and health fields in all institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Agricultural engineering	218	243	251	268	284	272	297	295
Biomedical engineering	826	870	1,004	1,070	1,254	1,529	1,962	2,213
Chemical engineering	1,720	1,727	1,733	1,875	1,829	1,995	2,100	2,106
Civil engineering	4,164	4,102	4,157	4,277	4,503	4,905	5,398	5,454
Electrical engineering	4,550	4,872	5,133	5,536	6,212	7,270	7,794	7,201
Engineering science	278	331	319	342	363	430	465	465
Industrial engineering	2,656	2,452	2,659	2,713	2,808	3,076	3,266	3,229
Mechanical engineering	1,779	1,762	1,788	1,832	1,944	2,083	2,354	2,477
Metallurgical/materials engineering	1,117	1,130	1,084	1,041	1,173	1,251	1,331	1,320
Mining engineering	63	55	55	46	36	37	42	42
Nuclear engineering	143	134	144	156	157	148	182	196
Petroleum engineering	77	55	82	87	91	107	129	134
Engineering, nec	758	873	1,055	1,034	1,118	1,348	1,664	1,586
Health	60,700	61,181	62,185	60,723	61,033	64,711	70,013	75,380
Medical fields	8,807	9,721	10,201	9,910	10,588	11,775	12,823	13,420
Anesthesiology	485	501	476	426	504	589	718	741
Cardiology	7	8	26	15	19	19	10	18
Endocrinology	19	25	32	28	28	32	33	39
Gastroenterology	2	0	5	6	6	6	10	9
Hematology	3	1	4	2	2	10	15	16
Neurology	730	767	821	892	1,013	1,183	1,317	1,331
Obstetrics/gynecology	9	5	10	6	13	14	12	10
Oncology/cancer research	109	112	137	130	142	145	144	157
Ophthalmology	19	24	30	31	23	75	271	275
Otorhinolaryngology	0	0	0	6	2	1	2	1
Pediatrics	283	273	261	313	327	397	365	363
Preventive medicine/community health	6,279	7,188	7,554	7,046	7,240	7,722	8,213	8,572
Psychiatry	189	115	96	150	201	295	217	321
Pulmonary disease	0	0	2	2	5	2	8	6
Radiology	90	85	67	92	106	102	130	129
Surgery	77	65	54	70	41	25	26	30
Clinical medicine, nec	506	552	626	695	916	1,158	1,332	1,402
Other health	51,893	51,460	51,984	50,813	50,445	52,936	57,190	61,960
Dental sciences	559	566	549	550	563	564	656	694
Nursing	24,825	23,432	22,813	21,262	21,351	22,156	23,897	26,550
Pharmaceutical sciences	1,287	1,364	1,690	1,847	1,859	2,441	3,012	2,901
Speech pathology/audiology	12,141	12,138	12,540	12,609	12,187	12,405	12,736	13,298
Veterinary sciences	616	679	736	760	866	1,016	1,032	1,040
Health related, nec	12,465	13,281	13,656	13,785	13,619	14,354	15,857	17,477

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: 1997–2004

Field, citizenship, and race/ethnicity	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	487,208	485,627	493,256	493,311	509,620	540,433	567,134	574,334
U.S. citizens and permanent residents	383,327	378,560	377,802	364,954	368,840	387,548	412,247	424,033
American Indian/Alaska Native	1,969	2,036	1,994	2,021	2,136	2,240	2,399	2,385
Asian/Pacific Islander	30,371	31,615	32,717	30,250	32,035	35,041	38,289	38,615
Black, non-Hispanic	23,560	24,261	25,200	25,928	27,075	28,720	31,242	32,554
Hispanic	18,154	18,765	20,322	21,327	22,329	24,286	26,686	28,211
White, non-Hispanic	286,607	279,450	275,325	261,112	260,380	270,028	283,246	288,234
Other or unknown	22,666	22,433	22,244	24,316	24,885	27,233	30,385	34,034
Temporary-visa holders	103,881	107,067	115,454	128,357	140,780	152,885	154,887	150,301
Science and engineering	407,630	404,856	411,182	413,536	429,242	454,892	474,694	476,331
U.S. citizens and permanent residents	308,668	302,879	301,254	290,711	294,711	309,280	327,358	333,231
American Indian/Alaska Native	1,599	1,607	1,553	1,602	1,683	1,735	1,879	1,863
Asian/Pacific Islander	26,012	26,726	27,570	25,058	26,584	29,352	31,921	31,508
Black, non-Hispanic	19,341	19,651	20,273	20,834	21,459	22,673	24,174	24,695
Hispanic	14,984	15,487	16,520	17,203	17,974	19,639	21,244	22,388
White, non-Hispanic	228,007	220,667	216,750	205,569	206,027	213,162	222,709	224,982
Other or unknown	18,725	18,741	18,588	20,445	20,984	22,719	25,431	27,795
Temporary-visa holders	98,962	101,977	109,928	122,825	134,531	145,612	147,336	143,100
Science	306,482	304,818	309,491	309,424	319,749	335,224	347,317	352,630
U.S. citizens and permanent residents	244,026	240,630	241,066	234,000	237,740	247,918	259,965	266,252
American Indian/Alaska Native	1,360	1,371	1,311	1,394	1,456	1,491	1,575	1,584
Asian/Pacific Islander	17,879	18,714	19,409	17,784	18,577	19,968	21,151	21,215
Black, non-Hispanic	16,462	16,830	17,308	17,857	18,544	19,599	20,962	21,283
Hispanic	12,172	12,587	13,596	14,185	14,791	16,178	17,265	18,187
White, non-Hispanic	181,914	176,569	174,687	166,486	167,568	172,603	179,240	181,741
Other or unknown	14,239	14,559	14,755	16,294	16,804	18,079	19,772	22,242
Temporary-visa holders	62,456	64,188	68,425	75,424	82,009	87,306	87,352	86,378
Agricultural sciences	12,203	12,168	12,312	12,023	12,235	12,698	13,197	13,445
U.S. citizens and permanent residents	9,414	9,514	9,774	9,612	9,722	10,085	10,601	10,765
American Indian/Alaska Native	62	71	69	56	58	76	77	82
Asian/Pacific Islander	309	315	310	250	262	286	316	340
Black, non-Hispanic	288	344	310	292	327	375	460	394
Hispanic	411	391	422	440	425	406	490	528
White, non-Hispanic	7,990	8,093	8,383	8,152	8,147	8,486	8,799	8,936
Other or unknown	354	300	280	422	503	456	459	485
Temporary-visa holders	2,789	2,654	2,538	2,411	2,513	2,613	2,596	2,680
Biological sciences	56,705	56,695	56,959	56,282	57,639	61,133	64,701	66,520
U.S. citizens and permanent residents	45,641	45,359	45,770	44,521	45,205	47,307	49,865	50,832
American Indian/Alaska Native	197	191	186	189	205	211	236	249
Asian/Pacific Islander	4,479	4,439	4,476	4,246	4,710	4,855	5,158	5,354
Black, non-Hispanic	2,105	2,141	2,218	2,241	2,351	2,480	2,757	2,886
Hispanic	1,987	2,053	2,185	2,183	2,338	2,590	2,830	3,033
White, non-Hispanic	34,778	34,323	34,319	33,255	33,193	34,586	35,809	36,049
Other or unknown	2,095	2,212	2,386	2,407	2,408	2,585	3,075	3,261
Temporary-visa holders	11,064	11,336	11,189	11,761	12,434	13,826	14,836	15,688
Computer sciences	35,991	38,027	42,478	47,350	52,196	55,269	53,696	50,331
U.S. citizens and permanent residents	23,074	23,605	25,323	25,088	26,142	28,203	29,420	28,529
American Indian/Alaska Native	60	92	74	80	87	83	104	93
Asian/Pacific Islander	4,626	5,219	6,144	5,332	5,427	5,953	5,767	5,167
Black, non-Hispanic	1,300	1,355	1,485	1,512	1,709	1,898	1,951	1,818
Hispanic	723	754	865	863	894	1,004	1,101	1,160
White, non-Hispanic	14,062	13,948	14,377	14,468	15,057	15,962	17,260	17,043
Other or unknown	2,303	2,237	2,378	2,833	2,968	3,303	3,237	3,248
Temporary-visa holders	12,917	14,422	17,155	22,262	26,054	27,066	24,276	21,802

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: 1997–2004

Field, citizenship, and race/ethnicity	1997	1998	1999	2000	2001	2002	2003	2004
Earth, atmospheric, and ocean sciences	14,548	14,258	14,083	13,941	13,841	14,240	14,620	15,110
U.S. citizens and permanent residents	12,033	11,759	11,563	11,249	11,059	11,472	11,845	12,328
American Indian/Alaska Native	82	84	63	61	70	81	63	67
Asian/Pacific Islander	417	424	400	351	341	355	363	436
Black, non-Hispanic	203	202	213	220	227	266	270	260
Hispanic	399	370	400	355	397	413	484	537
White, non-Hispanic	10,402	10,098	10,007	9,812	9,573	9,799	9,963	10,327
Other or unknown	530	581	480	450	451	558	702	701
Temporary-visa holders	2,515	2,499	2,520	2,692	2,782	2,768	2,775	2,782
Mathematical sciences	16,719	16,485	16,257	15,650	16,651	18,163	19,465	19,873
U.S. citizens and permanent residents	11,175	11,064	10,330	9,593	10,167	11,139	12,057	12,519
American Indian/Alaska Native	43	34	30	25	38	24	25	39
Asian/Pacific Islander	1,051	1,174	1,002	948	985	1,184	1,364	1,332
Black, non-Hispanic	657	613	594	572	590	626	655	692
Hispanic	427	454	447	460	482	542	604	618
White, non-Hispanic	8,351	8,097	7,659	6,955	7,386	7,923	8,414	8,832
Other or unknown	646	692	598	633	686	840	995	1,006
Temporary-visa holders	5,544	5,421	5,927	6,057	6,484	7,024	7,408	7,354
Physical sciences	31,105	30,575	30,691	30,385	31,038	32,341	34,298	35,772
U.S. citizens and permanent residents	20,210	19,837	19,559	18,730	18,835	19,251	20,213	21,223
American Indian/Alaska Native	70	64	69	75	81	83	79	78
Asian/Pacific Islander	1,638	1,760	1,682	1,524	1,458	1,424	1,619	1,752
Black, non-Hispanic	952	913	903	918	875	893	939	995
Hispanic	782	832	895	844	896	981	1,094	1,232
White, non-Hispanic	15,767	15,218	15,037	14,343	14,248	14,620	15,107	15,723
Other or unknown	1,001	1,050	973	1,026	1,277	1,250	1,375	1,443
Temporary-visa holders	10,895	10,738	11,132	11,655	12,203	13,090	14,085	14,549
Psychology	53,126	52,557	51,727	50,466	50,467	51,165	52,211	54,052
U.S. citizens and permanent residents	51,118	50,371	49,488	48,203	47,946	48,308	49,099	50,887
American Indian/Alaska Native	341	311	300	360	334	320	324	323
Asian/Pacific Islander	1,909	2,019	2,038	2,063	2,176	2,186	2,376	2,444
Black, non-Hispanic	3,644	3,813	3,749	4,214	4,347	4,491	4,692	4,994
Hispanic	3,075	3,228	3,567	4,145	4,309	4,655	4,680	4,777
White, non-Hispanic	38,724	37,622	36,267	33,801	33,578	33,473	33,587	33,636
Other or unknown	3,425	3,378	3,567	3,620	3,202	3,183	3,440	4,713
Temporary-visa holders	2,008	2,186	2,239	2,263	2,521	2,857	3,112	3,165
Social sciences	86,085	84,053	84,984	83,327	85,682	90,215	95,129	97,527
U.S. citizens and permanent residents	71,361	69,121	69,259	67,004	68,664	72,153	76,865	79,169
American Indian/Alaska Native	505	524	520	548	583	613	667	653
Asian/Pacific Islander	3,450	3,364	3,357	3,070	3,218	3,725	4,188	4,390
Black, non-Hispanic	7,313	7,449	7,836	7,888	8,118	8,570	9,238	9,244
Hispanic	4,368	4,505	4,815	4,895	5,050	5,587	5,982	6,302
White, non-Hispanic	51,840	49,170	48,638	45,700	46,386	47,754	50,301	51,195
Other or unknown	3,885	4,109	4,093	4,903	5,309	5,904	6,489	7,385
Temporary-visa holders	14,724	14,932	15,725	16,323	17,018	18,062	18,264	18,358
Engineering	101,148	100,038	101,691	104,112	109,493	119,668	127,377	123,701
U.S. citizens and permanent residents	64,642	62,249	60,188	56,711	56,971	61,362	67,393	66,979
American Indian/Alaska Native	239	236	242	208	227	244	304	279
Asian/Pacific Islander	8,133	8,012	8,161	7,274	8,007	9,384	10,770	10,293
Black, non-Hispanic	2,879	2,821	2,965	2,977	2,915	3,074	3,212	3,412
Hispanic	2,812	2,900	2,924	3,018	3,183	3,461	3,979	4,201
White, non-Hispanic	46,093	44,098	42,063	39,083	38,459	40,559	43,469	43,241
Other or unknown	4,486	4,182	3,833	4,151	4,180	4,640	5,659	5,553
Temporary-visa holders	36,506	37,789	41,503	47,401	52,522	58,306	59,984	56,722

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: 1997–2004

Field, citizenship, and race/ethnicity	1997	1998	1999	2000	2001	2002	2003	2004
Chemical engineering	7,288	7,093	6,883	7,056	6,913	7,414	7,516	7,452
U.S. citizens and permanent residents	4,424	4,208	3,869	3,726	3,418	3,701	3,753	3,830
American Indian/Alaska Native	18	21	16	20	13	21	19	27
Asian/Pacific Islander	512	469	486	501	494	566	557	528
Black, non-Hispanic	172	185	147	168	167	160	173	169
Hispanic	142	179	182	182	180	206	249	249
White, non-Hispanic	3,365	3,124	2,805	2,627	2,417	2,565	2,554	2,666
Other or unknown	215	230	233	228	147	183	201	191
Temporary-visa holders	2,864	2,885	3,014	3,330	3,495	3,713	3,763	3,622
Civil engineering	17,193	16,517	16,226	16,451	16,665	17,713	18,890	18,560
U.S. citizens and permanent residents	12,090	11,555	10,801	10,306	10,072	10,553	11,458	11,454
American Indian/Alaska Native	58	43	56	39	43	58	65	51
Asian/Pacific Islander	1,050	1,104	931	744	771	855	1,024	1,022
Black, non-Hispanic	443	410	450	448	431	453	428	452
Hispanic	694	723	701	776	747	778	846	895
White, non-Hispanic	9,208	8,665	8,088	7,759	7,492	7,707	8,333	8,264
Other or unknown	637	610	575	540	588	702	762	770
Temporary-visa holders	5,103	4,962	5,425	6,145	6,593	7,160	7,432	7,106
Electrical engineering	30,787	31,384	31,822	33,611	36,100	39,948	41,763	38,995
U.S. citizens and permanent residents	18,032	17,459	16,517	15,315	15,534	16,579	18,118	17,205
American Indian/Alaska Native	46	33	47	37	45	39	63	54
Asian/Pacific Islander	3,489	3,443	3,491	3,119	3,454	4,079	4,606	4,106
Black, non-Hispanic	874	874	886	830	812	846	812	861
Hispanic	810	812	769	717	825	941	1,094	1,097
White, non-Hispanic	11,092	10,729	9,897	8,982	8,876	9,121	9,709	9,444
Other or unknown	1,721	1,568	1,427	1,630	1,522	1,553	1,834	1,643
Temporary-visa holders	12,755	13,925	15,305	18,296	20,566	23,369	23,645	21,790
Industrial engineering	11,957	11,221	11,803	12,119	12,940	14,033	14,313	13,852
U.S. citizens and permanent residents	8,616	7,869	8,073	7,574	7,607	8,318	8,845	8,757
American Indian/Alaska Native	23	34	39	41	43	34	52	48
Asian/Pacific Islander	739	643	784	628	686	878	1,023	974
Black, non-Hispanic	489	465	541	557	591	616	685	714
Hispanic	396	364	426	439	469	477	562	629
White, non-Hispanic	6,391	5,764	5,761	5,329	5,255	5,668	5,680	5,484
Other or unknown	578	599	522	580	563	645	843	908
Temporary-visa holders	3,341	3,352	3,730	4,545	5,333	5,715	5,468	5,095
Mechanical engineering	15,045	14,696	14,956	15,235	15,852	17,139	18,393	17,946
U.S. citizens and permanent residents	9,351	9,046	8,760	8,097	8,183	8,604	9,643	9,770
American Indian/Alaska Native	35	25	33	27	32	32	42	24
Asian/Pacific Islander	947	973	1,008	804	945	912	1,035	1,016
Black, non-Hispanic	428	412	375	396	354	358	382	369
Hispanic	360	389	388	366	407	450	537	606
White, non-Hispanic	6,979	6,657	6,491	6,005	5,932	6,254	6,883	6,991
Other or unknown	602	590	465	499	513	598	764	764
Temporary-visa holders	5,694	5,650	6,196	7,138	7,669	8,535	8,750	8,176
Other engineering	18,878	19,127	20,001	19,640	21,023	23,421	26,502	26,896
U.S. citizens and permanent residents	12,129	12,112	12,168	11,693	12,157	13,607	15,576	15,963
American Indian/Alaska Native	59	80	51	44	51	60	63	75
Asian/Pacific Islander	1,396	1,380	1,461	1,478	1,657	2,094	2,525	2,647
Black, non-Hispanic	473	475	566	578	560	641	732	847
Hispanic	410	433	458	538	555	609	691	725
White, non-Hispanic	9,058	9,159	9,021	8,381	8,487	9,244	10,310	10,392
Other or unknown	733	585	611	674	847	959	1,255	1,277
Temporary-visa holders	6,749	7,015	7,833	7,947	8,866	9,814	10,926	10,933

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: 1997–2004

Field, citizenship, and race/ethnicity	1997	1998	1999	2000	2001	2002	2003	2004
Health fields	79,578	80,771	82,074	79,775	80,378	85,541	92,440	98,003
U.S. citizens and permanent residents	74,659	75,681	76,548	74,243	74,129	78,268	84,889	90,802
American Indian/Alaska Native	370	429	441	419	453	505	520	522
Asian/Pacific Islander	4,359	4,889	5,147	5,192	5,451	5,689	6,368	7,107
Black, non-Hispanic	4,219	4,610	4,927	5,094	5,616	6,047	7,068	7,859
Hispanic	3,170	3,278	3,802	4,124	4,355	4,647	5,442	5,823
White, non-Hispanic	58,600	58,783	58,575	55,543	54,353	56,866	60,537	63,252
Other or unknown	3,941	3,692	3,656	3,871	3,901	4,514	4,954	6,239
Temporary-visa holders	4,919	5,090	5,526	5,532	6,249	7,273	7,551	7,201

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: 1997–2004

Field, citizenship, and race/ethnicity	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	264,497	261,019	262,675	262,109	271,157	287,078	298,687	296,934
U.S. citizens and permanent residents	191,330	186,588	183,127	173,637	174,516	182,440	193,760	196,473
American Indian/Alaska Native	890	891	850	843	929	931	1,017	966
Asian/Pacific Islander	17,118	17,564	17,750	16,079	16,927	18,443	19,999	19,523
Black, non-Hispanic	9,115	9,245	9,528	9,289	9,436	10,023	10,758	11,199
Hispanic	8,559	8,756	9,178	9,352	9,648	10,327	11,458	12,053
White, non-Hispanic	143,707	138,292	134,388	125,512	124,759	128,790	135,083	135,973
Other or unknown	11,941	11,840	11,433	12,562	12,817	13,926	15,445	16,759
Temporary-visa holders	73,167	74,431	79,548	88,472	96,641	104,638	104,927	100,461
Science and engineering	245,619	241,429	242,786	243,057	251,812	266,248	276,260	274,311
U.S. citizens and permanent residents	174,934	169,490	165,823	157,023	158,015	165,004	174,927	177,113
American Indian/Alaska Native	804	797	744	734	808	811	890	855
Asian/Pacific Islander	15,682	15,896	16,046	14,404	15,189	16,675	18,062	17,546
Black, non-Hispanic	8,329	8,320	8,565	8,298	8,383	8,910	9,456	9,812
Hispanic	7,695	7,842	8,196	8,268	8,514	9,191	10,183	10,682
White, non-Hispanic	131,492	125,734	121,810	113,782	113,259	116,620	122,137	123,021
Other or unknown	10,932	10,901	10,462	11,537	11,862	12,797	14,199	15,197
Temporary-visa holders	70,685	71,939	76,963	86,034	93,797	101,244	101,333	97,198
Science	163,191	160,379	160,982	159,691	164,576	171,547	176,470	177,928
U.S. citizens and permanent residents	122,823	119,622	118,016	112,367	113,471	117,447	122,980	125,510
American Indian/Alaska Native	624	624	569	596	646	636	671	654
Asian/Pacific Islander	9,331	9,718	9,894	8,914	9,253	9,947	10,408	10,328
Black, non-Hispanic	6,366	6,378	6,576	6,348	6,449	6,898	7,285	7,531
Hispanic	5,522	5,629	5,974	5,988	6,173	6,691	7,261	7,586
White, non-Hispanic	93,670	89,802	87,611	82,325	82,401	84,120	87,560	88,652
Other or unknown	7,310	7,471	7,392	8,196	8,549	9,155	9,795	10,759
Temporary-visa holders	40,368	40,757	42,966	47,324	51,105	54,100	53,490	52,418
Agricultural sciences	7,497	7,316	7,263	6,935	6,892	7,045	7,171	7,187
U.S. citizens and permanent residents	5,543	5,508	5,580	5,371	5,316	5,444	5,613	5,594
American Indian/Alaska Native	34	45	46	34	35	36	38	35
Asian/Pacific Islander	168	160	143	112	115	136	151	144
Black, non-Hispanic	128	168	159	139	126	162	194	153
Hispanic	248	211	209	223	210	197	251	270
White, non-Hispanic	4,771	4,759	4,856	4,626	4,547	4,670	4,738	4,745
Other or unknown	194	165	167	237	283	243	241	247
Temporary-visa holders	1,954	1,808	1,683	1,564	1,576	1,601	1,558	1,593
Biological sciences	28,229	27,742	27,338	26,475	26,590	27,706	28,818	29,271
U.S. citizens and permanent residents	22,288	21,856	21,590	20,557	20,536	21,033	21,889	22,041
American Indian/Alaska Native	91	88	80	79	95	88	89	92
Asian/Pacific Islander	2,162	2,089	2,099	1,993	2,171	2,199	2,264	2,280
Black, non-Hispanic	753	764	761	760	792	813	858	861
Hispanic	897	924	968	963	1,009	1,123	1,218	1,264
White, non-Hispanic	17,332	16,869	16,511	15,578	15,347	15,614	16,060	16,042
Other or unknown	1,053	1,122	1,171	1,184	1,122	1,196	1,400	1,502
Temporary-visa holders	5,941	5,886	5,748	5,918	6,054	6,673	6,929	7,230
Computer sciences	26,110	27,225	29,933	33,270	36,894	39,244	38,880	36,965
U.S. citizens and permanent residents	16,876	17,028	17,911	17,682	18,499	19,997	21,369	21,082
American Indian/Alaska Native	43	68	50	50	58	52	68	63
Asian/Pacific Islander	2,978	3,299	3,826	3,323	3,440	3,810	3,794	3,485
Black, non-Hispanic	765	764	815	844	943	1,063	1,128	1,104
Hispanic	513	559	653	617	650	733	815	867
White, non-Hispanic	10,919	10,750	10,856	10,839	11,279	12,000	13,221	13,167
Other or unknown	1,658	1,588	1,711	2,009	2,129	2,339	2,343	2,396
Temporary-visa holders	9,234	10,197	12,022	15,588	18,395	19,247	17,511	15,883

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: 1997–2004

Field, citizenship, and race/ethnicity	1997	1998	1999	2000	2001	2002	2003	2004
Earth, atmospheric, and ocean sciences	9,132	8,690	8,358	8,188	7,949	7,993	8,082	8,182
U.S. citizens and permanent residents	7,336	6,954	6,695	6,392	6,148	6,237	6,349	6,474
American Indian/Alaska Native	47	44	32	33	37	45	30	40
Asian/Pacific Islander	253	238	208	179	171	158	163	207
Black, non-Hispanic	105	103	112	120	125	135	130	119
Hispanic	236	202	200	186	196	191	223	235
White, non-Hispanic	6,363	6,033	5,873	5,612	5,362	5,389	5,422	5,508
Other or unknown	332	334	270	262	257	319	381	365
Temporary-visa holders	1,796	1,736	1,663	1,796	1,801	1,756	1,733	1,708
Mathematical sciences	10,851	10,497	10,214	9,870	10,381	11,277	12,176	12,387
U.S. citizens and permanent residents	7,006	6,859	6,348	5,932	6,240	6,760	7,524	7,731
American Indian/Alaska Native	29	16	12	15	22	18	18	26
Asian/Pacific Islander	622	704	565	531	552	653	739	736
Black, non-Hispanic	347	339	324	299	320	340	373	364
Hispanic	254	276	270	310	322	335	381	391
White, non-Hispanic	5,316	5,057	4,798	4,354	4,587	4,877	5,353	5,547
Other or unknown	438	467	379	423	437	537	660	667
Temporary-visa holders	3,845	3,638	3,866	3,938	4,141	4,517	4,652	4,656
Physical sciences	22,257	21,822	21,776	21,270	21,702	22,275	23,520	24,474
U.S. citizens and permanent residents	14,373	14,004	13,697	12,898	12,976	13,073	13,690	14,433
American Indian/Alaska Native	46	41	40	54	54	55	54	50
Asian/Pacific Islander	1,044	1,150	1,046	951	916	893	970	1,060
Black, non-Hispanic	508	481	501	493	462	486	508	541
Hispanic	499	525	549	507	539	605	678	743
White, non-Hispanic	11,587	11,048	10,872	10,176	10,084	10,123	10,515	11,007
Other or unknown	689	759	689	717	921	911	965	1,032
Temporary-visa holders	7,884	7,818	8,079	8,372	8,726	9,202	9,830	10,041
Psychology	15,507	15,095	14,456	13,594	13,149	13,437	13,395	13,960
U.S. citizens and permanent residents	14,757	14,297	13,666	12,842	12,372	12,345	12,240	12,715
American Indian/Alaska Native	118	87	88	103	83	83	95	89
Asian/Pacific Islander	510	551	536	532	548	553	576	561
Black, non-Hispanic	908	887	905	871	868	946	934	1,243
Hispanic	860	881	957	1,039	1,048	1,128	1,131	1,132
White, non-Hispanic	11,316	10,915	10,195	9,359	9,025	8,818	8,687	8,570
Other or unknown	1,045	976	985	938	800	817	817	1,120
Temporary-visa holders	750	798	790	752	777	1,092	1,155	1,245
Social sciences	43,608	41,992	41,644	40,089	41,019	42,570	44,428	45,502
U.S. citizens and permanent residents	34,644	33,116	32,529	30,693	31,384	32,558	34,306	35,440
American Indian/Alaska Native	216	235	221	228	262	259	279	259
Asian/Pacific Islander	1,594	1,527	1,471	1,293	1,340	1,545	1,751	1,855
Black, non-Hispanic	2,852	2,872	2,999	2,822	2,813	2,953	3,160	3,146
Hispanic	2,015	2,051	2,168	2,143	2,199	2,379	2,564	2,684
White, non-Hispanic	26,066	24,371	23,650	21,781	22,170	22,629	23,564	24,066
Other or unknown	1,901	2,060	2,020	2,426	2,600	2,793	2,988	3,430
Temporary-visa holders	8,964	8,876	9,115	9,396	9,635	10,012	10,122	10,062
Engineering	82,428	81,050	81,804	83,366	87,236	94,701	99,790	96,383
U.S. citizens and permanent residents	52,111	49,868	47,807	44,656	44,544	47,557	51,947	51,603
American Indian/Alaska Native	180	173	175	138	162	175	219	201
Asian/Pacific Islander	6,351	6,178	6,152	5,490	5,936	6,728	7,654	7,218
Black, non-Hispanic	1,963	1,942	1,989	1,950	1,934	2,012	2,171	2,281
Hispanic	2,173	2,213	2,222	2,280	2,341	2,500	2,922	3,096
White, non-Hispanic	37,822	35,932	34,199	31,457	30,858	32,500	34,577	34,369
Other or unknown	3,622	3,430	3,070	3,341	3,313	3,642	4,404	4,438
Temporary-visa holders	30,317	31,182	33,997	38,710	42,692	47,144	47,843	44,780

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: 1997–2004

Field, citizenship, and race/ethnicity	1997	1998	1999	2000	2001	2002	2003	2004
Chemical engineering	5,568	5,366	5,150	5,181	5,084	5,419	5,416	5,346
U.S. citizens and permanent residents	3,348	3,149	2,849	2,672	2,433	2,615	2,659	2,691
American Indian/Alaska Native	10	13	11	9	5	13	13	14
Asian/Pacific Islander	361	321	310	336	334	362	352	334
Black, non-Hispanic	85	105	68	89	78	79	95	95
Hispanic	105	114	128	113	108	122	143	132
White, non-Hispanic	2,623	2,420	2,162	1,964	1,807	1,912	1,919	1,990
Other or unknown	164	176	170	161	101	127	137	126
Temporary-visa holders	2,220	2,217	2,301	2,509	2,651	2,804	2,757	2,655
Civil engineering	13,029	12,415	12,069	12,174	12,162	12,808	13,492	13,106
U.S. citizens and permanent residents	8,975	8,509	7,846	7,397	7,115	7,344	7,906	7,878
American Indian/Alaska Native	41	31	43	29	29	40	42	35
Asian/Pacific Islander	760	791	615	506	492	557	658	641
Black, non-Hispanic	299	277	277	270	273	271	273	292
Hispanic	488	504	498	540	508	504	564	612
White, non-Hispanic	6,896	6,459	5,990	5,641	5,381	5,479	5,834	5,760
Other or unknown	491	447	423	411	432	493	535	538
Temporary-visa holders	4,054	3,906	4,223	4,777	5,047	5,464	5,586	5,228
Electrical engineering	26,237	26,512	26,689	28,075	29,888	32,678	33,969	31,794
U.S. citizens and permanent residents	15,535	14,941	14,128	13,069	13,154	13,911	15,156	14,553
American Indian/Alaska Native	39	25	36	26	39	27	49	43
Asian/Pacific Islander	2,797	2,734	2,787	2,457	2,726	3,107	3,442	3,071
Black, non-Hispanic	680	680	686	629	620	645	629	666
Hispanic	689	692	631	618	683	766	890	913
White, non-Hispanic	9,926	9,495	8,798	8,001	7,865	8,093	8,673	8,476
Other or unknown	1,404	1,315	1,190	1,338	1,221	1,273	1,473	1,384
Temporary-visa holders	10,702	11,571	12,561	15,006	16,734	18,767	18,813	17,241
Industrial engineering	9,301	8,769	9,144	9,406	10,132	10,957	11,047	10,623
U.S. citizens and permanent residents	6,537	6,000	6,070	5,678	5,717	6,204	6,584	6,533
American Indian/Alaska Native	17	23	23	27	30	27	37	37
Asian/Pacific Islander	563	487	586	464	492	611	738	697
Black, non-Hispanic	270	257	309	310	349	352	419	441
Hispanic	281	247	291	298	302	302	383	418
White, non-Hispanic	4,953	4,492	4,446	4,118	4,093	4,419	4,357	4,223
Other or unknown	453	494	415	461	451	493	650	717
Temporary-visa holders	2,764	2,769	3,074	3,728	4,415	4,753	4,463	4,090
Mechanical engineering	13,266	12,934	13,168	13,403	13,908	15,056	16,039	15,469
U.S. citizens and permanent residents	8,185	7,893	7,619	7,046	7,066	7,440	8,277	8,329
American Indian/Alaska Native	27	20	25	18	23	23	35	18
Asian/Pacific Islander	804	835	829	674	777	743	861	817
Black, non-Hispanic	324	308	287	292	273	279	296	278
Hispanic	298	332	336	317	342	367	441	488
White, non-Hispanic	6,217	5,866	5,742	5,318	5,204	5,511	5,979	6,063
Other or unknown	515	532	400	427	447	517	665	665
Temporary-visa holders	5,081	5,041	5,549	6,357	6,842	7,616	7,762	7,140
Other engineering	15,027	15,054	15,584	15,127	16,062	17,783	19,827	20,045
U.S. citizens and permanent residents	9,531	9,376	9,295	8,794	9,059	10,043	11,365	11,619
American Indian/Alaska Native	46	61	37	29	36	45	43	54
Asian/Pacific Islander	1,066	1,010	1,025	1,053	1,115	1,348	1,603	1,658
Black, non-Hispanic	305	315	362	360	341	386	459	509
Hispanic	312	324	338	394	398	439	501	533
White, non-Hispanic	7,207	7,200	7,061	6,415	6,508	7,086	7,815	7,857
Other or unknown	595	466	472	543	661	739	944	1,008
Temporary-visa holders	5,496	5,678	6,289	6,333	7,003	7,740	8,462	8,426

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: 1997–2004

Field, citizenship, and race/ethnicity	1997	1998	1999	2000	2001	2002	2003	2004
Health fields	18,878	19,590	19,889	19,052	19,345	20,830	22,427	22,623
U.S. citizens and permanent residents	16,396	17,098	17,304	16,614	16,501	17,436	18,833	19,360
American Indian/Alaska Native	86	94	106	109	121	120	127	111
Asian/Pacific Islander	1,436	1,668	1,704	1,675	1,738	1,768	1,937	1,977
Black, non-Hispanic	786	925	963	991	1,053	1,113	1,302	1,387
Hispanic	864	914	982	1,084	1,134	1,136	1,275	1,371
White, non-Hispanic	12,215	12,558	12,578	11,730	11,500	12,170	12,946	12,952
Other or unknown	1,009	939	971	1,025	955	1,129	1,246	1,562
Temporary-visa holders	2,482	2,492	2,585	2,438	2,844	3,394	3,594	3,263

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: 1997–2004

Field, citizenship, and race/ethnicity	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	222,711	224,608	230,581	231,202	238,463	253,355	268,447	277,400
U.S. citizens and permanent residents	191,997	191,972	194,675	191,317	194,324	205,108	218,487	227,560
American Indian/Alaska Native	1,079	1,145	1,144	1,178	1,207	1,309	1,382	1,419
Asian/Pacific Islander	13,253	14,051	14,967	14,171	15,108	16,598	18,290	19,092
Black, non-Hispanic	14,445	15,016	15,672	16,639	17,639	18,697	20,484	21,355
Hispanic	9,595	10,009	11,144	11,975	12,681	13,959	15,228	16,158
White, non-Hispanic	142,900	141,158	140,937	135,600	135,621	141,238	148,163	152,261
Other or unknown	10,725	10,593	10,811	11,754	12,068	13,307	14,940	17,275
Temporary-visa holders	30,714	32,636	35,906	39,885	44,139	48,247	49,960	49,840
Science and engineering	162,011	163,427	168,396	170,479	177,430	188,644	198,434	202,020
U.S. citizens and permanent residents	133,734	133,389	135,431	133,688	136,696	144,276	152,431	156,118
American Indian/Alaska Native	795	810	809	868	875	924	989	1,008
Asian/Pacific Islander	10,330	10,830	11,524	10,654	11,395	12,677	13,859	13,962
Black, non-Hispanic	11,012	11,331	11,708	12,536	13,076	13,763	14,718	14,883
Hispanic	7,289	7,645	8,324	8,935	9,460	10,448	11,061	11,706
White, non-Hispanic	96,515	94,933	94,940	91,787	92,768	96,542	100,572	101,961
Other or unknown	7,793	7,840	8,126	8,908	9,122	9,922	11,232	12,598
Temporary-visa holders	28,277	30,038	32,965	36,791	40,734	44,368	46,003	45,902
Science	143,291	144,439	148,509	149,733	155,173	163,677	170,847	174,702
U.S. citizens and permanent residents	121,203	121,008	123,050	121,633	124,269	130,471	136,985	140,742
American Indian/Alaska Native	736	747	742	798	810	855	904	930
Asian/Pacific Islander	8,548	8,996	9,515	8,870	9,324	10,021	10,743	10,887
Black, non-Hispanic	10,096	10,452	10,732	11,509	12,095	12,701	13,677	13,752
Hispanic	6,650	6,958	7,622	8,197	8,618	9,487	10,004	10,601
White, non-Hispanic	88,244	86,767	87,076	84,161	85,167	88,483	91,680	93,089
Other or unknown	6,929	7,088	7,363	8,098	8,255	8,924	9,977	11,483
Temporary-visa holders	22,088	23,431	25,459	28,100	30,904	33,206	33,862	33,960
Agricultural sciences	4,706	4,852	5,049	5,088	5,343	5,653	6,026	6,258
U.S. citizens and permanent residents	3,871	4,006	4,194	4,241	4,406	4,641	4,988	5,171
American Indian/Alaska Native	28	26	23	22	23	40	39	47
Asian/Pacific Islander	141	155	167	138	147	150	165	196
Black, non-Hispanic	160	176	151	153	201	213	266	241
Hispanic	163	180	213	217	215	209	239	258
White, non-Hispanic	3,219	3,334	3,527	3,526	3,600	3,816	4,061	4,191
Other or unknown	160	135	113	185	220	213	218	238
Temporary-visa holders	835	846	855	847	937	1,012	1,038	1,087
Biological sciences	28,476	28,953	29,621	29,807	31,049	33,427	35,883	37,249
U.S. citizens and permanent residents	23,353	23,503	24,180	23,964	24,669	26,274	27,976	28,791
American Indian/Alaska Native	106	103	106	110	110	123	147	157
Asian/Pacific Islander	2,317	2,350	2,377	2,253	2,539	2,656	2,894	3,074
Black, non-Hispanic	1,352	1,377	1,457	1,481	1,559	1,667	1,899	2,025
Hispanic	1,090	1,129	1,217	1,220	1,329	1,467	1,612	1,769
White, non-Hispanic	17,446	17,454	17,808	17,677	17,846	18,972	19,749	20,007
Other or unknown	1,042	1,090	1,215	1,223	1,286	1,389	1,675	1,759
Temporary-visa holders	5,123	5,450	5,441	5,843	6,380	7,153	7,907	8,458
Computer sciences	9,881	10,802	12,545	14,080	15,302	16,025	14,816	13,366
U.S. citizens and permanent residents	6,198	6,577	7,412	7,406	7,643	8,206	8,051	7,447
American Indian/Alaska Native	17	24	24	30	29	31	36	30
Asian/Pacific Islander	1,648	1,920	2,318	2,009	1,987	2,143	1,973	1,682
Black, non-Hispanic	535	591	670	668	766	835	823	714
Hispanic	210	195	212	246	244	271	286	293
White, non-Hispanic	3,143	3,198	3,521	3,629	3,778	3,962	4,039	3,876
Other or unknown	645	649	667	824	839	964	894	852
Temporary-visa holders	3,683	4,225	5,133	6,674	7,659	7,819	6,765	5,919

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: 1997–2004

Field, citizenship, and race/ethnicity	1997	1998	1999	2000	2001	2002	2003	2004
Earth, atmospheric, and ocean sciences	5,416	5,568	5,725	5,753	5,892	6,247	6,538	6,928
U.S. citizens and permanent residents	4,697	4,805	4,868	4,857	4,911	5,235	5,496	5,854
American Indian/Alaska Native	35	40	31	28	33	36	33	27
Asian/Pacific Islander	164	186	192	172	170	197	200	229
Black, non-Hispanic	98	99	101	100	102	131	140	141
Hispanic	163	168	200	169	201	222	261	302
White, non-Hispanic	4,039	4,065	4,134	4,200	4,211	4,410	4,541	4,819
Other or unknown	198	247	210	188	194	239	321	336
Temporary-visa holders	719	763	857	896	981	1,012	1,042	1,074
Mathematical sciences	5,868	5,988	6,043	5,780	6,270	6,886	7,289	7,486
U.S. citizens and permanent residents	4,169	4,205	3,982	3,661	3,927	4,379	4,533	4,788
American Indian/Alaska Native	14	18	18	10	16	6	7	13
Asian/Pacific Islander	429	470	437	417	433	531	625	596
Black, non-Hispanic	310	274	270	273	270	286	282	328
Hispanic	173	178	177	150	160	207	223	227
White, non-Hispanic	3,035	3,040	2,861	2,601	2,799	3,046	3,061	3,285
Other or unknown	208	225	219	210	249	303	335	339
Temporary-visa holders	1,699	1,783	2,061	2,119	2,343	2,507	2,756	2,698
Physical sciences	8,848	8,753	8,915	9,115	9,336	10,066	10,778	11,298
U.S. citizens and permanent residents	5,837	5,833	5,862	5,832	5,859	6,178	6,523	6,790
American Indian/Alaska Native	24	23	29	21	27	28	25	28
Asian/Pacific Islander	594	610	636	573	542	531	649	692
Black, non-Hispanic	444	432	402	425	413	407	431	454
Hispanic	283	307	346	337	357	376	416	489
White, non-Hispanic	4,180	4,170	4,165	4,167	4,164	4,497	4,592	4,716
Other or unknown	312	291	284	309	356	339	410	411
Temporary-visa holders	3,011	2,920	3,053	3,283	3,477	3,888	4,255	4,508
Psychology	37,619	37,462	37,271	36,872	37,318	37,728	38,816	40,092
U.S. citizens and permanent residents	36,361	36,074	35,822	35,361	35,574	35,963	36,859	38,172
American Indian/Alaska Native	223	224	212	257	251	237	229	234
Asian/Pacific Islander	1,399	1,468	1,502	1,531	1,628	1,633	1,800	1,883
Black, non-Hispanic	2,736	2,926	2,844	3,343	3,479	3,545	3,758	3,751
Hispanic	2,215	2,347	2,610	3,106	3,261	3,527	3,549	3,645
White, non-Hispanic	27,408	26,707	26,072	24,442	24,553	24,655	24,900	25,066
Other or unknown	2,380	2,402	2,582	2,682	2,402	2,366	2,623	3,593
Temporary-visa holders	1,258	1,388	1,449	1,511	1,744	1,765	1,957	1,920
Social sciences	42,477	42,061	43,340	43,238	44,663	47,645	50,701	52,025
U.S. citizens and permanent residents	36,717	36,005	36,730	36,311	37,280	39,595	42,559	43,729
American Indian/Alaska Native	289	289	299	320	321	354	388	394
Asian/Pacific Islander	1,856	1,837	1,886	1,777	1,878	2,180	2,437	2,535
Black, non-Hispanic	4,461	4,577	4,837	5,066	5,305	5,617	6,078	6,098
Hispanic	2,353	2,454	2,647	2,752	2,851	3,208	3,418	3,618
White, non-Hispanic	25,774	24,799	24,988	23,919	24,216	25,125	26,737	27,129
Other or unknown	1,984	2,049	2,073	2,477	2,709	3,111	3,501	3,955
Temporary-visa holders	5,760	6,056	6,610	6,927	7,383	8,050	8,142	8,296
Engineering	18,720	18,988	19,887	20,746	22,257	24,967	27,587	27,318
U.S. citizens and permanent residents	12,531	12,381	12,381	12,055	12,427	13,805	15,446	15,376
American Indian/Alaska Native	59	63	67	70	65	69	85	78
Asian/Pacific Islander	1,782	1,834	2,009	1,784	2,071	2,656	3,116	3,075
Black, non-Hispanic	916	879	976	1,027	981	1,062	1,041	1,131
Hispanic	639	687	702	738	842	961	1,057	1,105
White, non-Hispanic	8,271	8,166	7,864	7,626	7,601	8,059	8,892	8,872
Other or unknown	864	752	763	810	867	998	1,255	1,115
Temporary-visa holders	6,189	6,607	7,506	8,691	9,830	11,162	12,141	11,942

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: 1997–2004

Field, citizenship, and race/ethnicity	1997	1998	1999	2000	2001	2002	2003	2004
Chemical engineering	1,720	1,727	1,733	1,875	1,829	1,995	2,100	2,106
U.S. citizens and permanent residents	1,076	1,059	1,020	1,054	985	1,086	1,094	1,139
American Indian/Alaska Native	8	8	5	11	8	8	6	13
Asian/Pacific Islander	151	148	176	165	160	204	205	194
Black, non-Hispanic	87	80	79	79	89	81	78	74
Hispanic	37	65	54	69	72	84	106	117
White, non-Hispanic	742	704	643	663	610	653	635	676
Other or unknown	51	54	63	67	46	56	64	65
Temporary-visa holders	644	668	713	821	844	909	1,006	967
Civil engineering	4,164	4,102	4,157	4,277	4,503	4,905	5,398	5,454
U.S. citizens and permanent residents	3,115	3,046	2,955	2,909	2,957	3,209	3,552	3,576
American Indian/Alaska Native	17	12	13	10	14	18	23	16
Asian/Pacific Islander	290	313	316	238	279	298	366	381
Black, non-Hispanic	144	133	173	178	158	182	155	160
Hispanic	206	219	203	236	239	274	282	283
White, non-Hispanic	2,312	2,206	2,098	2,118	2,111	2,228	2,499	2,504
Other or unknown	146	163	152	129	156	209	227	232
Temporary-visa holders	1,049	1,056	1,202	1,368	1,546	1,696	1,846	1,878
Electrical engineering	4,550	4,872	5,133	5,536	6,212	7,270	7,794	7,201
U.S. citizens and permanent residents	2,497	2,518	2,389	2,246	2,380	2,668	2,962	2,652
American Indian/Alaska Native	7	8	11	11	6	12	14	11
Asian/Pacific Islander	692	709	704	662	728	972	1,164	1,035
Black, non-Hispanic	194	194	200	201	192	201	183	195
Hispanic	121	120	138	99	142	175	204	184
White, non-Hispanic	1,166	1,234	1,099	981	1,011	1,028	1,036	968
Other or unknown	317	253	237	292	301	280	361	259
Temporary-visa holders	2,053	2,354	2,744	3,290	3,832	4,602	4,832	4,549
Industrial engineering	2,656	2,452	2,659	2,713	2,808	3,076	3,266	3,229
U.S. citizens and permanent residents	2,079	1,869	2,003	1,896	1,890	2,114	2,261	2,224
American Indian/Alaska Native	6	11	16	14	13	7	15	11
Asian/Pacific Islander	176	156	198	164	194	267	285	277
Black, non-Hispanic	219	208	232	247	242	264	266	273
Hispanic	115	117	135	141	167	175	179	211
White, non-Hispanic	1,438	1,272	1,315	1,211	1,162	1,249	1,323	1,261
Other or unknown	125	105	107	119	112	152	193	191
Temporary-visa holders	577	583	656	817	918	962	1,005	1,005
Mechanical engineering	1,779	1,762	1,788	1,832	1,944	2,083	2,354	2,477
U.S. citizens and permanent residents	1,166	1,153	1,141	1,051	1,117	1,164	1,366	1,441
American Indian/Alaska Native	8	5	8	9	9	9	7	6
Asian/Pacific Islander	143	138	179	130	168	169	174	199
Black, non-Hispanic	104	104	88	104	81	79	86	91
Hispanic	62	57	52	49	65	83	96	118
White, non-Hispanic	762	791	749	687	728	743	904	928
Other or unknown	87	58	65	72	66	81	99	99
Temporary-visa holders	613	609	647	781	827	919	988	1,036
Other engineering	3,851	4,073	4,417	4,513	4,961	5,638	6,675	6,851
U.S. citizens and permanent residents	2,598	2,736	2,873	2,899	3,098	3,564	4,211	4,344
American Indian/Alaska Native	13	19	14	15	15	15	20	21
Asian/Pacific Islander	330	370	436	425	542	746	922	989
Black, non-Hispanic	168	160	204	218	219	255	273	338
Hispanic	98	109	120	144	157	170	190	192
White, non-Hispanic	1,851	1,959	1,960	1,966	1,979	2,158	2,495	2,535
Other or unknown	138	119	139	131	186	220	311	269
Temporary-visa holders	1,253	1,337	1,544	1,614	1,863	2,074	2,464	2,507

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: 1997–2004

Field, citizenship, and race/ethnicity	1997	1998	1999	2000	2001	2002	2003	2004
Health fields	60,700	61,181	62,185	60,723	61,033	64,711	70,013	75,380
U.S. citizens and permanent residents	58,263	58,583	59,244	57,629	57,628	60,832	66,056	71,442
American Indian/Alaska Native	284	335	335	310	332	385	393	411
Asian/Pacific Islander	2,923	3,221	3,443	3,517	3,713	3,921	4,431	5,130
Black, non-Hispanic	3,433	3,685	3,964	4,103	4,563	4,934	5,766	6,472
Hispanic	2,306	2,364	2,820	3,040	3,221	3,511	4,167	4,452
White, non-Hispanic	46,385	46,225	45,997	43,813	42,853	44,696	47,591	50,300
Other or unknown	2,932	2,753	2,685	2,846	2,946	3,385	3,708	4,677
Temporary-visa holders	2,437	2,598	2,941	3,094	3,405	3,879	3,957	3,938

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: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	340,187	338,608	344,372	346,658	359,608	384,649	406,741	405,522
Science and engineering	282,596	280,579	285,028	288,310	300,953	322,226	339,157	336,030
Science	211,276	210,033	212,909	213,082	221,321	233,216	243,839	244,764
Agricultural sciences	11,740	11,678	11,842	11,517	11,681	12,093	12,508	12,766
Biological sciences	40,651	40,738	40,685	40,224	41,069	43,435	46,436	46,791
Anatomy	659	584	562	591	552	700	643	631
Biochemistry	3,610	3,633	3,585	3,516	3,513	3,646	3,951	3,894
Biology	10,820	10,564	10,459	10,096	10,071	10,468	11,245	11,627
Biometry/epidemiology	1,718	2,143	2,200	2,192	2,356	2,635	2,856	2,724
Biophysics	419	417	416	449	533	613	680	732
Botany	1,938	1,903	1,832	1,811	1,834	1,907	1,827	1,759
Cell biology	2,559	2,709	2,849	3,013	3,118	3,427	3,649	3,684
Ecology	1,494	1,526	1,526	1,582	1,678	1,683	1,952	1,933
Entomology/parasitology	1,101	1,109	1,087	1,055	1,119	1,138	1,158	1,197
Genetics	1,160	1,097	1,124	1,064	1,136	1,129	1,272	1,247
Microbiology/immunology/virology	3,317	3,258	3,220	3,206	3,195	3,395	3,383	3,398
Nutrition	3,686	3,676	3,650	3,447	3,445	3,451	3,655	3,704
Pathology	1,063	1,074	1,053	1,015	1,033	984	995	998
Pharmacology	1,750	1,829	1,848	2,058	2,039	2,070	2,283	2,025
Physiology	1,373	1,341	1,324	1,197	1,134	1,202	1,397	1,475
Zoology	1,556	1,522	1,461	1,406	1,354	1,287	1,244	1,204
Biosciences, nec	2,428	2,353	2,489	2,526	2,959	3,700	4,246	4,559
Computer sciences	22,195	23,601	26,530	29,276	32,262	34,798	34,754	31,923
Earth, atmospheric, and ocean sciences	12,329	12,049	11,866	11,793	11,649	11,991	12,368	12,745
Atmospheric sciences	1,068	942	896	938	897	1,000	1,114	1,042
Geosciences	5,764	5,501	5,478	5,458	5,390	5,535	5,736	6,110
Oceanography	2,088	2,179	2,217	2,265	2,222	2,224	2,276	2,372
Earth/atmospheric/ocean sciences, nec	3,409	3,427	3,275	3,132	3,140	3,232	3,242	3,221
Mathematical sciences	12,725	12,520	12,355	12,286	13,185	14,400	15,546	15,691
Mathematics/applied mathematics	10,541	10,413	10,138	10,074	10,767	11,634	12,416	12,494
Statistics	2,184	2,107	2,217	2,212	2,418	2,766	3,130	3,197
Physical sciences	22,748	22,559	22,544	22,436	22,880	23,950	25,340	26,522
Astronomy	471	509	511	542	538	566	637	663
Chemistry	13,847	13,769	13,607	13,476	13,641	14,165	14,859	15,436
Physics	8,041	7,842	7,860	7,876	8,206	8,634	9,237	9,862
Physical sciences, nec	389	439	566	542	495	585	607	561
Psychology	28,497	28,101	27,479	26,722	27,318	28,232	28,817	28,711
Clinical psychology	4,051	3,900	3,910	3,860	3,837	3,948	3,957	3,908
Psychology, general	11,563	11,263	10,684	10,221	10,221	10,273	11,065	11,026
Psychology, nec	12,883	12,938	12,885	12,641	13,260	14,011	13,795	13,777
Social sciences	60,391	58,787	59,608	58,828	61,277	64,317	68,070	69,615
Agricultural economics	1,973	1,928	1,949	2,019	2,099	2,126	2,246	2,110
Anthropology (cultural/social)	5,494	5,514	5,640	5,642	5,547	5,552	5,879	5,959
Economics (except agricultural)	7,253	6,896	6,923	6,990	7,480	8,111	8,445	8,546
Geography	3,994	4,018	3,925	3,715	4,002	4,107	4,422	4,513
History and philosophy of science	222	281	350	332	373	449	508	756
Linguistics	2,228	2,149	2,063	1,979	2,044	2,197	2,324	2,295
Political science	20,340	19,373	20,067	19,850	20,737	22,370	23,693	24,927
Sociology	7,210	7,066	6,842	6,618	6,815	6,950	7,063	6,929
Sociology/anthropology	779	693	616	610	633	601	639	704
Social sciences, nec	10,898	10,869	11,233	11,073	11,547	11,854	12,851	12,876
Engineering	71,320	70,546	72,119	75,228	79,632	89,010	95,318	91,266
Aerospace engineering	2,332	2,311	2,339	2,385	2,415	2,644	2,908	2,995

TABLE 16. Graduate students in science, engineering, and health fields in public institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Agricultural engineering	893	880	888	845	839	848	947	936
Biomedical engineering	1,844	1,842	1,991	2,048	2,198	2,772	3,544	3,753
Chemical engineering	5,214	5,089	4,887	5,088	4,911	5,414	5,519	5,422
Civil engineering	13,200	12,651	12,695	12,965	13,271	14,097	15,266	14,966
Electrical engineering	20,131	20,225	21,170	23,130	25,158	28,764	30,365	27,945
Engineering science	1,122	1,069	1,110	1,000	1,096	1,234	1,482	1,362
Industrial engineering	7,779	7,682	7,967	8,469	9,112	10,050	9,798	9,223
Mechanical engineering	11,166	11,117	11,235	11,617	12,120	13,537	14,342	13,627
Metallurgical/materials engineering	3,280	3,227	3,108	3,147	3,453	3,703	3,803	3,802
Mining engineering	248	211	222	275	235	263	273	308
Nuclear engineering	751	715	716	672	691	686	773	872
Petroleum engineering	446	463	543	531	538	638	729	708
Engineering, nec	2,914	3,064	3,248	3,056	3,595	4,360	5,569	5,347
Health	57,591	58,029	59,344	58,348	58,655	62,423	67,584	69,492
Medical fields	9,770	10,172	10,611	10,417	10,910	12,019	12,791	12,711
Anesthesiology	285	325	303	352	405	510	619	655
Cardiology	10	10	34	26	25	16	9	0
Endocrinology	43	58	67	57	53	58	78	62
Gastroenterology	3	6	7	14	7	7	11	16
Hematology	3	1	5	6	6	7	13	23
Neurology	819	889	999	1,073	1,173	1,430	1,540	1,419
Obstetrics/gynecology	5	8	13	8	20	13	13	3
Oncology/cancer research	123	139	145	143	146	123	116	137
Ophthalmology	30	31	49	58	46	178	399	404
Otorhinolaryngology	2	0	3	6	4	8	9	12
Pediatrics	241	226	243	257	287	362	361	355
Preventive medicine/community health	7,000	7,343	7,534	7,052	7,191	7,551	7,753	7,613
Psychiatry	101	64	58	78	189	267	232	357
Pulmonary disease	0	0	1	1	1	5	14	6
Radiology	209	206	177	190	217	216	237	236
Surgery	168	118	118	139	122	78	75	68
Clinical medicine, nec	728	748	855	957	1,018	1,190	1,312	1,345
Other health	47,821	47,857	48,733	47,931	47,745	50,404	54,793	56,781
Dental sciences	1,170	1,204	1,199	1,213	1,239	1,205	1,365	1,361
Nursing	21,139	20,424	19,979	18,857	18,965	19,837	21,464	23,095
Pharmaceutical sciences	2,163	2,202	2,672	2,949	2,972	3,707	4,517	3,966
Speech pathology/audiology	11,063	10,887	11,342	11,298	10,915	10,662	10,821	11,042
Veterinary sciences	1,172	1,235	1,267	1,322	1,430	1,638	1,667	1,674
Health related, nec	11,114	11,905	12,274	12,292	12,224	13,355	14,959	15,643

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: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	147,021	147,019	148,884	146,653	150,012	155,784	160,393	168,812
Science and engineering	125,034	124,277	126,154	125,226	128,289	132,666	135,537	140,301
Science	95,206	94,785	96,582	96,342	98,428	102,008	103,478	107,866
Agricultural sciences	463	490	470	506	554	605	689	679
Biological sciences	16,054	15,957	16,274	16,058	16,570	17,698	18,265	19,729
Anatomy	197	201	187	204	183	251	265	286
Biochemistry	1,492	1,515	1,516	1,450	1,404	1,544	1,601	1,718
Biology	3,826	3,713	3,530	3,311	3,281	3,354	3,525	3,811
Biometry/epidemiology	1,178	1,371	1,504	1,423	1,461	1,436	1,583	1,950
Biophysics	329	320	294	302	344	340	352	448
Botany	144	139	142	93	87	66	74	72
Cell biology	1,741	1,670	1,788	1,807	1,793	1,948	2,040	2,146
Ecology	146	144	178	180	210	284	278	252
Entomology/parasitology	60	59	58	49	51	53	48	44
Genetics	616	630	659	648	705	780	801	882
Microbiology/immunology/virology	1,488	1,515	1,595	1,608	1,603	1,813	1,873	1,977
Nutrition	918	810	858	966	984	1,088	1,040	1,022
Pathology	611	506	527	516	604	629	546	542
Pharmacology	847	901	909	905	1,101	1,164	1,074	1,097
Physiology	925	810	759	818	833	874	931	966
Zoology	71	64	62	39	57	62	57	32
Biosciences, nec	1,465	1,589	1,708	1,739	1,869	2,012	2,177	2,484
Computer sciences	13,796	14,426	15,948	18,074	19,934	20,471	18,942	18,408
Earth, atmospheric, and ocean sciences	2,219	2,209	2,217	2,148	2,192	2,249	2,252	2,365
Atmospheric sciences	24	23	17	25	27	36	36	44
Geosciences	1,195	1,186	1,159	1,138	1,154	1,177	1,153	1,227
Oceanography	391	383	407	403	363	394	419	429
Earth/atmospheric/ocean sciences, nec	609	617	634	582	648	642	644	665
Mathematical sciences	3,994	3,965	3,902	3,364	3,466	3,763	3,919	4,182
Mathematics/applied mathematics	3,486	3,414	3,383	2,749	2,802	3,068	3,153	3,391
Statistics	508	551	519	615	664	695	766	791
Physical sciences	8,357	8,016	8,147	7,949	8,158	8,391	8,958	9,250
Astronomy	307	311	321	346	378	424	443	456
Chemistry	4,927	4,713	4,809	4,629	4,725	4,880	5,190	5,340
Physics	3,106	2,967	3,009	2,965	3,042	3,067	3,318	3,447
Physical sciences, nec	17	25	8	9	13	20	7	7
Psychology	24,629	24,456	24,248	23,744	23,149	22,933	23,394	25,341
Clinical psychology	9,047	8,833	8,888	8,628	8,651	8,661	9,161	9,763
Psychology, general	5,686	5,835	5,554	5,403	5,616	4,886	4,515	5,250
Psychology, nec	9,896	9,788	9,806	9,713	8,882	9,386	9,718	10,328
Social sciences	25,694	25,266	25,376	24,499	24,405	25,898	27,059	27,912
Agricultural economics	70	67	65	60	62	61	72	85
Anthropology (cultural/social)	2,066	2,063	1,993	1,984	1,944	1,929	1,910	1,867
Economics (except agricultural)	3,844	3,805	3,639	3,758	3,928	3,898	3,871	3,704
Geography	293	308	325	321	302	276	299	296
History and philosophy of science	221	227	207	200	198	214	229	238
Linguistics	840	786	736	695	700	678	704	646
Political science	11,743	11,455	11,305	11,281	11,068	12,564	13,187	14,311
Sociology	2,203	1,992	2,124	2,034	1,997	1,996	2,064	1,966
Sociology/anthropology	169	164	125	135	175	118	134	135
Social sciences, nec	4,245	4,399	4,857	4,031	4,031	4,164	4,589	4,664
Engineering	29,828	29,492	29,572	28,884	29,861	30,658	32,059	32,435
Aerospace engineering	751	826	1,010	1,022	1,036	1,041	1,140	1,094

TABLE 17. Graduate students in science, engineering, and health fields in private institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Agricultural engineering	48	45	46	54	68	64	65	62
Biomedical engineering	1,003	1,063	1,130	1,193	1,441	1,606	1,803	2,139
Chemical engineering	2,074	2,004	1,996	1,968	2,002	2,000	1,997	2,030
Civil engineering	3,993	3,866	3,531	3,486	3,394	3,616	3,624	3,594
Electrical engineering	10,656	11,159	10,652	10,481	10,942	11,184	11,398	11,050
Engineering science	525	632	517	632	702	887	758	836
Industrial engineering	4,178	3,539	3,836	3,650	3,828	3,983	4,515	4,629
Mechanical engineering	3,879	3,579	3,721	3,618	3,732	3,602	4,051	4,319
Metallurgical/materials engineering	1,408	1,453	1,373	1,230	1,268	1,289	1,328	1,257
Mining engineering	100	93	106	12	5	4	5	0
Nuclear engineering	117	106	114	120	110	109	112	99
Petroleum engineering	115	108	99	96	118	128	120	137
Engineering, nec	981	1,019	1,441	1,322	1,215	1,145	1,143	1,189
Health	21,987	22,742	22,730	21,427	21,723	23,118	24,856	28,511
Medical fields	5,700	6,471	6,665	5,990	6,453	7,147	7,783	8,172
Anesthesiology	555	582	594	511	512	501	597	567
Cardiology	23	26	29	27	25	27	27	79
Endocrinology	0	0	0	0	0	2	2	1
Gastroenterology	0	0	0	0	0	0	0	0
Hematology	0	0	0	0	0	6	12	7
Neurology	898	936	908	909	963	1,083	1,125	1,223
Obstetrics/gynecology	13	5	3	8	8	10	15	14
Oncology/cancer research	75	70	105	96	115	108	118	137
Ophthalmology	3	7	0	0	0	3	14	19
Otorhinolaryngology	0	0	0	3	0	0	0	0
Pediatrics	101	102	73	146	93	101	68	69
Preventive medicine/community health	3,448	4,151	4,373	3,705	3,847	4,270	4,559	4,789
Psychiatry	127	72	61	106	77	97	45	46
Pulmonary disease	0	0	5	6	7	0	0	1
Radiology	58	43	52	42	45	42	65	39
Surgery	3	4	4	8	8	8	9	7
Clinical medicine, nec	396	473	458	423	753	889	1,127	1,174
Other health	16,287	16,271	16,065	15,437	15,270	15,971	17,073	20,339
Dental sciences	321	314	268	217	255	241	289	336
Nursing	5,722	5,167	5,095	4,600	4,644	4,878	5,185	6,230
Pharmaceutical sciences	547	680	750	662	707	831	976	1,254
Speech pathology/audiology	2,149	2,311	2,258	2,338	2,278	2,706	2,873	3,249
Veterinary sciences	52	53	47	45	46	53	52	58
Health related, nec	7,496	7,746	7,647	7,575	7,340	7,262	7,698	9,212

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: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	327,289	327,389	334,423	341,283	354,522	379,007	397,384	402,161
Science and engineering	280,669	278,943	283,893	291,355	304,021	325,517	339,028	340,615
Science	214,981	213,508	215,870	219,079	226,573	240,065	248,812	253,570
Agricultural sciences	9,362	9,199	9,371	9,357	9,405	9,685	10,003	10,040
Biological sciences	46,657	46,779	46,946	46,787	48,138	51,596	54,350	55,819
Anatomy	797	733	708	752	675	865	829	821
Biochemistry	4,811	4,881	4,800	4,715	4,642	4,941	5,326	5,318
Biology	10,318	10,031	9,904	9,674	9,788	10,401	11,176	11,535
Biometry/epidemiology	1,993	2,566	2,642	2,562	2,736	3,012	3,208	3,218
Biophysics	728	707	681	719	837	896	968	1,115
Botany	1,802	1,803	1,758	1,705	1,720	1,791	1,730	1,653
Cell biology	3,980	4,055	4,273	4,422	4,540	4,974	5,220	5,395
Ecology	1,186	1,215	1,250	1,252	1,385	1,427	1,484	1,531
Entomology/parasitology	995	1,000	971	979	989	1,001	1,024	1,046
Genetics	1,678	1,638	1,680	1,649	1,743	1,828	1,983	2,047
Microbiology/immunology/virology	4,373	4,377	4,483	4,501	4,500	4,902	4,980	5,083
Nutrition	3,320	3,208	3,187	3,136	3,269	3,361	3,414	3,371
Pathology	1,420	1,339	1,364	1,293	1,350	1,340	1,319	1,350
Pharmacology	2,461	2,562	2,579	2,627	2,746	2,823	2,926	2,974
Physiology	2,102	1,990	1,890	1,873	1,827	1,933	2,165	2,251
Zoology	1,417	1,334	1,291	1,236	1,231	1,175	1,094	1,072
Biosciences, nec	3,276	3,340	3,485	3,692	4,160	4,926	5,504	6,039
Computer sciences	18,335	19,972	22,687	26,558	30,087	32,579	30,708	29,281
Earth, atmospheric, and ocean sciences	10,510	10,444	10,484	10,558	10,504	11,116	11,497	11,685
Atmospheric sciences	966	856	793	844	812	920	1,019	963
Geosciences	5,413	5,212	5,238	5,258	5,222	5,437	5,574	5,712
Oceanography	1,973	2,048	2,123	2,164	2,058	2,134	2,259	2,284
Earth/atmospheric/ocean sciences, nec	2,158	2,328	2,330	2,292	2,412	2,625	2,645	2,726
Mathematical sciences	12,144	11,751	11,796	11,740	12,467	13,709	14,627	14,881
Mathematics/applied mathematics	10,064	9,722	9,675	9,510	10,024	11,001	11,622	11,880
Statistics	2,080	2,029	2,121	2,230	2,443	2,708	3,005	3,001
Physical sciences	26,882	26,391	26,635	26,492	27,179	28,619	30,441	31,686
Astronomy	768	787	808	823	860	946	1,023	1,078
Chemistry	15,992	15,777	15,959	15,649	16,078	16,830	17,694	18,311
Physics	9,923	9,661	9,660	9,809	10,007	10,559	11,430	12,028
Physical sciences, nec	199	166	208	211	234	284	294	269
Psychology	35,551	35,148	34,658	34,919	34,487	34,707	35,774	37,805
Clinical psychology	9,921	9,812	9,941	9,725	9,697	9,476	9,676	10,195
Psychology, general	12,347	12,173	11,546	11,613	11,280	10,769	11,515	11,776
Psychology, nec	13,283	13,163	13,171	13,581	13,510	14,462	14,583	15,834
Social sciences	55,540	53,824	53,293	52,668	54,306	58,054	61,412	62,373
Agricultural economics	1,718	1,670	1,685	1,780	1,869	1,974	2,043	1,888
Anthropology (cultural/social)	5,799	5,734	5,814	5,621	5,577	5,753	5,945	5,832
Economics (except agricultural)	8,813	8,564	8,390	8,630	9,200	9,713	10,018	9,969
Geography	2,967	2,908	2,786	2,662	2,913	2,913	3,145	3,172
History and philosophy of science	377	404	429	412	400	420	457	533
Linguistics	2,420	2,286	2,182	2,104	2,177	2,261	2,389	2,364
Political science	17,071	16,316	16,171	16,089	16,455	18,632	19,963	21,139
Sociology	6,717	6,460	6,278	6,111	6,147	6,435	6,683	6,428
Sociology/anthropology	666	615	518	524	578	557	559	598
Social sciences, nec	8,992	8,867	9,040	8,735	8,990	9,396	10,210	10,450
Engineering	65,688	65,435	68,023	72,276	77,448	85,452	90,216	87,045
Aerospace engineering	2,529	2,565	2,645	2,759	2,821	3,003	3,243	3,243

TABLE 18. Full-time graduate students in science, engineering, and health fields in all institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Agricultural engineering	748	756	767	706	758	769	870	808
Biomedical engineering	2,462	2,513	2,742	2,874	3,189	3,882	4,747	5,103
Chemical engineering	5,821	5,630	5,593	5,861	5,829	6,279	6,414	6,379
Civil engineering	11,406	11,154	11,237	11,754	12,102	12,981	13,710	13,587
Electrical engineering	18,999	19,608	20,521	22,962	25,240	28,240	28,929	26,732
Engineering science	1,018	1,114	1,035	1,098	1,218	1,441	1,770	1,741
Industrial engineering	5,116	4,894	5,500	6,049	6,534	7,200	7,098	6,591
Mechanical engineering	10,432	10,073	10,331	10,795	11,436	12,512	13,356	12,787
Metallurgical/materials engineering	3,694	3,736	3,563	3,601	3,977	4,242	4,386	4,359
Mining engineering	269	226	258	191	194	207	219	238
Nuclear engineering	708	662	641	660	651	655	752	809
Petroleum engineering	461	481	535	519	538	649	684	660
Engineering, nec	2,025	2,023	2,655	2,447	2,961	3,392	4,038	4,008
Health	46,620	48,446	50,530	49,928	50,501	53,490	58,356	61,546
Medical fields	10,212	10,944	11,554	11,029	11,822	13,334	14,742	14,905
Anesthesiology	781	708	674	661	786	830	1,001	985
Cardiology	32	36	62	53	50	42	30	79
Endocrinology	41	58	66	55	51	59	56	57
Gastroenterology	3	6	7	14	7	7	11	13
Hematology	3	1	3	6	6	8	25	24
Neurology	1,650	1,773	1,853	1,922	2,072	2,456	2,573	2,561
Obstetrics/gynecology	18	10	9	13	18	18	20	13
Oncology/cancer research	193	206	245	225	246	229	232	270
Ophthalmology	23	22	31	41	33	166	393	406
Otorhinolaryngology	2	0	3	8	4	8	9	6
Pediatrics	275	260	276	351	316	363	349	327
Preventive medicine/community health	5,878	6,611	6,968	6,271	6,535	7,154	7,721	7,718
Psychiatry	94	47	55	89	124	138	77	200
Pulmonary disease	0	0	6	7	8	4	10	7
Radiology	199	162	170	155	171	179	208	184
Surgery	157	109	113	128	97	65	67	59
Clinical medicine, nec	863	935	1,013	1,030	1,298	1,608	1,960	1,996
Other health	36,408	37,502	38,976	38,899	38,679	40,156	43,614	46,641
Dental sciences	1,290	1,284	1,226	1,301	1,322	1,317	1,514	1,494
Nursing	9,035	9,053	9,469	8,957	9,120	10,001	10,832	11,454
Pharmaceutical sciences	2,225	2,258	2,609	2,776	2,763	2,546	3,515	3,630
Speech pathology/audiology	9,811	10,008	10,432	10,421	10,096	10,193	10,541	11,005
Veterinary sciences	1,028	1,048	1,052	1,154	1,244	1,418	1,391	1,364
Health related, nec	13,019	13,851	14,188	14,290	14,134	14,681	15,821	17,694

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: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	183,392	180,993	182,940	186,261	193,465	206,169	214,034	212,803
Science and engineering	170,168	167,320	169,055	172,783	179,863	191,838	198,485	196,910
Science	116,988	114,712	114,555	115,359	118,608	124,803	128,345	129,721
Agricultural sciences	5,734	5,507	5,486	5,298	5,201	5,253	5,360	5,304
Biological sciences	23,819	23,487	23,097	22,604	22,707	23,848	24,684	24,936
Anatomy	438	410	385	398	358	440	408	400
Biochemistry	2,765	2,780	2,692	2,613	2,546	2,644	2,847	2,820
Biology	5,305	5,097	4,961	4,791	4,647	4,892	5,103	5,187
Biometry/epidemiology	779	1,007	986	934	982	1,074	1,164	1,190
Biophysics	517	509	479	500	586	599	647	706
Botany	938	909	883	826	853	856	817	766
Cell biology	2,152	2,126	2,153	2,200	2,264	2,429	2,509	2,568
Ecology	610	613	599	592	653	649	666	682
Entomology/parasitology	636	645	619	583	571	575	560	564
Genetics	779	718	736	714	751	773	826	814
Microbiology/immunology/virology	2,220	2,218	2,221	2,240	2,154	2,287	2,212	2,197
Nutrition	879	852	802	787	779	786	787	751
Pathology	727	666	669	590	611	597	544	557
Pharmacology	1,293	1,317	1,316	1,310	1,308	1,291	1,353	1,360
Physiology	1,243	1,182	1,087	1,055	986	1,000	1,104	1,097
Zoology	805	731	720	673	647	613	549	518
Biosciences, nec	1,733	1,707	1,789	1,798	2,011	2,343	2,588	2,759
Computer sciences	13,536	14,520	16,313	19,098	21,776	23,743	22,858	22,057
Earth, atmospheric, and ocean sciences	6,650	6,374	6,171	6,119	5,936	6,194	6,314	6,329
Atmospheric sciences	729	641	567	599	539	618	682	642
Geosciences	3,611	3,388	3,312	3,266	3,183	3,268	3,283	3,313
Oceanography	1,152	1,129	1,122	1,109	1,042	1,074	1,096	1,069
Earth/atmospheric/ocean sciences, nec	1,158	1,216	1,170	1,145	1,172	1,234	1,253	1,305
Mathematical sciences	8,171	7,797	7,662	7,669	8,085	8,807	9,488	9,704
Mathematics/applied mathematics	6,920	6,601	6,474	6,454	6,811	7,414	7,957	8,132
Statistics	1,251	1,196	1,188	1,215	1,274	1,393	1,531	1,572
Physical sciences	19,454	19,034	19,065	18,750	19,093	19,816	21,014	21,802
Astronomy	564	566	590	573	607	654	692	733
Chemistry	10,384	10,278	10,315	9,921	10,155	10,420	10,852	11,128
Physics	8,386	8,086	8,024	8,114	8,184	8,577	9,286	9,787
Physical sciences, nec	120	104	136	142	147	165	184	154
Psychology	10,833	10,509	10,073	9,841	9,303	9,303	9,414	9,975
Clinical psychology	2,944	2,812	2,795	2,557	2,452	2,344	2,313	2,349
Psychology, general	3,966	3,891	3,537	3,540	3,288	3,246	3,459	3,692
Psychology, nec	3,923	3,806	3,741	3,744	3,563	3,713	3,642	3,934
Social sciences	28,791	27,484	26,688	25,980	26,507	27,839	29,213	29,614
Agricultural economics	1,135	1,103	1,091	1,100	1,143	1,212	1,231	1,150
Anthropology (cultural/social)	2,368	2,292	2,295	2,184	2,209	2,189	2,234	2,122
Economics (except agricultural)	6,068	5,844	5,655	5,692	5,991	6,246	6,395	6,341
Geography	1,828	1,762	1,636	1,581	1,684	1,684	1,774	1,851
History and philosophy of science	244	257	267	239	226	232	267	309
Linguistics	844	781	782	754	769	797	830	843
Political science	9,279	8,833	8,512	8,290	8,176	8,921	9,532	10,084
Sociology	2,670	2,467	2,312	2,229	2,196	2,323	2,391	2,269
Sociology/anthropology	263	241	180	200	223	202	199	195
Social sciences, nec	4,092	3,904	3,958	3,711	3,890	4,033	4,360	4,450
Engineering	53,180	52,608	54,500	57,424	61,255	67,035	70,140	67,189
Aerospace engineering	2,226	2,251	2,320	2,385	2,435	2,591	2,790	2,789

TABLE 19. Male full-time graduate students in science, engineering, and health fields in all institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Agricultural engineering	560	545	546	476	511	536	603	556
Biomedical engineering	1,733	1,748	1,840	1,921	2,089	2,492	2,977	3,173
Chemical engineering	4,451	4,233	4,197	4,315	4,289	4,613	4,604	4,562
Civil engineering	8,495	8,213	8,192	8,454	8,677	9,201	9,592	9,412
Electrical engineering	16,102	16,471	17,147	19,073	20,767	22,884	23,361	21,645
Engineering science	843	892	838	879	961	1,137	1,406	1,363
Industrial engineering	4,009	3,810	4,364	4,710	5,105	5,628	5,467	4,997
Mechanical engineering	9,143	8,840	9,069	9,451	9,998	10,932	11,608	10,998
Metallurgical/materials engineering	2,819	2,829	2,715	2,751	2,988	3,180	3,258	3,217
Mining engineering	218	181	215	156	163	177	187	208
Nuclear engineering	586	551	530	535	523	527	598	641
Petroleum engineering	392	433	462	447	460	554	568	540
Engineering, nec	1,603	1,611	2,065	1,871	2,289	2,583	3,121	3,088
Health	13,224	13,673	13,885	13,478	13,602	14,331	15,549	15,893
Medical fields	4,588	4,761	4,835	4,520	4,784	5,329	5,722	5,577
Anesthesiology	340	307	311	329	359	341	416	372
Cardiology	25	28	37	38	31	23	22	61
Endocrinology	23	33	35	27	24	27	29	20
Gastroenterology	1	6	2	8	1	1	1	6
Hematology	0	0	0	4	4	1	10	12
Neurology	952	1,027	1,060	1,063	1,097	1,308	1,310	1,276
Obstetrics/gynecology	9	6	1	7	9	6	10	4
Oncology/cancer research	86	97	111	103	112	85	90	116
Ophthalmology	8	6	9	18	19	98	135	142
Otorhinolaryngology	2	0	3	3	2	7	7	5
Pediatrics	52	49	52	85	50	55	60	57
Preventive medicine/community health	2,319	2,464	2,432	2,089	2,157	2,437	2,513	2,382
Psychiatry	29	12	16	25	43	34	24	48
Pulmonary disease	0	0	4	5	3	3	5	1
Radiology	145	118	126	105	113	112	130	112
Surgery	86	51	61	65	69	47	50	41
Clinical medicine, nec	511	557	575	546	691	744	910	922
Other health	8,636	8,912	9,050	8,958	8,818	9,002	9,827	10,316
Dental sciences	797	805	768	799	822	811	918	888
Nursing	899	990	1,103	1,095	1,125	1,315	1,445	1,391
Pharmaceutical sciences	1,164	1,182	1,305	1,371	1,388	1,299	1,667	1,692
Speech pathology/audiology	781	801	835	717	725	649	663	681
Veterinary sciences	505	484	442	508	508	542	539	540
Health related, nec	4,490	4,650	4,597	4,468	4,250	4,386	4,595	5,124

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: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	143,897	146,396	151,483	155,022	161,057	172,838	183,350	189,358
Science and engineering	110,501	111,623	114,838	118,572	124,158	133,679	140,543	143,705
Science	97,993	98,796	101,315	103,720	107,965	115,262	120,467	123,849
Agricultural sciences	3,628	3,692	3,885	4,059	4,204	4,432	4,643	4,736
Biological sciences	22,838	23,292	23,849	24,183	25,431	27,748	29,666	30,883
Anatomy	359	323	323	354	317	425	421	421
Biochemistry	2,046	2,101	2,108	2,102	2,096	2,297	2,479	2,498
Biology	5,013	4,934	4,943	4,883	5,141	5,509	6,073	6,348
Biometry/epidemiology	1,214	1,559	1,656	1,628	1,754	1,938	2,044	2,028
Biophysics	211	198	202	219	251	297	321	409
Botany	864	894	875	879	867	935	913	887
Cell biology	1,828	1,929	2,120	2,222	2,276	2,545	2,711	2,827
Ecology	576	602	651	660	732	778	818	849
Entomology/parasitology	359	355	352	396	418	426	464	482
Genetics	899	920	944	935	992	1,055	1,157	1,233
Microbiology/immunology/virology	2,153	2,159	2,262	2,261	2,346	2,615	2,768	2,886
Nutrition	2,441	2,356	2,385	2,349	2,490	2,575	2,627	2,620
Pathology	693	673	695	703	739	743	775	793
Pharmacology	1,168	1,245	1,263	1,317	1,438	1,532	1,573	1,614
Physiology	859	808	803	818	841	933	1,061	1,154
Zoology	612	603	571	563	584	562	545	554
Biosciences, nec	1,543	1,633	1,696	1,894	2,149	2,583	2,916	3,280
Computer sciences	4,799	5,452	6,374	7,460	8,311	8,836	7,850	7,224
Earth, atmospheric, and ocean sciences	3,860	4,070	4,313	4,439	4,568	4,922	5,183	5,356
Atmospheric sciences	237	215	226	245	273	302	337	321
Geosciences	1,802	1,824	1,926	1,992	2,039	2,169	2,291	2,399
Oceanography	821	919	1,001	1,055	1,016	1,060	1,163	1,215
Earth/atmospheric/ocean sciences, nec	1,000	1,112	1,160	1,147	1,240	1,391	1,392	1,421
Mathematical sciences	3,973	3,954	4,134	4,071	4,382	4,902	5,139	5,177
Mathematics/applied mathematics	3,144	3,121	3,201	3,056	3,213	3,587	3,665	3,748
Statistics	829	833	933	1,015	1,169	1,315	1,474	1,429
Physical sciences	7,428	7,357	7,570	7,742	8,086	8,803	9,427	9,884
Astronomy	204	221	218	250	253	292	331	345
Chemistry	5,608	5,499	5,644	5,728	5,923	6,410	6,842	7,183
Physics	1,537	1,575	1,636	1,695	1,823	1,982	2,144	2,241
Physical sciences, nec	79	62	72	69	87	119	110	115
Psychology	24,718	24,639	24,585	25,078	25,184	25,404	26,360	27,830
Clinical psychology	6,977	7,000	7,146	7,168	7,245	7,132	7,363	7,846
Psychology, general	8,381	8,282	8,009	8,073	7,992	7,523	8,056	8,084
Psychology, nec	9,360	9,357	9,430	9,837	9,947	10,749	10,941	11,900
Social sciences	26,749	26,340	26,605	26,688	27,799	30,215	32,199	32,759
Agricultural economics	583	567	594	680	726	762	812	738
Anthropology (cultural/social)	3,431	3,442	3,519	3,437	3,368	3,564	3,711	3,710
Economics (except agricultural)	2,745	2,720	2,735	2,938	3,209	3,467	3,623	3,628
Geography	1,139	1,146	1,150	1,081	1,229	1,229	1,371	1,321
History and philosophy of science	133	147	162	173	174	188	190	224
Linguistics	1,576	1,505	1,400	1,350	1,408	1,464	1,559	1,521
Political science	7,792	7,483	7,659	7,799	8,279	9,711	10,431	11,055
Sociology	4,047	3,993	3,966	3,882	3,951	4,112	4,292	4,159
Sociology/anthropology	403	374	338	324	355	355	360	403
Social sciences, nec	4,900	4,963	5,082	5,024	5,100	5,363	5,850	6,000
Engineering	12,508	12,827	13,523	14,852	16,193	18,417	20,076	19,856
Aerospace engineering	303	314	325	374	386	412	453	454

TABLE 20. Female full-time graduate students in science, engineering, and health fields in all institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Agricultural engineering	188	211	221	230	247	233	267	252
Biomedical engineering	729	765	902	953	1,100	1,390	1,770	1,930
Chemical engineering	1,370	1,397	1,396	1,546	1,540	1,666	1,810	1,817
Civil engineering	2,911	2,941	3,045	3,300	3,425	3,780	4,118	4,175
Electrical engineering	2,897	3,137	3,374	3,889	4,473	5,356	5,568	5,087
Engineering science	175	222	197	219	257	304	364	378
Industrial engineering	1,107	1,084	1,136	1,339	1,429	1,572	1,631	1,594
Mechanical engineering	1,289	1,233	1,262	1,344	1,438	1,580	1,748	1,789
Metallurgical/materials engineering	875	907	848	850	989	1,062	1,128	1,142
Mining engineering	51	45	43	35	31	30	32	30
Nuclear engineering	122	111	111	125	128	128	154	168
Petroleum engineering	69	48	73	72	78	95	116	120
Engineering, nec	422	412	590	576	672	809	917	920
Health	33,396	34,773	36,645	36,450	36,899	39,159	42,807	45,653
Medical fields	5,624	6,183	6,719	6,509	7,038	8,005	9,020	9,328
Anesthesiology	441	401	363	332	427	489	585	613
Cardiology	7	8	25	15	19	19	8	18
Endocrinology	18	25	31	28	27	32	27	37
Gastroenterology	2	0	5	6	6	6	10	7
Hematology	3	1	3	2	2	7	15	12
Neurology	698	746	793	859	975	1,148	1,263	1,285
Obstetrics/gynecology	9	4	8	6	9	12	10	9
Oncology/cancer research	107	109	134	122	134	144	142	154
Ophthalmology	15	16	22	23	14	68	258	264
Otorhinolaryngology	0	0	0	5	2	1	2	1
Pediatrics	223	211	224	266	266	308	289	270
Preventive medicine/community health	3,559	4,147	4,536	4,182	4,378	4,717	5,208	5,336
Psychiatry	65	35	39	64	81	104	53	152
Pulmonary disease	0	0	2	2	5	1	5	6
Radiology	54	44	44	50	58	67	78	72
Surgery	71	58	52	63	28	18	17	18
Clinical medicine, nec	352	378	438	484	607	864	1,050	1,074
Other health	27,772	28,590	29,926	29,941	29,861	31,154	33,787	36,325
Dental sciences	493	479	458	502	500	506	596	606
Nursing	8,136	8,063	8,366	7,862	7,995	8,686	9,387	10,063
Pharmaceutical sciences	1,061	1,076	1,304	1,405	1,375	1,247	1,848	1,938
Speech pathology/audiology	9,030	9,207	9,597	9,704	9,371	9,544	9,878	10,324
Veterinary sciences	523	564	610	646	736	876	852	824
Health related, nec	8,529	9,201	9,591	9,822	9,884	10,295	11,226	12,570

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: 1997–2004

Field, citizenship, and race/ethnicity	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	327,289	327,389	334,423	341,283	354,522	379,007	397,384	402,161
U.S. citizens and permanent residents	238,582	236,368	236,247	231,070	233,653	247,727	265,165	273,841
American Indian/Alaska Native	1,361	1,339	1,290	1,365	1,413	1,496	1,548	1,581
Asian/Pacific Islander	20,049	20,941	21,643	19,730	20,863	22,919	24,623	25,168
Black, non-Hispanic	13,567	13,782	13,963	15,014	15,307	16,347	17,678	18,543
Hispanic	11,545	11,955	12,810	13,625	14,328	15,615	17,298	18,067
White, non-Hispanic	180,714	177,215	175,601	168,649	168,061	175,944	186,026	190,239
Other or unknown	11,346	11,136	10,940	12,687	13,681	15,406	17,992	20,243
Temporary-visa holders	88,707	91,021	98,176	110,213	120,869	131,280	132,219	128,320
Science and engineering	280,669	278,943	283,893	291,355	304,021	325,517	339,028	340,615
U.S. citizens and permanent residents	195,974	191,945	190,076	185,673	188,225	200,245	212,988	218,266
American Indian/Alaska Native	1,123	1,098	1,026	1,102	1,131	1,157	1,235	1,256
Asian/Pacific Islander	17,046	17,563	18,078	16,123	17,103	19,045	20,355	20,548
Black, non-Hispanic	11,401	11,299	11,211	12,079	12,057	12,831	13,522	14,067
Hispanic	9,552	9,895	10,288	10,821	11,381	12,560	13,674	14,284
White, non-Hispanic	147,456	142,733	140,342	134,934	134,994	141,760	149,129	151,555
Other or unknown	9,396	9,357	9,131	10,614	11,559	12,892	15,073	16,556
Temporary-visa holders	84,695	86,998	93,817	105,682	115,796	125,272	126,040	122,349
Science	214,981	213,508	215,870	219,079	226,573	240,065	248,812	253,570
U.S. citizens and permanent residents	161,097	158,559	157,735	154,545	156,361	164,919	173,674	178,771
American Indian/Alaska Native	983	962	905	991	1,002	1,019	1,070	1,100
Asian/Pacific Islander	12,326	12,759	13,090	11,837	12,457	13,439	14,131	14,501
Black, non-Hispanic	9,727	9,721	9,605	10,365	10,401	11,026	11,687	12,097
Hispanic	7,963	8,251	8,672	9,112	9,568	10,567	11,384	11,867
White, non-Hispanic	122,705	119,278	117,928	113,493	113,332	118,238	123,261	125,425
Other or unknown	7,393	7,588	7,535	8,747	9,601	10,630	12,141	13,781
Temporary-visa holders	53,884	54,949	58,135	64,534	70,212	75,146	75,138	74,799
Agricultural sciences	9,362	9,199	9,371	9,357	9,405	9,685	10,003	10,040
U.S. citizens and permanent residents	6,951	6,915	7,176	7,259	7,178	7,363	7,653	7,628
American Indian/Alaska Native	47	58	51	41	41	58	54	59
Asian/Pacific Islander	244	250	249	196	211	228	259	264
Black, non-Hispanic	233	221	218	244	267	289	346	298
Hispanic	300	293	315	344	306	294	368	412
White, non-Hispanic	5,862	5,881	6,125	6,118	5,976	6,154	6,307	6,261
Other or unknown	265	212	218	316	377	340	319	334
Temporary-visa holders	2,411	2,284	2,195	2,098	2,227	2,322	2,350	2,412
Biological sciences	46,657	46,779	46,946	46,787	48,138	51,596	54,350	55,819
U.S. citizens and permanent residents	36,498	36,384	36,739	35,967	36,668	38,757	40,561	41,304
American Indian/Alaska Native	165	160	141	160	176	178	192	205
Asian/Pacific Islander	3,817	3,811	3,864	3,630	4,080	4,209	4,468	4,611
Black, non-Hispanic	1,669	1,638	1,687	1,718	1,817	1,942	2,097	2,238
Hispanic	1,612	1,656	1,756	1,726	1,892	2,142	2,334	2,521
White, non-Hispanic	27,852	27,592	27,543	26,922	26,820	28,281	29,022	29,265
Other or unknown	1,383	1,527	1,748	1,811	1,883	2,005	2,448	2,464
Temporary-visa holders	10,159	10,395	10,207	10,820	11,470	12,839	13,789	14,515
Computer sciences	18,335	19,972	22,687	26,558	30,087	32,579	30,708	29,281
U.S. citizens and permanent residents	8,578	9,042	9,939	9,630	10,164	11,919	12,744	12,799
American Indian/Alaska Native	22	47	33	39	42	45	51	49
Asian/Pacific Islander	1,964	2,299	2,869	2,259	2,329	2,678	2,466	2,204
Black, non-Hispanic	494	476	537	608	655	800	800	800
Hispanic	242	266	295	283	304	384	465	505
White, non-Hispanic	5,232	5,386	5,600	5,679	5,997	6,813	7,757	7,992
Other or unknown	624	568	605	762	837	1,199	1,205	1,249
Temporary-visa holders	9,757	10,930	12,748	16,928	19,923	20,660	17,964	16,482

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: 1997–2004

Field, citizenship, and race/ethnicity	1997	1998	1999	2000	2001	2002	2003	2004
Earth, atmospheric, and ocean sciences	10,510	10,444	10,484	10,558	10,504	11,116	11,497	11,685
U.S. citizens and permanent residents	8,289	8,258	8,268	8,155	8,032	8,579	8,984	9,129
American Indian/Alaska Native	46	57	42	46	53	64	50	51
Asian/Pacific Islander	288	304	292	272	266	278	294	356
Black, non-Hispanic	137	134	137	159	140	193	195	194
Hispanic	272	253	304	267	297	334	394	417
White, non-Hispanic	7,231	7,148	7,163	7,113	6,957	7,313	7,518	7,582
Other or unknown	315	362	330	298	319	397	533	529
Temporary-visa holders	2,221	2,186	2,216	2,403	2,472	2,537	2,513	2,556
Mathematical sciences	12,144	11,751	11,796	11,740	12,467	13,709	14,627	14,881
U.S. citizens and permanent residents	7,262	7,061	6,588	6,345	6,656	7,390	7,923	8,249
American Indian/Alaska Native	32	22	20	14	20	10	16	19
Asian/Pacific Islander	693	771	626	590	624	744	807	886
Black, non-Hispanic	386	355	342	349	359	369	382	391
Hispanic	242	260	274	273	300	334	364	361
White, non-Hispanic	5,572	5,286	4,991	4,722	4,931	5,416	5,788	6,007
Other or unknown	337	367	335	397	422	517	566	585
Temporary-visa holders	4,882	4,690	5,208	5,395	5,811	6,319	6,704	6,632
Physical sciences	26,882	26,391	26,635	26,492	27,179	28,619	30,441	31,686
U.S. citizens and permanent residents	16,805	16,468	16,300	15,601	15,719	16,236	17,235	18,153
American Indian/Alaska Native	58	57	62	65	67	71	70	68
Asian/Pacific Islander	1,345	1,442	1,400	1,251	1,198	1,148	1,335	1,439
Black, non-Hispanic	741	728	700	691	683	697	736	803
Hispanic	648	680	728	682	731	810	923	1,026
White, non-Hispanic	13,294	12,855	12,782	12,224	12,185	12,641	13,154	13,724
Other or unknown	719	706	628	688	855	869	1,017	1,093
Temporary-visa holders	10,077	9,923	10,335	10,891	11,460	12,383	13,206	13,533
Psychology	35,551	35,148	34,658	34,919	34,487	34,707	35,774	37,805
U.S. citizens and permanent residents	33,881	33,410	32,921	33,059	32,471	32,512	33,316	35,164
American Indian/Alaska Native	263	222	220	271	226	221	241	248
Asian/Pacific Islander	1,438	1,464	1,529	1,569	1,583	1,590	1,681	1,751
Black, non-Hispanic	2,221	2,417	2,200	2,574	2,515	2,484	2,571	2,758
Hispanic	2,096	2,305	2,454	2,941	2,988	3,233	3,271	3,356
White, non-Hispanic	26,281	25,444	24,840	23,869	23,191	23,023	23,355	23,698
Other or unknown	1,582	1,558	1,678	1,835	1,968	1,961	2,197	3,353
Temporary-visa holders	1,670	1,738	1,737	1,860	2,016	2,195	2,458	2,641
Social sciences	55,540	53,824	53,293	52,668	54,306	58,054	61,412	62,373
U.S. citizens and permanent residents	42,833	41,021	39,804	38,529	39,473	42,163	45,258	46,345
American Indian/Alaska Native	350	339	336	355	377	372	396	401
Asian/Pacific Islander	2,537	2,418	2,261	2,070	2,166	2,564	2,821	2,990
Black, non-Hispanic	3,846	3,752	3,784	4,022	3,965	4,252	4,560	4,615
Hispanic	2,551	2,538	2,546	2,596	2,750	3,036	3,265	3,269
White, non-Hispanic	31,381	29,686	28,884	26,846	27,275	28,597	30,360	30,896
Other or unknown	2,168	2,288	1,993	2,640	2,940	3,342	3,856	4,174
Temporary-visa holders	12,707	12,803	13,489	14,139	14,833	15,891	16,154	16,028
Engineering	65,688	65,435	68,023	72,276	77,448	85,452	90,216	87,045
U.S. citizens and permanent residents	34,877	33,386	32,341	31,128	31,864	35,326	39,314	39,495
American Indian/Alaska Native	140	136	121	111	129	138	165	156
Asian/Pacific Islander	4,720	4,804	4,988	4,286	4,646	5,606	6,224	6,047
Black, non-Hispanic	1,674	1,578	1,606	1,714	1,656	1,805	1,835	1,970
Hispanic	1,589	1,644	1,616	1,709	1,813	1,993	2,290	2,417
White, non-Hispanic	24,751	23,455	22,414	21,441	21,662	23,522	25,868	26,130
Other or unknown	2,003	1,769	1,596	1,867	1,958	2,262	2,932	2,775
Temporary-visa holders	30,811	32,049	35,682	41,148	45,584	50,126	50,902	47,550

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: 1997–2004

Field, citizenship, and race/ethnicity	1997	1998	1999	2000	2001	2002	2003	2004
Chemical engineering	5,821	5,630	5,593	5,861	5,829	6,279	6,414	6,379
U.S. citizens and permanent residents	3,281	3,059	2,826	2,792	2,630	2,874	2,935	3,071
American Indian/Alaska Native	13	16	13	17	9	19	18	25
Asian/Pacific Islander	405	356	384	420	409	438	423	418
Black, non-Hispanic	130	126	101	125	135	135	133	137
Hispanic	115	146	152	145	152	181	205	208
White, non-Hispanic	2,500	2,306	2,074	1,954	1,844	1,985	2,040	2,158
Other or unknown	118	109	102	131	81	116	116	125
Temporary-visa holders	2,540	2,571	2,767	3,069	3,199	3,405	3,479	3,308
Civil engineering	11,406	11,154	11,237	11,754	12,102	12,981	13,710	13,587
U.S. citizens and permanent residents	7,082	6,871	6,492	6,313	6,299	6,703	7,301	7,486
American Indian/Alaska Native	41	26	30	21	24	34	36	33
Asian/Pacific Islander	627	721	624	482	518	583	656	662
Black, non-Hispanic	247	230	247	275	261	276	251	261
Hispanic	442	464	457	516	495	474	561	558
White, non-Hispanic	5,444	5,136	4,839	4,739	4,695	4,937	5,359	5,522
Other or unknown	281	294	295	280	306	399	438	450
Temporary-visa holders	4,324	4,283	4,745	5,441	5,803	6,278	6,409	6,101
Electrical engineering	18,999	19,608	20,521	22,962	25,240	28,240	28,929	26,732
U.S. citizens and permanent residents	8,524	8,139	7,595	7,253	7,750	8,654	9,601	9,087
American Indian/Alaska Native	25	13	18	19	27	16	31	27
Asian/Pacific Islander	1,767	1,824	1,908	1,601	1,752	2,242	2,546	2,258
Black, non-Hispanic	482	466	452	427	428	458	438	488
Hispanic	388	387	327	328	376	499	555	560
White, non-Hispanic	5,108	4,875	4,410	4,230	4,471	4,764	5,169	5,050
Other or unknown	754	574	480	648	696	675	862	704
Temporary-visa holders	10,475	11,469	12,926	15,709	17,490	19,586	19,328	17,645
Industrial engineering	5,116	4,894	5,500	6,049	6,534	7,200	7,098	6,591
U.S. citizens and permanent residents	2,443	2,255	2,447	2,324	2,163	2,565	2,750	2,599
American Indian/Alaska Native	8	9	15	16	16	8	14	10
Asian/Pacific Islander	324	306	379	258	266	364	370	342
Black, non-Hispanic	189	166	175	231	200	246	258	253
Hispanic	144	125	148	155	171	174	190	233
White, non-Hispanic	1,651	1,523	1,617	1,497	1,365	1,601	1,616	1,514
Other or unknown	127	126	113	167	145	172	302	247
Temporary-visa holders	2,673	2,639	3,053	3,725	4,371	4,635	4,348	3,992
Mechanical engineering	10,432	10,073	10,331	10,795	11,436	12,512	13,356	12,787
U.S. citizens and permanent residents	5,591	5,212	5,007	4,614	4,795	5,186	5,861	5,888
American Indian/Alaska Native	22	19	18	12	18	20	22	18
Asian/Pacific Islander	631	626	663	488	609	578	661	626
Black, non-Hispanic	315	285	250	263	247	230	247	243
Hispanic	234	238	231	209	246	270	315	363
White, non-Hispanic	4,073	3,716	3,613	3,412	3,456	3,791	4,237	4,257
Other or unknown	316	328	232	230	219	297	379	381
Temporary-visa holders	4,841	4,861	5,324	6,181	6,641	7,326	7,495	6,899
Other engineering	13,914	14,076	14,841	14,855	16,307	18,240	20,709	20,969
U.S. citizens and permanent residents	7,956	7,850	7,974	7,832	8,227	9,344	10,866	11,364
American Indian/Alaska Native	31	53	27	26	35	41	44	43
Asian/Pacific Islander	966	971	1,030	1,037	1,092	1,401	1,568	1,741
Black, non-Hispanic	311	305	381	393	385	460	508	588
Hispanic	266	284	301	356	373	395	464	495
White, non-Hispanic	5,975	5,899	5,861	5,609	5,831	6,444	7,447	7,629
Other or unknown	407	338	374	411	511	603	835	868
Temporary-visa holders	5,958	6,226	6,867	7,023	8,080	8,896	9,843	9,605

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: 1997–2004

Field, citizenship, and race/ethnicity	1997	1998	1999	2000	2001	2002	2003	2004
Health fields	46,620	48,446	50,530	49,928	50,501	53,490	58,356	61,546
U.S. citizens and permanent residents	42,608	44,423	46,171	45,397	45,428	47,482	52,177	55,575
American Indian/Alaska Native	238	241	264	263	282	339	313	325
Asian/Pacific Islander	3,003	3,378	3,565	3,607	3,760	3,874	4,268	4,620
Black, non-Hispanic	2,166	2,483	2,752	2,935	3,250	3,516	4,156	4,476
Hispanic	1,993	2,060	2,522	2,804	2,947	3,055	3,624	3,783
White, non-Hispanic	33,258	34,482	35,259	33,715	33,067	34,184	36,897	38,684
Other or unknown	1,950	1,779	1,809	2,073	2,122	2,514	2,919	3,687
Temporary-visa holders	4,012	4,023	4,359	4,531	5,073	6,008	6,179	5,971

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: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	88,707	91,021	98,176	110,213	120,869	131,280	132,219	128,320
Science and engineering	84,695	86,998	93,817	105,682	115,796	125,272	126,040	122,349
Science	53,884	54,949	58,135	64,534	70,212	75,146	75,138	74,799
Agricultural sciences	2,411	2,284	2,195	2,098	2,227	2,322	2,350	2,412
Biological sciences	10,159	10,395	10,207	10,820	11,470	12,839	13,789	14,515
Anatomy	161	149	147	172	169	184	190	176
Biochemistry	1,370	1,402	1,387	1,542	1,519	1,679	1,845	1,904
Biology	1,764	1,785	1,714	1,775	1,904	2,168	2,292	2,438
Biometry/epidemiology	436	604	654	695	762	953	1,029	1,006
Biophysics	170	162	151	200	257	287	310	362
Botany	551	565	549	538	546	570	558	558
Cell biology	823	833	827	965	1,077	1,207	1,329	1,521
Ecology	133	135	156	161	173	191	221	228
Entomology/parasitology	259	266	278	265	247	256	271	285
Genetics	399	382	370	363	418	411	503	539
Microbiology/immunology/virology	939	904	900	892	968	1,160	1,122	1,196
Nutrition	960	925	893	944	1,014	1,026	1,045	981
Pathology	281	278	283	287	283	290	318	300
Pharmacology	541	562	552	611	620	653	741	780
Physiology	401	417	433	424	415	435	503	490
Zoology	177	160	132	164	182	199	162	173
Biosciences, nec	794	866	781	822	916	1,170	1,350	1,578
Computer sciences	9,757	10,930	12,748	16,928	19,923	20,660	17,964	16,482
Earth, atmospheric, and ocean sciences	2,221	2,186	2,216	2,403	2,472	2,537	2,513	2,556
Atmospheric sciences	281	234	257	283	266	292	267	251
Geosciences	1,178	1,119	1,110	1,182	1,235	1,264	1,315	1,328
Oceanography	471	483	463	489	477	453	465	480
Earth/atmospheric/ocean sciences, nec	291	350	386	449	494	528	466	497
Mathematical sciences	4,882	4,690	5,208	5,395	5,811	6,319	6,704	6,632
Mathematics/applied mathematics	3,960	3,788	4,084	4,144	4,328	4,688	4,868	4,845
Statistics	922	902	1,124	1,251	1,483	1,631	1,836	1,787
Physical sciences	10,077	9,923	10,335	10,891	11,460	12,383	13,206	13,533
Astronomy	184	206	234	259	271	295	317	361
Chemistry	5,591	5,546	5,627	5,745	6,162	6,836	7,271	7,411
Physics	4,257	4,120	4,405	4,812	4,937	5,167	5,540	5,705
Physical sciences, nec	45	51	69	75	90	85	78	56
Psychology	1,670	1,738	1,737	1,860	2,016	2,195	2,458	2,641
Clinical psychology	275	303	319	326	355	407	422	340
Psychology, general	579	584	599	719	784	851	980	1,253
Psychology, nec	816	851	819	815	877	937	1,056	1,048
Social sciences	12,707	12,803	13,489	14,139	14,833	15,891	16,154	16,028
Agricultural economics	821	786	807	904	950	975	1,019	903
Anthropology (cultural/social)	596	637	701	695	658	722	727	748
Economics (except agricultural)	4,773	4,651	4,916	5,227	5,700	6,006	6,053	5,951
Geography	442	492	497	541	629	633	652	660
History and philosophy of science	64	61	57	67	67	65	64	64
Linguistics	862	882	858	866	880	850	878	918
Political science	2,863	2,943	3,271	3,452	3,519	3,944	4,123	4,121
Sociology	990	942	1,013	1,078	1,069	1,157	1,200	1,134
Sociology/anthropology	73	87	63	67	72	60	64	75
Social sciences, nec	1,223	1,322	1,306	1,242	1,289	1,479	1,374	1,454
Engineering	30,811	32,049	35,682	41,148	45,584	50,126	50,902	47,550

TABLE 22. Full-time graduate students with temporary visas in science, engineering, and health fields in all institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Aerospace engineering	1,202	1,297	1,367	1,401	1,537	1,569	1,563	1,548
Agricultural engineering	351	358	369	333	366	374	440	404
Biomedical engineering	652	659	799	877	1,054	1,426	1,763	1,788
Chemical engineering	2,540	2,571	2,767	3,069	3,199	3,405	3,479	3,308
Civil engineering	4,324	4,283	4,745	5,441	5,803	6,278	6,409	6,101
Electrical engineering	10,475	11,469	12,926	15,709	17,490	19,586	19,328	17,645
Engineering science	398	485	469	576	653	745	878	893
Industrial engineering	2,673	2,639	3,053	3,725	4,371	4,635	4,348	3,992
Mechanical engineering	4,841	4,861	5,324	6,181	6,641	7,326	7,495	6,899
Metallurgical/materials engineering	1,772	1,842	1,851	1,956	2,201	2,362	2,426	2,363
Mining engineering	106	56	90	97	94	94	101	103
Nuclear engineering	274	273	298	312	337	315	340	339
Petroleum engineering	381	419	449	330	340	410	590	541
Engineering, nec	822	837	1,175	1,141	1,498	1,601	1,742	1,626
Health	4,012	4,023	4,359	4,531	5,073	6,008	6,179	5,971
Medical fields	1,230	1,283	1,450	1,333	1,746	2,303	2,273	2,177
Anesthesiology	2	8	1	2	1	4	13	8
Cardiology	23	13	17	14	16	18	15	16
Endocrinology	19	17	17	13	18	18	24	19
Gastroenterology	3	0	0	1	1	1	2	0
Hematology	0	0	0	4	0	2	7	1
Neurology	213	238	261	315	357	422	486	520
Obstetrics/gynecology	0	0	1	1	0	2	5	4
Oncology/cancer research	34	31	49	40	47	40	33	45
Ophthalmology	6	15	16	16	9	42	18	23
Otorhinolaryngology	0	0	2	0	0	0	0	0
Pediatrics	24	23	23	32	37	51	41	42
Preventive medicine/community health	788	825	936	755	1,086	1,489	1,353	1,245
Psychiatry	15	1	3	2	1	4	9	13
Pulmonary disease	0	0	0	0	0	1	5	0
Radiology	38	29	29	27	33	50	62	57
Surgery	5	5	7	9	7	2	4	7
Clinical medicine, nec	60	78	88	102	133	157	196	177
Other health	2,782	2,740	2,909	3,198	3,327	3,705	3,906	3,794
Dental sciences	329	317	272	336	294	318	284	289
Nursing	305	306	352	337	316	398	462	388
Pharmaceutical sciences	1,062	1,048	1,054	1,195	1,238	1,313	1,431	1,343
Speech pathology/audiology	295	312	336	351	360	374	402	371
Veterinary sciences	286	259	285	307	326	337	349	341
Health related, nec	505	498	610	672	793	965	978	1,062

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: 1997–2004

Field and primary source of support	1997	1998	1999	2000	2001	2002	2003	2004
All sources	327,289	327,389	334,423	341,283	354,522	379,007	397,384	402,161
Federal	64,522	63,759	65,796	67,588	68,873	75,583	81,776	83,146
DOD	9,021	8,259	8,026	8,141	7,960	7,977	9,204	8,232
DOE ^a	NA	NA	2,749	2,995	3,116	3,548	4,024	4,096
HHS	22,530	22,704	23,442	23,490	24,337	26,974	29,231	30,999
NIH	18,087	18,215	19,019	19,472	19,876	22,101	24,243	26,622
Other HHS	4,443	4,489	4,423	4,018	4,461	4,873	4,988	4,377
NASA	2,586	2,646	2,579	2,780	2,819	3,082	3,230	2,914
NSF	13,362	13,459	13,835	14,599	15,429	17,138	19,308	20,031
USDA	2,646	2,485	2,634	2,630	2,735	3,100	3,468	3,527
Other ^a	14,377	14,206	12,531	12,953	12,477	13,764	13,311	13,347
Institutional	128,927	128,995	133,182	133,401	140,719	147,822	151,659	154,022
Other nonfederal	25,099	26,411	26,029	27,862	28,294	28,957	29,255	27,759
Domestic	20,251	22,157	22,099	24,014	24,458	25,598	26,157	24,890
Foreign	4,848	4,254	3,930	3,848	3,836	3,359	3,098	2,869
Self-support	108,741	108,224	109,416	112,432	116,636	126,645	134,694	137,234
Science and engineering	280,669	278,943	283,893	291,355	304,021	325,517	339,028	340,615
Federal	56,798	55,810	57,332	59,224	60,237	66,386	72,343	73,530
DOD	8,701	7,959	7,662	7,734	7,715	7,693	8,908	7,928
DOE ^a	NA	NA	2,719	2,980	3,105	3,540	4,011	4,084
HHS	16,816	16,740	17,246	17,684	18,098	20,196	22,242	23,822
NIH	15,352	15,308	15,987	16,315	16,578	18,597	20,441	22,365
Other HHS	1,464	1,432	1,259	1,369	1,520	1,599	1,801	1,457
NASA	2,565	2,620	2,564	2,762	2,797	3,066	3,217	2,898
NSF	13,264	13,339	13,712	14,475	15,300	17,010	19,160	19,877
USDA	2,603	2,426	2,573	2,568	2,685	3,026	3,390	3,450
Other ^a	12,849	12,726	10,856	11,021	10,537	11,855	11,415	11,471
Institutional	119,227	118,944	122,271	122,429	129,746	136,301	139,479	140,994
Other nonfederal	23,124	24,201	23,811	25,403	25,745	26,245	26,504	25,016
Domestic	18,762	20,379	20,303	21,913	22,286	23,215	23,736	22,413
Foreign	4,362	3,822	3,508	3,490	3,459	3,030	2,768	2,603
Self-support	81,520	79,988	80,479	84,299	88,293	96,585	100,702	101,075
Science	214,981	213,508	215,870	219,079	226,573	240,065	248,812	253,570
Federal	40,909	40,289	41,427	42,517	43,165	47,524	50,870	52,686
DOD	3,927	3,643	3,309	3,259	3,331	3,293	3,426	3,087
DOE ^a	NA	NA	1,732	1,772	1,813	2,011	2,292	2,316
HHS	15,901	15,839	16,285	16,550	16,810	18,730	20,286	21,668
NIH	14,586	14,554	15,143	15,317	15,445	17,315	18,796	20,458
Other HHS	1,315	1,285	1,142	1,233	1,365	1,415	1,490	1,210
NASA	1,304	1,375	1,429	1,492	1,443	1,572	1,575	1,466
NSF	8,653	8,620	8,768	9,264	9,866	11,058	12,434	13,058
USDA	2,371	2,229	2,333	2,351	2,425	2,689	2,971	3,046
Other ^a	8,753	8,583	7,571	7,829	7,477	8,171	7,886	8,045
Institutional	95,431	95,543	97,017	96,358	101,913	105,895	108,256	109,930
Other nonfederal	14,152	14,439	14,277	14,818	14,709	14,966	15,359	14,921
Domestic	11,230	11,825	11,886	12,417	12,338	12,915	13,516	13,219
Foreign	2,922	2,614	2,391	2,401	2,371	2,051	1,843	1,702
Self-support	64,489	63,237	63,149	65,386	66,786	71,680	74,327	76,033
Agricultural sciences	9,362	9,199	9,371	9,357	9,405	9,685	10,003	10,040
Federal	1,843	1,722	1,943	1,938	1,974	2,156	2,505	2,516
DOD	38	47	28	42	47	34	33	24
DOE ^a	NA	NA	41	45	29	55	58	49
HHS	31	32	29	57	51	87	89	90
NIH	22	16	17	37	40	64	60	67
Other HHS	9	16	12	20	11	23	29	23
NASA	28	36	55	65	63	74	90	52
NSF	105	94	114	113	138	124	211	202

TABLE 23. Full-time graduate students in science, engineering, and health fields in all institutions, by field and primary source of support: 1997–2004

Field and primary source of support	1997	1998	1999	2000	2001	2002	2003	2004
USDA	999	988	1,077	1,043	1,065	1,156	1,333	1,369
Other ^a	642	525	599	573	581	626	691	730
Institutional	3,745	3,847	3,865	3,870	4,060	4,109	3,949	4,050
Other nonfederal	1,653	1,640	1,630	1,711	1,567	1,549	1,584	1,603
Domestic	1,311	1,339	1,371	1,475	1,380	1,426	1,413	1,474
Foreign	342	301	259	236	187	123	171	129
Self-support	2,121	1,990	1,933	1,838	1,804	1,871	1,965	1,871
Biological sciences	46,657	46,779	46,946	46,787	48,138	51,596	54,350	55,819
Federal	16,275	16,176	16,462	16,670	16,733	18,629	20,178	21,729
DOD	373	356	338	329	369	393	363	437
DOE ^a	NA	NA	155	171	166	180	193	219
HHS	11,878	11,918	12,265	12,263	12,315	13,679	14,886	16,184
NIH	11,294	11,301	11,771	11,688	11,651	12,959	14,161	15,623
Other HHS	584	617	494	575	664	720	725	561
NASA	109	102	101	100	77	115	98	106
NSF	1,538	1,539	1,495	1,600	1,619	1,819	2,137	2,254
USDA	865	752	803	781	817	992	1,034	1,067
Other ^a	1,512	1,509	1,305	1,426	1,370	1,451	1,467	1,462
Institutional	20,146	20,111	20,354	20,137	21,178	21,791	22,369	22,269
Other nonfederal	3,537	3,736	3,301	3,378	3,591	3,852	3,990	3,849
Domestic	3,021	3,212	2,843	2,954	3,225	3,545	3,702	3,591
Foreign	516	524	458	424	366	307	288	258
Self-support	6,699	6,756	6,829	6,602	6,636	7,324	7,813	7,972
Computer sciences	18,335	19,972	22,687	26,558	30,087	32,579	30,708	29,281
Federal	3,173	3,309	3,349	3,675	4,248	4,958	5,325	5,115
DOD	1,434	1,307	1,208	1,220	1,284	1,303	1,379	1,187
DOE ^a	NA	NA	109	111	120	138	159	151
HHS	106	110	107	122	173	240	303	296
NIH	78	75	64	84	101	185	231	260
Other HHS	28	35	43	38	72	55	72	36
NASA	122	124	111	142	166	203	226	140
NSF	1,087	1,171	1,309	1,495	1,867	2,344	2,717	2,757
USDA	12	10	20	16	25	41	39	35
Other ^a	412	587	485	569	613	689	502	549
Institutional	5,912	6,206	7,033	7,838	8,975	9,537	9,257	9,062
Other nonfederal	1,184	1,311	1,529	1,906	1,925	1,908	1,948	1,733
Domestic	1,025	1,137	1,393	1,640	1,604	1,684	1,758	1,547
Foreign	159	174	136	266	321	224	190	186
Self-support	8,066	9,146	10,776	13,139	14,939	16,176	14,178	13,371
Earth, atmospheric, and ocean sciences	10,510	10,444	10,484	10,558	10,504	11,116	11,497	11,685
Federal	3,119	2,959	2,965	2,992	2,916	3,041	3,306	3,343
DOD	366	336	336	280	257	201	254	128
DOE ^a	NA	NA	124	144	137	167	155	172
HHS	40	38	37	57	60	47	68	41
NIH	27	21	17	40	37	32	52	24
Other HHS	13	17	20	17	23	15	16	17
NASA	355	390	409	457	456	470	420	457
NSF	1,201	1,122	1,128	1,140	1,127	1,205	1,376	1,513
USDA	52	77	55	50	65	74	85	93
Other ^a	1,105	996	876	864	814	877	948	939
Institutional	4,387	4,441	4,748	4,620	4,670	4,897	5,083	5,213
Other nonfederal	884	860	847	905	904	1,099	882	920
Domestic	700	696	687	760	719	905	766	848
Foreign	184	164	160	145	185	194	116	72
Self-support	2,120	2,184	1,924	2,041	2,014	2,079	2,226	2,209
Mathematical sciences	12,144	11,751	11,796	11,740	12,467	13,709	14,627	14,881

TABLE 23. Full-time graduate students in science, engineering, and health fields in all institutions, by field and primary source of support: 1997–2004

Field and primary source of support	1997	1998	1999	2000	2001	2002	2003	2004
Federal	1,152	1,044	1,103	1,368	1,388	1,619	1,680	1,744
DOD	363	283	227	239	212	166	232	163
DOE ^a	NA	NA	44	40	40	42	53	61
HHS	96	100	105	92	108	165	154	175
NIH	66	68	78	76	89	133	119	154
Other HHS	30	32	27	16	19	32	35	21
NASA	19	11	15	23	23	20	23	24
NSF	386	384	441	635	763	944	975	1,051
USDA	16	7	7	7	20	14	9	28
Other ^a	272	259	264	332	222	268	234	242
Institutional	8,469	8,289	8,267	8,187	8,635	9,104	9,650	9,898
Other nonfederal	491	453	439	438	417	555	520	435
Domestic	314	314	313	309	297	441	425	356
Foreign	177	139	126	129	120	114	95	79
Self-support	2,032	1,965	1,987	1,747	2,027	2,431	2,777	2,804
Physical sciences	26,882	26,391	26,635	26,492	27,179	28,619	30,441	31,686
Federal	9,450	9,123	9,239	9,211	9,284	9,950	10,615	10,969
DOD	1,037	994	881	864	855	860	885	874
DOE ^a	NA	NA	1,181	1,170	1,260	1,368	1,607	1,585
HHS	1,955	1,891	1,844	1,974	2,113	2,346	2,446	2,559
NIH	1,639	1,631	1,655	1,769	1,858	2,114	2,179	2,349
Other HHS	316	260	189	205	255	232	267	210
NASA	586	595	562	533	506	544	574	565
NSF	3,372	3,318	3,279	3,287	3,327	3,591	3,868	4,126
USDA	31	40	33	51	42	51	66	42
Other ^a	2,469	2,285	1,459	1,332	1,181	1,190	1,169	1,218
Institutional	14,132	14,101	14,118	13,850	14,503	15,037	16,099	16,902
Other nonfederal	1,863	1,852	1,926	1,915	1,977	2,034	2,104	2,141
Domestic	1,645	1,663	1,754	1,747	1,850	1,913	1,977	2,041
Foreign	218	189	172	168	127	121	127	100
Self-support	1,437	1,315	1,352	1,516	1,415	1,598	1,623	1,674
Psychology	35,551	35,148	34,658	34,919	34,487	34,707	35,774	37,805
Federal	2,720	2,927	3,229	3,278	3,248	3,600	3,583	3,624
DOD	113	128	117	135	140	170	150	140
DOE ^a	NA	NA	41	25	1	9	10	24
HHS	1,465	1,445	1,554	1,605	1,616	1,756	1,866	1,883
NIH	1,198	1,226	1,275	1,328	1,392	1,512	1,621	1,666
Other HHS	267	219	279	277	224	244	245	217
NASA	20	24	41	36	27	37	27	31
NSF	277	283	310	277	283	297	330	363
USDA	7	8	13	16	13	4	17	16
Other ^a	838	1,039	1,153	1,184	1,168	1,327	1,183	1,167
Institutional	13,480	13,261	13,235	12,517	13,101	13,193	13,280	13,559
Other nonfederal	1,219	1,349	1,397	1,342	1,238	1,182	1,314	1,404
Domestic	1,162	1,296	1,341	1,291	1,173	1,126	1,231	1,358
Foreign	57	53	56	51	65	56	83	46
Self-support	18,132	17,611	16,797	17,782	16,900	16,732	17,597	19,218
Social sciences	55,540	53,824	53,293	52,668	54,306	58,054	61,412	62,373
Federal	3,177	3,029	3,137	3,385	3,374	3,571	3,678	3,646
DOD	203	192	174	150	167	166	130	134
DOE ^a	NA	NA	37	66	60	52	57	55
HHS	330	305	344	380	374	410	474	440
NIH	262	216	266	295	277	316	373	315
Other HHS	68	89	78	85	97	94	101	125
NASA	65	93	135	136	125	109	117	91
NSF	687	709	692	717	742	734	820	792
USDA	389	347	325	387	378	357	388	396

TABLE 23. Full-time graduate students in science, engineering, and health fields in all institutions, by field and primary source of support: 1997–2004

Field and primary source of support	1997	1998	1999	2000	2001	2002	2003	2004
Other ^a	1,503	1,383	1,430	1,549	1,528	1,743	1,692	1,738
Institutional	25,160	25,287	25,397	25,339	26,791	28,227	28,569	28,977
Other nonfederal	3,321	3,238	3,208	3,223	3,090	2,787	3,017	2,836
Domestic	2,052	2,168	2,184	2,241	2,090	1,875	2,244	2,004
Foreign	1,269	1,070	1,024	982	1,000	912	773	832
Self-support	23,882	22,270	21,551	20,721	21,051	23,469	26,148	26,914
Engineering	65,688	65,435	68,023	72,276	77,448	85,452	90,216	87,045
Federal	15,889	15,521	15,905	16,707	17,072	18,862	21,473	20,844
DOD	4,774	4,316	4,353	4,475	4,384	4,400	5,482	4,841
DOE ^a	NA	NA	987	1,208	1,292	1,529	1,719	1,768
HHS	915	901	961	1,134	1,288	1,466	1,956	2,154
NIH	766	754	844	998	1,133	1,282	1,645	1,907
Other HHS	149	147	117	136	155	184	311	247
NASA	1,261	1,245	1,135	1,270	1,354	1,494	1,642	1,432
NSF	4,611	4,719	4,944	5,211	5,434	5,952	6,726	6,819
USDA	232	197	240	217	260	337	419	404
Other ^a	4,096	4,143	3,285	3,192	3,060	3,684	3,529	3,426
Institutional	23,796	23,401	25,254	26,071	27,833	30,406	31,223	31,064
Other nonfederal	8,972	9,762	9,534	10,585	11,036	11,279	11,145	10,095
Domestic	7,532	8,554	8,417	9,496	9,948	10,300	10,220	9,194
Foreign	1,440	1,208	1,117	1,089	1,088	979	925	901
Self-support	17,031	16,751	17,330	18,913	21,507	24,905	26,375	25,042
Chemical engineering	5,821	5,630	5,593	5,861	5,829	6,279	6,414	6,379
Federal	1,671	1,701	1,669	1,672	1,692	1,965	2,055	2,146
DOD	170	160	161	113	140	181	265	218
DOE ^a	NA	NA	220	242	257	310	327	357
HHS	137	141	149	155	179	219	245	296
NIH	121	111	127	128	136	185	210	260
Other HHS	16	30	22	27	43	34	35	36
NASA	80	98	101	102	108	119	103	95
NSF	708	756	744	770	721	823	841	871
USDA	43	39	37	35	35	45	35	46
Other ^a	533	507	257	255	252	268	239	263
Institutional	2,234	2,126	2,295	2,299	2,241	2,446	2,540	2,440
Other nonfederal	1,129	947	973	1,081	1,095	1,094	995	996
Domestic	949	834	899	977	984	1,011	932	941
Foreign	180	113	74	104	111	83	63	55
Self-support	787	856	656	809	801	774	824	797
Civil engineering	11,406	11,154	11,237	11,754	12,102	12,981	13,710	13,587
Federal	1,807	1,670	1,668	1,934	1,943	2,104	2,185	2,154
DOD	232	192	157	160	178	182	148	168
DOE ^a	NA	NA	50	84	82	84	94	90
HHS	47	46	44	51	27	36	61	61
NIH	41	35	39	40	26	29	45	33
Other HHS	6	11	5	11	1	7	16	28
NASA	121	61	56	74	79	93	87	59
NSF	529	544	538	596	587	648	704	700
USDA	40	28	35	36	38	50	69	73
Other ^a	838	799	788	933	952	1,011	1,022	1,003
Institutional	4,722	4,588	4,865	4,941	4,977	5,386	5,553	5,651
Other nonfederal	1,114	1,136	1,119	1,357	1,479	1,370	1,483	1,252
Domestic	859	922	931	1,193	1,303	1,255	1,378	1,120
Foreign	255	214	188	164	176	115	105	132
Self-support	3,763	3,760	3,585	3,522	3,703	4,121	4,489	4,530
Electrical engineering	18,999	19,608	20,521	22,962	25,240	28,240	28,929	26,732
Federal	4,391	4,316	4,608	5,052	4,968	5,702	6,198	6,007

TABLE 23. Full-time graduate students in science, engineering, and health fields in all institutions, by field and primary source of support: 1997–2004

Field and primary source of support	1997	1998	1999	2000	2001	2002	2003	2004
DOD	1,938	1,803	1,848	2,080	1,976	1,942	2,233	1,973
DOE ^a	NA	NA	71	93	138	193	189	209
HHS	117	102	104	187	149	180	356	350
NIH	70	79	87	145	109	145	246	290
Other HHS	47	23	17	42	40	35	110	60
NASA	229	244	272	284	332	384	373	334
NSF	1,346	1,304	1,473	1,586	1,641	1,945	2,256	2,368
USDA	15	12	10	12	13	21	57	45
Other ^a	746	851	830	810	719	1,037	734	728
Institutional	6,776	6,602	7,197	7,390	8,038	8,672	8,933	8,567
Other nonfederal	2,711	3,124	2,840	3,278	3,433	3,550	3,310	2,820
Domestic	2,376	2,846	2,561	3,027	3,184	3,312	3,080	2,656
Foreign	335	278	279	251	249	238	230	164
Self-support	5,121	5,566	5,876	7,242	8,801	10,316	10,488	9,338
Industrial engineering	5,116	4,894	5,500	6,049	6,534	7,200	7,098	6,591
Federal	608	586	711	805	803	827	989	968
DOD	198	180	252	235	241	242	251	303
DOE ^a	NA	NA	12	31	46	42	58	45
HHS	36	32	33	34	40	58	73	66
NIH	30	25	20	21	29	31	36	43
Other HHS	6	7	13	13	11	27	37	23
NASA	23	32	28	26	29	29	58	43
NSF	145	175	220	258	276	277	387	334
USDA	1	4	2	7	8	6	11	12
Other ^a	205	163	164	214	163	173	151	165
Institutional	1,706	1,732	1,929	2,129	2,429	2,618	2,364	2,329
Other nonfederal	510	548	577	683	746	756	695	600
Domestic	406	448	488	576	605	640	617	520
Foreign	104	100	89	107	141	116	78	80
Self-support	2,292	2,028	2,283	2,432	2,556	2,999	3,050	2,694
Mechanical engineering	10,432	10,073	10,331	10,795	11,436	12,512	13,356	12,787
Federal	2,626	2,607	2,591	2,656	2,776	2,976	3,417	3,134
DOD	766	728	713	652	689	618	876	732
DOE ^a	NA	NA	207	239	214	312	351	360
HHS	109	104	112	112	159	159	166	179
NIH	70	71	87	105	147	144	135	150
Other HHS	39	33	25	7	12	15	31	29
NASA	291	290	242	292	280	316	350	286
NSF	841	908	882	915	1,002	1,035	1,104	1,042
USDA	12	5	21	7	11	10	20	22
Other ^a	607	572	414	439	421	526	550	513
Institutional	3,913	3,829	4,042	4,228	4,483	4,983	5,055	4,966
Other nonfederal	1,460	1,611	1,604	1,764	1,692	1,731	1,740	1,558
Domestic	1,286	1,467	1,434	1,565	1,545	1,608	1,610	1,407
Foreign	174	144	170	199	147	123	130	151
Self-support	2,433	2,026	2,094	2,147	2,485	2,822	3,144	3,129
Other engineering	13,914	14,076	14,841	14,855	16,307	18,240	20,709	20,969
Federal	4,786	4,641	4,658	4,588	4,890	5,288	6,629	6,435
DOD	1,470	1,253	1,222	1,235	1,160	1,235	1,709	1,447
DOE ^a	NA	NA	427	519	555	588	700	707
HHS	469	476	519	595	734	814	1,055	1,202
NIH	434	433	484	559	686	748	973	1,131
Other HHS	35	43	35	36	48	66	82	71
NASA	517	520	436	492	526	553	671	615
NSF	1,042	1,032	1,087	1,086	1,207	1,224	1,434	1,504
USDA	121	109	135	120	155	205	227	206
Other ^a	1,167	1,251	832	541	553	669	833	754

TABLE 23. Full-time graduate students in science, engineering, and health fields in all institutions, by field and primary source of support: 1997–2004

Field and primary source of support	1997	1998	1999	2000	2001	2002	2003	2004
Institutional	4,445	4,524	4,926	5,084	5,665	6,301	6,778	7,111
Other nonfederal	2,048	2,396	2,421	2,422	2,591	2,778	2,922	2,869
Domestic	1,656	2,037	2,104	2,158	2,327	2,474	2,603	2,550
Foreign	392	359	317	264	264	304	319	319
Self-support	2,635	2,515	2,836	2,761	3,161	3,873	4,380	4,554
Health fields	46,620	48,446	50,530	49,928	50,501	53,490	58,356	61,546
Federal	7,724	7,949	8,464	8,364	8,636	9,197	9,433	9,616
DOD	320	300	364	407	245	284	296	304
DOE ^a	NA	NA	30	15	11	8	13	12
HHS	5,714	5,964	6,196	5,806	6,239	6,778	6,989	7,177
NIH	2,735	2,907	3,032	3,157	3,298	3,504	3,802	4,257
Other HHS	2,979	3,057	3,164	2,649	2,941	3,274	3,187	2,920
NASA	21	26	15	18	22	16	13	16
NSF	98	120	123	124	129	128	148	154
USDA	43	59	61	62	50	74	78	77
Other ^a	1,528	1,480	1,675	1,932	1,940	1,909	1,896	1,876
Institutional	9,700	10,051	10,911	10,972	10,973	11,521	12,180	13,028
Other nonfederal	1,975	2,210	2,218	2,459	2,549	2,712	2,751	2,743
Domestic	1,489	1,778	1,796	2,101	2,172	2,383	2,421	2,477
Foreign	486	432	422	358	377	329	330	266
Self-support	27,221	28,236	28,937	28,133	28,343	30,060	33,992	36,159

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: 1997–2004

Field and primary mechanism of support	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	327,289	327,389	334,423	341,283	354,522	379,007	397,384	402,161
Fellowships	28,956	29,106	30,112	31,330	32,270	34,851	34,460	35,188
Research assistantships	88,001	88,097	91,279	94,323	99,923	108,208	114,256	114,884
Teaching assistantships	65,425	65,173	66,294	66,423	68,267	70,732	73,105	72,913
Traineeships	14,488	14,946	14,707	14,171	14,086	14,925	15,097	14,834
Other support	130,419	130,067	132,031	135,036	139,976	150,291	160,466	164,342
Self-support	108,741	108,224	109,416	112,432	116,636	126,645	134,694	137,234
Other support	21,678	21,843	22,615	22,604	23,340	23,646	25,772	27,108
Science and engineering	280,669	278,943	283,893	291,355	304,021	325,517	339,028	340,615
Fellowships	26,478	26,575	27,377	28,415	29,677	32,084	31,780	32,355
Research assistantships	83,105	83,053	85,866	88,449	93,638	101,576	107,294	107,748
Teaching assistantships	62,258	61,974	63,198	63,328	64,976	67,242	69,476	69,104
Traineeships	9,670	9,841	9,505	9,554	9,197	9,771	10,140	9,820
Other support	99,158	97,500	97,947	101,609	106,533	114,844	120,338	121,588
Self-support	81,520	79,988	80,479	84,299	88,293	96,585	100,702	101,075
Other support	17,638	17,512	17,468	17,310	18,240	18,259	19,636	20,513
Science	214,981	213,508	215,870	219,079	226,573	240,065	248,812	253,570
Fellowships	20,673	20,974	21,278	22,051	23,210	25,065	24,514	25,088
Research assistantships	56,190	55,669	57,197	57,762	61,465	66,434	69,965	71,621
Teaching assistantships	52,105	51,892	52,496	52,273	53,093	54,679	56,945	56,910
Traineeships	8,791	8,963	8,737	8,786	8,414	8,819	9,084	8,853
Other support	77,222	76,010	76,162	78,207	80,391	85,068	88,304	91,098
Self-support	64,489	63,237	63,149	65,386	66,786	71,680	74,327	76,033
Other support	12,733	12,773	13,013	12,821	13,605	13,388	13,977	15,065
Agricultural sciences	9,362	9,199	9,371	9,357	9,405	9,685	10,003	10,040
Fellowships	477	486	474	450	520	520	568	599
Research assistantships	5,250	5,091	5,219	5,279	5,432	5,612	5,823	5,881
Teaching assistantships	1,007	1,062	1,192	1,223	1,203	1,178	1,169	1,216
Traineeships	129	115	95	86	84	73	52	74
Other support	2,499	2,445	2,391	2,319	2,166	2,302	2,391	2,270
Self-support	2,121	1,990	1,933	1,838	1,804	1,871	1,965	1,871
Other support	378	455	458	481	362	431	426	399
Biological sciences	46,657	46,779	46,946	46,787	48,138	51,596	54,350	55,819
Fellowships	5,455	5,617	5,789	5,747	6,147	6,431	6,477	6,785
Research assistantships	18,420	18,171	18,308	18,564	19,410	21,206	22,706	23,786
Teaching assistantships	9,123	9,083	8,727	8,619	8,639	8,903	9,145	8,861
Traineeships	5,060	5,204	5,283	5,177	4,941	5,321	5,620	5,523
Other support	8,599	8,704	8,839	8,680	9,001	9,735	10,402	10,864
Self-support	6,699	6,756	6,829	6,602	6,636	7,324	7,813	7,972
Other support	1,900	1,948	2,010	2,078	2,365	2,411	2,589	2,892
Computer sciences	18,335	19,972	22,687	26,558	30,087	32,579	30,708	29,281
Fellowships	942	1,011	1,006	1,198	1,114	1,480	1,387	1,416
Research assistantships	4,043	4,300	4,895	5,302	6,407	7,153	7,500	7,169
Teaching assistantships	3,643	3,798	4,366	4,602	5,130	5,367	5,029	4,800
Traineeships	224	219	212	263	248	279	332	287
Other support	9,483	10,644	12,208	15,193	17,188	18,300	16,460	15,609
Self-support	8,066	9,146	10,776	13,139	14,939	16,176	14,178	13,371
Other support	1,417	1,498	1,432	2,054	2,249	2,124	2,282	2,238
Earth, atmospheric, and ocean sciences	10,510	10,444	10,484	10,558	10,504	11,116	11,497	11,685
Fellowships	814	922	930	1,046	1,065	1,118	1,175	1,227
Research assistantships	4,276	4,108	4,249	4,235	4,173	4,532	4,597	4,830
Teaching assistantships	2,648	2,559	2,612	2,528	2,562	2,685	2,810	2,691
Traineeships	92	114	109	98	97	98	115	122
Other support	2,680	2,741	2,584	2,651	2,607	2,683	2,800	2,815
Self-support	2,120	2,184	1,924	2,041	2,014	2,079	2,226	2,209

TABLE 24. Full-time graduate students in science, engineering, and health fields in all institutions, by field and primary mechanism of support: 1997–2004

Field and primary mechanism of support	1997	1998	1999	2000	2001	2002	2003	2004
Other support	560	557	660	610	593	604	574	606
Mathematical sciences	12,144	11,751	11,796	11,740	12,467	13,709	14,627	14,881
Fellowships	1,206	1,104	1,035	1,295	1,397	1,424	1,382	1,353
Research assistantships	1,389	1,215	1,269	1,250	1,422	1,736	1,810	1,928
Teaching assistantships	6,699	6,566	6,767	6,805	6,997	7,429	7,923	8,002
Traineeships	179	164	112	122	105	124	123	108
Other support	2,671	2,702	2,613	2,268	2,546	2,996	3,389	3,490
Self-support	2,032	1,965	1,987	1,747	2,027	2,431	2,777	2,804
Other support	639	737	626	521	519	565	612	686
Physical sciences	26,882	26,391	26,635	26,492	27,179	28,619	30,441	31,686
Fellowships	2,151	2,113	2,199	2,260	2,371	2,665	2,514	2,758
Research assistantships	11,282	11,046	11,270	11,097	11,826	12,651	13,527	13,897
Teaching assistantships	10,890	10,880	10,866	10,664	10,575	10,761	11,818	12,279
Traineeships	531	482	383	464	437	421	364	368
Other support	2,028	1,870	1,917	2,007	1,970	2,121	2,218	2,384
Self-support	1,437	1,315	1,352	1,516	1,415	1,598	1,623	1,674
Other support	591	555	565	491	555	523	595	710
Psychology	35,551	35,148	34,658	34,919	34,487	34,707	35,774	37,805
Fellowships	2,145	2,337	2,478	2,375	2,307	2,295	2,299	2,359
Research assistantships	4,790	4,762	4,795	4,710	4,979	5,370	5,584	5,973
Teaching assistantships	6,162	5,976	6,032	5,796	5,645	5,818	6,081	5,889
Traineeships	1,067	1,113	1,022	1,228	1,302	1,246	1,184	918
Other support	21,387	20,960	20,331	20,810	20,254	19,978	20,626	22,666
Self-support	18,132	17,611	16,797	17,782	16,900	16,732	17,597	19,218
Other support	3,255	3,349	3,534	3,028	3,354	3,246	3,029	3,448
Social sciences	55,540	53,824	53,293	52,668	54,306	58,054	61,412	62,373
Fellowships	7,483	7,384	7,367	7,680	8,289	9,132	8,712	8,591
Research assistantships	6,740	6,976	7,192	7,325	7,816	8,174	8,418	8,157
Teaching assistantships	11,933	11,968	11,934	12,036	12,342	12,538	12,970	13,172
Traineeships	1,509	1,552	1,521	1,348	1,200	1,257	1,294	1,453
Other support	27,875	25,944	25,279	24,279	24,659	26,953	30,018	31,000
Self-support	23,882	22,270	21,551	20,721	21,051	23,469	26,148	26,914
Other support	3,993	3,674	3,728	3,558	3,608	3,484	3,870	4,086
Engineering	65,688	65,435	68,023	72,276	77,448	85,452	90,216	87,045
Fellowships	5,805	5,601	6,099	6,364	6,467	7,019	7,266	7,267
Research assistantships	26,915	27,384	28,669	30,687	32,173	35,142	37,329	36,127
Teaching assistantships	10,153	10,082	10,702	11,055	11,883	12,563	12,531	12,194
Traineeships	879	878	768	768	783	952	1,056	967
Other support	21,936	21,490	21,785	23,402	26,142	29,776	32,034	30,490
Self-support	17,031	16,751	17,330	18,913	21,507	24,905	26,375	25,042
Other support	4,905	4,739	4,455	4,489	4,635	4,871	5,659	5,448
Chemical engineering	5,821	5,630	5,593	5,861	5,829	6,279	6,414	6,379
Fellowships	838	728	836	794	760	832	837	692
Research assistantships	2,991	2,900	2,944	3,076	3,154	3,464	3,603	3,753
Teaching assistantships	923	898	964	951	850	894	851	789
Traineeships	94	97	65	85	53	71	73	102
Other support	975	1,007	784	955	1,012	1,018	1,050	1,043
Self-support	787	856	656	809	801	774	824	797
Other support	188	151	128	146	211	244	226	246
Civil engineering	11,406	11,154	11,237	11,754	12,102	12,981	13,710	13,587
Fellowships	876	828	869	924	1,009	1,074	1,115	1,095
Research assistantships	3,983	3,871	4,086	4,636	4,533	4,781	5,033	4,888
Teaching assistantships	1,772	1,755	1,789	1,868	1,876	1,952	2,011	2,087
Traineeships	191	191	197	117	156	210	196	152
Other support	4,584	4,509	4,296	4,209	4,528	4,964	5,355	5,365

TABLE 24. Full-time graduate students in science, engineering, and health fields in all institutions, by field and primary mechanism of support: 1997–2004

Field and primary mechanism of support	1997	1998	1999	2000	2001	2002	2003	2004
Self-support	3,763	3,760	3,585	3,522	3,703	4,121	4,489	4,530
Other support	821	749	711	687	825	843	866	835
Electrical engineering	18,999	19,608	20,521	22,962	25,240	28,240	28,929	26,732
Fellowships	1,392	1,318	1,363	1,357	1,303	1,497	1,535	1,521
Research assistantships	7,512	7,691	8,417	9,207	9,588	10,655	10,814	10,165
Teaching assistantships	3,350	3,344	3,392	3,643	4,045	4,303	4,227	3,873
Traineeships	122	133	76	107	92	105	128	123
Other support	6,623	7,122	7,273	8,648	10,212	11,680	12,225	11,050
Self-support	5,121	5,566	5,876	7,242	8,801	10,316	10,488	9,338
Other support	1,502	1,556	1,397	1,406	1,411	1,364	1,737	1,712
Industrial engineering	5,116	4,894	5,500	6,049	6,534	7,200	7,098	6,591
Fellowships	239	252	257	325	427	445	442	437
Research assistantships	1,269	1,380	1,468	1,655	1,747	1,900	1,843	1,690
Teaching assistantships	775	777	893	956	1,058	1,027	964	938
Traineeships	21	24	21	18	58	56	42	46
Other support	2,812	2,461	2,861	3,095	3,244	3,772	3,807	3,480
Self-support	2,292	2,028	2,283	2,432	2,556	2,999	3,050	2,694
Other support	520	433	578	663	688	773	757	786
Mechanical engineering	10,432	10,073	10,331	10,795	11,436	12,512	13,356	12,787
Fellowships	846	902	874	1,021	955	1,013	991	930
Research assistantships	4,349	4,498	4,642	4,850	5,086	5,480	6,048	5,736
Teaching assistantships	1,887	1,780	1,950	1,968	2,178	2,358	2,310	2,204
Traineeships	215	180	142	121	126	116	117	102
Other support	3,135	2,713	2,723	2,835	3,091	3,545	3,890	3,815
Self-support	2,433	2,026	2,094	2,147	2,485	2,822	3,144	3,129
Other support	702	687	629	688	606	723	746	686
Other engineering	13,914	14,076	14,841	14,855	16,307	18,240	20,709	20,969
Fellowships	1,614	1,573	1,900	1,943	2,013	2,158	2,346	2,592
Research assistantships	6,811	7,044	7,112	7,263	8,065	8,862	9,988	9,895
Teaching assistantships	1,446	1,528	1,714	1,669	1,876	2,029	2,168	2,303
Traineeships	236	253	267	320	298	394	500	442
Other support	3,807	3,678	3,848	3,660	4,055	4,797	5,707	5,737
Self-support	2,635	2,515	2,836	2,761	3,161	3,873	4,380	4,554
Other support	1,172	1,163	1,012	899	894	924	1,327	1,183
Health fields	46,620	48,446	50,530	49,928	50,501	53,490	58,356	61,546
Fellowships	2,478	2,531	2,735	2,915	2,593	2,767	2,680	2,833
Research assistantships	4,896	5,044	5,413	5,874	6,285	6,632	6,962	7,136
Teaching assistantships	3,167	3,199	3,096	3,095	3,291	3,490	3,629	3,809
Traineeships	4,818	5,105	5,202	4,617	4,889	5,154	4,957	5,014
Other support	31,261	32,567	34,084	33,427	33,443	35,447	40,128	42,754
Self-support	27,221	28,236	28,937	28,133	28,343	30,060	33,992	36,159
Other support	4,040	4,331	5,147	5,294	5,100	5,387	6,136	6,595

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: 1997–2004

Primary mechanism and primary source of support	1997	1998	1999	2000	2001	2002	2003	2004
All sources	280,669	278,943	283,893	291,355	304,021	325,517	339,028	340,615
Federal	56,798	55,810	57,332	59,224	60,237	66,386	72,343	73,530
DOD	8,701	7,959	7,662	7,734	7,715	7,693	8,908	7,928
DOE ^a	NA	NA	2,719	2,980	3,105	3,540	4,011	4,084
HHS	16,816	16,740	17,246	17,684	18,098	20,196	22,242	23,822
NIH	15,352	15,308	15,987	16,315	16,578	18,597	20,441	22,365
Other HHS	1,464	1,432	1,259	1,369	1,520	1,599	1,801	1,457
NASA	2,565	2,620	2,564	2,762	2,797	3,066	3,217	2,898
NSF	13,264	13,339	13,712	14,475	15,300	17,010	19,160	19,877
USDA	2,603	2,426	2,573	2,568	2,685	3,026	3,390	3,450
Other ^a	12,849	12,726	10,856	11,021	10,537	11,855	11,415	11,471
Institutional	119,227	118,944	122,271	122,429	129,746	136,301	139,479	140,994
Other nonfederal	23,124	24,201	23,811	25,403	25,745	26,245	26,504	25,016
Domestic	18,762	20,379	20,303	21,913	22,286	23,215	23,736	22,413
Foreign	4,362	3,822	3,508	3,490	3,459	3,030	2,768	2,603
Self-support	81,520	79,988	80,479	84,299	88,293	96,585	100,702	101,075
Fellowships	26,478	26,575	27,377	28,415	29,677	32,084	31,780	32,355
Federal	6,260	6,335	6,594	6,614	6,587	7,099	6,979	7,367
DOD	522	536	486	540	472	446	436	416
DOE ^a	NA	NA	100	156	120	118	151	129
HHS	1,229	1,285	1,345	1,149	1,315	1,490	1,367	1,611
NIH	1,002	1,057	1,175	992	1,144	1,293	1,196	1,483
Other HHS	227	228	170	157	171	197	171	128
NASA	373	380	359	338	317	319	265	264
NSF	2,309	2,335	2,411	2,539	2,606	2,818	3,135	3,341
USDA	138	136	141	120	126	89	93	85
Other ^a	1,689	1,663	1,752	1,772	1,631	1,819	1,532	1,521
Institutional	15,227	15,234	15,991	16,982	18,317	20,214	20,055	20,556
Other nonfederal	4,991	5,006	4,792	4,819	4,773	4,771	4,746	4,432
Domestic	3,113	3,277	3,269	3,450	3,360	3,569	3,714	3,486
Foreign	1,878	1,729	1,523	1,369	1,413	1,202	1,032	946
Self-support	na	na	na	na	na	na	na	na
Research assistantships	83,105	83,053	85,866	88,449	93,638	101,576	107,294	107,748
Federal	41,472	39,962	40,977	42,405	43,861	49,041	54,322	55,381
DOD	6,308	5,784	5,658	5,730	5,799	6,153	6,834	6,274
DOE ^a	NA	NA	2,533	2,717	2,892	3,322	3,762	3,819
HHS	11,103	10,584	10,787	11,335	11,773	13,364	15,126	16,413
NIH	10,151	9,647	10,036	10,473	10,733	12,260	13,761	15,329
Other HHS	952	937	751	862	1,040	1,104	1,365	1,084
NASA	2,059	2,122	2,107	2,291	2,336	2,606	2,817	2,534
NSF	10,392	10,373	10,715	11,304	12,022	13,462	15,209	15,653
USDA	2,370	2,188	2,290	2,314	2,465	2,810	3,113	3,208
Other ^a	9,240	8,911	6,887	6,714	6,574	7,324	7,461	7,480
Institutional	28,984	29,797	31,476	31,492	34,168	36,339	36,580	36,751
Other nonfederal	12,649	13,294	13,413	14,552	15,609	16,196	16,392	15,616
Domestic	11,909	12,666	12,816	13,922	14,967	15,474	15,752	15,019
Foreign	740	628	597	630	642	722	640	597
Self-support	na	na	na	na	na	na	na	na
Teaching assistantships	62,258	61,974	63,198	63,328	64,976	67,242	69,476	69,104
Federal	787	971	876	1,270	955	1,096	1,338	1,357
DOD	na	na	na	na	na	na	na	na
DOE ^a	NA	NA	16	34	27	41	48	58
HHS	157	232	203	277	244	250	324	286
NIH	127	221	196	261	213	203	283	247
Other HHS	30	11	7	16	31	47	41	39

TABLE 25. Full-time graduate students in science and engineering fields in all institutions, by primary mechanism and primary source of support: 1997–2004

Primary mechanism and primary source of support	1997	1998	1999	2000	2001	2002	2003	2004
NASA	24	23	9	11	34	26	34	31
NSF	80	130	121	137	187	217	286	285
USDA	30	37	60	68	46	46	80	67
Other ^a	496	549	467	743	417	516	566	630
Institutional	60,881	60,391	61,631	61,099	63,073	65,035	67,072	66,730
Other nonfederal	590	612	691	959	948	1,111	1,066	1,017
Domestic	590	612	691	959	948	1,111	1,066	1,017
Foreign	na	na	na	na	na	na	na	na
Self-support	na	na	na	na	na	na	na	na
Traineeships	9,670	9,841	9,505	9,554	9,197	9,771	10,140	9,820
Federal	5,143	5,426	5,411	5,694	5,417	5,746	5,916	5,809
DOD	108	64	51	59	36	46	39	44
DOE ^a	NA	NA	22	10	2	9	5	25
HHS	3,977	4,234	4,361	4,415	4,224	4,516	4,794	4,810
NIH	3,793	4,056	4,161	4,141	3,992	4,314	4,654	4,673
Other HHS	184	178	200	274	232	202	140	137
NASA	76	57	51	46	50	52	56	48
NSF	383	408	344	324	336	318	333	408
USDA	23	14	25	18	16	13	14	16
Other ^a	576	649	557	822	753	792	675	458
Institutional	3,877	3,730	3,457	3,303	3,300	3,618	3,632	3,460
Other nonfederal	650	685	637	557	480	407	592	551
Domestic	488	541	537	412	348	341	504	449
Foreign	162	144	100	145	132	66	88	102
Self-support	na	na	na	na	na	na	na	na
Other types of support	99,158	97,500	97,947	101,609	106,533	114,844	120,338	121,588
Federal	3,136	3,116	3,474	3,241	3,417	3,404	3,788	3,616
DOD	1,763	1,575	1,467	1,405	1,408	1,048	1,599	1,194
DOE ^a	NA	NA	48	63	64	50	45	53
HHS	350	405	550	508	542	576	631	702
NIH	279	327	419	448	496	527	547	633
Other HHS	71	78	131	60	46	49	84	69
NASA	33	38	38	76	60	63	45	21
NSF	100	93	121	171	149	195	197	190
USDA	42	51	57	48	32	68	90	74
Other ^a	848	954	1,193	970	1,162	1,404	1,181	1,382
Institutional	10,258	9,792	9,716	9,553	10,888	11,095	12,140	13,497
Other nonfederal	4,244	4,604	4,278	4,516	3,935	3,760	3,708	3,400
Domestic	2,662	3,283	2,990	3,170	2,663	2,720	2,700	2,442
Foreign	1,582	1,321	1,288	1,346	1,272	1,040	1,008	958
Self-support	81,520	79,988	80,479	84,299	88,293	96,585	100,702	101,075

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: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	89,177	90,828	92,214	94,340	98,112	104,190	107,715	106,324
Science and engineering	73,600	74,373	75,447	78,332	82,411	86,833	89,331	86,447
Science	54,752	55,112	54,934	56,141	59,105	62,226	64,902	64,462
Agricultural sciences	2,157	2,299	2,253	2,335	2,338	2,320	2,424	2,316
Biological sciences	11,053	11,335	10,959	10,955	11,608	12,133	12,719	12,763
Anatomy	175	180	161	198	159	199	178	180
Biochemistry	998	1,022	896	929	851	880	958	907
Biology	2,687	2,498	2,521	2,282	2,376	2,532	2,610	2,718
Biometry/epidemiology	656	815	825	837	953	1,001	1,022	986
Biophysics	133	158	118	128	162	166	223	210
Botany	366	409	363	357	315	335	307	336
Cell biology	859	903	867	977	993	1,085	1,125	1,140
Ecology	251	261	251	280	348	317	345	302
Entomology/parasitology	194	233	179	185	202	203	175	211
Genetics	441	397	427	380	382	362	373	441
Microbiology/immunology/virology	864	857	904	823	884	914	909	889
Nutrition	797	940	834	830	906	890	895	841
Pathology	350	279	320	276	320	294	256	277
Pharmacology	458	513	487	549	507	554	552	494
Physiology	633	654	608	570	615	633	760	738
Zoology	303	274	263	230	247	231	258	212
Biosciences, nec	888	942	935	1,124	1,388	1,537	1,773	1,881
Computer sciences	5,018	5,758	6,677	8,431	9,077	9,037	8,134	7,767
Earth, atmospheric, and ocean sciences	2,681	2,859	2,746	2,649	2,794	3,085	3,104	2,942
Atmospheric sciences	224	189	203	222	205	213	268	228
Geosciences	1,339	1,348	1,296	1,230	1,383	1,437	1,412	1,336
Oceanography	410	471	474	479	511	533	567	550
Earth/atmospheric/ocean sciences, nec	708	851	773	718	695	902	857	828
Mathematical sciences	3,302	3,334	3,271	3,419	3,686	3,918	4,185	4,243
Mathematics/applied mathematics	2,741	2,721	2,650	2,757	2,892	3,114	3,266	3,356
Statistics	561	613	621	662	794	804	919	887
Physical sciences	6,037	5,932	6,004	5,829	6,011	6,280	6,841	6,591
Astronomy	125	162	171	183	193	194	225	210
Chemistry	3,758	3,682	3,672	3,482	3,651	3,746	3,983	3,862
Physics	2,074	2,046	2,074	2,101	2,102	2,231	2,543	2,430
Physical sciences, nec	80	42	87	63	65	109	90	89
Psychology	8,800	8,590	8,305	7,545	7,691	8,420	8,858	9,455
Clinical psychology	2,059	2,001	1,992	1,829	1,731	1,898	1,986	2,251
Psychology, general	3,188	3,060	2,745	2,534	2,652	2,657	3,009	2,960
Psychology, nec	3,553	3,529	3,568	3,182	3,308	3,865	3,863	4,244
Social sciences	15,704	15,005	14,719	14,978	15,900	17,033	18,637	18,385
Agricultural economics	467	417	482	455	496	575	536	523
Anthropology (cultural/social)	1,196	1,219	1,193	1,157	1,119	1,177	1,279	1,180
Economics (except agricultural)	2,368	2,352	2,355	2,508	2,562	2,843	2,921	2,686
Geography	914	805	830	784	872	812	915	858
History and philosophy of science	79	89	91	78	72	97	107	107
Linguistics	579	493	422	454	495	466	588	574
Political science	5,264	4,953	4,837	5,142	5,562	6,241	6,950	7,340
Sociology	1,525	1,428	1,307	1,300	1,431	1,535	1,543	1,346
Sociology/anthropology	171	177	144	164	160	155	179	178
Social sciences, nec	3,141	3,072	3,058	2,936	3,131	3,132	3,619	3,593
Engineering	18,848	19,261	20,513	22,191	23,306	24,607	24,429	21,985

TABLE 26. Full-time students in graduate school for the first time, in science, engineering, and health fields in all institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Aerospace engineering	735	717	727	775	767	712	845	834
Agricultural engineering	165	155	202	177	187	187	187	177
Biomedical engineering	671	695	734	926	889	1,139	1,337	1,277
Chemical engineering	1,467	1,503	1,491	1,595	1,541	1,616	1,600	1,392
Civil engineering	3,792	3,785	3,726	3,840	3,820	4,107	4,363	4,131
Electrical engineering	5,548	5,741	6,369	7,195	7,882	8,221	7,834	6,633
Engineering science	274	308	255	299	339	404	392	361
Industrial engineering	1,549	1,547	1,851	2,005	2,216	2,238	2,029	1,717
Mechanical engineering	2,829	2,923	3,119	3,269	3,583	3,709	3,476	3,139
Metallurgical/materials engineering	870	900	892	1,005	975	1,044	958	924
Mining engineering	73	44	45	48	40	41	73	64
Nuclear engineering	178	153	150	163	164	149	177	192
Petroleum engineering	121	132	149	149	153	198	166	151
Engineering, nec	576	658	803	745	750	842	992	993
Health	15,577	16,455	16,767	16,008	15,701	17,357	18,384	19,877
Medical fields	3,527	3,896	3,921	3,871	4,099	4,495	4,727	4,737
Anesthesiology	274	226	219	263	269	215	246	186
Cardiology	4	6	7	6	4	5	4	14
Endocrinology	6	6	7	2	4	12	9	4
Gastroenterology	0	0	0	2	0	0	6	4
Hematology	1	1	2	3	0	2	4	3
Neurology	345	376	345	341	366	443	452	426
Obstetrics/gynecology	3	1	0	2	2	5	0	3
Oncology/cancer research	32	50	44	38	45	46	30	52
Ophthalmology	5	4	2	4	12	1	60	76
Otorhinolaryngology	0	0	0	3	1	0	0	1
Pediatrics	141	111	114	151	132	134	131	125
Preventive medicine/community health	2,190	2,660	2,773	2,621	2,786	2,958	3,082	3,120
Psychiatry	25	20	16	28	18	25	27	41
Pulmonary disease	0	0	3	2	3	1	0	0
Radiology	47	48	41	31	61	59	55	49
Surgery	48	36	40	30	9	11	7	7
Clinical medicine, nec	406	351	308	344	387	578	614	626
Other health	12,050	12,559	12,846	12,137	11,602	12,862	13,657	15,140
Dental sciences	383	399	350	381	382	387	396	379
Nursing	2,867	2,808	2,955	2,700	2,442	2,799	3,083	3,317
Pharmaceutical sciences	486	548	597	605	521	513	537	1,013
Speech pathology/audiology	3,783	3,979	3,974	3,863	3,814	3,902	4,110	4,360
Veterinary sciences	135	204	169	270	359	385	374	324
Health related, nec	4,396	4,621	4,801	4,318	4,084	4,876	5,157	5,747

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: 2004

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	574,334	2,385	38,615	32,554	28,211	288,234	34,034	150,301
Science and engineering	476,331	1,863	31,508	24,695	22,388	224,982	27,795	143,100
Science	352,630	1,584	21,215	21,283	18,187	181,741	22,242	86,378
Agricultural sciences	13,445	82	340	394	528	8,936	485	2,680
Biological sciences	66,520	249	5,354	2,886	3,033	36,049	3,261	15,688
Anatomy	917	2	101	51	39	502	37	185
Biochemistry	5,612	10	449	156	212	2,587	220	1,978
Biology	15,438	54	907	780	865	9,139	953	2,740
Biometry/epidemiology	4,674	15	554	263	195	2,237	198	1,212
Biophysics	1,180	7	113	23	30	586	46	375
Botany	1,831	10	101	18	63	968	76	595
Cell biology	5,830	18	567	186	243	2,883	320	1,613
Ecology	2,185	12	51	27	65	1,597	161	272
Entomology/parasitology	1,241	6	34	11	38	816	33	303
Genetics	2,129	13	185	68	62	1,132	117	552
Microbiology/immunology/virology	5,375	18	487	244	295	2,865	238	1,228
Nutrition	4,726	9	329	293	245	2,532	180	1,138
Pathology	1,540	5	181	59	61	863	55	316
Pharmacology	3,122	21	303	192	144	1,564	89	809
Physiology	2,441	13	379	104	94	1,243	77	531
Zoology	1,236	7	40	11	28	932	36	182
Biosciences, nec	7,043	29	573	400	354	3,603	425	1,659
Computer sciences	50,331	93	5,167	1,818	1,160	17,043	3,248	21,802
Earth, atmospheric, and ocean sciences	15,110	67	436	260	537	10,327	701	2,782
Atmospheric sciences	1,086	4	59	36	27	663	30	267
Geosciences	7,337	33	149	83	217	5,096	312	1,447
Oceanography	2,801	11	69	30	161	1,933	100	497
Earth/atmospheric/ocean sciences, nec	3,886	19	159	111	132	2,635	259	571
Mathematical sciences	19,873	39	1,332	692	618	8,832	1,006	7,354
Mathematics/applied mathematics	15,885	39	1,029	579	544	7,556	861	5,277
Statistics	3,988	0	303	113	74	1,276	145	2,077
Physical sciences	35,772	78	1,752	995	1,232	15,723	1,443	14,549
Astronomy	1,119	3	38	10	23	631	44	370
Chemistry	20,776	54	1,188	713	837	9,170	741	8,073
Physics	13,309	18	501	248	343	5,598	571	6,030
Physical sciences, nec	568	3	25	24	29	324	87	76
Psychology	54,052	323	2,444	4,994	4,777	33,636	4,713	3,165
Clinical psychology	13,671	92	671	894	1,737	8,636	1,209	432
Psychology, general	16,276	104	813	1,828	1,035	10,154	968	1,374
Psychology, nec	24,105	127	960	2,272	2,005	14,846	2,536	1,359
Social sciences	97,527	653	4,390	9,244	6,302	51,195	7,385	18,358
Agricultural economics	2,195	26	45	52	50	965	64	993
Anthropology (cultural/social)	7,826	105	295	271	455	5,253	585	862
Economics (except agricultural)	12,250	30	617	381	358	3,845	481	6,538
Geography	4,809	24	144	150	143	3,315	244	789
History and philosophy of science	994	7	48	30	56	700	84	69
Linguistics	2,941	17	175	46	148	1,349	202	1,004
Political science	39,238	219	1,802	4,945	3,059	20,472	3,745	4,996
Sociology	8,895	56	391	1,056	635	5,030	458	1,269
Sociology/anthropology	839	15	8	132	57	505	33	89
Social sciences, nec	17,540	154	865	2,181	1,341	9,761	1,489	1,749

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: 2004

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	123,701	279	10,293	3,412	4,201	43,241	5,553	56,722
Aerospace engineering	4,089	16	212	68	118	1,791	196	1,688
Agricultural engineering	998	1	47	22	8	430	14	476
Biomedical engineering	5,892	16	844	195	181	2,363	233	2,060
Chemical engineering	7,452	27	528	169	249	2,666	191	3,622
Civil engineering	18,560	51	1,022	452	895	8,264	770	7,106
Electrical engineering	38,995	54	4,106	861	1,097	9,444	1,643	21,790
Engineering science	2,198	11	163	38	45	865	65	1,011
Industrial engineering	13,852	48	974	714	629	5,484	908	5,095
Mechanical engineering	17,946	24	1,016	369	606	6,991	764	8,176
Metallurgical/materials engineering	5,059	6	345	105	98	1,818	130	2,557
Mining engineering	308	1	6	5	10	157	10	119
Nuclear engineering	971	3	42	20	28	492	31	355
Petroleum engineering	845	0	24	21	15	123	11	651
Engineering, nec	6,536	21	964	373	222	2,353	587	2,016
Health	98,003	522	7,107	7,859	5,823	63,252	6,239	7,201
Medical fields	20,883	101	2,176	1,893	1,675	11,175	1,211	2,652
Anesthesiology	1,222	2	51	51	19	920	135	44
Cardiology	79	0	2	10	0	11	40	16
Endocrinology	63	0	8	2	1	29	3	20
Gastroenterology	16	0	1	0	0	15	0	0
Hematology	30	0	6	3	1	18	1	1
Neurology	2,642	12	251	87	115	1,523	125	529
Obstetrics/gynecology	17	0	2	2	1	6	1	5
Oncology/cancer research	274	1	33	16	11	159	8	46
Ophthalmology	423	2	166	9	14	174	33	25
Otorhinolaryngology	12	0	4	0	1	7	0	0
Pediatrics	424	4	29	34	14	282	13	48
Preventive medicine/community health	12,402	71	1,239	1,458	1,137	6,323	577	1,597
Psychiatry	403	1	12	16	147	197	16	14
Pulmonary disease	7	0	2	1	0	4	0	0
Radiology	275	3	25	8	13	149	12	65
Surgery	75	0	14	4	2	48	0	7
Clinical medicine, nec	2,519	5	331	192	199	1,310	247	235
Other health	77,120	421	4,931	5,966	4,148	52,077	5,028	4,549
Dental sciences	1,697	6	180	36	79	1,005	62	329
Nursing	29,325	180	1,824	2,660	1,449	20,860	1,771	581
Pharmaceutical sciences	5,220	18	700	443	201	2,070	290	1,498
Speech pathology/audiology	14,291	56	439	697	940	10,908	796	455
Veterinary sciences	1,732	6	62	54	40	1,128	47	395
Health related, nec	24,855	155	1,726	2,076	1,439	16,106	2,062	1,291

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2004.

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: 2004

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	296,934	966	19,523	11,199	12,053	135,973	16,759	100,461
Science and engineering	274,311	855	17,546	9,812	10,682	123,021	15,197	97,198
Science	177,928	654	10,328	7,531	7,586	88,652	10,759	52,418
Agricultural sciences	7,187	35	144	153	270	4,745	247	1,593
Biological sciences	29,271	92	2,280	861	1,264	16,042	1,502	7,230
Anatomy	437	0	44	17	17	243	20	96
Biochemistry	2,969	3	233	59	104	1,410	125	1,035
Biology	6,833	22	380	245	357	4,170	437	1,222
Biometry/epidemiology	1,807	2	211	70	76	831	103	514
Biophysics	746	4	63	13	21	376	32	237
Botany	857	4	40	6	22	462	33	290
Cell biology	2,735	6	234	63	113	1,458	157	704
Ecology	993	3	22	8	26	716	76	142
Entomology/parasitology	676	3	17	2	18	429	21	186
Genetics	846	3	95	15	28	407	54	244
Microbiology/immunology/virology	2,322	9	210	83	122	1,280	106	512
Nutrition	1,046	2	50	49	54	453	30	408
Pathology	629	0	71	16	33	329	25	155
Pharmacology	1,428	10	136	67	68	745	43	359
Physiology	1,193	4	190	35	41	635	29	259
Zoology	596	3	15	4	14	447	19	94
Biosciences, nec	3,158	14	269	109	150	1,651	192	773
Computer sciences	36,965	63	3,485	1,104	867	13,167	2,396	15,883
Earth, atmospheric, and ocean sciences	8,182	40	207	119	235	5,508	365	1,708
Atmospheric sciences	723	4	35	22	15	459	24	164
Geosciences	4,282	22	70	40	106	2,927	171	946
Oceanography	1,292	2	27	8	70	861	45	279
Earth/atmospheric/ocean sciences, nec	1,885	12	75	49	44	1,261	125	319
Mathematical sciences	12,387	26	736	364	391	5,547	667	4,656
Mathematics/applied mathematics	10,300	26	594	302	344	4,791	577	3,666
Statistics	2,087	0	142	62	47	756	90	990
Physical sciences	24,474	50	1,060	541	743	11,007	1,032	10,041
Astronomy	764	1	23	4	10	425	28	273
Chemistry	12,544	34	643	333	441	5,767	462	4,864
Physics	10,810	13	380	191	272	4,619	481	4,854
Physical sciences, nec	356	2	14	13	20	196	61	50
Psychology	13,960	89	561	1,243	1,132	8,570	1,120	1,245
Clinical psychology	3,124	31	109	170	367	2,074	271	102
Psychology, general	5,169	25	237	644	284	2,981	272	726
Psychology, nec	5,667	33	215	429	481	3,515	577	417
Social sciences	45,502	259	1,855	3,146	2,684	24,066	3,430	10,062
Agricultural economics	1,341	11	16	24	27	612	35	616
Anthropology (cultural/social)	2,858	39	90	55	161	1,927	213	373
Economics (except agricultural)	7,777	13	335	224	236	2,567	324	4,078
Geography	2,802	13	66	65	78	1,982	144	454
History and philosophy of science	580	4	28	20	30	405	49	44
Linguistics	1,018	8	48	15	63	460	77	347
Political science	18,278	82	787	1,698	1,279	10,058	1,748	2,626
Sociology	3,088	25	125	306	260	1,687	166	519
Sociology/anthropology	292	7	1	37	14	186	14	33
Social sciences, nec	7,468	57	359	702	536	4,182	660	972

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: 2004

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	96,383	201	7,218	2,281	3,096	34,369	4,438	44,780
Aerospace engineering	3,489	13	161	54	96	1,535	165	1,465
Agricultural engineering	703	1	31	9	4	299	8	351
Biomedical engineering	3,679	11	503	78	116	1,478	160	1,333
Chemical engineering	5,346	14	334	95	132	1,990	126	2,655
Civil engineering	13,106	35	641	292	612	5,760	538	5,228
Electrical engineering	31,794	43	3,071	666	913	8,476	1,384	17,241
Engineering science	1,733	6	120	26	39	692	50	800
Industrial engineering	10,623	37	697	441	418	4,223	717	4,090
Mechanical engineering	15,469	18	817	278	488	6,063	665	7,140
Metallurgical/materials engineering	3,739	6	249	57	67	1,330	104	1,926
Mining engineering	266	1	5	5	5	132	8	110
Nuclear engineering	775	3	28	8	21	408	25	282
Petroleum engineering	711	0	17	17	9	109	9	550
Engineering, nec	4,950	13	544	255	176	1,874	479	1,609
Health	22,623	111	1,977	1,387	1,371	12,952	1,562	3,263
Medical fields	7,463	32	781	477	503	3,882	474	1,314
Anesthesiology	481	1	20	15	8	349	51	37
Cardiology	61	0	1	6	0	8	33	13
Endocrinology	24	0	2	1	1	9	2	9
Gastroenterology	7	0	0	0	0	7	0	0
Hematology	14	0	3	2	0	8	1	0
Neurology	1,311	3	134	43	61	746	62	262
Obstetrics/gynecology	7	0	2	1	0	1	0	3
Oncology/cancer research	117	0	11	5	4	70	4	23
Ophthalmology	148	1	39	4	6	68	16	14
Otorhinolaryngology	11	0	3	0	1	7	0	0
Pediatrics	61	0	2	4	2	31	2	20
Preventive medicine/community health	3,830	22	374	328	311	1,876	157	762
Psychiatry	82	1	5	5	28	36	4	3
Pulmonary disease	1	0	0	0	0	1	0	0
Radiology	146	2	13	2	5	77	9	38
Surgery	45	0	7	2	2	28	0	6
Clinical medicine, nec	1,117	2	165	59	74	560	133	124
Other health	15,160	79	1,196	910	868	9,070	1,088	1,949
Dental sciences	1,003	2	87	15	39	630	37	193
Nursing	2,775	23	176	191	228	1,918	166	73
Pharmaceutical sciences	2,319	7	296	151	78	874	133	780
Speech pathology/audiology	993	5	34	47	70	691	74	72
Veterinary sciences	692	2	28	14	17	377	20	234
Health related, nec	7,378	40	575	492	436	4,580	658	597

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2004.

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: 2004

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	277,400	1,419	19,092	21,355	16,158	152,261	17,275	49,840
Science and engineering	202,020	1,008	13,962	14,883	11,706	101,961	12,598	45,902
Science	174,702	930	10,887	13,752	10,601	93,089	11,483	33,960
Agricultural sciences	6,258	47	196	241	258	4,191	238	1,087
Biological sciences	37,249	157	3,074	2,025	1,769	20,007	1,759	8,458
Anatomy	480	2	57	34	22	259	17	89
Biochemistry	2,643	7	216	97	108	1,177	95	943
Biology	8,605	32	527	535	508	4,969	516	1,518
Biometry/epidemiology	2,867	13	343	193	119	1,406	95	698
Biophysics	434	3	50	10	9	210	14	138
Botany	974	6	61	12	41	506	43	305
Cell biology	3,095	12	333	123	130	1,425	163	909
Ecology	1,192	9	29	19	39	881	85	130
Entomology/parasitology	565	3	17	9	20	387	12	117
Genetics	1,283	10	90	53	34	725	63	308
Microbiology/immunology/virology	3,053	9	277	161	173	1,585	132	716
Nutrition	3,680	7	279	244	191	2,079	150	730
Pathology	911	5	110	43	28	534	30	161
Pharmacology	1,694	11	167	125	76	819	46	450
Physiology	1,248	9	189	69	53	608	48	272
Zoology	640	4	25	7	14	485	17	88
Biosciences, nec	3,885	15	304	291	204	1,952	233	886
Computer sciences	13,366	30	1,682	714	293	3,876	852	5,919
Earth, atmospheric, and ocean sciences	6,928	27	229	141	302	4,819	336	1,074
Atmospheric sciences	363	0	24	14	12	204	6	103
Geosciences	3,055	11	79	43	111	2,169	141	501
Oceanography	1,509	9	42	22	91	1,072	55	218
Earth/atmospheric/ocean sciences, nec	2,001	7	84	62	88	1,374	134	252
Mathematical sciences	7,486	13	596	328	227	3,285	339	2,698
Mathematics/applied mathematics	5,585	13	435	277	200	2,765	284	1,611
Statistics	1,901	0	161	51	27	520	55	1,087
Physical sciences	11,298	28	692	454	489	4,716	411	4,508
Astronomy	355	2	15	6	13	206	16	97
Chemistry	8,232	20	545	380	396	3,403	279	3,209
Physics	2,499	5	121	57	71	979	90	1,176
Physical sciences, nec	212	1	11	11	9	128	26	26
Psychology	40,092	234	1,883	3,751	3,645	25,066	3,593	1,920
Clinical psychology	10,547	61	562	724	1,370	6,562	938	330
Psychology, general	11,107	79	576	1,184	751	7,173	696	648
Psychology, nec	18,438	94	745	1,843	1,524	11,331	1,959	942
Social sciences	52,025	394	2,535	6,098	3,618	27,129	3,955	8,296
Agricultural economics	854	15	29	28	23	353	29	377
Anthropology (cultural/social)	4,968	66	205	216	294	3,326	372	489
Economics (except agricultural)	4,473	17	282	157	122	1,278	157	2,460
Geography	2,007	11	78	85	65	1,333	100	335
History and philosophy of science	414	3	20	10	26	295	35	25
Linguistics	1,923	9	127	31	85	889	125	657
Political science	20,960	137	1,015	3,247	1,780	10,414	1,997	2,370
Sociology	5,807	31	266	750	375	3,343	292	750
Sociology/anthropology	547	8	7	95	43	319	19	56
Social sciences, nec	10,072	97	506	1,479	805	5,579	829	777

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: 2004

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	27,318	78	3,075	1,131	1,105	8,872	1,115	11,942
Aerospace engineering	600	3	51	14	22	256	31	223
Agricultural engineering	295	0	16	13	4	131	6	125
Biomedical engineering	2,213	5	341	117	65	885	73	727
Chemical engineering	2,106	13	194	74	117	676	65	967
Civil engineering	5,454	16	381	160	283	2,504	232	1,878
Electrical engineering	7,201	11	1,035	195	184	968	259	4,549
Engineering science	465	5	43	12	6	173	15	211
Industrial engineering	3,229	11	277	273	211	1,261	191	1,005
Mechanical engineering	2,477	6	199	91	118	928	99	1,036
Metallurgical/materials engineering	1,320	0	96	48	31	488	26	631
Mining engineering	42	0	1	0	5	25	2	9
Nuclear engineering	196	0	14	12	7	84	6	73
Petroleum engineering	134	0	7	4	6	14	2	101
Engineering, nec	1,586	8	420	118	46	479	108	407
Health	75,380	411	5,130	6,472	4,452	50,300	4,677	3,938
Medical fields	13,420	69	1,395	1,416	1,172	7,293	737	1,338
Anesthesiology	741	1	31	36	11	571	84	7
Cardiology	18	0	1	4	0	3	7	3
Endocrinology	39	0	6	1	0	20	1	11
Gastroenterology	9	0	1	0	0	8	0	0
Hematology	16	0	3	1	1	10	0	1
Neurology	1,331	9	117	44	54	777	63	267
Obstetrics/gynecology	10	0	0	1	1	5	1	2
Oncology/cancer research	157	1	22	11	7	89	4	23
Ophthalmology	275	1	127	5	8	106	17	11
Otorhinolaryngology	1	0	1	0	0	0	0	0
Pediatrics	363	4	27	30	12	251	11	28
Preventive medicine/community health	8,572	49	865	1,130	826	4,447	420	835
Psychiatry	321	0	7	11	119	161	12	11
Pulmonary disease	6	0	2	1	0	3	0	0
Radiology	129	1	12	6	8	72	3	27
Surgery	30	0	7	2	0	20	0	1
Clinical medicine, nec	1,402	3	166	133	125	750	114	111
Other health	61,960	342	3,735	5,056	3,280	43,007	3,940	2,600
Dental sciences	694	4	93	21	40	375	25	136
Nursing	26,550	157	1,648	2,469	1,221	18,942	1,605	508
Pharmaceutical sciences	2,901	11	404	292	123	1,196	157	718
Speech pathology/audiology	13,298	51	405	650	870	10,217	722	383
Veterinary sciences	1,040	4	34	40	23	751	27	161
Health related, nec	17,477	115	1,151	1,584	1,003	11,526	1,404	694

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2004.

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: 2004

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	White, non- Hispanic	White, non- Hispanic		
All institutions	352,630	1,584	21,215	21,283	18,187	181,741	22,242	86,378
New England	26,054	67	1,459	716	745	12,384	2,818	7,865
Connecticut	5,840	14	285	217	200	2,951	686	1,487
Central CT State U.	344	2	20	11	12	234	41	24
CT C.	6	0	0	0	0	6	0	0
Quinnipiac U.	36	0	0	1	0	29	3	3
Rensselaer Hartford	191	0	26	7	6	110	42	0
Sacred Heart U.	131	0	18	5	4	93	0	11
Southern CT State U.	379	0	11	35	20	262	36	15
St. Joseph C. (West Hartford, CT)	48	0	3	2	0	39	3	1
Trinity C. (Hartford, CT)	44	0	1	2	1	37	3	0
U. Bridgeport	267	0	9	7	6	119	6	120
U. CT all campuses	1,925	5	56	47	63	838	239	677
U. Hartford	225	0	6	9	12	122	68	8
U. New Haven	598	3	19	48	33	348	77	70
Wesleyan U.	134	0	12	4	3	68	1	46
Western CT State U.	43	0	1	1	2	36	3	0
Yale U.	1,469	4	103	38	38	610	164	512
Maine	553	3	10	3	2	434	0	101
U. ME	553	3	10	3	2	434	0	101
Massachusetts	16,347	34	1,076	436	485	6,922	2,011	5,383
American International C.	89	0	0	15	3	64	5	2
Anna Maria C.	107	0	0	1	2	42	61	1
Assumption C.	87	0	1	3	4	67	12	0
Boston C.	466	0	22	9	8	266	0	161
Boston U.	2,523	4	138	54	39	710	717	861
Brandeis U.	354	0	15	5	9	200	3	122
Bridgewater State C.	138	1	1	3	1	100	20	12
Clark U.	379	1	2	4	7	104	81	180
Fitchburg State C.	65	0	4	0	1	20	2	38
Framingham State C.	13	0	0	0	1	12	0	0
Harvard U.	3,551	12	274	141	169	1,369	390	1,196
MA C. of Pharmacy and Health Sciences	28	0	0	0	0	0	20	8
MA Institute of Technology	3,138	9	347	71	95	1,216	336	1,064
Mt. Holyoke C.	4	0	0	2	0	2	0	0
Northeastern U.	710	0	19	10	22	285	121	253
Salem State C.	66	0	0	3	1	53	3	6
Smith C.	11	0	0	0	0	10	0	1
Tufts U.	969	1	80	26	37	584	31	210
U. MA	2,516	5	90	68	66	1,243	165	879
U. MA Dartmouth	170	0	3	0	2	77	7	81
U. MA Lowell	548	0	57	15	12	277	30	157
Western New England C.	0	0	0	0	0	0	0	0
Williams C.	30	0	0	0	0	0	0	30
Woods Hole Oceanographic Institution	107	0	6	2	3	65	7	24
Worcester Polytechnic Institute	248	1	15	3	1	131	0	97
Worcester State C.	30	0	2	1	2	25	0	0
New Hampshire	1,116	5	31	9	8	698	67	298
Dartmouth C.	423	2	15	0	5	252	8	141

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: 2004

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	White, non- Hispanic	White, non- Hispanic		
Rivier C.	35	0	6	0	0	15	5	9
U. NH	658	3	10	9	3	431	54	148
Rhode Island	1,679	10	52	46	43	987	52	489
Brown U.	835	3	27	22	9	381	11	382
RI C.	25	0	0	1	1	17	6	0
U. RI	819	7	25	23	33	589	35	107
Vermont	519	1	5	5	7	392	2	107
Marlboro C.	0	0	0	0	0	0	0	0
U. VT	519	1	5	5	7	392	2	107
Middle Atlantic	58,954	126	3,995	3,710	2,481	27,460	5,614	15,568
New Jersey	8,368	15	633	503	377	2,928	1,621	2,291
Fairleigh Dickinson U. all campuses	1,271	0	0	0	0	0	1,020	251
Kean U.	387	0	23	100	50	171	13	30
Monmouth U.	55	0	6	0	1	17	2	29
Montclair State U.	420	0	20	26	32	277	29	36
NJ Institute of Technology	971	1	187	47	30	191	70	445
Princeton U.	1,125	2	96	27	19	549	22	410
Rutgers, The State U. NJ all campuses	2,722	11	179	199	167	1,240	139	787
Seton Hall U.	532	1	14	53	21	163	250	30
Stevens Institute of Technology	366	0	34	7	8	103	64	150
U. of Medicine and Dentistry NJ	435	0	73	38	40	153	11	120
William Paterson U. NJ	84	0	1	6	9	64	1	3
New York	34,589	84	2,475	2,530	1,786	15,333	3,120	9,261
Adelphi U.	404	0	10	25	14	191	140	24
Albany Medical C.	80	0	9	3	0	46	0	22
Alfred U. all campuses	97	0	1	2	3	91	0	0
Clarkson U.	70	0	4	0	0	22	0	44
C. New Rochelle	150	1	0	20	7	17	104	1
C. of St. Rose	206	1	4	6	1	170	24	0
Columbia U. in the City of NY	2,449	3	228	58	64	945	178	973
Cornell U. all campuses	3,080	11	221	81	109	1,230	139	1,289
CUNY Baruch C.	437	0	37	88	34	217	0	61
CUNY Brooklyn C.	646	0	85	187	24	205	0	145
CUNY City C.	580	3	82	105	106	128	2	154
CUNY C. Staten Island	64	0	8	4	4	21	12	15
CUNY Graduate Ctr.	1,786	4	77	118	111	688	278	510
CUNY Herbert H. Lehman C.	69	0	1	1	3	3	37	24
CUNY Hunter C.	512	0	32	59	44	258	95	24
CUNY John Jay C. of Criminal Justice	1,541	0	122	280	248	743	148	0
CUNY Queens C.	199	0	25	38	10	30	64	32
Fordham U.	411	1	19	21	39	189	57	85
Hofstra U.	436	0	15	20	22	241	116	22
Iona C.	172	0	2	11	15	109	32	3
Long Island U. all campuses	1,121	6	109	343	94	439	130	0
Marist C.	331	0	17	11	13	247	8	35
Mt. Sinai School of Medicine	204	1	5	6	11	77	35	69
New School, The	1,247	4	69	106	90	532	140	306
NY Institute of Technology all campuses	302	1	20	24	6	56	53	142
NY Medical C.	204	0	37	21	9	88	4	45

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: 2004

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	White, non- Hispanic	White, non- Hispanic		
NY U.	2,979	2	332	138	114	1,218	301	874
Niagara U.	40	0	0	3	1	36	0	0
Pace U. all campuses	786	7	104	94	63	299	101	118
Polytechnic U.	295	2	51	8	3	72	84	75
Rensselaer Polytechnic Institute	429	1	26	10	9	174	4	205
Rochester Institute of Technology	423	0	12	8	8	226	30	139
Rockefeller U.	151	1	21	7	6	55	0	61
Russell Sage C. all campuses	86	0	4	9	5	57	11	0
Sarah Lawrence C.	44	0	5	0	1	29	9	0
St. Bonaventure U.	0	0	0	0	0	0	0	0
St. John's U. (Jamaica, NY)	539	0	42	53	57	268	75	44
SUNY Albany	2,159	12	137	137	85	1,291	134	363
SUNY Binghamton	940	2	43	44	33	381	87	350
SUNY Buffalo all campuses	2,056	12	78	72	34	923	134	803
SUNY C. Brockport	182	1	4	15	4	157	0	1
SUNY C. Buffalo	12	0	3	1	0	4	4	0
SUNY C. Geneseo	2	0	0	0	0	2	0	0
SUNY C. of Environmental Science and Forestry	326	1	1	3	6	241	0	74
SUNY C. Oneonta	8	0	0	0	0	4	4	0
SUNY C. Oswego	140	0	1	3	3	132	0	1
SUNY C. Plattsburgh	26	0	0	0	0	26	0	0
SUNY C. Potsdam	5	0	1	0	0	4	0	0
SUNY Fredonia	27	0	0	0	0	27	0	0
SUNY Health Science Ctr. Brooklyn	42	0	3	0	0	10	0	29
SUNY Institute of Technology Utica-Rome	111	0	5	1	0	71	0	34
SUNY New Paltz	110	0	5	5	3	62	9	26
SUNY Stony Brook all campuses	1,901	1	98	51	60	669	84	938
SUNY Upstate Medical U.	115	0	15	2	5	56	0	37
Syracuse U. all campuses	1,032	4	33	32	35	465	108	355
Teachers C. Columbia U.	1,251	1	134	146	89	650	125	106
U. Rochester	943	1	35	17	30	410	12	438
Vassar C.	0	0	0	0	0	0	0	0
Wagner C.	9	0	1	2	1	4	1	0
Yeshiva U.	622	0	42	31	50	327	7	165
Pennsylvania	15,997	27	887	677	318	9,199	873	4,016
Bloomsburg U. PA	9	0	0	0	0	8	1	0
Bryn Mawr C.	84	0	2	3	1	65	2	11
Bucknell U.	20	0	1	0	0	19	0	0
California U. PA	215	1	1	22	2	172	17	0
Carnegie Mellon U.	1,948	4	162	57	34	656	230	805
Clarion U. PA all campuses	34	0	0	1	0	31	2	0
Drexel U.	1,356	3	133	78	31	763	150	198
Duquesne U.	254	0	1	4	2	196	9	42
East Stroudsburg U. PA	105	0	3	0	2	90	10	0
Edinboro U. PA	123	1	4	1	1	109	0	7
Gannon U.	51	0	0	0	0	26	1	24
Indiana U. PA all campuses	472	0	10	25	3	318	113	3
Kutztown U. PA	92	3	5	4	5	68	7	0
Lehigh U.	303	0	17	7	4	199	2	74

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: 2004

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	White, non- Hispanic	White, non- Hispanic		
Marywood U.	506	0	5	14	8	442	34	3
Millersville U. PA	94	0	0	7	0	80	7	0
PA State U. all campuses	3,154	6	108	80	69	1,783	43	1,065
Philadelphia C. of Osteopathic Medicine	363	0	16	45	8	292	1	1
Shippensburg U. PA	281	0	4	5	2	253	7	10
Slippery Rock U. PA	85	1	0	1	1	74	7	1
St. Joseph's U.	343	0	10	72	11	182	22	46
Swarthmore C.	0	0	0	0	0	0	0	0
Temple U.	1,080	1	52	57	22	593	32	323
Thomas Jefferson U.	228	1	18	20	3	159	6	21
U. PA	1,720	3	145	32	43	892	9	596
U. Pittsburgh all campuses	2,198	2	143	118	54	1,173	56	652
U. Scranton	91	0	0	2	4	70	6	9
U. of the Sciences Philadelphia	124	0	9	3	0	27	63	22
Villanova U.	434	1	11	7	4	272	36	103
West Chester U. PA	228	0	27	12	4	185	0	0
Wilkes U.	2	0	0	0	0	2	0	0
East North Central	53,733	175	2,624	3,009	1,346	29,491	1,732	15,356
Illinois	18,193	41	1,288	1,343	544	9,084	815	5,078
Bradley U.	81	0	1	1	0	16	5	58
Chicago State U.	207	0	4	168	10	19	5	1
DePaul U.	2,940	2	315	282	124	1,521	303	393
Eastern IL U.	165	1	1	4	0	113	33	13
Governors State U.	459	0	11	177	15	184	15	57
IL Institute of Technology	810	0	111	30	15	205	17	432
IL State U.	515	0	14	16	11	341	10	123
Loyola U. Chicago	472	1	37	12	16	258	42	106
Midwestern U. (Chicago, IL)	30	0	9	2	0	17	2	0
North Central C.	14	0	1	0	1	11	1	0
Northeastern IL U.	368	3	70	25	28	198	11	33
Northern IL U.	987	4	56	34	18	632	2	241
Northwestern U.	1,110	3	73	38	28	574	43	351
Roosevelt U.	626	1	25	156	29	282	75	58
Rosalind Franklin U. of Medicine and Science	200	0	64	5	3	96	5	27
Rush U.	79	0	3	1	2	53	0	20
Southern IL U. Carbondale	1,119	3	20	58	24	678	61	275
Southern IL U. Edwardsville	533	2	10	57	10	318	0	136
U. Chicago	1,295	7	99	31	48	665	43	402
U. IL Chicago	1,746	5	101	100	59	714	41	726
U. IL Springfield	548	0	23	45	9	301	13	157
U. IL Urbana-Champaign	3,434	7	235	68	87	1,581	56	1,400
Western IL U.	455	2	5	33	7	307	32	69
Indiana	6,598	16	246	219	174	3,633	85	2,225
Ball State U.	365	0	0	1	10	237	0	117
IN State U. all campuses	548	0	21	33	9	306	26	153
IN U. all campuses	2,745	8	170	94	61	1,690	16	706
Purdue U. all campuses	2,125	6	37	71	61	953	2	995
U. Evansville	46	0	0	2	0	42	2	0
U. of Notre Dame	641	2	17	10	27	314	20	251
U. of St. Francis (Ft. Wayne, IN)	33	0	1	2	0	25	5	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: 2004

Region, state, and institution	Total	U.S. citizens and permanent residents						Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non- Hispanic	White, non- Hispanic	Other or unknown		
Valparaiso U.	95	0	0	6	6	66	14	3
Michigan	9,973	62	487	682	266	5,161	234	3,081
Andrews U.	93	0	3	21	4	38	0	27
Central MI U.	403	1	20	17	4	260	3	98
Eastern MI U.	697	4	40	58	12	356	39	188
Ferris State U.	115	2	1	7	2	64	21	18
Grand Valley State U.	299	2	24	21	3	234	0	15
Lawrence Technological U.	26	0	6	4	1	7	4	4
MI State U.	2,249	15	58	77	63	1,090	48	898
MI Technological U.	311	0	3	1	7	146	14	140
Northern MI U.	122	13	1	3	1	101	0	3
Oakland U.	278	1	17	16	0	164	19	61
U. Detroit Mercy	323	3	7	79	3	122	35	74
U. MI all campuses	2,752	12	235	145	131	1,440	28	761
Wayne State U.	1,259	5	60	162	14	535	23	460
Western MI U.	1,046	4	12	71	21	604	0	334
Ohio	12,528	26	406	646	224	7,270	355	3,601
Air Force Institute of Technology	268	0	0	0	0	97	0	171
Antioch U. all campuses	1,368	4	24	60	63	1,106	91	20
Bowling Green State U. all campuses	571	2	12	13	7	309	12	216
Case Western Reserve U.	1,037	5	120	54	17	535	40	266
Cleveland State U.	773	0	23	105	7	405	37	196
John Carroll U.	85	0	2	10	0	70	0	3
Kent State U. all campuses	766	2	19	19	10	423	11	282
Medical C. OH	93	0	6	2	1	47	1	36
Miami U. all campuses	550	1	11	23	5	378	1	131
OH State U. all campuses	2,860	2	63	77	58	1,389	59	1,212
OH U. all campuses	687	1	9	16	7	363	0	291
Union Institute & U.	319	1	5	36	3	242	26	6
U. Akron all campuses	734	1	25	60	16	447	21	164
U. Cincinnati all campuses	888	2	43	43	10	499	19	272
U. Dayton	161	0	1	14	1	115	1	29
U. Toledo	404	0	17	24	5	214	3	141
Wright State U. all campuses	674	4	23	68	14	411	26	128
Xavier U.	161	1	2	14	0	144	0	0
Youngstown State U.	129	0	1	8	0	76	7	37
Wisconsin	6,441	30	197	119	138	4,343	243	1,371
Marquette U.	515	1	23	19	13	337	4	118
Medical C. WI	137	0	16	3	4	80	0	34
U. WI Eau Claire	30	0	1	0	0	28	1	0
U. WI Green Bay	57	1	1	0	0	51	1	3
U. WI La Crosse	118	0	6	0	0	109	1	2
U. WI Madison	3,629	16	102	47	80	2,289	158	937
U. WI Milwaukee	1,654	7	44	47	36	1,185	72	263
U. WI Oshkosh	154	5	0	2	3	135	3	6
U. WI Platteville	0	0	0	0	0	0	0	0
U. WI Stevens Point	66	0	2	0	1	62	0	1
U. WI Stout	63	0	1	0	1	51	3	7
U. WI Whitewater	18	0	1	1	0	16	0	0
West North Central	25,294	172	865	905	487	14,397	1,725	6,743

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: 2004

Region, state, and institution	Total	U.S. citizens and permanent residents					Other or unknown	Temporary-visa holders
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Iowa	3,885	12	59	97	79	1,923	83	1,632
Drake U.	203	2	2	11	11	144	11	22
IA State U.	1,943	5	18	50	24	963	57	826
Loras C.	19	0	0	0	0	19	0	0
Maharishi U. of Management	269	0	1	0	0	1	0	267
U. IA	1,277	5	33	26	40	672	15	486
U. Northern IA	174	0	5	10	4	124	0	31
Kansas	4,560	53	133	127	101	2,823	183	1,140
Emporia State U.	193	0	2	4	5	151	16	15
Ft. Hays State U.	69	1	7	4	1	56	0	0
KS State U.	1,531	4	47	32	32	852	21	543
Pittsburg State U.	149	0	0	0	0	119	6	24
U. KS all campuses	2,044	46	55	61	46	1,333	106	397
Washburn U. Topeka	20	0	1	1	0	17	0	1
Wichita State U.	554	2	21	25	17	295	34	160
Minnesota	7,234	40	260	384	134	3,712	1,169	1,535
Bemidji State U.	15	0	0	0	0	10	5	0
Mayo Graduate School	168	1	17	6	16	75	15	38
MN State U. Mankato	311	0	6	3	2	111	20	169
MN State U. Moorhead	44	0	1	2	0	40	0	1
St. Cloud State U.	169	2	13	2	2	95	40	15
St. Mary's U. MN	89	0	3	9	1	49	23	4
U. MN all campuses	4,576	19	201	103	78	2,761	116	1,298
Walden U.	1,862	18	19	259	35	571	950	10
Missouri	5,443	28	211	204	113	3,291	180	1,416
Central MO State U.	357	1	3	15	6	284	23	25
Forest Institute of Professional Psychology	214	5	5	11	5	185	3	0
Kirksville C. of Osteopathic Medicine	14	0	1	1	0	11	0	1
Lincoln U. (Jefferson City, MO)	24	1	0	10	0	10	1	2
Northwest MO State U.	77	0	1	0	2	70	0	4
Southeast MO State U.	46	1	1	3	1	40	0	0
Southwest MO State U.	320	4	3	7	2	274	8	22
St. Louis U. all campuses	419	1	8	28	9	325	6	42
Truman State U.	6	0	0	0	0	6	0	0
U. of Health Sciences	0	0	0	0	0	0	0	0
U. MO-Columbia	1,239	4	45	34	22	669	40	425
U. MO-Kansas City	579	3	15	22	16	249	20	254
U. MO-Rolla	276	0	4	8	3	109	14	138
U. MO-St. Louis	529	2	31	33	19	288	34	122
Washington U. St. Louis	1,343	6	94	32	28	771	31	381
Nebraska	2,421	6	80	70	46	1,596	45	578
Creighton U.	153	0	9	5	2	101	0	36
U. NE Kearney	120	0	0	5	3	106	3	3
U. NE Lincoln	1,225	5	50	25	29	738	14	364
U. NE Omaha	816	1	20	32	12	588	28	135
U. NE Medical Ctr.	107	0	1	3	0	63	0	40
North Dakota	1,081	20	43	12	5	605	60	336
ND State U. all campuses	708	6	26	10	3	405	3	255
U. ND all campuses	373	14	17	2	2	200	57	81

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South Dakota	670	13	79	11	9	447	5	106
SD School of Mines and Technology	82	1	4	0	4	64	4	5
SD State U.	365	8	44	7	3	224	1	78
U. SD	223	4	31	4	2	159	0	23
South Atlantic	58,401	156	2,916	5,659	2,253	32,577	2,500	12,340
Delaware	1,224	2	60	59	20	676	6	401
DE State U.	7	0	0	0	0	2	0	5
U. DE	1,217	2	60	59	20	674	6	396
District of Columbia	6,830	11	462	801	223	3,036	1,183	1,114
American U.	1,869	2	62	141	89	607	733	235
Catholic U. America, The	293	1	8	12	12	180	29	51
Gallaudet U.	29	0	1	2	2	22	1	1
George Washington U.	3,222	8	277	167	99	1,836	328	507
Georgetown U.	787	0	103	19	17	365	78	205
Howard U.	626	0	11	456	4	26	14	115
U. DC	4	0	0	4	0	0	0	0
Florida	13,362	39	547	1,314	1,282	7,405	374	2,401
Barry U.	231	1	15	71	55	54	26	9
Embry-Riddle Aeronautical U.	60	0	1	2	4	26	10	17
FL A&M U.	246	0	6	196	3	4	1	36
FL Atlantic U.	801	3	37	55	85	475	1	145
FL Institute of Technology	605	0	14	17	23	316	84	151
FL International U.	985	0	109	145	322	344	2	63
FL State U.	1,505	3	50	98	44	872	15	423
Nova Southeastern U.	2,580	12	93	413	325	1,460	143	134
U. Central FL	1,363	4	51	94	90	870	16	238
U. FL	2,813	11	78	97	154	1,633	55	785
U. Miami	811	0	43	51	106	383	13	215
U. South FL	1,096	2	40	57	64	757	7	169
U. West FL	266	3	10	18	7	211	1	16
Georgia	6,787	11	324	803	146	3,605	66	1,832
Augusta State U.	43	0	2	4	1	36	0	0
Clark Atlanta U.	173	0	2	165	1	0	0	5
Emory U.	798	1	47	61	18	464	5	202
GA C. and State U.	159	0	4	39	2	108	2	4
GA Institute of Technology all campuses	1,577	1	108	78	22	723	12	633
GA Southern U.	232	1	2	66	2	150	0	11
GA State U.	1,360	3	79	244	17	621	21	375
Medical C. GA	93	0	2	10	2	40	1	38
Mercer U. all campuses	20	0	0	0	0	0	20	0
Morehouse School of Medicine	32	0	0	32	0	0	0	0
State U. West GA	155	2	0	13	1	134	1	4
U. GA	1,937	2	72	91	42	1,166	4	560
Valdosta State U.	208	1	6	0	38	163	0	0
Maryland	8,466	14	494	884	184	4,336	431	2,123
Coppin State U.	98	0	1	92	2	1	0	2
Frostburg State U.	95	1	1	4	1	83	3	2
Hood C.	266	0	4	4	2	117	134	5
Johns Hopkins U., The	1,977	5	199	87	59	987	6	634

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Loyola C.	525	0	14	77	8	376	17	33
Morgan State U.	94	0	4	65	0	9	3	13
Towson U.	692	0	32	101	15	380	48	116
Uniformed Services U. of the Health Sciences	90	1	10	8	2	60	7	2
U. Baltimore	405	0	8	147	7	185	23	35
U. MD Baltimore	324	0	38	20	8	172	7	79
U. MD Baltimore County	966	0	79	103	14	501	21	248
U. MD College Park	2,768	6	96	121	64	1,428	151	902
U. MD Eastern Shore	142	0	8	54	2	23	4	51
Washington C.	24	1	0	1	0	14	7	1
North Carolina	9,245	35	477	915	167	5,812	62	1,777
Appalachian State U.	230	1	0	8	1	215	0	5
Duke U.	1,425	1	131	60	30	815	11	377
East Carolina U.	529	1	17	36	7	379	6	83
NC Agricultural and Technical State U.	167	1	4	108	2	25	1	26
NC Central U.	343	5	8	293	3	32	1	1
NC State U.	2,401	6	155	136	56	1,471	1	576
U. NC Chapel Hill	2,118	12	102	116	41	1,443	12	392
U. NC Charlotte	745	0	32	55	8	449	0	201
U. NC Greensboro	510	3	19	59	7	350	29	43
U. NC Wilmington	304	1	3	9	7	272	1	11
Wake Forest U.	303	1	4	25	4	211	0	58
Western Carolina U.	170	3	2	10	1	150	0	4
South Carolina	2,162	5	54	128	37	1,410	53	475
Clemson U.	902	3	9	24	11	547	42	266
C. Charleston	224	0	5	12	5	179	6	17
Furman U.	10	0	1	0	0	9	0	0
Medical U. SC	268	1	13	20	6	194	1	33
U. SC all campuses	701	0	25	62	15	441	4	154
Winthrop U.	57	1	1	10	0	40	0	5
Virginia	8,828	33	468	718	179	5,306	270	1,854
C. of William and Mary all campuses	417	0	9	22	5	304	3	74
Eastern VA Medical School	139	3	11	15	4	96	0	10
George Mason U.	2,436	5	206	151	69	1,373	133	499
Hampton U.	98	0	4	73	2	7	0	12
James Madison U.	180	0	7	10	5	148	1	9
Marymount U.	61	1	11	6	4	18	9	12
Old Dominion U.	871	6	21	95	20	439	42	248
Radford U.	128	0	1	11	0	116	0	0
U. Richmond	11	0	1	0	0	10	0	0
U. VA all campuses	1,270	5	37	34	16	803	20	355
VA Commonwealth U.	995	4	70	131	16	666	21	87
VA Polytechnic Institute and State U.	2,142	9	89	98	38	1,319	41	548
VA State U.	80	0	1	72	0	7	0	0
West Virginia	1,497	6	30	37	15	991	55	363
Marshall U.	471	4	8	12	2	353	50	42
WV U.	1,026	2	22	25	13	638	5	321
East South Central	14,695	44	496	1,688	186	8,526	307	3,448
Alabama	4,109	17	127	551	52	2,146	69	1,147

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AL A&M U.	198	0	5	99	0	14	0	80
AL State U.	14	0	0	14	0	0	0	0
Auburn U. all campuses	1,156	5	19	153	20	662	19	278
Jacksonville State U.	297	2	13	66	4	185	25	2
Troy State U. Montgomery	20	0	1	7	0	12	0	0
Tuskegee U.	65	0	0	47	0	0	10	8
U. AL, The	662	3	14	36	10	385	1	213
U. AL Birmingham, The	973	3	60	85	10	497	5	313
U. AL Huntsville, The	434	2	10	35	4	229	4	150
U. South AL	290	2	5	9	4	162	5	103
Kentucky	3,507	8	105	178	27	2,096	111	982
Eastern KY U.	303	2	11	16	0	246	6	22
Morehead State U.	60	0	2	2	0	53	0	3
Murray State U.	226	0	3	21	6	164	1	31
Spalding U.	149	3	6	5	0	109	21	5
U. KY all campuses	1,475	0	56	37	10	765	80	527
U. Louisville	889	2	25	88	10	560	2	202
Western KY U.	405	1	2	9	1	199	1	192
Mississippi	2,472	7	55	392	36	1,460	69	453
Jackson State U.	324	0	17	228	1	30	48	0
MS State U.	1,138	3	20	80	20	818	0	197
U. MS all campuses	391	0	4	40	6	161	16	164
U. Southern MS	619	4	14	44	9	451	5	92
Tennessee	4,607	12	209	567	71	2,824	58	866
Austin Peay State U.	79	1	0	8	4	58	5	3
East TN State U.	208	0	8	8	1	154	1	36
Fisk U.	32	0	0	21	1	3	1	6
Meharry Medical C.	101	0	2	90	1	0	5	3
Middle TN State U.	268	3	30	19	3	211	2	0
TN State U.	384	1	22	239	4	118	0	0
TN Technological U.	118	0	0	5	1	87	0	25
U. Memphis, The	642	0	37	68	10	298	2	227
U. TN	1,576	4	31	44	17	1,172	31	277
U. TN Chattanooga	195	0	14	26	6	149	0	0
U. TN Health Science Ctr.	157	0	19	5	2	68	1	62
Vanderbilt U.	847	3	46	34	21	506	10	227
West South Central	32,263	207	1,374	2,752	2,174	15,601	511	9,644
Arkansas	1,853	13	55	109	23	1,182	32	439
AR State U. main campus	234	0	3	30	2	170	6	23
U. AR for Medical Sciences	129	1	5	4	3	59	0	57
U. AR Little Rock	284	1	5	22	2	120	3	131
U. AR main campus	1,030	10	41	40	14	681	16	228
U. Central AR	176	1	1	13	2	152	7	0
Louisiana	4,995	14	215	1,166	82	2,202	115	1,201
Grambling State U.	129	0	0	125	4	0	0	0
LA State U. all campuses	2,283	8	63	191	36	1,181	83	721
LA Tech U.	220	1	51	8	2	71	2	85
McNeese State U.	133	0	16	35	2	74	0	6
Nicholls State U.	166	0	3	22	2	137	0	2

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Northwestern State U.	35	0	0	9	1	22	1	2
Southeastern LA U.	78	0	1	10	1	61	2	3
Southern U. and A&M C. all campuses	813	0	32	690	0	66	12	13
Tulane U.	659	4	44	58	33	384	8	128
U. LA Lafayette	402	1	3	6	1	147	3	241
U. LA Monroe	77	0	2	12	0	59	4	0
Oklahoma	3,039	110	73	143	63	1,696	22	932
Cameron U.	146	7	2	37	9	89	0	2
East Central U.	16	3	1	0	0	12	0	0
Northeastern State U.	111	26	0	6	5	73	0	1
OK State U. all campuses	1,060	35	16	16	16	479	1	497
U. OK all campuses	1,484	32	47	81	30	907	5	382
U. Tulsa	222	7	7	3	3	136	16	50
Texas	22,376	70	1,031	1,334	2,006	10,521	342	7,072
Abilene Christian U.	90	0	1	2	2	79	1	5
Angelo State U.	110	0	2	3	9	94	0	2
Baylor C. of Dentistry	16	0	2	0	1	5	0	8
Baylor C. of Medicine	401	1	36	15	25	164	0	160
Baylor U.	351	0	10	5	15	200	6	115
Lamar U.	299	0	2	20	8	62	2	205
Midwestern State U.	106	0	4	5	5	76	1	15
Prairie View A&M U.	182	2	7	141	7	21	1	3
Rice U.	679	2	46	23	39	293	1	275
Sam Houston State U.	440	1	9	19	25	324	0	62
Southern Methodist U.	336	2	20	6	7	170	0	131
St. Mary's U. (San Antonio, TX)	261	3	3	14	104	98	33	6
Stephen F. Austin State U.	418	2	8	24	19	341	0	24
Sul Ross State U.	60	0	0	0	15	42	3	0
Tarleton State U.	207	2	6	13	4	171	0	11
TX A&M U. all campuses	3,496	8	127	71	201	1,797	39	1,253
TX A&M U. Commerce	306	1	18	20	3	151	0	113
TX A&M U. Corpus Christi	335	1	8	9	83	165	0	69
TX A&M U. Kingsville	314	2	15	6	85	87	1	118
TX A&M U. System Health Science Ctr.	108	0	4	2	8	33	0	61
TX Christian U.	102	1	0	0	6	60	2	33
TX Southern U.	445	0	13	393	11	18	0	10
TX State U. San Marcos	869	3	53	36	122	539	16	100
TX Tech U.	1,005	6	25	13	54	508	47	352
TX Woman's U.	403	1	20	43	26	260	0	53
U. Houston	1,145	1	69	25	47	361	42	600
U. Houston-Clear Lake	823	1	61	85	78	391	0	207
U. Houston-Victoria	53	0	0	2	11	40	0	0
U. North TX	1,208	10	31	56	58	687	37	329
U. TX Arlington	1,361	4	80	118	70	500	0	589
U. TX Austin	2,132	5	85	20	95	1,096	20	811
U. TX Dallas	1,102	2	95	57	43	348	7	550
U. TX El Paso	507	1	11	7	202	140	5	141
U. TX Health Science Ctr. Houston	662	2	65	24	53	281	10	227
U. TX Health Science Ctr. San Antonio	206	1	11	5	24	70	10	85
U. TX M. D. Anderson Cancer Ctr.	0	0	0	0	0	0	0	0

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U. TX Medical Branch	191	0	6	7	13	87	3	75
U. TX of the Permian Basin	85	0	3	5	20	57	0	0
U. TX San Antonio	385	0	22	6	120	159	0	78
U. TX Southwestern Medical Ctr. Dallas	477	1	37	9	33	223	42	132
U. TX Tyler	142	1	9	15	2	111	1	3
U. TX-Pan American	287	2	7	4	209	30	7	28
U. of the Incarnate Word	56	0	0	4	32	14	5	1
Wayland Baptist U.	6	0	0	0	0	6	0	0
West TX A&M U.	209	1	0	2	12	162	0	32
Mountain	22,411	234	847	288	1,105	14,485	1,250	4,202
Arizona	4,834	61	167	69	235	2,960	139	1,203
AZ State U. main campus	2,000	24	86	41	108	1,145	120	476
Northern AZ U.	577	18	10	8	26	475	11	29
U. AZ	2,257	19	71	20	101	1,340	8	698
Colorado	6,988	43	304	109	314	4,771	545	902
CO School of Mines	439	2	8	4	16	265	38	106
CO State U.	1,738	10	25	12	51	1,158	165	317
CO State U. Pueblo	18	0	0	0	2	13	0	3
National Technological U.	156	0	31	8	8	93	14	2
U. CO all campuses	3,548	27	182	65	204	2,379	293	398
U. Denver	862	4	50	17	25	682	11	73
U. Northern CO	227	0	8	3	8	181	24	3
Idaho	1,397	14	13	9	19	1,067	44	231
Boise State U.	222	1	1	3	3	191	8	15
ID State U.	286	6	2	0	4	254	0	20
U. ID	889	7	10	6	12	622	36	196
Montana	1,261	36	36	6	15	1,043	23	102
MT State U. Bozeman	508	6	6	0	2	423	13	58
MT Tech of the U. MT	12	0	0	0	0	12	0	0
U. MT, The	741	30	30	6	13	608	10	44
Nevada	1,464	6	60	34	56	911	136	261
U. NV, Las Vegas	647	3	31	28	27	398	64	96
U. NV, Reno	817	3	29	6	29	513	72	165
New Mexico	2,746	58	73	38	394	1,276	293	614
Eastern NM U. all campuses	72	3	0	0	4	50	0	15
NM Highlands U.	119	3	2	3	47	40	8	16
NM Institute of Mining and Technology	189	4	0	0	12	104	3	66
NM State U. all campuses	873	13	13	16	161	266	183	221
U. NM all campuses	1,493	35	58	19	170	816	99	296
Utah	2,983	11	155	21	62	1,876	60	798
Brigham Young U. all campuses	755	4	74	6	24	447	32	168
U. UT	1,413	2	54	5	23	865	25	439
UT State U.	815	5	27	10	15	564	3	191
Wyoming	738	5	39	2	10	581	10	91
U. WY	738	5	39	2	10	581	10	91
Pacific	57,722	403	6,573	2,556	4,473	26,802	5,784	11,131
Alaska	659	39	17	6	10	486	11	90
U. AK Anchorage all campuses	119	8	3	3	1	99	2	3

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: 2004

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	White, non- Hispanic	White, non- Hispanic		
U. AK Fairbanks all campuses	519	30	13	3	8	372	9	84
U. AK Southeast	21	1	1	0	1	15	0	3
California	47,253	271	5,798	2,441	4,231	20,572	5,006	8,934
Alliant International U.	1,211	12	145	85	147	640	149	33
Azusa Pacific U.	266	0	25	15	47	141	13	25
Biola U.	36	0	5	0	2	23	0	6
CA Institute of Integral Studies	542	1	40	22	37	290	129	23
CA Institute of Technology	779	2	57	10	26	358	0	326
CA State Polytechnic U. Pomona	473	1	113	20	57	147	86	49
CA State Polytechnic U. San Luis Obispo	291	0	0	4	0	240	0	47
CA State U. Bakersfield	129	0	7	7	28	83	3	1
CA State U. Chico	394	9	13	7	33	240	48	44
CA State U. Dominguez Hills	443	5	35	168	90	74	61	10
CA State U. Fresno	605	3	44	22	137	187	110	102
CA State U. Fullerton	1,430	5	329	30	185	485	204	192
CA State U. Hayward	902	7	195	89	70	215	140	186
CA State U. Long Beach	959	4	174	60	205	317	89	110
CA State U. Los Angeles	1,007	4	172	81	355	231	124	40
CA State U. Northridge	861	8	80	46	120	349	172	86
CA State U. Sacramento	1,281	10	177	63	148	577	210	96
CA State U. San Bernardino	559	4	42	62	115	217	60	59
CA State U. Stanislaus	148	0	4	11	32	74	25	2
Chapman U.	331	2	16	22	27	207	48	9
Claremont Graduate U.	693	2	73	37	48	254	106	173
Dominican U. CA	100	1	3	2	7	65	20	2
Fielding Institute, The	1,057	12	34	111	66	776	43	15
Fuller Theological Seminary CA	348	1	43	16	23	228	0	37
Golden Gate U.	560	3	87	55	41	176	126	72
Harvey Mudd C.	0	0	0	0	0	0	0	0
Humboldt State U.	345	1	5	1	16	244	67	11
John F. Kennedy U.	675	5	42	20	32	536	40	0
Loma Linda U.	519	2	56	86	78	251	9	37
Loyola Marymount U.	41	0	10	2	5	14	3	7
National U.	1,715	1	71	538	205	512	41	347
Naval Postgraduate School	427	0	22	22	20	251	23	89
Occidental C.	2	0	0	0	0	2	0	0
Pacific Graduate School of Psychology	267	0	33	16	22	153	32	11
Pacific States U.	13	0	0	0	0	0	0	13
Pepperdine U.	833	9	64	80	90	408	160	22
Rand Graduate School of Policy Studies	91	1	5	1	4	36	0	44
San Diego State U.	1,284	13	180	38	160	491	184	218
San Francisco State U.	1,230	6	184	67	135	471	239	128
San Jose State U.	915	4	327	19	52	303	128	82
Santa Clara U.	395	0	57	2	32	162	32	110
Sonoma State U.	68	0	5	0	2	40	21	0
Stanford U.	2,344	13	292	38	72	1,026	125	778
U. CA, Berkeley	3,492	38	343	87	185	1,895	300	644
U. CA, Davis	2,643	14	250	46	86	1,257	366	624
U. CA, Irvine	1,657	5	256	20	96	634	196	450
U. CA, Los Angeles	3,188	23	590	79	241	1,336	225	694

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: 2004

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	White, non- Hispanic	White, non- Hispanic		
U. CA, Riverside	1,020	4	97	10	65	328	142	374
U. CA, San Diego	2,010	9	256	28	108	1,051	193	365
U. CA, San Francisco	461	2	100	10	35	270	19	25
U. CA, Santa Barbara	1,445	1	118	11	77	807	160	271
U. CA, Santa Cruz	834	10	69	11	77	429	114	124
U. La Verne	343	3	24	63	91	108	37	17
U. San Diego	56	0	4	1	3	45	1	2
U. San Francisco	226	0	25	6	13	92	27	63
U. Southern CA	3,250	11	393	90	176	790	154	1,636
U. of the Pacific	33	0	6	0	2	20	2	3
Wright Institute all campuses	26	0	1	4	5	16	0	0
Hawaii	1,680	8	353	12	32	617	141	517
U. HI Manoa	1,680	8	353	12	32	617	141	517
Oregon	3,151	28	129	28	66	1,994	205	701
OGI School of Science & Engineering at OR Health & Science U.	166	0	23	1	3	62	12	65
OR Health & Science U.	131	1	15	0	3	99	2	11
OR State U.	1,130	12	41	4	18	687	45	323
Portland State U.	932	5	27	17	26	638	70	149
Southern OR U.	54	0	2	0	3	42	6	1
U. OR	738	10	21	6	13	466	70	152
Washington	4,979	57	276	69	134	3,133	421	889
Central WA U.	140	14	4	1	4	109	5	3
Eastern WA U.	208	8	6	6	7	158	23	0
Pacific Lutheran U.	42	0	3	2	2	27	6	2
Seattle U.	169	5	20	3	7	114	17	3
U. WA	3,318	21	213	46	85	2,027	325	601
Walla Walla C.	7	0	0	0	0	7	0	0
WA State U.	898	7	22	11	27	532	29	270
Western WA U.	197	2	8	0	2	159	16	10
Outlying areas	3,103	0	66	0	2,937	18	1	81
Guam	82	0	64	0	1	15	1	1
U. GU	82	0	64	0	1	15	1	1
Puerto Rico	3,021	0	2	0	2,936	3	0	80
Carlos Albizu U. (San Juan, PR)	656	0	0	0	656	0	0	0
Ponce School of Medicine	25	0	0	0	25	0	0	0
Pontifical Catholic U. PR, The	466	0	0	0	466	0	0	0
U. PR Mayaguez Campus	550	0	0	0	550	0	0	0
U. PR Medical Sciences Campus	139	0	0	0	139	0	0	0
U. PR Rio Piedras Campus	1,185	0	2	0	1,100	3	0	80

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2004.

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: 2004

Region, state, and institution	Total	U.S. citizens and permanent residents						Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non- Hispanic	White, non- Hispanic	Other or unknown		
All institutions	123,701	279	10,293	3,412	4,201	43,241	5,553	56,722
New England	8,147	20	532	141	188	3,107	759	3,400
Connecticut	1,250	1	49	22	36	385	110	647
Rensselaer Hartford	165	0	17	5	13	112	18	0
U. Bridgeport	250	0	4	4	0	4	2	236
U. CT all campuses	469	0	14	1	13	161	38	242
U. Hartford	95	0	4	2	2	12	22	53
U. New Haven	133	1	2	9	8	58	21	34
Yale U.	138	0	8	1	0	38	9	82
Maine	127	1	2	0	0	80	1	43
U. ME	127	1	2	0	0	80	1	43
Massachusetts	6,084	17	447	107	139	2,319	615	2,440
Anna Maria C.	16	0	0	0	1	5	10	0
Boston U.	528	1	24	12	13	126	132	220
Harvard U.	276	3	29	3	6	124	4	107
MA Institute of Technology	2,484	10	232	39	61	927	204	1,011
Northeastern U.	790	1	49	23	18	220	113	366
Tufts U.	407	1	28	7	7	208	78	78
U. MA	426	0	12	2	10	145	40	217
U. MA Dartmouth	145	0	2	1	0	33	4	105
U. MA Lowell	538	1	54	13	8	251	26	185
Western New England C.	52	0	1	3	1	43	4	0
Woods Hole Oceanographic Institution	32	0	0	0	2	21	0	9
Worcester Polytechnic Institute	390	0	16	4	12	216	0	142
New Hampshire	318	0	12	3	7	148	32	116
Dartmouth C.	143	0	6	2	4	53	26	52
U. NH	175	0	6	1	3	95	6	64
Rhode Island	272	0	18	7	5	113	1	128
Brown U.	118	0	6	2	1	31	0	78
U. RI	154	0	12	5	4	82	1	50
Vermont	96	1	4	2	1	62	0	26
Marlboro C.	4	0	0	1	0	3	0	0
U. VT	92	1	4	1	1	59	0	26
Middle Atlantic	15,849	23	1,156	443	393	4,870	1,027	7,937
New Jersey	3,758	6	371	139	140	959	344	1,799
Fairleigh Dickinson U. all campuses	166	0	0	0	0	0	15	151
Monmouth U.	99	0	15	4	4	38	17	21
NJ Institute of Technology	1,233	0	164	82	74	263	82	568
Princeton U.	469	2	37	8	3	197	1	221
Rutgers, The State U. NJ all campuses	713	0	71	11	19	156	9	447
Stevens Institute of Technology	1,072	4	83	34	39	303	220	389
U. of Medicine and Dentistry NJ	6	0	1	0	1	2	0	2
New York	7,036	10	523	192	185	1,941	449	3,736
Alfred U. all campuses	64	0	3	4	0	43	0	14
Clarkson U.	175	0	1	3	0	54	5	112
Columbia U. in the City of NY	767	1	98	8	5	131	83	441
Cooper Union	50	0	16	0	1	22	0	11
Cornell U. all campuses	860	1	87	7	24	318	25	398

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: 2004

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	
CUNY City C.	320	0	62	21	41	31	0	165
CUNY Graduate Ctr.	195	0	5	9	7	8	23	143
Manhattan C.	180	0	19	8	21	98	18	16
NY Institute of Technology all campuses	287	1	20	18	7	54	52	135
Polytechnic U.	442	0	58	33	6	79	90	176
Rensselaer Polytechnic Institute	645	1	21	14	19	232	20	338
Rochester Institute of Technology	335	1	7	4	10	150	15	148
SUNY Albany	53	0	8	0	1	11	4	29
SUNY Binghamton	304	1	17	12	4	64	13	193
SUNY Buffalo all campuses	900	2	27	21	21	256	35	538
SUNY C. of Environmental Science and Forestry	72	0	1	1	0	45	0	25
SUNY Health Science Ctr. Brooklyn	0	0	0	0	0	0	0	0
SUNY New Paltz	28	0	1	0	1	4	1	21
SUNY Stony Brook all campuses	399	0	41	8	9	95	17	229
Syracuse U. all campuses	671	1	19	13	7	120	33	478
Union C. (Schenectady, NY)	80	1	4	5	0	48	14	8
U. Rochester	209	0	8	3	1	78	1	118
Pennsylvania	5,055	7	262	112	68	1,970	234	2,402
Bucknell U.	14	0	1	0	1	12	0	0
Carnegie Mellon U.	811	1	46	15	11	259	13	466
Drexel U.	723	1	46	28	15	272	63	298
Gannon U.	51	1	0	1	0	14	1	34
Lehigh U.	500	0	33	9	7	220	23	208
PA State U. all campuses	1,459	1	41	22	11	556	21	807
Swarthmore C.	0	0	0	0	0	0	0	0
Temple U.	135	1	11	5	0	31	5	82
U. PA	389	0	38	12	8	157	0	174
U. Pittsburgh all campuses	601	2	29	19	12	330	0	209
Villanova U.	277	0	10	1	3	84	108	71
Widener U. all campuses	74	0	6	0	0	32	0	36
Wilkes U.	21	0	1	0	0	3	0	17
East North Central	21,596	25	1,312	434	422	7,896	507	11,000
Illinois	4,918	8	376	95	105	1,639	60	2,635
Bradley U.	163	0	1	1	0	29	4	128
IL Institute of Technology	593	2	35	3	10	160	4	379
Northern IL U.	181	0	8	5	0	64	0	104
Northwestern U.	703	2	76	19	18	289	15	284
Roosevelt U.	18	0	1	2	2	6	2	5
Southern IL U. Carbondale	400	0	9	13	6	96	0	276
Southern IL U. Edwardsville	199	0	6	5	2	65	0	121
U. IL Chicago	815	1	71	20	23	255	23	422
U. IL Urbana-Champaign	1,846	3	169	27	44	675	12	916
Indiana	2,575	4	64	44	57	938	35	1,433
Ball State U.	30	0	0	0	0	30	0	0
IN U. all campuses	102	1	4	5	0	26	5	61
Purdue U. all campuses	1,918	1	45	35	45	638	0	1,154
Rose-Hulman Institute of Technology	138	0	5	0	2	90	21	20
U. of Notre Dame	387	2	10	4	10	154	9	198

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: 2004

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	
Michigan	5,953	9	469	195	131	2,357	187	2,605
Andrews U.	12	0	1	0	1	8	0	2
Eastern MI U.	83	0	2	9	2	43	4	23
Grand Valley State U.	51	0	5	3	0	41	0	2
Lawrence Technological U.	280	0	10	20	4	180	31	35
MI State U.	475	0	17	19	15	138	4	282
MI Technological U.	435	2	6	4	7	192	13	211
Oakland U.	560	1	58	13	9	280	25	174
U. Detroit Mercy	144	1	7	7	5	54	15	55
U. MI all campuses	2,842	4	306	95	78	1,225	78	1,056
Wayne State U.	669	1	50	20	5	116	17	460
Western MI U.	402	0	7	5	5	80	0	305
Ohio	5,909	3	307	65	71	1,828	115	3,520
Air Force Institute of Technology	629	0	0	0	0	217	1	411
Case Western Reserve U.	573	0	42	3	5	228	23	272
Cleveland State U.	439	0	151	6	2	96	1	183
Miami U. all campuses	44	0	1	3	0	28	0	12
OH State U. all campuses	1,195	2	28	10	15	463	24	653
OH U. all campuses	225	0	1	1	0	62	0	161
U. Akron all campuses	347	0	27	3	30	58	12	217
U. Cincinnati all campuses	1,111	1	16	10	7	197	21	859
U. Dayton	373	0	25	9	7	215	18	99
U. Toledo	417	0	0	4	3	80	0	330
Wright State U. all campuses	510	0	16	14	2	156	13	309
Youngstown State U.	46	0	0	2	0	28	2	14
Wisconsin	2,241	1	96	35	58	1,134	110	807
Marquette U.	336	0	39	9	11	226	1	50
Milwaukee School of Engineering	242	0	1	5	2	185	44	5
U. WI Madison	1,158	1	30	12	29	432	56	598
U. WI Milwaukee	400	0	19	6	14	213	9	139
U. WI Platteville	61	0	5	1	2	49	0	4
U. WI Stout	44	0	2	2	0	29	0	11
West North Central	7,385	13	347	116	94	3,073	206	3,536
Iowa	1,310	0	14	28	19	501	30	718
IA State U.	908	0	6	14	12	349	23	504
Maharishi U. of Management	8	0	0	0	0	0	0	8
U. IA	394	0	8	14	7	152	7	206
Kansas	1,485	3	72	15	16	539	46	794
KS State U.	340	1	7	3	4	164	5	156
U. KS all campuses	515	1	17	7	9	252	25	204
Wichita State U.	630	1	48	5	3	123	16	434
Minnesota	1,685	0	109	18	17	838	27	676
Mayo Graduate School	37	0	2	1	4	15	0	15
MN State U. Mankato	44	0	0	0	0	4	0	40
St. Cloud State U.	40	0	31	0	0	4	5	0
U. MN all campuses	1,564	0	76	17	13	815	22	621
Missouri	1,767	4	63	47	36	769	90	758
Central MO State U.	24	0	2	2	0	12	2	6
Southwest MO State U.	12	0	0	0	0	4	0	8

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: 2004

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		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non- Hispanic	White, non- Hispanic	White, non- Hispanic		
St. Louis U. all campuses	15	0	0	0	0	7	0	8
U. MO-Columbia	436	0	12	6	14	121	11	272
U. MO-Kansas City	120	0	2	2	1	30	6	79
U. MO-Rolla	795	3	24	32	13	386	61	276
Washington U. St. Louis	365	1	23	5	8	209	10	109
Nebraska	395	0	15	4	3	128	0	245
U. NE Lincoln	395	0	15	4	3	128	0	245
North Dakota	420	1	52	2	0	169	4	192
ND State U. all campuses	324	1	32	1	0	118	4	168
U. ND all campuses	96	0	20	1	0	51	0	24
South Dakota	323	5	22	2	3	129	9	153
SD School of Mines and Technology	190	4	0	2	3	88	5	88
SD State U.	133	1	22	0	0	41	4	65
South Atlantic	22,710	43	1,455	1,266	942	9,019	704	9,281
Delaware	466	1	15	7	8	167	1	267
U. DE	466	1	15	7	8	167	1	267
District of Columbia	1,698	5	174	152	53	752	166	396
Catholic U. America, The	100	0	4	5	4	42	13	32
George Washington U.	1,521	5	167	112	47	706	153	331
Howard U.	77	0	3	35	2	4	0	33
Florida	5,770	8	448	363	587	2,051	144	2,169
Embry-Riddle Aeronautical U.	55	0	2	2	1	27	8	15
FL A&M U.	99	0	2	55	1	18	0	23
FL Atlantic U.	173	0	18	11	16	58	1	69
FL Institute of Technology	438	1	13	16	23	186	76	123
FL International U.	522	1	83	66	197	85	0	90
FL State U.	299	0	58	69	12	68	3	89
U. Central FL	1,092	3	73	46	91	421	16	442
U. FL	2,077	3	117	68	106	822	27	934
U. Miami	284	0	43	5	58	112	5	61
U. South FL	731	0	39	25	82	254	8	323
Georgia	3,815	6	226	183	90	1,522	85	1,703
Emory U.	0	0	0	0	0	0	0	0
GA Institute of Technology all campuses	3,718	6	225	182	90	1,511	24	1,680
Mercer U. all campuses	61	0	0	0	0	0	61	0
U. GA	36	0	1	1	0	11	0	23
Maryland	2,583	6	180	185	69	786	105	1,252
Johns Hopkins U., The	436	3	46	7	11	138	6	225
Loyola C.	36	0	0	2	0	31	2	1
Morgan State U.	178	0	11	96	3	37	6	25
U. MD Baltimore County	217	0	15	9	14	29	9	141
U. MD College Park	1,716	3	108	71	41	551	82	860
North Carolina	2,618	10	149	202	37	1,154	3	1,063
Duke U.	360	5	26	14	6	143	0	166
NC Agricultural and Technical State U.	207	0	3	103	2	20	1	78
NC State U.	1,671	4	93	62	29	803	2	678
U. NC Chapel Hill	58	0	6	4	0	32	0	16
U. NC Charlotte	310	1	19	19	0	150	0	121

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: 2004

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	White, non- Hispanic	White, non- Hispanic		
Wake Forest U.	12	0	2	0	0	6	0	4
South Carolina	1,247	1	32	33	21	447	34	679
Clemson U.	772	1	11	21	2	292	19	426
U. SC all campuses	475	0	21	12	19	155	15	253
Virginia	3,720	5	224	132	70	1,852	126	1,311
C. of William and Mary all campuses	37	0	2	0	1	18	0	16
George Mason U.	315	0	50	20	14	155	15	61
Old Dominion U.	671	2	31	39	17	348	47	187
U. VA all campuses	627	1	39	9	1	336	33	208
VA Commonwealth U.	134	0	6	10	3	45	4	66
VA Polytechnic Institute and State U.	1,936	2	96	54	34	950	27	773
West Virginia	793	1	7	9	7	288	40	441
Marshall U.	113	0	1	2	2	63	37	8
WV U.	652	1	6	7	5	225	3	405
WV U. Institute of Technology	28	0	0	0	0	0	0	28
East South Central	5,279	9	254	257	56	2,258	38	2,407
Alabama	1,983	3	132	114	23	804	16	891
Auburn U. all campuses	571	0	5	20	8	196	4	338
Tuskegee U.	49	0	2	24	0	0	6	17
U. AL, The	303	0	59	12	5	102	1	124
U. AL Birmingham, The	302	0	45	25	5	110	1	116
U. AL Huntsville, The	555	2	15	27	5	374	2	130
U. South AL	203	1	6	6	0	22	2	166
Kentucky	963	3	55	28	9	425	8	435
U. KY all campuses	436	1	28	4	3	171	8	221
U. Louisville	527	2	27	24	6	254	0	214
Mississippi	514	0	11	20	9	191	1	282
MS State U.	398	0	8	18	9	165	0	198
U. MS all campuses	116	0	3	2	0	26	1	84
Tennessee	1,819	3	56	95	15	838	13	799
East TN State U.	35	0	0	4	1	27	0	3
TN State U.	68	0	16	33	1	4	0	14
TN Technological U.	175	0	0	8	1	57	0	109
U. Memphis, The	208	0	5	5	0	49	0	149
U. TN	796	3	16	20	4	422	8	323
U. TN Chattanooga	50	0	12	5	1	32	0	0
U. TN Health Science Ctr.	40	0	0	2	0	16	0	22
Vanderbilt U.	447	0	7	18	7	231	5	179
West South Central	13,833	56	1,002	363	628	3,720	171	7,893
Arkansas	541	2	12	41	16	247	8	215
U. AR main campus	541	2	12	41	16	247	8	215
Louisiana	1,678	4	329	60	20	392	49	824
LA State U. all campuses	880	2	21	23	13	240	16	565
LA Tech U.	409	0	290	1	1	36	0	81
McNeese State U.	81	2	0	0	5	12	0	62
Southern U. and A&M C. all campuses	37	0	12	23	0	0	0	2
Tulane U.	158	0	1	8	0	87	0	62
U. LA Lafayette	113	0	5	5	1	17	33	52

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: 2004

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		
Oklahoma	1,353	32	22	16	17	304	6	956
Northeastern State U.	28	11	0	0	0	16	0	1
OK State U. all campuses	558	13	4	6	1	110	0	424
U. OK all campuses	614	8	16	10	14	156	0	410
U. Tulsa	153	0	2	0	2	22	6	121
Texas	10,261	18	639	246	575	2,777	108	5,898
Lamar U.	355	4	1	1	2	6	0	341
Prairie View A&M U.	70	0	12	30	3	5	0	20
Rice U.	330	1	38	5	14	105	13	154
Southern Methodist U.	834	4	119	69	48	441	0	153
St. Mary's U. (San Antonio, TX)	51	0	1	5	21	13	6	5
TX A&M U. all campuses	2,129	0	45	30	68	599	19	1,368
TX A&M U. Kingsville	369	0	2	1	18	22	1	325
TX Tech U.	616	0	5	9	44	251	29	278
U. Houston	794	1	70	23	44	201	24	431
U. Houston-Clear Lake	147	0	18	8	10	51	0	60
U. North TX	33	0	0	0	1	10	0	22
U. TX Arlington	1,475	1	95	34	28	217	2	1,098
U. TX Austin	1,830	7	131	12	76	660	7	937
U. TX Dallas	559	0	76	9	13	92	2	367
U. TX El Paso	289	0	3	2	92	20	0	172
U. TX Health Science Ctr. San Antonio	20	0	0	1	3	5	0	11
U. TX Medical Branch	0	0	0	0	0	0	0	0
U. TX San Antonio	203	0	17	5	37	56	0	88
U. TX Southwestern Medical Ctr. Dallas	40	0	1	0	1	3	2	33
U. TX Tyler	20	0	4	1	1	11	1	2
U. TX-Pan American	81	0	1	1	48	2	2	27
West TX A&M U.	16	0	0	0	3	7	0	6
Mountain	8,895	44	456	106	369	3,997	538	3,385
Arizona	2,125	13	80	20	67	652	127	1,166
AZ State U. main campus	1,380	6	60	16	46	440	120	692
Northern AZ U.	27	3	0	0	0	12	0	12
U. AZ	718	4	20	4	21	200	7	462
Colorado	2,917	13	168	59	146	1,583	235	713
CO School of Mines	296	0	8	7	13	161	9	98
CO State U.	565	1	11	1	11	306	32	203
CO State U. Pueblo	3	0	0	0	0	0	0	3
National Technological U.	556	2	87	33	57	325	47	5
U. CO all campuses	1,458	9	60	17	63	778	147	384
U. Denver	39	1	2	1	2	13	0	20
Idaho	544	1	24	7	8	319	28	157
Boise State U.	111	0	3	2	2	75	4	25
ID State U.	74	0	4	1	0	41	0	28
U. ID	359	1	17	4	6	203	24	104
Montana	195	1	16	0	0	133	0	45
MT State U. Bozeman	147	1	16	0	0	93	0	37
MT Tech of the U. MT	48	0	0	0	0	40	0	8
Nevada	479	0	22	8	10	162	27	250
U. NV, Las Vegas	248	0	11	4	6	88	13	126

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: 2004

Region, state, and institution	Total	U.S. citizens and permanent residents						Temporary-visa holders
		American Indian/ Alaska Native	Asian/Pacific Islander	Black, non- Hispanic	White, non- Hispanic	Other or unknown		
U. NV, Reno	231	0	11	4	4	74	14	124
New Mexico	1,065	14	20	9	124	358	89	451
NM Institute of Mining and Technology	127	0	0	0	8	75	1	43
NM State U. all campuses	368	6	6	5	56	57	55	183
U. NM all campuses	570	8	14	4	60	226	33	225
Utah	1,455	2	114	3	14	738	32	552
Brigham Young U. all campuses	288	0	32	1	6	172	17	60
U. UT	788	2	75	2	8	371	15	315
UT State U.	379	0	7	0	0	195	0	177
Wyoming	115	0	12	0	0	52	0	51
U. WY	115	0	12	0	0	52	0	51
Pacific	19,651	46	3,779	286	753	5,301	1,603	7,883
Alaska	155	1	5	0	4	79	2	64
U. AK Anchorage all campuses	49	1	2	0	2	42	1	1
U. AK Fairbanks all campuses	106	0	3	0	2	37	1	63
California	16,849	34	3,560	262	696	4,068	1,410	6,819
CA Institute of Technology	509	2	37	12	14	139	0	305
CA State Polytechnic U. Pomona	236	0	76	2	31	58	28	41
CA State Polytechnic U. San Luis Obispo	225	0	0	0	0	90	0	135
CA State U. Chico	16	0	2	1	0	1	0	12
CA State U. Dominguez Hills	15	0	2	5	2	2	3	1
CA State U. Fresno	55	0	4	1	2	6	11	31
CA State U. Fullerton	172	1	65	4	22	31	15	34
CA State U. Long Beach	360	2	108	11	42	68	35	94
CA State U. Los Angeles	285	0	72	16	64	40	44	49
CA State U. Northridge	396	0	75	8	38	97	62	116
CA State U. Sacramento	334	0	58	7	15	53	26	175
Humboldt State U.	4	0	0	0	0	1	0	3
Loyola Marymount U.	85	0	19	9	17	27	6	7
National U.	14	0	5	1	0	7	0	1
Naval Postgraduate School	517	0	15	24	21	225	175	57
San Diego State U.	295	0	46	4	14	75	36	120
San Francisco State U.	95	0	22	5	5	22	10	31
San Jose State U.	1,880	11	1,210	20	48	152	163	276
Santa Clara U.	370	0	88	5	23	82	42	130
Stanford U.	2,836	2	356	37	66	742	217	1,416
U. CA, Berkeley	1,642	9	204	33	78	570	147	601
U. CA, Davis	822	2	124	6	24	294	95	277
U. CA, Irvine	555	0	95	4	26	106	61	263
U. CA, Los Angeles	1,061	1	297	9	37	214	57	446
U. CA, Riverside	161	0	9	3	4	17	3	125
U. CA, San Diego	787	0	123	7	20	288	55	294
U. CA, San Francisco	63	1	18	1	6	29	2	6
U. CA, Santa Barbara	527	0	53	2	8	216	35	213
U. CA, Santa Cruz	149	0	31	1	2	23	12	80
U. Southern CA	2,383	3	346	24	67	393	70	1,480
Hawaii	207	0	63	2	4	42	10	86
U. HI Manoa	207	0	63	2	4	42	10	86

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: 2004

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		
Oregon	937	4	56	10	15	386	49	417
OGI School of Science & Engineering at OR Health & Science U.	31	0	0	0	0	14	1	16
OR State U.	466	1	21	2	3	207	23	209
Portland State U.	433	3	35	7	12	165	25	186
U. Portland	7	0	0	1	0	0	0	6
Washington	1,503	7	95	12	34	726	132	497
Central WA U.	17	0	0	0	0	15	1	1
Seattle U.	49	0	6	1	0	19	8	15
St. Martin's C.	27	0	1	0	4	20	0	2
U. WA	1,058	5	83	9	24	499	123	315
WA State U.	352	2	5	2	6	173	0	164
Outlying areas	356	0	0	0	356	0	0	0
Puerto Rico	356	0	0	0	356	0	0	0
U. PR Mayaguez Campus	356	0	0	0	356	0	0	0

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2004.

TABLE 32. Graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	437,331	434,750	441,951	442,188	457,641	485,813	508,970	516,616
Science and engineering	369,894	366,411	371,931	373,830	388,720	412,173	429,343	432,240
Science	274,286	271,985	275,727	275,020	284,861	299,104	309,873	315,633
Agricultural sciences	11,462	11,406	11,546	11,259	11,425	11,859	12,414	12,516
Biological sciences	53,200	53,113	53,465	52,888	54,322	57,664	60,750	62,599
Anatomy	856	785	749	795	735	951	908	917
Biochemistry	5,065	5,107	5,060	4,925	4,855	5,148	5,473	5,520
Biology	12,075	11,646	11,457	10,976	10,966	11,415	12,190	12,854
Biometry/epidemiology	2,896	3,514	3,704	3,615	3,817	4,071	4,439	4,674
Biophysics	748	737	710	751	877	953	1,032	1,180
Botany	2,076	2,033	1,965	1,894	1,913	1,966	1,900	1,830
Cell biology	4,126	4,202	4,453	4,622	4,726	5,187	5,492	5,661
Ecology	1,492	1,535	1,576	1,609	1,746	1,787	2,057	2,022
Entomology/parasitology	1,161	1,168	1,145	1,104	1,170	1,191	1,206	1,241
Genetics	1,729	1,682	1,730	1,655	1,776	1,841	2,008	2,077
Microbiology/immunology/virology	4,780	4,751	4,795	4,799	4,785	5,188	5,232	5,357
Nutrition	4,325	4,183	4,232	4,169	4,182	4,271	4,317	4,335
Pathology	1,674	1,580	1,580	1,531	1,637	1,613	1,541	1,540
Pharmacology	2,597	2,730	2,757	2,963	3,140	3,234	3,357	3,122
Physiology	2,298	2,151	2,064	1,993	1,944	2,053	2,179	2,272
Zoology	1,620	1,580	1,519	1,443	1,409	1,347	1,300	1,234
Biosciences, nec	3,682	3,729	3,969	4,044	4,644	5,448	6,119	6,763
Computer sciences	31,390	32,997	36,276	40,185	44,494	47,976	46,954	44,735
Earth, atmospheric, and ocean sciences	13,249	13,029	12,910	12,818	12,751	13,130	13,528	14,028
Atmospheric sciences	1,081	954	906	956	918	1,027	1,138	1,077
Geosciences	6,586	6,316	6,286	6,266	6,200	6,317	6,503	6,913
Oceanography	2,345	2,426	2,498	2,545	2,471	2,518	2,584	2,705
Earth/atmospheric/ocean sciences, nec	3,237	3,333	3,220	3,051	3,162	3,268	3,303	3,333
Mathematical sciences	15,278	14,916	14,686	14,320	15,218	16,500	17,489	18,062
Mathematics/applied mathematics	12,633	12,310	11,998	11,541	12,189	13,110	13,689	14,203
Statistics	2,645	2,606	2,688	2,779	3,029	3,390	3,800	3,859
Physical sciences	30,065	29,637	29,834	29,543	30,211	31,423	33,392	34,817
Astronomy	778	820	832	888	916	990	1,080	1,119
Chemistry	18,033	17,781	17,804	17,486	17,789	18,453	19,449	20,168
Physics	10,965	10,652	10,690	10,674	11,059	11,478	12,335	13,084
Physical sciences, nec	289	384	508	495	447	502	528	446
Psychology	42,602	42,158	41,623	40,311	40,769	41,184	42,141	43,735
Clinical psychology	11,657	11,363	11,531	11,361	11,337	11,330	11,792	12,120
Psychology, general	13,562	13,491	12,684	12,155	12,379	11,900	11,999	11,974
Psychology, nec	17,383	17,304	17,408	16,795	17,053	17,954	18,350	19,641
Social sciences	77,040	74,729	75,387	73,696	75,671	79,368	83,205	85,141
Agricultural economics	2,038	1,992	2,011	2,076	2,153	2,181	2,315	2,192
Anthropology (cultural/social)	7,249	7,232	7,275	7,286	7,203	7,166	7,417	7,413
Economics (except agricultural)	10,649	10,221	10,058	10,209	10,885	11,366	11,523	11,555
Geography	3,882	3,861	3,830	3,648	3,923	3,951	4,255	4,295
History and philosophy of science	443	449	503	472	496	472	506	602
Linguistics	2,793	2,662	2,570	2,456	2,505	2,564	2,699	2,649
Political science	27,487	26,384	26,829	26,417	27,029	29,726	31,425	33,114
Sociology	8,499	8,060	7,986	7,769	7,864	7,954	8,020	7,900
Sociology/anthropology	855	835	719	728	788	710	753	807
Social sciences, nec	13,145	13,033	13,606	12,635	12,825	13,278	14,292	14,614
Engineering	95,608	94,426	96,204	98,810	103,859	113,069	119,470	116,607
Aerospace engineering	3,029	3,096	3,290	3,337	3,396	3,627	3,969	3,997

TABLE 32. Graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Agricultural engineering	941	925	934	899	907	912	1,012	998
Biomedical engineering	2,785	2,850	3,069	3,188	3,574	4,328	5,296	5,834
Chemical engineering	7,196	7,013	6,821	6,996	6,840	7,290	7,376	7,334
Civil engineering	16,247	15,653	15,472	15,815	16,012	17,032	18,156	17,880
Electrical engineering	28,675	29,117	29,631	31,360	33,760	37,208	38,326	36,132
Engineering science	1,636	1,685	1,604	1,601	1,759	1,985	2,187	2,134
Industrial engineering	10,961	10,310	10,982	11,363	12,082	13,261	13,481	12,951
Mechanical engineering	14,499	14,082	14,321	14,609	15,245	16,483	17,547	17,222
Metallurgical/materials engineering	4,592	4,587	4,404	4,309	4,660	4,933	5,075	4,998
Mining engineering	333	290	320	276	229	256	266	298
Nuclear engineering	868	821	830	792	801	795	885	971
Petroleum engineering	557	567	630	621	652	759	847	843
Engineering, nec	3,289	3,430	3,896	3,644	3,942	4,200	5,047	5,015
Health	67,437	68,339	70,020	68,358	68,921	73,640	79,627	84,376
Medical fields	14,569	15,836	16,474	15,684	16,587	18,140	19,482	19,810
Anesthesiology	616	650	642	623	698	696	891	880
Cardiology	33	36	63	53	50	43	36	79
Endocrinology	43	58	67	57	53	60	80	63
Gastroenterology	3	6	7	14	7	7	11	16
Hematology	3	1	5	6	6	13	25	30
Neurology	1,717	1,825	1,907	1,982	2,136	2,513	2,665	2,642
Obstetrics/gynecology	18	13	16	16	28	23	28	17
Oncology/cancer research	198	209	250	239	261	231	234	274
Ophthalmology	30	31	49	58	46	181	413	423
Otorhinolaryngology	2	0	3	9	4	8	9	12
Pediatrics	342	328	316	403	380	463	429	424
Preventive medicine/community health	10,034	11,209	11,600	10,528	10,779	11,463	11,886	11,988
Psychiatry	135	86	87	141	229	268	216	348
Pulmonary disease	0	0	6	7	8	5	14	7
Radiology	221	191	187	168	198	217	246	211
Surgery	171	122	122	147	130	86	84	75
Clinical medicine, nec	1,003	1,071	1,147	1,233	1,574	1,863	2,215	2,321
Other health	52,868	52,503	53,546	52,674	52,334	55,500	60,145	64,566
Dental sciences	1,491	1,518	1,467	1,430	1,494	1,446	1,654	1,697
Nursing	22,571	21,067	21,091	19,724	19,695	20,656	22,044	24,468
Pharmaceutical sciences	2,694	2,869	3,398	3,592	3,666	4,529	5,492	5,220
Speech pathology/audiology	9,654	9,717	9,962	10,254	9,899	10,108	10,528	10,841
Veterinary sciences	1,224	1,288	1,314	1,367	1,476	1,691	1,719	1,732
Health related, nec	15,234	16,044	16,314	16,307	16,104	17,070	18,708	20,608

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: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	304,488	301,547	306,953	310,240	320,865	343,306	362,165	361,291
Science and engineering	255,721	252,884	256,747	260,200	270,564	289,519	304,052	301,853
Science	187,138	185,167	187,577	187,702	194,059	204,650	214,004	215,355
Agricultural sciences	11,045	10,978	11,128	10,795	10,917	11,310	11,791	11,931
Biological sciences	37,780	37,782	37,808	37,435	38,215	40,586	43,122	43,466
Anatomy	659	584	562	591	552	700	643	631
Biochemistry	3,596	3,609	3,561	3,499	3,474	3,626	3,887	3,821
Biology	8,419	8,086	8,064	7,794	7,749	8,170	8,775	9,161
Biometry/epidemiology	1,718	2,143	2,200	2,192	2,356	2,635	2,856	2,724
Biophysics	419	417	416	449	533	613	680	732
Botany	1,933	1,897	1,825	1,803	1,827	1,901	1,826	1,759
Cell biology	2,533	2,678	2,816	2,980	3,080	3,387	3,607	3,640
Ecology	1,402	1,446	1,456	1,483	1,583	1,579	1,843	1,841
Entomology/parasitology	1,101	1,109	1,087	1,055	1,119	1,138	1,158	1,197
Genetics	1,160	1,097	1,115	1,052	1,121	1,112	1,253	1,231
Microbiology/immunology/virology	3,313	3,256	3,215	3,200	3,191	3,388	3,377	3,389
Nutrition	3,438	3,411	3,408	3,226	3,220	3,207	3,308	3,341
Pathology	1,063	1,074	1,053	1,015	1,033	984	995	998
Pharmacology	1,750	1,829	1,848	2,058	2,039	2,070	2,283	2,025
Physiology	1,373	1,341	1,305	1,175	1,111	1,179	1,248	1,306
Zoology	1,556	1,522	1,461	1,406	1,354	1,287	1,244	1,204
Biosciences, nec	2,347	2,283	2,416	2,457	2,873	3,610	4,139	4,466
Computer sciences	19,403	20,322	22,496	24,794	27,084	29,598	29,803	27,807
Earth, atmospheric, and ocean sciences	11,136	10,928	10,812	10,755	10,616	10,950	11,328	11,702
Atmospheric sciences	1,057	933	889	931	891	991	1,102	1,033
Geosciences	5,391	5,130	5,127	5,128	5,046	5,140	5,350	5,686
Oceanography	1,954	2,043	2,091	2,142	2,108	2,124	2,165	2,276
Earth/atmospheric/ocean sciences, nec	2,734	2,822	2,705	2,554	2,571	2,695	2,711	2,707
Mathematical sciences	11,540	11,176	11,050	11,013	11,802	12,775	13,611	13,967
Mathematics/applied mathematics	9,403	9,121	8,881	8,849	9,437	10,080	10,577	10,899
Statistics	2,137	2,055	2,169	2,164	2,365	2,695	3,034	3,068
Physical sciences	21,877	21,759	21,804	21,712	22,159	23,118	24,522	25,653
Astronomy	471	509	511	542	538	566	637	663
Chemistry	13,233	13,169	13,082	12,949	13,147	13,643	14,330	14,894
Physics	7,889	7,710	7,711	7,735	8,040	8,427	9,034	9,657
Physical sciences, nec	284	371	500	486	434	482	521	439
Psychology	21,901	21,539	20,919	20,374	20,445	21,172	21,630	21,540
Clinical psychology	3,183	3,006	3,057	3,072	2,969	3,020	3,022	3,104
Psychology, general	8,721	8,521	8,006	7,600	7,704	7,750	8,056	7,942
Psychology, nec	9,997	10,012	9,856	9,702	9,772	10,402	10,552	10,494
Social sciences	52,456	50,683	51,560	50,824	52,821	55,141	58,197	59,289
Agricultural economics	1,968	1,925	1,946	2,016	2,091	2,120	2,243	2,107
Anthropology (cultural/social)	5,183	5,169	5,282	5,302	5,259	5,237	5,507	5,546
Economics (except agricultural)	6,873	6,488	6,497	6,528	7,026	7,534	7,754	7,982
Geography	3,589	3,553	3,505	3,327	3,621	3,675	3,956	3,999
History and philosophy of science	222	222	296	272	298	273	294	384
Linguistics	1,953	1,876	1,834	1,761	1,805	1,886	1,995	2,003
Political science	16,341	15,485	16,107	15,858	16,673	17,968	19,135	19,995
Sociology	6,341	6,097	5,879	5,744	5,876	5,969	5,971	5,944
Sociology/anthropology	690	678	605	602	620	592	619	672
Social sciences, nec	9,296	9,190	9,609	9,414	9,552	9,887	10,723	10,657
Engineering	68,583	67,717	69,170	72,498	76,505	84,869	90,048	86,498
Aerospace engineering	2,310	2,295	2,308	2,350	2,390	2,609	2,859	2,935

TABLE 33. Graduate students in science, engineering, and health fields in public doctorate-granting institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Agricultural engineering	893	880	888	845	839	848	947	936
Biomedical engineering	1,824	1,842	1,991	2,046	2,196	2,772	3,544	3,753
Chemical engineering	5,185	5,064	4,859	5,060	4,898	5,359	5,431	5,352
Civil engineering	12,522	11,998	12,135	12,521	12,805	13,607	14,722	14,486
Electrical engineering	19,115	19,131	20,056	21,976	23,857	26,965	28,104	26,032
Engineering science	1,117	1,063	1,102	986	1,085	1,221	1,471	1,349
Industrial engineering	7,537	7,422	7,705	8,239	8,786	9,751	9,415	8,766
Mechanical engineering	10,927	10,890	11,004	11,374	11,864	13,220	13,898	13,230
Metallurgical/materials engineering	3,235	3,184	3,064	3,121	3,424	3,664	3,762	3,741
Mining engineering	233	197	214	264	224	252	261	298
Nuclear engineering	751	715	716	672	691	686	773	872
Petroleum engineering	442	459	531	525	534	631	727	706
Engineering, nec	2,492	2,577	2,597	2,519	2,912	3,284	4,134	4,042
Health	48,767	48,663	50,206	50,040	50,301	53,787	58,113	59,438
Medical fields	9,202	9,714	10,127	10,006	10,444	11,317	11,997	11,948
Anesthesiology	285	325	303	352	405	426	537	565
Cardiology	10	10	34	26	25	16	9	0
Endocrinology	43	58	67	57	53	58	78	62
Gastroenterology	3	6	7	14	7	7	11	16
Hematology	3	1	5	6	6	7	13	23
Neurology	819	889	999	1,073	1,173	1,430	1,540	1,419
Obstetrics/gynecology	5	8	13	8	20	13	13	3
Oncology/cancer research	123	139	145	143	146	123	116	137
Ophthalmology	30	31	49	58	46	178	399	404
Otorhinolaryngology	2	0	3	6	4	8	9	12
Pediatrics	241	226	243	257	287	362	361	355
Preventive medicine/community health	6,599	7,073	7,241	6,835	6,944	7,211	7,348	7,212
Psychiatry	101	64	58	78	189	215	171	302
Pulmonary disease	0	0	1	1	1	5	14	6
Radiology	163	148	135	126	153	175	181	185
Surgery	168	118	118	139	122	78	75	68
Clinical medicine, nec	607	618	706	827	863	1,005	1,122	1,179
Other health	39,565	38,949	40,079	40,034	39,857	42,470	46,116	47,490
Dental sciences	1,170	1,204	1,199	1,213	1,239	1,205	1,365	1,361
Nursing	17,957	16,797	16,859	15,989	15,952	16,829	18,076	19,624
Pharmaceutical sciences	2,163	2,202	2,672	2,949	2,972	3,707	4,517	3,966
Speech pathology/audiology	7,797	7,698	7,990	8,187	7,892	7,692	7,930	7,859
Veterinary sciences	1,172	1,235	1,267	1,322	1,430	1,638	1,667	1,674
Health related, nec	9,306	9,813	10,092	10,374	10,372	11,399	12,561	13,006

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: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	132,843	133,203	134,998	131,948	136,776	142,507	146,805	155,325
Science and engineering	114,173	113,527	115,184	113,630	118,156	122,654	125,291	130,387
Science	87,148	86,818	88,150	87,318	90,802	94,454	95,869	100,278
Agricultural sciences	417	428	418	464	508	549	623	585
Biological sciences	15,420	15,331	15,657	15,453	16,107	17,078	17,628	19,133
Anatomy	197	201	187	204	183	251	265	286
Biochemistry	1,469	1,498	1,499	1,426	1,381	1,522	1,586	1,699
Biology	3,656	3,560	3,393	3,182	3,217	3,245	3,415	3,693
Biometry/epidemiology	1,178	1,371	1,504	1,423	1,461	1,436	1,583	1,950
Biophysics	329	320	294	302	344	340	352	448
Botany	143	136	140	91	86	65	74	71
Cell biology	1,593	1,524	1,637	1,642	1,646	1,800	1,885	2,021
Ecology	90	89	120	126	163	208	214	181
Entomology/parasitology	60	59	58	49	51	53	48	44
Genetics	569	585	615	603	655	729	755	846
Microbiology/immunology/virology	1,467	1,495	1,580	1,599	1,594	1,800	1,855	1,968
Nutrition	887	772	824	943	962	1,064	1,009	994
Pathology	611	506	527	516	604	629	546	542
Pharmacology	847	901	909	905	1,101	1,164	1,074	1,097
Physiology	925	810	759	818	833	874	931	966
Zoology	64	58	58	37	55	60	56	30
Biosciences, nec	1,335	1,446	1,553	1,587	1,771	1,838	1,980	2,297
Computer sciences	11,987	12,675	13,780	15,391	17,410	18,378	17,151	16,928
Earth, atmospheric, and ocean sciences	2,113	2,101	2,098	2,063	2,135	2,180	2,200	2,326
Atmospheric sciences	24	21	17	25	27	36	36	44
Geosciences	1,195	1,186	1,159	1,138	1,154	1,177	1,153	1,227
Oceanography	391	383	407	403	363	394	419	429
Earth/atmospheric/ocean sciences, nec	503	511	515	497	591	573	592	626
Mathematical sciences	3,738	3,740	3,636	3,307	3,416	3,725	3,878	4,095
Mathematics/applied mathematics	3,230	3,189	3,117	2,692	2,752	3,030	3,112	3,304
Statistics	508	551	519	615	664	695	766	791
Physical sciences	8,188	7,878	8,030	7,831	8,052	8,305	8,870	9,164
Astronomy	307	311	321	346	378	424	443	456
Chemistry	4,800	4,612	4,722	4,537	4,642	4,810	5,119	5,274
Physics	3,076	2,942	2,979	2,939	3,019	3,051	3,301	3,427
Physical sciences, nec	5	13	8	9	13	20	7	7
Psychology	20,701	20,619	20,704	19,937	20,324	20,012	20,511	22,195
Clinical psychology	8,474	8,357	8,474	8,289	8,368	8,310	8,770	9,016
Psychology, general	4,841	4,970	4,678	4,555	4,675	4,150	3,943	4,032
Psychology, nec	7,386	7,292	7,552	7,093	7,281	7,552	7,798	9,147
Social sciences	24,584	24,046	23,827	22,872	22,850	24,227	25,008	25,852
Agricultural economics	70	67	65	60	62	61	72	85
Anthropology (cultural/social)	2,066	2,063	1,993	1,984	1,944	1,929	1,910	1,867
Economics (except agricultural)	3,776	3,733	3,561	3,681	3,859	3,832	3,769	3,573
Geography	293	308	325	321	302	276	299	296
History and philosophy of science	221	227	207	200	198	199	212	218
Linguistics	840	786	736	695	700	678	704	646
Political science	11,146	10,899	10,722	10,559	10,356	11,758	12,290	13,119
Sociology	2,158	1,963	2,107	2,025	1,988	1,985	2,049	1,956
Sociology/anthropology	165	157	114	126	168	118	134	135
Social sciences, nec	3,849	3,843	3,997	3,221	3,273	3,391	3,569	3,957
Engineering	27,025	26,709	27,034	26,312	27,354	28,200	29,422	30,109
Aerospace engineering	719	801	982	987	1,006	1,018	1,110	1,062

TABLE 34. Graduate students in science, engineering, and health fields in private doctorate-granting institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Agricultural engineering	48	45	46	54	68	64	65	62
Biomedical engineering	961	1,008	1,078	1,142	1,378	1,556	1,752	2,081
Chemical engineering	2,011	1,949	1,962	1,936	1,942	1,931	1,945	1,982
Civil engineering	3,725	3,655	3,337	3,294	3,207	3,425	3,434	3,394
Electrical engineering	9,560	9,986	9,575	9,384	9,903	10,243	10,222	10,100
Engineering science	519	622	502	615	674	764	716	785
Industrial engineering	3,424	2,888	3,277	3,124	3,296	3,510	4,066	4,185
Mechanical engineering	3,572	3,192	3,317	3,235	3,381	3,263	3,649	3,992
Metallurgical/materials engineering	1,357	1,403	1,340	1,188	1,236	1,269	1,313	1,257
Mining engineering	100	93	106	12	5	4	5	0
Nuclear engineering	117	106	114	120	110	109	112	99
Petroleum engineering	115	108	99	96	118	128	120	137
Engineering, nec	797	853	1,299	1,125	1,030	916	913	973
Health	18,670	19,676	19,814	18,318	18,620	19,853	21,514	24,938
Medical fields	5,367	6,122	6,347	5,678	6,143	6,823	7,485	7,862
Anesthesiology	331	325	339	271	293	270	354	315
Cardiology	23	26	29	27	25	27	27	79
Endocrinology	0	0	0	0	0	2	2	1
Gastroenterology	0	0	0	0	0	0	0	0
Hematology	0	0	0	0	0	6	12	7
Neurology	898	936	908	909	963	1,083	1,125	1,223
Obstetrics/gynecology	13	5	3	8	8	10	15	14
Oncology/cancer research	75	70	105	96	115	108	118	137
Ophthalmology	0	0	0	0	0	3	14	19
Otorhinolaryngology	0	0	0	3	0	0	0	0
Pediatrics	101	102	73	146	93	101	68	69
Preventive medicine/community health	3,435	4,136	4,359	3,693	3,835	4,252	4,538	4,776
Psychiatry	34	22	29	63	40	53	45	46
Pulmonary disease	0	0	5	6	7	0	0	1
Radiology	58	43	52	42	45	42	65	26
Surgery	3	4	4	8	8	8	9	7
Clinical medicine, nec	396	453	441	406	711	858	1,093	1,142
Other health	13,303	13,554	13,467	12,640	12,477	13,030	14,029	17,076
Dental sciences	321	314	268	217	255	241	289	336
Nursing	4,614	4,270	4,232	3,735	3,743	3,827	3,968	4,844
Pharmaceutical sciences	531	667	726	643	694	822	975	1,254
Speech pathology/audiology	1,857	2,019	1,972	2,067	2,007	2,416	2,598	2,982
Veterinary sciences	52	53	47	45	46	53	52	58
Health related, nec	5,928	6,231	6,222	5,933	5,732	5,671	6,147	7,602

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: 1997–2004

Enrollment status, citizenship, and race/ethnicity	1997	1998	1999	2000	2001	2002	2003	2004
Full and part-time enrollment	369,894	366,411	371,931	373,830	388,720	412,173	429,343	432,240
U.S. citizens and permanent residents	274,210	267,994	266,052	256,129	259,932	272,516	287,730	294,764
American Indian/Alaska Native	1,390	1,385	1,318	1,362	1,445	1,509	1,629	1,591
Asian/Pacific Islander	23,037	23,072	23,597	21,368	22,463	24,463	26,280	26,779
Black, non-Hispanic	16,287	16,591	17,197	17,594	17,825	18,963	20,221	20,587
Hispanic	13,040	13,386	14,206	14,487	15,144	16,478	17,850	18,849
White, non-Hispanic	205,573	198,676	195,078	185,119	185,367	192,004	200,226	202,978
Other or unknown	14,883	14,884	14,656	16,199	17,688	19,099	21,524	23,980
Temporary-visa holders	95,684	98,417	105,879	117,701	128,788	139,657	141,613	137,476
Full-time	266,369	264,172	268,952	275,151	287,508	307,736	320,218	322,476
U.S. citizens and permanent residents	183,500	179,304	177,494	172,740	175,201	186,050	197,584	203,562
American Indian/Alaska Native	1,010	993	920	984	1,024	1,054	1,127	1,135
Asian/Pacific Islander	15,955	16,146	16,561	14,742	15,644	17,135	18,231	18,943
Black, non-Hispanic	10,262	10,223	10,185	10,823	10,722	11,494	12,064	12,658
Hispanic	8,798	9,066	9,454	9,730	10,207	11,277	12,318	12,936
White, non-Hispanic	139,096	134,540	132,267	126,977	127,255	133,621	140,299	142,788
Other or unknown	8,379	8,336	8,107	9,484	10,349	11,469	13,545	15,102
Temporary-visa holders	82,869	84,868	91,458	102,411	112,307	121,686	122,634	118,914
Part-time	103,525	102,239	102,979	98,679	101,212	104,437	109,125	109,764
U.S. citizens and permanent residents	90,710	88,690	88,558	83,389	84,731	86,466	90,146	91,202
American Indian/Alaska Native	380	392	398	378	421	455	502	456
Asian/Pacific Islander	7,082	6,926	7,036	6,626	6,819	7,328	8,049	7,836
Black, non-Hispanic	6,025	6,368	7,012	6,771	7,103	7,469	8,157	7,929
Hispanic	4,242	4,320	4,752	4,757	4,937	5,201	5,532	5,913
White, non-Hispanic	66,477	64,136	62,811	58,142	58,112	58,383	59,927	60,190
Other or unknown	6,504	6,548	6,549	6,715	7,339	7,630	7,979	8,878
Temporary-visa holders	12,815	13,549	14,421	15,290	16,481	17,971	18,979	18,562

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: 2004

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	516,616	2,050	33,035	27,459	23,738	256,997	29,025	144,312
Science and engineering	432,240	1,591	26,779	20,587	18,849	202,978	23,980	137,476
Science	315,633	1,343	18,359	17,363	15,103	161,952	19,051	82,462
Agricultural sciences	12,516	68	312	379	489	8,236	415	2,617
Biological sciences	62,599	234	5,015	2,693	2,728	33,596	2,842	15,491
Anatomy	917	2	101	51	39	502	37	185
Biochemistry	5,520	10	435	149	197	2,554	210	1,965
Biology	12,854	45	724	646	691	7,373	761	2,614
Biometry/epidemiology	4,674	15	554	263	195	2,237	198	1,212
Biophysics	1,180	7	113	23	30	586	46	375
Botany	1,830	10	101	18	63	967	76	595
Cell biology	5,661	17	551	176	228	2,800	295	1,594
Ecology	2,022	11	49	22	59	1,492	124	265
Entomology/parasitology	1,241	6	34	11	38	816	33	303
Genetics	2,077	13	179	68	61	1,101	103	552
Microbiology/immunology/virology	5,357	18	484	241	291	2,859	237	1,227
Nutrition	4,335	8	246	285	177	2,368	135	1,116
Pathology	1,540	5	181	59	61	863	55	316
Pharmacology	3,122	21	303	192	144	1,564	89	809
Physiology	2,272	10	361	100	81	1,140	50	530
Zoology	1,234	7	40	11	28	930	36	182
Biosciences, nec	6,763	29	559	378	345	3,444	357	1,651
Computer sciences	44,735	80	4,239	1,594	950	15,204	2,819	19,849
Earth, atmospheric, and ocean sciences	14,028	62	389	235	484	9,531	606	2,721
Atmospheric sciences	1,077	4	58	36	27	659	29	264
Geosciences	6,913	32	134	72	191	4,778	276	1,430
Oceanography	2,705	11	67	30	158	1,859	88	492
Earth/atmospheric/ocean sciences, nec	3,333	15	130	97	108	2,235	213	535
Mathematical sciences	18,062	31	1,087	556	492	7,877	850	7,169
Mathematics/applied mathematics	14,203	31	812	451	422	6,635	718	5,134
Statistics	3,859	0	275	105	70	1,242	132	2,035
Physical sciences	34,817	71	1,636	935	1,178	15,283	1,352	14,362
Astronomy	1,119	3	38	10	23	631	44	370
Chemistry	20,168	50	1,097	669	804	8,912	706	7,930
Physics	13,084	17	479	234	330	5,510	524	5,990
Physical sciences, nec	446	1	22	22	21	230	78	72
Psychology	43,735	246	2,015	3,756	3,872	27,341	3,864	2,641
Clinical psychology	12,120	80	587	815	1,607	7,512	1,113	406
Psychology, general	11,974	71	614	1,005	679	7,996	653	956
Psychology, nec	19,641	95	814	1,936	1,586	11,833	2,098	1,279
Social sciences	85,141	551	3,666	7,215	4,910	44,884	6,303	17,612
Agricultural economics	2,192	26	45	52	50	963	64	992
Anthropology (cultural/social)	7,413	101	275	265	405	5,001	508	858
Economics (except agricultural)	11,555	25	517	319	324	3,624	429	6,317
Geography	4,295	19	127	122	123	2,963	194	747
History and philosophy of science	602	3	26	15	7	445	37	69
Linguistics	2,649	16	132	41	125	1,213	166	956
Political science	33,114	161	1,458	3,691	2,262	17,500	3,323	4,719
Sociology	7,900	51	336	878	482	4,543	376	1,234
Sociology/anthropology	807	15	8	130	56	480	32	86
Social sciences, nec	14,614	134	742	1,702	1,076	8,152	1,174	1,634

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: 2004

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	116,607	248	8,420	3,224	3,746	41,026	4,929	55,014
Aerospace engineering	3,997	16	204	65	117	1,751	189	1,655
Agricultural engineering	998	1	47	22	8	430	14	476
Biomedical engineering	5,834	16	843	193	180	2,323	222	2,057
Chemical engineering	7,334	27	484	165	242	2,633	182	3,601
Civil engineering	17,880	48	903	440	844	7,994	679	6,972
Electrical engineering	36,132	48	3,282	784	906	8,775	1,434	20,903
Engineering science	2,134	11	160	38	43	819	57	1,006
Industrial engineering	12,951	34	895	679	566	4,995	831	4,951
Mechanical engineering	17,222	24	904	357	530	6,731	677	7,999
Metallurgical/materials engineering	4,998	5	333	103	96	1,797	121	2,543
Mining engineering	298	1	6	5	10	149	10	117
Nuclear engineering	971	3	42	20	28	492	31	355
Petroleum engineering	843	0	24	21	15	122	11	650
Engineering, nec	5,015	14	293	332	161	2,015	471	1,729
Health	84,376	459	6,256	6,872	4,889	54,019	5,045	6,836
Medical fields	19,810	96	2,074	1,831	1,625	10,533	1,107	2,544
Anesthesiology	880	1	45	43	13	673	93	12
Cardiology	79	0	2	10	0	11	40	16
Endocrinology	63	0	8	2	1	29	3	20
Gastroenterology	16	0	1	0	0	15	0	0
Hematology	30	0	6	3	1	18	1	1
Neurology	2,642	12	251	87	115	1,523	125	529
Obstetrics/gynecology	17	0	2	2	1	6	1	5
Oncology/cancer research	274	1	33	16	11	159	8	46
Ophthalmology	423	2	166	9	14	174	33	25
Otorhinolaryngology	12	0	4	0	1	7	0	0
Pediatrics	424	4	29	34	14	282	13	48
Preventive medicine/community health	11,988	69	1,203	1,421	1,105	6,117	538	1,535
Psychiatry	348	1	12	14	146	145	16	14
Pulmonary disease	7	0	2	1	0	4	0	0
Radiology	211	2	23	4	8	102	8	64
Surgery	75	0	14	4	2	48	0	7
Clinical medicine, nec	2,321	4	273	181	193	1,220	228	222
Other health	64,566	363	4,182	5,041	3,264	43,486	3,938	4,292
Dental sciences	1,697	6	180	36	79	1,005	62	329
Nursing	24,468	152	1,445	2,218	1,137	17,569	1,415	532
Pharmaceutical sciences	5,220	18	700	443	201	2,070	290	1,498
Speech pathology/audiology	10,841	42	309	533	637	8,415	522	383
Veterinary sciences	1,732	6	62	54	40	1,128	47	395
Health related, nec	20,608	139	1,486	1,757	1,170	13,299	1,602	1,155

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2004.

TABLE 37. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	307,417	306,695	313,597	319,245	331,967	354,843	371,636	376,664
Science and engineering	266,369	264,172	268,952	275,151	287,508	307,736	320,218	322,476
Science	202,049	200,262	202,450	204,502	211,829	224,498	232,683	237,775
Agricultural sciences	8,964	8,794	8,933	8,931	8,949	9,184	9,512	9,477
Biological sciences	45,091	45,186	45,370	45,363	46,666	50,052	52,501	54,040
Anatomy	797	733	708	752	675	865	829	821
Biochemistry	4,795	4,854	4,778	4,699	4,617	4,930	5,288	5,279
Biology	9,097	8,834	8,728	8,618	8,713	9,280	9,956	10,416
Biometry/epidemiology	1,993	2,566	2,642	2,562	2,736	3,012	3,208	3,218
Biophysics	728	707	681	719	837	896	968	1,115
Botany	1,800	1,799	1,757	1,700	1,716	1,789	1,730	1,653
Cell biology	3,966	4,026	4,243	4,384	4,498	4,928	5,184	5,345
Ecology	1,170	1,192	1,230	1,224	1,364	1,396	1,455	1,495
Entomology/parasitology	995	1,000	971	979	989	1,001	1,024	1,046
Genetics	1,632	1,596	1,633	1,597	1,686	1,770	1,927	1,998
Microbiology/immunology/virology	4,365	4,370	4,471	4,497	4,495	4,895	4,971	5,070
Nutrition	3,176	3,027	3,022	2,999	3,123	3,215	3,182	3,142
Pathology	1,420	1,339	1,364	1,293	1,350	1,340	1,319	1,350
Pharmacology	2,461	2,562	2,579	2,627	2,746	2,823	2,926	2,974
Physiology	2,102	1,990	1,876	1,856	1,811	1,917	2,059	2,126
Zoology	1,410	1,328	1,287	1,234	1,229	1,173	1,093	1,070
Biosciences, nec	3,184	3,263	3,400	3,623	4,081	4,822	5,382	5,922
Computer sciences	17,014	18,405	20,565	23,582	27,164	29,825	28,293	27,330
Earth, atmospheric, and ocean sciences	9,997	10,020	10,065	10,127	10,045	10,635	11,021	11,226
Atmospheric sciences	964	854	791	842	811	915	1,016	958
Geosciences	5,230	5,047	5,094	5,128	5,079	5,232	5,403	5,503
Oceanography	1,926	2,006	2,081	2,131	2,017	2,104	2,209	2,252
Earth/atmospheric/ocean sciences, nec	1,877	2,113	2,099	2,026	2,138	2,384	2,393	2,513
Mathematical sciences	11,745	11,288	11,364	11,353	12,016	13,116	13,953	14,300
Mathematics/applied mathematics	9,679	9,267	9,257	9,134	9,584	10,444	11,007	11,342
Statistics	2,066	2,021	2,107	2,219	2,432	2,672	2,946	2,958
Physical sciences	26,458	26,007	26,264	26,116	26,824	28,220	30,042	31,248
Astronomy	768	787	808	823	860	946	1,023	1,078
Chemistry	15,692	15,484	15,686	15,372	15,818	16,559	17,408	18,000
Physics	9,837	9,583	9,577	9,721	9,926	10,459	11,334	11,934
Physical sciences, nec	161	153	193	200	220	256	277	236
Psychology	30,318	29,956	29,589	29,461	29,155	29,306	30,326	32,087
Clinical psychology	9,081	9,045	9,220	9,151	9,054	8,802	8,968	9,353
Psychology, general	10,101	10,026	9,521	9,455	9,244	8,919	9,424	9,367
Psychology, nec	11,136	10,885	10,848	10,855	10,857	11,585	11,934	13,367
Social sciences	52,462	50,606	50,300	49,569	51,010	54,160	57,035	58,067
Agricultural economics	1,718	1,670	1,685	1,777	1,865	1,972	2,042	1,887
Anthropology (cultural/social)	5,636	5,563	5,631	5,473	5,470	5,625	5,776	5,669
Economics (except agricultural)	8,609	8,337	8,136	8,318	8,928	9,362	9,609	9,578
Geography	2,761	2,699	2,613	2,497	2,738	2,712	2,942	2,952
History and philosophy of science	377	385	412	373	372	364	378	426
Linguistics	2,332	2,196	2,107	2,037	2,088	2,134	2,257	2,251
Political science	15,786	15,102	15,062	14,906	15,118	16,976	18,224	19,300
Sociology	6,361	6,057	5,956	5,862	5,897	6,104	6,298	6,102
Sociology/anthropology	613	593	507	515	560	549	548	584
Social sciences, nec	8,269	8,004	8,191	7,811	7,974	8,362	8,961	9,318
Engineering	64,320	63,910	66,502	70,649	75,679	83,238	87,535	84,701
Aerospace engineering	2,505	2,544	2,623	2,740	2,799	2,970	3,206	3,190

TABLE 37. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Agricultural engineering	748	756	767	706	758	769	870	808
Biomedical engineering	2,411	2,475	2,708	2,841	3,156	3,858	4,721	5,071
Chemical engineering	5,776	5,595	5,572	5,837	5,790	6,226	6,373	6,346
Civil engineering	11,090	10,813	10,931	11,526	11,845	12,718	13,443	13,347
Electrical engineering	18,505	19,009	19,923	22,189	24,442	27,262	27,680	25,783
Engineering science	1,016	1,111	1,027	1,086	1,207	1,424	1,751	1,712
Industrial engineering	4,977	4,748	5,362	5,927	6,369	6,995	6,879	6,352
Mechanical engineering	10,313	9,957	10,226	10,645	11,292	12,347	13,119	12,547
Metallurgical/materials engineering	3,660	3,694	3,534	3,578	3,960	4,227	4,375	4,338
Mining engineering	260	217	252	182	185	198	208	229
Nuclear engineering	708	662	641	660	651	655	752	809
Petroleum engineering	457	478	523	513	535	644	682	658
Engineering, nec	1,894	1,851	2,413	2,219	2,690	2,945	3,476	3,511
Health	41,048	42,523	44,645	44,094	44,459	47,107	51,418	54,188
Medical fields	9,753	10,640	11,259	10,781	11,415	12,751	14,115	14,340
Anesthesiology	568	591	575	561	588	556	715	728
Cardiology	32	36	62	53	50	42	30	79
Endocrinology	41	58	66	55	51	59	56	57
Gastroenterology	3	6	7	14	7	7	11	13
Hematology	3	1	3	6	6	8	25	24
Neurology	1,650	1,773	1,853	1,922	2,072	2,456	2,573	2,561
Obstetrics/gynecology	18	10	9	13	18	18	20	13
Oncology/cancer research	193	206	245	225	246	229	232	270
Ophthalmology	20	21	31	41	33	166	393	406
Otorhinolaryngology	2	0	3	8	4	8	9	6
Pediatrics	275	260	276	351	316	363	349	327
Preventive medicine/community health	5,701	6,496	6,849	6,190	6,423	6,958	7,509	7,533
Psychiatry	80	40	50	85	123	127	67	184
Pulmonary disease	0	0	6	7	8	4	10	7
Radiology	198	160	168	151	167	178	208	171
Surgery	157	109	113	128	97	65	67	59
Clinical medicine, nec	812	873	943	971	1,206	1,507	1,841	1,902
Other health	31,295	31,883	33,386	33,313	33,044	34,356	37,303	39,848
Dental sciences	1,290	1,284	1,226	1,301	1,322	1,317	1,514	1,494
Nursing	7,850	7,600	8,261	7,794	7,836	8,679	9,277	9,732
Pharmaceutical sciences	2,219	2,253	2,598	2,774	2,760	2,546	3,515	3,630
Speech pathology/audiology	7,503	7,631	7,975	8,062	7,806	7,853	8,153	8,536
Veterinary sciences	1,028	1,048	1,052	1,154	1,244	1,418	1,391	1,364
Health related, nec	11,405	12,067	12,274	12,228	12,076	12,543	13,453	15,092

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: 1997–2004

Field and primary source of support	1997	1998	1999	2000	2001	2002	2003	2004
All sources	307,417	306,695	313,597	319,245	331,967	354,843	371,636	376,664
Federal	63,727	63,036	65,051	66,762	68,065	74,410	80,850	81,938
DOD	8,932	8,212	7,972	8,095	7,915	7,934	9,170	8,192
DOE ^a	NA	NA	2,747	2,995	3,112	3,543	4,019	4,090
HHS	22,134	22,389	23,131	23,167	24,048	26,644	28,908	30,720
NIH	17,990	18,112	18,926	19,403	19,798	22,042	24,172	26,518
Other HHS	4,144	4,277	4,205	3,764	4,250	4,602	4,736	4,202
NASA	2,558	2,613	2,520	2,738	2,794	3,053	3,188	2,898
NSF	13,325	13,415	13,801	14,565	15,368	17,066	19,213	19,913
USDA	2,642	2,479	2,630	2,628	2,732	3,096	3,465	3,516
Other ^a	14,136	13,928	12,250	12,574	12,096	13,074	12,887	12,609
Institutional	124,433	124,333	128,379	128,244	135,351	142,488	146,124	148,450
Other nonfederal	24,723	26,059	25,677	27,414	27,777	28,489	28,765	27,268
Domestic	19,905	21,826	21,776	23,600	24,088	25,186	25,722	24,470
Foreign	4,818	4,233	3,901	3,814	3,689	3,303	3,043	2,798
Self-support	94,534	93,267	94,490	96,825	100,774	109,456	115,897	119,008
Science and engineering	266,369	264,172	268,952	275,151	287,508	307,736	320,218	322,476
Federal	56,389	55,423	56,930	58,830	59,788	65,691	71,825	72,795
DOD	8,622	7,920	7,621	7,695	7,671	7,652	8,878	7,889
DOE ^a	NA	NA	2,717	2,980	3,101	3,535	4,006	4,078
HHS	16,731	16,654	17,166	17,621	18,035	20,135	22,170	23,750
NIH	15,287	15,249	15,930	16,272	16,523	18,546	20,372	22,301
Other HHS	1,444	1,405	1,236	1,349	1,512	1,589	1,798	1,449
NASA	2,537	2,587	2,505	2,720	2,772	3,037	3,175	2,882
NSF	13,230	13,295	13,678	14,442	15,239	16,938	19,065	19,759
USDA	2,599	2,420	2,569	2,566	2,682	3,022	3,387	3,439
Other ^a	12,670	12,547	10,674	10,806	10,288	11,372	11,144	10,998
Institutional	115,450	115,058	118,342	118,246	125,277	131,853	135,024	136,628
Other nonfederal	22,825	23,955	23,535	25,023	25,312	25,855	26,100	24,613
Domestic	18,491	20,152	20,055	21,565	21,996	22,868	23,381	22,070
Foreign	4,334	3,803	3,480	3,458	3,316	2,987	2,719	2,543
Self-support	71,705	69,736	70,145	73,052	77,131	84,337	87,269	88,440
Science	202,049	200,262	202,450	204,502	211,829	224,498	232,683	237,775
Federal	40,536	39,933	41,072	42,139	42,751	46,899	50,458	52,045
DOD	3,872	3,610	3,284	3,224	3,291	3,258	3,396	3,063
DOE ^a	NA	NA	1,730	1,772	1,813	2,011	2,291	2,315
HHS	15,816	15,754	16,205	16,487	16,748	18,671	20,223	21,597
NIH	14,521	14,495	15,086	15,274	15,390	17,265	18,736	20,394
Other HHS	1,295	1,259	1,119	1,213	1,358	1,406	1,487	1,203
NASA	1,277	1,348	1,378	1,451	1,423	1,551	1,552	1,454
NSF	8,624	8,588	8,740	9,234	9,814	11,010	12,383	12,981
USDA	2,367	2,223	2,329	2,349	2,423	2,686	2,968	3,035
Other ^a	8,580	8,410	7,406	7,622	7,239	7,712	7,645	7,600
Institutional	91,996	91,969	93,405	92,474	97,820	101,869	104,246	106,011
Other nonfederal	13,913	14,251	14,086	14,553	14,369	14,652	14,998	14,578
Domestic	11,007	11,649	11,712	12,168	12,117	12,631	13,198	12,923
Foreign	2,906	2,602	2,374	2,385	2,252	2,021	1,800	1,655
Self-support	55,604	54,109	53,887	55,336	56,889	61,078	62,981	65,141
Agricultural sciences	8,964	8,794	8,933	8,931	8,949	9,184	9,512	9,477
Federal	1,837	1,716	1,936	1,937	1,968	2,147	2,490	2,496
DOD	38	47	28	42	47	34	33	24
DOE ^a	NA	NA	41	45	29	55	58	49
HHS	31	32	29	57	51	87	89	90
NIH	22	16	17	37	40	64	60	67
Other HHS	9	16	12	20	11	23	29	23
NASA	28	36	55	65	63	74	90	52

TABLE 38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and primary source of support: 1997–2004

Field and primary source of support	1997	1998	1999	2000	2001	2002	2003	2004
NSF	105	94	114	113	138	124	211	202
USDA	999	987	1,077	1,043	1,064	1,155	1,333	1,369
Other ^a	636	520	592	572	576	618	676	710
Institutional	3,633	3,718	3,726	3,737	3,917	3,970	3,832	3,894
Other nonfederal	1,634	1,630	1,621	1,698	1,561	1,527	1,561	1,582
Domestic	1,292	1,329	1,362	1,463	1,374	1,404	1,390	1,454
Foreign	342	301	259	235	187	123	171	128
Self-support	1,860	1,730	1,650	1,559	1,503	1,540	1,629	1,505
Biological sciences	45,091	45,186	45,370	45,363	46,666	50,052	52,501	54,040
Federal	16,155	16,066	16,365	16,585	16,612	18,522	20,083	21,616
DOD	360	343	328	317	355	380	349	425
DOE ^a	NA	NA	155	171	166	180	193	219
HHS	11,831	11,872	12,223	12,240	12,280	13,645	14,855	16,142
NIH	11,247	11,258	11,730	11,665	11,617	12,925	14,130	15,581
Other HHS	584	614	493	575	663	720	725	561
NASA	109	102	100	97	76	114	98	104
NSF	1,523	1,532	1,491	1,594	1,601	1,809	2,127	2,242
USDA	861	750	801	780	816	990	1,032	1,061
Other ^a	1,471	1,467	1,267	1,386	1,318	1,404	1,429	1,423
Institutional	19,423	19,379	19,639	19,461	20,470	21,084	21,615	21,579
Other nonfederal	3,494	3,707	3,270	3,356	3,573	3,815	3,955	3,804
Domestic	2,979	3,184	2,812	2,933	3,208	3,508	3,668	3,561
Foreign	515	523	458	423	365	307	287	243
Self-support	6,019	6,034	6,096	5,961	6,011	6,631	6,848	7,041
Computer sciences	17,014	18,405	20,565	23,582	27,164	29,825	28,293	27,330
Federal	3,141	3,272	3,321	3,611	4,183	4,908	5,277	5,082
DOD	1,425	1,299	1,201	1,203	1,277	1,300	1,378	1,185
DOE ^a	NA	NA	109	111	120	138	159	151
HHS	106	110	107	120	172	239	300	295
NIH	78	75	64	82	101	185	228	259
Other HHS	28	35	43	38	71	54	72	36
NASA	122	124	111	142	165	196	217	140
NSF	1,081	1,164	1,302	1,492	1,855	2,332	2,706	2,748
USDA	12	10	20	16	25	41	39	35
Other ^a	395	565	471	527	569	662	478	528
Institutional	5,592	5,859	6,609	7,220	8,372	8,987	8,711	8,602
Other nonfederal	1,172	1,293	1,514	1,858	1,817	1,890	1,916	1,698
Domestic	1,015	1,128	1,380	1,593	1,582	1,668	1,726	1,519
Foreign	157	165	134	265	235	222	190	179
Self-support	7,109	7,981	9,121	10,893	12,792	14,040	12,389	11,948
Earth, atmospheric, and ocean sciences	9,997	10,020	10,065	10,127	10,045	10,635	11,021	11,226
Federal	3,085	2,933	2,940	2,955	2,890	3,004	3,275	3,309
DOD	364	336	335	279	257	200	254	128
DOE ^a	NA	NA	123	144	137	167	154	171
HHS	40	38	37	57	60	47	68	41
NIH	27	21	17	40	37	32	52	24
Other HHS	13	17	20	17	23	15	16	17
NASA	350	388	406	453	456	470	419	457
NSF	1,198	1,115	1,123	1,130	1,120	1,191	1,363	1,497
USDA	52	74	53	49	65	74	85	92
Other ^a	1,081	982	863	843	795	855	932	923
Institutional	4,133	4,215	4,518	4,419	4,461	4,681	4,890	5,021
Other nonfederal	873	850	840	874	878	1,063	851	858
Domestic	689	686	680	729	693	869	735	786
Foreign	184	164	160	145	185	194	116	72
Self-support	1,906	2,022	1,767	1,879	1,816	1,887	2,005	2,038

TABLE 38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and primary source of support: 1997–2004

Field and primary source of support	1997	1998	1999	2000	2001	2002	2003	2004
Mathematical sciences	11,745	11,288	11,364	11,353	12,016	13,116	13,953	14,300
Federal	1,151	1,039	1,100	1,354	1,374	1,599	1,666	1,713
DOD	363	283	227	239	211	164	228	161
DOE ^a	NA	NA	44	40	40	42	53	61
HHS	96	100	105	92	108	164	154	175
NIH	66	68	78	76	89	133	119	154
Other HHS	30	32	27	16	19	31	35	21
NASA	19	11	14	23	23	20	22	24
NSF	385	384	441	633	758	942	969	1,037
USDA	16	7	7	7	20	14	9	28
Other ^a	272	254	262	320	214	253	231	227
Institutional	8,260	8,066	8,058	7,989	8,423	8,886	9,420	9,634
Other nonfederal	482	441	425	431	413	524	472	429
Domestic	305	302	299	302	293	410	377	353
Foreign	177	139	126	129	120	114	95	76
Self-support	1,852	1,742	1,781	1,579	1,806	2,107	2,395	2,524
Physical sciences	26,458	26,007	26,264	26,116	26,824	28,220	30,042	31,248
Federal	9,398	9,088	9,185	9,167	9,264	9,919	10,599	10,927
DOD	1,036	994	880	864	855	860	885	874
DOE ^a	NA	NA	1,180	1,170	1,260	1,368	1,607	1,585
HHS	1,937	1,875	1,827	1,961	2,113	2,346	2,446	2,559
NIH	1,633	1,629	1,652	1,769	1,858	2,114	2,179	2,349
Other HHS	304	246	175	192	255	232	267	210
NASA	572	582	542	518	495	537	569	561
NSF	3,368	3,315	3,276	3,282	3,322	3,583	3,860	4,103
USDA	31	40	33	51	42	51	65	38
Other ^a	2,454	2,282	1,447	1,321	1,177	1,174	1,167	1,207
Institutional	13,904	13,860	13,930	13,614	14,284	14,797	15,861	16,657
Other nonfederal	1,849	1,845	1,914	1,908	1,955	2,025	2,082	2,127
Domestic	1,633	1,656	1,742	1,740	1,828	1,904	1,955	2,029
Foreign	216	189	172	168	127	121	127	98
Self-support	1,307	1,214	1,235	1,427	1,321	1,479	1,500	1,537
Psychology	30,318	29,956	29,589	29,461	29,155	29,306	30,326	32,087
Federal	2,656	2,852	3,157	3,198	3,167	3,367	3,471	3,415
DOD	110	121	116	133	135	165	145	135
DOE ^a	NA	NA	41	25	1	9	10	24
HHS	1,445	1,423	1,535	1,580	1,592	1,734	1,839	1,857
NIH	1,186	1,212	1,264	1,310	1,371	1,496	1,596	1,645
Other HHS	259	211	271	270	221	238	243	212
NASA	12	14	15	17	21	31	21	26
NSF	277	275	301	274	281	297	327	360
USDA	7	8	13	16	13	4	17	16
Other ^a	805	1,011	1,136	1,153	1,124	1,127	1,112	997
Institutional	12,460	12,179	12,135	11,388	11,771	11,951	12,071	12,275
Other nonfederal	1,192	1,315	1,372	1,316	1,191	1,112	1,243	1,336
Domestic	1,135	1,263	1,317	1,266	1,138	1,069	1,173	1,291
Foreign	57	52	55	50	53	43	70	45
Self-support	14,010	13,610	12,925	13,559	13,026	12,876	13,541	15,061
Social sciences	52,462	50,606	50,300	49,569	51,010	54,160	57,035	58,067
Federal	3,113	2,967	3,068	3,332	3,293	3,433	3,597	3,487
DOD	176	187	169	147	154	155	124	131
DOE ^a	NA	NA	37	66	60	52	57	55
HHS	330	304	342	380	372	409	472	438
NIH	262	216	264	295	277	316	372	315
Other HHS	68	88	78	85	95	93	100	123

TABLE 38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and primary source of support: 1997–2004

Field and primary source of support	1997	1998	1999	2000	2001	2002	2003	2004
NASA	65	91	135	136	124	109	116	90
NSF	687	709	692	716	739	732	820	792
USDA	389	347	325	387	378	357	388	396
Other ^a	1,466	1,329	1,368	1,500	1,466	1,619	1,620	1,585
Institutional	24,591	24,693	24,790	24,646	26,122	27,513	27,846	28,349
Other nonfederal	3,217	3,170	3,130	3,112	2,981	2,696	2,918	2,744
Domestic	1,959	2,101	2,120	2,142	2,001	1,799	2,174	1,930
Foreign	1,258	1,069	1,010	970	980	897	744	814
Self-support	21,541	19,776	19,312	18,479	18,614	20,518	22,674	23,487
Engineering	64,320	63,910	66,502	70,649	75,679	83,238	87,535	84,701
Federal	15,853	15,490	15,858	16,691	17,037	18,792	21,367	20,750
DOD	4,750	4,310	4,337	4,471	4,380	4,394	5,482	4,826
DOE ^a	NA	NA	987	1,208	1,288	1,524	1,715	1,763
HHS	915	900	961	1,134	1,287	1,464	1,947	2,153
NIH	766	754	844	998	1,133	1,281	1,636	1,907
Other HHS	149	146	117	136	154	183	311	246
NASA	1,260	1,239	1,127	1,269	1,349	1,486	1,623	1,428
NSF	4,606	4,707	4,938	5,208	5,425	5,928	6,682	6,778
USDA	232	197	240	217	259	336	419	404
Other ^a	4,090	4,137	3,268	3,184	3,049	3,660	3,499	3,398
Institutional	23,454	23,089	24,937	25,772	27,457	29,984	30,778	30,617
Other nonfederal	8,912	9,704	9,449	10,470	10,943	11,203	11,102	10,035
Domestic	7,484	8,503	8,343	9,397	9,879	10,237	10,183	9,147
Foreign	1,428	1,201	1,106	1,073	1,064	966	919	888
Self-support	16,101	15,627	16,258	17,716	20,242	23,259	24,288	23,299
Chemical engineering	5,776	5,595	5,572	5,837	5,790	6,226	6,373	6,346
Federal	1,671	1,700	1,666	1,670	1,690	1,957	2,055	2,146
DOD	170	160	161	113	140	181	265	218
DOE ^a	NA	NA	220	242	257	310	327	357
HHS	137	141	149	155	179	219	245	296
NIH	121	111	127	128	136	185	210	260
Other HHS	16	30	22	27	43	34	35	36
NASA	80	97	101	102	108	119	103	95
NSF	708	756	742	768	720	816	841	871
USDA	43	39	37	35	34	44	35	46
Other ^a	533	507	256	255	252	268	239	263
Institutional	2,203	2,105	2,282	2,284	2,219	2,424	2,530	2,424
Other nonfederal	1,129	946	970	1,080	1,094	1,093	994	996
Domestic	949	834	896	976	983	1,010	931	941
Foreign	180	112	74	104	111	83	63	55
Self-support	773	844	654	803	787	752	794	780
Civil engineering	11,090	10,813	10,931	11,526	11,845	12,718	13,443	13,347
Federal	1,797	1,661	1,655	1,926	1,932	2,085	2,168	2,149
DOD	224	187	150	157	175	179	148	168
DOE ^a	NA	NA	50	84	82	84	94	90
HHS	47	46	44	51	27	36	57	61
NIH	41	35	39	40	26	29	41	33
Other HHS	6	11	5	11	1	7	16	28
NASA	121	60	56	74	78	89	87	59
NSF	529	544	538	596	586	645	700	700
USDA	40	28	35	36	38	50	69	73
Other ^a	836	796	782	928	946	1,002	1,013	998
Institutional	4,674	4,549	4,827	4,908	4,944	5,350	5,520	5,620
Other nonfederal	1,105	1,124	1,112	1,353	1,474	1,353	1,479	1,251
Domestic	850	910	924	1,189	1,298	1,238	1,376	1,119
Foreign	255	214	188	164	176	115	103	132

TABLE 38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and primary source of support: 1997–2004

Field and primary source of support	1997	1998	1999	2000	2001	2002	2003	2004
Self-support	3,514	3,479	3,337	3,339	3,495	3,930	4,276	4,327
Electrical engineering	18,505	19,009	19,923	22,189	24,442	27,262	27,680	25,783
Federal	4,389	4,307	4,599	5,048	4,959	5,690	6,159	5,971
DOD	1,938	1,803	1,847	2,079	1,976	1,942	2,233	1,970
DOE ^a	NA	NA	71	93	138	193	189	209
HHS	117	102	104	187	148	179	356	350
NIH	70	79	87	145	109	145	246	290
Other HHS	47	23	17	42	39	34	110	60
NASA	229	243	269	283	328	380	368	332
NSF	1,344	1,298	1,472	1,586	1,640	1,939	2,233	2,341
USDA	15	12	10	12	13	21	57	45
Other ^a	746	849	826	808	716	1,036	723	724
Institutional	6,631	6,486	7,081	7,303	7,916	8,538	8,790	8,441
Other nonfederal	2,704	3,117	2,814	3,222	3,403	3,536	3,296	2,802
Domestic	2,374	2,842	2,542	2,983	3,155	3,302	3,066	2,638
Foreign	330	275	272	239	248	234	230	164
Self-support	4,781	5,099	5,429	6,616	8,164	9,498	9,435	8,569
Industrial engineering	4,977	4,748	5,362	5,927	6,369	6,995	6,879	6,352
Federal	608	584	706	805	797	818	976	957
DOD	198	179	250	235	240	239	251	299
DOE ^a	NA	NA	12	31	46	42	58	45
HHS	36	31	33	34	40	58	73	66
NIH	30	25	20	21	29	31	36	43
Other HHS	6	6	13	13	11	27	37	23
NASA	23	32	27	26	29	29	54	42
NSF	145	175	218	258	272	273	378	328
USDA	1	4	2	7	8	6	11	12
Other ^a	205	163	164	214	162	171	151	165
Institutional	1,683	1,708	1,913	2,107	2,393	2,553	2,312	2,272
Other nonfederal	509	546	574	680	725	747	693	592
Domestic	406	448	485	573	605	638	615	512
Foreign	103	98	89	107	120	109	78	80
Self-support	2,177	1,910	2,169	2,335	2,454	2,877	2,898	2,531
Mechanical engineering	10,313	9,957	10,226	10,645	11,292	12,347	13,119	12,547
Federal	2,626	2,606	2,589	2,655	2,775	2,974	3,401	3,129
DOD	766	728	711	652	689	618	876	732
DOE ^a	NA	NA	207	239	214	312	351	360
HHS	109	104	112	112	159	158	161	178
NIH	70	71	87	105	147	143	130	150
Other HHS	39	33	25	7	12	15	31	28
NASA	291	289	242	292	280	316	342	286
NSF	841	908	882	914	1,001	1,034	1,101	1,038
USDA	12	5	21	7	11	10	20	22
Other ^a	607	572	414	439	421	526	550	513
Institutional	3,871	3,792	4,006	4,189	4,440	4,928	4,983	4,893
Other nonfederal	1,451	1,604	1,593	1,737	1,674	1,720	1,725	1,542
Domestic	1,283	1,461	1,427	1,542	1,528	1,598	1,595	1,391
Foreign	168	143	166	195	146	122	130	151
Self-support	2,365	1,955	2,038	2,064	2,403	2,725	3,010	2,983
Other engineering	13,659	13,788	14,488	14,525	15,941	17,690	20,041	20,326
Federal	4,762	4,632	4,643	4,587	4,884	5,268	6,608	6,398
DOD	1,454	1,253	1,218	1,235	1,160	1,235	1,709	1,439
DOE ^a	NA	NA	427	519	551	583	696	702
HHS	469	476	519	595	734	814	1,055	1,202
NIH	434	433	484	559	686	748	973	1,131

TABLE 38. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and primary source of support: 1997–2004

Field and primary source of support	1997	1998	1999	2000	2001	2002	2003	2004
Other HHS	35	43	35	36	48	66	82	71
NASA	516	518	432	492	526	553	669	614
NSF	1,039	1,026	1,086	1,086	1,206	1,221	1,429	1,500
USDA	121	109	135	120	155	205	227	206
Other ^a	1,163	1,250	826	540	552	657	823	735
Institutional	4,392	4,449	4,828	4,981	5,545	6,191	6,643	6,967
Other nonfederal	2,014	2,367	2,386	2,398	2,573	2,754	2,915	2,852
Domestic	1,622	2,008	2,069	2,134	2,310	2,451	2,600	2,546
Foreign	392	359	317	264	263	303	315	306
Self-support	2,491	2,340	2,631	2,559	2,939	3,477	3,875	4,109
Health fields	41,048	42,523	44,645	44,094	44,459	47,107	51,418	54,188
Federal	7,338	7,613	8,121	7,932	8,277	8,719	9,025	9,143
DOD	310	292	351	400	244	282	292	303
DOE ^a	NA	NA	30	15	11	8	13	12
HHS	5,403	5,735	5,965	5,546	6,013	6,509	6,738	6,970
NIH	2,703	2,863	2,996	3,131	3,275	3,496	3,800	4,217
Other HHS	2,700	2,872	2,969	2,415	2,738	3,013	2,938	2,753
NASA	21	26	15	18	22	16	13	16
NSF	95	120	123	123	129	128	148	154
USDA	43	59	61	62	50	74	78	77
Other ^a	1,466	1,381	1,576	1,768	1,808	1,702	1,743	1,611
Institutional	8,983	9,275	10,037	9,998	10,074	10,635	11,100	11,822
Other nonfederal	1,898	2,104	2,142	2,391	2,465	2,634	2,665	2,655
Domestic	1,414	1,674	1,721	2,035	2,092	2,318	2,341	2,400
Foreign	484	430	421	356	373	316	324	255
Self-support	22,829	23,531	24,345	23,773	23,643	25,119	28,628	30,568

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: 1997–2004

Field and primary mechanism of support	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	307,417	306,695	313,597	319,245	331,967	354,843	371,636	376,664
Fellowships	28,488	28,687	29,735	30,931	31,808	34,331	33,933	34,837
Research assistantships	86,131	86,271	89,304	92,482	98,149	106,299	112,222	112,808
Teaching assistantships	63,920	63,611	64,644	64,684	66,661	69,008	71,156	71,052
Traineeships	13,936	14,517	14,250	13,660	13,518	14,451	14,722	14,345
Other support	114,942	113,609	115,664	117,488	121,831	130,754	139,603	143,622
Science and engineering	266,369	264,172	268,952	275,151	287,508	307,736	320,218	322,476
Fellowships	26,087	26,248	27,078	28,090	29,304	31,650	31,360	32,045
Research assistantships	81,456	81,440	84,179	86,913	92,150	99,964	105,562	105,963
Teaching assistantships	60,887	60,563	61,669	61,705	63,475	65,638	67,684	67,401
Traineeships	9,548	9,756	9,431	9,438	9,011	9,673	10,043	9,748
Other support	88,391	86,165	86,595	89,005	93,568	100,811	105,569	107,319
Science	202,049	200,262	202,450	204,502	211,829	224,498	232,683	237,775
Fellowships	20,378	20,717	21,015	21,756	22,890	24,661	24,137	24,804
Research assistantships	54,640	54,166	55,619	56,296	60,080	64,954	68,376	69,965
Teaching assistantships	50,823	50,549	51,083	50,817	51,702	53,231	55,349	55,381
Traineeships	8,673	8,880	8,664	8,706	8,293	8,729	9,006	8,796
Other support	67,535	65,950	66,069	66,927	68,864	72,923	75,815	78,829
Agricultural sciences	8,964	8,794	8,933	8,931	8,949	9,184	9,512	9,477
Fellowships	472	481	469	443	511	503	554	599
Research assistantships	5,187	5,019	5,139	5,210	5,358	5,529	5,741	5,758
Teaching assistantships	973	1,040	1,159	1,196	1,158	1,134	1,131	1,154
Traineeships	113	98	75	69	70	70	50	68
Other support	2,219	2,156	2,091	2,013	1,852	1,948	2,036	1,898
Biological sciences	45,091	45,186	45,370	45,363	46,666	50,052	52,501	54,040
Fellowships	5,399	5,588	5,778	5,726	6,101	6,390	6,437	6,736
Research assistantships	18,106	17,872	18,050	18,345	19,137	20,918	22,457	23,546
Teaching assistantships	8,701	8,641	8,267	8,199	8,242	8,502	8,670	8,422
Traineeships	5,052	5,202	5,281	5,171	4,935	5,319	5,620	5,510
Other support	7,833	7,883	7,994	7,922	8,251	8,923	9,317	9,826
Computer sciences	17,014	18,405	20,565	23,582	27,164	29,825	28,293	27,330
Fellowships	920	983	976	1,133	1,050	1,387	1,326	1,383
Research assistantships	3,930	4,198	4,754	5,121	6,248	6,997	7,317	7,028
Teaching assistantships	3,551	3,695	4,217	4,357	4,919	5,153	4,800	4,596
Traineeships	202	219	207	251	240	279	315	284
Other support	8,411	9,310	10,411	12,720	14,707	16,009	14,535	14,039
Earth, atmospheric, and ocean sciences	9,997	10,020	10,065	10,127	10,045	10,635	11,021	11,226
Fellowships	813	921	925	1,045	1,065	1,118	1,164	1,222
Research assistantships	4,145	3,985	4,134	4,126	4,059	4,417	4,511	4,699
Teaching assistantships	2,519	2,451	2,490	2,416	2,454	2,569	2,680	2,577
Traineeships	89	113	107	98	90	89	111	118
Other support	2,431	2,550	2,409	2,442	2,377	2,442	2,555	2,610
Mathematical sciences	11,745	11,288	11,364	11,353	12,016	13,116	13,953	14,300
Fellowships	1,195	1,093	1,022	1,283	1,387	1,420	1,374	1,341
Research assistantships	1,334	1,157	1,230	1,213	1,398	1,705	1,750	1,870
Teaching assistantships	6,565	6,420	6,617	6,657	6,842	7,260	7,732	7,836
Traineeships	176	154	109	118	105	121	123	105
Other support	2,475	2,464	2,386	2,082	2,284	2,610	2,974	3,148
Physical sciences	26,458	26,007	26,264	26,116	26,824	28,220	30,042	31,248
Fellowships	2,107	2,093	2,187	2,238	2,358	2,645	2,505	2,734
Research assistantships	11,201	10,972	11,182	11,009	11,764	12,593	13,444	13,801
Teaching assistantships	10,762	10,732	10,732	10,531	10,432	10,595	11,654	12,127
Traineeships	521	481	383	464	436	421	364	368

TABLE 39. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and primary mechanism of support: 1997–2004

Field and primary mechanism of support	1997	1998	1999	2000	2001	2002	2003	2004
Other support	1,867	1,729	1,780	1,874	1,834	1,966	2,075	2,218
Psychology	30,318	29,956	29,589	29,461	29,155	29,306	30,326	32,087
Fellowships	2,062	2,264	2,375	2,299	2,210	2,211	2,199	2,280
Research assistantships	4,297	4,307	4,309	4,305	4,586	4,946	5,146	5,466
Teaching assistantships	5,918	5,717	5,780	5,554	5,419	5,575	5,805	5,589
Traineeships	1,021	1,072	987	1,196	1,248	1,188	1,140	894
Other support	17,020	16,596	16,138	16,107	15,692	15,386	16,036	17,858
Social sciences	52,462	50,606	50,300	49,569	51,010	54,160	57,035	58,067
Fellowships	7,410	7,294	7,283	7,589	8,208	8,987	8,578	8,509
Research assistantships	6,440	6,656	6,821	6,967	7,530	7,849	8,010	7,797
Teaching assistantships	11,834	11,853	11,821	11,907	12,236	12,443	12,877	13,080
Traineeships	1,499	1,541	1,515	1,339	1,169	1,242	1,283	1,449
Other support	25,279	23,262	22,860	21,767	21,867	23,639	26,287	27,232
Engineering	64,320	63,910	66,502	70,649	75,679	83,238	87,535	84,701
Fellowships	5,709	5,531	6,063	6,334	6,414	6,989	7,223	7,241
Research assistantships	26,816	27,274	28,560	30,617	32,070	35,010	37,186	35,998
Teaching assistantships	10,064	10,014	10,586	10,888	11,773	12,407	12,335	12,020
Traineeships	875	876	767	732	718	944	1,037	952
Other support	20,856	20,215	20,526	22,078	24,704	27,888	29,754	28,490
Chemical engineering	5,776	5,595	5,572	5,837	5,790	6,226	6,373	6,346
Fellowships	821	716	836	794	758	832	834	689
Research assistantships	2,988	2,900	2,944	3,076	3,143	3,460	3,600	3,748
Teaching assistantships	918	892	954	936	846	883	850	786
Traineeships	94	97	65	85	53	71	73	102
Other support	955	990	773	946	990	980	1,016	1,021
Civil engineering	11,090	10,813	10,931	11,526	11,845	12,718	13,443	13,347
Fellowships	859	819	865	924	1,006	1,074	1,105	1,094
Research assistantships	3,966	3,844	4,073	4,623	4,512	4,752	5,022	4,876
Teaching assistantships	1,758	1,747	1,768	1,846	1,866	1,939	1,992	2,073
Traineeships	187	189	196	117	156	210	196	152
Other support	4,320	4,214	4,029	4,016	4,305	4,743	5,128	5,152
Electrical engineering	18,505	19,009	19,923	22,189	24,442	27,262	27,680	25,783
Fellowships	1,380	1,313	1,361	1,349	1,292	1,485	1,520	1,503
Research assistantships	7,476	7,664	8,365	9,182	9,557	10,617	10,760	10,133
Teaching assistantships	3,311	3,320	3,356	3,602	4,017	4,275	4,193	3,830
Traineeships	122	133	76	89	61	105	115	112
Other support	6,216	6,579	6,765	7,967	9,515	10,780	11,092	10,205
Industrial engineering	4,977	4,748	5,362	5,927	6,369	6,995	6,879	6,352
Fellowships	238	251	257	325	421	441	437	436
Research assistantships	1,255	1,367	1,458	1,646	1,738	1,882	1,820	1,660
Teaching assistantships	769	772	891	946	1,044	1,002	945	921
Traineeships	21	24	21	18	35	48	39	46
Other support	2,694	2,334	2,735	2,992	3,131	3,622	3,638	3,289
Mechanical engineering	10,313	9,957	10,226	10,645	11,292	12,347	13,119	12,547
Fellowships	837	894	873	1,019	948	1,008	988	927
Research assistantships	4,331	4,481	4,629	4,844	5,074	5,459	6,015	5,718
Teaching assistantships	1,874	1,769	1,935	1,940	2,163	2,336	2,273	2,179
Traineeships	215	180	142	103	115	116	114	98
Other support	3,056	2,633	2,647	2,739	2,992	3,428	3,729	3,625
Other engineering	13,659	13,788	14,488	14,525	15,941	17,690	20,041	20,326
Fellowships	1,574	1,538	1,871	1,923	1,989	2,149	2,339	2,592
Research assistantships	6,800	7,018	7,091	7,246	8,046	8,840	9,969	9,863
Teaching assistantships	1,434	1,514	1,682	1,618	1,837	1,972	2,082	2,231

TABLE 39. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by field and primary mechanism of support: 1997–2004

Field and primary mechanism of support	1997	1998	1999	2000	2001	2002	2003	2004
Traineeships	236	253	267	320	298	394	500	442
Other support	3,615	3,465	3,577	3,418	3,771	4,335	5,151	5,198
Health fields	41,048	42,523	44,645	44,094	44,459	47,107	51,418	54,188
Fellowships	2,401	2,439	2,657	2,841	2,504	2,681	2,573	2,792
Research assistantships	4,675	4,831	5,125	5,569	5,999	6,335	6,660	6,845
Teaching assistantships	3,033	3,048	2,975	2,979	3,186	3,370	3,472	3,651
Traineeships	4,388	4,761	4,819	4,222	4,507	4,778	4,679	4,597
Other support	26,551	27,444	29,069	28,483	28,263	29,943	34,034	36,303

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: 2004

Field	Total	Fellowships	Teaching		Research	Other types of support
			assistantships	Traineeships	assistantships	
All surveyed fields	376,664	34,837	71,052	14,345	112,808	143,622
Science and engineering	322,476	32,045	67,401	9,748	105,963	107,319
Science	237,775	24,804	55,381	8,796	69,965	78,829
Agricultural sciences	9,477	599	1,154	68	5,758	1,898
Biological sciences	54,040	6,736	8,422	5,510	23,546	9,826
Anatomy	821	93	86	64	351	227
Biochemistry	5,279	786	498	542	2,842	611
Biology	10,416	1,295	3,857	453	3,099	1,712
Biometry/epidemiology	3,218	315	168	497	867	1,371
Biophysics	1,115	192	60	215	478	170
Botany	1,653	131	393	33	956	140
Cell biology	5,345	620	515	911	2,837	462
Ecology	1,495	269	453	37	531	205
Entomology/parasitology	1,046	79	155	13	694	105
Genetics	1,998	287	103	241	1,097	270
Microbiology/immunology/virology	5,070	639	416	801	2,587	627
Nutrition	3,142	163	389	109	1,290	1,191
Pathology	1,350	187	33	140	566	424
Pharmacology	2,974	436	159	532	1,444	403
Physiology	2,126	264	114	253	777	718
Zoology	1,070	124	517	8	372	49
Biosciences, nec	5,922	856	506	661	2,758	1,141
Computer sciences	27,330	1,383	4,596	284	7,028	14,039
Earth, atmospheric, and ocean sciences	11,226	1,222	2,577	118	4,699	2,610
Atmospheric sciences	958	40	136	4	674	104
Geosciences	5,503	609	1,838	36	2,140	880
Oceanography	2,252	272	277	31	1,238	434
Earth/atmospheric/ocean sciences, nec	2,513	301	326	47	647	1,192
Mathematical sciences	14,300	1,341	7,836	105	1,870	3,148
Mathematics/applied mathematics	11,342	1,120	6,541	82	1,231	2,368
Statistics	2,958	221	1,295	23	639	780
Physical sciences	31,248	2,734	12,127	368	13,801	2,218
Astronomy	1,078	187	234	18	569	70
Chemistry	18,000	1,545	7,519	241	7,599	1,096
Physics	11,934	983	4,365	109	5,577	900
Physical sciences, nec	236	19	9	0	56	152
Psychology	32,087	2,280	5,589	894	5,466	17,858
Clinical psychology	9,353	657	759	212	1,106	6,619
Psychology, general	9,367	927	2,838	342	2,013	3,247
Psychology, nec	13,367	696	1,992	340	2,347	7,992
Social sciences	58,067	8,509	13,080	1,449	7,797	27,232
Agricultural economics	1,887	95	168	14	1,007	603
Anthropology (cultural/social)	5,669	1,395	1,602	54	538	2,080
Economics (except agricultural)	9,578	1,479	3,169	123	1,162	3,645
Geography	2,952	212	1,028	39	647	1,026
History and philosophy of science	426	146	140	14	13	113
Linguistics	2,251	379	713	24	216	919
Political science	19,300	3,268	2,904	770	1,700	10,658
Sociology	6,102	831	2,227	239	922	1,883
Sociology/anthropology	584	29	211	2	97	245
Social sciences, nec	9,318	675	918	170	1,495	6,060

TABLE 40. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field and primary mechanism of support: 2004

Field	Total	Fellowships	Teaching		Research assistantships	Other types of support
			assistantships	Traineeships		
Engineering	84,701	7,241	12,020	952	35,998	28,490
Aerospace engineering	3,190	282	373	40	1,451	1,044
Agricultural engineering	808	62	64	11	533	138
Biomedical engineering	5,071	841	452	304	2,092	1,382
Chemical engineering	6,346	689	786	102	3,748	1,021
Civil engineering	13,347	1,094	2,073	152	4,876	5,152
Electrical engineering	25,783	1,503	3,830	112	10,133	10,205
Engineering science	1,712	272	219	22	861	338
Industrial engineering	6,352	436	921	46	1,660	3,289
Mechanical engineering	12,547	927	2,179	98	5,718	3,625
Metallurgical/materials engineering	4,338	556	421	21	2,708	632
Mining engineering	229	23	25	1	92	88
Nuclear engineering	809	109	68	6	456	170
Petroleum engineering	658	88	70	3	269	228
Engineering, nec	3,511	359	539	34	1,401	1,178
Health	54,188	2,792	3,651	4,597	6,845	36,303
Medical fields	14,340	1,243	460	1,856	2,528	8,253
Anesthesiology	728	8	0	221	1	498
Cardiology	79	9	0	13	17	40
Endocrinology	57	3	3	5	25	21
Gastroenterology	13	6	0	6	1	0
Hematology	24	17	0	2	5	0
Neurology	2,561	505	150	578	1,098	230
Obstetrics/gynecology	13	7	0	0	6	0
Oncology/cancer research	270	50	18	77	106	19
Ophthalmology	406	26	39	104	10	227
Otorhinolaryngology	6	2	0	0	0	4
Pediatrics	327	25	5	14	56	227
Preventive medicine/community health	7,533	366	225	535	860	5,547
Psychiatry	184	18	0	60	16	90
Pulmonary disease	7	1	0	4	0	2
Radiology	171	16	0	6	111	38
Surgery	59	2	1	12	23	21
Clinical medicine, nec	1,902	182	19	219	193	1,289
Other health	39,848	1,549	3,191	2,741	4,317	28,050
Dental sciences	1,494	39	234	64	84	1,073
Nursing	9,732	400	423	1,805	483	6,621
Pharmaceutical sciences	3,630	206	885	80	1,209	1,250
Speech pathology/audiology	8,536	269	714	352	820	6,381
Veterinary sciences	1,364	60	89	35	618	562
Health related, nec	15,092	575	846	405	1,103	12,163

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2004.

TABLE 41. Full-time graduate students in science and engineering fields in doctorate-granting institutions, by primary mechanism and primary source of support: 1997–2004

Primary mechanism and primary source of support	1997	1998	1999	2000	2001	2002	2003	2004
All sources	266,369	264,172	268,952	275,151	287,508	307,736	320,218	322,476
Federal	56,389	55,423	56,930	58,830	59,788	65,691	71,825	72,795
DOD	8,622	7,920	7,621	7,695	7,671	7,652	8,878	7,889
DOE ^a	NA	NA	2,717	2,980	3,101	3,535	4,006	4,078
HHS	16,731	16,654	17,166	17,621	18,035	20,135	22,170	23,750
NIH	15,287	15,249	15,930	16,272	16,523	18,546	20,372	22,301
Other HHS	1,444	1,405	1,236	1,349	1,512	1,589	1,798	1,449
NASA	2,537	2,587	2,505	2,720	2,772	3,037	3,175	2,882
NSF	13,230	13,295	13,678	14,442	15,239	16,938	19,065	19,759
USDA	2,599	2,420	2,569	2,566	2,682	3,022	3,387	3,439
Other ^a	12,670	12,547	10,674	10,806	10,288	11,372	11,144	10,998
Institutional	115,450	115,058	118,342	118,246	125,277	131,853	135,024	136,628
Other nonfederal	22,825	23,955	23,535	25,023	25,312	25,855	26,100	24,613
Domestic	18,491	20,152	20,055	21,565	21,996	22,868	23,381	22,070
Foreign	4,334	3,803	3,480	3,458	3,316	2,987	2,719	2,543
Self-support	71,705	69,736	70,145	73,052	77,131	84,337	87,269	88,440
Fellowships	26,087	26,248	27,078	28,090	29,304	31,650	31,360	32,045
Federal	6,216	6,307	6,552	6,586	6,549	7,069	6,912	7,301
DOD	521	536	485	540	472	446	436	416
DOE ^a	NA	NA	99	156	120	118	151	129
HHS	1,225	1,281	1,342	1,146	1,312	1,489	1,361	1,598
NIH	998	1,053	1,172	989	1,141	1,292	1,190	1,470
Other HHS	227	228	170	157	171	197	171	128
NASA	362	380	358	336	316	317	264	260
NSF	2,306	2,335	2,410	2,538	2,591	2,816	3,118	3,307
USDA	138	136	141	120	126	87	91	81
Other ^a	1,664	1,639	1,717	1,750	1,612	1,796	1,491	1,510
Institutional	14,932	14,981	15,783	16,741	18,017	19,843	19,740	20,348
Other nonfederal	4,939	4,960	4,743	4,763	4,738	4,738	4,708	4,396
Domestic	3,070	3,231	3,231	3,404	3,336	3,549	3,699	3,452
Foreign	1,869	1,729	1,512	1,359	1,402	1,189	1,009	944
Self-support	na	na	na	na	na	na	na	na
Research assistantships	81,456	81,440	84,179	86,913	92,150	99,964	105,562	105,963
Federal	41,278	39,751	40,755	42,269	43,679	48,866	54,092	55,166
DOD	6,283	5,766	5,637	5,719	5,782	6,130	6,815	6,247
DOE ^a	NA	NA	2,532	2,717	2,888	3,317	3,757	3,814
HHS	11,058	10,540	10,745	11,305	11,730	13,320	15,070	16,364
NIH	10,110	9,608	9,998	10,447	10,692	12,216	13,705	15,282
Other HHS	948	932	747	858	1,038	1,104	1,365	1,082
NASA	2,042	2,092	2,051	2,276	2,324	2,594	2,778	2,523
NSF	10,370	10,343	10,689	11,287	11,996	13,425	15,153	15,593
USDA	2,366	2,183	2,286	2,312	2,462	2,808	3,112	3,205
Other ^a	9,159	8,827	6,815	6,653	6,497	7,272	7,407	7,420
Institutional	27,603	28,482	30,086	30,190	32,951	35,034	35,257	35,356
Other nonfederal	12,575	13,207	13,338	14,454	15,520	16,064	16,213	15,441
Domestic	11,835	12,579	12,743	13,824	14,891	15,346	15,577	14,856
Foreign	740	628	595	630	629	718	636	585
Self-support	na	na	na	na	na	na	na	na
Teaching assistantships	60,887	60,563	61,669	61,705	63,475	65,638	67,684	67,401
Federal	754	948	850	1,242	947	1,076	1,325	1,344
DOD	na	na	na	na	na	na	na	na
DOE ^a	NA	NA	16	34	27	41	48	58
HHS	156	229	203	277	244	250	324	286
NIH	126	221	196	261	213	203	283	247
Other HHS	30	8	7	16	31	47	41	39

TABLE 41. Full-time graduate students in science and engineering fields in doctorate-granting institutions, by primary mechanism and primary source of support: 1997–2004

Primary mechanism and primary source of support	1997	1998	1999	2000	2001	2002	2003	2004
NASA	24	23	9	11	34	26	33	30
NSF	80	130	121	133	186	207	283	282
USDA	30	36	60	68	46	46	80	63
Other ^a	464	530	441	719	410	506	557	625
Institutional	59,589	59,028	60,152	59,521	61,600	63,485	65,351	65,059
Other nonfederal	544	587	667	942	928	1,077	1,008	998
Domestic	544	587	667	942	928	1,077	1,008	998
Foreign	na	na	na	na	na	na	na	na
Self-support	na	na	na	na	na	na	na	na
Traineeships	9,548	9,756	9,431	9,438	9,011	9,673	10,043	9,748
Federal	5,132	5,409	5,404	5,683	5,413	5,735	5,901	5,796
DOD	108	64	51	57	36	46	39	44
DOE ^a	NA	NA	22	10	2	9	5	25
HHS	3,970	4,225	4,360	4,410	4,220	4,513	4,794	4,806
NIH	3,786	4,047	4,160	4,136	3,988	4,311	4,654	4,669
Other HHS	184	178	200	274	232	202	140	137
NASA	76	57	51	46	50	52	56	48
NSF	379	408	344	324	336	318	328	400
USDA	23	14	25	18	16	13	14	16
Other ^a	576	641	551	818	753	784	665	457
Institutional	3,776	3,672	3,400	3,248	3,183	3,545	3,589	3,426
Other nonfederal	640	675	627	507	415	393	553	526
Domestic	478	531	527	362	304	334	465	424
Foreign	162	144	100	145	111	59	88	102
Self-support	na	na	na	na	na	na	na	na
Other types of support	88,391	86,165	86,595	89,005	93,568	100,811	105,569	107,319
Federal	3,009	3,008	3,369	3,050	3,200	2,945	3,595	3,188
DOD	1,710	1,554	1,448	1,379	1,381	1,030	1,588	1,182
DOE ^a	NA	NA	48	63	64	50	45	52
HHS	322	379	516	483	529	563	621	696
NIH	267	320	404	439	489	524	540	633
Other HHS	55	59	112	44	40	39	81	63
NASA	33	35	36	51	48	48	44	21
NSF	95	79	114	160	130	172	183	177
USDA	42	51	57	48	32	68	90	74
Other ^a	807	910	1,150	866	1,016	1,014	1,024	986
Institutional	9,550	8,895	8,921	8,546	9,526	9,946	11,087	12,439
Other nonfederal	4,127	4,526	4,160	4,357	3,711	3,583	3,618	3,252
Domestic	2,564	3,224	2,887	3,033	2,537	2,562	2,632	2,340
Foreign	1,563	1,302	1,273	1,324	1,174	1,021	986	912
Self-support	71,705	69,736	70,145	73,052	77,131	84,337	87,269	88,440

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: 2004

Sex and primary source of support	Sciences										Engineering									Health fields
	All surveyed 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	376,664	237,775	9,477	54,040	27,330	11,226	14,300	31,248	32,087	58,067	84,701	3,190	6,346	13,347	25,783	6,352	12,547	4,338	12,798	54,188
Federal	81,938	52,045	2,496	21,616	5,082	3,309	1,713	10,927	3,415	3,487	20,750	1,214	2,146	2,149	5,971	957	3,129	1,571	3,613	9,143
DOD	8,192	3,063	24	425	1,185	128	161	874	135	131	4,826	537	218	168	1,970	299	732	363	539	303
DOE	4,090	2,315	49	219	151	171	61	1,585	24	55	1,763	50	357	90	209	45	360	270	382	12
HHS	30,720	21,597	90	16,142	295	41	175	2,559	1,857	438	2,153	12	296	61	350	66	178	50	1,140	6,970
NIH	26,518	20,394	67	15,581	259	24	154	2,349	1,645	315	1,907	10	260	33	290	43	150	43	1,078	4,217
Other HHS	4,202	1,203	23	561	36	17	21	210	212	123	246	2	36	28	60	23	28	7	62	2,753
NASA	2,898	1,454	52	104	140	457	24	561	26	90	1,428	423	95	59	332	42	286	52	139	16
NSF	19,913	12,981	202	2,242	2,748	1,497	1,037	4,103	360	792	6,778	116	871	700	2,341	328	1,038	652	732	154
USDA	3,516	3,035	1,369	1,061	35	92	28	38	16	396	404	0	46	73	45	12	22	3	203	77
Other	12,609	7,600	710	1,423	528	923	227	1,207	997	1,585	3,398	76	263	998	724	165	513	181	478	1,611
Institutional	148,450	106,011	3,894	21,579	8,602	5,021	9,634	16,657	12,275	28,349	30,617	909	2,424	5,620	8,441	2,272	4,893	1,504	4,554	11,822
Other nonfederal	27,268	14,578	1,582	3,804	1,698	858	429	2,127	1,336	2,744	10,035	364	996	1,251	2,802	592	1,542	752	1,736	2,655
Domestic	24,470	12,923	1,454	3,561	1,519	786	353	2,029	1,291	1,930	9,147	298	941	1,119	2,638	512	1,391	679	1,569	2,400
Foreign	2,798	1,655	128	243	179	72	76	98	45	814	888	66	55	132	164	80	151	73	167	255
Self-support	119,008	65,141	1,505	7,041	11,948	2,038	2,524	1,537	15,061	23,487	23,299	703	780	4,327	8,569	2,531	2,983	511	2,895	30,568
Male, all sources	203,348	123,303	5,014	24,234	20,725	6,119	9,396	21,558	8,472	27,785	65,504	2,738	4,544	9,248	20,980	4,827	10,792	3,201	9,174	14,541
Federal	48,539	29,215	1,390	10,133	4,061	1,900	1,183	7,709	1,051	1,788	16,231	1,061	1,497	1,504	4,973	745	2,682	1,167	2,602	3,093
DOD	6,568	2,278	19	214	1,012	74	127	663	68	101	4,095	493	166	121	1,705	244	639	281	446	195
DOE	3,160	1,731	36	114	125	111	39	1,260	8	38	1,423	45	258	59	167	36	320	218	320	6
HHS	14,061	10,228	46	7,530	233	20	98	1,560	577	164	1,475	10	195	41	287	50	153	27	712	2,358
NIH	12,749	9,684	36	7,283	203	11	85	1,436	515	115	1,285	8	172	22	236	31	127	21	668	1,780
Other HHS	1,312	544	10	247	30	9	13	124	62	49	190	2	23	19	51	19	26	6	44	578
NASA	2,112	933	35	59	103	254	16	398	10	58	1,173	361	67	35	281	32	244	38	115	6
NSF	13,664	8,439	107	1,047	2,176	859	739	2,928	136	447	5,133	90	597	472	1,890	256	853	463	512	92
USDA	1,943	1,614	772	491	26	53	18	26	6	222	292	0	34	53	32	9	21	2	141	37
Other	7,031	3,992	375	678	386	529	146	874	246	758	2,640	62	180	723	611	118	452	138	356	399
Institutional	82,416	55,524	1,934	9,471	6,612	2,696	6,345	11,246	3,543	13,677	23,404	776	1,739	3,846	6,854	1,635	4,192	1,092	3,270	3,488
Other nonfederal	17,010	8,273	880	1,860	1,358	480	264	1,530	375	1,526	7,858	302	731	917	2,328	452	1,309	554	1,265	879
Domestic	15,085	7,174	797	1,728	1,220	428	215	1,456	354	976	7,151	247	692	825	2,187	390	1,182	496	1,132	760
Foreign	1,925	1,099	83	132	138	52	49	74	21	550	707	55	39	92	141	62	127	58	133	119
Self-support	55,383	30,291	810	2,770	8,694	1,043	1,604	1,073	3,503	10,794	18,011	599	577	2,981	6,825	1,995	2,609	388	2,037	7,081
Female, all sources	173,316	114,472	4,463	29,806	6,605	5,107	4,904	9,690	23,615	30,282	19,197	452	1,802	4,099	4,803	1,525	1,755	1,137	3,624	39,647
Federal	33,399	22,830	1,106	11,483	1,021	1,409	530	3,218	2,364	1,699	4,519	153	649	645	998	212	447	404	1,011	6,050
DOD	1,624	785	5	211	173	54	34	211	67	30	731	44	52	47	265	55	93	82	93	108
DOE	930	584	13	105	26	60	22	325	16	17	340	5	99	31	42	9	40	52	62	6

TABLE 42. Full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by sex, primary source of support, and field: 2004

Sex and primary source of support	All surveyed fields	Total	Sciences								Engineering								Health fields	
			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
HHS	16,659	11,369	44	8,612	62	21	77	999	1,280	274	678	2	101	20	63	16	25	23	428	4,612
NIH	13,769	10,710	31	8,298	56	13	69	913	1,130	200	622	2	88	11	54	12	23	22	410	2,437
Other HHS	2,890	659	13	314	6	8	8	86	150	74	56	0	13	9	9	4	2	1	18	2,175
NASA	786	521	17	45	37	203	8	163	16	32	255	62	28	24	51	10	42	14	24	10
NSF	6,249	4,542	95	1,195	572	638	298	1,175	224	345	1,645	26	274	228	451	72	185	189	220	62
USDA	1,573	1,421	597	570	9	39	10	12	10	174	112	0	12	20	13	3	1	1	62	40
Other	5,578	3,608	335	745	142	394	81	333	751	827	758	14	83	275	113	47	61	43	122	1,212
Institutional	66,034	50,487	1,960	12,108	1,990	2,325	3,289	5,411	8,732	14,672	7,213	133	685	1,774	1,587	637	701	412	1,284	8,334
Other nonfederal	10,258	6,305	702	1,944	340	378	165	597	961	1,218	2,177	62	265	334	474	140	233	198	471	1,776
Domestic	9,385	5,749	657	1,833	299	358	138	573	937	954	1,996	51	249	294	451	122	209	183	437	1,640
Foreign	873	556	45	111	41	20	27	24	24	264	181	11	16	40	23	18	24	15	34	136
Self-support	63,625	34,850	695	4,271	3,254	995	920	464	11,558	12,693	5,288	104	203	1,346	1,744	536	374	123	858	23,487

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, 2004.

TABLE 43. U.S. citizen or permanent resident full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	220,643	217,902	217,885	212,411	214,736	227,459	243,180	252,015
Science and engineering	183,500	179,304	177,494	172,740	175,201	186,050	197,584	203,562
Science	149,524	146,941	146,122	142,470	144,254	152,071	160,000	165,403
Agricultural sciences	6,584	6,538	6,761	6,859	6,761	6,906	7,193	7,109
Biological sciences	35,035	34,904	35,274	34,642	35,343	37,368	38,856	39,645
Anatomy	636	584	561	580	506	681	639	645
Biochemistry	3,425	3,456	3,393	3,160	3,102	3,254	3,449	3,377
Biology	7,399	7,122	7,102	6,916	6,921	7,232	7,762	8,049
Biometry/epidemiology	1,557	1,962	1,988	1,867	1,974	2,059	2,179	2,212
Biophysics	558	545	530	519	580	609	658	753
Botany	1,249	1,234	1,208	1,162	1,170	1,219	1,172	1,095
Cell biology	3,145	3,197	3,421	3,421	3,427	3,728	3,860	3,838
Ecology	1,039	1,058	1,074	1,064	1,191	1,207	1,236	1,273
Entomology/parasitology	736	734	693	714	742	745	753	761
Genetics	1,247	1,227	1,266	1,237	1,273	1,368	1,432	1,459
Microbiology/immunology/virology	3,427	3,466	3,571	3,605	3,527	3,735	3,849	3,875
Nutrition	2,228	2,117	2,140	2,071	2,128	2,201	2,156	2,181
Pathology	1,139	1,061	1,081	1,006	1,067	1,050	1,001	1,050
Pharmacology	1,920	2,000	2,027	2,016	2,126	2,170	2,185	2,194
Physiology	1,701	1,573	1,443	1,432	1,396	1,482	1,558	1,636
Zoology	1,234	1,168	1,155	1,070	1,047	974	931	897
Biosciences, nec	2,395	2,400	2,621	2,802	3,166	3,654	4,036	4,350
Computer sciences	7,839	8,141	8,750	8,346	9,068	10,837	11,775	11,966
Earth, atmospheric, and ocean sciences	7,801	7,868	7,886	7,754	7,607	8,137	8,544	8,700
Atmospheric sciences	684	622	534	559	545	623	749	710
Geosciences	4,063	3,938	3,994	3,950	3,858	3,979	4,096	4,182
Oceanography	1,457	1,524	1,620	1,643	1,541	1,653	1,747	1,775
Earth/atmospheric/ocean sciences, nec	1,597	1,784	1,738	1,602	1,663	1,882	1,952	2,033
Mathematical sciences	6,948	6,712	6,253	6,041	6,287	6,933	7,381	7,780
Mathematics/applied mathematics	5,801	5,591	5,270	5,071	5,330	5,876	6,246	6,597
Statistics	1,147	1,121	983	970	957	1,057	1,135	1,183
Physical sciences	16,494	16,222	16,019	15,319	15,440	15,929	16,940	17,839
Astronomy	584	581	574	564	589	651	706	717
Chemistry	10,180	10,047	10,119	9,693	9,714	9,795	10,213	10,687
Physics	5,609	5,486	5,198	4,935	5,006	5,312	5,820	6,251
Physical sciences, nec	121	108	128	127	131	171	201	184
Psychology	28,753	28,321	27,977	27,733	27,276	27,298	28,052	29,906
Clinical psychology	8,825	8,755	8,920	8,844	8,719	8,412	8,561	9,033
Psychology, general	9,562	9,471	8,954	8,779	8,510	8,175	8,546	8,492
Psychology, nec	10,366	10,095	10,103	10,110	10,047	10,711	10,945	12,381
Social sciences	40,070	38,235	37,202	35,776	36,472	38,663	41,259	42,458
Agricultural economics	897	884	878	874	917	999	1,024	985
Anthropology (cultural/social)	5,044	4,933	4,936	4,786	4,816	4,908	5,052	4,921
Economics (except agricultural)	3,938	3,800	3,360	3,243	3,350	3,492	3,703	3,783
Geography	2,325	2,213	2,124	1,963	2,131	2,102	2,307	2,311
History and philosophy of science	313	326	357	307	306	299	314	362
Linguistics	1,503	1,357	1,278	1,190	1,223	1,296	1,393	1,366
Political science	13,035	12,270	11,880	11,551	11,671	13,157	14,221	15,297
Sociology	5,392	5,135	4,968	4,803	4,839	4,969	5,124	4,987
Sociology/anthropology	543	506	444	448	489	489	487	511
Social sciences, nec	7,080	6,811	6,977	6,611	6,730	6,952	7,634	7,935
Engineering	33,976	32,363	31,372	30,270	30,947	33,979	37,584	38,159

TABLE 43. U.S. citizen or permanent resident full-time graduate students in science, engineering, and health fields in doctorate-granting institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Aerospace engineering	1,312	1,257	1,270	1,353	1,277	1,421	1,663	1,672
Agricultural engineering	397	398	398	373	392	395	430	404
Biomedical engineering	1,767	1,821	1,915	1,972	2,110	2,435	2,959	3,285
Chemical engineering	3,251	3,037	2,812	2,779	2,608	2,847	2,910	3,044
Civil engineering	6,810	6,590	6,259	6,171	6,142	6,545	7,110	7,322
Electrical engineering	8,283	7,794	7,264	6,913	7,418	8,090	8,860	8,634
Engineering science	618	626	561	513	555	683	877	822
Industrial engineering	2,350	2,155	2,350	2,238	2,060	2,447	2,609	2,443
Mechanical engineering	5,524	5,146	4,950	4,559	4,746	5,105	5,739	5,757
Metallurgical/materials engineering	1,891	1,860	1,684	1,624	1,759	1,866	1,950	1,983
Mining engineering	154	161	162	87	93	107	110	128
Nuclear engineering	434	389	343	348	314	340	412	470
Petroleum engineering	76	59	75	184	195	235	92	118
Engineering, nec	1,109	1,070	1,329	1,156	1,278	1,463	1,863	2,077
Health	37,143	38,598	40,391	39,671	39,535	41,409	45,596	48,453
Medical fields	8,547	9,374	9,819	9,459	9,695	10,526	11,923	12,224
Anesthesiology	566	583	574	559	587	554	702	720
Cardiology	9	23	45	39	34	24	15	63
Endocrinology	22	41	49	42	33	41	32	38
Gastroenterology	0	6	7	13	6	6	9	13
Hematology	3	1	3	2	6	6	18	23
Neurology	1,437	1,535	1,592	1,607	1,715	2,034	2,087	2,041
Obstetrics/gynecology	18	10	8	12	18	16	15	9
Oncology/cancer research	159	175	196	185	199	189	199	225
Ophthalmology	15	6	15	25	24	124	375	383
Otorhinolaryngology	2	0	1	8	4	8	9	6
Pediatrics	251	237	253	319	279	312	308	285
Preventive medicine/community health	4,916	5,674	5,917	5,435	5,347	5,537	6,224	6,340
Psychiatry	79	39	47	83	122	123	58	171
Pulmonary disease	0	0	6	7	8	3	5	7
Radiology	160	132	139	124	134	128	146	114
Surgery	152	104	106	119	90	63	63	52
Clinical medicine, nec	758	808	861	880	1,089	1,358	1,658	1,734
Other health	28,596	29,224	30,572	30,212	29,840	30,883	33,673	36,229
Dental sciences	961	967	954	965	1,028	999	1,230	1,205
Nursing	7,556	7,301	7,922	7,470	7,535	8,344	8,918	9,374
Pharmaceutical sciences	1,162	1,208	1,550	1,581	1,522	1,233	2,084	2,287
Speech pathology/audiology	7,240	7,353	7,678	7,755	7,474	7,522	7,825	8,206
Veterinary sciences	742	789	767	847	918	1,081	1,042	1,023
Health related, nec	10,935	11,606	11,701	11,594	11,363	11,704	12,574	14,134

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: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	86,774	88,793	95,712	106,834	117,231	127,384	128,456	124,649
Science and engineering	82,869	84,868	91,458	102,411	112,307	121,686	122,634	118,914
Science	52,525	53,321	56,328	62,032	67,575	72,427	72,683	72,372
Agricultural sciences	2,380	2,256	2,172	2,072	2,188	2,278	2,319	2,368
Biological sciences	10,056	10,282	10,096	10,721	11,323	12,684	13,645	14,395
Anatomy	161	149	147	172	169	184	190	176
Biochemistry	1,370	1,398	1,385	1,539	1,515	1,676	1,839	1,902
Biology	1,698	1,712	1,626	1,702	1,792	2,048	2,194	2,367
Biometry/epidemiology	436	604	654	695	762	953	1,029	1,006
Biophysics	170	162	151	200	257	287	310	362
Botany	551	565	549	538	546	570	558	558
Cell biology	821	829	822	963	1,071	1,200	1,324	1,507
Ecology	131	134	156	160	173	189	219	222
Entomology/parasitology	259	266	278	265	247	256	271	285
Genetics	385	369	367	360	413	402	495	539
Microbiology/immunology/virology	938	904	900	892	968	1,160	1,122	1,195
Nutrition	948	910	882	928	995	1,014	1,026	961
Pathology	281	278	283	287	283	290	318	300
Pharmacology	541	562	552	611	620	653	741	780
Physiology	401	417	433	424	415	435	501	490
Zoology	176	160	132	164	182	199	162	173
Biosciences, nec	789	863	779	821	915	1,168	1,346	1,572
Computer sciences	9,175	10,264	11,815	15,236	18,096	18,988	16,518	15,364
Earth, atmospheric, and ocean sciences	2,196	2,152	2,179	2,373	2,438	2,498	2,477	2,526
Atmospheric sciences	280	232	257	283	266	292	267	248
Geosciences	1,167	1,109	1,100	1,178	1,221	1,253	1,307	1,321
Oceanography	469	482	461	488	476	451	462	477
Earth/atmospheric/ocean sciences, nec	280	329	361	424	475	502	441	480
Mathematical sciences	4,797	4,576	5,111	5,312	5,729	6,183	6,572	6,520
Mathematics/applied mathematics	3,878	3,676	3,987	4,063	4,254	4,568	4,761	4,745
Statistics	919	900	1,124	1,249	1,475	1,615	1,811	1,775
Physical sciences	9,964	9,785	10,245	10,797	11,384	12,291	13,102	13,409
Astronomy	184	206	234	259	271	295	317	361
Chemistry	5,512	5,437	5,567	5,679	6,104	6,764	7,195	7,313
Physics	4,228	4,097	4,379	4,786	4,920	5,147	5,514	5,683
Physical sciences, nec	40	45	65	73	89	85	76	52
Psychology	1,565	1,635	1,612	1,728	1,879	2,008	2,274	2,181
Clinical psychology	256	290	300	307	335	390	407	320
Psychology, general	539	555	567	676	734	744	878	875
Psychology, nec	770	790	745	745	810	874	989	986
Social sciences	12,392	12,371	13,098	13,793	14,538	15,497	15,776	15,609
Agricultural economics	821	786	807	903	948	973	1,018	902
Anthropology (cultural/social)	592	630	695	687	654	717	724	748
Economics (except agricultural)	4,671	4,537	4,776	5,075	5,578	5,870	5,906	5,795
Geography	436	486	489	534	607	610	635	641
History and philosophy of science	64	59	55	66	66	65	64	64
Linguistics	829	839	829	847	865	838	864	885
Political science	2,751	2,832	3,182	3,355	3,447	3,819	4,003	4,003
Sociology	969	922	988	1,059	1,058	1,135	1,174	1,115
Sociology/anthropology	70	87	63	67	71	60	61	73
Social sciences, nec	1,189	1,193	1,214	1,200	1,244	1,410	1,327	1,383
Engineering	30,344	31,547	35,130	40,379	44,732	49,259	49,951	46,542

TABLE 44. Full-time graduate students with temporary visas in science, engineering, and health fields in doctorate-granting institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Aerospace engineering	1,193	1,287	1,353	1,387	1,522	1,549	1,543	1,518
Agricultural engineering	351	358	369	333	366	374	440	404
Biomedical engineering	644	654	793	869	1,046	1,423	1,762	1,786
Chemical engineering	2,525	2,558	2,760	3,058	3,182	3,379	3,463	3,302
Civil engineering	4,280	4,223	4,672	5,355	5,703	6,173	6,333	6,025
Electrical engineering	10,222	11,215	12,659	15,276	17,024	19,172	18,820	17,149
Engineering science	398	485	466	573	652	741	874	890
Industrial engineering	2,627	2,593	3,012	3,689	4,309	4,548	4,270	3,909
Mechanical engineering	4,789	4,811	5,276	6,086	6,546	7,242	7,380	6,790
Metallurgical/materials engineering	1,769	1,834	1,850	1,954	2,201	2,361	2,425	2,355
Mining engineering	106	56	90	95	92	91	98	101
Nuclear engineering	274	273	298	312	337	315	340	339
Petroleum engineering	381	419	448	329	340	409	590	540
Engineering, nec	785	781	1,084	1,063	1,412	1,482	1,613	1,434
Health	3,905	3,925	4,254	4,423	4,924	5,698	5,822	5,735
Medical fields	1,206	1,266	1,440	1,322	1,720	2,225	2,192	2,116
Anesthesiology	2	8	1	2	1	2	13	8
Cardiology	23	13	17	14	16	18	15	16
Endocrinology	19	17	17	13	18	18	24	19
Gastroenterology	3	0	0	1	1	1	2	0
Hematology	0	0	0	4	0	2	7	1
Neurology	213	238	261	315	357	422	486	520
Obstetrics/gynecology	0	0	1	1	0	2	5	4
Oncology/cancer research	34	31	49	40	47	40	33	45
Ophthalmology	5	15	16	16	9	42	18	23
Otorhinolaryngology	0	0	2	0	0	0	0	0
Pediatrics	24	23	23	32	37	51	41	42
Preventive medicine/community health	785	822	932	755	1,076	1,421	1,285	1,193
Psychiatry	1	1	3	2	1	4	9	13
Pulmonary disease	0	0	0	0	0	1	5	0
Radiology	38	28	29	27	33	50	62	57
Surgery	5	5	7	9	7	2	4	7
Clinical medicine, nec	54	65	82	91	117	149	183	168
Other health	2,699	2,659	2,814	3,101	3,204	3,473	3,630	3,619
Dental sciences	329	317	272	336	294	318	284	289
Nursing	294	299	339	324	301	335	359	358
Pharmaceutical sciences	1,057	1,045	1,048	1,193	1,238	1,313	1,431	1,343
Speech pathology/audiology	263	278	297	307	332	331	328	330
Veterinary sciences	286	259	285	307	326	337	349	341
Health related, nec	470	461	573	634	713	839	879	958

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 2004 total: 1997–2004

Rank	Institution	1997	1998	1999	2000	2001	2002	2003	2004
-	All institutions	369,894	366,411	371,931	373,830	388,720	412,173	429,343	432,240
1	U. MN all campuses	4,487	4,469	4,609	4,446	5,113	5,584	5,784	6,140
2	U. Southern CA	4,259	4,333	4,492	4,551	4,477	5,265	5,581	5,633
3	TX A&M U. all campuses	4,620	4,567	4,475	4,919	5,038	5,309	5,810	5,625
4	MA Institute of Technology	4,074	4,145	4,304	4,381	4,481	5,571	5,615	5,622
5	U. MI all campuses	4,809	4,688	4,930	5,006	5,132	5,649	5,872	5,594
6	GA Institute of Technology all campuses	3,412	3,572	3,695	4,059	4,531	5,022	5,384	5,295
7	U. IL Urbana-Champaign	4,389	4,301	4,359	4,314	4,509	4,827	5,064	5,280
8	Stanford U.	4,322	4,469	4,711	4,604	4,793	4,719	4,747	5,180
9	U. CA, Berkeley	4,345	4,390	4,461	4,478	4,595	4,828	5,061	5,134
10	U. CO all campuses	4,222	4,219	4,205	4,533	4,615	4,779	5,032	5,006
11	U. FL	3,411	3,496	3,780	4,051	4,293	4,594	5,102	4,890
12	U. WI Madison	4,507	4,250	4,356	4,335	4,408	4,607	4,843	4,787
13	George Washington U.	3,851	3,591	3,702	3,682	4,017	4,096	4,014	4,743
14	PA State U. all campuses	3,951	3,837	3,854	3,775	4,091	4,511	4,606	4,613
15	U. MD College Park	3,880	3,887	3,823	4,086	4,036	4,291	4,434	4,484
16	U. WA	3,734	3,821	3,875	3,895	3,950	4,148	4,520	4,376
17	U. CA, Los Angeles	3,412	3,613	3,731	3,798	3,946	4,646	4,808	4,249
18	VA Polytechnic Institute and State U.	3,419	3,201	3,190	3,540	3,778	3,940	4,113	4,078
19	NC State U.	3,553	3,425	3,473	3,540	3,751	3,866	3,901	4,072
20	OH State U. all campuses	3,764	3,773	3,724	3,797	3,775	3,852	4,045	4,055
21	Purdue U. all campuses	3,482	3,450	3,495	3,522	3,642	3,887	3,990	4,043
22	U. TX Austin	3,860	3,794	3,679	3,756	3,873	3,998	4,093	3,962
23	Cornell U. all campuses	3,225	3,353	3,460	3,429	3,679	3,797	3,970	3,940
24	Harvard U.	3,024	3,016	3,087	3,211	3,548	3,564	3,626	3,827
25	U. CA, Davis	2,529	2,515	2,587	2,714	2,873	3,116	3,394	3,465
26	Rutgers, The State U. NJ all campuses	3,441	3,295	3,443	3,406	3,372	3,391	3,526	3,435
27	AZ State U. main campus	3,100	3,109	3,090	3,173	3,413	3,537	3,425	3,380
28	Columbia U. in the City of NY	2,385	2,419	2,333	2,182	1,974	2,132	2,354	3,216
29	LA State U. all campuses	3,003	2,834	2,917	2,661	2,820	2,926	3,138	3,163
30	Boston U.	2,407	2,437	2,400	2,489	2,479	2,726	3,017	3,051
31	NY U.	2,791	2,914	2,939	2,750	2,905	2,826	2,957	2,979
32	U. AZ	2,851	2,770	2,812	2,785	2,843	3,070	3,079	2,975
33	SUNY Buffalo all campuses	2,443	2,449	2,619	2,537	2,505	2,749	3,029	2,956
34	U. MA	2,671	2,700	2,779	2,528	2,539	2,864	2,887	2,942
35	DePaul U.	1,743	1,942	2,132	2,772	2,954	3,205	2,876	2,940
36	IA State U.	2,608	2,437	2,503	2,608	2,612	2,769	2,862	2,851
37	IN U. all campuses	2,883	2,707	2,678	2,590	2,614	2,711	2,787	2,847
38	U. TX Arlington	1,463	1,407	1,611	1,859	2,077	2,687	2,921	2,836
39	U. Pittsburgh all campuses	2,693	2,532	2,569	2,543	2,513	2,624	2,799	2,799
40	U. CA, San Diego	1,846	1,826	1,857	1,922	2,200	2,469	2,798	2,797
41	Carnegie Mellon U.	1,763	1,922	2,000	2,100	2,329	2,364	2,496	2,759
42	George Mason U.	2,930	2,872	2,855	2,937	2,929	3,098	3,225	2,751
43	MI State U.	2,862	2,826	2,820	2,712	2,721	2,891	2,831	2,724
44	Nova Southeastern U.	1,710	1,722	1,838	1,880	1,924	2,012	2,120	2,580
45	U. IL Chicago	2,215	2,208	2,282	2,395	2,554	2,748	2,728	2,561
46	U. KS all campuses	2,718	2,518	2,514	2,552	2,496	2,604	2,706	2,559
47	U. Central FL	1,510	1,508	1,739	1,795	1,930	2,161	2,405	2,455
48	Johns Hopkins U., The	1,734	1,835	1,802	1,755	1,843	2,014	2,203	2,413
49	U. CT all campuses	1,874	1,820	1,915	1,750	1,905	2,019	2,302	2,394
50	U. TN	1,937	1,997	1,887	1,676	1,867	2,082	2,220	2,372
51	CO State U.	1,770	1,738	1,755	1,822	2,190	2,371	2,490	2,303
52	SUNY Stony Brook all campuses	1,885	1,906	2,015	2,005	2,094	2,266	2,339	2,300
53	SUNY Albany	2,056	2,079	2,098	2,031	1,951	1,976	2,325	2,212

TABLE 45. Graduate students in science and engineering fields in doctorate-granting institutions, institutions ranked by 2004 total: 1997–2004

Rank	Institution	1997	1998	1999	2000	2001	2002	2003	2004
54	U. CA, Irvine	1,309	1,319	1,360	1,406	1,569	1,928	2,165	2,212
55	NJ Institute of Technology	1,874	1,917	1,943	2,387	2,272	2,278	2,253	2,204
56	U. UT	1,586	1,550	1,550	1,681	1,799	1,935	2,038	2,201
57	U. NC Chapel Hill	2,175	2,166	2,150	1,988	2,047	2,160	2,172	2,176
58	U. PA	1,929	1,933	1,996	1,910	2,002	2,055	2,115	2,109
59	U. OK all campuses	1,547	1,527	1,558	1,522	1,912	2,068	2,154	2,098
60	Drexel U.	2,104	2,101	1,941	1,902	1,807	1,872	1,941	2,079
61	U. NM all campuses	1,607	1,612	1,658	1,779	1,837	1,984	2,082	2,063
62	U. WI Milwaukee	1,327	1,286	1,201	1,733	1,693	1,846	1,949	2,054
63	U. Cincinnati all campuses	1,945	1,930	1,904	1,815	1,821	1,958	2,041	1,999
64	CUNY Graduate Ctr.	2,022	2,022	1,748	1,569	1,628	1,694	1,866	1,981
65	U. GA	1,818	1,760	1,758	1,822	1,798	1,903	1,906	1,973
66	U. CA, Santa Barbara	1,412	1,538	1,570	1,625	1,741	1,893	2,049	1,972
67	U. Houston	1,858	1,826	1,938	1,917	1,803	1,948	1,940	1,939
68	Wayne State U.	2,385	2,082	2,277	2,709	2,680	2,763	2,435	1,928
69	U. KY all campuses	1,657	1,575	1,751	1,532	1,771	2,123	2,062	1,911
70	U. VA all campuses	1,669	1,610	1,561	1,631	1,686	1,795	1,849	1,897
71	U. HI Manoa	1,598	1,575	1,488	1,412	1,455	1,657	1,761	1,887
72	KS State U.	1,679	1,669	1,753	1,765	1,704	1,809	1,886	1,871
73	American U.	1,951	1,857	1,857	1,822	1,793	1,982	1,912	1,869
74	Walden U.	310	555	669	730	808	891	808	1,862
75	U. South FL	1,700	1,655	1,789	1,712	1,779	1,799	1,917	1,827
76	Northwestern U.	1,516	1,479	1,515	1,438	1,471	1,578	1,677	1,813
77	FL State U.	1,306	1,266	1,297	1,429	1,501	1,554	1,702	1,804
78	Duke U.	1,274	1,343	1,422	1,496	1,503	1,644	1,693	1,785
79	Auburn U. all campuses	1,529	1,451	1,399	1,498	1,545	1,621	1,687	1,727
80	Washington U. St. Louis	1,196	1,232	1,263	1,233	1,296	1,446	1,610	1,708
81	Syracuse U. all campuses	1,341	1,591	1,613	1,695	1,695	1,680	1,808	1,703
82	U. DE	1,377	1,429	1,413	1,396	1,443	1,553	1,653	1,683
83	WV U.	1,414	1,406	1,473	1,458	1,457	1,600	1,761	1,678
84	U. MO-Columbia	1,552	1,454	1,541	1,452	1,479	1,574	1,642	1,675
85	Clemson U.	1,596	1,529	1,562	1,522	1,568	1,617	1,643	1,674
86	U. IA	1,505	1,437	1,410	1,447	1,515	1,571	1,639	1,671
87	U. TX Dallas	1,134	1,109	1,221	1,636	1,637	1,784	1,792	1,661
88	TX Tech U.	1,294	1,325	1,198	1,190	1,329	1,563	1,686	1,621
89	U. NE Lincoln	1,624	1,550	1,567	1,522	1,409	1,532	1,612	1,620
90	OK State U. all campuses	1,718	1,811	1,640	1,460	1,569	1,711	1,688	1,618
91	Case Western Reserve U.	1,433	1,349	1,319	1,250	1,253	1,254	1,556	1,610
92	Yale U.	1,312	1,315	1,322	1,350	1,423	1,392	1,589	1,607
93	OR State U.	1,651	1,397	1,439	1,464	1,494	1,558	1,619	1,596
94	Princeton U.	1,240	1,309	1,323	1,427	1,485	1,514	1,559	1,594
95	San Diego State U.	1,246	1,237	1,456	1,474	1,543	1,599	1,812	1,579
96	U. AR main campus	1,062	1,195	1,227	1,282	1,443	1,236	1,414	1,571
97	Old Dominion U.	1,274	1,281	1,223	1,277	1,463	1,559	1,532	1,542
98	CUNY John Jay C. of Criminal Justice	889	971	1,107	997	978	1,161	1,361	1,541
99	MS State U.	1,149	1,458	1,154	1,230	1,230	1,380	1,261	1,536
100	Southern IL U. Carbondale	1,154	1,246	1,328	1,481	1,425	1,503	1,576	1,519
101	FL International U.	1,041	1,015	1,114	1,262	1,308	1,540	1,491	1,507
102	Northeastern U.	1,741	1,724	1,709	1,690	1,590	1,646	1,440	1,500
103	Western MI U.	1,417	1,500	1,412	1,227	1,553	1,564	1,574	1,448
104	Stevens Institute of Technology	1,326	1,163	1,219	911	958	1,071	1,240	1,438
105	Fairleigh Dickinson U. all campuses	841	844	901	1,109	1,333	1,335	1,359	1,437
106	U. Louisville	963	998	1,183	1,127	1,293	1,203	1,378	1,416
107	IL Institute of Technology	2,058	1,983	2,110	2,154	2,725	2,057	1,459	1,403

TABLE 45. Graduate students in science and engineering fields in doctorate-granting institutions, institutions ranked by 2004 total: 1997–2004

Rank	Institution	1997	1998	1999	2000	2001	2002	2003	2004
108	Tufts U.	1,067	995	972	1,101	1,140	1,289	1,280	1,376
109	Antioch U. all campuses	1,320	1,083	1,099	1,136	1,178	1,217	1,287	1,368
110	Portland State U.	1,001	1,038	1,203	1,070	1,129	1,343	1,463	1,365
111	GA State U.	1,032	1,004	1,056	1,015	1,113	1,213	1,376	1,360
112	CA State U. Long Beach	1,317	1,351	1,285	1,213	1,068	1,220	1,258	1,319
113	U. Chicago	1,941	1,918	1,984	1,781	1,935	1,935	1,798	1,295
114	Vanderbilt U.	1,129	1,121	1,124	1,113	1,054	1,164	1,268	1,294
115	CA Institute of Technology	1,031	982	982	1,042	1,139	1,184	1,273	1,288
116	U. AL Birmingham, The	1,028	1,101	1,062	1,118	1,100	1,208	1,190	1,275
117	Teachers C. Columbia U.	1,906	1,998	2,106	1,245	1,350	1,191	1,269	1,251
118	WA State U.	1,228	1,200	1,104	1,168	1,134	1,213	1,307	1,250
119	U. ID	1,149	1,208	1,200	1,042	1,084	1,195	1,308	1,248
120	New School, The	1,060	1,000	999	957	995	1,070	1,120	1,247
121	SUNY Binghamton	1,093	1,067	1,113	1,106	1,137	1,271	1,324	1,244
122	NM State U. all campuses	990	963	915	914	1,023	990	1,192	1,241
123	U. North TX	1,297	1,309	1,608	1,410	1,316	1,370	1,286	1,241
124	Temple U.	979	952	957	1,379	1,214	1,335	1,449	1,215
125	Cleveland State U.	774	759	735	894	971	1,056	1,320	1,212
126	Alliant International U.	na	na	na	na	na	1,282	1,250	1,211
127	UT State U.	1,143	1,120	1,188	1,175	1,203	1,272	1,278	1,194
128	U. PR Rio Piedras Campus	1,086	1,113	1,176	1,150	1,162	1,292	1,207	1,185
129	Wichita State U.	886	1,008	926	1,008	1,224	1,301	1,243	1,184
130	Wright State U. all campuses	851	867	854	901	984	1,145	1,207	1,184
131	U. MD Baltimore County	869	909	851	882	1,037	1,200	1,215	1,183
132	U. CA, Riverside	785	739	772	881	944	1,002	1,131	1,181
133	U. SC all campuses	1,450	1,325	1,222	1,217	1,198	1,207	1,250	1,176
134	Southern Methodist U.	1,260	1,167	1,137	1,038	1,040	1,001	961	1,170
135	Northern IL U.	1,034	993	1,006	1,025	1,116	1,194	1,171	1,168
136	U. Rochester	1,097	1,033	1,026	972	1,016	1,061	1,135	1,152
137	VA Commonwealth U.	1,022	1,070	1,409	1,025	1,152	1,209	1,115	1,129
138	Long Island U. all campuses	1,069	1,005	1,279	1,279	1,307	1,355	1,398	1,121
139	U. Miami	1,012	996	958	1,002	1,005	1,024	1,104	1,095
140	U. MA Lowell	1,515	1,576	1,557	1,366	1,261	1,103	1,201	1,086
141	U. Akron all campuses	1,361	1,231	1,205	961	1,136	1,209	1,156	1,081
142	Rensselaer Polytechnic Institute	1,623	1,557	1,646	1,728	1,751	1,417	1,215	1,074
143	U. MO-Rolla	886	848	857	1,016	1,159	1,358	1,291	1,071
144	Fielding Institute, The	948	937	964	895	874	896	1,084	1,057
145	U. NC Charlotte	674	625	684	804	895	1,008	1,075	1,055
146	U. NV, Reno	956	966	926	899	989	1,015	1,051	1,048
147	Brigham Young U. all campuses	1,179	1,059	1,042	965	1,032	1,114	1,394	1,043
148	FL Institute of Technology	743	740	721	775	973	932	965	1,043
149	ND State U. all campuses	523	507	580	554	614	627	1,049	1,032
150	U. of Notre Dame	846	826	834	835	922	984	1,037	1,028
151	Rice U.	737	746	730	763	848	941	962	1,009
152	U. AL Huntsville, The	697	680	755	753	777	928	1,025	989
153	U. CA, Santa Cruz	726	734	735	750	797	879	983	983
154	FL Atlantic U.	857	810	893	871	883	975	1,021	974
155	U. RI	800	800	875	923	845	936	977	973
156	U. AL, The	1,040	1,000	966	943	927	978	1,001	965
157	Brown U.	717	701	722	753	772	813	874	953
158	Naval Postgraduate School	872	890	795	795	766	379	985	944
159	OH U. all campuses	940	896	898	968	928	982	998	912
160	U. PR Mayaguez Campus	727	712	687	733	757	814	885	906
161	U. Denver	727	768	825	862	655	916	927	901

TABLE 45. Graduate students in science and engineering fields in doctorate-granting institutions, institutions ranked by 2004 total: 1997–2004

Rank	Institution	1997	1998	1999	2000	2001	2002	2003	2004
162	CUNY City C.	785	802	897	812	841	862	894	900
163	Air Force Institute of Technology	504	426	392	423	345	363	323	897
164	U. NV, Las Vegas	510	495	450	524	595	647	817	895
165	TX State U. San Marcos	624	643	730	649	691	771	864	869
166	U. WY	846	789	755	754	764	819	869	853
167	Marquette U.	626	707	679	758	764	790	815	851
168	Southern U. and A&M C. all campuses	424	436	589	752	697	643	826	850
169	U. Memphis, The	997	816	783	828	1,100	1,082	1,203	850
170	Oakland U.	841	841	700	772	779	888	868	838
171	Pepperdine U.	739	713	682	646	678	718	813	833
172	U. NH	757	737	760	770	768	829	850	833
173	U. Toledo	925	915	913	862	895	880	821	821
174	Tulane U.	726	743	746	794	775	757	777	817
175	U. NE Omaha	514	483	580	677	788	838	822	816
176	Lehigh U.	1,030	987	901	682	687	742	763	803
177	Emory U.	711	707	680	665	676	725	774	798
178	U. TX El Paso	579	576	647	621	346	695	722	796
179	Georgetown U.	722	641	602	575	591	655	703	787
180	Pace U. all campuses	564	561	605	801	1,161	1,195	977	786
181	Eastern MI U.	601	624	607	656	658	701	765	780
182	Kent State U. all campuses	824	786	764	751	777	834	770	766
183	Santa Clara U.	956	871	846	697	633	734	804	765
184	Rochester Institute of Technology	560	548	503	494	589	693	699	758
185	MI Technological U.	543	546	589	600	597	638	705	746
186	U. MT, The	552	583	577	584	637	647	719	741
187	U. OR	675	682	648	666	678	701	752	738
188	Polytechnic U.	1,372	1,200	1,200	778	820	798	746	737
189	CO School of Mines	765	762	700	668	668	749	729	735
190	Villanova U.	727	607	498	578	610	659	695	711
191	Howard U.	698	642	610	592	639	636	709	703
192	U. MO-Kansas City	467	465	422	482	561	643	738	699
193	Claremont Graduate U.	712	655	625	604	607	607	645	693
194	Towson U.	451	458	482	516	571	464	663	692
195	TX A&M U. Kingsville	484	381	419	398	417	487	597	683
196	U. ME	584	586	572	588	605	639	679	680
197	U. TX Health Science Ctr. Houston	584	566	558	553	595	623	643	662
198	Carlos Albizu U. (San Juan, PR)	319	502	566	594	616	659	644	656
199	MT State U. Bozeman	551	569	583	550	570	610	667	655
200	Lamar U.	294	280	335	342	408	562	584	654
201	Roosevelt U.	628	600	555	536	649	696	613	644
202	Worcester Polytechnic Institute	596	816	811	603	651	696	678	638
203	LA Tech U.	327	280	249	315	324	522	501	629
204	U. AK Fairbanks all campuses	571	503	502	441	453	558	572	625
205	Yeshiva U.	594	634	665	624	612	620	623	622
206	U. Southern MS	582	573	437	500	532	496	504	619
207	U. VT	538	541	535	539	520	532	603	611
208	Northern AZ U.	517	538	527	519	533	546	600	604
209	Miami U. all campuses	434	483	521	502	545	545	552	594
210	NY Institute of Technology all campuses	872	819	744	624	633	660	591	589
211	U. TX San Antonio	483	444	395	366	425	512	604	588
212	Marshall U.	544	723	621	551	553	687	605	584
213	Bowling Green State U. all campuses	573	492	489	503	490	533	560	571
214	Dartmouth C.	357	308	420	444	447	521	544	566
215	Loyola C.	699	684	654	342	307	624	579	561

TABLE 45. Graduate students in science and engineering fields in doctorate-granting institutions, institutions ranked by 2004 total: 1997–2004

Rank	Institution	1997	1998	1999	2000	2001	2002	2003	2004
216	Golden Gate U.	488	389	318	373	235	186	433	560
217	IN State U. all campuses	369	312	320	252	542	432	307	548
218	U. IL Springfield	841	780	919	756	850	852	797	548
219	CA Institute of Integral Studies	381	360	343	354	243	468	458	542
220	St. John's U. (Jamaica, NY)	455	466	528	518	547	515	511	539
221	U. Dayton	551	482	541	508	493	521	554	534
222	Seton Hall U.	546	543	531	498	459	505	517	532
223	East Carolina U.	331	405	362	343	383	419	422	529
224	U. MO-St. Louis	392	382	420	479	479	506	537	529
225	U. CA, San Francisco	330	362	315	390	387	412	512	524
226	Loma Linda U.	533	470	458	404	420	469	503	519
227	U. Bridgeport	298	327	430	620	764	691	588	517
228	U. TX Southwestern Medical Ctr. Dallas	352	355	364	349	389	424	459	517
229	IL State U.	547	547	500	510	514	523	521	515
230	U. LA Lafayette	438	402	454	530	531	572	522	515
231	CUNY Hunter C.	186	206	262	239	266	355	564	512
232	U. NC Greensboro	295	339	365	380	396	431	425	510
233	U. MS all campuses	631	599	586	615	609	569	581	507
234	Marywood U.	178	187	202	168	166	147	186	506
235	SD State U.	459	421	383	395	461	484	510	498
236	U. South AL	338	336	352	397	427	409	476	493
237	Indiana U. PA all campuses	317	321	374	352	369	393	472	472
238	Loyola U. Chicago	810	768	799	878	658	699	623	472
239	U. ND all campuses	324	451	463	499	464	481	479	469
240	U. Detroit Mercy	454	441	408	407	402	415	533	467
241	Boston C.	464	454	416	405	407	430	433	466
242	Pontifical Catholic U. PR, The	11	10	17	311	397	438	452	466
243	C. of William and Mary all campuses	394	401	423	408	385	454	440	454
244	TN State U.	382	401	373	332	373	411	457	452
245	TX Southern U.	358	276	533	544	351	374	416	445
246	U. of Medicine and Dentistry NJ	198	214	241	312	299	333	334	441
247	Sam Houston State U.	315	387	367	284	386	475	386	440
248	Hofstra U.	371	360	357	369	371	370	327	436
249	St. Louis U. all campuses	430	430	426	407	424	405	411	434
250	Stephen F. Austin State U.	271	254	271	239	241	266	351	418
251	Fordham U.	471	458	424	417	453	439	419	411
252	U. Baltimore	439	314	380	358	334	345	354	405
253	Adelphi U.	318	228	296	229	265	321	365	404
254	Central MI U.	425	462	391	466	477	460	399	403
255	TX Woman's U.	526	521	467	370	414	437	386	403
256	Baylor C. of Medicine	302	317	333	335	352	392	398	401
257	SUNY C. of Environmental Science and Forestry	400	426	434	435	462	462	402	398
258	Ball State U.	482	453	517	500	521	495	525	395
259	Catholic U. America, The	518	480	439	403	395	396	368	393
260	Clark U.	269	277	281	283	326	341	380	379
261	U. Tulsa	300	312	307	306	356	395	410	375
262	NC Agricultural and Technical State U.	386	412	406	415	455	448	442	374
263	Philadelphia C. of Osteopathic Medicine	157	188	196	349	321	343	360	363
264	ID State U.	277	266	258	267	265	298	360	360
265	Brandeis U.	549	550	455	494	519	543	364	354
266	Baylor U.	298	282	268	281	298	307	338	351
267	Fuller Theological Seminary CA	396	369	334	304	327	340	346	348
268	FL A&M U.	243	218	231	281	249	286	289	345
269	U. La Verne	204	188	320	225	217	242	293	343

TABLE 45. Graduate students in science and engineering fields in doctorate-granting institutions, institutions ranked by 2004 total: 1997–2004

Rank	Institution	1997	1998	1999	2000	2001	2002	2003	2004
270	Boise State U.	NA	NA	NA	NA	198	198	311	333
271	Southwest MO State U.	257	255	257	282	277	249	270	332
272	Chapman U.	387	368	366	346	310	296	308	331
273	Jackson State U.	324	313	287	283	258	331	322	324
274	U. MD Baltimore	295	312	256	253	254	254	278	324
275	U. Hartford	249	295	225	346	352	350	349	320
276	Union Institute & U.	274	410	419	374	374	374	319	319
277	NM Institute of Mining and Technology	224	232	251	270	269	301	311	316
278	U. MA Dartmouth	245	264	258	261	297	331	323	315
279	Wake Forest U.	275	245	267	270	280	291	315	315
280	Lawrence Technological U.	NA	NA	NA	NA	NA	NA	233	306
281	TX A&M U. Commerce	278	310	339	375	427	381	344	306
282	U. NC Wilmington	148	165	161	187	186	195	212	304
283	TN Technological U.	308	315	342	270	257	247	272	293
284	U. AR Little Rock	230	192	197	240	235	242	273	284
285	Maharishi U. of Management	48	78	81	167	215	219	223	277
286	Morgan State U.	89	80	103	111	200	226	218	272
287	SD School of Mines and Technology	183	205	205	276	321	343	289	272
288	Medical U. SC	235	225	238	216	203	199	227	268
289	Middle TN State U.	323	287	271	276	271	268	251	268
290	Pacific Graduate School of Psychology	299	285	296	288	288	295	276	267
291	Azusa Pacific U.	387	392	334	326	289	258	250	266
292	Duquesne U.	337	341	327	324	294	274	262	254
293	Prairie View A&M U.	114	139	165	139	159	209	324	252
294	Clarkson U.	216	180	197	204	191	200	226	245
295	U. TN Chattanooga	286	284	239	219	251	242	240	245
296	East TN State U.	392	268	287	214	222	269	317	243
297	AR State U. main campus	262	314	158	165	148	176	200	234
298	Barry U.	NA	NA	NA	NA	185	199	214	231
299	Thomas Jefferson U.	281	260	289	236	197	289	278	228
300	U. Northern CO	181	192	208	220	207	223	254	227
301	U. TX Health Science Ctr. San Antonio	189	190	186	179	184	217	201	226
302	U. SD	209	203	203	195	200	201	201	223
303	Forest Institute of Professional Psychology	181	224	246	251	251	235	209	214
304	Mayo Graduate School	141	142	139	153	148	185	181	205
305	Mt. Sinai School of Medicine	183	192	190	197	210	209	213	204
306	NY Medical C.	188	174	167	163	183	176	165	204
307	Rosalind Franklin U. of Medicine and Science	na	na	na	na	na	na	na	200
308	AL A&M U.	250	134	69	147	131	164	229	198
309	OGI School of Science and Engineering at OR Health & Science U.	301	279	235	369	443	473	341	197
310	U. TN Health Science Ctr.	158	181	180	180	170	200	212	197
311	U. TX Medical Branch	160	148	150	149	152	176	224	191
312	James Madison U.	166	212	254	234	230	233	220	180
313	U. Central AR	168	192	183	154	138	147	138	176
314	Clark Atlanta U.	347	299	256	200	184	199	155	173
315	Alfred U. all campuses	129	130	134	147	148	144	162	161
316	Xavier U.	85	117	116	135	142	172	159	161
317	Creighton U.	93	98	108	112	108	133	164	153
318	Rockefeller U.	105	110	109	119	134	137	136	151
319	Spalding U.	137	137	143	149	131	141	139	149
320	U. MD Eastern Shore	113	123	97	128	127	171	166	142
321	Eastern VA Medical School	139	130	127	124	126	133	141	139
322	U. PR Medical Sciences Campus	96	110	133	135	107	142	154	139

TABLE 45. Graduate students in science and engineering fields in doctorate-granting institutions, institutions ranked by 2004 total: 1997–2004

Rank	Institution	1997	1998	1999	2000	2001	2002	2003	2004
323	Woods Hole Oceanographic Institution	137	134	125	114	114	123	128	139
324	Medical C. WI	144	199	166	151	197	235	135	137
325	Wesleyan U.	119	117	112	114	119	117	135	134
326	OR Health & Science U.	123	136	137	149	154	150	137	131
327	U. AR for Medical Sciences	131	145	136	117	105	131	148	129
328	U. of the Sciences Philadelphia	21	29	34	45	56	147	110	124
329	Ferris State U.	NA	NA	NA	NA	154	132	86	115
330	SUNY Upstate Medical U.	68	72	77	81	84	90	99	115
331	Tuskegee U.	112	119	118	102	110	117	113	114
332	TX A&M U. System Health Science Ctr.	NA	NA	56	72	87	99	97	108
333	U. NE Medical Ctr.	86	78	78	88	72	79	95	107
334	Andrews U.	111	98	101	103	115	112	114	105
335	TX Christian U.	136	122	113	101	92	98	94	102
336	Meharry Medical C.	131	125	125	145	137	109	132	101
337	Hampton U.	76	118	129	115	106	91	97	98
338	Medical C. GA	73	68	88	51	52	47	88	93
339	Medical C. OH	112	94	94	89	87	74	84	93
340	Rand Graduate School of Policy Studies	49	54	57	64	69	74	83	91
341	Uniformed Services U. of the Health Sciences	63	62	61	68	74	80	84	90
342	Russell Sage C. all campuses	172	83	76	66	63	124	165	86
343	Slippery Rock U. PA	158	189	179	107	10	75	74	85
344	Bryn Mawr C.	108	97	95	96	91	88	99	84
345	Mercer U. all campuses	167	161	171	170	118	110	103	81
346	Albany Medical C.	96	80	76	83	79	87	79	80
347	Rush U.	75	85	94	88	85	75	65	79
348	U. LA Monroe	181	157	138	136	130	84	78	77
349	CUNY Herbert H. Lehman C.	52	57	56	67	91	113	115	69
350	Marymount U.	NA	NA	NA	NA	181	72	62	61
351	U. San Diego	51	73	133	61	65	58	68	56
352	SUNY Health Science Ctr. Brooklyn	78	66	63	55	53	46	47	42
353	Biola U.	167	48	46	40	39	38	40	36
354	U. of the Pacific	50	49	50	50	46	32	35	33
355	Morehouse School of Medicine	16	16	15	15	18	19	21	32
356	Gallaudet U.	NA	NA	NA	NA	NA	NA	NA	29
357	MA C. of Pharmacy and Health Sciences	23	23	25	20	20	17	21	28
358	Wright Institute all campuses	245	293	292	282	318	29	25	26
359	Ponce School of Medicine	17	17	17	21	23	26	24	25
360	Baylor C. of Dentistry	7	10	16	12	16	15	17	16
361	Kirkville C. of Osteopathic Medicine	NA	NA	NA	NA	NA	NA	12	14
362	Bloomsburg U. PA	21	7	13	15	13	14	9	9
-	CA School of Professional Psychology Alameda	286	262	246	223	197	na	na	na
-	CA School of Professional Psychology Fresno	339	308	374	357	312	na	na	na
-	CA School of Professional Psychology Los Angeles	725	686	665	370	583	na	na	na
-	CA School of Professional Psychology San Diego	642	620	573	681	849	na	na	na
-	Chicago School of Professional Psychology	183	199	205	na	na	na	na	na
-	Finch U. of Health Sciences/Chicago Medical School	277	253	237	215	196	194	191	na
-	Institute of Paper Science and Technology	68	74	75	69	68	68	NA	NA
-	U.S. International U.	409	300	304	235	na	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.

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: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	38,422	40,019	40,745	43,080	43,277	44,965	46,489	45,434
Science and engineering	27,209	27,809	28,925	30,189	30,156	31,867	33,426	32,847
Science	24,239	24,956	25,729	26,876	26,990	28,299	29,612	28,980
Agricultural sciences	724	695	749	822	835	945	1,052	940
Biological sciences	15,078	15,755	16,091	16,729	17,022	17,636	18,555	17,873
Anatomy	464	454	497	428	413	423	464	470
Biochemistry	2,539	2,532	2,485	2,469	2,558	2,752	2,620	2,426
Biology	1,595	1,807	1,887	1,933	1,956	2,039	2,070	1,937
Biometry/epidemiology	180	175	181	125	152	231	244	238
Biophysics	240	239	266	164	187	233	195	218
Botany	574	555	559	518	553	561	547	532
Cell biology	1,897	2,204	2,237	2,241	2,139	2,292	2,340	2,298
Ecology	133	115	123	152	161	186	189	170
Entomology/parasitology	216	181	178	197	223	234	258	290
Genetics	737	732	796	795	883	926	1,037	941
Microbiology/immunology/virology	1,990	2,089	2,158	2,253	2,187	2,434	2,319	2,065
Nutrition	209	234	238	224	245	225	243	274
Pathology	1,377	1,332	1,321	1,757	1,803	1,837	1,943	1,774
Pharmacology	1,369	1,470	1,511	1,460	1,391	1,386	1,517	1,528
Physiology	1,118	1,138	1,132	1,140	1,193	1,165	1,232	1,194
Zoology	103	135	138	104	88	92	82	111
Biosciences, nec	337	363	384	769	890	620	1,255	1,407
Computer sciences	320	371	332	341	335	359	358	384
Earth, atmospheric, and ocean sciences	938	898	923	1,155	1,036	1,113	1,166	1,252
Atmospheric sciences	98	85	107	94	87	79	94	119
Geosciences	490	464	477	514	471	443	463	506
Oceanography	258	249	235	246	218	270	249	299
Earth/atmospheric/ocean sciences, nec	92	100	104	301	260	321	360	328
Mathematical sciences	307	279	351	385	353	391	447	466
Mathematics/applied mathematics	284	255	321	357	329	363	407	420
Statistics	23	24	30	28	24	28	40	46
Physical sciences	5,932	5,956	6,118	6,244	6,192	6,587	6,677	6,799
Astronomy	319	360	375	315	311	330	319	367
Chemistry	3,733	3,719	3,812	3,862	3,846	3,965	4,020	4,100
Physics	1,781	1,837	1,847	1,937	1,899	2,148	2,177	2,116
Physical sciences, nec	99	40	84	130	136	144	161	216
Psychology	579	611	711	729	808	814	955	909
Clinical psychology	45	51	70	73	81	68	72	86
Psychology, general	354	387	407	410	498	531	629	595
Psychology, nec	180	173	234	246	229	215	254	228
Social sciences	361	391	454	471	409	454	402	357
Agricultural economics	50	38	43	41	35	21	25	34
Anthropology (cultural/social)	59	62	87	73	56	66	57	56
Economics (except agricultural)	19	29	31	32	23	29	36	20
Geography	12	18	30	34	36	30	29	29
History and philosophy of science	28	23	10	14	9	13	14	6
Linguistics	19	18	15	19	17	22	29	29
Political science	31	64	70	50	52	61	51	43
Sociology	102	79	104	102	88	80	74	57
Sociology/anthropology	0	0	0	0	4	29	2	13
Social sciences, nec	41	60	64	106	89	103	85	70
Engineering	2,970	2,853	3,196	3,313	3,166	3,568	3,814	3,867
Aerospace engineering	125	133	128	111	128	140	141	141

TABLE 46. Science, engineering, and health postdoctoral appointees in doctorate-granting institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Agricultural engineering	58	56	62	56	58	64	80	71
Biomedical engineering	158	180	242	220	264	286	390	424
Chemical engineering	636	613	671	703	575	743	672	688
Civil engineering	248	225	299	295	280	358	319	330
Electrical engineering	507	488	548	525	435	612	646	641
Engineering science	115	110	122	163	162	169	180	180
Industrial engineering	28	30	27	48	20	42	45	50
Mechanical engineering	440	434	476	480	501	441	543	514
Metallurgical/materials engineering	465	404	421	507	479	507	539	545
Mining engineering	11	10	6	8	14	10	12	9
Nuclear engineering	33	19	30	40	78	28	52	67
Petroleum engineering	21	14	19	20	17	15	17	14
Engineering, nec	125	137	145	137	155	153	178	193
Health	11,213	12,210	11,820	12,891	13,121	13,098	13,063	12,587
Medical fields	9,990	10,957	10,623	11,555	11,663	11,581	11,445	10,997
Anesthesiology	240	253	230	255	254	270	268	274
Cardiology	656	603	607	566	471	446	421	363
Endocrinology	312	251	255	263	213	262	254	262
Gastroenterology	316	272	294	310	265	270	246	235
Hematology	354	316	372	302	367	314	262	278
Neurology	1,113	1,167	1,164	1,194	1,322	1,307	1,311	1,309
Obstetrics/gynecology	236	232	223	386	354	354	393	359
Oncology/cancer research	416	555	556	487	612	731	813	831
Ophthalmology	382	374	367	381	385	382	348	350
Otorhinolaryngology	94	101	112	112	120	119	124	128
Pediatrics	809	875	887	925	961	1,024	950	888
Preventive medicine/community health	344	316	347	425	303	328	296	288
Psychiatry	644	665	601	683	766	834	867	746
Pulmonary disease	262	209	240	266	247	215	209	203
Radiology	428	434	461	450	500	614	578	590
Surgery	974	1,002	1,097	1,089	1,156	1,129	1,166	1,082
Clinical medicine, nec	2,410	3,332	2,810	3,461	3,367	2,982	2,939	2,811
Other health	1,223	1,253	1,197	1,336	1,458	1,517	1,618	1,590
Dental sciences	203	176	212	230	194	176	173	152
Nursing	38	43	49	64	54	50	68	69
Pharmaceutical sciences	504	511	435	434	542	586	638	624
Speech pathology/audiology	36	58	58	59	36	56	50	37
Veterinary sciences	220	223	250	284	334	342	384	375
Health related, nec	222	242	193	265	298	307	305	333

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: 2004

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	45,434	32,543	3,452	26,556	2,535	12,891	19,480	25,954
Science and engineering	32,847	24,451	2,090	20,996	1,365	8,396	13,518	19,329
Science	28,980	21,620	1,950	18,342	1,328	7,360	12,284	16,696
Agricultural sciences	940	622	25	594	3	318	417	523
Biological sciences	17,873	13,353	1,318	10,947	1,088	4,520	7,529	10,344
Anatomy	470	396	23	324	49	74	223	247
Biochemistry	2,426	1,908	185	1,625	98	518	938	1,488
Biology	1,937	1,489	205	1,261	23	448	912	1,025
Biometry/epidemiology	238	182	27	102	53	56	165	73
Biophysics	218	127	11	104	12	91	146	72
Botany	532	369	13	352	4	163	168	364
Cell biology	2,298	1,636	233	1,304	99	662	1,006	1,292
Ecology	170	109	6	100	3	61	120	50
Entomology/parasitology	290	204	10	179	15	86	133	157
Genetics	941	614	51	518	45	327	389	552
Microbiology/immunology/virology	2,065	1,649	179	1,288	182	416	917	1,148
Nutrition	274	206	15	179	12	68	121	153
Pathology	1,774	1,194	136	894	164	580	744	1,030
Pharmacology	1,528	1,170	93	947	130	358	582	946
Physiology	1,194	948	64	786	98	246	390	804
Zoology	111	60	8	51	1	51	76	35
Biosciences, nec	1,407	1,092	59	933	100	315	499	908
Computer sciences	384	273	27	245	1	111	162	222
Earth, atmospheric, and ocean sciences	1,252	1,019	45	965	9	233	688	564
Atmospheric sciences	119	102	0	102	0	17	46	73
Geosciences	506	372	25	345	2	134	244	262
Oceanography	299	266	17	246	3	33	158	141
Earth/atmospheric/ocean sciences, nec	328	279	3	272	4	49	240	88
Mathematical sciences	466	284	54	200	30	182	211	255
Mathematics/applied mathematics	420	245	48	174	23	175	190	230
Statistics	46	39	6	26	7	7	21	25
Physical sciences	6,799	5,189	324	4,773	92	1,610	2,402	4,397
Astronomy	367	314	27	287	0	53	202	165
Chemistry	4,100	2,961	233	2,652	76	1,139	1,329	2,771
Physics	2,116	1,721	64	1,641	16	395	758	1,358
Physical sciences, nec	216	193	0	193	0	23	113	103
Psychology	909	719	135	496	88	190	636	273
Clinical psychology	86	72	11	41	20	14	75	11
Psychology, general	595	478	76	345	57	117	409	186
Psychology, nec	228	169	48	110	11	59	152	76
Social sciences	357	161	22	122	17	196	239	118
Agricultural economics	34	22	1	21	0	12	10	24
Anthropology (cultural/social)	56	17	8	9	0	39	48	8
Economics (except agricultural)	20	4	0	4	0	16	9	11
Geography	29	21	2	19	0	8	20	9
History and philosophy of science	6	0	0	0	0	6	1	5
Linguistics	29	18	1	15	2	11	19	10
Political science	43	12	1	8	3	31	32	11
Sociology	57	31	7	16	8	26	40	17
Sociology/anthropology	13	0	0	0	0	13	10	3
Social sciences, nec	70	36	2	30	4	34	50	20

TABLE 47. Science, engineering, and health postdoctoral appointees in doctorate-granting institutions, by detailed field, primary source of support, and citizenship: 2004

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	3,867	2,831	140	2,654	37	1,036	1,234	2,633
Aerospace engineering	141	114	3	111	0	27	46	95
Agricultural engineering	71	49	3	46	0	22	21	50
Biomedical engineering	424	353	33	300	20	71	204	220
Chemical engineering	688	494	29	458	7	194	222	466
Civil engineering	330	216	11	204	1	114	117	213
Electrical engineering	641	473	14	454	5	168	185	456
Engineering science	180	162	3	159	0	18	56	124
Industrial engineering	50	27	0	27	0	23	16	34
Mechanical engineering	514	380	27	352	1	134	157	357
Metallurgical/materials engineering	545	361	11	347	3	184	145	400
Mining engineering	9	6	1	5	0	3	3	6
Nuclear engineering	67	52	1	51	0	15	25	42
Petroleum engineering	14	8	0	8	0	6	3	11
Engineering, nec	193	136	4	132	0	57	34	159
Health	12,587	8,092	1,362	5,560	1,170	4,495	5,962	6,625
Medical fields	10,997	7,067	1,242	4,751	1,074	3,930	5,181	5,816
Anesthesiology	274	162	16	124	22	112	88	186
Cardiology	363	215	26	155	34	148	140	223
Endocrinology	262	205	23	129	53	57	117	145
Gastroenterology	235	144	13	107	24	91	78	157
Hematology	278	175	32	121	22	103	106	172
Neurology	1,309	866	83	710	73	443	559	750
Obstetrics/gynecology	359	141	19	107	15	218	239	120
Oncology/cancer research	831	574	38	432	104	257	390	441
Ophthalmology	350	181	12	148	21	169	81	269
Otorhinolaryngology	128	75	5	54	16	53	45	83
Pediatrics	888	588	123	382	83	300	465	423
Preventive medicine/community health	288	165	39	90	36	123	202	86
Psychiatry	746	509	59	260	190	237	566	180
Pulmonary disease	203	148	33	73	42	55	141	62
Radiology	590	372	17	335	20	218	237	353
Surgery	1,082	579	69	440	70	503	437	645
Clinical medicine, nec	2,811	1,968	635	1,084	249	843	1,290	1,521
Other health	1,590	1,025	120	809	96	565	781	809
Dental sciences	152	113	12	80	21	39	55	97
Nursing	69	61	29	14	18	8	62	7
Pharmaceutical sciences	624	413	6	398	9	211	228	396
Speech pathology/audiology	37	30	1	26	3	7	18	19
Veterinary sciences	375	185	13	158	14	190	212	163
Health related, nec	333	223	59	133	31	110	206	127

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2004.

TABLE 48. Postdoctoral appointees in doctorate-granting institutions, by area of study, institutions ranked by number of appointees: 2004

Rank	Institution	All appointees in surveyed fields	Science and engineering			Health fields
			Total	Science	Engineering	
	All institutions	45,434	32,847	28,980	3,867	12,587
1	Harvard U.	3,862	1,728	1,663	65	2,134
2	Johns Hopkins U., The	1,424	562	486	76	862
3	Stanford U.	1,283	795	670	125	488
4	U. WA	1,043	679	582	97	364
5	U. CA, Los Angeles	1,019	669	583	86	350
6	Yale U.	998	638	624	14	360
7	U. CO all campuses	948	830	775	55	118
8	MA Institute of Technology	879	852	544	308	27
9	U. CA, San Diego	877	624	547	77	253
10	U. PA	802	434	378	56	368
11	U. Pittsburgh all campuses	723	445	361	84	278
12	U. CA, Berkeley	720	664	617	47	56
13	Duke U.	696	442	380	62	254
14	U. MI all campuses	639	427	326	101	212
15	Cornell U. all campuses	630	457	375	82	173
16	U. NC Chapel Hill	628	376	376	0	252
17	U. MN all campuses	613	433	372	61	180
18	Emory U.	590	325	322	3	265
19	Vanderbilt U.	589	369	342	27	220
20	U. FL	587	385	328	57	202
21	U. TX M. D. Anderson Cancer Ctr.	536	231	231	0	305
22	U. TX Southwestern Medical Ctr. Dallas	521	319	319	0	202
23	Columbia U. in the City of NY	506	424	403	21	82
24	U. CA, Davis	506	395	355	40	111
25	CA Institute of Technology	496	496	390	106	0
26	U. WI Madison	485	358	291	67	127
27	Washington U. St. Louis	464	256	244	12	208
28	U. MA	460	311	292	19	149
29	OH State U. all campuses	424	331	286	45	93
30	PA State U. all campuses	412	401	324	77	11
31	Rockefeller U.	412	330	330	0	82
32	Yeshiva U.	412	285	285	0	127
33	U. Southern CA	404	238	200	38	166
34	U. IL Urbana-Champaign	396	390	284	106	6
35	MI State U.	395	361	334	27	34
36	Tufts U.	371	133	115	18	238
37	Princeton U.	368	368	282	86	0
38	NC State U.	365	292	211	81	73
39	Mayo Graduate School	361	111	111	0	250
40	Mt. Sinai School of Medicine	353	353	353	0	0
41	Northwestern U.	351	343	257	86	8
42	Baylor C. of Medicine	348	262	262	0	86
43	U. CA, Irvine	336	289	258	31	47
44	IN U. all campuses	335	267	267	0	68
45	U. AZ	334	304	289	15	30
46	SUNY Buffalo all campuses	328	302	276	26	26
47	TX A&M U. all campuses	322	303	243	60	19
48	U. IA	314	168	166	2	146
49	U. Rochester	313	178	169	9	135
50	U. VA all campuses	310	270	230	40	40
51	U. UT	303	278	255	23	25

TABLE 48. Postdoctoral appointees in doctorate-granting institutions, by area of study, institutions ranked by number of appointees: 2004

Rank	Institution	All appointees in surveyed fields	Science and engineering			Health fields
			Total	Science	Engineering	
52	LA State U. all campuses	298	280	267	13	18
53	Case Western Reserve U.	295	242	212	30	53
54	NY U.	290	241	241	0	49
55	U. Chicago	288	232	232	0	56
56	FL State U.	275	270	250	20	5
57	Purdue U. all campuses	265	214	164	50	51
58	U. TX Medical Branch	263	161	159	2	102
59	U. Cincinnati all campuses	262	97	82	15	165
60	U. MD College Park	262	258	171	87	4
61	U. CT all campuses	257	181	155	26	76
62	U. GA	257	224	224	0	33
63	U. CA, Riverside	251	243	220	23	8
64	IA State U.	228	218	148	70	10
65	U. IL Chicago	212	118	111	7	94
66	VA Commonwealth U.	209	132	111	21	77
67	Wayne State U.	204	139	121	18	65
68	U. KS all campuses	196	160	151	9	36
69	Medical U. SC	195	100	100	0	95
70	U. MD Baltimore	189	134	134	0	55
71	Dartmouth C.	184	148	148	0	36
72	U. HI Manoa	184	163	159	4	21
73	CO State U.	173	160	152	8	13
74	U. AL Birmingham, The	171	117	112	5	54
75	Rutgers, The State U. NJ all campuses	164	136	112	24	28
76	WA State U.	164	154	129	25	10
77	Thomas Jefferson U.	162	86	86	0	76
78	U. CA, Santa Cruz	158	158	151	7	0
79	SUNY Stony Brook all campuses	156	137	128	9	19
80	U. TN	155	129	102	27	26
81	U. MO-Columbia	154	154	139	15	0
82	Carnegie Mellon U.	149	149	106	43	0
83	U. KY all campuses	148	123	101	22	25
84	U. Miami	146	135	128	7	11
85	U. DE	141	139	96	43	2
86	U. of Medicine and Dentistry NJ	140	121	121	0	19
87	U. CA, Santa Barbara	139	139	102	37	0
88	U. NE Lincoln	138	130	105	25	8
89	U. TX Health Science Ctr. San Antonio	138	88	88	0	50
90	Rice U.	137	137	96	41	0
91	U. of Notre Dame	133	133	100	33	0
92	U. TX Austin	125	99	77	22	26
93	U. TX Health Science Ctr. Houston	124	0	0	0	124
94	Boston U.	123	121	121	0	2
95	U. Louisville	122	46	44	2	76
96	KS State U.	119	118	114	4	1
97	AZ State U. main campus	116	110	71	39	6
98	U. NM all campuses	114	104	86	18	10
99	Brandeis U.	110	87	87	0	23
100	Medical C. GA	110	92	92	0	18
101	U. South FL	105	77	59	18	28
102	U. VT	105	80	73	7	25
103	VA Polytechnic Institute and State U.	104	101	79	22	3

TABLE 48. Postdoctoral appointees in doctorate-granting institutions, by area of study, institutions ranked by number of appointees: 2004

Rank	Institution	All appointees in surveyed fields	Science and engineering			Health fields
			Total	Science	Engineering	
104	Tulane U.	99	99	89	10	0
105	OR Health & Science U.	96	75	75	0	21
106	Brown U.	89	65	38	27	24
107	TX Tech U.	88	74	67	7	14
108	U. TN Health Science Ctr.	88	78	78	0	10
109	U. OK all campuses	84	58	52	6	26
110	U. NV, Reno	81	81	75	6	0
111	U. OR	81	81	81	0	0
112	U. AR main campus	80	80	68	12	0
113	Medical C. WI	77	53	53	0	24
114	Wake Forest U.	77	47	47	0	30
115	Loyola U. Chicago	76	58	58	0	18
116	MT State U. Bozeman	75	60	59	1	15
117	SUNY Albany	75	68	67	1	7
118	Temple U.	75	48	43	5	27
119	TX A&M U. System Health Science Ctr.	75	75	75	0	0
120	U. Houston	75	72	64	8	3
121	Woods Hole Oceanographic Institution	73	73	56	17	0
122	U. MS all campuses	70	42	42	0	28
123	U. NE Medical Ctr.	65	38	38	0	27
124	U. WY	64	64	54	10	0
125	ND State U. all campuses	61	57	55	2	4
126	OR State U.	61	61	42	19	0
127	GA State U.	59	59	59	0	0
128	Rensselaer Polytechnic Institute	59	59	35	24	0
129	U. SC all campuses	56	54	40	14	2
130	U. AR for Medical Sciences	53	53	53	0	0
131	Syracuse U. all campuses	51	51	44	7	0
132	OK State U. all campuses	50	42	35	7	8
133	U. ID	50	50	46	4	0
134	Auburn U. all campuses	47	43	36	7	4
135	U. CA, San Francisco	47	2	2	0	45
136	Georgetown U.	46	46	46	0	0
137	CUNY Graduate Ctr.	45	44	44	0	1
138	Lehigh U.	44	44	35	9	0
139	U. Akron all campuses	43	43	30	13	0
140	Howard U.	41	19	14	5	22
141	MS State U.	41	33	26	7	8
142	St. Louis U. all campuses	41	32	32	0	9
143	U. MO-Kansas City	41	41	41	0	0
144	U. RI	41	37	33	4	4
145	Northeastern U.	40	40	32	8	0
146	Clemson U.	39	39	29	10	0
147	Clarkson U.	38	38	24	14	0
148	CUNY City C.	37	37	25	12	0
149	U. AL, The	37	37	32	5	0
150	Rush U.	36	26	26	0	10
151	U. TX Arlington	36	36	29	7	0
152	NY Medical C.	34	34	34	0	0
153	OGI School of Science & Engineering at OR Health & Science U.	34	34	24	10	0
154	Loma Linda U.	33	14	14	0	19

TABLE 48. Postdoctoral appointees in doctorate-granting institutions, by area of study, institutions ranked by number of appointees: 2004

Rank	Institution	All appointees in surveyed fields	Science and engineering			Health fields
			Total	Science	Engineering	
155	Stevens Institute of Technology	33	33	17	16	0
156	Albany Medical C.	32	32	32	0	0
157	GA Institute of Technology all campuses	31	31	31	0	0
158	U. TX Dallas	31	27	22	5	4
159	Wright State U. all campuses	31	31	22	9	0
160	C. of William and Mary all campuses	30	30	21	9	0
161	Old Dominion U.	30	30	19	11	0
162	Miami U. all campuses	29	29	29	0	0
163	Polytechnic U.	28	28	26	2	0
164	WV U.	27	27	15	12	0
165	Creighton U.	26	15	15	0	11
166	OH U. all campuses	26	26	25	1	0
167	SUNY Upstate Medical U.	26	26	26	0	0
168	U. ME	26	26	24	2	0
169	FL International U.	25	25	25	0	0
170	George Washington U.	25	16	16	0	9
171	Southern Methodist U.	25	25	22	3	0
172	U. South AL	25	25	24	1	0
173	U. MT, The	24	24	24	0	0
174	U. NH	24	24	24	0	0
175	CO School of Mines	23	23	9	14	0
176	Rosalind Franklin U. of Medicine and Science	23	17	17	0	6
177	U. North TX	23	23	23	0	0
178	U. PR Rio Piedras Campus	23	23	23	0	0
179	U. Southern MS	23	23	23	0	0
180	U. Toledo	23	22	20	2	1
181	Jackson State U.	22	22	22	0	0
182	U. North TX Health Science Ctr. Ft. Worth	22	0	0	0	22
183	Uniformed Services U. of the Health Sciences	21	20	20	0	1
184	U. MD Baltimore County	20	20	17	3	0
185	U. ND all campuses	20	20	19	1	0
186	UT State U.	20	20	17	3	0
187	Boston C.	19	19	19	0	0
188	Clark Atlanta U.	19	19	19	0	0
189	Kent State U. all campuses	19	19	19	0	0
190	Northern AZ U.	19	19	19	0	0
191	U. TX San Antonio	19	19	18	1	0
192	San Diego State U.	18	18	18	0	0
193	East Carolina U.	17	17	17	0	0
194	Bowling Green State U. all campuses	15	14	14	0	1
195	U. MO-St. Louis	15	15	15	0	0
196	Wesleyan U.	15	15	15	0	0
197	Northern IL U.	14	14	14	0	0
198	U. TX El Paso	14	14	14	0	0
199	U. Tulsa	14	14	8	6	0
200	Central MI U.	13	13	13	0	0
201	Meharry Medical C.	13	13	13	0	0
202	Tuskegee U.	13	5	1	4	8
203	U. Denver	13	13	13	0	0
204	U. Memphis, The	12	12	9	3	0
205	Wichita State U.	12	12	8	4	0
206	U. SD	11	11	11	0	0

TABLE 48. Postdoctoral appointees in doctorate-granting institutions, by area of study, institutions ranked by number of appointees: 2004

Rank	Institution	All appointees in surveyed fields	Science and engineering			Health fields
			Total	Science	Engineering	
207	Worcester Polytechnic Institute	11	11	4	7	0
208	Clark U.	10	10	10	0	0
209	Eastern VA Medical School	10	6	6	0	4
210	SUNY C. of Environmental Science and Forestry	10	10	6	4	0
211	U. Dayton	10	10	0	10	0
212	Baylor U.	9	9	9	0	0
213	SD State U.	9	8	8	0	1
214	U. LA Lafayette	9	9	7	2	0
215	FL Institute of Technology	8	8	8	0	0
216	Cleveland State U.	7	7	6	1	0
217	FL Atlantic U.	7	7	7	0	0
218	Southern IL U. Carbondale	7	7	7	0	0
219	U. NV, Las Vegas	7	7	7	0	0
220	Duquesne U.	6	6	6	0	0
221	NC Agricultural and Technical State U.	6	6	2	4	0
222	Alfred U. all campuses	5	5	1	4	0
223	CUNY Hunter C.	5	5	5	0	0
224	East TN State U.	5	5	5	0	0
225	Marshall U.	5	5	5	0	0
226	Mercer U. all campuses	5	4	4	0	1
227	Rochester Institute of Technology	5	5	3	2	0
228	AL A&M U.	4	4	4	0	0
229	Baylor C. of Dentistry	4	2	2	0	2
230	IL State U.	4	4	4	0	0
231	Marquette U.	4	4	4	0	0
232	MI Technological U.	4	4	2	2	0
233	NM Institute of Mining and Technology	4	4	4	0	0
234	U. AL Huntsville, The	4	4	0	4	0
235	American U.	3	3	3	0	0
236	IN State U. all campuses	3	3	3	0	0
237	Nova Southeastern U.	3	3	3	0	0
238	Ponce School of Medicine	3	3	3	0	0
239	SUNY C. of Optometry	3	0	0	0	3
240	Southern U. and A&M C. all campuses	3	3	3	0	0
241	Azusa Pacific U.	2	2	2	0	0
242	Fordham U.	2	2	2	0	0
243	Hampton U.	2	2	2	0	0
244	NY Institute of Technology all campuses	1	0	0	0	1
245	Prairie View A&M U.	1	1	0	1	0
246	U. MD Eastern Shore	1	1	1	0	0

NOTES: Includes medical schools. Ties are alphabetically ranked.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2004.

TABLE 49. Nonfaculty research scientist, engineer, and health professional staff with doctorates in doctorate-granting institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	6,712	7,093	7,569	7,874	7,383	7,711	8,258	8,639
Science and engineering	5,246	5,300	5,697	5,822	5,367	5,736	6,237	6,647
Science	4,398	4,490	4,757	4,926	4,583	4,862	5,314	5,587
Agricultural sciences	203	159	167	219	201	245	218	267
Biological sciences	1,981	2,238	2,331	2,244	2,276	2,565	2,863	2,883
Anatomy	48	33	81	89	94	107	94	63
Biochemistry	331	330	364	351	383	410	459	443
Biology	291	390	237	248	246	310	358	340
Biometry/epidemiology	23	32	40	55	68	94	117	129
Biophysics	54	41	37	17	34	32	51	26
Botany	62	73	79	51	57	53	75	69
Cell biology	221	246	251	175	233	278	318	323
Ecology	20	13	19	11	13	19	24	22
Entomology/parasitology	55	53	60	45	29	56	62	65
Genetics	122	78	86	84	92	109	110	118
Microbiology/immunology/virology	229	214	265	255	239	291	343	325
Nutrition	54	43	59	45	52	37	24	71
Pathology	114	135	149	199	219	246	215	216
Pharmacology	151	288	329	307	238	218	255	263
Physiology	147	167	182	179	189	181	180	238
Zoology	14	18	25	21	14	23	20	14
Biosciences, nec	45	84	68	112	76	101	158	158
Computer sciences	87	124	133	153	148	122	127	170
Earth, atmospheric, and ocean sciences	427	411	436	486	453	501	491	478
Atmospheric sciences	76	48	41	36	29	53	64	74
Geosciences	147	154	175	217	186	210	213	203
Oceanography	163	172	169	204	207	199	159	143
Earth/atmospheric/ocean sciences, nec	41	37	51	29	31	39	55	58
Mathematical sciences	92	88	122	80	52	34	45	58
Mathematics/applied mathematics	89	83	112	70	46	23	35	55
Statistics	3	5	10	10	6	11	10	3
Physical sciences	1,205	1,081	1,155	1,269	1,058	1,060	1,216	1,372
Astronomy	144	122	142	167	163	126	144	213
Chemistry	504	482	495	555	458	496	552	615
Physics	555	473	499	519	407	414	479	519
Physical sciences, nec	2	4	19	28	30	24	41	25
Psychology	225	252	249	324	254	210	240	227
Clinical psychology	20	26	26	35	25	39	42	40
Psychology, general	124	133	130	171	129	76	88	75
Psychology, nec	81	93	93	118	100	95	110	112
Social sciences	178	137	164	151	141	125	114	132
Agricultural economics	27	31	34	23	17	13	12	9
Anthropology (cultural/social)	13	11	18	24	24	13	21	5
Economics (except agricultural)	6	3	7	3	5	2	4	4
Geography	17	14	16	13	14	9	7	13
History and philosophy of science	2	4	1	6	3	10	2	16
Linguistics	11	5	7	6	6	4	3	1
Political science	10	3	9	16	15	26	20	18
Sociology	34	27	29	25	15	12	15	17
Sociology/anthropology	5	4	4	3	1	1	0	0
Social sciences, nec	53	35	39	32	41	35	30	49
Engineering	848	810	940	896	784	874	923	1,060

TABLE 49. Nonfaculty research scientist, engineer, and health professional staff with doctorates in doctorate-granting institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Aerospace engineering	84	68	87	39	15	17	30	60
Agricultural engineering	19	28	28	24	26	29	24	26
Biomedical engineering	31	34	58	42	36	43	49	66
Chemical engineering	159	149	141	110	90	81	90	89
Civil engineering	66	61	81	131	95	110	91	102
Electrical engineering	168	152	169	145	116	127	169	167
Engineering science	50	49	60	60	62	74	74	66
Industrial engineering	8	5	5	7	12	21	9	23
Mechanical engineering	109	109	127	176	131	120	124	173
Metallurgical/materials engineering	83	120	115	109	103	107	146	174
Mining engineering	3	1	2	0	4	2	3	5
Nuclear engineering	28	4	11	13	3	46	15	11
Petroleum engineering	4	6	10	10	2	10	0	6
Engineering, nec	36	24	46	30	89	87	99	92
Health	1,466	1,793	1,872	2,052	2,016	1,975	2,021	1,992
Medical fields	1,179	1,504	1,604	1,756	1,700	1,664	1,677	1,698
Anesthesiology	20	28	38	47	44	37	23	45
Cardiology	45	26	33	40	37	29	43	57
Endocrinology	27	31	15	36	24	35	21	20
Gastroenterology	32	11	14	29	21	46	55	56
Hematology	15	30	26	18	33	45	44	44
Neurology	128	162	207	168	191	164	146	131
Obstetrics/gynecology	20	20	38	22	17	11	22	20
Oncology/cancer research	57	62	73	94	101	103	106	205
Ophthalmology	29	54	32	53	39	54	44	31
Otorhinolaryngology	1	2	3	4	6	11	8	16
Pediatrics	73	78	114	101	116	115	139	143
Preventive medicine/community health	79	102	115	149	112	120	148	126
Psychiatry	80	57	62	75	70	86	128	98
Pulmonary disease	19	29	33	39	34	31	19	27
Radiology	74	48	55	98	88	99	98	115
Surgery	152	219	185	183	233	203	210	195
Clinical medicine, nec	328	545	561	600	534	475	423	369
Other health	287	289	268	296	316	311	344	294
Dental sciences	54	45	37	28	10	11	10	9
Nursing	16	12	2	13	12	21	20	23
Pharmaceutical sciences	97	98	114	129	142	154	147	130
Speech pathology/audiology	13	26	13	4	12	9	14	15
Veterinary sciences	63	70	72	81	100	80	96	57
Health related, nec	44	38	30	41	40	36	57	60

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: 2004

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	6,940	13	271	5,101	89	706	120	640
Science and engineering	5,606	10	208	4,106	60	504	115	603
Science	4,821	10	147	3,707	48	416	102	391
Agricultural sciences	294	0	3	170	2	40	9	70
Biological sciences	693	0	19	568	4	27	17	58
Anatomy	14	0	1	8	1	0	0	4
Biochemistry	29	0	1	24	0	0	0	4
Biology	294	0	13	251	1	11	10	8
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	28	0	1	22	0	3	0	2
Microbiology/immunology/virology	40	0	0	35	0	0	0	5
Nutrition	113	0	0	84	0	8	1	20
Pathology	0	0	0	0	0	0	0	0
Pharmacology	63	0	2	54	1	3	1	2
Physiology	36	0	0	26	1	0	3	6
Zoology	0	0	0	0	0	0	0	0
Biosciences, nec	76	0	1	64	0	2	2	7
Computer sciences	446	0	61	208	4	34	39	100
Earth, atmospheric, and ocean sciences	80	0	7	57	2	10	4	0
Atmospheric sciences	15	0	0	15	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	65	0	7	42	2	10	4	0
Mathematical sciences	137	2	5	100	0	16	0	14
Mathematics/applied mathematics	137	2	5	100	0	16	0	14
Statistics	0	0	0	0	0	0	0	0
Physical sciences	319	2	20	205	4	23	13	52
Astronomy	0	0	0	0	0	0	0	0
Chemistry	181	1	12	126	0	9	12	21
Physics	138	1	8	79	4	14	1	31
Physical sciences, nec	0	0	0	0	0	0	0	0
Psychology	1,049	3	13	882	13	131	1	6
Clinical psychology	0	0	0	0	0	0	0	0
Psychology, general	463	3	8	359	7	82	1	3
Psychology, nec	586	0	5	523	6	49	0	3
Social sciences	1,803	3	19	1,517	19	135	19	91
Agricultural economics	23	0	0	13	0	0	0	10
Anthropology (cultural/social)	0	0	0	0	0	0	0	0
Economics (except agricultural)	60	0	0	17	0	0	0	43
Geography	0	0	0	0	0	0	0	0
History and philosophy of science	8	0	0	1	0	7	0	0
Linguistics	0	0	0	0	0	0	0	0
Political science	986	2	9	843	8	79	16	29
Sociology	196	0	0	185	3	6	1	1
Sociology/anthropology	67	0	0	65	1	1	0	0
Social sciences, nec	463	1	10	393	7	42	2	8

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: 2004

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	785	0	61	399	12	88	13	212
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	36	0	0	13	0	1	0	22
Civil engineering	162	0	9	60	3	51	3	36
Electrical engineering	122	0	3	72	1	11	2	33
Engineering science	0	0	0	0	0	0	0	0
Industrial engineering	61	0	3	44	2	3	1	8
Mechanical engineering	110	0	0	40	1	9	4	56
Metallurgical/materials engineering	11	0	2	8	0	0	0	1
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	283	0	44	162	5	13	3	56
Health	1,334	3	63	995	29	202	5	37
Medical fields	117	2	5	105	0	3	1	1
Anesthesiology	0	0	0	0	0	0	0	0
Cardiology	8	0	0	8	0	0	0	0
Endocrinology	0	0	0	0	0	0	0	0
Gastroenterology	0	0	0	0	0	0	0	0
Hematology	5	0	2	3	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	3	0	0	3	0	0	0	0
Ophthalmology	8	0	3	4	0	1	0	0
Otorhinolaryngology	0	0	0	0	0	0	0	0
Pediatrics	0	0	0	0	0	0	0	0
Preventive medicine/community health	58	2	0	52	0	2	1	1
Psychiatry	0	0	0	0	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	35	0	0	35	0	0	0	0
Other health	1,217	1	58	890	29	199	4	36
Dental sciences	0	0	0	0	0	0	0	0
Nursing	301	0	7	216	2	75	0	1
Pharmaceutical sciences	287	0	46	192	16	10	0	23
Speech pathology/audiology	225	1	1	154	6	57	2	4
Veterinary sciences	17	0	0	17	0	0	0	0
Health related, nec	387	0	4	311	5	57	2	8

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2004.

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: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Black students in all institutions	23,560	24,261	25,200	25,928	27,075	28,720	31,242	32,554
Science and engineering	19,341	19,651	20,273	20,834	21,459	22,673	24,174	24,695
Science	16,462	16,830	17,308	17,857	18,544	19,599	20,962	21,283
Agricultural sciences	288	344	310	292	327	375	460	394
Biological sciences	2,105	2,141	2,218	2,241	2,351	2,480	2,757	2,886
Computer sciences	1,300	1,355	1,485	1,512	1,709	1,898	1,951	1,818
Earth, atmospheric, and ocean sciences	203	202	213	220	227	266	270	260
Mathematical sciences	657	613	594	572	590	626	655	692
Physical sciences	952	913	903	918	875	893	939	995
Psychology	3,644	3,813	3,749	4,214	4,347	4,491	4,692	4,994
Social sciences	7,313	7,449	7,836	7,888	8,118	8,570	9,238	9,244
Engineering	2,879	2,821	2,965	2,977	2,915	3,074	3,212	3,412
Health fields	4,219	4,610	4,927	5,094	5,616	6,047	7,068	7,859
Black students in HBCU	3,632	3,528	3,746	4,134	4,303	4,429	5,129	5,101
Science and engineering	3,279	3,082	3,233	3,563	3,519	3,623	4,000	4,106
Science	2,995	2,799	2,939	3,219	3,217	3,285	3,672	3,707
Agricultural sciences	143	164	181	135	172	178	260	170
Biological sciences	538	536	546	518	540	525	573	568
Computer sciences	219	199	216	161	202	286	283	208
Earth, atmospheric, and ocean sciences	43	40	36	57	60	63	51	57
Mathematical sciences	128	107	129	120	121	120	105	100
Physical sciences	286	229	179	186	170	173	167	205
Psychology	490	399	451	705	747	761	891	882
Social sciences	1,148	1,125	1,201	1,337	1,205	1,179	1,342	1,517
Engineering	284	283	294	344	302	338	328	399
Health fields	353	446	513	571	784	806	1,129	995
Percentage of black students in HBCU	15.4	14.5	14.9	15.9	15.9	15.4	16.4	15.7
Science and engineering	17.0	15.7	15.9	17.1	16.4	16.0	16.5	16.6
Science	18.2	16.6	17.0	18.0	17.3	16.8	17.5	17.4
Agricultural sciences	49.7	47.7	58.4	46.2	52.6	47.5	56.5	43.1
Biological sciences	25.6	25.0	24.6	23.1	23.0	21.2	20.8	19.7
Computer sciences	16.8	14.7	14.5	10.6	11.8	15.1	14.5	11.4
Earth, atmospheric, and ocean sciences	21.2	19.8	16.9	25.9	26.4	23.7	18.9	21.9
Mathematical sciences	19.5	17.5	21.7	21.0	20.5	19.2	16.0	14.5
Physical sciences	30.0	25.1	19.8	20.3	19.4	19.4	17.8	20.6
Psychology	13.4	10.5	12.0	16.7	17.2	16.9	19.0	17.7
Social sciences	15.7	15.1	15.3	16.9	14.8	13.8	14.5	16.4
Engineering	9.9	10.0	9.9	11.6	10.4	11.0	10.2	11.7
Health fields	8.4	9.7	10.4	11.2	14.0	13.3	16.0	12.7

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 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: 1999–2004

Field	Male						Female					
	1999	2000	2001	2002	2003	2004	1999	2000	2001	2002	2003	2004
Black students in all institutions	9,528	9,289	9,436	10,023	10,758	11,199	15,672	16,639	17,639	18,697	20,484	21,355
Science and engineering	8,565	8,298	8,383	8,910	9,456	9,812	11,708	12,536	13,076	13,763	14,718	14,883
Science	6,576	6,348	6,449	6,898	7,285	7,531	10,732	11,509	12,095	12,701	13,677	13,752
Agricultural sciences	159	139	126	162	194	153	151	153	201	213	266	241
Biological sciences	761	760	792	813	858	861	1,457	1,481	1,559	1,667	1,899	2,025
Computer sciences	815	844	943	1,063	1,128	1,104	670	668	766	835	823	714
Earth, atmospheric, and ocean sciences	112	120	125	135	130	119	101	100	102	131	140	141
Mathematical sciences	324	299	320	340	373	364	270	273	270	286	282	328
Physical sciences	501	493	462	486	508	541	402	425	413	407	431	454
Psychology	905	871	868	946	934	1,243	2,844	3,343	3,479	3,545	3,758	3,751
Social sciences	2,999	2,822	2,813	2,953	3,160	3,146	4,837	5,066	5,305	5,617	6,078	6,098
Engineering	1,989	1,950	1,934	2,012	2,171	2,281	976	1,027	981	1,062	1,041	1,131
Health fields	963	991	1,053	1,113	1,302	1,387	3,964	4,103	4,563	4,934	5,766	6,472
Black students in HBCU	1,477	1,435	1,424	1,498	1,692	1,654	2,269	2,699	2,879	2,931	3,437	3,447
Science and engineering	1,368	1,323	1,234	1,309	1,412	1,447	1,865	2,240	2,285	2,314	2,588	2,659
Science	1,190	1,131	1,050	1,112	1,202	1,201	1,749	2,088	2,167	2,173	2,470	2,506
Agricultural sciences	95	68	58	71	115	68	86	67	114	107	145	102
Biological sciences	171	150	150	146	166	170	375	368	390	379	407	398
Computer sciences	107	89	99	152	144	126	109	72	103	134	139	82
Earth, atmospheric, and ocean sciences	21	31	35	32	27	30	15	26	25	31	24	27
Mathematical sciences	66	58	63	56	62	55	63	62	58	64	43	45
Physical sciences	94	104	91	89	92	107	85	82	79	84	75	98
Psychology	125	118	137	158	146	142	326	587	610	603	745	740
Social sciences	511	513	417	408	450	503	690	824	788	771	892	1,014
Engineering	178	192	184	197	210	246	116	152	118	141	118	153
Health fields	109	112	190	189	280	207	404	459	594	617	849	788
Percentage of black students in HBCU	15.5	15.4	15.1	14.9	15.7	14.8	14.5	16.2	16.3	15.7	16.8	16.1
Science and engineering	16.0	15.9	14.7	14.7	14.9	14.7	15.9	17.9	17.5	16.8	17.6	17.9
Science	18.1	17.8	16.3	16.1	16.5	15.9	16.3	18.1	17.9	17.1	18.1	18.2
Agricultural sciences	59.7	48.9	46.0	43.8	59.3	44.4	57.0	43.8	56.7	50.2	54.5	42.3
Biological sciences	22.5	19.7	18.9	18.0	19.3	19.7	25.7	24.8	25.0	22.7	21.4	19.7
Computer sciences	13.1	10.5	10.5	14.3	12.8	11.4	16.3	10.8	13.4	16.0	16.9	11.5
Earth, atmospheric, and ocean sciences	18.8	25.8	28.0	23.7	20.8	25.2	14.9	26.0	24.5	23.7	17.1	19.1
Mathematical sciences	20.4	19.4	19.7	16.5	16.6	15.1	23.3	22.7	21.5	22.4	15.2	13.7
Physical sciences	18.8	21.1	19.7	18.3	18.1	19.8	21.1	19.3	19.1	20.6	17.4	21.6
Psychology	13.8	13.5	15.8	16.7	15.6	11.4	11.5	17.6	17.5	17.0	19.8	19.7
Social sciences	17.0	18.2	14.8	13.8	14.2	16.0	14.3	16.3	14.9	13.7	14.7	16.6
Engineering	8.9	9.8	9.5	9.8	9.7	10.8	11.9	14.8	12.0	13.3	11.3	13.5
Health fields	11.3	11.3	18.0	17.0	21.5	14.9	10.2	11.2	13.0	12.5	14.7	12.2

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: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Black students in all institutions	13,567	13,782	13,963	15,014	15,307	16,347	17,678	18,543
Science and engineering	11,401	11,299	11,211	12,079	12,057	12,831	13,522	14,067
Science	9,727	9,721	9,605	10,365	10,401	11,026	11,687	12,097
Agricultural sciences	233	221	218	244	267	289	346	298
Biological sciences	1,669	1,638	1,687	1,718	1,817	1,942	2,097	2,238
Computer sciences	494	476	537	608	655	800	800	800
Earth, atmospheric, and ocean sciences	137	134	137	159	140	193	195	194
Mathematical sciences	386	355	342	349	359	369	382	391
Physical sciences	741	728	700	691	683	697	736	803
Psychology	2,221	2,417	2,200	2,574	2,515	2,484	2,571	2,758
Social sciences	3,846	3,752	3,784	4,022	3,965	4,252	4,560	4,615
Engineering	1,674	1,578	1,606	1,714	1,656	1,805	1,835	1,970
Health fields	2,166	2,483	2,752	2,935	3,250	3,516	4,156	4,476
Black students in HBCU	2,308	2,184	2,288	2,682	2,634	2,779	3,152	3,274
Science and engineering	2,070	1,871	1,917	2,270	2,067	2,167	2,268	2,504
Science	1,849	1,665	1,697	1,990	1,854	1,888	2,015	2,215
Agricultural sciences	124	107	120	114	133	141	194	139
Biological sciences	415	400	420	416	414	387	427	431
Computer sciences	114	80	109	110	125	165	152	114
Earth, atmospheric, and ocean sciences	22	17	13	36	25	36	34	38
Mathematical sciences	79	67	80	75	78	70	63	61
Physical sciences	215	185	145	139	129	130	116	174
Psychology	287	254	194	282	300	293	308	376
Social sciences	593	555	616	818	650	666	721	882
Engineering	221	206	220	280	213	279	253	289
Health fields	238	313	371	412	567	612	884	770
Percentage of black students in HBCU	17.0	15.8	16.4	17.9	17.2	17.0	17.8	17.7
Science and engineering	18.2	16.6	17.1	18.8	17.1	16.9	16.8	17.8
Science	19.0	17.1	17.7	19.2	17.8	17.1	17.2	18.3
Agricultural sciences	53.2	48.4	55.0	46.7	49.8	48.8	56.1	46.6
Biological sciences	24.9	24.4	24.9	24.2	22.8	19.9	20.4	19.3
Computer sciences	23.1	16.8	20.3	18.1	19.1	20.6	19.0	14.3
Earth, atmospheric, and ocean sciences	16.1	12.7	9.5	22.6	17.9	18.7	17.4	19.6
Mathematical sciences	20.5	18.9	23.4	21.5	21.7	19.0	16.5	15.6
Physical sciences	29.0	25.4	20.7	20.1	18.9	18.7	15.8	21.7
Psychology	12.9	10.5	8.8	11.0	11.9	11.8	12.0	13.6
Social sciences	15.4	14.8	16.3	20.3	16.4	15.7	15.8	19.1
Engineering	13.2	13.1	13.7	16.3	12.9	15.5	13.8	14.7
Health fields	11.0	12.6	13.5	14.0	17.4	17.4	21.3	17.2

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: 1999–2004

Field	Male						Female					
	1999	2000	2001	2002	2003	2004	1999	2000	2001	2002	2003	2004
Black students in all institutions	5,306	5,419	5,356	5,786	6,132	6,384	8,657	9,595	9,951	10,561	11,546	12,159
Science and engineering	4,720	4,809	4,679	5,094	5,314	5,485	6,491	7,270	7,378	7,737	8,208	8,582
Science	3,686	3,752	3,631	3,956	4,118	4,205	5,919	6,613	6,770	7,070	7,569	7,892
Agricultural sciences	108	113	101	124	147	115	110	131	166	165	199	183
Biological sciences	583	603	613	657	669	679	1,104	1,115	1,204	1,285	1,428	1,559
Computer sciences	304	344	376	457	477	519	233	264	279	343	323	281
Earth, atmospheric, and ocean sciences	63	83	76	93	89	90	74	76	64	100	106	104
Mathematical sciences	188	181	198	205	209	203	154	168	161	164	173	188
Physical sciences	390	377	364	392	399	442	310	314	319	305	337	361
Psychology	528	544	525	525	528	557	1,672	2,030	1,990	1,959	2,043	2,201
Social sciences	1,522	1,507	1,378	1,503	1,600	1,600	2,262	2,515	2,587	2,749	2,960	3,015
Engineering	1,034	1,057	1,048	1,138	1,196	1,280	572	657	608	667	639	690
Health fields	586	610	677	692	818	899	2,166	2,325	2,573	2,824	3,338	3,577
Black students in HBCU	946	993	909	979	1,097	1,091	1,342	1,689	1,725	1,800	2,055	2,183
Science and engineering	865	905	760	836	883	943	1,052	1,365	1,307	1,331	1,385	1,561
Science	725	752	629	670	719	763	972	1,238	1,225	1,218	1,296	1,452
Agricultural sciences	63	57	45	56	86	54	57	57	88	85	108	85
Biological sciences	125	123	119	112	132	136	295	293	295	275	295	295
Computer sciences	54	59	61	88	86	76	55	51	64	77	66	38
Earth, atmospheric, and ocean sciences	7	21	17	18	18	22	6	15	8	18	16	16
Mathematical sciences	45	36	40	35	41	31	35	39	38	35	22	30
Physical sciences	80	83	70	71	64	87	65	56	59	59	52	87
Psychology	48	47	61	57	43	54	146	235	239	236	265	322
Social sciences	303	326	216	233	249	303	313	492	434	433	472	579
Engineering	140	153	131	166	164	180	80	127	82	113	89	109
Health fields	81	88	149	143	214	148	290	324	418	469	670	622
Percentage of black students in HBCU	17.8	18.3	17.0	16.9	17.9	17.1	15.5	17.6	17.3	17.0	17.8	18.0
Science and engineering	18.3	18.8	16.2	16.4	16.6	17.2	16.2	18.8	17.7	17.2	16.9	18.2
Science	19.7	20.0	17.3	16.9	17.5	18.1	16.4	18.7	18.1	17.2	17.1	18.4
Agricultural sciences	58.3	50.4	44.6	45.2	58.5	47.0	51.8	43.5	53.0	51.5	54.3	46.4
Biological sciences	21.4	20.4	19.4	17.0	19.7	20.0	26.7	26.3	24.5	21.4	20.7	18.9
Computer sciences	17.8	17.2	16.2	19.3	18.0	14.6	23.6	19.3	22.9	22.4	20.4	13.5
Earth, atmospheric, and ocean sciences	11.1	25.3	22.4	19.4	20.2	24.4	8.1	19.7	12.5	18.0	15.1	15.4
Mathematical sciences	23.9	19.9	20.2	17.1	19.6	15.3	22.7	23.2	23.6	21.3	12.7	16.0
Physical sciences	20.5	22.0	19.2	18.1	16.0	19.7	21.0	17.8	18.5	19.3	15.4	24.1
Psychology	9.1	8.6	11.6	10.9	8.1	9.7	8.7	11.6	12.0	12.0	13.0	14.6
Social sciences	19.9	21.6	15.7	15.5	15.6	18.9	13.8	19.6	16.8	15.8	15.9	19.2
Engineering	13.5	14.5	12.5	14.6	13.7	14.1	14.0	19.3	13.5	16.9	13.9	15.8
Health fields	13.8	14.4	22.0	20.7	26.2	16.5	13.4	13.9	16.2	16.6	20.1	17.4

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 2004 Survey of Graduate Students and Postdoctorates in Science and Engineering represent national estimates of graduate enrollment and postdoctoral employment as of fall 2004 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 graduate or medical schools. The survey universe consisted of 710 reporting units at 589 graduate institutions: 221 reporting units at 221 master's-granting institutions and 489 reporting units at 368 doctorate-granting institutions.²

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 doctorate or master's 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 2004. The data for 1966–74 are not inflated to reflect universe totals. From 1984 to 1987, the survey included master's-granting institutions on a sample basis. For those years, the survey design incor-

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

² For purposes of this report, the term "reporting unit" is essentially equivalent to a school (such as graduate schools, medical or dental schools, nursing schools, schools of public health), an affiliated research center, a branch campus, or any other organizational component within an academic institution that grants an S&E or health-related degree.

porated 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 doctoral or master's programs and has excluded any that have closed all their S&E graduate programs (see "Survey Methodology," below).

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 1997–2004.

SURVEY INSTRUMENT

The 2003 and 2004 survey instruments are essentially the same. The survey instrument consists of two forms: (1) NSF Form 811 is a computer-generated list of departments or programs specific to each institution surveyed. The list is based on the departments known to have existed in the previous survey cycle, and each school coordinator is asked to update it. (2) NSF Form 812 is a series of questions completed by the school coordinator or departmental respondent that obtains counts of students and data on key characteristics of interest, such as race/ethnicity, 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 or at medical schools
- a crosswalk showing representative National Center for Education Statistics instructional program codes corresponding to each S&E and health-related 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
- a flyer informing coordinators of their IDs and passwords to use in responding to the survey through the Web-based data reporting system

Since the 1998 survey, the school coordinators and departmental respondents have had the option of providing data using the Web-based data collection system. In 2004, 620 of the 710 reporting units elected to do so.

SURVEY METHODOLOGY

In addition to the verification of the information cited above, the acknowledgment postcard also requested that the school 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. The majority of reporting units indicate a combination of sources for their data. Over the years, the use of computerized systems has shown a small but gradual increase.

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

Schools 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 school coordinators for correction or clarification.

RESPONSE RATES

From 1975 through 2003, NSF calculated response rates for reporting units (schools) and departments but did not calculate an institutional response rate. For schools, the response rate was calculated as the total number of responding schools divided by the total number of eligible schools. A school was considered respond-

ing if one or more of its eligible departments responded. The departmental response rate was calculated as the number of departments not requiring full imputation divided by the total number of eligible departments. A department was considered responding if it reported at least one data item.

For 2004, new response-rate calculations were evaluated and tested for schools and departments/programs, and a response-rate calculation was developed for institutions. These response rate calculations were changed to adhere to the American Association for Public Opinion Research's standards for computing response rates (see calculation Response Rate 3, AAPOR 2004: 29).³ The 2004 response rates are not directly comparable to response rates reported for prior years.

In 2004, 578 of the 589 (98 percent) eligible academic institutions were complete or partial respondents. Of that number, 560 of the 589 (95 percent) were complete respondents, reporting data on 90 percent or more of their departments, and 18 (3 percent) were partial respondents, reporting more than 50 percent but less than 90 percent of their departments. Eleven institutions (2 percent) were nonrespondents, reporting less than 50 percent of their departments.

For 2004, 702 of the 710 (99 percent) schools in the survey were complete or partial respondents. Of that number a total of 674 (95 percent) of the 710 schools in the survey were complete respondents, reporting 90 percent or more of their departments. Of the remaining 36 schools, 24 (3 percent) were partial respondents, reporting more than 50 percent but less than 90 percent of their departments, and 12 schools (2 percent) were nonrespondents, reporting less than 50 percent of their departments.

For 2004, at the department level, 11,998 (98 percent) of the 12,240 eligible departments were either complete or partial respondents. A total of 10,524 (86 percent) were complete respondents, responding to all applicable data cells in items 5, 6, 7, and 8 and not requiring imputation. A total of 1,474 (12 percent) were partial respondents, requiring imputation for one or more data cells in Items 5, 6, 7 (excluding cells pertaining to first-time, full-time students) or 8. A total of 242 departments (2 percent) did not respond to the survey.

³ American Association for Public Opinion Research (AAPOR). 2004. *Standard Definitions, Final Dispositions of Case Codes and Outcome Rates for Surveys*. Lenexa, Kansas: AAPOR.

Table A-4 shows departmental response rates for 1975–2004. Response rates for 1975–2003 are calculated using the previous methodology. The table shows two sets of response rates for 2004. The first set uses the methodology employed from 1975–2003. The second set follows the new methodology, which adheres to AAPOR standards.

Imputation techniques were used to fill in missing data for departments. 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 for 2002, 2003, and 2004. Tables A-7 through A-9 provide imputation rates by specific data items for 2004.

CHANGES IN DATA ITEMS

Over time, changes have been 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. The 1978 figures shown in the tables for total enrollment and full-time enrollment for master’s-granting institutions represent estimates based on 1977 and 1979 data.

1979 All graduate institutions 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 at 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 Non-Hispanic.” The 1999 survey excluded the “Other” category included in previous years’ surveys. These changes are not reflected in the 2004 published tables. In each of the 6 years of collecting these data, only about 8 percent of the departments have reported data in any of the new categories. For this year’s table production, as in the previous 5 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 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- or part-time students.
 - 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 citizenship data for all full-time graduate students.
 - 1983 The survey began collecting citizenship data for 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 included in the 2004 detailed statistical 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.
 - 1979 The survey began collecting separate data on mechanisms of support for fellowships and traineeships (prior years combined these mechanisms). It also started to collect information on “other non-faculty research staff with doctorates” along with the information collected on postdoctoral 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 U.S. 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 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 found to be primarily engaged in training teachers, practitioners, administrators, or managers rather than researchers; thus, they were no longer eligible for the survey. During the 1989–2004 survey cycles, this process has continued, and all ineligible departments identified were removed to ensure trend consistency for the entire 1975–2004 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.

Since the fall 1992 survey cycle, an institution’s previous year’s data for the highest S&E degree granted were changed to reflect the institution’s highest S&E degree in the current survey cycle. 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.

Since the 1992 survey cycle, the definition of medical schools has included only those institutional components with membership in the Association of American Medical Colleges. Data collected before 1992 are not comparable with data collected after the fall 1992 survey.

TABLE A-1. The NSF data collection series: 1966–2004

Year	Institutions surveyed	Reporting units 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	252	321	4,568	764	3,804	207,859	159,392	48,467
1973	255	333	6,523	851	5,672	214,348	161,525	52,823
1974	276	367	7,468	1,387	6,081	259,968	190,562	69,406
1975	341	439	7,987	1,813	6,174	300,358	208,834	91,524
1976	351	450	8,087	1,872	6,215	304,510	212,662	91,848
1977	353	456	8,320	2,009	6,311	313,140	215,245	97,895
1978	340	449	8,335	1,952	6,383	307,019	211,265	95,754
1979	367	483	8,571	2,088	6,483	323,202	219,473	103,729
1980	366	482	8,674	2,133	6,541	332,963	225,648	107,315
1981	366	480	8,604	2,132	6,472	339,411	229,367	110,044
1982	365	480	8,466	2,123	6,343	345,961	232,639	113,322
1983	366	481	8,344	2,090	6,254	353,082	238,841	114,241
1984	346	465	8,316	2,028	6,288	354,199	239,397	114,802
1985	346	460	8,430	2,069	6,361	363,288	242,785	120,503
1986	346	462	8,505	2,078	6,427	374,010	251,595	122,415
1987	350	468	8,622	2,082	6,540	379,630	256,089	123,541
1988	372	491	8,913	2,213	6,700	386,709	262,157	124,552
1989	373	492	9,040	2,231	6,809	394,464	269,326	125,138
1990	372	491	9,189	2,286	6,903	409,005	278,239	130,766
1991	372	491	9,389	2,315	7,074	425,300	291,050	134,250
1992	372	491	9,631	2,369	7,262	444,993	305,538	139,455
1993	372	491	9,829	2,387	7,442	454,099	312,204	141,895
1994	371	490	10,047	2,452	7,595	454,515	313,670	140,845
1995	370	489	10,226	2,507	7,719	448,914	310,332	138,582
1996	371	490	10,243	2,560	7,683	443,590	309,158	134,432
1997	370	493	10,223	2,638	7,585	437,331	307,417	129,914
1998	370	492	10,313	2,658	7,655	434,750	306,695	128,055
1999	371	493	10,429	2,628	7,801	441,951	313,597	128,354
2000	370	492	10,472	2,670	7,802	442,188	319,245	122,943
2001	373	494	10,515	2,664	7,851	457,641	331,967	125,674
2002	368	489	10,666	2,715	7,951	485,813	354,843	130,970
2003	368	489	10,785	2,723	8,062	508,970	371,636	137,334
2004	368	489	10,763	2,711	8,052	516,616	376,664	139,952
Master's institutions								
1975 ^b	243	243	1,016	1,016	na	28,152	10,814	17,338
1976	243	243	1,023	1,023	na	29,206	10,750	18,456
1977	248	248	1,072	1,072	na	32,234	11,493	20,741
1978 ^c	259	259	1,174	1,174	na	32,893	11,765	21,128
1979	262	262	1,115	1,115	na	34,376	12,287	22,089
1980	260	260	1,124	1,124	na	34,115	12,768	21,347
1981	256	256	1,124	1,124	na	35,719	12,682	23,037
1982	244	244	1,118	1,118	na	36,330	12,118	24,212
1983	242	242	1,123	1,123	na	37,350	13,176	24,174
1984	65	65	475	475	na	40,471	14,525	25,946

TABLE A-1. The NSF data collection series: 1966–2004

Year	Institutions surveyed	Reporting units surveyed	Departments surveyed			Graduate enrollment in surveyed fields		
			Total	Master's	Doctorate	Total	Full time	Part time
1985	65	65	481	481	na	40,733	14,502	26,231
1986	65	65	480	480	na	41,510	14,573	26,937
1987	65	65	482	482	na	41,867	14,967	26,900
1988	232	232	1,102	1,102	na	37,814	12,970	24,844
1989	234	234	1,147	1,147	na	40,014	13,322	26,692
1990	236	236	1,169	1,169	na	43,108	14,543	28,565
1991	235	235	1,209	1,209	na	45,912	15,960	29,952
1992	234	234	1,241	1,241	na	48,529	17,017	31,512
1993	232	232	1,274	1,274	na	50,205	17,440	32,765
1994	232	232	1,318	1,318	na	49,884	18,418	31,466
1995	231	231	1,340	1,340	na	50,726	18,951	31,775
1996	230	230	1,336	1,336	na	50,489	19,378	31,111
1997	229	229	1,366	1,366	na	49,877	19,872	30,005
1998	229	229	1,372	1,372	na	50,877	20,694	30,183
1999	226	226	1,398	1,398	na	51,305	20,826	30,479
2000	224	224	1,422	1,422	na	51,123	22,038	29,085
2001	226	226	1,447	1,447	na	51,979	22,555	29,424
2002	226	226	1,460	1,460	na	54,620	24,164	30,456
2003	223	223	1,476	1,476	na	58,164	25,748	32,416
2004	221	221	1,477	1,477	na	57,718	25,497	32,221

na = not applicable.

^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; these figures include estimated data. 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: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	10,223	10,313	10,429	10,472	10,515	10,666	10,785	10,763
Science and engineering	7,363	7,430	7,502	7,548	7,574	7,651	7,777	7,808
Science	5,913	5,959	6,011	6,032	6,062	6,136	6,219	6,247
Agricultural sciences	340	346	340	344	351	358	363	376
Biological sciences	1,957	1,976	1,994	1,982	1,989	2,045	2,066	2,037
Anatomy	87	84	82	80	80	83	80	75
Biochemistry	192	192	193	186	183	188	185	180
Biology	255	259	260	259	257	258	263	262
Biometry/epidemiology	72	73	75	76	79	88	91	93
Biophysics	31	31	31	30	31	33	33	34
Botany	85	84	78	76	77	76	76	71
Cell biology	133	146	147	154	154	159	160	158
Ecology	30	31	36	37	39	42	43	45
Entomology/parasitology	48	49	47	46	46	44	44	42
Genetics	83	83	85	87	91	93	99	97
Microbiology/immunology/virology	251	254	261	260	255	261	259	247
Nutrition	126	128	129	128	126	125	127	126
Pathology	139	136	135	133	134	133	131	124
Pharmacology	159	159	162	160	161	166	165	156
Physiology	138	133	133	130	125	128	124	122
Zoology	39	38	38	34	33	31	32	29
Biosciences, nec	89	96	102	106	118	137	154	176
Computer sciences	301	309	318	329	340	352	365	380
Earth, atmospheric, and ocean sciences	356	365	364	367	366	364	369	368
Atmospheric sciences	32	33	32	33	33	34	34	35
Geosciences	210	209	206	205	206	203	204	205
Oceanography	50	55	58	57	55	55	57	57
Earth/atmospheric/ocean sciences, nec	64	68	68	72	72	72	74	71
Mathematical sciences	408	406	406	403	405	405	405	404
Mathematics/applied mathematics	325	324	323	318	319	318	318	315
Statistics	83	82	83	85	86	87	87	89
Physical sciences	594	598	599	597	598	587	588	586
Astronomy	35	36	36	38	38	38	38	39
Chemistry	282	281	285	282	284	276	275	275
Physics	257	259	253	249	246	243	247	247
Physical sciences, nec	20	22	25	28	30	30	28	25
Psychology	591	594	613	618	621	618	631	640
Clinical psychology	132	131	134	134	136	136	141	143
Psychology, general	184	186	188	192	190	190	190	190
Psychology, nec	275	277	291	292	295	292	300	307
Social sciences	1,366	1,365	1,377	1,392	1,392	1,407	1,432	1,456
Agricultural economics	55	55	55	55	55	57	57	56
Anthropology (cultural/social)	139	136	136	134	132	133	135	138
Economics (except agricultural)	204	202	202	201	201	196	196	197
Geography	102	103	103	103	102	106	106	107
History and philosophy of science	23	23	24	26	26	25	25	26
Linguistics	71	70	71	72	72	71	72	73
Political science	349	350	354	358	356	361	370	377
Sociology	184	184	183	182	182	182	180	179
Sociology/anthropology	24	23	23	23	23	22	23	23
Social sciences, nec	215	219	226	238	243	254	268	280
Engineering	1,450	1,471	1,491	1,516	1,512	1,515	1,558	1,561
Aerospace engineering	54	54	56	57	55	54	55	54
Agricultural engineering	38	38	39	40	38	38	37	37

TABLE A-2. Science, engineering, and health departments in doctorate-granting institutions, by detailed field: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Biomedical engineering	64	72	77	81	81	84	96	98
Chemical engineering	145	145	148	149	148	145	145	146
Civil engineering	236	238	245	250	255	254	260	267
Electrical engineering	242	245	246	250	251	251	258	259
Engineering science	36	38	40	39	38	37	41	38
Industrial engineering	168	168	166	172	174	171	175	172
Mechanical engineering	191	192	192	191	192	192	192	190
Metallurgical/materials engineering	114	115	114	111	110	108	113	113
Mining engineering	24	24	24	25	24	23	22	22
Nuclear engineering	23	24	24	24	23	23	23	23
Petroleum engineering	18	17	16	18	17	18	18	18
Engineering, nec	97	101	104	109	106	117	123	124
Health	2,860	2,883	2,927	2,924	2,941	3,015	3,008	2,955
Medical fields	2,059	2,058	2,079	2,040	2,038	2,079	2,051	1,990
Anesthesiology	89	89	87	87	89	89	89	88
Cardiology	71	71	72	71	70	68	69	62
Endocrinology	71	71	72	70	68	67	66	60
Gastroenterology	68	68	68	68	67	65	64	60
Hematology	71	69	72	71	70	67	66	60
Neurology	155	157	164	162	164	171	174	170
Obstetrics/gynecology	90	91	91	88	88	89	86	84
Oncology/cancer research	62	63	71	70	74	89	89	89
Ophthalmology	78	78	78	76	76	77	75	72
Otorhinolaryngology	68	64	64	62	63	62	60	56
Pediatrics	111	112	110	110	109	110	109	105
Preventive medicine/community health	186	193	197	195	192	194	191	197
Psychiatry	102	101	100	98	98	104	103	101
Pulmonary disease	66	67	66	64	64	63	61	56
Radiology	134	129	131	128	127	128	123	115
Surgery	245	244	246	240	239	234	231	224
Clinical medicine, nec	392	391	390	380	380	402	395	391
Other health fields	801	825	848	884	903	936	957	965
Dental sciences	81	78	79	82	83	85	82	74
Nursing	159	164	167	168	170	171	182	182
Pharmaceutical sciences	91	93	92	87	87	87	90	92
Speech pathology/audiology	144	147	149	158	157	160	160	164
Veterinary sciences	50	52	55	62	62	68	71	72
Health related, nec	276	291	306	327	344	365	372	381

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: 1997–2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
All surveyed fields	1,366	1,372	1,398	1,422	1,447	1,460	1,476	1,477
Science and engineering	1,160	1,164	1,173	1,183	1,200	1,206	1,209	1,205
Science	996	997	1,002	1,012	1,024	1,026	1,027	1,020
Agricultural sciences	29	29	29	26	25	31	32	34
Biological sciences	155	153	156	160	161	162	166	165
Anatomy	0	0	0	0	0	0	0	0
Biochemistry	3	3	3	3	3	3	4	4
Biology	117	117	117	115	115	114	114	112
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	3	3	3	4	4	4	4	4
Ecology	4	4	4	5	5	6	6	6
Entomology/parasitology	0	0	0	0	0	0	0	0
Genetics	1	1	2	2	2	2	2	2
Microbiology/immunology/virology	3	2	2	3	3	3	3	4
Nutrition	10	10	10	10	9	10	10	11
Pathology	0	0	0	0	0	0	0	0
Pharmacology	0	0	1	1	1	0	0	0
Physiology	0	0	1	2	2	2	4	4
Zoology	2	2	2	2	2	1	1	1
Biosciences, nec	10	9	9	11	13	15	16	15
Computer sciences	75	75	78	87	91	92	98	100
Earth, atmospheric, and ocean sciences	57	58	58	60	60	61	63	61
Atmospheric sciences	2	2	1	1	1	1	1	1
Geosciences	27	27	28	30	30	31	31	29
Oceanography	6	6	6	6	5	5	5	5
Earth/atmospheric/ocean sciences, nec	22	23	23	23	24	24	26	26
Mathematical sciences	92	90	90	88	86	85	85	84
Mathematics/applied mathematics	88	86	86	84	82	81	81	80
Statistics	4	4	4	4	4	4	4	4
Physical sciences	99	98	95	90	87	87	84	80
Astronomy	0	0	0	0	0	0	0	0
Chemistry	60	59	58	57	56	55	54	53
Physics	27	27	25	23	22	23	22	20
Physical sciences, nec	12	12	12	10	9	9	8	7
Psychology	220	219	221	222	219	220	212	208
Clinical psychology	35	35	36	36	35	35	33	32
Psychology, general	75	75	76	77	77	75	72	73
Psychology, nec	110	109	109	109	107	110	107	103
Social sciences	269	275	275	279	295	288	287	288
Agricultural economics	3	3	3	2	1	1	1	1
Anthropology (cultural/social)	11	11	12	12	12	12	12	13
Economics (except agricultural)	29	30	30	30	30	28	26	25
Geography	21	21	22	21	23	24	23	23
History and philosophy of science	0	2	2	3	6	6	8	9
Linguistics	7	7	7	7	7	7	6	7
Political science	95	95	95	99	99	98	96	96
Sociology	35	36	38	37	39	39	37	38
Sociology/anthropology	3	2	2	2	2	1	2	3
Social sciences, nec	65	68	64	66	76	72	76	73
Engineering	164	167	171	171	176	180	182	185
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: 1997-2004

Field	1997	1998	1999	2000	2001	2002	2003	2004
Biomedical engineering	4	4	4	4	4	4	3	3
Chemical engineering	7	7	6	6	6	6	7	6
Civil engineering	30	30	29	28	27	27	27	28
Electrical engineering	41	41	44	45	45	46	46	46
Engineering science	2	2	2	2	3	4	4	4
Industrial engineering	27	30	31	29	31	30	32	33
Mechanical engineering	20	21	22	23	24	22	25	25
Metallurgical/materials engineering	5	4	4	3	3	4	3	2
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	22	22	23	25	27	31	29	32
Health	206	208	225	239	247	254	267	272
Medical fields	19	21	22	19	20	24	23	26
Anesthesiology	3	3	3	3	3	4	4	4
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	0	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	8	9	8	8	10	10	12
Psychiatry	1	1	1	1	1	2	1	1
Pulmonary disease	0	0	0	0	0	0	0	0
Radiology	1	1	1	1	1	1	1	2
Surgery	0	0	0	0	0	0	0	0
Clinical medicine, nec	6	7	8	6	7	7	7	7
Other health fields	187	187	203	220	227	230	244	246
Dental sciences	0	0	0	0	0	0	0	0
Nursing	64	64	71	76	80	79	83	84
Pharmaceutical sciences	1	1	1	1	1	1	1	1
Speech pathology/audiology	59	59	62	62	62	62	61	61
Veterinary sciences	0	0	0	0	0	0	0	0
Health related, nec	63	63	69	81	84	88	99	100

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. Departmental response rates: 1975–2004

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
2004 ^c	12,240	10,426	85.2	1,609	13.1	205	1.7
2004 ^d	12,240	10,524	86.0	1,474	12.0	242	2.0

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.

^c Calculated using the response-rate formula used through 2003.

^d Calculated using the new response-rate formula implemented in 2004.

NOTES: Master's-granting institutions were surveyed on a sample basis in 1984–87; these figures include estimated data. See appendix A, Technical Notes, for further information. Departments providing partial responses are included in complete response column before 1981 and reported separately beginning in 1981. Response rates for 2004 are as of 1 October 2005.

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: 2002–04

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 2004, all fields	10,763	189	376,664	139,952	45,434	5,490	1,828	412	1.5	1.3	0.9
Agricultural sciences	376	1	9,477	3,039	940	66	0	2	0.7	0.0	0.2
Biological sciences	2,037	37	54,040	8,559	17,873	840	145	130	1.6	1.7	0.7
Computer sciences	380	4	27,330	17,405	384	583	372	0	2.1	2.1	0.0
Earth, atmospheric, and ocean sciences	368	5	11,226	2,802	1,252	52	4	0	0.5	0.1	0.0
Mathematical sciences	404	9	14,300	3,762	466	162	48	0	1.1	1.3	0.0
Physical sciences	586	14	31,248	3,569	6,799	489	85	46	1.6	2.4	0.7
Psychology	640	21	32,087	11,648	909	872	333	1	2.7	2.9	0.1
Social sciences	1,456	19	58,067	27,074	357	764	254	0	1.3	0.9	0.0
Engineering	1,561	10	84,701	31,906	3,867	647	260	1	0.8	0.8	*
Health fields	2,955	69	54,188	30,188	12,587	1,015	327	232	1.9	1.1	1.8
Fall 2003, all fields	10,785	183	371,636	137,334	46,489	5,884	3,496	1,753	1.6	2.5	3.8
Agricultural sciences	363	0	9,512	2,902	1,052	0	0	0	0.0	0.0	0.0
Biological sciences	2,066	37	52,501	8,249	18,555	1,020	384	690	1.9	4.7	3.7
Computer sciences	365	4	28,293	18,661	358	296	359	0	1.0	1.9	0.0
Earth, atmospheric, and ocean sciences	369	6	11,021	2,507	1,166	69	27	2	0.6	1.1	0.2
Mathematical sciences	405	6	13,953	3,536	447	146	119	3	1.0	3.4	0.7
Physical sciences	588	5	30,042	3,350	6,677	83	20	2	0.3	0.6	*
Psychology	631	22	30,326	11,815	955	909	517	0	3.0	4.4	0.0
Social sciences	1,432	26	57,035	26,170	402	709	675	1	1.2	2.6	0.2
Engineering	1,558	9	87,535	31,935	3,814	604	123	0	0.7	0.4	0.0
Health fields	3,008	68	51,418	28,209	13,063	2,048	1,272	1,055	4.0	4.5	8.1
Fall 2002, all fields	10,666	108	354,843	130,970	44,965	3,254	2,100	1,003	0.9	1.6	2.2
Agricultural sciences	358	0	9,184	2,675	945	0	0	0	0.0	0.0	0.0
Biological sciences	2,045	7	50,052	7,612	17,636	178	75	416	0.4	1.0	2.4
Computer sciences	352	5	29,825	18,151	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	405	2	13,116	3,384	391	17	27	0	0.1	0.8	0.0
Physical sciences	587	5	28,220	3,203	6,587	53	18	1	0.2	0.6	*
Psychology	618	12	29,306	11,878	814	463	209	0	1.6	1.8	0.0
Social sciences	1,407	22	54,160	25,208	454	533	455	0	1.0	1.8	0.0
Engineering	1,515	15	83,238	29,831	3,568	1,230	237	14	1.5	0.8	0.4
Health fields	3,015	37	47,107	26,533	13,098	486	664	566	1.0	2.5	4.3

* = 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: 2002–04

Field	Graduate departments		Total in survey			Number imputed			Imputation rate (%)		
	In universe	Totally	Full-time	Part-time	Post-	Full-time	Part-time	Post-	Full-time	Part-time	Post-
		imputed	student	student	doctorates	student	student	doctorates	student	student	doctorates
Fall 2004, all fields	1,477	16	25,497	32,221	40	186	301	1	0.7	0.9	2.5
Agricultural sciences	34	0	563	366	1	0	0	0	0.0	0.0	0.0
Biological sciences	165	1	1,779	2,142	21	4	9	0	0.2	0.4	0.0
Computer sciences	100	0	1,951	3,645	0	0	0	0	0.0	0.0	0.0
Earth, atmospheric, and ocean sciences	61	1	459	623	0	4	8	0	0.9	1.3	0.0
Mathematical sciences	84	0	581	1,230	0	0	0	0	0.0	0.0	0.0
Physical sciences	80	0	438	517	11	0	0	0	0.0	0.0	0.0
Psychology	208	2	5,718	4,599	4	41	4	0	0.7	*	0.0
Social sciences	288	8	4,306	8,080	0	71	215	0	1.6	2.7	0.0
Engineering	185	1	2,344	4,750	2	6	43	0	0.3	0.9	0.0
Health fields	272	3	7,358	6,269	1	60	22	1	0.8	0.4	100.0
Fall 2003, all fields	1,476	26	25,748	32,416	31	921	883	0	3.6	2.7	0.0
Agricultural sciences	32	0	491	292	0	0	0	0	0.0	0.0	0.0
Biological sciences	166	2	1,849	2,102	10	4	13	0	0.2	0.6	0.0
Computer sciences	98	4	2,415	4,327	2	117	341	0	4.8	7.9	0.0
Earth, atmospheric, and ocean sciences	63	1	476	616	0	4	8	0	0.8	1.3	0.0
Mathematical sciences	85	1	674	1,302	0	1	0	0	0.1	0.0	0.0
Physical sciences	84	1	399	507	17	1	4	0	0.3	0.8	0.0
Psychology	212	5	5,448	4,622	1	312	272	0	5.7	5.9	0.0
Social sciences	287	7	4,377	7,547	0	355	202	0	8.1	2.7	0.0
Engineering	182	1	2,681	5,226	0	46	39	0	1.7	0.7	0.0
Health fields	267	4	6,938	5,875	1	81	4	0	1.2	*	0.0
Fall 2002, all fields	1,460	17	24,164	30,456	38	139	177	0	0.6	0.6	0.0
Agricultural sciences	31	0	501	338	0	0	0	0	0.0	0.0	0.0
Biological sciences	162	2	1,544	1,925	8	4	13	0	0.3	0.7	0.0
Computer sciences	92	0	2,754	4,539	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	85	1	593	1,070	2	1	0	0	0.2	0.0	0.0
Physical sciences	87	1	399	519	23	1	4	0	0.3	0.8	0.0
Psychology	220	4	5,401	4,580	1	44	72	0	0.8	1.6	0.0
Social sciences	288	6	3,894	6,953	0	43	80	0	1.1	1.2	0.0
Engineering	180	0	2,214	4,385	0	0	0	0	0.0	0.0	0.0
Health fields	254	2	6,383	5,518	1	42	0	0	0.7	0.0	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 for all departments at all graduate institutions, by source, mechanism of support, and female students: 2004

Source of support	All sources	Fellowship	Research assistantship	Teaching assistantship	Traineeship	Other support	Female students
All sources	1.4	10.7	12.4	11.2	12.4	17.5	2.5
Federal sources							
Department of Defense	23.2	17.0	16.0	na	10.4	58.9	14.0
Department of Energy	16.2	0.8	17.1	6.9	8.0	3.8	17.4
Department of Health and Human Services							
National Institutes of Health	10.6	6.2	11.3	8.6	10.5	8.0	11.6
Other	15.6	5.1	22.7	39.0	11.1	20.0	13.3
National Aeronautics and Space Administration	14.4	10.1	14.7	0.0	25.5	26.1	10.7
National Science Foundation	12.1	13.7	11.7	8.8	17.1	7.2	10.3
U.S. Department of Agriculture	9.7	2.2	9.6	8.7	56.3	14.5	8.1
Other	15.8	10.3	17.2	28.4	20.8	7.7	13.9
Nonfederal sources							
Domestic	13.1	11.0	12.9	17.9	11.8	15.4	12.4
Foreign	10.1	7.4	9.7	na	18.3	11.9	10.0
Institutional	13.3	12.1	14.4	12.2	12.7	16.5	13.8
Self support	18.4	na	na	na	na	18.4	19.5

na = not applicable.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2004.

TABLE A-8. Imputation rates of graduate students at all graduate institutions, by race/ethnicity, enrollment status, and sex: 2004

Race ethnicity	Part time			Full time			First time	
	Total	Male	Female	Total	Male	Female	Total	Female
All graduate students	1.3	3.4	2.7	1.4	2.7	2.5	2.6	2.8
U.S. citizens and permanent residents								
One race only, non-Hispanic/Latino								
American Indian/Alaska Native	1.6	1.2	1.9	3.2	1.9	4.2	0.9	1.6
Asian	2.6	3.0	2.2	2.9	3.6	2.3	3.2	2.8
Black	6.5	11.3	3.9	6.2	5.6	6.5	7.0	7.2
Native Hawaiian/Pacific Islander	36.5	9.0	48.3	3.7	5.1	2.5	2.3	1.2
White	3.2	3.3	3.1	3.5	3.5	3.5	3.8	3.7
One race only, Hispanic/Latino	3.0	3.0	3.0	2.8	2.9	2.8	2.4	2.0
More than one race								
Hispanic/Latino	0.1	0.0	0.2	7.7	3.8	9.6	20.2	24.6
Non-Hispanic/Latino	0.0	0.0	0.0	0.7	0.6	0.8	0.9	0.0
Unknown	3.7	3.3	4.2	3.9	3.8	4.0	3.5	3.5
Temporary-visa holders	5.0	5.1	4.9	3.5	4.0	2.6	3.3	3.1

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2004.

TABLE A-9. Imputation rates of science and engineering postdoctorates, by source of support, and nonfaculty research staff with doctorates at all graduate institutions: 2004

Status	Total	Women	With M.D., D.O., D.D.S., or D.V.M. degrees
Postdoctorates, all sources of support	0.9	2.0	1.8
Federal			
Fellowship	6.0	2.3	0.1
Research grant	4.0	3.7	0.5
Traineeship	0.8	0.5	0.0
Nonfederal	7.3	6.4	5.4
Foreign	2.4	2.4	0.2
Nonfaculty research staff with doctorates	2.9	2.0	0.2

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2004.

TABLE A-10. Graduate enrollment data as originally published and as modified through the fall 2004 graduate student survey cycle: 1975–2004

Year	All institutions			Doctorate-granting institutions			Master's-granting institutions		
	Original	Revised	% change	Original	Revised	% change	Original	Revised	% change
All graduate enrollment in surveyed fields									
1975 ^a	336,843	328,510	-2.5	290,662	300,358	3.3	46,181	28,152	-39.0
1976	345,979	333,716	-3.5	297,280	304,510	2.4	48,699	29,206	-40.0
1977	362,978	345,374	-4.8	306,710	313,140	2.1	56,268	32,234	-42.7
1978 ^b	NA	339,912	NA	311,982	307,019	-1.6	NA	32,893	NA
1979	375,267	357,578	-4.7	321,770	323,202	0.4	53,497	34,376	-35.7
1980	383,210	367,078	-4.2	333,658	332,963	-0.2	49,552	34,115	-31.2
1981	392,034	375,130	-4.3	340,203	339,411	-0.2	51,831	35,719	-31.1
1982	399,682	382,291	-4.4	347,414	345,961	-0.4	52,268	36,330	-30.5
1983	413,564	390,432	-5.6	358,276	353,082	-1.4	55,288	37,350	-32.4
1984	415,064	394,670	-4.9	363,470	354,199	-2.6	51,594	40,471	-21.6
1985	434,836	404,021	-7.1	371,052	363,288	-2.1	63,784	40,733	-36.1
1986	446,102	415,520	-6.9	384,203	374,010	-2.7	61,899	41,510	-32.9
1987	449,585	421,497	-6.2	388,681	379,630	-2.3	60,904	41,867	-31.3
1988	445,595	424,523	-4.7	391,683	386,709	-1.3	53,912	37,814	-29.9
1989	440,983	434,478	-1.5	385,025	394,464	2.5	55,958	40,014	-28.5
1990	458,943	452,113	-1.5	398,405	409,005	2.7	60,538	43,108	-28.8
1991	475,691	471,212	-0.9	411,296	425,300	3.4	64,395	45,912	-28.7
1992	495,397	493,522	-0.4	427,792	444,993	4.0	67,605	48,529	-28.2
1993	506,678	504,304	-0.5	440,875	454,099	3.0	65,803	50,205	-23.7
1994	506,626	504,399	-0.4	441,480	454,515	3.0	65,146	49,884	-23.4
1995	501,510	499,640	-0.4	436,328	448,914	2.9	65,182	50,726	-22.2
1996	494,526	494,079	*	430,631	443,590	3.0	63,895	50,489	-21.0
1997	487,104	487,208	*	424,650	437,331	3.0	62,454	49,877	-20.1
1998	485,754	485,627	*	422,834	434,750	2.8	62,920	50,877	-19.1
1999	493,425	493,256	*	432,657	441,951	2.1	60,768	51,305	-15.6
2000	494,594	493,311	-0.3	435,612	442,188	1.5	58,982	51,123	-13.3
2001	510,156	509,620	-0.1	452,411	457,641	1.2	57,745	51,979	-10.0
2002	540,720	540,433	*	482,211	485,813	0.7	58,509	54,620	-6.6
2003	566,835	567,134	*	507,247	508,970	0.3	59,588	58,164	-2.4
2004	574,334	NA	NA	516,616	NA	NA	57,718	NA	NA
Full-time enrollment									
1975 ^a	228,316	219,648	-3.8	210,641	208,834	-0.9	17,675	10,814	-38.8
1976	233,748	223,412	-4.4	215,355	212,662	-1.3	18,393	10,750	-41.6
1977	238,202	226,738	-4.8	218,226	215,245	-1.4	19,976	11,493	-42.5
1978 ^b	NA	223,030	NA	217,588	211,265	-2.9	NA	11,765	NA
1979	243,331	231,760	-4.8	224,057	219,473	-2.0	19,274	12,287	-36.3
1980	249,111	238,416	-4.3	230,601	225,648	-2.1	18,510	12,768	-31.0
1981	253,428	242,049	-4.5	234,529	229,367	-2.2	18,899	12,682	-32.9
1982	255,959	244,757	-4.4	237,676	232,639	-2.1	18,283	12,118	-33.7
1983	263,800	252,017	-4.5	243,646	238,841	-2.0	20,154	13,176	-34.6
1984	264,146	253,922	-3.9	246,848	239,397	-3.0	17,298	14,525	-16.0
1985	269,319	257,287	-4.5	249,666	242,785	-2.8	19,653	14,502	-26.2
1986	279,235	266,168	-4.7	259,980	251,595	-3.2	19,255	14,573	-24.3
1987	285,200	271,056	-5.0	264,862	256,089	-3.3	20,338	14,967	-26.4
1988	288,619	275,127	-4.7	268,385	262,157	-2.3	20,234	12,970	-35.9
1989	286,619	282,648	-1.4	267,554	269,326	0.7	19,065	13,322	-30.1
1990	295,836	292,782	-1.0	275,262	278,239	1.1	20,574	14,543	-29.3
1991	308,669	307,010	-0.5	286,756	291,050	1.5	21,913	15,960	-27.2
1992	323,399	322,555	-0.3	299,753	305,538	1.9	23,646	17,017	-28.0
1993	330,249	329,644	-0.2	307,181	312,204	1.6	23,068	17,440	-24.4
1994	331,969	332,088	*	307,964	313,670	1.9	24,005	18,418	-23.3
1995	330,235	329,283	-0.3	305,652	310,332	1.5	24,583	18,951	-22.9
1996	328,368	328,536	*	303,586	309,158	1.8	24,782	19,378	-21.8

TABLE A-10. Graduate enrollment data as originally published and as modified through the fall 2004 graduate student survey cycle: 1975–2004

Year	All institutions			Doctorate-granting institutions			Master's-granting institutions		
	Original	Revised	% change	Original	Revised	% change	Original	Revised	% change
1997	326,842	327,289	0.1	301,573	307,417	1.9	25,269	19,872	-21.4
1998	327,609	327,389	*	301,544	306,695	1.7	26,065	20,694	-20.6
1999	334,405	334,423	*	309,466	313,597	1.3	24,939	20,826	-16.5
2000	342,121	341,283	-0.2	316,531	319,245	0.9	25,590	22,038	-13.9
2001	355,115	354,522	-0.2	330,043	331,967	0.6	25,072	22,555	-10.0
2002	378,822	379,007	*	352,764	354,843	0.6	26,058	24,164	-7.3
2003	398,010	397,384	-0.2	371,784	371,636	*	26,226	25,748	-1.8
2004	402,161	NA	NA	376,664	NA	NA	25,497	NA	NA
Part-time enrollment									
1975 ^a	108,527	108,862	0.3	80,021	91,524	14.4	28,506	17,338	-39.2
1976	112,231	110,304	-1.7	81,925	91,848	12.1	30,306	18,456	-39.1
1977	124,776	118,636	-4.9	88,484	97,895	10.6	36,292	20,741	-42.8
1978 ^b	NA	116,882	NA	94,394	95,754	1.4	NA	21,128	NA
1979	131,936	125,818	-4.6	97,713	103,729	6.2	34,223	22,089	-35.5
1980	134,099	128,662	-4.1	103,057	107,315	4.1	31,042	21,347	-31.2
1981	138,606	133,081	-4.0	105,674	110,044	4.1	32,932	23,037	-30.0
1982	143,723	137,534	-4.3	109,738	113,322	3.3	33,985	24,212	-28.8
1983	149,764	138,415	-7.6	114,630	114,241	-0.3	35,134	24,174	-31.2
1984	150,918	140,748	-6.7	116,622	114,802	-1.6	34,296	25,946	-24.3
1985	165,517	146,734	-11.3	121,386	120,503	-0.7	44,131	26,231	-40.6
1986	166,867	149,352	-10.5	124,223	122,415	-1.5	42,644	26,937	-36.8
1987	164,385	150,441	-8.5	123,819	123,541	-0.2	40,566	26,900	-33.7
1988	156,976	149,396	-4.8	123,298	124,552	1.0	33,678	24,844	-26.2
1989	154,364	151,830	-1.6	117,471	125,138	6.5	36,893	26,692	-27.7
1990	163,107	159,331	-2.3	123,143	130,766	6.2	39,964	28,565	-28.5
1991	167,022	164,202	-1.7	124,540	134,250	7.8	42,482	29,952	-29.5
1992	171,998	170,967	-0.6	128,039	139,455	8.9	43,959	31,512	-28.3
1993	176,429	174,660	-1.0	133,694	141,895	6.1	42,735	32,765	-23.3
1994	174,657	172,311	-1.3	133,516	140,845	5.5	41,141	31,466	-23.5
1995	171,275	170,357	-0.5	130,676	138,582	6.1	40,599	31,775	-21.7
1996	166,158	165,543	-0.4	127,045	134,432	5.8	39,113	31,111	-20.5
1997	160,262	159,919	-0.2	123,077	129,914	5.6	37,185	30,005	-19.3
1998	158,145	158,238	*	121,290	128,055	5.6	36,855	30,183	-18.1
1999	159,020	158,833	-0.1	123,191	128,354	4.2	35,829	30,479	-14.9
2000	152,473	152,028	-0.3	119,081	122,943	3.2	33,392	29,085	-12.9
2001	155,041	155,098	*	122,368	125,674	2.7	32,673	29,424	-9.9
2002	161,898	161,426	-0.3	129,447	130,970	1.2	32,451	30,456	-6.1
2003	168,825	169,750	0.5	135,463	137,334	1.4	33,362	32,416	-2.8
2004	172,173	NA	NA	139,952	NA	NA	32,221	NA	NA

* = 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: Master's-granting institutions were surveyed on a sample basis from 1984–87; these figures include estimated data. See appendix A, Technical Notes, for further information. The % change column measures 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, doctorate or master's degree-granting status was determined by an institution's status each year. Beginning in 1992, degree-granting status was determined by status reported in the latest survey year. This change shifted numerous 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; thus, departments in fields such as educational psychology, social work, and cultural studies were retroactively dropped from the survey population. (3) Improved estimates were generated for 1984–87, in which enrollments at master's granting institutions were sampled.

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, 2005. This year the survey will continue to be offered online. **The Web-based data collection system (<http://www.gss2004.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
c/o ORC Macro
7315 Wisconsin Avenue, Suite 400W
Bethesda, MD 20814-3202

The data requested for the fall 2004 survey are exactly the same as those for the fall 2003 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>.

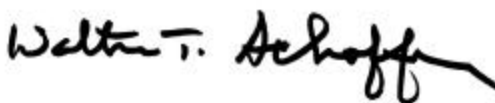
Thank you for your efforts in providing timely and meaningful statistics to NSF and NIH.

Sincerely,



Lynda T. Carlson, Ph.D.
Division Director
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 2004

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 2004. 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 2004. 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, 2005.

NATIONAL SCIENCE FOUNDATION and NATIONAL INSTITUTES OF HEALTH
Survey of Graduate Students and Postdoctorates in Science and Engineering, Fall 2004

DEPARTMENT OR PROGRAM DATA SHEET

Due date: January 31, 2005

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 2004. Report each student **only once** according to the source and mechanism of the **largest amount of support** received in fall 2004.

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 2004, 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	Amer. Indian or Alaska Native	Asian	Native Hawaiian/ Pacific Islander	White	Hispanic/ Latino	Hispanic/ Latino	Non-Hispanic/ Latino				(A)	(B)	(C)	(D)	(E)	(F)	(G)
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 2004, 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.gss2004.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 2004.		POSTDOCTORATES						OTHER NON- FACULTY RESEARCH STAFF WITH DOCTORATES (G)
		SOURCE OF SUPPORT				TOTAL for all sources (A) through (D) (E)	Of the total in (E), how many are FOREIGN? (F)	
		FEDERAL			NON-FEDERAL (D)			
		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 2004 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 schools¹, 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.gss2004.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.gss2004.org/gssweb/help/>. For additional help, send an e-mail to NSF's contractor, ORC Macro, at gss@qrc.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.



Survey of Graduate Students and Postdoctorates in Science and Engineering
2004 CROSSWALK BETWEEN NSF DISCIPLINE CODES AND
THE 1990 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

- 501 AGRICULTURAL SCIENCES (SEE ALSO 102 AND 901)**
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**
26.0204 MOLECULAR BIOLOGY
26.04 CELL AND MOLECULAR BIOLOGY
26.0401 CELL 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 (EXCEPT 26.0702, ENTOMOLOGY—SEE 609, AND 26.0705, PHARMACOLOGY, HUMAN AND ANIMAL—SEE 614)
- 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