

Appendix table 2-1

Institutions awarding S&E degrees, by field, degree level, and institution type: 2000

Degree level and institution type	Institutions	S&E field					Engineering technologies ^a
		All S&E ^a	Natural/ agricultural sciences ^b	Mathematics/ computer sciences	Social/ behavioral sciences	Engineering	
Bachelor's.....	1,876	1,495	1,327	1,303	1,382	422	346
Research I.....	88	87	87	87	86	80	20
Research II.....	38	38	38	38	38	35	13
Doctorate-granting I.....	49	48	46	45	48	25	19
Doctorate-granting II.....	60	59	59	57	57	41	19
Master's I.....	437	433	417	418	432	136	140
Master's II.....	92	92	89	85	91	13	17
Liberal arts I.....	163	158	154	153	158	19	0
Liberal arts II.....	455	439	395	358	407	43	56
Two year.....	109	31	11	13	16	1	28
Specialized.....	351	94	23	43	40	21	26
Other.....	18	14	8	4	9	8	2
Not classified.....	16	2	0	2	0	0	6
Master's.....	1,402	806	487	450	671	273	80
Research I.....	87	87	87	85	86	81	9
Research II.....	38	38	38	38	38	34	5
Doctorate-granting I.....	50	50	46	45	48	20	8
Doctorate-granting II.....	60	59	54	49	55	35	7
Master's I.....	438	348	197	191	302	77	44
Master's II.....	92	34	8	7	21	3	2
Liberal arts I.....	66	25	11	6	17	3	0
Liberal arts II.....	210	57	6	6	50	3	2
Two year.....	3	0	0	0	0	0	0
Specialized.....	322	78	37	23	24	17	3
Other.....	33	28	3	0	28	0	0
Not classified.....	3	2	0	0	2	0	0
Doctoral.....	404	338	280	182	262	191	0
Research I.....	89	89	89	83	87	83	0
Research II.....	38	38	38	37	38	33	0
Doctorate-granting I.....	50	49	42	28	46	22	0
Doctorate-granting II.....	59	54	48	25	42	33	0
Master's I.....	76	43	20	3	24	11	0
Master's II.....	2	1	1	0	0	0	0
Liberal arts I.....	9	6	1	0	6	1	0
Specialized.....	63	44	38	3	8	5	0
Other.....	17	13	2	3	11	3	0
Not classified.....	1	1	1	0	0	0	0

^aEngineering technologies data not included in S&E total.

^bNatural sciences include physical, biological, earth, atmospheric, and ocean sciences.

NOTE: For detailed fields of study, see National Science Foundation, Division of Science Resources Statistics (NSF/SRS), *Science and Engineering Degrees*, <http://www.nsf.gov/sbe/srs/nsf01325/htmstart.htm>.

SOURCES: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey; and NSF/SRS, WebCASPAR database system, <http://caspar.nsf.gov>.

Appendix table 2-2
Enrollment in higher education, by Carnegie institution type: 1967–2000

Year	All institutions	Research		Doctorate-granting		Comprehensive		Liberal arts		Two year	Specialized	Other	Not classified
		I	II	I	II	I	II	I	II				
1967	6,962,403	1,510,037	494,527	437,195	354,542	1,661,186	109,412	203,663	411,819	1,426,223	179,868	26,108	147,823
1968	7,570,446	1,564,981	517,844	455,455	389,249	1,813,749	119,881	209,398	431,621	1,709,796	187,241	27,560	143,671
1969	8,065,047	1,644,645	538,934	483,378	410,395	1,935,316	127,467	215,618	443,108	1,912,663	196,151	29,914	127,458
1970	8,648,124	1,748,776	570,365	509,450	436,660	2,071,472	137,127	221,996	452,087	2,180,252	209,720	32,862	77,357
1971	9,023,721	1,717,735	577,538	519,572	457,251	2,160,655	143,124	228,947	464,590	2,435,108	219,397	35,281	64,523
1972	9,296,311	1,768,282	581,139	521,856	466,371	2,183,621	142,270	233,939	464,218	2,609,721	229,979	31,451	63,464
1973	9,692,665	1,771,632	592,051	526,349	479,905	2,249,865	141,812	236,910	477,097	2,872,230	250,854	36,007	57,953
1974	10,319,864	1,826,768	612,510	545,772	497,963	2,324,124	153,182	238,868	494,426	3,272,215	271,195	34,553	48,288
1975	11,289,129	1,921,415	642,703	560,827	532,135	2,464,953	163,672	240,097	541,017	3,837,843	304,449	35,149	44,869
1976	11,120,093	1,893,269	613,142	568,570	526,247	2,415,834	168,445	240,730	551,890	3,755,311	307,803	33,066	45,786
1977	11,417,253	1,877,142	619,941	579,896	543,360	2,474,300	174,612	243,738	573,678	3,926,266	322,106	35,077	47,137
1978	11,391,377	1,864,590	626,213	581,343	542,558	2,452,812	178,964	251,607	579,494	3,910,980	334,175	34,665	33,976
1979	11,705,797	1,903,347	639,287	594,589	547,418	2,462,361	183,554	251,231	603,830	4,103,418	349,860	34,984	31,918
1980	12,234,644	1,947,444	655,874	604,769	570,666	2,531,409	188,971	260,645	633,712	4,404,276	371,317	35,861	29,700
1981	12,517,753	1,961,015	659,114	610,640	578,653	2,564,542	197,462	257,592	644,924	4,598,599	382,781	37,109	25,322
1982	12,588,520	1,933,340	650,946	606,683	582,638	2,570,690	200,403	252,029	651,192	4,671,136	398,143	37,800	33,520
1983	12,633,930	1,957,038	648,369	612,818	589,126	2,592,710	205,689	254,700	668,374	4,640,343	408,894	39,412	16,457
1984	12,400,392	1,952,748	644,056	604,742	591,400	2,576,072	203,725	253,604	656,099	4,456,709	410,816	38,571	11,850
1985	12,411,945	1,959,685	641,723	603,961	589,103	2,589,406	208,603	254,972	656,146	4,452,391	406,846	38,467	10,642
1986	12,670,121	1,988,839	653,298	609,772	590,694	2,629,336	210,267	257,998	657,695	4,600,773	409,815	39,097	22,537
1987	12,925,116	2,013,832	664,997	619,854	601,073	2,675,959	219,167	262,649	665,726	4,739,689	404,679	41,729	15,762
1988	13,201,196	2,029,004	685,709	631,050	608,610	2,738,209	227,912	269,134	693,026	4,843,313	422,564	39,942	12,723
1989	13,621,203	2,046,868	704,842	644,062	623,988	2,831,502	238,431	266,907	716,902	5,072,690	420,495	40,260	14,256
1990	13,983,255	2,080,412	714,852	657,824	635,833	2,926,402	243,690	268,223	732,654	5,220,767	442,899	42,149	17,550
1991	14,527,724	2,094,841	720,127	660,908	643,519	2,962,524	255,272	268,960	758,023	5,624,420	459,146	44,370	35,614
1992	14,657,118	2,089,045	714,126	655,985	649,549	2,964,105	259,253	266,735	781,247	5,695,378	483,070	46,705	51,920
1993	14,477,792	2,078,622	701,058	648,068	644,533	2,944,113	261,163	264,222	791,140	5,545,475	494,944	48,122	56,332
1994	14,449,476	2,079,559	694,454	639,831	650,816	2,927,198	266,854	264,737	797,156	5,499,655	502,771	49,764	76,681
1995	14,445,438	2,080,163	691,292	638,157	659,197	2,925,255	265,523	267,327	810,206	5,471,342	503,929	49,261	83,786
1996	14,481,915	2,082,713	684,608	632,288	661,015	2,926,182	267,133	269,258	814,037	5,494,333	515,296	50,151	84,901
1997	14,521,994	2,089,243	692,798	633,836	665,881	2,927,240	272,653	272,071	822,304	5,487,309	524,508	48,902	85,249
1998	14,835,140	2,109,348	701,177	636,460	673,467	2,960,640	276,662	275,722	839,075	5,679,793	543,075	46,968	92,753
2000	15,592,671	2,144,926	714,249	650,496	689,922	3,061,764	288,870	282,285	870,362	6,170,926	566,643	47,333	104,895

SOURCES: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Fall Enrollment Survey, various years; and National Science Foundation, Division of Science Resources Statistics, WebCASPAR database system, <http://caspar.nsf.gov>.

Science & Engineering Indicators – 2004

Appendix table 2-3
S&E degrees awarded by degree level, institution type, and field: 2000

Degree level and institution type	All fields	All S&E ^a	S&E field				
			Natural/ agricultural sciences ^b	Mathematics/ computer sciences	Social/ behavioral sciences	Engineering	Engineering technologies ^a
Bachelor's.....	1,253,121	398,622	101,775	49,123	188,188	59,536	15,238
Research I.....	297,126	132,007	34,387	10,785	57,657	29,178	1,714
Research II.....	98,995	34,907	9,097	2,732	15,548	7,530	1,069
Doctorate-granting I.....	80,768	22,656	4,930	3,041	11,246	3,439	938
Doctorate-granting II.....	84,006	29,135	6,695	3,902	12,339	6,199	827
Master's I.....	401,018	103,705	26,601	15,264	53,117	8,723	5,457
Master's II.....	39,255	9,022	2,360	1,724	4,593	345	594
Liberal arts I.....	56,514	27,810	8,789	2,187	16,358	476	0
Liberal arts II.....	130,987	29,959	7,673	6,191	15,224	871	1,626
Two year.....	7,426	660	161	301	188	10	1,060
Specialized.....	50,277	5,653	760	2,593	443	1,857	1,604
Other.....	5,369	2,880	322	175	1,475	908	33
Not classified.....	1,380	228	0	228	0	0	316
Master's.....	456,260	95,683	15,040	17,824	37,083	25,736	1,350
Research I.....	125,742	38,074	7,208	5,627	10,645	14,594	336
Research II.....	33,731	10,367	1,819	1,595	3,637	3,316	45
Doctorate-granting I.....	43,462	9,518	1,090	2,604	3,823	2,001	169
Doctorate-granting II.....	35,435	8,889	1,442	2,163	2,912	2,372	99
Master's I.....	156,214	21,925	2,702	4,560	11,815	2,848	544
Master's II.....	10,498	685	45	140	463	37	46
Liberal arts I.....	5,443	785	122	59	566	38	0
Liberal arts II.....	11,862	1,083	65	139	859	20	63
Two year.....	38	0	0	0	0	0	0
Specialized.....	30,678	2,345	511	937	387	510	48
Other.....	2,940	1,823	36	0	1,787	0	0
Not classified.....	217	189	0	0	189	0	0
Doctoral.....	44,818	25,389	10,003	1,856	8,146	5,384	16
Research I.....	27,497	16,948	7,188	1,335	4,294	4,131	6
Research II.....	4,925	2,811	1,152	222	847	590	7
Doctorate-granting I.....	4,754	1,982	462	197	1,063	260	0
Doctorate-granting II.....	2,378	1,317	463	91	463	300	0
Master's I.....	1,197	337	60	4	207	66	2
Master's II.....	17	10	1	0	9	0	0
Liberal arts I.....	222	81	12	0	69	0	0
Liberal arts II.....	93	16	0	0	16	0	0
Specialized.....	2,336	782	665	7	73	37	1
Other.....	1,291	1,003	0	0	1,003	0	0
Not classified.....	108	102	0	0	102	0	0

^aEngineering technologies data not included in S&E total.

^bNatural sciences include physical, biological, earth, atmospheric, and ocean sciences.

NOTE: For detailed fields, see National Science Foundation, Division of Science Resources Statistics (NSF/SRS), *Science and Engineering Degrees*, <http://www.nsf.gov/sbe/srs/nsf01325/htmstart.htm>.

SOURCES: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey; and NSF/SRS, WebCASPAR database system, <http://caspar.nsf.gov>.

Appendix table 2-4
U.S. population of 20–24-year-olds, by sex and race/ethnicity: Selected years, 1985–2020

Sex	All races/ethnicities		White		Asian/Pacific Islander		Black		Hispanic		American Indian/ Alaskan Native	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Both sexes												
1985	20,694,001	100.0	15,393,698	74.4	456,493	2.2	2,642,882	12.8	2,042,290	9.9	158,638	0.8
1990	18,613,683	100.0	13,142,195	70.6	603,986	3.2	2,423,770	13.0	2,295,364	12.3	148,368	0.8
1995	17,664,652	100.0	11,979,033	67.8	714,402	4.0	2,457,636	13.9	2,356,723	13.3	156,858	0.9
2000	18,516,000	100.0	12,167,000	65.7	744,000	4.0	2,638,000	14.2	2,801,000	15.1	166,000	0.9
2005	20,159,000	100.0	13,022,000	64.6	894,000	4.4	2,827,000	14.0	3,224,000	16.0	192,000	1.0
2010	21,152,000	100.0	13,253,000	62.7	995,000	4.7	3,099,000	14.7	3,599,000	17.0	206,000	1.0
2015	21,747,000	100.0	12,973,000	59.7	1,205,000	5.5	3,127,000	14.4	4,251,000	19.5	191,000	0.9
2020	21,020,000	100.0	12,130,000	57.7	1,322,000	6.3	2,855,000	13.6	4,528,000	21.5	185,000	0.9
Male												
1985	10,183,871	100.0	7,555,833	74.2	232,410	2.3	1,232,681	12.1	1,083,161	10.6	79,786	0.8
1990	9,277,563	100.0	6,505,454	70.1	308,080	3.3	1,142,368	12.3	1,246,935	13.4	74,726	0.8
1995	8,825,001	100.0	5,973,789	67.7	355,023	4.0	1,186,814	13.4	1,230,194	13.9	79,181	0.9
2000	9,432,000	100.0	6,226,000	66.0	366,000	3.9	1,304,000	13.8	1,454,000	15.4	83,000	0.9
2005	10,268,000	100.0	6,661,000	64.9	439,000	4.3	1,403,000	13.7	1,670,000	16.3	95,000	0.9
2010	10,777,000	100.0	6,776,000	62.9	495,000	4.6	1,543,000	14.3	1,860,000	17.3	103,000	1.0
2015	11,077,000	100.0	6,628,000	59.8	602,000	5.4	1,559,000	14.1	2,193,000	19.8	95,000	0.9
2020	10,698,000	100.0	6,191,000	57.9	658,000	6.2	1,425,000	13.3	2,332,000	21.8	92,000	0.9
Female												
1985	10,510,130	100.0	7,837,865	74.6	224,083	2.1	1,410,201	13.4	959,129	9.1	78,852	0.8
1990	9,336,120	100.0	6,636,741	71.1	295,906	3.2	1,281,402	13.7	1,048,429	11.2	73,642	0.8
1995	8,839,651	100.0	6,005,244	67.9	359,379	4.1	1,270,822	14.4	1,126,529	12.7	77,677	0.9
2000	9,084,000	100.0	5,942,000	65.4	379,000	4.2	1,334,000	14.7	1,347,000	14.8	83,000	0.9
2005	9,889,000	100.0	6,360,000	64.3	454,000	4.6	1,424,000	14.4	1,554,000	15.7	97,000	1.0
2010	10,375,000	100.0	6,477,000	62.4	500,000	4.8	1,556,000	15.0	1,739,000	16.8	103,000	1.0
2015	10,670,000	100.0	6,345,000	59.5	603,000	5.7	1,568,000	14.7	2,058,000	19.3	96,000	0.9
2020	10,321,000	100.0	5,938,000	57.5	664,000	6.4	1,430,000	13.9	2,196,000	21.3	93,000	0.9

SOURCES: U.S. Bureau of the Census, Population Division, 1990 Census, <http://www.census.gov/population/estimates/nation>; and U.S. Bureau of the Census, Population Projections Program, *Projections of the Resident Population by Age, Sex, Race, and Hispanic Origin: 1999 to 2100* (Washington, DC, 2000), http://www.census.gov/population/projections/nation/detail/d2001_10.pdf.

Science and Engineering Indicators – 2004

Appendix table 2-5

Enrollment in major types of institutions, by citizenship and race/ethnicity: 1992–98

Citizenship and race/ethnicity	All institutions	Research	Doctorate					Specialized	Other/not classified
			granting	Master's	Liberal arts	Two year	Number		
1992									
All students	14,657,118	2,803,171	1,305,534	3,223,358	1,047,982	5,695,378	483,070	98,625	
U.S. citizen/permanent resident	14,208,630	2,627,450	1,250,647	3,144,173	1,023,798	5,603,791	461,780	96,991	
White	10,876,214	2,144,509	1,003,566	2,408,743	795,838	4,100,032	351,524	72,002	
Asian/Pacific Islander	704,645	182,880	52,485	123,445	24,996	294,689	23,264	2,886	
Underrepresented minority	1,395,210	162,154	109,582	345,200	127,635	598,117	39,474	13,048	
Foreign citizen ^a	448,488	175,721	54,887	79,185	24,184	91,587	21,290	1,634	
1994									
All students	14,449,476	2,774,013	1,290,647	3,194,052	1,061,893	5,499,655	502,771	126,445	
U.S. citizen/permanent resident	13,992,549	2,595,018	1,235,962	3,112,014	1,037,486	5,406,855	480,460	124,754	
White	10,427,912	2,056,152	967,619	2,327,525	800,586	3,825,204	359,200	91,626	
Asian/Pacific Islander	783,961	214,587	58,278	133,252	27,834	318,867	27,771	3,372	
Underrepresented minority	1,451,217	171,224	117,035	363,934	132,356	611,033	42,056	13,579	
Foreign citizen ^a	456,927	178,995	54,685	82,038	24,407	92,800	22,311	1,691	
1996									
All students	14,481,915	2,767,321	1,293,303	3,193,315	1,083,295	5,494,333	515,296	135,052	
U.S. citizen/permanent resident	14,016,305	2,589,062	1,235,022	3,109,475	1,058,668	5,401,456	489,603	133,019	
White	10,226,732	2,013,170	940,583	2,283,751	810,598	3,731,434	355,132	92,064	
Asian/Pacific Islander	832,413	231,924	63,983	142,626	29,339	330,023	30,698	3,820	
Underrepresented minority	1,501,966	179,021	125,985	374,502	131,428	625,621	46,964	18,445	
Foreign citizen ^a	465,610	178,259	58,281	83,840	24,627	92,877	25,693	2,033	
1998									
All students	14,835,140	2,810,525	1,309,927	3,237,302	1,114,797	5,679,793	543,075	139,721	
U.S. citizen/permanent resident	14,394,111	2,626,753	1,249,159	3,150,614	1,089,399	5,623,274	516,999	137,913	
White	10,165,385	2,021,810	932,669	2,283,015	826,832	3,647,695	363,480	89,884	
Asian/Pacific Islander	955,830	245,812	69,567	152,626	30,621	417,469	35,268	4,467	
Underrepresented minority	1,624,403	186,416	134,501	390,097	141,093	696,144	55,532	20,620	
Foreign citizen ^a	441,029	183,772	60,768	86,688	25,398	56,519	26,076	1,808	
Percent distribution									
1992									
All students	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
U.S. citizen/permanent resident	96.9	93.7	95.8	97.5	97.7	98.4	95.6	98.3	
White	74.2	76.5	76.9	74.7	75.9	72.0	72.8	73.0	
Asian/Pacific Islander	4.8	6.5	4.0	3.8	2.4	5.2	4.8	2.9	
Underrepresented minority	9.5	5.8	8.4	10.7	12.2	10.5	8.2	13.2	
Foreign citizen ^a	3.1	6.3	4.2	2.5	2.3	1.6	4.4	1.7	
1994									
All students	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
U.S. citizen/permanent resident	96.8	93.5	95.8	97.4	97.7	98.3	95.6	98.7	
White	72.2	74.1	75.0	72.9	75.4	69.6	71.4	72.5	
Asian/Pacific Islander	5.4	7.7	4.5	4.2	2.6	5.8	5.5	2.7	
Underrepresented minority	10.0	6.2	9.1	11.4	12.5	11.1	8.4	10.7	
Foreign citizen ^a	3.2	6.5	4.2	2.6	2.3	1.7	4.4	1.3	
1996									
All students	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
U.S. citizen/permanent resident	96.8	93.6	95.5	97.4	97.7	98.3	95.0	98.5	
White	70.6	72.7	72.7	71.5	74.8	67.9	68.9	68.2	
Asian/Pacific Islander	5.7	8.4	4.9	4.5	2.7	6.0	6.0	2.8	
Underrepresented minority	10.4	6.5	9.7	11.7	12.1	11.4	9.1	13.7	
Foreign citizen ^a	3.2	6.4	4.5	2.6	2.3	1.7	5.0	1.5	
1998									
All students	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
U.S. citizen/permanent resident	97.0	93.5	95.4	97.3	97.7	99.0	95.2	98.7	
White	68.5	71.9	71.2	70.5	74.2	64.2	66.9	64.3	
Asian/Pacific Islander	6.4	8.7	5.3	4.7	2.7	7.4	6.5	3.2	
Underrepresented minority	10.9	6.6	10.3	12.1	12.7	12.3	10.2	14.8	
Foreign citizen ^a	3.0	6.5	4.6	2.7	2.3	1.0	4.8	1.3	

Appendix table 2-5

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Enrollment in major types of institutions, by citizenship and race/ethnicity: 1992–98

Citizenship and race/ethnicity	All institutions	Research	Doctorate granting	Master's	Liberal arts	Two year	Specialized	Other/not classified
1992								
All students	100.0	19.1	8.9	22.0	7.1	38.9	3.3	0.7
U.S. citizen/permanent resident	100.0	18.5	8.8	22.1	7.2	39.4	3.2	0.7
White	100.0	19.7	9.2	22.1	7.3	37.7	3.2	0.7
Asian/Pacific Islander	100.0	26.0	7.4	17.5	3.5	41.8	3.3	0.4
Underrepresented minority	100.0	11.6	7.9	24.7	9.1	42.9	2.8	0.9
Foreign citizen ^a	100.0	39.2	12.2	17.7	5.4	20.4	4.7	0.4
1994								
All students	100.0	19.2	8.9	22.1	7.3	38.1	3.5	0.9
U.S. citizen/permanent resident	100.0	18.5	8.8	22.2	7.4	38.6	3.4	0.9
White	100.0	19.7	9.3	22.3	7.7	36.7	3.4	0.9
Asian/Pacific Islander	100.0	27.4	7.4	17.0	3.6	40.7	3.5	0.4
Underrepresented minority	100.0	11.8	8.1	25.1	9.1	42.1	2.9	0.9
Foreign citizen ^a	100.0	39.2	12.0	18.0	5.3	20.3	4.9	0.4
1996								
All students	100.0	19.1	8.9	22.1	7.5	37.9	3.6	0.9
U.S. citizen/permanent resident	100.0	18.5	8.8	22.2	7.6	38.5	3.5	0.9
White	100.0	19.7	9.2	22.3	7.9	36.5	3.5	0.9
Asian/Pacific Islander	100.0	27.9	7.7	17.1	3.5	39.6	3.7	0.5
Underrepresented minority	100.0	11.9	8.4	24.9	8.8	41.7	3.1	1.2
Foreign citizen ^a	100.0	38.3	12.5	18.0	5.3	19.9	5.5	0.4
1998								
All students	100.0	18.9	8.8	21.8	7.5	38.3	3.7	0.9
U.S. citizen/permanent resident	100.0	18.2	8.7	21.9	7.6	39.1	3.6	1.0
White	100.0	19.9	9.2	22.5	8.1	35.9	3.6	0.9
Asian/Pacific Islander	100.0	25.7	7.3	16.0	3.2	43.7	3.7	0.5
Underrepresented minority	100.0	11.5	8.3	24.0	8.7	42.9	3.4	1.3
Foreign citizen ^a	100.0	41.7	13.8	19.7	5.8	12.8	5.9	0.4

^aIncludes temporary residents only.SOURCE: National Science Foundation, Division of Science Resources Statistics, WebCASPAR database system, <http://caspar.nsf.gov>.

Appendix table 2-6

Freshmen intending S&E major, by sex, race/ethnicity, and field: Selected years, 1975–2002

(Percent distribution)

(Page 1 of 4)

Sex, race/ethnicity, and field	1975	1977	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
All intending S&E major	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Physical sciences ^a	10.2	9.5	8.2	7.2	7.2	6.0	6.2	6.3	6.6	6.4	6.1	6.1	6.3	6.5	6.6	6.9	7.3	6.4	7.2	6.1	6.0	5.6	5.3	5.2	5.3	5.9
Biological/agricultural sciences	28.5	23.3	20.0	17.6	17.0	15.1	15.8	17.3	16.6	17.3	17.4	16.9	17.0	17.9	19.9	22.1	23.9	24.9	26.3	24.7	24.3	23.3	22.8	20.5	20.9	22.2
Mathematics/statistics	4.6	3.9	2.9	2.9	2.9	2.8	3.3	3.5	3.4	3.2	3.0	2.7	2.7	2.7	2.6	2.6	2.3	2.6	2.4	2.1	2.0	2.2	2.0	2.2	2.1	2.4
Computer sciences	4.1	5.9	10.3	13.6	18.6	22.9	22.1	15.9	12.7	10.0	8.3	7.9	7.7	7.7	7.4	6.6	6.6	7.9	9.6	11.0	12.4	14.7	15.4	16.2	14.4	9.6
Social/behavioral sciences	26.5	26.0	24.6	22.4	20.5	18.8	19.6	23.6	26.7	29.3	32.4	36.4	33.9	33.2	29.6	30.3	29.5	30.1	28.7	26.9	26.2	28.0	27.3	28.7	29.4	30.4
Engineering	25.9	31.5	33.8	36.3	33.9	34.2	33.0	33.3	33.9	33.8	32.9	30.0	32.2	31.8	34.0	31.4	30.4	27.9	25.8	29.2	29.2	26.1	27.3	27.1	27.5	29.5
Male	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Physical sciences ^a	12.0	10.3	9.3	8.0	7.9	6.8	6.7	6.9	7.3	7.4	7.0	7.1	7.2	7.4	7.1	7.5	7.5	6.8	7.2	5.9	6.3	5.7	5.4	5.2	5.2	5.9
Biological/agricultural sciences	26.1	20.1	17.6	15.6	15.1	13.3	13.9	14.8	14.1	14.5	14.8	15.2	14.8	15.6	16.6	18.7	20.4	20.7	20.7	18.4	17.5	16.9	15.5	13.9	14.1	15.0
Mathematics/statistics	3.8	3.2	2.4	2.3	2.2	2.1	2.6	2.5	2.7	2.8	2.4	2.3	2.5	2.4	2.1	2.3	2.0	2.4	2.1	1.8	1.7	1.9	1.8	2.0	1.8	2.2
Computer sciences	3.9	5.5	9.2	12.1	16.9	20.7	20.6	16.1	13.2	11.2	9.7	9.1	8.9	8.8	8.5	8.3	8.5	10.8	13.5	15.5	17.2	20.6	21.9	23.1	21.2	14.6
Social/behavioral sciences	18.8	17.5	15.7	14.1	13.0	12.2	12.4	14.9	17.1	17.4	19.7	22.2	20.4	20.5	17.7	18.6	18.5	18.8	17.6	16.1	15.3	16.4	15.5	16.6	17.1	18.1
Engineering	35.4	43.0	46.0	47.9	44.9	45.1	43.6	44.8	45.4	46.7	46.4	43.9	46.3	45.4	47.8	44.5	42.9	40.4	38.8	42.4	41.7	38.5	39.9	39.4	40.3	44.0
Female	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Physical sciences ^a	6.7	7.3	6.7	5.8	5.9	4.9	5.3	5.3	5.5	5.2	4.9	4.8	5.4	5.1	5.7	6.2	6.9	6.0	6.9	6.2	5.8	5.3	5.4	5.3	5.3	5.7
Biological/agricultural sciences	33.5	28.8	24.2	21.3	20.1	18.2	18.7	21.7	21.1	21.4	21.1	19.4	19.8	21.0	24.2	26.8	28.2	30.2	33.1	32.6	33.0	31.2	32.0	28.8	29.9	31.1
Mathematics/statistics	6.2	5.0	3.9	3.8	4.2	4.0	4.4	5.2	4.5	3.9	3.8	3.2	3.2	3.4	3.1	3.0	2.8	2.8	2.6	2.5	2.5	2.4	2.3	2.4	2.5	2.6
Computer sciences	4.8	6.6	12.1	16.2	21.5	26.8	24.7	15.7	11.6	8.1	6.1	6.2	5.8	6.3	6.0	4.4	4.2	4.3	4.9	5.6	6.2	7.4	7.0	7.4	5.9	3.2
Social/behavioral sciences	41.2	42.4	39.6	36.5	33.3	30.0	31.5	37.3	42.1	47.6	51.0	54.6	52.6	50.5	46.2	45.5	43.5	44.0	42.1	40.7	39.7	43.0	42.3	44.6	45.2	45.8
Engineering	7.7	9.9	13.3	16.3	15.0	16.0	15.3	14.6	15.5	13.9	13.2	11.8	13.5	13.8	14.6	14.1	14.4	12.8	10.4	12.6	13.0	10.9	11.2	11.7	11.3	11.5
White	33.2	30.0	30.0	31.4	32.7	34.1	34.5	32.8	31.7	29.2	27.8	27.8	29.6	29.3	30.5	30.7	31.7	30.8	30.9	32.3	32.8	30.5	31.7	30.6	31.9	31.3
Physical sciences ^a	3.7	3.2	2.7	2.6	2.6	2.2	2.4	2.3	2.3	2.0	1.9	1.9	2.0	2.1	2.3	2.4	2.6	2.1	2.5	2.1	2.4	2.0	2.0	2.0	2.1	2.1
Biological/agricultural sciences	9.6	7.1	6.2	5.8	5.7	5.3	5.5	5.7	5.3	5.0	4.7	4.7	5.1	5.4	6.0	6.8	7.6	8.8	9.0	8.9	8.6	7.7	7.9	6.6	7.0	7.0
Mathematics/statistics	1.5	1.2	0.9	0.9	0.9	1.0	1.2	1.2	1.1	0.9	0.9	0.8	0.9	0.9	0.8	0.8	0.9	0.8	0.7	0.7	0.7	0.6	0.7	0.7	0.8	
Computer sciences	1.3	1.7	2.9	4.0	5.8	7.6	7.0	4.7	3.4	2.6	2.1	1.9	1.9	1.8	1.8	1.8	1.8	2.1	2.5	3.0	3.5	3.8	4.1	4.3	4.0	2.8
Social/behavioral sciences	8.3	7.4	7.2	6.7	6.6	6.3	6.8	7.7	8.9	8.7	9.3	10.2	10.1	9.8	9.3	9.4	9.4	9.1	8.7	8.7	8.6	8.4	8.6	8.7	9.1	9.4
Engineering	8.8	9.4	10.1	11.4	11.1	11.7	11.6	11.2	10.7	10.0	8.9	8.3	9.6	9.3	10.3	9.5	9.4	7.9	7.5	8.9	9.0	7.9	8.5	8.3	9.0	9.2
Male	43.0	39.5	39.7	41.7	43.9	45.3	45.8	42.9	41.0	37.9	35.6	34.9	37.4	37.3	38.8	37.7	39.8	38.1	37.5	40.4	40.6	38.2	40.0	39.6	41.0	39.6
Physical sciences ^a	5.5	4.5	4.0	3.7	3.8	3.3	3.4	3.2	3.2	3.1	2.8	3.0	3.0	3.2	3.1	3.1	3.3	2.9	2.9	2.7	3.0	2.4	2.4	2.5	2.6	2.8
Biological/agricultural sciences	11.4	8.2	7.1	6.7	6.7	6.2	6.3	6.3	5.8	5.5	5.3	5.1	5.5	5.8	6.5	7.2	8.1	9.0	8.6	8.4	7.8	7.3	7.1	6.0	6.1	6.2
Mathematics/statistics	1.6	1.3	1.0	1.0	0.9	0.9	1.3	1.1	1.2	1.1	1.0	0.9	1.0	1.0	0.9	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.9	0.7	0.9
Computer sciences	1.5	2.1	3.5	4.8	7.2	9.2	9.1	6.5	5.1	4.0	3.3	3.0	3.1	2.9	3.0	2.9	3.2	3.8	4.6	5.6	6.4	7.1	7.7	8.2	7.7	5.5
Social/behavioral sciences	7.8	6.6	5.9	5.8	5.8	5.4	5.6	6.3	7.2	6.5	7.0	7.8	7.8	7.6	7.1	7.1	7.6	7.1	6.9	6.7	6.3	6.0	6.3	6.7	7.0	7.2
Engineering	15.2	16.8	18.2	19.7	19.5	20.3	20.1	19.5	18.5	17.7	16.2	15.1	17.0	16.8	18.2	16.4	16.7	14.4	13.7	16.2	16.4	14.7	15.8	15.3	16.9	17.0
Female	22.7	20.3	21.0	21.6	22.5	23.6	23.5	23.2	22.9	21.8	20.9	22.5	22.7	22.7	23.1	24.0	25.2	24.9	25.3	25.7	25.8	24.0	24.9	23.8	24.2	23.9
Physical sciences ^a	1.5	1.5	1.6	1.2	1.3	1.2	1.3	1.3	1.3	1.2	1.3	1.2	1.3	1.3	1.4	1.6	2.0	1.6	1.9	1.6	1.8	1.5	1.6	1.5	1.5	1.5
Biological/agricultural sciences	7.8	6.2	5.2	5.0	4.8	4.5	4.5	5.0	4.9	4.7	4.3	4.5	4.5	4.9	5.7	6.5	7.3	8.6	9.1	9.3	9.3	8.3	8.8	7.5	7.6	7.6
Mathematics/statistics	1.5	1.1	0.9	0.9	1.0	1.0	1.2	1.3	1.1	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.7	0.7
Computer sciences	1.0	1.2	2.3	3.2	4.5	5.9	5.1	3.0	1.9	1.2	0.9	1.0	0.8	0.9	0.8	0.7	0.6	0.6	0.7	0.8	1.0	1.1	1.1	1.1	0.8	0.5
Social/behavioral sciences	9.0	8.4	8.3	8.0	7.6	7.4	7.8	9.2	10.5	10.8	11.2	12.5	12.5	11.9	11.4	11.3	11.2	10.7	10.5	10.5	10.1	10.1	10.4	10.6	11.1	11.1
Engineering	1.9	1.9	2.7	3.3	3.3	3.6	3.6	3.4	3.2	2.9	2.4	2.4	2.8	2.9	3.0	3.1	3.4	2.7	2.4	2.8	3.0	2.4	2.4	2.5	2.5	2.5

Freshmen intending S&E major, by sex, race/ethnicity, and field: Selected years, 1975–2002

(Percent distribution)

Sex, race/ethnicity, and field	1975	1977	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Asian American	50.5	43.1	49.9	50.2	49.4	51.8	52.6	49.6	51.3	47.4	47.5	45.1	44.0	42.8	44.6	43.9	42.8	45.1	41.5	48.0	45.9	45.1	47.5	44.5	42.5	43.2
Physical sciences ^a	5.4	4.9	4.3	3.6	4.2	4.3	3.9	4.2	4.2	3.4	2.9	2.8	2.3	2.6	2.5	2.7	2.5	2.5	2.1	2.1	2.0	2.1	1.6	1.5	1.7	1.9
Biological/agricultural sciences	17.1	9.7	8.4	8.5	8.6	8.9	11.0	10.7	11.6	11.3	12.1	11.6	9.8	10.1	12.2	13.3	13.4	13.9	13.2	12.6	11.8	11.8	11.2	10.2	10.1	11.9
Mathematics/statistics	2.7	1.4	1.7	0.7	1.4	1.0	1.7	1.2	1.1	1.2	0.9	0.9	0.8	0.9	0.8	0.8	0.7	0.7	0.6	0.7	0.6	0.5	0.6	0.6	0.7	0.8
Computer sciences	2.4	3.5	4.6	6.3	6.8	8.7	8.8	5.9	3.0	4.2	3.7	3.2	2.4	3.0	3.5	2.3	2.7	4.3	5.2	7.6	7.9	9.2	12.6	11.0	9.3	4.6
Social/behavioral sciences	7.3	5.6	5.7	5.6	5.2	6.1	5.6	6.1	7.5	6.7	8.2	9.7	9.4	9.4	8.4	8.5	8.8	7.5	7.1	7.0	6.8	7.1	6.7	7.4	7.3	8.1
Engineering	15.6	18.0	25.2	25.5	23.2	22.8	21.6	21.5	23.9	20.6	19.7	16.9	19.3	16.8	17.2	16.3	14.7	16.2	13.3	18.0	16.8	14.4	14.8	13.8	13.4	15.9
Male	60.1	55.6	60.4	61.9	60.7	62.1	63.6	61.0	61.0	57.8	56.0	53.7	52.7	52.7	55.3	52.1	51.1	54.1	50.3	58.0	57.5	54.7	60.0	56.3	54.3	55.0
Physical sciences ^a	7.6	6.3	5.8	4.9	5.4	5.3	4.9	5.2	5.5	4.1	3.2	3.6	3.0	3.4	3.2	3.4	2.8	3.1	2.8	2.0	2.2	2.2	2.0	1.7	1.8	2.2
Biological/agricultural sciences	17.4	10.0	8.5	9.0	7.9	9.1	12.1	10.9	10.2	10.7	11.1	11.7	10.0	10.9	12.2	12.9	13.4	13.1	12.2	11.3	9.9	10.1	8.9	8.5	8.4	10.2
Mathematics/statistics	2.7	1.6	1.3	0.6	1.2	1.0	1.3	1.1	1.2	1.0	0.7	1.0	0.6	1.0	0.8	1.0	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.7	0.7	0.9
Computer sciences	2.8	3.5	4.4	5.0	6.3	7.7	9.0	6.1	3.1	5.0	4.6	4.1	3.3	4.3	5.4	3.6	4.2	6.7	8.0	11.6	12.5	14.2	19.4	17.8	15.5	8.1
Social/behavioral sciences	5.8	4.5	3.7	4.5	3.4	4.2	3.9	5.1	6.4	4.2	5.4	7.0	5.7	6.6	5.8	5.8	6.5	5.1	4.7	4.3	4.9	4.4	4.8	5.5	5.6	6.1
Engineering	23.8	29.7	36.7	37.9	36.5	34.8	32.4	32.6	34.6	32.8	31.0	26.3	30.1	26.5	27.9	25.4	23.6	25.5	22.0	28.1	27.4	23.2	24.3	22.1	22.3	27.5
Female	39.2	29.8	38.0	36.7	37.2	41.1	40.8	37.9	40.9	36.9	38.1	36.2	34.7	33.2	34.0	35.8	34.5	35.9	32.9	37.5	34.3	36.1	35.9	34.5	32.8	33.5
Physical sciences ^a	3.0	3.4	2.8	2.1	2.7	3.0	2.7	3.2	2.9	2.5	2.4	2.1	1.9	1.6	1.8	2.2	2.2	1.9	1.6	2.3	1.5	1.8	1.4	1.3	1.5	1.6
Biological/agricultural sciences	16.6	9.3	8.1	8.2	9.2	8.8	10.0	10.6	13.1	11.8	13.0	11.6	9.4	9.4	12.3	13.4	13.5	14.8	14.0	14.1	13.4	13.3	13.3	11.7	12.0	13.5
Mathematics/statistics	2.7	1.3	2.1	0.9	1.6	0.9	2.0	1.2	1.5	1.2	0.9	1.0	0.8	0.8	0.7	0.8	0.8	0.8	0.6	0.6	0.6	0.5	0.6	0.7	0.7	0.8
Computer sciences	2.2	3.6	4.7	8.0	7.2	9.9	8.5	5.6	2.8	3.4	2.6	2.4	1.5	1.8	1.6	1.2	1.4	1.9	2.5	3.4	3.4	4.7	6.2	5.2	4.0	1.6
Social/behavioral sciences	9.4	7.0	8.0	6.8	7.0	8.3	7.6	6.9	8.7	9.6	11.3	12.6	13.4	12.2	10.9	11.0	10.7	9.9	9.3	10.0	8.8	9.5	8.5	8.9	8.9	9.9
Engineering	5.3	5.2	12.3	10.7	9.5	10.2	10.0	10.4	12.2	8.1	7.6	6.6	7.5	7.4	6.6	7.3	5.9	6.6	4.9	7.1	6.6	6.3	5.9	6.7	5.7	6.1
Black	28.2	26.5	29.2	31.0	33.0	36.3	35.0	30.9	33.3	29.1	31.0	31.2	32.0	31.5	35.5	37.1	37.9	34.8	35.8	36.9	38.0	35.0	37.2	36.8	35.2	35.4
Physical sciences ^a	1.6	1.3	1.4	1.2	1.1	1.2	1.1	1.0	1.6	1.0	1.0	0.7	1.2	0.8	1.2	1.3	1.6	1.6	1.6	1.4	1.2	1.1	1.2	1.2	1.0	1.2
Biological/agricultural sciences	5.6	4.4	3.6	3.5	4.0	4.1	4.2	5.0	4.2	3.7	4.1	4.0	4.6	4.6	5.3	6.5	7.4	7.4	8.7	8.6	8.8	7.1	7.9	7.5	7.8	8.4
Mathematics/statistics	0.8	0.7	0.6	0.7	0.8	0.9	0.6	0.6	0.7	0.6	0.6	0.6	0.4	0.5	0.6	0.7	0.6	0.8	0.7	0.6	0.6	0.5	0.6	0.5	0.4	0.5
Computer sciences	2.0	2.2	5.4	6.7	9.8	11.9	13.3	9.5	10.4	6.6	5.2	4.8	5.9	5.7	5.6	5.1	5.4	4.7	6.3	6.5	7.1	8.5	8.4	8.1	7.4	4.7
Social/behavioral sciences	12.2	10.1	9.6	8.5	7.4	6.8	7.0	7.4	6.8	8.8	9.6	13.0	10.6	11.0	10.4	10.8	10.0	10.8	9.9	10.1	10.3	11.8	11.4	11.1	12.5	12.0
Engineering	6.0	7.8	8.6	10.4	9.9	11.4	8.8	7.4	9.6	8.4	10.5	8.1	9.3	8.9	12.4	12.7	12.9	9.5	8.6	9.7	10.0	6.0	7.7	8.4	6.1	8.6
Male	33.9	34.7	35.5	37.9	40.5	43.6	41.3	37.0	39.1	35.3	36.8	35.9	36.3	35.1	41.3	43.5	44.6	39.7	40.5	40.8	43.6	37.5	41.7	41.7	37.7	40.2
Physical sciences ^a	2.4	2.0	1.5	1.8	1.6	1.8	1.3	1.1	1.9	1.2	1.3	1.1	1.1	1.2	1.1	1.3	2.0	1.8	1.7	1.2	1.6	1.5	1.4	1.4	1.0	1.3
Biological/agricultural sciences	6.2	5.2	4.1	3.2	4.1	4.0	4.9	5.0	3.9	3.8	4.1	4.6	4.2	4.5	4.9	6.5	6.8	6.4	7.6	6.6	7.4	5.6	5.8	5.8	5.6	5.8
Mathematics/statistics	0.9	0.7	0.7	0.8	0.8	0.9	0.8	0.5	0.8	0.8	0.7	0.5	0.4	0.4	0.6	0.6	0.6	0.8	0.8	0.5	0.5	0.5	0.6	0.4	0.4	0.4
Computer sciences	2.2	2.7	5.6	7.1	10.5	12.0	13.5	10.5	11.2	7.3	6.3	5.5	6.9	6.7	6.0	5.9	6.6	5.6	8.5	8.8	9.8	12.4	13.2	12.4	12.2	8.2
Social/behavioral sciences	10.7	9.0	7.9	6.4	6.0	5.4	5.3	7.1	5.4	7.4	6.9	9.6	7.7	7.5	7.4	8.1	7.4	8.1	6.4	6.2	6.6	7.4	7.4	6.5	7.4	8.0
Engineering	11.5	15.1	15.7	18.6	17.5	19.5	15.5	12.8	15.9	14.8	17.5	14.6	16.0	14.8	21.3	21.1	21.2	17.0	15.5	17.5	17.7	10.1	13.3	15.2	11.1	16.5
Female	24.0	20.8	24.5	26.1	27.9	31.3	30.1	26.8	28.9	25.2	26.8	28.1	29.1	29.6	31.7	33.0	34.0	31.5	32.8	34.3	34.7	33.4	34.0	34.3	33.1	32.5
Physical sciences ^a	1.0	0.9	1.0	0.9	1.0	0.8	0.9	0.9	1.3	0.8	0.9	0.6	1.1	0.7	1.2	1.3	1.7	1.6	1.5	1.5	1.1	0.9	1.0	1.2	1.0	1.3
Biological/agricultural sciences	5.3	3.8	3.4	3.6	3.8	4.1	3.5	4.9	4.5	3.6	3.9	3.5	4.7	5.0	5.7	6.8	7.8	7.7	9.4	9.9	9.7	8.4	9.2	8.6	9.0	10.0
Mathematics/statistics	0.7	0.7	0.6	0.7	0.8	0.9	0.4	0.7	0.6	0.5	0.6	0.6	0.5	0.5	0.6	0.7	0.6	0.8	0.7	0.6	0.8	0.5	0.6	0.5	0.4	0.5
Computer sciences	1.9	1.9	5.3	6.3	9.3	11.9	13.3	8.9	9.9	6.2	4.4	4.5	5.2	5.1	5.3	4.6	4.6	4.1	4.8	5.0	5.2	6.0	5.3	5.5	4.3	2.5
Social/behavioral sciences	13.3	11.1	10.6	9.8	8.3	7.8	7.9	7.6	7.7	9.8	11.2	15.0	12.4	13.4	12.3	12.7	11.7	12.5	12.0	12.5	12.8	14.4	13.8	14.1	15.3	14.5
Engineering	1.8	2.4	3.6	4.8	4.7	5.8	4.1	3.8	4.9	4.3	5.8	3.9	5.2	4.9	6.6	6.9	7.6	4.8	4.4	4.8	5.1	3.2	4.1	4.4	3.1	3.7

Appendix table 2-6

Freshmen intending S&E major, by sex, race/ethnicity, and field: Selected years, 1975–2002

(Percent distribution)

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Sex, race/ethnicity, and field	1975	1977	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002		
Mexican American/Chicano and																												
Puerto Rican American	37.2	31.7	29.4	35.4	36.4	35.3	37.6	33.8	38.9	35.2	35.1	31.2	33.5	33.9	30.6	32.2	33.2	37.0	36.0	35.5	36.9	32.8	36.2	33.3	33.6	34.7		
Physical sciences ^a	3.6	1.2	1.9	1.9	2.3	1.5	1.5	1.9	1.9	1.4	1.5	1.5	1.7	1.8	1.4	1.5	1.6	1.6	1.3	1.3	1.4	1.4	1.0	1.4	1.2	1.6		
Biological/agricultural sciences	10.1	6.0	6.0	6.7	6.9	5.1	7.3	6.0	7.1	7.0	6.7	5.3	5.6	5.5	6.2	6.8	6.9	8.5	7.9	8.1	9.3	7.8	8.6	7.1	7.4	8.2		
Mathematics/statistics	1.8	1.0	0.4	0.8	0.5	0.9	1.1	0.6	0.7	0.8	0.5	0.5	0.6	0.8	0.3	0.7	0.4	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.7		
Computer sciences	1.3	2.7	3.5	3.6	5.8	7.4	6.9	7.3	4.7	2.4	2.6	2.2	2.2	2.1	2.8	2.5	2.1	2.4	2.9	3.6	3.4	3.9	3.8	3.8	3.8	2.4		
Social/behavioral sciences	13.3	12.1	8.8	9.7	7.5	8.3	8.5	7.7	11.9	11.4	12.4	12.8	12.9	12.9	9.9	11.1	12.5	13.5	12.2	11.8	11.4	10.4	10.9	12.3	11.6	13.2		
Engineering	7.1	8.7	8.8	12.7	13.4	12.1	12.3	10.3	12.6	12.2	11.4	8.9	10.5	10.8	10.0	9.6	9.7	10.4	11.2	10.1	10.8	8.7	11.3	8.1	8.9	8.6		
Male	41.6	39.4	37.9	40.9	44.1	42.4	43.0	43.1	47.5	41.8	41.9	36.1	40.2	40.0	35.6	37.0	38.8	40.5	42.0	42.0	43.0	38.1	45.0	40.6	40.4	40.8		
Physical sciences ^a	5.3	1.7	3.2	2.6	3.0	2.6	2.2	2.5	2.8	1.6	1.9	1.9	2.2	2.6	1.7	1.4	2.2	2.2	1.7	1.4	1.8	2.0	1.1	1.7	1.3	1.8		
Biological/agricultural sciences	10.3	6.1	6.9	6.9	7.0	4.8	6.7	6.1	7.4	6.8	6.8	5.7	5.9	6.2	5.5	7.4	7.4	8.7	6.8	7.5	7.7	6.8	7.3	7.1	5.9	6.8		
Mathematics/statistics	2.1	1.7	0.5	0.5	0.6	0.8	1.4	0.6	0.8	0.9	0.8	0.7	0.8	0.7	0.5	0.8	0.5	0.8	0.3	0.7	0.6	0.5	0.8	0.6	0.9	1.0		
Computer sciences	1.7	2.9	3.8	3.1	5.9	7.5	7.2	9.3	6.5	2.9	3.2	2.7	3.1	2.7	3.9	3.4	3.1	3.7	4.7	6.3	5.7	5.7	6.8	7.3	7.1	5.2		
Social and behavioral sciences	10.8	10.9	7.5	7.2	5.4	6.8	6.5	7.5	9.3	7.9	9.7	9.5	10.0	8.6	7.3	8.0	9.8	8.6	7.8	8.4	8.0	7.3	6.9	7.7	7.6	7.9		
Engineering	11.4	16.1	16.0	20.6	22.2	19.9	19.0	17.1	20.7	21.7	19.5	15.6	18.2	19.2	16.7	16.0	15.8	16.5	20.7	17.7	19.2	15.8	22.1	16.2	17.6	18.1		
Female	31.2	24.6	22.7	30.3	28.9	29.2	32.2	25.7	31.7	29.4	29.4	27.4	28.3	29.7	26.3	27.5	28.2	33.8	31.0	30.7	31.5	28.4	28.7	27.6	28.4	30.7		
Physical sciences ^a	1.5	0.7	1.0	1.4	1.7	0.7	0.8	1.4	1.1	1.1	1.0	1.0	1.3	1.1	1.3	1.3	1.1	1.1	1.2	1.2	1.2	0.8	0.8	1.2	1.3	1.5		
Biological/agricultural sciences	9.5	5.8	5.4	6.4	6.6	5.4	7.9	5.9	7.0	7.5	6.6	5.1	5.6	5.1	6.7	6.2	6.5	8.4	8.7	8.7	10.3	8.6	9.4	6.9	8.2	9.2		
Mathematics/statistics	1.3	0.3	0.3	1.0	0.3	1.0	0.8	0.8	0.5	0.6	0.3	0.4	0.4	0.8	0.2	0.6	0.4	0.4	0.5	0.4	0.4	0.7	0.4	0.5	0.5	0.5		
Computer sciences	0.8	2.6	3.3	4.1	5.8	7.2	6.5	5.6	3.1	2.0	2.2	1.9	1.6	1.6	1.9	1.7	1.1	1.3	1.5	1.7	1.5	2.4	1.4	1.5	1.4	0.6		
Social/behavioral sciences	16.2	13.1	10.3	12.3	9.4	9.9	10.2	7.8	14.0	14.1	14.9	15.4	15.2	16.5	12.5	13.7	14.7	17.1	15.8	14.3	14.2	13.0	13.8	15.3	14.3	16.7		
Engineering	1.9	2.1	2.4	5.1	5.1	5.0	6.0	4.2	6.0	4.1	4.4	3.6	4.2	4.6	3.7	4.0	4.4	5.5	3.3	4.4	3.9	2.9	2.9	2.2	2.7	2.2		
Other Latino	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	39.8	38.0	40.9	39.5	41.3	38.2	36.1	37.2	35.2	36.6	35.4
Physical sciences ^a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.0	2.8	1.4	1.4	1.8	1.2	1.3	1.3	1.4	1.6
Biological/agricultural sciences	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.9	9.5	7.9	10.9	8.2	9.4	8.7	7.6	7.6	7.9	7.8
Mathematics/statistics	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.6	0.2	1.0	0.5	0.4	0.4	0.5	0.4	0.3	0.4	0.7
Computer sciences	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.0	2.2	2.7	3.5	4.2	4.4	5.0	5.0	5.7	4.4	2.5
Social/behavioral sciences	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14.3	13.1	13.3	12.7	11.6	11.9	12.2	13.1	12.7	13.4	13.9
Engineering	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.0	11.0	13.2	10.5	15.5	10.3	8.5	9.8	7.6	9.1	8.9
Male	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	43.0	40.4	48.0	44.5	51.4	43.9	41.7	45.4	43.9	45.5	42.2
Physical sciences ^a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.4	1.8	3.4	2.0	1.6	2.2	1.5	1.9	1.8	2.1	2.0
Biological/agricultural sciences	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.3	8.7	7.0	8.3	8.6	7.9	7.7	5.3	6.8	7.1	6.9
Mathematics/statistics	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.6	0.3	1.2	0.6	0.4	0.6	0.7	0.4	0.3	0.5	0.9
Computer sciences	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.0	2.9	4.7	5.8	6.9	7.2	7.2	9.4	11.2	8.7	4.8
Social/behavioral sciences	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.7	9.0	9.3	9.0	7.9	7.6	8.7	9.7	8.5	9.0	10.0
Engineering	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.0	17.7	22.4	18.8	26.0	18.4	15.9	18.7	15.3	18.1	17.6
Female	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	36.9	35.4	34.6	35.8	32.2	33.3	31.5	31.3	29.9	30.3	31.1
Physical sciences ^a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.6	2.0	2.2	1.2	1.1	1.3	0.9	1.1	0.9	0.9	1.5
Biological/agricultural sciences	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.8	9.9	8.7	13.2	7.8	10.6	9.1	9.4	8.5	8.3	8.3
Mathematics/statistics	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.6	0.2	0.8	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.6
Computer sciences	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.9	1.5	1.1	1.5	1.8	2.1	3.3	1.7	2.1	1.6	0.9
Social/behavioral sciences	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19.9	17.0	16.4	16.1	14.9	15.1	15.0	15.5	15.3	16.4	16.6
Engineering	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.1	4.8	5.4	3.3	6.2	3.9	2.9	3.3	2.8	2.8	3.2

Freshmen intending S&E major, by sex, race/ethnicity, and field: Selected years, 1975–2002

(Percent distribution)

Sex, race/ethnicity, and field	1975	1977	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
American Indian/Alaskan Native	34.3	32.7	31.0	35.6	30.0	32.5	31.3	29.6	29.2	30.6	31.5	31.9	33.9	31.8	31.2	31.7	31.9	30.2	30.6	33.6	34.9	32.8	35.4	33.8	35.3	32.0
Physical sciences ^a	3.3	2.5	4.7	2.0	2.0	1.9	2.2	0.9	1.6	2.0	2.2	1.7	2.0	3.0	2.0	1.8	1.5	2.0	2.0	2.6	2.5	2.1	2.7	2.6	1.8	1.7
Biological/agricultural sciences	10.0	8.0	5.1	6.1	5.0	4.7	4.8	8.1	5.5	5.5	6.3	5.5	4.8	7.3	6.5	7.4	8.0	8.0	9.3	8.9	8.8	8.2	9.3	6.9	8.4	7.9
Mathematics/statistics	1.1	1.5	0.3	1.1	0.3	1.0	0.6	0.6	0.5	0.8	1.0	0.6	0.6	0.4	0.3	0.4	0.7	0.7	0.4	0.5	0.5	0.4	0.7	0.4	0.6	0.6
Computer sciences	1.5	2.0	3.5	5.4	5.6	8.7	8.7	5.5	5.1	2.3	2.7	2.4	2.2	2.3	3.0	2.1	2.3	2.2	3.0	3.7	5.0	4.6	4.4	4.0	4.4	2.8
Social/behavioral sciences	10.7	10.8	8.1	8.3	7.2	5.5	6.0	6.7	9.9	9.6	9.3	13.2	13.5	10.7	9.7	10.6	11.0	10.4	9.5	9.9	10.7	11.1	10.4	11.9	12.7	11.5
Engineering	7.7	7.9	9.3	12.7	9.9	10.7	9.0	7.8	6.6	10.4	10.0	8.5	10.8	8.1	9.7	9.4	8.4	6.9	6.4	8.0	7.4	6.4	7.9	8.0	7.4	7.5
Male	39.5	37.9	37.3	41.7	39.5	34.1	35.2	32.8	33.0	40.6	39.7	37.4	38.8	35.8	37.0	37.1	35.9	34.1	36.5	40.1	37.0	36.4	39.0	36.6	41.0	36.8
Physical sciences ^a	6.1	3.8	5.3	2.4	3.2	2.9	3.6	1.1	2.6	2.8	3.6	2.6	2.5	4.9	2.4	1.9	2.0	3.6	2.4	3.0	3.2	2.6	2.9	3.6	2.3	2.2
Biological/agricultural sciences	10.6	9.1	6.6	8.3	5.8	4.1	6.2	8.3	7.7	7.1	7.2	6.7	5.9	7.4	6.1	7.7	9.5	6.7	9.6	8.1	6.8	6.7	7.9	4.9	6.9	5.3
Mathematics/statistics	1.2	2.4	0.3	1.1	0.7	1.6	0.6	0.1	1.0	0.7	0.8	0.7	0.4	0.9	0.3	0.3	0.8	0.8	0.2	0.6	0.8	0.6	0.7	0.4	0.6	0.8
Computer sciences	1.2	1.5	2.2	3.5	4.0	4.6	4.5	3.3	3.8	2.3	2.6	2.9	1.5	1.3	3.0	2.7	1.9	2.6	4.1	5.5	5.8	6.7	5.4	5.1	7.2	4.0
Social/behavioral sciences	8.3	9.3	7.3	7.4	6.2	2.8	5.5	6.0	6.4	9.5	7.2	8.7	11.2	7.3	6.7	8.6	8.2	7.9	7.5	7.7	6.9	7.4	7.0	8.2	8.3	8.6
Engineering	12.1	11.8	15.6	19.0	19.6	18.1	14.8	14.0	11.5	18.2	18.3	15.8	17.3	14.0	18.5	15.9	13.5	12.5	12.7	15.2	13.5	12.4	15.1	14.4	15.7	15.9
Female	26.9	25.8	20.5	25.7	16.4	22.4	18.9	22.3	20.8	21.1	23.4	26.5	28.3	26.2	25.3	25.6	26.5	26.2	25.1	27.8	30.7	28.6	30.0	28.4	30.6	27.2
Physical sciences ^a	1.0	1.3	3.6	1.1	1.1	1.9	1.0	0.8	0.7	1.5	0.9	1.1	1.3	1.7	1.7	1.8	1.0	1.0	1.9	2.2	1.9	1.8	2.4	1.8	1.6	1.4
Biological/agricultural sciences	8.9	5.9	3.9	3.8	3.5	4.6	3.7	8.3	3.1	4.2	5.6	4.7	4.0	7.5	6.7	6.8	6.7	8.7	9.1	9.3	10.2	9.3	10.4	7.9	9.0	8.8
Mathematics/statistics	0.7	0.7	0.0	0.7	0.1	0.6	0.7	1.0	0.2	0.8	1.2	0.6	0.6	0.1	0.3	0.6	0.6	0.7	0.5	0.4	0.3	0.2	0.5	0.3	0.7	0.4
Computer sciences	0.6	1.3	0.2	2.5	1.4	2.5	3.7	2.6	1.9	1.2	0.7	1.0	1.0	1.1	1.5	0.7	1.6	0.9	0.7	1.2	2.3	1.4	1.3	0.9	1.1	0.5
Social/behavioral sciences	12.4	11.8	8.7	10.7	8.1	8.9	6.1	7.5	12.4	9.4	11.3	16.4	15.5	12.4	12.0	11.7	12.4	12.1	11.2	11.4	12.9	13.9	12.7	14.4	15.2	13.3
Engineering	3.3	4.8	4.1	6.9	2.2	3.9	3.7	2.1	2.5	4.0	3.7	2.7	5.9	3.4	3.1	4.0	4.2	2.8	1.7	3.3	3.1	2.0	2.7	3.1	3.0	2.8

NA not available

^aPhysical sciences include physics, chemistry, astronomy, and earth, atmospheric, and ocean sciences.

SOURCE: Higher Education Research Institute, University of California at Los Angeles, Survey of the American Freshman: National Norms, special tabulations, 2003.

Appendix table 2-7

Freshmen intending to major in selected S&E fields, by sex and race/ethnicity: Selected years, 1971–2002

(Percent)

Sex, race/ethnicity, and field	1971	1972	1973	1974	1975	1977	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Male	65.7	66.6	65.2	65.8	65.1	65.3	62.8	63.1	63.1	62.5	62.5	61.7	61.4	60.3	59.2	56.6	57.3	57.1	57.9	57.1	56.1	55.0	54.5	55.6	55.6	55.3	56.2	55.9	55.8	55.5
Female	34.3	33.4	34.8	34.2	34.9	34.7	37.2	36.9	36.9	37.5	37.5	38.3	38.6	39.7	40.8	43.4	42.7	42.9	42.1	42.9	43.9	45.0	45.5	44.4	44.4	44.7	43.8	44.1	44.2	44.4
White.....	92.1	90.6	91.0	90.5	89.4	87.9	86.5	86.2	87.5	85.3	85.4	85.7	83.7	84.0	83.1	80.0	81.8	78.8	76.9	78.8	79.1	76.3	76.2	75.4	76.3	75.9	74.4	72.4	71.2	72.1
Physical sciences ^a	94.9	94.1	93.2	92.4	92.5	91.9	91.2	90.5	91.7	89.3	90.5	90.2	86.3	88.5	88.3	88.1	87.6	87.6	85.0	86.5	85.7	82.4	84.7	83.7	84.6	83.8	84.9	82.5	80.8	80.6
Biological/agricultural sciences.....	94.3	93.6	92.3	92.0	91.2	90.7	90.0	89.9	89.5	87.6	86.3	85.6	84.2	84.2	82.9	80.3	81.9	79.1	77.5	79.0	79.4	77.3	76.6	76.4	77.0	76.3	75.3	71.5	68.9	68.3
Social/behavioral sciences.....	89.2	87.9	88.5	87.8	85.2	84.3	84.4	84.7	87.7	85.5	86.4	87.0	88.2	85.6	85.6	80.3	83.5	79.6	79.0	80.8	81.3	78.4	78.6	78.6	78.5	76.5	76.9	74.3	71.9	73.0
Mathematics/statistics.....	93.9	92.2	91.5	92.0	92.1	92.1	90.1	89.9	90.1	87.7	90.8	91.6	89.7	89.1	89.1	86.2	89.8	86.6	84.7	84.9	86.9	82.2	83.5	83.6	82.9	83.6	82.7	82.8	81.4	80.0
Computer sciences.....	88.0	81.4	86.1	86.0	84.1	83.1	79.8	81.3	83.4	81.7	79.0	76.3	71.2	73.9	73.4	68.7	68.5	62.9	61.3	66.4	66.3	67.3	65.2	65.2	68.0	66.1	63.7	64.0	62.6	68.8
Engineering.....	93.2	91.1	92.2	91.5	90.7	87.9	86.6	86.1	87.5	85.7	87.2	87.7	83.3	84.0	81.5	80.1	81.1	79.2	76.1	77.1	77.2	73.8	74.3	73.1	75.2	78.0	74.5	73.3	74.1	72.6
Asian American.....	0.9	1.2	1.2	1.5	1.8	1.8	2.1	2.1	2.0	2.4	2.7	2.6	4.2	4.6	4.7	5.1	4.7	5.2	5.9	5.8	5.7	8.0	7.2	7.9	8.1	7.9	9.4	9.7	9.6	10.2
Physical sciences ^a	1.1	1.2	1.4	1.9	1.9	2.2	2.3	2.1	2.2	3.1	3.2	3.5	5.4	5.0	4.5	5.1	4.0	4.7	5.2	5.1	4.6	7.0	5.5	5.6	5.4	6.4	6.2	6.5	6.9	7.3
Biological/agricultural sciences.....	0.5	1.0	1.5	1.6	2.1	1.8	1.8	2.1	2.1	2.7	3.7	3.3	5.6	6.3	6.9	7.7	6.2	6.9	8.2	7.7	7.4	9.6	8.5	8.2	8.3	8.7	9.4	10.8	10.9	12.7
Social/behavioral sciences.....	0.6	0.8	0.5	0.9	1.1	1.0	1.1	1.0	1.1	1.5	1.5	1.4	2.4	2.3	2.5	3.1	3.0	3.5	3.8	3.7	4.0	4.5	4.3	4.4	4.8	4.4	5.0	5.6	5.8	6.4
Mathematics/statistics.....	0.8	1.2	1.2	1.7	2.1	1.6	2.6	1.3	1.8	1.6	2.6	1.8	2.8	3.7	3.1	3.7	3.3	3.7	4.3	4.4	4.2	4.8	4.5	5.3	5.1	4.7	6.3	6.9	8.0	8.3
Computer sciences.....	0.9	2.9	1.5	2.3	2.2	2.4	2.0	2.0	1.5	1.9	2.0	2.0	1.9	4.0	4.5	4.7	3.4	4.7	6.2	4.7	5.5	10.0	9.3	11.4	11.4	11.0	16.1	14.8	14.4	11.8
Engineering.....	1.5	1.7	1.5	1.7	2.1	2.4	3.1	2.9	2.6	3.0	3.4	3.5	5.7	5.8	6.0	6.4	6.4	6.4	6.7	6.9	6.3	10.5	8.9	10.2	10.3	9.8	10.8	11.1	10.9	12.8
Black.....	6.2	6.9	6.6	6.3	7.3	7.9	8.8	9.5	8.6	10.4	10.0	9.7	10.0	8.8	9.6	11.7	10.5	12.1	13.1	11.3	11.4	11.1	11.6	11.7	11.4	11.6	10.4	11.5	11.0	10.7
Physical sciences ^a	3.4	3.9	4.5	4.3	4.2	4.9	5.7	4.7	6.2	5.2	4.8	6.9	4.8	5.3	5.0	6.1	4.9	7.0	5.9	7.2	7.8	7.2	7.8	6.5	6.5	6.3	7.4	6.6	6.5	
Biological/agricultural sciences.....	4.2	4.5	4.8	4.7	5.1	5.6	5.7	6.1	6.1	7.8	7.7	8.9	7.8	6.4	7.3	8.6	9.0	10.0	10.0	9.1	9.3	9.0	10.6	10.7	10.5	10.2	9.6	11.3	11.4	11.3
Social/behavioral sciences.....	9.2	9.9	9.5	9.3	11.7	11.7	11.7	11.4	9.4	10.5	10.2	10.0	7.7	9.2	9.2	13.5	10.3	12.8	13.0	10.9	10.3	11.6	11.4	12.0	12.2	13.8	11.9	12.1	13.3	12.1
Mathematics/statistics.....	4.8	5.6	6.5	5.2	4.6	5.3	6.2	7.7	7.3	8.9	5.1	5.9	6.2	6.0	6.6	8.4	5.3	7.0	8.7	8.2	7.3	10.3	10.0	8.8	10.0	7.6	8.5	6.6	5.5	6.7
Computer sciences.....	10.0	14.6	11.3	10.2	12.6	11.1	15.7	15.0	13.5	14.9	17.3	18.9	24.9	19.7	19.3	23.1	25.1	28.6	27.5	23.2	24.1	18.9	20.8	18.4	17.0	18.9	15.3	15.6	15.7	14.4
Engineering.....	4.5	5.4	4.9	5.2	5.9	7.3	7.7	8.7	7.6	9.4	7.6	7.0	8.5	7.4	9.8	10.1	9.4	10.5	13.4	12.2	12.7	11.0	10.9	10.7	10.3	7.6	7.9	9.7	6.9	8.7
Hispanic ^b	0.5	1.0	0.8	1.2	1.4	1.7	1.8	1.5	1.2	1.8	1.3	1.2	1.5	2.0	1.9	2.3	2.1	2.5	2.6	4.1	3.9	4.9	5.1	5.5	5.0	5.5	6.4	7.1	7.6	6.9
Physical sciences ^a	0.3	0.7	0.8	1.0	1.2	0.7	1.5	1.1	1.1	1.3	0.9	1.1	1.1	1.2	1.3	1.8	1.7	2.0	1.8	2.7	2.6	3.7	2.8	3.1	3.6	3.7	3.8	5.3	5.1	5.3
Biological/agricultural sciences.....	0.5	0.6	0.8	1.1	1.3	1.4	1.9	1.6	1.4	1.6	1.6	1.2	1.7	2.4	2.1	2.3	2.1	2.3	2.6	3.9	3.6	4.2	4.6	4.4	5.0	5.5	6.1	7.4	7.6	7.0
Social/behavioral sciences.....	0.8	1.4	1.0	1.5	1.8	2.5	2.2	1.7	1.3	2.1	1.4	1.1	1.7	2.3	2.1	2.7	2.4	2.9	2.8	4.8	5.0	5.8	5.9	6.4	6.1	6.4	7.5	9.1	9.2	8.7
Mathematics/statistics.....	0.4	0.8	0.8	1.0	1.4	1.4	0.9	1.3	0.4	1.6	1.1	0.6	0.7	1.3	1.0	1.4	1.5	2.0	1.1	3.0	1.9	3.5	2.6	3.5	3.3	4.4	5.2	4.7	6.4	6.1
Computer sciences.....	0.8	1.4	0.8	1.1	1.2	2.5	2.2	1.1	1.2	1.7	1.0	1.6	1.4	1.4	1.8	2.2	1.9	2.0	3.3	4.1	3.6	4.4	4.5	5.0	4.1	4.8	4.9	5.9	6.1	5.2
Engineering.....	0.5	1.1	0.9	1.2	1.0	1.5	1.6	1.3	1.3	1.7	1.3	1.1	1.5	2.1	1.9	2.2	2.2	2.5	2.5	3.9	3.7	5.3	5.9	5.8	4.9	5.6	7.0	6.1	7.1	5.8
American Indian.....	0.9	1.0	0.9	0.8	0.7	0.7	0.8	0.8	0.9	0.9	1.1	0.9	0.9	0.9	1.0	0.9	1.0	1.3	1.6	1.7	1.7	2.0	2.1	2.3	3.1	2.1	2.3	1.9	1.3	1.2
Physical sciences ^a	0.8	1.1	0.8	0.9	0.7	0.6	1.3	0.6	0.8	0.9	1.2	0.5	0.8	1.0	1.1	0.8	0.9	1.8	1.6	1.4	1.1	2.0	2.1	2.9	3.5	2.3	3.3	2.5	1.2	1.1
Biological/agricultural sciences.....	1.0	1.1	1.0	0.9	0.8	0.8	0.7	0.8	0.9	1.1	1.5	1.1	1.0	1.1	0.9	0.8	1.7	1.7	1.8	1.8	1.9	2.2	2.3	3.1	2.1	2.5	1.8	1.4	1.3	
Social/behavioral sciences.....	1.0	1.1	0.8	0.9	0.9	0.9	0.8	0.8	1.1	0.9	1.2	1.0	0.9	1.2	1.0	0.9	1.0	1.2	1.4	1.7	1.9	2.1	2.4	2.4	2.6	3.7	2.6	2.6	1.6	1.5
Mathematics/statistics.....	1.0	0.8	0.9	0.5	0.5	0.9	0.2	0.8	0.3	1.1	0.7	0.5	0.5	0.7	1.1	0.7	0.6	0.6	0.6	1.0	1.6	1.9	1.1	1.7	2.1	1.3	2.4	0.9	1.1	1.0
Computer sciences.....	1.4	0.8	1.5	0.4	0.8	0.7	0.9	0.9	0.9	1.1	1.4	1.1	1.3	0.7	1.1	0.9	0.9	1.3	2.1	1.8	1.9	2.0	2.2	2.4	3.7	2.1	1.9	1.4	1.1	1.1
Engineering.....	0.7	0.8	0.7	0.7	0.7	0.5	0.7	0.7	0.9	0.9	0.9	0.7	0.6	0.9	1.0	0.8	1.0	1.1	1.5	1.6	1.5	1.7	1.8	2.0	2.3	1.6	2.0	1.7	1.0	1.0

Appendix table 2-7

Freshmen intending to major in selected S&E fields, by sex and race/ethnicity: Selected years, 1971–2002

(Percent)

Sex, race/ethnicity, and field	1971	1972	1973	1974	1975	1977	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Unknown	0.9	1.4	1.2	1.5	1.6	1.7	2.0	1.9	1.9	1.6	1.5	1.5	1.6	1.8	1.9	2.2	1.9	2.3	2.6	1.9	1.9	2.2	2.5	3.0	3.3	3.0	3.9	3.8	3.3	3.2
Physical sciences ^a	0.9	0.9	0.9	0.9	1.5	1.8	1.5	1.9	1.6	1.6	1.8	1.4	1.4	1.6	1.8	1.4	1.8	2.1	2.1	1.8	1.7	1.7	2.5	3.4	3.4	3.1	4.0	3.2	3.2	2.9
Biological/agricultural sciences.....	0.9	1.2	1.4	1.6	1.7	1.6	1.9	1.6	2.3	1.7	1.6	1.7	1.7	2.0	2.1	2.4	1.9	2.3	2.9	2.2	2.0	2.4	2.9	3.2	3.7	3.3	3.8	3.7	3.8	3.7
Social/behavioral sciences.....	1.0	1.5	1.2	1.6	1.6	1.7	2.1	2.0	1.9	1.9	1.6	1.4	1.5	2.1	2.0	2.1	1.9	2.4	3.1	2.1	2.1	2.4	2.5	2.6	3.2	3.4	4.0	4.2	3.5	3.6
Mathematics/statistics.....	0.8	0.9	0.7	1.0	1.1	0.9	1.2	1.3	0.8	1.3	1.0	0.6	0.8	0.9	1.3	1.1	1.3	1.5	2.2	1.2	2.1	1.7	1.3	2.5	2.5	2.3	3.6	3.5	1.7	2.5
Computer sciences.....	0.5	1.0	0.4	1.2	1.5	1.5	1.7	1.7	1.6	1.3	1.2	1.5	1.0	1.5	2.2	2.1	1.6	2.1	2.3	2.5	1.6	2.0	2.2	2.8	2.9	2.6	4.0	4.1	3.4	2.8
Engineering.....	0.8	1.6	1.2	1.6	1.5	1.7	2.2	2.0	1.9	1.6	1.5	1.6	1.9	1.8	1.8	2.3	2.0	2.3	2.3	1.5	1.6	2.0	2.5	3.2	3.2	2.6	3.6	3.3	2.9	2.6

^aPhysical sciences include physics, chemistry, astronomy, and earth, atmospheric, and ocean sciences.^bHispanic includes three group designations from the freshman norms survey: Mexican American/Chicano, Puerto Rican American, and other Latino.

NOTE: Details may not add to 100 because students may check more than one race/ethnicity, e.g., white and Hispanic.

SOURCE: Higher Education Research Institute, University of California at Los Angeles, Survey of the American Freshman: National Norms, special tabulations, 2003.

Appendix table 2-8

Freshmen reporting need for remediation in mathematics or science, by sex and intended major: 1977 and 2002

(Percent)

Intended major	1977						2002					
	Science			Mathematics			Science			Mathematics		
	All	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female
All S&E	7.8	6.0	11.3	19.1	16.0	25.1	9.7	6.8	13.3	20.2	14.9	26.9
Mathematics	5.9	4.8	7.2	2.8	2.1	3.8	5.6	4.6	6.6	4.7	4.6	4.7
Physical sciences ^a	5.9	4.0	10.8	16.0	12.9	24.4	8.3	5.4	12.1	14.7	10.0	20.7
Computer sciences	7.5	6.0	9.8	14.6	13.0	17.2	6.2	4.8	14.1	16.1	14.0	28.0
Biological/agricultural sciences.....	7.2	5.8	9.0	22.7	20.5	25.7	12.2	8.9	14.2	22.8	16.7	26.5
Social/behavioral sciences.....	10.5	6.9	13.3	27.5	22.5	31.5	11.1	7.1	13.1	27.9	20.5	31.6
Engineering	6.9	6.3	12.5	13.3	13.3	12.7	8.1	7.0	13.3	14.0	13.4	16.9
Non-S&E.....	11.8	8.4	14.7	26.7	23.2	29.6	10.7	8.1	12.5	24.7	20.8	27.3

^aPhysical sciences include physics, chemistry, astronomy, and earth, atmospheric, and ocean sciences.

SOURCE: Higher Education Research Institute, University of California at Los Angeles, Survey of the American Freshman: National Norms, special tabulations, 2003.

Appendix table 2-9

Employment and education status of S&E bachelor's and master's degree recipients, by degree level and undergraduate GPA: 1995 and 2001

Degree level and GPA	Graduates	Employment and education status					
		Continuing in S&E		In school, not studying S&E		Not in school, other	
		In school, studying S&E ^a	Employed in S&E and not in school	Employed in S&E	Employed outside S&E or unemployed	Employed outside S&E	Unemployed
1995	Number	Percent distribution					
Bachelor's	698,200	12.1	16.7	2.3	17.4	46.8	4.7
3.75–4.0	83,400	20.5	15.7	3.3	22.7	33.3	4.5
3.25–3.74	237,300	14.5	15.0	3.1	21.3	42.0	4.3
2.75–3.24	287,000	9.7	17.6	1.7	15.0	51.2	4.8
Less than 2.75	89,400	5.7	19.7	1.3	9.8	57.8	5.9
Master's	146,300	22.5	39.6	2.4	4.8	26.5	4.2
3.75–4.0	33,600	31.8	36.6	3.0	3.2	21.5	4.0
3.25–3.74	56,700	23.2	40.1	2.6	5.5	24.8	3.9
2.75–3.24	43,900	16.6	40.6	1.6	4.6	31.5	5.2
Less than 2.75	11,300	12.1	43.2	2.8	6.9	31.8	3.2
2001							
Bachelor's	758,300	13.0	20.4	1.6	14.8	44.9	5.2
3.75–4.0	116,900	18.4	17.3	2.5	22.6	34.4	4.9
3.25–3.74	283,500	16.1	18.3	1.8	17.8	41.5	4.5
2.75–3.24	282,600	9.3	23.5	1.3	10.5	49.9	5.4
Less than 2.75	74,400	6.7	21.9	1.0	8.2	54.9	7.3
Master's	160,100	17.1	45.7	1.3	4.6	27.0	4.2
3.75–4.0	41,800	24.5	41.7	1.3	5.7	22.3	4.5
3.25–3.74	63,600	17.1	45.6	0.9	4.3	28.7	3.4
2.75–3.24	45,600	11.4	50.6	2.0	3.7	28.0	4.4
Less than 2.75	8,300	10.6	40.4	0.0	7.4	33.0	8.6

GPA grade point average

^aAll graduates studying S&E, including those employed in S&E and non-S&E and those unemployed. Definition is based on assumption that the field being studied in school is a better indicator of future career plans than current employment.

NOTES: In the 1995 survey, S&E degrees were earned in 1993 and 1994; in the 2001 survey, S&E degrees were earned in 1999 and 2000. Retention in S&E is measured through education and job codes rather than through graduates' own evaluations. Details may not add to totals because of rounding and because a few graduates who reported that their undergraduate courses were ungraded were excluded from GPA categories but included in total rows.

SOURCE: National Science Foundation, Division of Science Resources Statistics, National Survey of Recent College Graduates, 1995 and 2001, special tabulations, 2003.

Appendix table 2-10

Undergraduate enrollment in engineering and engineering technology programs: Selected years, 1979–2002

Enrollment level and institution	1979	1981	1983	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Engineering																					
Students	366,299	420,402	441,205	420,864	407,657	392,198	385,412	378,277	380,287	379,977	382,525	375,944	367,298	363,315	356,177	365,358	366,991	361,395	390,803	409,557	421,178
Full time	340,488	387,577	406,144	384,191	369,520	356,998	346,169	338,529	338,842	339,397	344,126	337,817	328,463	325,489	317,772	326,458	329,657	323,713	353,118	367,954	383,109
Freshman	103,724	115,280	109,638	103,225	99,238	95,453	98,009	95,420	94,346	93,002	93,427	88,875	85,047	86,299	85,375	90,882	94,909	93,951	101,773	106,825	107,086
Sophomore	78,594	87,519	89,515	79,627	76,195	73,317	71,030	71,267	72,204	71,257	71,644	69,974	68,177	67,981	66,475	67,879	69,608	69,941	76,706	78,348	81,854
Junior	74,928	86,633	91,233	84,875	80,386	77,085	73,761	70,483	72,666	73,516	74,871	73,449	71,753	68,894	67,190	68,812	67,638	66,975	74,055	76,938	79,806
Senior	77,823	92,414	109,036	110,305	107,773	104,003	97,614	94,465	92,989	94,683	98,235	98,214	96,523	95,226	92,213	92,496	90,653	86,225	92,502	96,969	106,276
Fifth year	5,419	5,731	6,722	6,159	5,928	7,140	5,755	6,894	6,637	6,939	5,949	7,305	6,963	7,089	6,519	6,389	6,849	6,621	8,082	8,874	8,087
Part time	25,811	32,825	35,061	36,673	38,137	35,200	39,243	39,748	41,445	40,580	38,399	38,127	38,835	37,826	38,405	38,900	37,334	37,682	37,685	41,603	38,069
Institutions	286	286	292	297	311	316	320	323	328	336	337	336	337	337	335	338	340	341	342	351	356
ABET accredited ^a	239	250	258	264	270	277	281	284	289	303	309	310	315	316	317	319	321	323	323	326	332
Engineering technologies																					
Students	NA	191,152	163,226	123,571	137,390	128,501	131,704	127,687	123,217	127,135	124,736	106,976	107,275	105,809	105,345	108,459	108,993	108,754	107,165	108,886	185,358
Full time	NA	134,444	112,745	83,038	90,536	80,600	79,624	76,179	72,390	75,340	73,245	65,581	66,457	63,929	62,330	67,864	68,545	69,173	66,771	71,147	72,704
First year	NA	65,893	53,032	34,389	39,177	32,685	33,477	32,225	30,178	31,302	30,543	24,824	24,574	25,665	26,583	30,227	28,367	29,490	29,531	31,588	30,252
Second year	NA	40,774	33,799	23,293	25,612	22,906	21,852	21,627	20,586	20,815	21,081	19,962	20,997	18,863	17,267	19,106	18,426	17,326	18,318	19,171	20,360
Other years associated	NA	872	925	466	657	1,404	1,760	1,810	1,603	2,221	2,336	2,564	3,121	2,007	2,780	3,442	6,080	5,289	2,474	2,207	2,786
Bachelor's of engineering technologies third and later years	NA	26,905	24,989	24,890	25,090	23,605	22,535	20,517	20,023	21,002	19,285	18,231	17,765	17,394	15,700	15,089	15,672	17,068	16,448	18,181	19,306
Part time	NA	56,708	50,481	40,533	46,854	47,901	52,080	51,508	50,827	51,795	51,491	41,395	40,818	41,880	43,015	40,595	40,448	39,581	40,394	37,739	39,950
Institutions	NA	NA	NA	200	257	291	310	286	303	302	298	263	294	289	285	285	279	280	280	282	288

ABET Accreditation Board for Engineering and Technology

NA not available

^aInstitutions with at least one curriculum accredited by ABET.

SOURCE: Engineering Workforce Commission, *Engineering & Technology Enrollments, Fall 2002* (Washington, DC: American Association of Engineering Societies, 2003).

Science & Engineering Indicators – 2004

Appendix table 2-11

Engineering enrollment, by enrollment level and attendance: 1979–2002

Year	Undergraduate						Graduate					
	Total		Full time		Part time		Total		Full time		Part time	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1979	366,299	100.0	340,488	93.0	25,811	7.0	67,152	100.0	41,384	61.6	25,768	38.4
1980	397,344	100.0	365,117	91.9	32,227	8.1	72,585	100.0	44,335	61.1	28,250	38.9
1981	420,402	100.0	387,577	92.2	32,825	7.8	77,600	100.0	47,782	61.6	29,818	38.4
1982	435,330	100.0	403,390	92.7	31,940	7.3	81,999	100.0	50,410	61.5	31,589	38.5
1983	441,205	100.0	406,144	92.1	35,061	7.9	91,040	100.0	57,366	63.0	33,674	37.0
1984	429,499	100.0	394,635	91.9	34,864	8.1	93,165	100.0	57,277	61.5	35,888	38.5
1985	420,864	100.0	384,191	91.3	36,673	8.7	95,505	100.0	60,641	63.5	34,864	36.5
1986	407,657	100.0	369,520	90.6	38,137	9.4	107,196	100.0	67,333	62.8	39,863	37.2
1987	392,198	100.0	356,998	91.0	35,200	9.0	110,778	100.0	69,343	62.6	41,435	37.4
1988	385,412	100.0	346,169	89.8	39,243	10.2	112,007	100.0	69,226	61.8	42,781	38.2
1989	378,277	100.0	338,529	89.5	39,748	10.5	114,048	100.0	68,967	60.5	45,081	39.5
1990	380,287	100.0	338,842	89.1	41,445	10.9	117,834	100.0	72,456	61.5	45,378	38.5
1991	379,977	100.0	339,397	89.3	40,580	10.7	123,497	100.0	74,568	60.4	48,929	39.6
1992	382,525	100.0	344,126	90.0	38,399	10.0	128,854	100.0	78,651	61.0	50,203	39.0
1993	375,944	100.0	337,817	89.9	38,127	10.1	128,081	100.0	78,885	61.6	49,196	38.4
1994	367,298	100.0	328,463	89.4	38,835	10.6	122,242	100.0	74,596	61.0	47,646	39.0
1995	363,315	100.0	325,489	89.6	37,826	10.4	118,506	100.0	72,215	60.9	46,291	39.1
1996	356,177	100.0	317,772	89.2	38,405	10.8	113,063	100.0	70,129	62.0	42,934	38.0
1997	365,358	100.0	326,458	89.4	38,900	10.6	112,257	100.0	70,447	62.8	41,810	37.2
1998	366,991	100.0	329,657	89.8	37,334	10.2	110,355	100.0	69,519	63.0	40,836	37.0
1999	361,485	100.0	323,713	89.6	37,682	10.4	105,006	100.0	67,634	64.4	37,372	35.6
2000	390,803	100.0	353,118	90.4	37,685	9.6	118,257	100.0	81,821	69.2	36,436	30.8
2001	409,557	100.0	367,954	89.8	41,603	10.2	128,764	100.0	87,187	67.7	41,577	32.3
2002	421,178	100.0	383,109	91.0	38,069	9.0	140,240	100.0	97,752	69.7	42,488	30.3

SOURCE: Engineering Workforce Commission, *Engineering & Technology Enrollments, Fall 2002* (Washington, DC: American Association of Engineering Societies, annual series).

Science & Engineering Indicators – 2004

S&E graduate enrollment, by field, citizenship, and race/ethnicity: Selected years, 1983–2001

Field, citizenship, and race/ethnicity	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001
All S&E graduate enrollment										
S&E	346,952	357,968	373,199	382,603	412,547	435,703	422,438	407,597	411,257	429,492
Natural sciences	90,485	92,422	93,718	95,982	100,825	107,341	107,795	102,697	101,889	102,655
Physical sciences	29,463	30,987	32,741	33,629	34,724	35,328	33,399	31,105	30,691	30,988
Earth, atmospheric, and ocean sciences	15,443	15,414	14,357	13,630	14,466	15,721	15,716	14,548	14,083	13,841
Biological sciences	45,579	46,021	46,620	48,723	51,635	56,292	58,680	57,044	57,115	57,826
Mathematics/computer sciences	40,691	47,332	50,559	51,729	54,633	56,213	51,962	52,710	58,817	68,859
Mathematics	17,358	17,563	18,508	19,247	19,952	20,000	18,504	16,719	16,257	16,663
Computer sciences	23,333	29,769	32,051	32,482	34,681	36,213	33,458	35,991	42,560	52,196
Agricultural sciences	12,402	11,534	11,088	11,168	11,476	11,950	12,422	11,852	11,988	11,911
Social/behavioral sciences	112,228	110,662	113,851	119,659	132,078	143,327	143,058	139,190	136,872	136,561
Psychology	40,905	40,721	42,612	45,528	51,343	54,557	53,641	53,126	51,864	50,798
Social sciences	71,323	69,941	71,239	74,131	80,735	88,770	89,417	86,064	85,008	85,763
Engineering	91,146	96,018	103,983	104,065	113,535	116,872	107,201	101,148	101,691	109,506
U.S. citizen/permanent resident										
S&E	276,749	281,178	284,436	284,538	303,940	330,037	323,935	308,636	301,367	296,194
Natural sciences	75,023	74,764	72,249	70,877	72,734	79,205	81,249	78,141	77,019	75,516
Physical sciences	21,838	22,045	22,113	21,856	21,999	23,076	21,990	20,210	19,559	18,995
Earth, atmospheric, and ocean sciences	13,597	13,549	12,167	11,055	11,569	12,713	12,769	12,033	11,563	11,080
Biological sciences	39,588	39,170	37,969	37,966	39,166	43,416	46,490	45,898	45,897	45,441
Mathematics/computer sciences	30,285	34,490	35,653	35,352	36,375	38,170	35,358	34,249	35,735	36,640
Mathematics	12,405	12,218	12,379	12,564	13,318	13,866	12,695	11,175	10,330	10,193
Computer sciences	17,880	22,272	23,274	22,788	23,057	24,304	22,663	23,074	25,405	26,447
Agricultural sciences	9,650	8,887	8,186	8,232	8,281	8,829	9,343	9,146	9,514	9,408
Social/behavioral sciences	98,142	95,850	97,754	102,712	114,369	126,256	126,268	122,458	118,911	117,034
Psychology	39,472	39,229	41,073	43,897	49,355	52,676	51,554	51,118	49,625	48,285
Social sciences	58,670	56,621	56,681	58,815	65,014	73,580	74,714	71,340	69,286	68,749
Engineering	63,649	67,187	70,594	67,365	72,181	77,577	71,717	64,642	60,188	57,596
White										
S&E	224,604	223,566	228,704	229,568	243,505	256,755	245,831	227,975	216,785	205,757
Natural sciences	65,549	64,024	61,577	60,720	61,900	64,678	65,194	61,129	59,461	57,129
Physical sciences	18,656	18,328	18,099	18,329	18,414	18,591	17,486	15,767	15,037	14,235
Earth, atmospheric, and ocean sciences	12,238	11,756	10,912	10,126	10,519	11,076	11,245	10,402	10,007	9,583
Biological sciences	34,655	33,940	32,566	32,265	32,967	35,011	36,463	34,960	34,417	33,311
Mathematics/computer sciences	23,802	25,511	26,806	26,560	26,984	27,376	24,427	22,413	22,082	22,425
Mathematics	10,259	9,787	9,650	10,064	10,457	10,572	9,654	8,351	7,659	7,386
Computer sciences	13,543	15,724	17,156	16,496	16,527	16,804	14,773	14,062	14,423	15,039
Agricultural sciences	8,722	7,863	7,418	7,284	7,464	7,772	8,040	7,797	8,176	7,894
Social/behavioral sciences	77,905	76,009	79,085	83,501	92,419	99,514	96,239	90,543	85,003	79,989
Psychology	32,716	32,757	34,785	37,227	40,990	42,662	40,146	38,724	36,350	33,558
Social sciences	45,189	43,252	44,300	46,274	51,429	56,852	56,093	51,819	48,653	46,431
Engineering	48,626	50,159	53,818	51,503	54,738	57,415	51,931	46,093	42,063	38,320

S&E graduate enrollment, by field, citizenship, and race/ethnicity: Selected years, 1983–2001

Field, citizenship, and race/ethnicity	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001
Asian/Pacific Islander										
S&E.....	9,387	11,996	14,559	15,678	18,124	24,047	25,901	26,012	27,575	27,659
Natural sciences.....	2,276	2,572	2,871	3,354	4,031	5,879	6,498	6,541	6,550	6,683
Physical sciences.....	785	937	1,047	1,175	1,429	1,973	1,780	1,638	1,682	1,612
Earth, atmospheric, and ocean sciences.....	240	194	179	207	267	462	419	417	400	352
Biological sciences.....	1,251	1,441	1,645	1,972	2,335	3,444	4,299	4,486	4,468	4,719
Mathematics/computer sciences.....	1,666	2,491	3,235	3,430	3,729	4,577	5,164	5,677	7,158	6,713
Mathematics.....	564	623	769	703	866	1,020	1,121	1,051	1,002	997
Computer sciences.....	1,102	1,868	2,466	2,727	2,863	3,557	4,043	4,626	6,156	5,716
Agricultural sciences.....	142	138	168	227	225	271	280	302	306	258
Social/behavioral sciences.....	1,897	1,990	2,435	2,647	3,028	4,324	4,941	5,359	5,400	5,403
Psychology.....	531	559	727	817	1,040	1,470	1,598	1,909	2,043	2,165
Social sciences.....	1,366	1,431	1,708	1,830	1,988	2,854	3,343	3,450	3,357	3,238
Engineering.....	3,406	4,805	5,850	6,020	7,111	8,996	9,018	8,133	8,161	8,602
Black										
S&E.....	10,941	10,450	10,424	11,773	13,682	17,111	18,285	19,341	20,330	21,773
Natural sciences.....	1,850	1,844	1,682	1,938	2,148	2,799	2,994	3,318	3,360	3,475
Physical sciences.....	575	535	536	633	700	844	897	952	903	879
Earth, atmospheric, and ocean sciences.....	114	127	93	95	140	223	215	203	213	227
Biological sciences.....	1,161	1,182	1,053	1,210	1,308	1,732	1,882	2,163	2,244	2,369
Mathematics/computer sciences.....	971	1,031	1,210	1,311	1,617	1,877	1,844	1,957	2,095	2,317
Mathematics.....	403	409	441	463	524	710	689	657	594	591
Computer sciences.....	568	622	769	848	1,093	1,167	1,155	1,300	1,501	1,726
Agricultural sciences.....	129	137	133	153	145	237	297	230	277	301
Social/behavioral sciences.....	6,613	6,051	5,983	6,755	7,747	9,637	10,293	10,957	11,633	12,759
Psychology.....	1,880	1,790	1,794	2,061	2,455	3,284	3,359	3,644	3,787	4,621
Social sciences.....	4,733	4,261	4,189	4,694	5,292	6,353	6,934	7,313	7,846	8,138
Engineering.....	1,378	1,387	1,416	1,616	2,025	2,561	2,857	2,879	2,965	2,921
Hispanic										
S&E.....	8,810	8,613	8,822	9,433	11,040	13,380	14,112	14,984	16,533	17,983
Natural sciences.....	1,694	1,771	1,849	2,087	2,268	2,765	2,921	3,171	3,481	3,631
Physical sciences.....	563	599	591	681	649	747	731	782	895	896
Earth, atmospheric, and ocean sciences.....	224	238	227	208	250	370	365	399	400	397
Biological sciences.....	907	934	1,031	1,198	1,369	1,648	1,825	1,990	2,186	2,338
Mathematics/computer sciences.....	615	750	817	847	980	1,110	1,064	1,150	1,319	1,399
Mathematics.....	330	262	266	305	349	415	400	427	447	498
Computer sciences.....	285	488	551	542	631	695	664	723	872	901
Agricultural sciences.....	225	321	221	297	279	308	289	408	417	422
Social/behavioral sciences.....	4,835	4,290	4,205	4,495	5,389	6,501	7,030	7,443	8,392	9,333
Psychology.....	1,814	1,611	1,665	1,751	2,365	2,562	2,799	3,075	3,575	4,323
Social sciences.....	3,021	2,679	2,540	2,744	3,024	3,939	4,231	4,368	4,817	5,010
Engineering.....	1,441	1,481	1,730	1,707	2,124	2,696	2,808	2,812	2,924	3,198

S&E graduate enrollment, by field, citizenship, and race/ethnicity: Selected years, 1983–2001

Field, citizenship, and race/ethnicity	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001
American Indian/Alaskan Native										
S&E.....	911	737	782	860	1,120	1,309	1,516	1,599	1,556	1,687
Natural sciences.....	190	146	154	155	220	283	333	349	318	356
Physical sciences.....	45	35	46	44	62	81	76	70	69	81
Earth, atmospheric, and ocean sciences.....	27	23	18	26	29	45	52	82	63	70
Biological sciences.....	118	88	90	85	129	157	205	197	186	205
Mathematics/computer sciences.....	53	79	76	74	63	102	126	103	105	126
Mathematics.....	31	22	48	34	20	32	70	43	30	38
Computer sciences.....	22	57	28	40	43	70	56	60	75	88
Agricultural sciences.....	34	22	29	25	31	35	60	62	68	57
Social/behavioral sciences.....	454	368	400	484	622	680	767	846	823	921
Psychology.....	135	135	152	180	252	289	330	341	303	336
Social sciences.....	319	233	248	304	370	391	437	505	520	585
Engineering.....	180	122	123	122	184	209	230	239	242	227
Unknown race/ethnicity										
S&E.....	22,096	25,816	21,145	17,226	16,469	17,435	18,290	18,725	18,588	21,335
Natural sciences.....	3,464	4,407	4,116	2,623	2,167	2,801	3,309	3,633	3,849	4,242
Physical sciences.....	1,214	1,611	1,794	994	745	840	1,020	1,001	973	1,292
Earth, atmospheric, and ocean sciences.....	754	1,211	738	393	364	537	473	530	480	451
Biological sciences.....	1,496	1,585	1,584	1,236	1,058	1,424	1,816	2,102	2,396	2,499
Mathematics/computer sciences.....	3,178	4,628	3,509	3,130	3,002	3,128	2,733	2,949	2,976	3,660
Mathematics.....	818	1,115	1,205	995	1,102	1,117	761	646	598	683
Computer sciences.....	2,360	3,513	2,304	2,135	1,900	2,011	1,972	2,303	2,378	2,977
Agricultural sciences.....	398	406	217	246	137	206	377	347	270	476
Social/behavioral sciences.....	6,438	7,142	5,646	4,830	5,164	5,600	6,998	7,310	7,660	8,629
Psychology.....	2,396	2,377	1,950	1,861	2,253	2,409	3,322	3,425	3,567	3,282
Social sciences.....	4,042	4,765	3,696	2,969	2,911	3,191	3,676	3,885	4,093	5,347
Engineering.....	8,618	9,233	7,657	6,397	5,999	5,700	4,873	4,486	3,833	4,328
Foreign citizen^a										
S&E.....	70,203	76,790	88,763	98,065	108,607	105,666	98,503	98,961	109,890	133,298
Natural sciences.....	15,462	17,658	21,469	25,105	28,091	28,136	26,546	24,556	24,870	27,139
Physical sciences.....	7,625	8,942	10,628	11,773	12,725	12,252	11,409	10,895	11,132	11,993
Earth, atmospheric, and ocean sciences.....	1,846	1,865	2,190	2,575	2,897	3,008	2,947	2,515	2,520	2,761
Biological sciences.....	5,991	6,851	8,651	10,757	12,469	12,876	12,190	11,146	11,218	12,385
Mathematics/computer sciences.....	10,406	12,842	14,906	16,377	18,258	18,043	16,604	18,461	23,082	32,219
Mathematics.....	4,953	5,345	6,129	6,683	6,634	6,134	5,809	5,544	5,927	6,470
Computer sciences.....	5,453	7,497	8,777	9,694	11,624	11,909	10,795	12,917	17,155	25,749
Agricultural sciences.....	2,752	2,647	2,902	2,936	3,195	3,121	3,079	2,706	2,474	2,503
Social/behavioral sciences.....	14,086	14,812	16,097	16,947	17,709	17,071	16,790	16,732	17,961	19,527
Psychology.....	1,433	1,492	1,539	1,631	1,988	1,881	2,087	2,008	2,239	2,513
Social sciences.....	12,653	13,320	14,558	15,316	15,721	15,190	14,703	14,724	15,722	17,014
Engineering.....	27,497	28,831	33,389	36,700	41,354	39,295	35,484	36,506	41,503	51,910

^aIncludes temporary residents only.SOURCE: National Science Foundation, Division of Science Resources Statistics, WebCASPAR database system, <http://caspar.nsf.gov>.

Appendix table 2-13

S&E graduate enrollment, by field and sex: Selected years, 1975–2001

Field and sex	1975	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001
Both sexes														
S&E.....	302,981	311,689	319,030	331,964	346,952	357,968	373,199	382,603	412,547	435,703	422,438	407,597	411,257	429,492
Natural sciences.....	84,737	89,492	88,569	88,185	90,485	92,422	93,718	95,982	100,825	107,341	107,795	102,697	101,889	102,655
Physical sciences.....	26,310	26,864	26,701	27,360	29,463	30,987	32,741	33,629	34,724	35,328	33,399	31,105	30,691	30,988
Earth, atmospheric, and ocean sciences.....	12,079	13,446	13,731	14,263	15,443	15,414	14,357	13,630	14,466	15,721	15,716	14,548	14,083	13,841
Biological sciences.....	46,348	49,182	48,137	46,562	45,579	46,021	46,620	48,723	51,635	56,292	58,680	57,044	57,115	57,826
Mathematics/computer sciences.....	25,307	25,160	26,721	32,318	40,691	47,332	50,559	51,729	54,633	56,213	51,962	52,710	58,817	68,859
Mathematics.....	16,892	16,052	15,031	15,881	17,358	17,563	18,508	19,247	19,952	20,000	18,504	16,719	16,257	16,663
Computer sciences.....	8,415	9,108	11,690	16,437	23,333	29,769	32,051	32,482	34,681	36,213	33,458	35,991	42,560	52,196
Agricultural sciences.....	10,641	11,605	12,160	12,325	12,402	11,534	11,088	11,168	11,476	11,950	12,422	11,852	11,988	11,911
Social/behavioral sciences.....	113,964	116,675	119,772	119,551	112,228	110,662	113,851	119,659	132,078	143,327	143,058	139,190	136,872	136,561
Psychology.....	36,191	38,617	39,766	40,666	40,905	40,721	42,612	45,528	51,343	54,557	53,641	53,126	51,864	50,798
Social sciences.....	77,773	78,058	80,006	78,885	71,323	69,941	71,239	74,131	80,735	88,770	89,417	86,064	85,008	85,763
Engineering.....	68,332	68,757	71,808	79,585	91,146	96,018	103,983	104,065	113,535	116,872	107,201	101,148	101,691	109,506
Male														
S&E.....	NA	233,775	229,763	232,140	240,459	247,368	256,058	256,754	271,744	279,178	262,248	245,608	242,832	251,848
Natural sciences.....	NA	66,460	63,321	61,135	61,382	62,122	62,431	62,128	63,715	66,112	64,425	59,816	57,576	56,335
Physical sciences.....	NA	22,823	22,206	22,349	23,580	24,478	25,624	25,824	26,156	26,122	24,314	22,257	21,776	21,656
Earth, atmospheric, and ocean sciences.....	NA	11,169	10,846	10,847	11,548	11,489	10,581	9,776	10,015	10,695	10,282	9,132	8,358	7,949
Biological sciences.....	NA	32,468	30,269	27,939	26,254	26,155	26,226	26,528	27,544	29,295	29,829	28,427	27,442	26,730
Mathematics/computer sciences.....	NA	19,482	20,376	23,628	28,877	34,417	36,948	37,756	40,045	41,144	37,571	36,961	40,204	47,288
Mathematics.....	NA	11,933	11,009	11,400	12,158	12,209	12,912	13,262	13,654	13,362	12,246	10,851	10,214	10,386
Computer sciences.....	NA	7,549	9,367	12,228	16,719	22,208	24,036	24,494	26,391	27,782	25,325	26,110	29,990	36,902
Agricultural sciences.....	NA	9,504	9,506	9,258	9,265	8,546	8,144	8,031	7,912	7,837	7,963	7,291	7,078	6,709
Social/behavioral sciences.....	NA	73,278	70,639	66,035	59,598	57,348	57,523	58,382	62,235	64,901	63,101	59,112	56,170	54,237
Psychology.....	NA	20,518	19,424	17,900	16,648	15,597	15,683	15,673	16,556	16,567	15,877	15,507	14,494	13,215
Social sciences.....	NA	52,760	51,215	48,135	42,950	41,751	41,840	42,709	45,679	48,334	47,224	43,605	41,676	41,022
Engineering.....	NA	65,051	65,921	71,838	81,337	84,935	91,012	90,457	97,837	99,184	89,188	82,428	81,804	87,279
Female														
S&E.....	NA	77,914	89,267	99,824	106,493	110,600	117,141	125,849	140,803	156,525	160,190	161,989	168,425	177,644
Natural sciences.....	NA	23,032	25,248	27,050	29,103	30,300	31,287	33,854	37,110	41,229	43,370	42,881	44,313	46,320
Physical sciences.....	NA	4,041	4,495	5,011	5,883	6,509	7,117	7,805	8,568	9,206	9,085	8,848	8,915	9,332
Earth, atmospheric, and ocean sciences.....	NA	2,277	2,885	3,416	3,895	3,925	3,776	3,854	4,451	5,026	5,434	5,416	5,725	5,892
Biological sciences.....	NA	16,714	17,868	18,623	19,325	19,866	20,394	22,195	24,091	26,997	28,851	28,617	29,673	31,096
Mathematics/computer sciences.....	NA	5,678	6,345	8,690	11,814	12,915	13,611	13,973	14,588	15,069	14,391	15,749	18,613	21,571
Mathematics.....	NA	4,119	4,022	4,481	5,200	5,354	5,596	5,985	6,298	6,638	6,258	5,868	6,043	6,277
Computer sciences.....	NA	1,559	2,323	4,209	6,614	7,561	8,015	7,988	8,290	8,431	8,133	9,881	12,570	15,294
Agricultural sciences.....	NA	2,101	2,654	2,821	3,137	2,988	2,944	3,137	3,564	4,113	4,459	4,561	4,910	5,202
Social/behavioral sciences.....	NA	43,397	49,133	53,516	52,630	53,314	56,328	61,277	69,843	78,426	79,957	80,078	80,702	82,324
Psychology.....	NA	18,099	20,342	22,766	24,257	25,124	26,929	29,855	34,787	37,990	37,764	37,619	37,370	37,583
Social sciences.....	NA	25,298	28,791	30,750	28,373	28,190	29,399	31,422	35,056	40,436	42,193	42,459	43,332	44,741
Engineering.....	NA	3,706	5,887	7,747	9,809	11,083	12,971	13,608	15,698	17,688	18,013	18,720	19,887	22,227

NA not available

SOURCE: National Science Foundation, Division of Science Resources Statistics, WebCASPAR database system, <http://caspar.nsf.gov>.

Foreign graduate student enrollment in U.S. universities for top 10 places of origin, by year and field: 1987-99

Place of origin	Foreign students ^a	Foreign graduate students ^a	Field							
			S&E	Social sciences	Physical/life sciences	Mathematics/computer sciences	Agricultural sciences	Engineering	Other sciences	Non-S&E
1987	Number		Percent distribution							
All locations.....	356,187	156,366	NA	NA	NA	NA	NA	NA	NA	NA
Top 10 locations.....	168,190	94,160	NA	NA	NA	NA	NA	NA	NA	NA
China.....	25,170	20,388	81.0	9.0	31.1	12.9	2.9	21.3	3.8	19.0
Japan.....	18,050	4,260	NA	NA	NA	NA	NA	NA	NA	NA
South Korea.....	20,520	14,939	67.3	15.9	14.5	8.8	2.9	21.1	4.1	32.7
India.....	21,010	15,547	75.4	6.8	13.6	12.8	1.6	37.5	3.1	24.6
Taiwan.....	26,660	20,875	NA	NA	NA	n/a	NA	NA	NA	NA
Canada.....	15,690	5,915	45.4	14.7	12.0	2.9	2.5	6.7	6.6	54.6
Thailand.....	6,430	3,620	NA	NA	NA	NA	NA	NA	NA	NA
Indonesia.....	9,010	2,586	NA	NA	NA	NA	NA	NA	NA	NA
Malaysia.....	19,480	4,149	50.1	11.8	5.7	13.3	4.0	12.4	2.9	49.9
Mexico.....	6,170	1,882	67.3	14.8	15.2	8.1	11.0	14.8	3.4	32.7
Other locations.....	187,997	62,206	NA	NA	NA	NA	NA	NA	NA	NA
1989	Number		Percent distribution							
All locations.....	386,851	172,536	NA	NA	NA	NA	NA	NA	NA	NA
Top 10 locations.....	196,680	110,287	NA	NA	NA	NA	NA	NA	NA	NA
China.....	33,390	27,614	81.7	8.1	33.0	13.5	2.8	21.0	3.3	18.3
Japan.....	29,840	5,819	44.1	19.6	5.5	3.1	1.5	7.4	7.0	55.9
South Korea.....	21,710	15,132	67.6	14.0	15.6	9.0	2.4	21.9	4.7	32.4
India.....	26,240	19,811	77.3	6.1	12.2	16.3	1.6	38.7	2.4	22.7
Taiwan.....	30,960	23,622	71.5	5.6	12.1	16.5	2.6	29.8	4.9	28.5
Canada.....	17,870	6,934	41.5	13.8	10.9	2.7	1.7	6.5	5.9	58.5
Thailand.....	6,630	3,633	NA	NA	NA	NA	NA	NA	NA	NA
Indonesia.....	9,390	3,071	NA	NA	NA	NA	NA	NA	NA	NA
Malaysia.....	14,110	2,709	NA	NA	NA	NA	NA	NA	NA	NA
Mexico.....	6,540	1,942	63.9	11.9	17.3	7.4	8.7	15.5	3.1	36.1
Other locations.....	190,171	62,249	NA	NA	NA	NA	NA	NA	NA	NA
1991	Number		Percent distribution							
All locations.....	419,585	197,625	NA	NA	NA	NA	NA	NA	NA	NA
Top 10 locations.....	233,870	125,769	NA	NA	NA	NA	NA	NA	NA	NA
China.....	42,940	34,824	81.5	7.7	33.2	12.0	3.0	22.6	3.0	18.5
Japan.....	40,700	7,082	43.6	18.2	5.5	2.7	1.3	7.7	8.2	56.4
South Korea.....	25,720	14,738	63.0	12.7	14.5	7.9	2.7	20.7	4.5	37.0
India.....	32,530	25,536	78.8	4.7	10.4	16.9	1.6	43.2	2.0	21.2
Taiwan.....	35,550	24,138	64.3	5.7	12.2	12.5	2.3	26.5	5.1	35.7
Canada.....	19,190	8,041	37.3	13.4	9.5	2.2	1.6	5.9	4.7	62.7
Thailand.....	7,690	4,176	40.4	10.4	3.9	6.6	2.7	11.4	5.4	59.6
Indonesia.....	10,250	2,860	52.9	10.5	6.7	6.1	8.0	18.0	3.6	47.1
Malaysia.....	12,650	2,226	55.1	10.9	6.9	8.2	3.6	21.0	4.5	44.9
Mexico.....	6,650	2,148	68.1	11.3	15.5	8.0	10.4	19.9	3.0	31.9
Other locations.....	185,715	71,856	NA	NA	NA	NA	NA	NA	NA	NA

Foreign graduate student enrollment in U.S. universities for top 10 places of origin, by year and field: 1987-99

Place of origin	Foreign students ^a	Foreign graduate students ^a	Field							
			S&E	Social sciences	Physical/life sciences	Mathematics/computer sciences	Agricultural sciences	Engineering	Other sciences	Non-S&E
1993	Number		Percent distribution							
All locations.....	449,749	201,038	NA	NA	NA	NA	NA	NA	NA	NA
Top 10 locations.....	257,279	134,474	NA	NA	NA	NA	NA	NA	NA	NA
China.....	44,381	36,370	79.7	6.3	31.5	12.0	2.8	23.9	3.2	20.3
Japan.....	43,770	7,755	43.7	17.3	6.0	3.2	1.5	8.0	7.7	56.3
South Korea.....	31,076	15,785	59.8	12.5	14.5	7.4	2.2	18.3	4.9	40.2
India.....	34,796	27,533	79.5	4.5	10.1	17.0	1.6	43.8	2.5	20.5
Taiwan.....	37,581	24,623	61.0	5.4	10.0	11.4	1.9	27.0	5.3	39.0
Canada.....	22,655	8,455	39.9	13.6	9.4	2.5	1.5	6.2	6.7	60.1
Thailand.....	9,537	5,621	35.4	6.4	4.2	5.8	1.8	13.2	4.0	64.6
Indonesia.....	11,744	3,399	54.2	10.7	7.2	4.7	5.3	21.7	4.6	45.8
Malaysia.....	13,718	2,078	57.8	12.9	7.9	8.1	1.8	21.8	5.3	42.2
Mexico.....	8,021	2,855	63.5	12.8	12.0	7.6	8.1	16.9	6.1	36.5
Other locations.....	192,470	66,564	NA	NA	NA	NA	NA	NA	NA	NA
1995	Number		Percent distribution							
All locations.....	453,787	194,221	NA	NA	NA	NA	NA	NA	NA	NA
Top 10 locations.....	256,512	122,044	NA	NA	NA	NA	NA	NA	NA	NA
China.....	39,613	32,512	79.7	5.9	28.3	13.1	4.3	24.9	3.2	20.3
Japan.....	45,531	7,819	50.3	24.7	5.0	3.4	2.3	7.4	7.5	49.7
South Korea.....	36,231	15,045	58.7	11.2	11.8	7.0	3.3	18.7	6.7	41.3
India.....	31,743	23,593	79.5	4.2	10.4	17.7	2.8	41.3	3.1	20.5
Taiwan.....	32,702	18,904	58.0	6.7	8.6	10.1	3.4	24.2	5.0	42.0
Canada.....	23,005	8,851	39.1	15.5	7.6	1.5	2.3	4.6	7.6	60.9
Thailand.....	12,165	7,347	41.3	5.6	3.8	5.2	3.8	19.5	3.4	58.7
Indonesia.....	12,820	2,947	52.9	10.6	3.9	6.5	6.3	22.0	3.6	47.1
Malaysia.....	14,015	1,956	56.7	11.6	6.6	11.0	2.0	20.1	5.4	43.3
Mexico.....	8,687	3,070	67.4	14.7	11.6	7.1	9.8	19.3	4.9	32.6
Other locations.....	197,275	72,177	NA	NA	NA	NA	NA	NA	NA	NA
1997	Number		Percent distribution							
All locations.....	481,280	211,282	NA	NA	NA	NA	NA	NA	NA	NA
Top 10 locations.....	276,173	137,850	NA	NA	NA	NA	NA	NA	NA	NA
China.....	46,958	39,204	78.3	5.3	24.7	16.1	3.1	25.6	3.5	21.7
Japan.....	47,073	8,852	49.9	23.6	4.9	3.9	1.4	6.5	9.6	50.1
South Korea.....	42,890	18,961	54.1	10.2	9.0	6.9	2.2	18.0	7.8	45.9
India.....	33,818	25,128	76.9	4.1	9.2	17.9	1.5	41.6	2.6	23.1
Taiwan.....	30,855	17,141	51.5	6.5	7.8	10.4	1.5	19.6	5.7	48.5
Canada.....	22,051	9,408	41.8	13.7	9.7	2.3	1.5	6.7	7.9	58.2
Thailand.....	15,090	9,785	42.4	7.3	4.6	4.8	2.1	18.0	5.6	57.6
Indonesia.....	13,282	3,489	43.4	7.2	2.7	3.8	2.7	22.3	4.7	56.6
Malaysia.....	14,597	2,185	56.8	8.4	7.1	6.9	3.5	24.3	6.6	43.2
Mexico.....	9,559	3,697	63.1	12.6	9.0	5.1	10.6	19.8	6.0	36.9
Other locations.....	205,107	73,432	NA	NA	NA	NA	NA	NA	NA	NA

Foreign graduate student enrollment in U.S. universities for top 10 places of origin, by year and field: 1987–99

Place of origin	Foreign students ^a	Foreign graduate students ^a	Field							
			S&E	Social sciences	Physical/life sciences	Mathematics/computer sciences	Agricultural sciences	Engineering	Other sciences	Non-S&E
1999	Number		Percent distribution							
All locations	514,723	225,383	NA	NA	NA	NA	NA	NA	NA	NA
Top 10 locations	279,608	144,256	NA	NA	NA	NA	NA	NA	NA	NA
China	54,466	44,127	NA	NA	NA	NA	NA	NA	NA	NA
Japan	46,872	8,897	NA	NA	NA	NA	NA	NA	NA	NA
South Korea	41,191	20,085	NA	NA	NA	NA	NA	NA	NA	NA
India	42,337	30,533	NA	NA	NA	NA	NA	NA	NA	NA
Taiwan	29,234	14,891	NA	NA	NA	NA	NA	NA	NA	NA
Canada	23,544	10,133	NA	NA	NA	NA	NA	NA	NA	NA
Thailand	10,983	6,872	NA	NA	NA	NA	NA	NA	NA	NA
Indonesia	11,300	2,708	NA	NA	NA	NA	NA	NA	NA	NA
Malaysia	9,074	1,984	NA	NA	NA	NA	NA	NA	NA	NA
Mexico	10,607	4,026	NA	NA	NA	NA	NA	NA	NA	NA
Other locations	235,115	81,127	NA	NA	NA	NA	NA	NA	NA	NA

NA not available

^aIncludes temporary residents only.

NOTES: Field-of-study data are collected biennially in fall of academic year. Student counts other than total foreign student enrollment are imputed from data reported by institutions. A large discrepancy exists between academic level figures reported by country and those provided by U.S. institutions for foreign students. Discrepancy results from differential response rates to nationality question and academic level question.

SOURCE: Institute of International Education, Annual Census of Foreign Students, special tabulations, 2001.

Science & Engineering Indicators – 2004

Full-time S&E graduate students, by source and mechanism of primary support: 1980–2001

Source	All mechanisms		Research assistantship		Fellowship		Traineeship		Teaching assistantship		Other		Self-support ^a	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All sources														
1980	238,416	100.0	51,566	21.6	20,515	8.6	17,545	7.4	53,889	22.6	19,444	8.2	75,457	31.6
1981	242,049	100.0	52,711	21.8	20,095	8.3	16,771	6.9	55,745	23.0	20,205	8.3	76,522	31.6
1982	244,757	100.0	52,580	21.5	20,855	8.5	14,637	6.0	58,334	23.8	20,455	8.4	77,896	31.8
1983	252,017	100.0	54,904	21.8	21,342	8.5	13,512	5.4	60,071	23.8	20,955	8.3	81,233	32.2
1984	253,922	100.0	57,735	22.7	21,624	8.5	13,465	5.3	61,256	24.1	20,692	8.1	79,150	31.2
1985	257,287	100.0	60,995	23.7	22,540	8.8	13,665	5.3	61,822	24.0	20,635	8.0	77,630	30.2
1986	266,168	100.0	66,010	24.8	22,954	8.6	13,526	5.1	62,552	23.5	22,246	8.4	78,880	29.6
1987	271,056	100.0	70,214	25.9	21,953	8.1	14,096	5.2	62,847	23.2	22,166	8.2	79,780	29.4
1988	275,127	100.0	74,588	27.1	22,353	8.1	14,397	5.2	63,053	22.9	21,576	7.8	79,160	28.8
1989	282,648	100.0	79,045	28.0	23,450	8.3	14,524	5.1	64,296	22.7	21,082	7.5	80,251	28.4
1990	292,782	100.0	80,746	27.6	25,254	8.6	15,198	5.2	64,950	22.2	22,250	7.6	84,384	28.8
1991	307,010	100.0	85,175	27.7	26,695	8.7	15,403	5.0	65,214	21.2	22,940	7.5	91,583	29.8
1992	322,555	100.0	88,030	27.3	28,627	8.9	15,361	4.8	65,702	20.4	23,536	7.3	101,299	31.4
1993	329,644	100.0	90,154	27.3	29,132	8.8	15,445	4.7	67,290	20.4	21,347	6.5	106,276	32.2
1994	332,088	100.0	92,008	27.7	28,892	8.7	15,681	4.7	66,844	20.1	21,628	6.5	107,035	32.2
1995	329,283	100.0	89,946	27.3	28,887	8.8	15,943	4.8	65,976	20.0	21,844	6.6	106,687	32.4
1996	328,536	100.0	87,694	26.7	28,862	8.8	15,481	4.7	65,756	20.0	21,268	6.5	109,475	33.3
1997	327,289	100.0	88,001	26.9	28,956	8.8	14,488	4.4	65,425	20.0	21,678	6.6	108,741	33.2
1998	327,389	100.0	88,097	26.9	29,106	8.9	14,946	4.6	65,173	19.9	21,843	6.7	108,224	33.1
1999	334,421	100.0	91,261	27.3	30,093	9.0	14,694	4.4	66,286	19.8	22,678	6.8	109,409	32.7
2000	342,079	100.0	94,288	27.6	31,259	9.1	14,178	4.1	66,455	19.4	22,689	6.6	113,210	33.1
2001	355,115	100.0	99,724	28.1	32,176	9.1	14,155	4.0	67,992	19.1	23,884	6.7	117,184	33.0
Federal														
1980	52,959	100.0	29,316	55.4	4,628	8.7	13,303	25.1	662	1.3	5,050	9.5	NA	NA
1981	50,896	100.0	29,144	57.3	4,093	8.0	12,172	23.9	619	1.2	4,868	9.6	NA	NA
1982	47,403	100.0	28,313	59.7	4,092	8.6	10,074	21.3	428	0.9	4,496	9.5	NA	NA
1983	47,752	100.0	29,152	61.0	4,108	8.6	9,112	19.1	498	1.0	4,882	10.2	NA	NA
1984	47,784	100.0	29,463	61.7	4,116	8.6	8,970	18.8	400	0.8	4,835	10.1	NA	NA
1985	49,051	100.0	30,433	62.0	4,416	9.0	8,954	18.3	549	1.1	4,699	9.6	NA	NA
1986	51,361	100.0	32,739	63.7	4,596	8.9	8,688	16.9	495	1.0	4,843	9.4	NA	NA
1987	53,538	100.0	34,996	65.4	4,445	8.3	8,922	16.7	444	0.8	4,731	8.8	NA	NA
1988	55,489	100.0	36,752	66.2	4,566	8.2	8,664	15.6	504	0.9	5,003	9.0	NA	NA
1989	57,433	100.0	38,555	67.1	5,166	9.0	8,682	15.1	490	0.9	4,540	7.9	NA	NA
1990	59,258	100.0	38,504	65.0	6,314	10.7	9,228	15.6	609	1.0	4,603	7.8	NA	NA

Appendix table 2-15

Full-time S&E graduate students, by source and mechanism of primary support: 1980–2001

Source	All mechanisms		Research assistantship		Fellowship		Traineeship		Teaching assistantship		Other		Self-support ^a	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1991	63,000	100.0	40,790	64.7	7,445	11.8	9,616	15.3	476	0.8	4,673	7.4	NA	NA
1992	65,607	100.0	42,586	64.9	7,757	11.8	10,040	15.3	643	1.0	4,581	7.0	NA	NA
1993	67,673	100.0	44,502	65.8	7,510	11.1	10,174	15.0	846	1.3	4,641	6.9	NA	NA
1994	68,550	100.0	45,621	66.6	6,939	10.1	10,407	15.2	780	1.1	4,803	7.0	NA	NA
1995	67,294	100.0	44,597	66.3	6,914	10.3	10,234	15.2	739	1.1	4,810	7.1	NA	NA
1996	65,240	100.0	43,370	66.5	7,044	10.8	9,869	15.1	843	1.3	4,114	6.3	NA	NA
1997	64,522	100.0	43,328	67.2	7,074	11.0	9,291	14.4	908	1.4	3,921	6.1	NA	NA
1998	63,759	100.0	41,826	65.6	7,033	11.0	9,658	15.1	1,120	1.8	4,122	6.5	NA	NA
1999	65,809	100.0	43,057	65.4	7,337	11.1	9,712	14.8	997	1.5	4,706	7.2	NA	NA
2000	67,606	100.0	44,620	66.0	7,471	11.1	9,522	14.1	1,373	2.0	4,620	6.8	NA	NA
2001	68,719	100.0	46,078	67.1	7,373	10.7	9,525	13.9	1,089	1.6	4,654	6.8	NA	NA
Non-Federal														
1980	110,000	100.0	22,250	20.2	15,887	14.4	4,242	3.9	53,227	48.4	14,394	13.1	NA	NA
1981	114,631	100.0	23,567	20.6	16,002	14.0	4,599	4.0	55,126	48.1	15,337	13.4	NA	NA
1982	119,458	100.0	24,267	20.3	16,763	14.0	4,563	3.8	57,906	48.5	15,959	13.4	NA	NA
1983	123,032	100.0	25,752	20.9	17,234	14.0	4,400	3.6	59,573	48.4	16,073	13.1	NA	NA
1984	126,988	100.0	28,272	22.3	17,508	13.8	4,495	3.5	60,856	47.9	15,857	12.5	NA	NA
1985	130,606	100.0	30,562	23.4	18,124	13.9	4,711	3.6	61,273	46.9	15,936	12.2	NA	NA
1986	135,927	100.0	33,271	24.5	18,358	13.5	4,838	3.6	62,057	45.7	17,403	12.8	NA	NA
1987	137,738	100.0	35,218	25.6	17,508	12.7	5,174	3.8	62,403	45.3	17,435	12.7	NA	NA
1988	140,478	100.0	37,836	26.9	17,787	12.7	5,733	4.1	62,549	44.5	16,573	11.8	NA	NA
1989	144,964	100.0	40,490	27.9	18,284	12.6	5,842	4.0	63,806	44.0	16,542	11.4	NA	NA
1990	149,140	100.0	42,242	28.3	18,940	12.7	5,970	4.0	64,341	43.1	17,647	11.8	NA	NA
1991	152,427	100.0	44,385	29.1	19,250	12.6	5,787	3.8	64,738	42.5	18,267	12.0	NA	NA
1992	155,649	100.0	45,444	29.2	20,870	13.4	5,321	3.4	65,059	41.8	18,955	12.2	NA	NA
1993	155,695	100.0	45,652	29.3	21,622	13.9	5,271	3.4	66,444	42.7	16,706	10.7	NA	NA
1994	156,503	100.0	46,387	29.6	21,953	14.0	5,274	3.4	66,064	42.2	16,825	10.8	NA	NA
1995	155,302	100.0	45,349	29.2	21,973	14.1	5,709	3.7	65,237	42.0	17,034	11.0	NA	NA
1996	153,821	100.0	44,324	28.8	21,818	14.2	5,612	3.6	64,913	42.2	17,154	11.2	NA	NA
1997	154,026	100.0	44,673	29.0	21,882	14.2	5,197	3.4	64,517	41.9	17,757	11.5	NA	NA
1998	155,406	100.0	46,271	29.8	22,073	14.2	5,288	3.4	64,053	41.2	17,721	11.4	NA	NA
1999	159,203	100.0	48,204	30.3	22,756	14.3	4,982	3.1	65,289	41.0	17,972	11.3	NA	NA
2000	161,263	100.0	49,668	30.8	23,788	14.8	4,656	2.9	65,082	40.4	18,069	11.2	NA	NA
2001	169,212	100.0	53,646	31.7	24,803	14.7	4,630	2.7	66,903	39.5	19,230	11.4	NA	NA

NA not available

^aSelf-support includes any loans (including Federal loans) or support from personal or family financial contributions.

NOTES: S&E includes health fields (i.e., medical sciences and other life sciences). These fields are reported separately in the National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Graduate Students and Postdoctorates in Science and Engineering, annual series.

SOURCE: NSF/SRS, WebCASPAR database system, <http://caspar.nsf.gov>.

Appendix table 2-16

Full-time S&E graduate students, by field and mechanism of primary support: 2001

Field	All mechanisms		Research assistantship		Fellowship		Traineeship		Teaching assistantship		Other		Self-support ^a	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All surveyed fields.....	355,115	100.0	99,724	28.1	32,176	9.1	14,155	4.0	67,992	19.1	23,884	6.7	117,184	33.0
S&E.....	304,476	100.0	93,510	30.7	29,600	9.7	9,198	3.0	64,692	21.2	18,714	6.1	88,762	29.2
Natural sciences.....	85,984	100.0	35,402	41.2	9,643	11.2	5,490	6.4	21,817	25.4	3,502	4.1	10,130	11.8
Physical sciences.....	27,129	100.0	11,787	43.4	2,370	8.7	457	1.7	10,536	38.8	564	2.1	1,415	5.2
Astronomy.....	860	100.0	431	50.1	148	17.2	34	4.0	213	24.8	12	1.4	22	2.6
Chemistry.....	16,012	100.0	6,732	42.0	1,400	8.7	263	1.6	6,596	41.2	305	1.9	716	4.5
Physics.....	10,023	100.0	4,536	45.3	819	8.2	160	1.6	3,710	37.0	240	2.4	558	5.6
Other, NEC.....	234	100.0	88	37.6	3	1.3	0	0.0	17	7.3	7	3.0	119	50.9
Biological sciences.....	48,351	100.0	19,442	40.2	6,208	12.8	4,936	10.2	8,720	18.0	2,344	4.8	6,701	13.9
Earth, atmospheric, and ocean sciences....	10,504	100.0	4,173	39.7	1,065	10.1	97	0.9	2,561	24.4	594	5.7	2,014	19.2
Atmospheric sciences.....	812	100.0	499	61.5	52	6.4	0	0.0	151	18.6	42	5.2	68	8.4
Geosciences.....	5,222	100.0	1,808	34.6	619	11.9	36	0.7	1,842	35.3	228	4.4	689	13.2
Oceanography.....	2,058	100.0	1,135	55.2	223	10.8	4	0.2	219	10.6	126	6.1	351	17.1
Other, NEC.....	2,412	100.0	731	30.3	171	7.1	57	2.4	349	14.5	198	8.2	906	37.6
Mathematics/computer sciences.....	42,596	100.0	7,905	18.6	2,441	5.7	353	0.8	11,985	28.1	2,944	6.9	16,968	39.8
Mathematics.....	12,498	100.0	1,428	11.4	1,397	11.2	105	0.8	6,871	55.0	687	5.5	2,010	16.1
Computer sciences.....	30,098	100.0	6,477	21.5	1,044	3.5	248	0.8	5,114	17.0	2,257	7.5	14,958	49.7
Agricultural sciences.....	9,202	100.0	5,298	57.6	493	5.4	79	0.9	1,155	12.6	398	4.3	1,779	19.3
Social/behavioral sciences.....	89,122	100.0	12,708	14.3	10,553	11.8	2,499	2.8	17,961	20.2	7,132	8.0	38,269	42.9
Social sciences.....	54,589	100.0	7,816	14.3	8,242	15.1	1,200	2.2	12,326	22.6	3,663	6.7	21,342	39.1
Anthropology (cultural/social).....	5,577	100.0	532	9.5	1,385	24.8	50	0.9	1,386	24.9	433	7.8	1,791	32.1
Economics (except agricultural).....	9,162	100.0	1,214	13.3	1,646	18.0	134	1.5	2,885	31.5	635	6.9	2,648	28.9
History/philosophy of science.....	400	100.0	27	6.8	118	29.5	6	1.5	117	29.3	29	7.3	103	25.8
Linguistics.....	2,177	100.0	211	9.7	363	16.7	51	2.3	701	32.2	212	9.7	639	29.4
Political science.....	16,672	100.0	1,774	10.6	2,649	15.9	549	3.3	2,674	16.0	1,085	6.5	7,941	47.6
Sociology.....	6,118	100.0	917	15.0	987	16.1	167	2.7	2,114	34.6	319	5.2	1,614	26.4
Other, NEC.....	14,483	100.0	3,141	21.7	1,094	7.6	243	1.7	2,449	16.9	950	6.6	6,606	45.6
Psychology.....	34,533	100.0	4,892	14.2	2,311	6.7	1,299	3.8	5,635	16.3	3,469	10.0	16,927	49.0
Engineering.....	77,572	100.0	32,197	41.5	6,470	8.3	777	1.0	11,774	15.2	4,738	6.1	21,616	27.9
Aerospace.....	2,855	100.0	1,350	47.3	292	10.2	31	1.1	366	12.8	201	7.0	615	21.5
Chemical.....	5,829	100.0	3,154	54.1	760	13.0	53	0.9	850	14.6	211	3.6	801	13.7
Civil.....	12,099	100.0	4,526	37.4	1,033	8.5	156	1.3	1,873	15.5	814	6.7	3,697	30.6
Electrical.....	25,112	100.0	9,595	38.2	1,291	5.1	92	0.4	3,963	15.8	1,418	5.6	8,753	34.9
Industrial.....	6,534	100.0	1,747	26.7	433	6.6	58	0.9	1,042	15.9	698	10.7	2,556	39.1
Mechanical.....	11,436	100.0	5,105	44.6	955	8.4	126	1.1	2,148	18.8	636	5.6	2,466	21.6
Materials.....	3,977	100.0	2,545	64.0	476	12.0	16	0.4	407	10.2	100	2.5	433	10.9
Other, NEC.....	9,730	100.0	4,175	42.9	1,230	12.6	245	2.5	1,125	11.6	660	6.8	2,295	23.6
Health fields.....	50,639	100.0	6,214	12.3	2,576	5.1	4,957	9.8	3,300	6.5	5,170	10.2	28,422	56.1

NEC not elsewhere classified

^aSelf-support includes any loans (including Federal loans) or support from personal or family financial contributions.SOURCE: National Science Foundation, Division of Science Resources Statistics, WebCASPAR database system, <http://caspar.nsf.gov>.

Appendix table 2-17

Full-time S&E graduate students primarily supported by Federal Government, by field and mechanism of primary support: 2001

(Percent)

Field	All mechanisms	Research assistantship	Fellowship	Traineeship	Teaching assistantship	Other
All surveyed fields.....	19.4	46.2	22.9	67.3	1.6	19.5
S&E.....	19.7	46.8	22.2	59.0	1.5	17.9
Natural sciences.....	33.6	58.6	28.8	74.1	2.3	23.6
Physical sciences.....	34.2	67.5	31.4	73.5	1.4	18.6
Astronomy.....	42.2	68.0	32.4	64.7	0.0	0.0
Chemistry.....	32.1	65.7	30.5	79.8	1.1	5.9
Physics.....	37.4	70.8	32.7	65.0	2.0	35.8
Other, NEC.....	12.8	33.0	0.0	0.0	0.0	14.3
Biological sciences.....	34.6	53.3	28.1	74.8	3.6	24.8
Earth, atmospheric, and ocean sciences.....	27.8	57.5	27.0	38.1	2.0	23.6
Atmospheric sciences.....	55.2	79.0	42.3	0.0	5.3	57.1
Geosciences.....	25.0	59.7	26.2	25.0	2.1	7.0
Oceanography.....	41.1	62.1	28.7	100.0	0.5	57.1
Other, NEC.....	13.1	30.4	23.4	42.1	0.6	14.1
Mathematics/computer sciences.....	13.2	52.8	26.6	38.5	0.6	20.2
Mathematics.....	11.1	49.2	30.1	56.2	0.6	24.0
Computer sciences.....	14.1	53.5	21.9	31.0	0.7	19.1
Agricultural sciences.....	21.1	32.8	20.7	21.5	3.2	13.1
Social/behavioral sciences.....	7.4	24.4	13.9	37.7	1.1	11.9
Social sciences.....	6.1	20.2	10.5	19.1	1.2	14.0
Anthropology (cultural/social).....	6.6	15.4	15.0	26.0	1.4	9.9
Economics (except agricultural).....	4.6	14.9	7.5	11.2	0.9	11.8
History and philosophy of science.....	5.8	14.8	15.3	0.0	0.0	3.4
Linguistics.....	6.0	29.4	11.0	27.5	1.1	2.8
Political science.....	4.0	8.8	8.8	4.7	1.6	19.8
Sociology.....	6.9	21.6	8.8	58.7	0.8	6.6
Other, NEC.....	9.0	28.5	14.0	25.9	1.6	15.8
Psychology.....	9.4	31.1	26.3	54.8	0.9	9.8
Engineering.....	22.0	43.7	24.0	34.1	1.2	21.5
Aerospace engineering.....	35.2	56.4	28.8	3.2	3.8	71.6
Chemical.....	28.8	42.8	33.8	58.5	3.2	7.1
Civil.....	15.9	32.7	21.1	11.5	1.2	22.5
Electrical.....	19.7	46.1	19.0	14.1	0.3	17.9
Industrial.....	12.3	28.7	21.7	20.7	3.6	22.6
Mechanical.....	24.1	45.3	31.4	27.8	0.5	15.9
Materials.....	37.1	52.7	24.2	37.5	2.2	7.0
Other, NEC.....	25.1	45.0	19.7	60.8	1.1	24.1
Health fields.....	17.0	36.9	31.7	82.7	3.6	25.3

NEC not elsewhere classified

SOURCE: National Science Foundation, Division of Science Resources Statistics, WebCASPAR database system, <http://caspar.nsf.gov>.

Appendix table 2-18
Full-time S&E graduate students primarily supported by Federal Government, by agency: 1980–2001

Year	Federal agencies		National Institutes of Health		Department of Health and Human Services		National Science Foundation		Department of Defense		Department of Agriculture ^a		National Aeronautics and Space Administration ^b		Other agencies	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1980	52,959	100.0	11,499	21.7	7,522	14.2	9,348	17.7	5,251	9.9	NA	NA	NA	NA	19,339	36.5
1981	50,896	100.0	11,179	22.0	6,429	12.6	9,143	18.0	5,664	11.1	NA	NA	NA	NA	18,481	36.3
1982	47,403	100.0	10,814	22.8	4,975	10.5	9,257	19.5	5,941	12.5	NA	NA	NA	NA	16,416	34.6
1983	47,752	100.0	10,810	22.6	4,179	8.8	9,524	19.9	6,969	14.6	NA	NA	NA	NA	16,270	34.1
1984	47,784	100.0	10,983	23.0	4,124	8.6	9,848	20.6	7,125	14.9	NA	NA	NA	NA	15,704	32.9
1985	49,051	100.0	11,112	22.7	4,740	9.7	10,180	20.8	7,326	14.9	2,171	4.4	NA	NA	13,522	27.6
1986	51,361	100.0	11,877	23.1	4,500	8.8	10,826	21.1	7,940	15.5	2,328	4.5	NA	NA	13,890	27.0
1987	53,538	100.0	12,944	24.2	4,247	7.9	11,247	21.0	8,795	16.4	2,684	5.0	NA	NA	13,621	25.4
1988	55,489	100.0	13,715	24.7	4,186	7.5	11,634	21.0	9,546	17.2	2,591	4.7	NA	NA	13,817	24.9
1989	57,433	100.0	14,357	25.0	4,335	7.5	11,900	20.7	9,140	15.9	2,728	4.7	NA	NA	14,973	26.1
1990	59,258	100.0	14,996	25.3	4,512	7.6	12,025	20.3	8,868	15.0	2,722	4.6	NA	NA	16,135	27.2
1991	63,000	100.0	16,018	25.4	4,461	7.1	12,666	20.1	9,128	14.5	3,075	4.9	NA	NA	17,652	28.0
1992	65,607	100.0	17,091	26.1	4,321	6.6	13,366	20.4	9,247	14.1	3,216	4.9	NA	NA	18,366	28.0
1993	67,673	100.0	18,135	26.8	3,888	5.7	13,530	20.0	9,750	14.4	3,324	4.9	NA	NA	19,046	28.1
1994	68,550	100.0	18,292	26.7	4,374	6.4	13,990	20.4	9,449	13.8	3,422	5.0	NA	NA	19,023	27.8
1995	67,294	100.0	18,109	26.9	4,666	6.9	13,661	20.3	9,339	13.9	3,254	4.8	NA	NA	18,265	27.1
1996	65,240	100.0	17,929	27.5	4,432	6.8	13,412	20.6	8,802	13.5	3,004	4.6	2,309	3.5	15,352	23.5
1997	64,522	100.0	18,087	28.0	4,443	6.9	13,362	20.7	9,021	14.0	2,646	4.1	2,586	4.0	14,377	22.3
1998	63,759	100.0	18,215	28.6	4,489	7.0	13,459	21.1	8,259	13.0	2,485	3.9	2,646	4.2	14,206	22.3
1999	65,809	100.0	19,001	28.9	4,417	6.7	13,835	21.0	8,037	12.2	2,634	4.0	2,579	3.9	15,306	23.3
2000	67,606	100.0	19,474	28.8	3,993	5.9	14,595	21.6	8,143	12.0	2,630	3.9	2,779	4.1	15,992	23.7
2001	68,719	100.0	19,718	28.7	4,354	6.3	15,448	22.5	7,953	11.6	2,755	4.0	2,811	4.1	15,680	22.8

NA not available

^aData reported first in 1985.

^bData reported first in 1996.

NOTE: Percents may not sum to 100 because of rounding.

SOURCE: National Science Foundation, Division of Science Resources Statistics, WebCASPAR database system, <http://caspar.nsf.gov>.

Science & Engineering Indicators – 2004

Appendix table 2-19

Primary mechanisms of support for S&E doctorate recipients, by citizenship, sex, and race/ethnicity: 2001

Citizenship, sex, and race/ethnicity	All mechanisms		Research assistantships		Fellowships ^a		Traineeships ^b		Teaching assistantships		Other ^c		Personal ^d		Unknown	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Non-U.S. citizen	9,574	100.0	4,281	44.7	1,570	16.4	49	0.5	1,629	17.0	749	7.8	701	7.3	595	6.2
Temporary resident.....	8,242	100.0	3,789	46.0	1,312	15.9	28	0.3	1,398	17.0	703	8.5	506	6.1	506	6.1
Permanent resident	1,332	100.0	492	36.9	258	19.4	21	1.6	231	17.3	46	3.5	195	14.6	89	6.7
U.S. citizen ^e	16,069	100.0	4,086	25.4	3,776	23.5	566	3.5	2,389	14.9	613	3.8	3,937	24.5	702	4.4
Male.....	8,962	100.0	2,682	29.9	2,063	23.0	250	2.8	1,409	15.7	417	4.7	1,750	19.5	391	4.4
Female	7,107	100.0	1,404	19.8	1,713	24.1	316	4.4	980	13.8	196	2.8	2,187	30.8	311	4.4
White.....	13,098	100.0	3,438	26.2	2,796	21.3	453	3.5	2,082	15.9	507	3.9	3,305	25.2	517	3.9
Asian/Pacific Islander	1,129	100.0	355	31.4	339	30.0	52	4.6	123	10.9	49	4.3	162	14.3	49	4.3
Underrepresented minority ^f	1,367	100.0	185	13.5	517	37.8	49	3.6	134	9.8	42	3.1	361	26.4	79	5.8
Unknown.....	475	100.0	108	22.7	124	26.1	12	2.5	50	10.5	15	3.2	109	22.9	57	12.0
Unknown citizenship.....	1,479	100.0	19	1.3	10	0.7	1	0.1	12	0.8	1	0.1	16	1.1	1,420	96.0

^aIncludes fellowships, scholarships, and dissertation grants.

^bIncludes traineeship, internship, and residency.

^cIncludes employer reimbursement or assistance, foreign support, and other sources.

^dIncludes personal savings, other personal earnings in graduate school, other family earnings or savings, and loans.

^eIncludes naturalized citizens.

^fIncludes blacks, Hispanics, and American Indian/Alaskan Natives.

NOTES: S&E includes health fields (i.e., medical and other life sciences). Data are not comparable with data for earlier years because of change in number and definition of support modes used in survey questionnaire in 1998.

SOURCE: National Science Foundation, Division of Science Resources Statistics, WebCASPAR database system, <http://caspar.nsf.gov>.

Science & Engineering Indicators – 2004

Earned associate's degrees, by field and sex: Selected years, 1985–2000

Field and sex	1985	1987	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	2000
Both sexes													
All fields	459,087	440,816	440,375	459,048	486,297	508,704	519,098	546,574	544,094	540,644	546,031	549,191	543,876
S&E.....	26,486	23,130	19,733	19,810	19,352	22,722	23,420	25,581	24,228	24,600	25,771	28,646	33,651
Natural sciences	2,298	2,125	2,056	2,300	2,388	2,607	2,891	3,546	3,546	3,823	3,912	3,874	2,913
Physical	1,002	1,090	1,029	1,212	1,218	1,086	1,224	1,413	1,459	1,560	1,540	1,518	1,271
Earth, atmospheric, and ocean sciences.....	63	40	28	33	28	143	168	226	186	189	191	180	174
Biological sciences.....	1,233	995	999	1,055	1,142	1,378	1,499	1,907	1,901	2,074	2,181	2,176	1,468
Mathematics/computer sciences.....	13,680	9,953	8,846	8,600	8,640	10,376	10,275	10,634	10,410	10,160	11,425	13,742	19,598
Mathematics.....	790	667	654	760	670	744	743	766	783	759	793	843	670
Computer science	12,890	9,286	8,192	7,840	7,970	9,632	9,532	9,868	9,627	9,401	10,632	12,899	18,928
Agricultural sciences	2,023	1,569	1,656	1,696	1,724	1,978	1,896	1,938	1,910	1,895	1,865	2,007	1,943
Social/behavioral sciences	4,562	4,894	4,440	4,809	4,087	5,046	5,832	6,619	6,077	6,674	6,681	6,916	7,467
Psychology.....	983	1,016	1,113	1,116	997	1,209	1,235	1,756	1,600	1,584	1,606	1,760	1,445
Social sciences	3,579	3,878	3,327	3,693	3,090	3,837	4,597	4,863	4,477	5,090	5,075	5,156	6,022
Engineering.....	3,923	4,589	2,735	2,405	2,513	2,715	2,526	2,844	2,285	2,048	1,888	2,107	1,730
Non-S&E	432,601	417,686	420,642	439,238	466,945	485,982	495,678	520,993	519,866	516,044	520,260	520,545	510,225
Engineering technologies ^a	53,667	49,815	48,342	46,938	45,106	40,592	40,946	42,414	39,190	35,982	35,221	35,163	35,544
Male													
All fields	204,325	192,227	187,125	192,433	200,043	208,856	213,263	222,247	219,704	213,090	212,698	215,888	216,156
S&E.....	14,695	13,152	10,607	10,568	10,360	12,063	12,103	13,023	12,461	12,207	12,636	14,605	17,186
Natural sciences	1,259	1,111	1,000	1,162	1,159	1,280	1,406	1,715	1,678	1,791	1,648	1,628	1,210
Physical	658	663	557	706	679	591	663	783	773	830	733	707	600
Earth, atmospheric, and ocean sciences	47	26	20	12	23	116	130	162	148	131	126	128	116
Biological sciences	554	422	423	444	457	573	613	770	757	830	789	793	494
Mathematics/computer sciences	7,128	5,297	4,563	4,431	4,438	5,187	5,123	5,384	5,434	5,326	6,164	7,627	11,134
Mathematics.....	489	419	415	489	406	464	428	437	438	464	444	490	407
Computer science.....	6,639	4,878	4,148	3,942	4,032	4,723	4,695	4,947	4,996	4,862	5,720	7,137	10,727
Agricultural sciences.....	1,201	1,002	965	1,033	1,119	1,325	1,280	1,233	1,300	1,250	1,196	1,267	1,159
Social/behavioral sciences.....	1,606	1,650	1,671	1,825	1,411	1,911	2,098	2,217	2,071	2,061	2,011	2,299	2,191
Psychology	312	294	283	286	257	338	282	433	446	405	376	603	326
Social sciences.....	1,294	1,356	1,388	1,539	1,154	1,573	1,816	1,784	1,625	1,656	1,635	1,696	1,865
Engineering	3,501	4,092	2,408	2,117	2,233	2,360	2,196	2,474	1,978	1,779	1,617	1,784	1,492
Non-S&E	189,630	179,075	176,518	181,865	189,683	196,793	201,160	209,224	207,243	200,883	200,062	201,283	198,970
Engineering technologies ^a	47,946	44,158	42,766	41,435	39,777	35,666	36,129	36,899	34,196	30,947	29,990	29,949	30,079

Earned associate's degrees, by field and sex: Selected years, 1985–2000

Field and sex	1985	1987	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	2000
Female													
All fields.....	254,762	248,589	253,250	266,615	286,254	299,848	305,835	324,327	324,390	327,554	333,333	333,303	327,720
S&E.....	11,791	9,978	9,126	9,242	8,992	10,659	11,317	12,558	11,767	12,393	13,135	14,041	16,465
Natural sciences.....	1,039	1,014	1,056	1,138	1,229	1,327	1,485	1,831	1,868	2,032	2,264	2,246	1,703
Physical.....	344	427	472	506	539	495	561	630	686	730	807	811	671
Earth, atmospheric, and ocean sciences.....	16	14	8	21	5	27	38	64	38	58	65	52	58
Biological sciences.....	679	573	576	611	685	805	886	1,137	1,144	1,244	1,392	1,383	974
Mathematics/computer sciences.....	6,552	4,656	4,283	4,169	4,202	5,189	5,152	5,250	4,976	4,834	5,261	6,115	8,464
Mathematics.....	301	248	239	271	264	280	315	329	345	295	349	353	263
Computer science.....	6,251	4,408	4,044	3,898	3,938	4,909	4,837	4,921	4,631	4,539	4,912	5,762	8,201
Agricultural sciences.....	822	567	691	663	605	653	616	705	610	645	669	740	784
Social/behavioral sciences.....	2,956	3,244	2,769	2,984	2,676	3,135	3,734	4,402	4,006	4,613	4,670	4,617	5,276
Psychology.....	671	722	830	830	740	871	953	1,323	1,154	1,179	1,230	1,157	1,119
Social sciences.....	2,285	2,522	1,939	2,154	1,936	2,264	2,781	3,079	2,852	3,434	3,440	3,460	4,157
Engineering.....	422	497	327	288	280	355	330	370	307	269	271	323	238
Non-S&E.....	242,971	238,611	244,124	257,373	277,262	289,189	294,518	311,769	312,623	315,161	320,198	319,262	311,255
Engineering technologies ^a	5,721	5,657	5,576	5,503	5,329	4,926	4,817	5,515	4,994	5,035	5,231	5,214	5,465

^aEngineering technologies are more focused on applied skills than on fundamental science and mathematics.

NOTES: Degree data by sex do not precisely match degree data by race/ethnicity in any field. Degree data by sex were collected by U.S. Department of Education (ED), National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS). Data by race/ethnicity were collected biennially by NCES for ED, Office for Civil Rights, from 1977 to 1989 and annually thereafter (except for 1999). For full available data series, see National Science Foundation, Division of Science Resources Statistics (NSF/SRS), WebCASPAR database system.

SOURCES: ED, NCES, IPEDS, Completions Survey, and NSF/SRS, WebCASPAR database system, <http://caspar.nsf.gov>.

Earned associate's degrees, by field, race/ethnicity, and citizenship: Selected years, 1985–2000

Field, race/ethnicity, and citizenship	1985	1987	1989	1991	1993	1994	1995	1996	1997	1998	2000
All fields	459,087	440,816	440,375	486,297	519,098	546,574	544,094	540,644	546,031	549,191	543,876
S&E	25,957	22,167	19,479	19,154	23,118	25,172	24,228	24,600	25,771	28,646	33,651
Natural sciences	2,298	2,126	2,059	2,391	2,863	3,546	3,546	3,823	3,912	3,874	2,913
Physical sciences	1,065	1,131	1,060	1,249	1,392	1,639	1,459	1,560	1,540	1,518	1,271
Earth, atmospheric, and ocean sciences	0	0	0	0	0	0	186	189	191	180	174
Biological sciences	1,233	995	999	1,142	1,471	1,907	1,901	2,074	2,181	2,176	1,468
Mathematics/computer sciences	13,679	9,953	8,846	8,640	10,255	10,532	10,410	10,160	11,425	13,742	19,598
Mathematics	789	667	654	670	743	765	783	759	793	843	670
Computer sciences	12,890	9,286	8,192	7,970	9,512	9,767	9,627	9,401	10,632	12,899	18,928
Agricultural sciences	2,393	1,824	1,893	2,039	2,227	2,247	1,910	1,895	1,865	2,007	1,943
Social/behavioral sciences	3,664	3,676	3,949	3,574	5,248	6,019	6,077	6,674	6,681	6,916	7,467
Psychology	983	1,016	1,113	997	1,237	1,756	1,600	1,584	1,606	1,760	1,445
Social sciences	2,681	2,660	2,836	2,577	4,011	4,263	4,477	5,090	5,075	5,156	6,022
Engineering	3,923	4,588	2,732	2,510	2,525	2,828	2,285	2,048	1,888	2,107	1,730
Non-S&E	433,130	418,649	420,896	467,143	495,980	521,402	519,866	516,044	520,260	520,545	510,225
Engineering technologies ^a	51,579	47,434	46,180	42,595	38,473	39,889	39,190	35,982	35,221	35,163	35,544
U.S. citizen/permanent resident											
All fields	452,661	436,331	434,406	479,320	510,074	536,405	534,183	530,622	535,432	537,146	533,982
S&E	25,341	21,759	19,018	18,786	22,481	24,465	23,524	23,862	25,012	27,693	32,827
Natural sciences	2,258	2,057	1,985	2,339	2,758	3,434	3,390	3,677	3,740	3,717	2,830
Physical sciences	1,045	1,097	1,021	1,219	1,325	1,583	1,382	1,477	1,448	1,443	1,216
Earth, atmospheric, and ocean sciences	0	0	0	0	0	0	184	186	189	180	173
Biological sciences	1,213	960	964	1,120	1,433	1,851	1,824	2,014	2,103	2,094	1,441
Mathematics/computer sciences	13,366	9,776	8,641	8,469	9,971	10,250	10,111	9,868	11,119	13,358	19,099
Mathematics	750	655	636	654	696	726	744	711	749	794	637
Computer sciences	12,616	9,121	8,005	7,815	9,275	9,524	9,367	9,157	10,370	12,564	18,462
Agricultural sciences	2,359	1,812	1,870	2,018	2,194	2,202	1,892	1,877	1,846	1,956	1,920
Social/behavioral sciences	3,591	3,646	3,873	3,518	5,111	5,840	5,923	6,462	6,486	6,688	7,316
Psychology	969	1,008	1,086	989	1,220	1,732	1,581	1,552	1,567	1,702	1,423
Social sciences	2,622	2,638	2,787	2,529	3,891	4,108	4,342	4,910	4,919	4,986	5,893
Engineering	3,767	4,468	2,649	2,442	2,447	2,739	2,208	1,978	1,821	1,974	1,662
Non-S&E	427,320	414,572	415,388	460,534	487,593	511,940	510,659	506,760	510,420	509,453	501,155
Engineering technologies ^a	50,899	46,859	45,647	42,069	38,093	39,475	38,764	35,631	34,761	34,435	35,215
White											
All fields	355,422	345,546	330,557	376,869	392,637	419,962	408,126	403,072	400,307	396,735	380,777
S&E	18,133	16,169	13,898	13,842	15,631	17,809	16,392	16,333	16,835	18,415	20,982
Natural sciences	1,410	1,507	1,526	1,727	1,972	2,534	2,377	2,539	2,469	2,411	1,879
Physical sciences	734	917	841	968	995	1,230	1,024	1,018	999	952	799
Earth, atmospheric, and ocean sciences	0	0	0	0	0	0	156	165	160	155	150
Biological sciences	676	590	685	759	977	1,304	1,197	1,356	1,310	1,304	930
Mathematics/computer sciences	10,255	7,360	6,044	6,054	6,515	7,133	6,950	6,709	7,544	8,974	12,200
Mathematics	525	481	461	477	509	497	479	439	492	501	379
Computer sciences	9,730	6,879	5,583	5,577	6,006	6,636	6,471	6,270	7,052	8,473	11,821

Earned associate's degrees, by field, race/ethnicity, and citizenship: Selected years, 1985–2000

Field, race/ethnicity, and citizenship	1985	1987	1989	1991	1993	1994	1995	1996	1997	1998	2000
Agricultural sciences.....	2,138	1,571	1,705	1,847	2,017	1,959	1,633	1,696	1,680	1,768	1,718
Social/behavioral sciences.....	2,070	2,496	2,637	2,347	3,241	4,050	3,774	3,887	3,779	3,824	4,059
Psychology.....	680	781	845	738	894	1,321	1,146	1,094	1,087	1,068	952
Social sciences.....	1,390	1,715	1,792	1,609	2,347	2,729	2,628	2,793	2,692	2,756	3,107
Engineering.....	2,260	3,235	1,986	1,867	1,886	2,133	1,658	1,502	1,363	1,438	1,126
Non-S&E.....	337,289	329,377	316,659	363,027	377,006	402,153	391,734	386,739	383,472	378,320	359,795
Engineering technologies ^a	40,934	37,383	33,584	33,792	28,442	31,457	29,646	27,506	26,522	26,208	25,643
Asian/Pacific Islander											
All fields.....	10,165	11,329	11,761	15,069	16,280	18,555	20,976	22,630	23,882	23,909	25,654
S&E.....	828	1,051	834	842	1,108	1,283	1,392	1,525	1,700	1,884	2,384
Natural sciences.....	82	102	114	212	222	294	319	381	444	421	255
Physical sciences.....	51	43	62	86	76	122	124	163	176	170	145
Earth, atmospheric, and ocean sciences.....	0	0	0	0	0	0	5	2	4	3	1
Biological sciences.....	31	59	52	126	146	172	190	216	264	248	109
Mathematics/computer sciences.....	511	464	401	388	528	566	606	620	748	920	1,471
Mathematics.....	63	69	65	65	69	77	93	104	87	100	90
Computer sciences.....	448	395	336	323	459	489	513	516	661	820	1,381
Agricultural sciences.....	4	10	6	8	6	10	10	4	4	8	19
Social/behavioral sciences.....	47	106	119	88	216	229	305	374	356	369	479
Psychology.....	8	19	14	24	33	37	57	57	63	53	51
Social sciences.....	39	87	105	64	183	192	248	317	293	316	428
Engineering.....	184	369	194	146	136	184	152	146	148	166	160
Non-S&E.....	9,337	10,278	10,927	14,227	15,172	17,272	19,584	21,105	22,182	22,025	23,270
Engineering technologies ^a	1,570	1,989	1,663	1,496	1,358	1,258	1,458	1,464	1,586	1,521	1,752
Black											
All fields.....	35,861	33,858	32,185	37,854	41,260	45,597	45,923	49,245	51,588	52,957	55,154
S&E.....	1,653	1,766	1,460	1,631	1,963	2,069	2,307	2,411	2,577	2,856	3,856
Natural sciences.....	141	171	108	135	163	186	250	226	245	281	235
Physical sciences.....	48	71	45	78	70	90	93	101	96	112	85
Earth, atmospheric, and ocean sciences.....	0	0	0	0	0	0	10	11	9	14	13
Biological sciences.....	93	100	63	57	93	96	147	114	140	155	137
Mathematics/computer sciences.....	938	961	828	921	1,004	1,120	1,091	1,140	1,219	1,564	2,481
Mathematics.....	24	38	25	27	26	39	45	36	37	33	36
Computer sciences.....	914	923	803	894	978	1,081	1,046	1,104	1,182	1,531	2,445
Agricultural sciences.....	19	27	17	14	15	20	23	18	11	9	18
Social/behavioral sciences.....	407	358	387	435	580	564	795	893	971	893	999
Psychology.....	65	73	83	103	109	149	126	147	125	111	135
Social sciences.....	342	285	304	332	471	415	669	746	846	782	864
Engineering.....	148	249	120	126	201	179	148	134	131	109	123
Non-S&E.....	34,208	32,092	30,725	36,223	39,297	43,528	43,616	46,834	49,011	50,101	51,298
Engineering technologies ^a	3,395	3,100	2,829	3,030	2,698	3,197	3,015	2,989	2,982	3,156	3,321

Earned associate's degrees, by field, race/ethnicity, and citizenship: Selected years, 1985–2000

Field, race/ethnicity, and citizenship	1985	1987	1989	1991	1993	1994	1995	1996	1997	1998	2000
Hispanic											
All fields	22,783	22,804	23,475	29,019	33,015	35,557	38,499	39,115	42,784	45,452	50,488
S&E.....	1,380	1,635	1,453	1,463	2,152	2,329	2,498	2,542	2,773	3,103	3,868
Natural sciences	195	190	122	175	212	295	288	330	386	411	290
Physical sciences	60	37	34	45	52	92	70	106	102	119	106
Earth, atmospheric, and ocean sciences	0	0	0	0	0	0	10	3	8	3	1
Biological sciences	135	153	88	130	160	203	208	221	276	289	183
Mathematics/computer sciences	676	620	609	677	1,086	1,074	1,134	1,036	1,175	1,419	2,130
Mathematics.....	38	39	47	55	67	85	99	108	110	120	97
Computer sciences.....	638	581	562	622	1,019	989	1,035	928	1,065	1,299	2,033
Agricultural sciences.....	53	91	114	57	88	109	136	89	75	85	77
Social/behavioral sciences.....	330	365	432	401	613	703	779	955	1,025	992	1,193
Psychology	43	64	123	88	141	154	193	179	209	180	192
Social sciences.....	287	301	309	313	472	549	586	776	816	812	1,001
Engineering	126	369	176	153	153	148	161	132	112	196	178
Non-S&E	21,403	21,169	22,022	27,556	30,863	33,228	36,001	36,573	40,011	42,349	46,620
Engineering technologies ^a	2,084	2,359	2,232	2,411	2,398	2,478	2,777	2,742	2,728	2,621	3,283
American Indian/Alaskan Native											
All fields	2,953	3,049	3,102	3,772	4,213	4,879	5,352	5,221	5,520	6,161	5,697
S&E.....	163	195	182	257	315	419	419	466	455	500	525
Natural sciences	16	21	21	29	32	56	63	68	67	70	50
Physical sciences	8	4	2	7	7	20	22	26	20	30	13
Earth, atmospheric, and ocean sciences	0	0	0	0	0	0	0	0	1	3	0
Biological sciences	8	17	19	22	25	36	40	42	46	37	37
Mathematics/computer sciences	56	49	67	91	116	116	124	138	122	161	195
Mathematics.....	4	4	9	13	15	11	13	9	2	13	7
Computer sciences.....	52	45	58	78	101	105	111	129	120	148	188
Agricultural sciences.....	29	28	23	37	41	69	54	42	54	64	67
Social/behavioral sciences.....	51	70	59	79	118	160	156	207	187	183	196
Psychology	11	16	13	16	18	38	35	42	38	37	38
Social sciences.....	40	54	46	63	100	122	121	165	149	146	158
Engineering	11	27	12	21	8	18	22	11	25	22	17
Non-S&E	2,790	2,854	2,920	3,515	3,898	4,460	4,933	4,755	5,065	5,661	5,172
Engineering technologies ^a	267	219	257	232	210	263	286	269	236	286	273

Appendix table 2-21

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Earned associate's degrees, by field, race/ethnicity, and citizenship: Selected years, 1985–2000

Field, race/ethnicity, and citizenship	1985	1987	1989	1991	1993	1994	1995	1996	1997	1998	2000
Other/unknown race/ethnicity											
All fields	25,477	19,745	33,326	16,737	22,669	11,855	15,307	11,339	11,351	11,932	16,212
S&E.....	3,184	943	1,191	751	1,312	556	516	585	672	935	1,212
Natural sciences	414	66	94	61	157	69	93	133	129	123	121
Physical sciences	144	25	37	35	125	29	49	63	55	60	68
Earth, atmospheric, and ocean sciences	0	0	0	0	0	0	2	5	7	2	8
Biological sciences	270	41	57	26	32	40	42	65	67	61	45
Mathematics/computer sciences	930	322	692	338	722	241	206	225	311	320	622
Mathematics.....	96	24	29	17	10	17	15	15	21	27	28
Computer sciences.....	834	298	663	321	712	224	191	210	290	293	594
Agricultural sciences.....	116	85	5	55	27	35	36	28	22	22	21
Social/behavioral sciences.....	686	251	239	168	343	134	114	146	168	427	390
Psychology	162	55	8	20	25	33	24	33	45	253	55
Social sciences.....	524	196	231	148	318	101	90	113	123	174	335
Engineering	1,038	219	161	129	63	77	67	53	42	43	58
Non-S&E	22,293	18,802	32,135	15,986	21,357	11,299	14,791	10,754	10,679	10,997	15,000
Engineering technologies ^a	2,649	1,809	5,082	1,108	2,987	822	1,582	661	707	643	943
Foreign citizen^b											
All fields	6,426	4,485	5,969	6,977	9,024	10,169	9,911	10,022	10,599	12,045	9,894
S&E.....	616	408	461	368	637	707	704	738	759	953	824
Natural sciences	40	69	74	52	105	112	156	146	172	157	83
Physical sciences.....	20	34	39	30	67	56	77	83	92	75	55
Earth, atmospheric, and ocean sciences	0	0	0	0	0	0	2	3	2	0	1
Biological sciences	20	35	35	22	38	56	77	60	78	82	27
Mathematics/computer sciences.....	313	177	205	171	284	282	299	292	306	384	499
Mathematics.....	39	12	18	16	47	39	39	48	44	49	33
Computer sciences	274	165	187	155	237	243	260	244	262	335	466
Agricultural sciences.....	34	12	23	21	33	45	18	18	19	51	23
Social/behavioral sciences.....	73	30	76	56	137	179	154	212	195	228	151
Psychology	14	8	27	8	17	24	19	32	39	58	22
Social sciences.....	59	22	49	48	120	155	135	180	156	170	129
Engineering.....	156	120	83	68	78	89	77	70	67	133	68
Non-S&E	5,810	4,077	5,508	6,609	8,387	9,462	9,207	9,284	9,840	11,092	9,070
Engineering technologies ^a	680	575	533	526	380	414	426	351	460	728	329

^aEngineering technologies are more focused on applied skills than on fundamental science and mathematics.^bIncludes temporary residents only.

NOTES: Degree data by sex do not precisely match degree data by race/ethnicity in any field. Degree data by sex were collected by U.S. Department of Education (ED), National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS). Data by race/ethnicity were collected biennially by NCES for ED, Office for Civil Rights, from 1977 to 1989 and annually thereafter (except for 1999). For full available data series, see National Science Foundation, Division of Science Resources Statistics (NSF/SRS), WebCASPAR database system.

SOURCES: ED, NCES, and NSF/SRS, WebCASPAR database system, <http://caspar.nsf.gov>.

Earned bachelor's degrees, by field and sex: Selected years, 1977–2000

Field and sex	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1996	1997	1998	2000
Both sexes														
All fields	928,228	931,340	946,877	980,679	990,877	1,003,532	1,030,171	1,107,997	1,179,278	1,174,436	1,179,815	1,186,589	1,199,579	1,253,121
S&E.....	303,798	303,162	306,792	317,571	332,273	331,526	322,821	337,675	366,035	378,148	384,674	388,482	390,618	398,622
Natural sciences	76,783	72,915	68,186	64,378	63,251	59,200	54,278	56,757	65,680	76,265	81,934	84,869	86,706	83,531
Physical sciences.....	16,937	17,257	17,446	16,197	16,270	15,464	14,148	13,678	14,188	14,897	15,396	15,264	15,273	14,580
Earth, atmospheric, and ocean sciences	5,653	6,082	6,694	7,298	7,576	6,689	3,181	2,728	3,503	4,478	4,457	4,466	4,321	4,047
Biological sciences.....	54,193	49,576	44,046	40,883	39,405	39,047	36,949	40,351	47,989	56,890	62,081	65,139	67,112	64,904
Mathematics/computer sciences.....	20,729	20,670	26,406	37,344	54,510	56,442	46,277	40,194	39,433	38,620	37,621	38,116	39,768	49,123
Mathematics.....	14,303	11,901	11,173	12,662	15,389	16,515	15,314	14,784	14,853	13,851	13,076	12,723	12,094	11,735
Computer sciences	6,426	8,769	15,233	24,682	39,121	39,927	30,963	25,410	24,580	24,769	24,545	25,393	27,674	37,388
Agricultural sciences.....	16,396	17,205	15,876	14,528	11,907	9,524	8,582	8,432	11,632	14,580	16,388	17,361	17,967	18,244
Social/behavioral sciences	148,533	138,903	132,607	128,651	125,033	131,935	146,737	170,105	186,585	185,312	185,617	185,784	185,263	188,188
Psychology.....	47,794	43,012	41,364	40,825	40,237	43,195	48,954	58,893	67,251	72,601	73,828	74,734	74,457	74,654
Social sciences	100,739	95,891	91,243	87,826	84,796	88,740	97,783	111,212	119,334	112,711	111,789	111,050	110,806	113,534
Engineering.....	41,357	53,469	63,717	72,670	77,572	74,425	66,947	62,187	62,705	63,371	63,114	62,352	60,914	59,536
Chemical.....	3,986	6,442	7,639	8,550	8,941	6,114	4,187	3,728	4,899	6,391	6,708	6,977	6,721	6,219
Civil	8,898	10,583	11,331	10,747	9,730	8,746	8,015	8,083	9,788	11,329	12,053	12,010	11,522	9,596
Electrical.....	10,018	12,440	15,040	19,205	23,668	26,791	24,318	21,520	19,598	17,579	16,667	16,434	16,322	17,672
Industrial.....	2,264	2,804	3,878	3,824	4,009	4,313	4,121	3,820	3,584	3,519	3,727	3,997	3,988	3,937
Mechanical	7,927	10,360	13,573	16,031	17,200	15,723	15,217	14,263	14,708	15,141	14,509	13,806	13,363	13,109
Other	8,264	10,840	12,256	14,313	14,024	12,738	11,089	10,773	10,128	9,412	9,450	9,128	8,998	9,003
Non-S&E	624,430	628,178	640,085	663,108	658,604	672,006	707,350	770,322	813,243	796,288	795,141	798,107	808,961	854,499
Engineering technologies ^a	9,864	10,906	13,567	18,602	20,476	20,577	20,098	18,294	17,022	16,607	16,228	14,631	14,825	15,238
Male														
All fields	499,121	481,394	474,336	483,395	486,660	485,003	487,566	508,952	537,536	531,146	528,000	525,282	525,714	536,158
S&E.....	198,805	193,247	190,977	194,380	203,402	199,981	189,338	189,328	200,315	202,217	203,341	201,471	200,221	197,669
Natural sciences	52,513	47,524	42,625	38,962	37,584	34,460	30,452	30,914	35,022	39,531	41,882	42,179	42,012	37,966
Physical sciences.....	13,560	13,358	13,137	11,586	11,434	10,792	9,777	9,253	9,424	9,605	9,694	9,382	9,279	8,590
Earth, atmospheric, and ocean sciences	4,479	4,695	5,028	5,450	5,715	3,629	2,380	1,946	2,453	2,954	2,972	2,924	2,722	2,430
Biological sciences	34,474	29,471	24,460	21,926	20,435	20,039	18,295	19,715	23,145	26,972	29,216	29,873	30,011	26,946
Mathematics/computer sciences.....	13,241	13,249	16,672	22,802	32,985	34,871	29,682	25,700	25,483	25,066	24,857	25,324	26,670	33,045
Mathematics.....	8,354	6,943	6,392	7,112	8,295	8,833	8,264	7,804	7,854	7,360	7,084	6,834	6,435	6,131
Computer sciences	4,887	6,306	10,280	15,690	24,690	26,038	21,418	17,896	17,629	17,706	17,773	18,490	20,235	26,914
Agricultural sciences.....	12,865	12,523	10,805	9,206	7,737	6,129	5,557	5,292	7,294	8,943	9,884	10,094	10,224	9,780
Social/behavioral sciences	80,873	71,363	64,221	60,392	58,770	61,500	66,888	74,900	79,792	76,256	74,920	72,992	71,740	69,558
Psychology	20,692	16,649	14,447	13,228	12,815	13,399	14,291	16,155	18,029	19,638	19,965	19,491	19,057	17,540
Social sciences	60,181	54,714	49,774	47,164	45,955	48,101	52,597	58,745	61,763	56,618	54,955	53,501	52,683	52,018

Earned bachelor's degrees, by field and sex: Selected years, 1977–2000

Field and sex	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1996	1997	1998	2000
Engineering.....	39,313	48,588	56,654	63,018	66,326	63,021	56,759	52,522	52,724	52,421	51,798	50,882	49,575	47,320
Chemical	3,534	5,387	6,274	6,761	6,848	4,574	3,017	2,564	3,335	4,367	4,537	4,701	4,525	4,016
Civil	8,413	9,534	10,100	9,263	8,388	7,550	6,841	6,803	8,009	9,031	9,629	9,441	8,946	7,263
Electrical.....	9,750	11,781	13,940	17,283	20,936	23,227	21,130	18,757	17,339	15,409	14,695	14,416	14,310	15,322
Industrial	2,115	2,376	3,111	2,824	2,842	2,929	2,860	2,723	2,547	2,493	2,630	2,918	2,968	2,630
Mechanical	7,685	9,740	12,422	14,546	15,399	13,996	13,537	12,673	13,076	13,441	12,773	12,171	11,727	11,325
Other	7,816	9,770	10,807	12,341	11,913	10,745	9,374	9,002	8,418	7,680	7,534	7,235	7,099	6,764
Non-S&E.....	300,316	288,147	283,359	289,015	283,258	285,022	298,228	319,624	337,221	328,929	324,659	323,811	325,493	338,489
Engineering technologies ^a	9,173	9,942	12,034	16,473	18,224	18,429	17,999	16,329	15,114	14,704	14,382	12,925	12,993	13,291
Female														
All fields	429,107	449,946	472,541	497,284	504,217	518,529	542,605	599,045	641,742	643,290	651,815	661,307	673,865	716,963
S&E.....	104,993	109,915	115,815	123,191	128,871	131,545	133,483	148,347	165,720	175,931	181,333	187,011	190,397	200,953
Natural sciences	24,270	25,391	25,561	25,416	25,667	24,740	23,826	25,843	30,658	36,734	40,052	42,690	44,694	45,565
Physical sciences.....	3,377	3,899	4,309	4,611	4,836	4,672	4,371	4,425	4,764	5,292	5,702	5,882	5,994	5,990
Earth, atmospheric, and ocean sciences	1,174	1,387	1,666	1,848	1,861	1,060	801	782	1,050	1,524	1,485	1,542	1,599	1,617
Biological sciences	19,719	20,105	19,586	18,957	18,970	19,008	18,654	20,636	24,844	29,918	32,865	35,266	37,101	37,958
Mathematics/computer sciences.....	7,488	7,421	9,734	14,542	21,525	21,571	16,595	14,494	13,950	13,554	12,764	12,792	13,098	16,078
Mathematics.....	5,949	4,958	4,781	5,550	7,094	7,682	7,050	6,980	6,999	6,491	5,992	5,889	5,659	5,604
Computer sciences	1,539	2,463	4,953	8,992	14,431	13,889	9,545	7,514	6,951	7,063	6,772	6,903	7,439	10,474
Agricultural sciences.....	3,531	4,682	5,071	5,322	4,170	3,395	3,025	3,140	4,338	5,637	6,504	7,267	7,743	8,464
Social/behavioral sciences.....	67,660	67,540	68,386	68,259	66,263	70,435	79,849	95,205	106,793	109,056	110,697	112,792	113,523	118,630
Psychology	27,102	26,363	26,917	27,597	27,422	29,796	34,663	42,738	49,222	52,963	53,863	55,243	55,400	57,114
Social sciences	40,558	41,177	41,469	40,662	38,841	40,639	45,186	52,467	57,571	56,093	56,834	57,549	58,123	61,516
Engineering.....	2,044	4,881	7,063	9,652	11,246	11,404	10,188	9,665	9,981	10,950	11,316	11,470	11,339	12,216
Chemical	452	1,055	1,365	1,789	2,093	1,540	1,170	1,164	1,564	2,024	2,171	2,276	2,196	2,203
Civil	485	1,049	1,231	1,484	1,342	1,196	1,174	1,280	1,779	2,298	2,424	2,569	2,576	2,333
Electrical.....	268	659	1,100	1,922	2,732	3,564	3,188	2,763	2,259	2,170	1,972	2,018	2,012	2,350
Industrial	149	428	767	1,000	1,167	1,384	1,261	1,097	1,037	1,026	1,097	1,079	1,020	1,307
Mechanical	242	620	1,151	1,485	1,801	1,727	1,680	1,590	1,632	1,700	1,736	1,635	1,636	1,784
Other	448	1,070	1,449	1,972	2,111	1,993	1,715	1,771	1,710	1,732	1,916	1,893	1,899	2,239
Non-S&E.....	324,114	340,031	356,726	374,093	375,346	386,984	409,122	450,698	476,022	467,359	470,482	474,296	483,468	516,010
Engineering technologies ^a	691	964	31,533	2,129	2,252	2,148	2,099	1,965	1,908	1,903	1,846	1,706	1,832	1,947

^aEngineering technologies are more focused on applied skills than on fundamental science and mathematics.

NOTES: Degree data by sex do not precisely match degree data by race/ethnicity in any field. Degree data by sex were collected by U.S. Department of Education (ED), National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS). Data by race/ethnicity were collected biennially by NCES for ED, Office for Civil Rights, from 1977 to 1989 and annually thereafter (except for 1999). For full available data series, see National Science Foundation, Division of Science Resources Statistics (NSF/SRS), WebCASPAR database system.

SOURCES: ED, NCES, IPEDS, Completions Survey, and NSF/SRS, WebCASPAR database system, <http://caspar.nsf.gov>.

Earned bachelor's degrees, by field, race/ethnicity, and citizenship: Selected years, 1977-2000

Field, race/ethnicity, and citizenship	1977	1979	1981	1985	1987	1989	1991	1993	1995	1997	1998	2000
All fields	928,228	931,340	946,877	990,877	1,003,532	1,030,171	1,107,997	1,179,278	1,174,436	1,186,589	1,199,579	1,253,121
S&E	337,834	334,632	337,739	342,970	343,070	337,431	356,785	388,435	378,148	388,482	390,618	398,622
Natural sciences	76,811	72,939	68,221	63,252	59,202	54,278	56,758	65,568	76,265	84,869	86,706	83,531
Physical sciences	22,618	23,363	24,175	23,847	20,155	17,329	16,407	17,691	14,897	15,264	15,273	14,580
Earth, atmospheric, and ocean sciences	0	0	0	0	0	0	0	0	4,478	4,466	4,321	4,047
Biological sciences	54,193	49,576	44,046	39,405	39,047	36,949	40,351	47,877	56,890	65,139	67,112	64,904
Mathematics/computer sciences	20,729	20,670	26,406	54,388	56,442	46,277	40,194	39,347	38,620	38,116	39,768	49,123
Mathematics	14,303	11,901	11,173	15,267	16,515	15,314	14,784	14,870	13,851	12,723	12,094	11,735
Computer sciences	6,426	8,769	15,233	39,121	39,927	30,963	25,410	24,477	24,769	25,393	27,674	37,388
Agricultural sciences	21,531	23,247	22,033	12,418	9,727	8,795	8,643	11,827	14,580	17,361	17,967	18,244
Social/behavioral sciences	169,086	154,976	145,684	135,341	143,276	161,134	189,004	209,023	185,312	185,784	185,263	188,188
Psychology	47,794	43,012	41,364	40,237	43,195	48,954	58,893	67,251	72,601	74,734	74,457	74,654
Social sciences	121,292	111,964	104,320	95,104	100,081	112,180	130,111	141,772	112,711	111,050	110,806	113,534
Engineering	49,677	62,800	75,395	77,571	74,423	66,947	62,186	62,670	63,371	62,352	60,914	59,536
Non-S&E	590,394	596,708	609,138	647,907	660,462	692,740	751,212	790,843	796,288	798,107	808,961	854,499
Engineering technologies ^a	0	0	0	20,533	20,577	20,098	18,294	16,987	16,607	14,631	14,825	15,238
U.S. citizen/permanent resident												
All fields	912,484	913,487	924,246	961,619	974,940	1,003,714	1,078,340	1,146,907	1,137,424	1,147,815	1,160,692	1,214,326
S&E	329,537	324,834	324,773	328,899	329,393	325,108	344,061	374,633	363,463	373,745	375,909	383,438
Natural sciences	75,212	71,357	66,586	61,557	57,705	52,800	55,087	63,587	74,259	82,736	84,608	81,577
Physical sciences	22,047	22,668	23,443	23,067	19,520	16,724	15,799	16,927	14,247	14,671	14,680	14,048
Earth, atmospheric, and ocean sciences	0	0	0	0	0	0	0	0	4,405	4,388	4,239	4,001
Biological sciences	53,165	48,689	43,143	38,490	38,185	36,076	39,288	46,660	55,607	63,677	65,689	63,528
Mathematics/computer sciences	20,146	19,929	25,173	51,509	53,209	43,599	37,579	36,591	35,730	35,568	37,178	45,758
Mathematics	13,985	11,536	10,717	14,504	15,860	14,771	14,206	14,318	13,258	12,190	11,641	11,256
Computer sciences	6,161	8,393	14,456	37,005	37,349	28,828	23,373	22,273	22,472	23,378	25,537	34,502
Agricultural sciences	21,088	22,768	21,417	11,981	9,438	8,529	8,373	11,478	14,322	17,108	17,674	17,986
Social/behavioral sciences	166,988	152,744	143,165	132,471	140,507	158,305	185,418	204,812	180,591	180,778	180,178	183,114
Psychology	47,325	42,567	40,878	39,694	42,701	48,443	58,202	66,421	71,659	73,685	73,287	73,390
Social sciences	119,663	110,177	102,287	92,777	97,806	109,862	127,216	138,391	108,932	107,093	106,891	109,724
Engineering	46,103	58,036	68,432	71,381	68,534	61,875	57,604	58,165	58,561	57,555	56,271	55,003
Non-S&E	582,947	588,653	599,473	632,720	645,547	678,606	734,279	772,274	773,961	774,070	784,783	830,888
Engineering technologies ^a	0	0	0	19,256	19,591	19,439	17,582	16,546	16,057	14,074	14,234	14,797
White												
All fields	807,857	802,665	807,509	826,356	819,477	840,326	892,363	931,603	892,785	877,759	878,018	895,129
S&E	292,802	287,126	284,166	281,394	272,090	266,862	278,190	297,171	275,819	274,800	272,561	270,416
Natural sciences	68,112	63,703	58,541	52,359	47,202	42,642	43,409	49,021	55,649	60,307	60,478	57,564
Physical sciences	20,417	20,958	21,249	20,541	16,653	14,238	13,145	13,941	10,940	10,934	10,763	10,096
Earth, atmospheric, and ocean sciences	0	0	0	0	0	0	0	0	4,012	3,986	3,803	3,561
Biological sciences	47,695	42,745	37,292	31,818	30,549	28,404	30,264	35,080	40,697	45,387	45,912	43,907
Mathematics/computer sciences	18,110	17,633	22,013	43,484	42,446	33,998	28,998	27,824	26,087	25,278	25,972	30,114
Mathematics	12,602	10,229	9,447	12,163	13,265	12,287	11,649	11,669	10,486	9,432	8,903	8,395
Computer sciences	5,508	7,404	12,566	31,321	29,181	21,711	17,349	16,155	15,601	15,846	17,069	21,719

Earned bachelor's degrees, by field, race/ethnicity, and citizenship: Selected years, 1977–2000

Field, race/ethnicity, and citizenship	1977	1979	1981	1985	1987	1989	1991	1993	1995	1997	1998	2000
Agricultural sciences	20,196	21,700	20,237	11,233	8,696	7,938	7,704	10,556	12,873	15,246	15,616	15,655
Social/behavioral sciences.....	144,312	131,439	122,519	113,326	117,255	132,203	152,917	164,917	137,444	132,303	129,921	128,016
Psychology	41,494	36,648	34,718	33,959	35,761	40,506	48,134	53,763	55,914	55,346	54,225	52,397
Social sciences.....	102,818	94,791	87,801	79,367	81,494	91,697	104,783	111,154	81,530	76,957	75,696	75,619
Engineering	42,072	52,651	60,856	60,992	56,491	50,081	45,162	44,853	43,766	41,666	40,574	39,067
Non-S&E.....	515,055	515,539	523,343	544,962	547,387	573,464	614,173	634,432	616,966	602,959	605,457	624,713
Engineering technologies ^a	0	0	0	16,673	16,541	16,156	14,279	13,245	12,675	10,988	11,044	10,871
Asian/Pacific Islander												
All fields.....	13,907	15,542	18,908	25,562	31,921	37,573	41,725	50,587	59,295	67,358	69,988	75,265
S&E	6,203	7,171	9,145	13,323	16,934	19,138	20,552	24,504	28,604	32,568	34,004	35,553
Natural sciences.....	1,693	1,903	2,092	2,715	3,459	3,829	4,542	6,201	8,392	10,161	10,545	9,585
Physical sciences	377	439	599	763	894	922	983	1,098	1,245	1,525	1,584	1,462
Earth, atmospheric, and ocean sciences	0	0	0	0	0	0	0	0	102	95	92	98
Biological sciences	1,316	1,464	1,493	1,952	2,565	2,907	3,559	5,103	7,045	8,541	8,869	8,025
Mathematics/computer sciences	479	587	1,061	2,929	3,489	3,287	2,925	3,160	3,335	3,655	4,054	6,292
Mathematics	316	324	392	885	1,034	1,019	915	915	964	852	834	891
Computer sciences.....	163	263	669	2,044	2,455	2,268	2,010	2,245	2,371	2,803	3,220	5,401
Agricultural sciences	242	324	314	165	182	144	128	163	282	396	439	454
Social/behavioral sciences.....	2,578	2,499	2,612	3,032	4,214	5,803	6,737	8,573	9,810	11,271	11,964	12,368
Psychology	807	781	843	845	1,154	1,575	1,885	2,538	3,331	4,067	4,267	4,188
Social sciences.....	1,771	1,718	1,769	2,187	3,060	4,228	4,852	6,035	6,479	7,204	7,697	8,180
Engineering	1,211	1,858	3,066	4,482	5,590	6,075	6,220	6,407	6,785	7,085	7,002	6,854
Non-S&E.....	7,704	8,371	9,763	12,239	14,987	18,435	21,173	26,083	30,691	34,790	35,984	39,712
Engineering technologies ^a	0	0	0	542	807	839	768	768	730	474	476	738
Black												
All fields.....	58,700	60,301	60,729	57,563	55,103	56,837	65,009	76,667	85,287	92,067	95,878	104,212
S&E	19,552	18,827	18,895	17,040	17,230	17,385	19,987	24,421	26,911	29,825	30,751	32,924
Natural sciences.....	3,107	3,195	3,181	2,877	2,713	2,613	2,864	3,575	4,266	5,234	5,680	5,880
Physical sciences	692	704	911	830	823	697	753	836	970	1,053	1,057	1,090
Earth, atmospheric, and ocean sciences	0	0	0	0	0	0	0	0	64	57	70	51
Biological sciences	2,415	2,491	2,270	2,047	1,890	1,916	2,111	2,739	3,232	4,124	4,553	4,739
Mathematics/computer sciences	1,073	1,159	1,371	2,913	3,654	3,249	2,808	3,178	3,475	3,448	3,632	4,402
Mathematics	712	652	585	770	834	792	811	965	958	1,016	966	905
Computer sciences.....	361	507	786	2,143	2,820	2,457	1,997	2,213	2,517	2,432	2,666	3,497
Agricultural sciences	309	346	380	219	157	143	162	219	253	367	409	450
Social/behavioral sciences.....	13,678	12,352	11,514	8,992	8,391	9,313	11,924	14,872	16,072	17,699	18,011	19,129
Psychology	3,221	3,218	3,308	2,667	2,451	2,743	3,688	4,618	5,741	6,647	6,852	7,572
Social sciences.....	10,457	9,134	8,206	6,325	5,940	6,570	8,236	10,254	10,331	11,052	11,159	11,557
Engineering	1,385	1,775	2,449	2,039	2,315	2,067	2,229	2,577	2,845	3,077	3,019	3,063
Non-S&E.....	39,148	41,474	41,834	40,523	37,873	39,452	45,022	52,246	58,376	62,242	65,127	71,288
Engineering technologies ^a	0	0	0	1,277	1,269	1,208	1,227	1,132	1,321	1,424	1,370	1,431

Earned bachelor's degrees, by field, race/ethnicity, and citizenship: Selected years, 1977–2000

Field, race/ethnicity, and citizenship	1977	1979	1981	1985	1987	1989	1991	1993	1995	1997	1998	2000
Hispanic												
All fields.....	27,043	29,719	33,167	36,391	38,196	41,361	49,027	57,845	66,691	74,938	78,125	88,324
S&E	9,628	10,432	11,312	12,031	12,419	13,327	15,351	18,442	21,359	24,445	25,712	27,984
Natural sciences	2,043	2,320	2,568	2,729	2,731	2,653	2,797	3,251	3,901	4,648	5,197	5,456
Physical sciences	484	495	617	660	585	563	533	599	716	740	796	883
Earth, atmospheric, and ocean sciences	0	0	0	0	0	0	0	0	84	113	118	127
Biological sciences	1,559	1,825	1,951	2,069	2,146	2,090	2,264	2,652	3,101	3,795	4,283	4,446
Mathematics/computer sciences	435	495	688	1,380	1,696	1,568	1,695	1,566	1,836	1,887	2,077	2,754
Mathematics	321	288	275	335	321	373	480	470	522	560	604	599
Computer sciences	114	207	413	1,045	1,375	1,195	1,215	1,096	1,314	1,327	1,473	2,155
Agricultural sciences	228	314	390	250	233	196	213	217	383	559	631	634
Social/behavioral sciences.....	5,632	5,748	5,846	5,485	5,205	6,349	8,080	10,447	11,588	13,226	13,682	15,065
Psychology	1,608	1,737	1,813	1,734	1,702	2,152	2,746	3,587	4,543	5,282	5,509	6,127
Social sciences.....	4,024	4,011	4,033	3,751	3,503	4,197	5,334	6,860	7,045	7,944	8,173	8,938
Engineering	1,290	1,555	1,820	2,187	2,554	2,561	2,566	2,961	3,651	4,125	4,125	4,075
Non-S&E.....	17,415	19,287	21,855	24,360	25,777	28,034	33,676	39,403	45,332	50,493	52,413	60,340
Engineering technologies ^a	0	0	0	525	664	634	731	853	884	723	739	1,068
American Indian/Alaskan Native												
All fields.....	3,328	3,410	3,593	4,246	3,866	3,967	4,486	5,574	6,454	7,238	7,706	8,431
S&E	1,166	1,194	1,206	1,384	1,290	1,238	1,344	1,819	1,995	2,298	2,392	2,611
Natural sciences	225	212	202	259	216	207	245	304	383	441	505	487
Physical sciences	68	63	65	98	72	62	69	93	72	69	81	65
Earth, atmospheric, and ocean sciences	0	0	0	0	0	0	0	0	26	31	25	43
Biological sciences	157	149	137	161	144	145	176	211	285	341	399	379
Mathematics/computer sciences	41	52	39	198	164	143	123	136	168	156	177	241
Mathematics	26	41	18	59	52	53	43	55	58	57	65	69
Computer sciences	15	11	21	139	112	90	80	81	110	99	112	172
Agricultural sciences	113	84	96	54	43	58	53	64	124	146	151	190
Social/behavioral sciences.....	652	682	674	664	657	653	765	1,139	1,099	1,292	1,305	1,365
Psychology	167	177	196	201	180	208	235	335	407	496	515	518
Social sciences.....	485	505	478	463	477	445	530	804	692	796	790	847
Engineering	135	164	195	209	210	177	158	176	221	263	254	328
Non-S&E.....	2,162	2,216	2,387	2,862	2,576	2,729	3,142	3,755	4,459	4,940	5,314	5,820
Engineering technologies ^a	0	0	0	103	78	105	75	111	115	101	105	109

Earned bachelor's degrees, by field, race/ethnicity, and citizenship: Selected years, 1977–2000

Field, race/ethnicity, and citizenship	1977	1979	1981	1985	1987	1989	1991	1993	1995	1997	1998	2000
Other/unknown race/ethnicity												
All fields.....	1,649	1,850	340	11,501	26,377	23,650	25,730	24,631	26,912	28,455	30,977	42,965
S&E	186	84	49	3,727	9,430	7,158	8,637	8,276	8,775	9,809	10,489	13,950
Natural sciences	32	24	2	618	1,384	856	1,230	1,235	1,668	1,945	2,203	2,605
Physical sciences	9	9	2	175	493	242	316	360	304	350	399	452
Earth, atmospheric, and ocean sciences	0	0	0	0	0	0	0	0	117	106	131	121
Biological sciences	23	15	0	443	891	614	914	875	1,247	1,489	1,673	2,032
Mathematics/computer sciences	8	3	1	605	1,760	1,354	1,030	727	829	1,144	1,266	1,955
Mathematics	8	2	0	292	354	247	308	244	270	273	269	397
Computer sciences	0	1	1	313	1,406	1,107	722	483	559	871	997	1,558
Agricultural sciences	0	0	0	60	127	50	113	259	407	394	428	603
Social/behavioral sciences	136	24	0	972	4,785	3,984	4,995	4,864	4,578	4,987	5,295	7,171
Psychology	28	6	0	288	1,453	1,259	1,514	1,580	1,723	1,847	1,919	2,588
Social sciences	108	18	0	684	3,332	2,725	3,481	3,284	2,855	3,140	3,376	4,583
Engineering	10	33	46	1,472	1,374	914	1,269	1,191	1,293	1,339	1,297	1,616
Non-S&E.....	1,463	1,766	291	7,774	16,947	16,492	17,093	16,355	18,137	18,646	20,488	29,015
Engineering technologies ^a	0	0	0	136	232	497	502	437	332	364	500	580
Foreign citizen ^b												
All fields.....	15,744	17,853	22,631	29,258	28,592	26,457	29,657	32,371	37,012	38,774	38,887	38,795
S&E.....	8,297	9,798	12,966	14,071	13,677	12,323	12,724	13,802	14,685	14,737	14,709	15,184
Natural sciences	1,599	1,582	1,635	1,695	1,497	1,478	1,671	1,981	2,006	2,133	2,098	1,954
Physical sciences	571	695	732	780	635	605	608	764	650	593	593	532
Earth, atmospheric, and ocean sciences	0	0	0	0	0	0	0	0	73	78	82	46
Biological sciences	1,028	887	903	915	862	873	1,063	1,217	1,283	1,462	1,423	1,376
Mathematics/computer sciences	583	741	1,233	2,879	3,233	2,678	2,615	2,756	2,890	2,548	2,590	3,365
Mathematics.....	318	365	456	763	655	543	578	552	593	533	453	479
Computer sciences	265	376	777	2,116	2,578	2,135	2,037	2,204	2,297	2,015	2,137	2,886
Agricultural sciences.....	443	479	616	437	289	266	270	349	258	253	293	258
Social/behavioral sciences.....	2,098	2,232	2,519	2,870	2,769	2,829	3,586	4,211	4,721	5,006	5,085	5,074
Psychology	469	445	486	543	494	511	691	830	942	1,049	1,170	1,264
Social sciences.....	1,629	1,787	2,033	2,327	2,275	2,318	2,895	3,381	3,779	3,957	3,915	3,810
Engineering	3,574	4,764	6,963	6,190	5,889	5,072	4,582	4,505	4,810	4,797	4,643	4,533
Non-S&E.....	7,447	8,055	9,665	15,187	14,915	14,134	16,933	18,569	22,327	24,037	24,178	23,611
Engineering technologies ^a	0	0	0	1,277	986	659	712	441	550	557	591	441

^aEngineering technologies are more focused on applied skills than on fundamental science and mathematics.

^bIncludes temporary residents only.

NOTES: Degree data by sex do not precisely match degree data by race/ethnicity in any field. Degree data by sex were collected by U.S. Department of Education (ED), National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS). Data by race/ethnicity were collected biennially by NCES for ED, Office for Civil Rights, from 1977 to 1989 and annually thereafter (except for 1999). For full available data series, see National Science Foundation, Division of Science Resources Statistics (NSF/SRS), WebCASPAR database system.

SOURCES: ED, NCES, and NSF/SRS, WebCASPAR database system, <http://caspar.nsf.gov>.

Earned master's degrees, by field and sex: Selected years, 1975–2000

Field and sex	1975	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1998	2000
Both sexes														
All fields	293,651	318,241	302,075	296,798	290,931	287,213	290,532	311,050	338,498	370,973	399,428	420,954	431,871	456,260
S&E.....	63,198	67,397	64,226	64,366	67,733	70,578	72,603	76,425	78,368	86,425	94,309	93,485	93,918	95,683
Natural sciences	12,392	12,454	12,306	11,257	10,985	10,860	10,624	10,648	10,082	10,202	11,219	12,170	11,763	11,182
Physical sciences.....	4,298	3,641	3,650	3,366	3,285	3,605	3,574	3,876	3,777	3,965	4,241	4,141	3,969	3,512
Biological sciences.....	6,591	7,154	6,879	6,015	5,741	5,095	4,999	4,953	4,806	4,840	5,495	6,594	6,368	6,325
Earth, atmospheric, and ocean sciences	1,503	1,659	1,777	1,876	1,959	2,160	2,051	1,819	1,499	1,397	1,483	1,435	1,426	1,345
Mathematics/computer sciences.....	6,637	6,496	6,101	6,787	8,177	10,004	11,808	12,829	12,956	14,100	14,495	14,088	15,277	17,824
Mathematics.....	4,338	3,698	3,046	2,569	2,856	2,903	3,327	3,430	3,632	3,751	3,932	3,599	3,525	3,295
Computer sciences	2,299	2,798	3,055	4,218	5,321	7,101	8,481	9,399	9,324	10,349	10,563	10,489	11,752	14,529
Agricultural sciences	2,439	2,906	3,137	3,092	3,395	3,113	2,776	2,570	2,600	3,272	3,574	3,927	3,862	3,858
Social/behavioral sciences	26,563	29,529	27,403	26,779	26,290	25,629	25,325	26,635	28,717	31,187	36,391	37,426	36,878	37,083
Psychology.....	7,104	8,320	8,031	8,039	8,439	8,481	8,165	8,652	9,802	10,412	13,132	13,633	13,146	13,708
Social sciences	19,459	21,209	19,372	18,740	17,851	17,148	17,160	17,983	18,915	20,775	23,259	23,793	23,732	23,375
Engineering.....	15,167	16,012	15,279	16,451	18,886	20,972	22,070	23,743	24,013	27,664	28,630	25,874	26,138	25,736
Chemical.....	1,078	1,179	1,276	1,406	1,545	1,814	1,386	1,321	1,025	1,220	1,369	1,345	1,372	1,352
Civil	3,268	3,606	3,165	3,428	3,504	3,542	3,267	3,296	3,404	4,438	5,168	4,880	4,736	4,140
Electrical.....	3,471	3,788	3,596	3,902	4,819	5,649	6,895	7,849	7,942	8,828	8,743	7,341	7,971	8,339
Industrial.....	1,687	1,609	1,502	1,631	1,432	1,463	1,728	1,823	2,039	2,745	2,873	2,935	3,109	3,048
Mechanical	2,032	2,094	2,012	2,419	2,683	3,272	3,380	3,703	3,680	4,169	4,368	3,756	3,551	3,378
Other	3,631	3,736	3,728	3,665	4,903	5,232	5,414	5,751	5,923	6,264	6,109	5,617	5,399	5,479
Non-S&E	230,453	250,844	237,849	232,432	223,198	216,635	217,929	234,625	260,130	284,548	305,119	327,469	337,953	360,577
Engineering technologies ^a	371	505	496	532	622	816	883	1,135	1,188	1,555	1,577	1,414	1,700	1,350
Male														
All fields	162,115	168,210	153,772	147,431	145,114	143,716	141,655	149,399	156,895	169,753	179,198	181,457	185,061	191,234
S&E.....	49,410	50,899	46,614	45,505	46,734	48,247	48,759	50,845	50,441	55,454	58,518	55,223	55,335	54,213
Natural sciences	9,569	9,152	8,725	7,836	7,351	7,080	6,770	6,664	6,134	6,174	6,627	6,832	6,475	5,944
Physical sciences.....	3,645	2,981	2,971	2,691	2,600	2,775	2,684	2,836	2,703	2,794	2,958	2,808	2,529	2,297
Biological sciences	4,615	4,738	4,287	3,675	3,236	2,666	2,555	2,491	2,315	2,374	2,637	3,076	3,014	2,815
Earth, atmospheric, and ocean sciences	1,309	1,433	1,467	1,470	1,515	1,639	1,531	1,337	1,116	1,006	1,032	948	932	832
Mathematics/computer sciences.....	4,871	4,730	4,469	4,939	5,684	6,951	8,011	8,833	8,709	9,773	10,130	9,620	10,393	11,458
Mathematics.....	2,910	2,398	1,989	1,692	1,871	1,887	2,026	2,060	2,146	2,219	2,353	2,110	2,055	1,797
Computer sciences	1,961	2,332	2,480	3,247	3,813	5,064	5,985	6,773	6,563	7,554	7,777	7,510	8,338	9,661
Agricultural sciences	2,140	2,481	2,498	2,386	2,467	2,215	1,882	1,719	1,660	2,007	2,103	2,232	2,153	2,039
Social/behavioral sciences	18,035	19,222	16,580	15,222	14,101	13,273	12,796	12,968	13,282	13,930	15,660	15,360	15,339	14,376
Psychology	4,059	4,316	3,688	3,371	3,254	3,064	2,838	2,814	2,994	2,928	3,735	3,715	3,606	3,415
Social sciences	13,976	14,906	12,892	11,851	10,847	10,209	9,958	10,154	10,288	11,002	11,925	11,645	11,733	10,961

Earned master's degrees, by field and sex: Selected years, 1975–2000

Field and sex	1975	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1998	2000
Engineering.....	14,795	15,314	14,342	15,122	17,131	18,728	19,300	20,661	20,656	23,570	23,998	21,179	20,975	20,396
Chemical	1,051	1,110	1,156	1,230	1,369	1,529	1,143	1,092	852	996	1,063	1,013	1,028	1,008
Civil	3,161	3,421	2,951	3,112	3,122	3,128	2,792	2,851	2,864	3,607	4,123	3,781	3,582	3,065
Electrical.....	3,413	3,654	3,453	3,681	4,484	5,154	6,178	6,933	7,008	7,777	7,539	6,197	6,595	6,781
Industrial.....	1,631	1,534	1,374	1,465	1,226	1,236	1,409	1,465	1,603	2,190	2,361	2,331	2,433	2,400
Mechanical.....	2,012	2,039	1,939	2,292	2,517	3,044	3,133	3,377	3,320	3,769	3,918	3,337	3,090	2,923
Other	3,527	3,556	3,469	3,342	4,413	4,637	4,645	4,943	5,009	5,231	4,994	4,520	4,247	4,219
Non-S&E.....	112,705	117,311	107,158	101,926	98,380	95,469	92,896	98,554	106,454	114,299	120,680	126,234	129,726	137,021
Engineering technologies ^a	281	389	371	380	519	674	678	892	888	1,172	1,136	1,012	1,158	902
Female														
All fields.....	131,536	150,031	148,303	149,367	145,817	143,497	148,877	161,651	181,603	201,220	220,230	239,497	246,810	265,026
S&E.....	13,788	16,498	17,612	18,861	20,999	22,331	23,844	25,580	27,927	30,971	35,791	38,262	38,583	41,470
Natural sciences.....	2,823	3,302	3,581	3,421	3,634	3,780	3,854	3,984	3,948	4,028	4,592	5,338	5,288	5,238
Physical sciences.....	653	660	679	675	685	830	890	1,040	1,074	1,171	1,283	1,333	1,440	1,215
Biological sciences.....	1,976	2,416	2,592	2,340	2,505	2,429	2,444	2,462	2,491	2,466	2,858	3,518	3,354	3,510
Earth, atmospheric, and ocean sciences.....	194	226	310	406	444	521	520	482	383	391	451	487	494	513
Mathematics/computer sciences.....	1,766	1,766	1,632	1,848	2,493	3,053	3,797	3,996	4,247	4,327	4,365	4,468	4,884	6,366
Mathematics.....	1,428	1,300	1,057	877	985	1,016	1,301	1,370	1,486	1,532	1,579	1,489	1,470	1,498
Computer sciences.....	338	466	575	971	1,508	2,037	2,496	2,626	2,761	2,795	2,786	2,979	3,414	4,868
Agricultural sciences.....	299	425	639	706	928	898	894	851	940	1,265	1,471	1,695	1,709	1,819
Social/behavioral sciences.....	8,528	10,307	10,823	11,557	12,189	12,356	12,529	13,667	15,435	17,257	20,731	22,066	21,539	22,707
Psychology.....	3,045	4,004	4,343	4,668	5,185	5,417	5,327	5,838	6,808	7,484	9,397	9,918	9,540	10,293
Social sciences.....	5,483	6,303	6,480	6,889	7,004	6,939	7,202	7,829	8,627	9,773	11,334	12,148	11,999	12,414
Engineering.....	372	698	937	1,329	1,755	2,244	2,770	3,082	3,357	4,094	4,632	4,695	5,163	5,340
Chemical	27	69	120	176	176	285	243	229	173	224	306	332	344	344
Civil	107	185	214	316	382	414	475	445	540	831	1,045	1,099	1,154	1,075
Electrical.....	58	134	143	221	335	495	717	916	934	1,051	1,204	1,144	1,376	1,558
Industrial.....	56	75	128	166	206	227	319	358	436	555	512	604	676	648
Mechanical.....	20	55	73	127	166	228	247	326	360	400	450	419	461	455
Other	104	180	259	323	490	595	769	808	914	1,033	1,115	1,097	1,152	1,260
Non-S&E.....	117,748	133,533	130,691	130,506	124,818	121,166	125,033	136,071	153,676	170,249	184,439	201,235	208,227	223,556
Engineering technologies ^a	90	116	125	152	103	142	205	243	300	383	441	402	542	448

^aEngineering technologies are more focused on applied skills than on fundamental science and mathematics.

NOTES: Degree data by sex do not precisely match degree data by race/ethnicity in any field. Degree data by sex were collected by U.S. Department of Education (ED), National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS). Data by race/ethnicity were collected biennially by NCES for ED, Office for Civil Rights, from 1977 to 1989 and annually thereafter (except for 1999). For full available data series, see National Science Foundation, Division of Science Resources Statistics (NSF/SRS), WebCASPAR database system.

SOURCES: ED, NCES, IPEDS, Completions Survey, and NSF/SRS, WebCASPAR database system, <http://caspar.nsf.gov>.

Earned master's degrees, by field, race/ethnicity, and citizenship: Selected years, 1977–2000

Field, race/ethnicity, and citizenship	1977	1979	1981	1985	1987	1989	1991	1993	1995	1997	1998	2000
All fields	318,241	302,075	296,798	287,213	290,532	311,050	338,498	370,973	399,428	420,954	431,871	456,260
S&E	63,779	59,684	59,598	64,726	66,774	70,333	72,828	81,415	94,309	93,485	93,918	95,683
Natural sciences	12,499	12,343	11,315	10,893	10,637	10,656	10,088	10,163	11,219	12,170	11,763	11,182
Physical sciences	5,345	5,464	5,300	5,802	5,638	5,703	5,282	5,365	4,241	4,141	3,969	3,512
Earth, atmospheric, and ocean sciences	NA	NA	NA	NA	NA	NA	NA	NA	1,483	1,435	1,426	1,345
Biological sciences	7,154	6,879	6,015	5,091	4,999	4,953	4,806	4,798	5,495	6,594	6,368	6,325
Mathematics/computer sciences	6,496	6,101	6,787	9,989	11,808	12,829	12,956	14,251	14,495	14,088	15,277	17,824
Mathematics	3,698	3,046	2,569	2,888	3,327	3,430	3,632	4,084	3,932	3,599	3,525	3,295
Computer sciences	2,798	3,055	4,218	7,101	8,481	9,399	9,324	10,167	10,563	10,489	11,752	14,529
Agricultural sciences	3,735	4,007	4,017	3,152	2,824	2,604	2,625	3,299	3,574	3,927	3,862	3,858
Social/behavioral sciences	24,798	21,723	20,763	19,757	19,448	20,509	23,152	26,044	36,391	37,426	36,878	37,083
Psychology	8,320	8,031	8,039	8,481	8,165	8,652	9,802	11,020	13,132	13,633	13,146	13,708
Social sciences	16,478	13,692	12,724	11,276	11,283	11,857	13,350	15,024	23,259	23,793	23,732	23,375
Engineering	16,251	15,510	16,716	20,935	22,057	23,735	24,007	27,658	28,630	25,874	26,138	25,736
Non-S&E	254,462	242,391	237,200	222,487	223,758	240,717	265,670	289,558	305,119	327,469	337,953	360,577
Engineering technologies ^a	NA	NA	NA	816	883	1,135	1,188	1,555	1,577	1,414	1,700	1,350
U.S. citizen/permanent resident												
All fields	300,896	282,648	274,740	260,261	262,268	278,927	300,887	326,864	350,672	371,477	379,666	400,689
S&E	55,974	51,140	49,849	52,220	53,729	55,190	55,779	61,265	72,092	72,220	71,295	70,933
Natural sciences	11,366	11,173	10,161	9,321	9,072	8,782	7,835	7,712	8,582	9,603	9,366	9,097
Physical sciences	4,689	4,758	4,514	4,704	4,582	4,465	3,778	3,763	2,774	2,734	2,680	2,372
Earth, atmospheric, and ocean sciences	NA	NA	NA	NA	NA	NA	NA	NA	1,198	1,198	1,218	1,150
Biological sciences	6,677	6,415	5,647	4,617	4,490	4,317	4,057	3,949	4,610	5,671	5,468	5,575
Mathematics/computer sciences	5,760	5,164	5,419	7,595	8,905	9,411	9,078	9,334	9,483	9,122	9,456	10,150
Mathematics	3,328	2,574	2,105	2,203	2,491	2,454	2,573	2,946	2,816	2,606	2,499	2,184
Computer sciences	2,432	2,590	3,314	5,392	6,414	6,957	6,505	6,388	6,667	6,516	6,957	7,966
Agricultural sciences	3,071	3,282	3,307	2,546	2,257	1,974	2,022	2,605	2,921	3,269	3,264	3,342
Social/behavioral sciences	23,071	19,971	18,809	17,517	17,219	18,035	20,357	23,075	32,175	32,988	32,232	32,431
Psychology	8,149	7,868	7,769	8,185	7,945	8,393	9,485	10,688	12,659	13,231	12,686	13,241
Social sciences	14,922	12,103	11,040	9,332	9,274	9,642	10,872	12,387	19,516	19,757	19,546	19,190
Engineering	12,706	11,550	12,153	15,241	16,276	16,988	16,487	18,539	18,931	17,238	16,977	15,913
Non-S&E	244,922	231,508	224,891	208,041	208,539	223,737	245,108	265,599	278,580	299,257	308,371	329,756
Engineering technologies ^a	NA	NA	NA	692	756	1,004	1,016	1,276	1,268	1,153	1,432	1,146
White												
All fields	266,109	249,401	241,255	223,649	216,807	230,322	247,524	265,668	277,437	288,353	291,962	297,226
S&E	50,420	45,748	43,967	43,982	43,360	43,945	44,513	47,975	54,610	53,769	52,328	49,850
Natural sciences	10,545	10,235	9,328	8,214	7,579	7,445	6,482	6,222	6,813	7,567	7,341	6,989
Physical sciences	4,363	4,373	4,115	4,133	3,834	3,766	3,129	3,078	2,152	2,088	2,023	1,774
Earth, atmospheric, and ocean sciences	NA	NA	NA	NA	NA	NA	NA	NA	1,019	1,084	1,106	1,036
Biological sciences	6,182	5,862	5,213	4,081	3,745	3,679	3,353	3,144	3,642	4,395	4,212	4,179
Mathematics/computer sciences	5,256	4,625	4,708	6,176	6,729	6,818	6,705	6,818	6,576	6,110	6,172	6,090
Mathematics	3,048	2,352	1,890	1,873	2,012	2,032	2,068	2,354	2,222	2,005	1,895	1,655
Computer sciences	2,208	2,273	2,818	4,303	4,717	4,786	4,637	4,464	4,354	4,105	4,277	4,435
Agricultural sciences	2,860	3,047	3,083	2,345	2,044	1,817	1,818	2,282	2,447	2,809	2,827	2,864

Earned master's degrees, by field, race/ethnicity, and citizenship: Selected years, 1977–2000

Field, race/ethnicity, and citizenship	1977	1979	1981	1985	1987	1989	1991	1993	1995	1997	1998	2000
Social/behavioral sciences	20,315	17,759	16,701	15,061	14,171	15,033	16,873	18,733	24,943	24,791	23,903	22,887
Psychology	7,201	7,078	7,019	7,220	6,698	7,075	7,973	8,810	10,367	10,444	9,820	9,646
Social sciences	13,114	10,681	9,682	7,841	7,473	7,958	8,900	9,923	14,576	14,347	14,083	13,241
Engineering.....	11,444	10,082	10,147	12,186	12,837	12,832	12,635	13,920	13,831	12,492	12,085	11,020
Non-S&E	215,689	203,653	197,288	179,667	173,447	186,377	203,011	217,693	222,827	234,584	239,634	247,376
Engineering technologies ^a	NA	NA	NA	526	581	802	830	1,041	982	950	1,115	835
Asian/Pacific Islander												
All fields	5,145	5,519	6,304	7,805	8,129	10,174	11,070	13,169	15,906	17,912	19,936	21,412
S&E.....	1,749	1,929	2,170	3,285	3,455	4,100	4,310	4,846	5,989	6,180	6,554	6,990
Natural sciences	307	365	298	392	417	501	482	554	714	883	869	857
Physical sciences.....	142	160	153	213	227	278	251	249	238	278	248	240
Earth, atmospheric, and ocean sciences	NA	NA	NA	NA	NA	NA	NA	NA	50	30	30	22
Biological sciences	165	205	145	179	190	223	231	305	426	575	591	595
Mathematics/computer sciences.....	198	253	376	779	962	1,072	1,203	1,303	1,494	1,560	1,795	2,208
Mathematics.....	90	104	97	164	183	178	189	197	228	238	216	180
Computer sciences	108	149	279	615	779	894	1,014	1,106	1,266	1,322	1,579	2,028
Agricultural sciences.....	81	104	67	58	47	44	50	61	97	103	83	94
Social/behavioral sciences	426	357	350	505	379	491	567	668	1,112	1,315	1,356	1,452
Psychology	95	87	77	129	113	131	170	191	289	364	379	472
Social sciences	331	270	273	376	266	360	397	477	823	951	977	980
Engineering.....	737	850	1,079	1,551	1,650	1,992	2,008	2,260	2,572	2,319	2,451	2,379
Non-S&E	3,396	3,590	4,134	4,520	4,674	6,074	6,760	8,323	9,917	11,732	13,382	14,422
Engineering technologies ^a	NA	NA	NA	25	46	40	60	40	55	49	62	53
Black												
All fields	21,041	19,422	17,152	13,960	13,173	13,455	15,857	18,897	22,954	26,948	28,616	33,305
S&E.....	2,321	2,003	1,801	1,742	1,784	1,652	2,090	2,554	4,210	4,870	4,894	5,492
Natural sciences	300	303	278	240	246	202	210	240	310	380	336	347
Physical sciences.....	94	86	107	89	79	78	73	105	132	132	131	117
Earth, atmospheric, and ocean sciences	NA	NA	NA	NA	NA	NA	NA	NA	15	12	15	7
Biological sciences	206	217	171	151	167	124	137	135	163	236	190	223
Mathematics/computer sciences.....	200	136	137	233	280	257	383	406	513	565	566	678
Mathematics.....	133	71	67	53	73	59	100	98	140	154	142	98
Computer sciences	67	65	70	180	207	198	283	308	373	411	424	580
Agricultural sciences.....	51	79	73	50	55	36	51	70	74	96	95	84
Social/behavioral sciences	1,530	1,239	1,053	889	800	802	1,048	1,274	2,648	3,155	3,183	3,725
Psychology	506	476	424	426	376	395	454	544	802	1,059	1,020	1,346
Social sciences	1,024	763	629	463	424	407	594	730	1,846	2,096	2,163	2,379
Engineering.....	240	246	260	330	403	355	398	564	665	674	714	658
Non-S&E	18,720	17,419	15,351	12,218	11,389	11,803	13,767	16,343	18,744	22,078	23,722	27,813
Engineering technologies ^a	NA	NA	NA	37	42	55	47	61	85	86	150	116

Earned master's degrees, by field, race/ethnicity, and citizenship: Selected years, 1977–2000

Field, race/ethnicity, and citizenship	1977	1979	1981	1985	1987	1989	1991	1993	1995	1997	1998	2000
Hispanic												
All fields	7,071	6,470	7,439	7,730	7,781	8,133	9,684	11,371	13,905	16,360	17,416	20,803
S&E.....	1,325	1,001	1,237	1,514	1,584	1,585	1,736	2,092	2,945	3,220	3,462	3,746
Natural sciences	178	180	174	266	248	218	232	265	296	353	341	394
Physical sciences.....	69	65	71	127	122	92	96	114	95	116	129	96
Earth, atmospheric, and ocean sciences	NA	NA	NA	NA	NA	NA	NA	NA	34	23	20	28
Biological sciences	109	115	103	139	126	126	136	151	167	214	192	268
Mathematics/computer sciences.....	91	61	102	149	183	178	213	240	282	274	304	388
Mathematics.....	45	36	42	55	60	34	85	78	72	63	85	100
Computer sciences	46	25	60	94	123	144	128	162	210	211	219	288
Agricultural sciences.....	67	47	77	66	62	48	49	69	96	105	116	133
Social/behavioral sciences	738	498	599	687	579	673	774	937	1,560	1,723	1,894	1,979
Psychology	321	191	217	344	271	360	391	463	622	718	787	837
Social sciences	417	307	382	343	308	313	383	474	938	1,005	1,107	1,142
Engineering.....	251	215	285	346	512	468	468	581	711	765	807	852
Non-S&E	5,746	5,469	6,202	6,216	6,197	6,548	7,948	9,279	10,960	13,140	13,954	17,057
Engineering technologies ^a	NA	NA	NA	6	17	10	19	25	40	26	49	41
American Indian/Alaskan Native												
All fields	968	999	1,034	1,257	1,049	1,082	1,125	1,344	1,542	1,844	1,951	2,099
S&E.....	148	165	165	228	147	209	200	253	307	370	372	383
Natural sciences	36	45	26	39	20	35	26	38	39	41	45	44
Physical sciences.....	21	29	11	21	9	18	13	12	15	11	14	9
Earth, atmospheric, and ocean sciences	NA	NA	NA	NA	NA	NA	NA	NA	4	5	10	9
Biological sciences	15	16	15	18	11	17	13	26	20	25	21	26
Mathematics/computer sciences.....	15	24	19	48	25	45	23	22	27	39	24	41
Mathematics.....	12	8	7	7	3	6	9	8	11	14	9	9
Computer sciences	3	16	12	41	22	39	14	14	16	25	15	32
Agricultural sciences.....	12	5	7	6	3	6	8	8	13	18	23	23
Social/behavioral sciences	62	67	82	88	61	90	103	135	185	219	226	211
Psychology	26	20	32	37	35	33	49	57	81	97	108	69
Social sciences	36	47	50	51	26	57	54	78	104	122	118	142
Engineering.....	23	24	31	47	38	33	40	50	43	53	54	64
Non-S&E	820	834	869	1,029	902	873	925	1,091	1,235	1,474	1,579	1,716
Engineering technologies ^a	NA	NA	NA	2	26	2	3	8	6	3	6	3

Earned master's degrees, by field, race/ethnicity, and citizenship: Selected years, 1977–2000

Field, race/ethnicity, and citizenship	1977	1979	1981	1985	1987	1989	1991	1993	1995	1997	1998	2000
Other/unknown race/ethnicity												
All fields	562	837	1,556	5,860	15,329	15,761	15,627	16,415	18,928	20,060	19,785	25,844
S&E.....	11	294	509	1,469	3,399	3,699	2,930	3,545	4,031	3,811	3,685	4,472
Natural sciences	0	45	57	170	562	381	403	393	410	379	434	466
Physical sciences.....	0	45	57	121	311	233	216	205	142	109	135	136
Earth, atmospheric, and ocean sciences	0	NA	NA	NA	NA	NA	NA	NA	76	44	37	46
Biological sciences	0	NA	NA	49	251	148	187	188	192	226	262	284
Mathematics/computer sciences.....	0	65	77	210	726	1,041	551	545	591	574	595	745
Mathematics.....	0	3	2	51	160	145	122	211	143	132	152	142
Computer sciences	0	62	75	159	566	896	429	334	448	442	443	603
Agricultural sciences.....	0	NA	NA	21	46	23	46	115	194	138	120	144
Social/behavioral sciences	0	51	24	287	1,229	946	992	1,328	1,727	1,785	1,670	2,177
Psychology	0	16	NA	29	452	399	448	623	498	549	572	871
Social sciences	0	35	24	258	777	547	544	705	1,229	1,236	1,098	1,306
Engineering.....	11	133	351	781	836	1,308	938	1,164	1,109	935	866	940
Non-S&E	551	543	1,047	4,391	11,930	12,062	12,697	12,870	14,897	16,249	16,100	21,372
Engineering technologies ^a	0	NA	NA	96	44	95	57	101	100	39	50	98
Foreign citizen^b												
All fields	17,345	19,427	22,058	26,952	28,264	32,123	37,611	44,109	48,756	49,477	52,205	55,571
S&E.....	7,805	8,544	9,749	12,506	13,045	15,143	17,049	20,150	22,217	21,265	22,623	24,750
Natural sciences	1,133	1,170	1,154	1,572	1,565	1,874	2,253	2,451	2,637	2,567	2,397	2,085
Physical sciences.....	656	706	786	1,098	1,056	1,238	1,504	1,602	1,467	1,407	1,289	1,140
Earth, atmospheric, and ocean sciences	NA	NA	NA	NA	NA	NA	NA	NA	285	237	208	195
Biological sciences	477	464	368	474	509	636	749	849	885	923	900	750
Mathematics/computer sciences.....	736	937	1,368	2,394	2,903	3,418	3,878	4,917	5,012	4,966	5,821	7,674
Mathematics.....	370	472	464	685	836	976	1,059	1,138	1,116	993	1,026	1,111
Computer sciences	366	465	904	1,709	2,067	2,442	2,819	3,779	3,896	3,973	4,795	6,563
Agricultural sciences.....	664	725	710	606	567	630	603	694	653	658	598	516
Social/behavioral sciences	1,727	1,752	1,954	2,240	2,229	2,474	2,795	2,969	4,216	4,438	4,646	4,652
Psychology	171	163	270	296	220	259	317	332	473	402	460	467
Social sciences	1,556	1,589	1,684	1,944	2,009	2,215	2,478	2,637	3,743	4,036	4,186	4,185
Engineering.....	3,545	3,960	4,563	5,694	5,781	6,747	7,520	9,119	9,699	8,636	9,161	9,823
Non-S&E	9,540	10,883	12,309	14,446	15,219	16,980	20,562	23,959	26,539	28,212	29,582	30,821
Engineering technologies ^a	NA	NA	NA	124	127	131	172	279	309	261	268	204

NA not available

^aEngineering technologies are more focused on applied skills than on fundamental science and mathematics.^bIncludes temporary residents only.

NOTES: Degree data by sex do not precisely match degree data by race/ethnicity in any field. Degree data by sex were collected by U.S. Department of Education (ED), National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS). Data by race/ethnicity were collected biennially by NCES for ED, Office for Civil Rights, from 1977 to 1989 and annually thereafter (except for 1999). For full available data series, see National Science Foundation, Division of Science Resources Statistics (NSF/SRS), WebCASPAR database system.

SOURCES: ED, NCES, and NSF/SRS, WebCASPAR database system, <http://caspar.nsf.gov>.

Earned doctoral degrees, by field, sex, and citizenship: Selected years, 1977–2001

Field, sex, and citizenship	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2000	2001
Both sexes														
All fields	31,716	31,239	31,356	31,281	31,297	32,370	34,327	37,533	39,800	41,747	42,559	41,097	41,340	40,744
S&E.....	18,519	18,440	18,914	19,274	19,664	20,694	22,706	25,063	26,640	27,866	28,663	27,347	27,543	27,122
Natural sciences	6,894	6,962	7,013	7,179	7,326	7,679	8,100	9,091	9,562	9,996	10,436	9,967	10,014	9,816
Physical sciences.....	2,721	2,674	2,627	2,814	2,934	3,238	3,261	3,626	3,699	3,841	3,769	3,579	3,408	3,389
Earth, atmospheric, and ocean sciences.....	689	642	583	624	599	602	723	815	771	780	878	805	757	749
Biological sciences.....	3,484	3,646	3,803	3,741	3,793	3,839	4,116	4,650	5,092	5,375	5,789	5,583	5,849	5,678
Mathematics/computer sciences.....	964	979	960	987	998	1,190	1,471	1,838	2,026	2,187	2,032	1,938	1,908	1,832
Mathematics.....	933	769	728	701	688	740	859	1,038	1,146	1,190	1,123	1,083	1,049	1,006
Computer sciences	31	210	232	286	310	450	612	800	880	997	909	855	859	826
Agricultural sciences.....	782	855	982	1,015	1,110	976	1,086	1,073	968	1,036	982	966	942	848
Social/behavioral sciences	6,720	6,582	6,774	6,673	6,335	6,337	6,532	6,806	7,189	7,309	7,674	7,737	7,767	7,511
Psychology.....	2,990	3,091	3,358	3,347	3,118	3,173	3,208	3,250	3,420	3,430	3,562	3,673	3,618	3,433
Social sciences	3,730	3,491	3,416	3,326	3,217	3,164	3,324	3,556	3,769	3,879	4,112	4,064	4,149	4,078
Engineering.....	2,648	2,494	2,528	2,781	3,166	3,712	4,543	5,214	5,698	6,008	6,118	5,332	5,320	5,502
Chemical.....	329	315	317	392	504	584	712	691	737	708	767	674	725	726
Civil	336	302	358	397	391	477	538	575	624	656	656	584	555	593
Electrical.....	667	611	549	625	716	779	1,137	1,405	1,543	1,731	1,721	1,478	1,542	1,577
Industrial.....	73	82	66	86	92	120	162	165	236	284	246	212	176	205
Mechanical	372	366	360	379	513	657	760	875	1,030	1,025	1,023	855	863	953
Materials.....	248	236	234	268	303	392	380	489	535	588	582	469	451	499
Other	623	582	644	634	647	703	854	1,014	993	1,016	1,123	1,060	1,008	949
Medical/other life sciences ^a	511	568	657	639	729	800	974	1,041	1,197	1,330	1,421	1,407	1,592	1,613
Non-S&E	13,197	12,799	12,442	12,007	11,633	11,676	11,621	12,470	13,160	13,881	13,896	13,750	13,797	13,622
Male														
All fields	23,858	22,302	21,464	20,748	20,553	20,938	21,814	23,524	24,384	25,161	24,951	23,435	23,155	22,769
S&E.....	15,107	14,467	14,412	14,222	14,333	14,907	15,968	17,354	17,976	18,595	18,558	17,236	17,035	16,736
Natural sciences	5,804	5,661	5,561	5,478	5,513	5,679	5,791	6,429	6,496	6,683	6,818	6,495	6,315	6,187
Physical sciences.....	2,477	2,382	2,318	2,441	2,467	2,710	2,642	2,934	2,880	2,944	2,893	2,733	2,568	2,550
Earth, atmospheric, and ocean sciences	630	584	527	529	491	490	575	631	602	608	663	591	522	512
Biological sciences	2,697	2,695	2,716	2,508	2,555	2,479	2,574	2,864	3,014	3,131	3,262	3,171	3,225	3,125
Mathematics/computer sciences.....	837	833	822	838	859	1,000	1,208	1,514	1,602	1,727	1,594	1,495	1,506	1,398
Mathematics.....	811	650	616	588	582	615	704	835	865	919	851	803	790	730
Computer sciences	26	183	206	250	277	385	504	679	737	808	743	692	716	668
Agricultural sciences.....	726	775	848	882	939	805	859	860	736	804	715	682	668	555
Social/behavioral sciences	4,834	4,427	4,396	4,065	3,765	3,628	3,597	3,479	3,637	3,633	3,643	3,560	3,568	3,458
Psychology	1,902	1,831	1,885	1,750	1,577	1,475	1,408	1,249	1,322	1,246	1,163	1,210	1,205	1,134
Social sciences	2,932	2,596	2,511	2,315	2,188	2,153	2,189	2,230	2,315	2,387	2,480	2,350	2,363	2,324

Earned doctoral degrees, by field, sex, and citizenship: Selected years, 1977–2001

Field, sex, and citizenship	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2000	2001
Engineering.....	2,574	2,432	2,429	2,657	2,968	3,470	4,168	4,703	5,097	5,270	5,319	4,505	4,455	4,564
Chemical.....	319	306	306	369	463	524	632	605	638	597	641	550	571	544
Civil.....	328	298	348	384	371	459	484	529	558	575	572	495	465	481
Electrical.....	646	600	527	612	681	747	1,070	1,312	1,403	1,545	1,561	1,310	1,335	1,372
Industrial.....	68	77	60	80	86	107	144	146	207	231	205	169	140	160
Mechanical.....	366	361	354	371	487	640	731	810	955	954	929	751	766	859
Materials.....	238	228	217	238	271	347	335	412	449	489	470	376	367	393
Other.....	609	562	617	603	609	646	772	889	887	879	941	854	811	755
Medical/other life sciences ^a	332	339	356	302	289	325	345	369	408	478	469	499	523	574
Non-S&E.....	8,751	7,835	7,052	6,526	6,220	6,031	5,846	6,170	6,408	6,566	6,393	6,199	6,120	6,033
Female														
All fields.....	7,858	8,937	9,892	10,533	10,744	11,432	12,513	13,873	15,121	16,416	17,249	17,484	18,114	17,901
S&E.....	3,412	3,973	4,502	5,052	5,331	5,787	6,738	7,600	8,429	9,130	9,872	9,985	10,451	10,330
Natural sciences.....	1,090	1,301	1,452	1,701	1,813	2,000	2,309	2,631	2,990	3,265	3,556	3,435	3,683	3,615
Physical sciences.....	244	292	309	373	467	528	619	679	780	878	852	831	835	834
Earth, atmospheric, and ocean sciences.....	59	58	56	95	108	112	148	179	160	170	209	210	230	236
Biological sciences.....	787	951	1,087	1,233	1,238	1,360	1,542	1,773	2,050	2,217	2,495	2,394	2,618	2,545
Mathematics/computer sciences.....	127	146	138	149	139	190	263	316	402	451	413	433	399	431
Mathematics.....	122	119	112	113	106	125	155	199	264	265	263	277	258	276
Computer sciences.....	5	27	26	36	33	65	108	117	138	186	150	156	141	155
Agricultural sciences.....	56	80	134	133	171	171	227	209	228	228	260	280	274	288
Social/behavioral sciences.....	1,886	2,155	2,378	2,608	2,570	2,709	2,935	3,309	3,510	3,647	3,957	4,149	4,191	4,044
Psychology.....	1,088	1,260	1,473	1,597	1,541	1,698	1,800	1,996	2,088	2,181	2,365	2,453	2,410	2,296
Social sciences.....	798	895	905	1,011	1,029	1,011	1,135	1,313	1,422	1,466	1,592	1,696	1,781	1,748
Engineering.....	74	62	99	124	198	242	375	467	522	696	750	789	837	925
Chemical.....	10	9	11	23	41	60	80	83	94	109	122	123	151	180
Civil.....	8	4	10	13	20	18	54	41	54	76	80	89	88	111
Electrical.....	21	11	22	13	35	32	67	79	125	173	150	155	195	203
Industrial.....	5	5	6	6	6	13	18	17	27	50	40	43	35	44
Mechanical.....	6	5	6	8	26	17	29	57	57	64	88	96	96	91
Materials.....	10	8	17	30	32	45	45	77	78	95	106	88	83	105
Other.....	14	20	27	31	38	57	82	113	87	129	164	195	189	191
Medical/other life sciences ^a	179	229	301	337	440	475	629	668	777	843	936	899	1,067	1,027
Non-S&E.....	4,446	4,964	5,390	5,481	5,413	5,645	5,775	6,273	6,692	7,286	7,377	7,499	7,663	7,571

Earned doctoral degrees, by field, sex, and citizenship: Selected years, 1977–2001

Field, sex, and citizenship	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2000	2001
U.S. citizen														
All fields	26,145	25,474	25,068	24,393	23,377	22,984	23,402	25,572	26,448	27,743	28,162	27,984	27,955	26,907
S&E.....	14,313	14,212	14,311	14,133	13,688	13,572	14,198	15,407	15,811	16,426	17,076	16,885	16,812	16,069
Natural sciences	5,541	5,702	5,725	5,767	5,635	5,486	5,620	6,026	6,005	6,109	6,338	6,169	6,265	6,164
Physical sciences.....	2,071	2,040	1,956	2,077	2,050	2,095	1,984	2,120	2,093	2,137	2,131	2,035	1,890	1,860
Earth, atmospheric, and ocean sciences	558	531	472	475	435	410	518	592	463	478	537	474	474	428
Biological sciences	2,912	3,131	3,297	3,215	3,150	2,981	3,118	3,314	3,449	3,494	3,670	3,660	3,901	3,876
Mathematics/computer sciences.....	716	715	650	592	566	588	731	850	921	1,038	960	959	904	833
Mathematics.....	691	552	482	412	377	345	393	462	496	554	530	539	517	468
Computer sciences	25	163	168	180	189	243	338	388	425	484	430	420	387	365
Agricultural sciences.....	489	545	594	649	683	584	606	564	457	492	467	443	447	401
Social/behavioral sciences.....	5,678	5,505	5,621	5,462	4,975	4,750	4,648	5,102	5,321	5,463	5,613	5,856	5,859	5,462
Psychology	2,774	2,852	3,112	3,048	2,805	2,747	2,684	2,953	3,071	3,084	3,041	3,223	3,154	2,938
Social sciences.....	2,904	2,653	2,509	2,414	2,170	2,003	1,964	2,149	2,250	2,379	2,572	2,633	2,705	2,524
Engineering.....	1,475	1,294	1,170	1,164	1,279	1,558	1,864	2,086	2,228	2,386	2,739	2,486	2,217	2,139
Chemical	166	144	131	174	240	294	382	348	324	291	321	333	339	327
Civil	162	153	157	154	130	162	188	173	168	206	249	261	220	222
Electrical.....	383	331	275	259	270	320	440	554	630	683	753	639	530	467
Industrial	39	45	35	27	29	44	51	50	89	108	102	87	67	72
Mechanical	211	192	158	145	193	241	259	297	347	383	456	398	341	385
Materials	133	116	99	118	144	176	173	211	228	238	271	225	221	202
Other	381	313	315	287	273	321	371	453	442	477	587	543	499	464
Medical/other life sciences ^a	414	451	551	499	550	606	729	779	879	938	959	972	1,120	1,070
Non-S&E	11,832	11,262	10,757	10,260	9,689	9,412	9,204	10,165	10,637	11,317	11,086	11,099	11,143	10,838
Male														
All fields	19,172	17,585	16,367	15,140	14,228	13,574	13,396	14,384	14,512	14,966	15,049	14,513	14,146	13,593
S&E.....	11,419	10,822	10,468	9,808	9,309	9,008	9,028	9,609	9,651	9,860	10,139	9,728	9,386	8,962
Natural sciences	4,662	4,629	4,510	4,327	4,192	3,965	3,914	4,175	3,998	3,989	4,079	3,913	3,824	3,775
Physical sciences	1,901	1,826	1,732	1,789	1,726	1,733	1,582	1,707	1,647	1,617	1,658	1,564	1,408	1,393
Earth, atmospheric, and ocean sciences	511	481	425	396	348	328	404	444	351	366	390	338	319	280
Biological sciences	2,250	2,322	2,353	2,142	2,118	1,904	1,928	2,024	2,000	2,006	2,031	2,011	2,097	2,102
Mathematics/computer sciences	625	597	550	489	472	473	566	674	714	790	734	704	687	613
Mathematics.....	604	460	402	336	307	280	300	369	371	422	387	374	373	332
Computer sciences.....	21	137	148	153	165	193	266	305	343	368	347	330	314	281
Agricultural sciences.....	456	494	506	549	563	468	450	436	333	380	332	298	300	251
Social/behavioral sciences.....	3,981	3,597	3,502	3,152	2,751	2,486	2,276	2,296	2,448	2,426	2,416	2,469	2,468	2,287
Psychology	1,767	1,700	1,747	1,578	1,396	1,259	1,146	1,105	1,200	1,093	988	1,043	1,021	955
Social sciences.....	2,214	1,897	1,755	1,574	1,355	1,227	1,130	1,191	1,248	1,333	1,428	1,426	1,447	1,332

Earned doctoral degrees, by field, sex, and citizenship: Selected years, 1977–2001

Field, sex, and citizenship	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2000	2001
Engineering	1,433	1,255	1,117	1,080	1,160	1,409	1,615	1,807	1,932	2,012	2,324	2,059	1,798	1,730
Chemical	162	140	123	160	211	250	322	297	265	221	260	268	248	246
Civil	155	152	152	144	121	153	151	152	138	170	204	207	178	163
Electrical	371	324	264	249	250	306	411	510	573	604	679	577	461	423
Industrial	37	41	29	23	25	36	41	39	69	82	77	58	50	50
Mechanical	206	188	154	139	178	231	240	263	314	355	409	346	294	351
Materials	128	111	92	99	125	144	138	164	186	185	213	176	174	155
Other	374	299	303	266	250	289	312	382	387	395	482	427	393	342
Medical/other life sciences ^a	262	250	283	211	171	207	207	221	226	263	254	285	309	306
Non-S&E	7,753	6,763	5,899	5,332	4,919	4,566	4,368	4,775	4,861	5,106	4,910	4,785	4,760	4,631
Female														
All fields	6,973	7,889	8,701	9,253	9,149	9,410	10,006	11,185	11,931	12,775	13,079	13,471	13,806	13,314
S&E	2,894	3,390	3,843	4,325	4,379	4,564	5,170	5,796	6,156	6,564	6,921	7,157	7,425	7,107
Natural sciences	879	1,073	1,215	1,440	1,443	1,521	1,706	1,850	2,007	2,118	2,255	2,256	2,441	2,389
Physical sciences	170	214	224	288	324	362	402	412	446	519	472	471	482	467
Earth, atmospheric, and ocean sciences	47	50	47	79	87	82	114	148	112	112	146	136	155	148
Biological sciences	662	809	944	1,073	1,032	1,077	1,190	1,290	1,449	1,487	1,637	1,649	1,804	1,774
Mathematics/computer sciences	91	118	100	103	94	115	165	176	206	248	225	255	217	220
Mathematics	87	92	80	76	70	65	93	93	124	132	143	165	144	136
Computer sciences	4	26	20	27	24	50	72	83	82	116	82	90	73	84
Agricultural sciences	33	51	88	100	120	116	156	128	124	112	134	145	147	150
Social/behavioral sciences	1,697	1,908	2,119	2,310	2,224	2,264	2,372	2,805	2,870	3,037	3,189	3,387	3,390	3,175
Psychology	1,007	1,152	1,365	1,470	1,409	1,488	1,538	1,847	1,869	1,991	2,046	2,180	2,132	1,983
Social sciences	690	756	754	840	815	776	834	958	1,001	1,046	1,143	1,207	1,258	1,192
Engineering	42	39	53	84	119	149	249	279	296	374	414	427	419	409
Chemical	4	4	8	14	29	44	60	51	59	70	61	65	91	81
Civil	7	1	5	10	9	9	37	21	30	36	45	54	42	59
Electrical	12	7	11	10	20	14	29	44	57	79	74	62	69	44
Industrial	2	4	6	4	4	8	10	11	20	26	25	29	17	22
Mechanical	5	4	4	6	15	10	19	34	33	28	46	52	47	34
Materials	5	5	7	19	19	32	35	47	42	53	58	49	47	47
Other	7	14	12	21	23	32	59	71	55	82	105	116	106	122
Medical/other life sciences ^a	152	201	268	288	379	399	522	558	653	675	704	687	811	764
Non-S&E	4,079	4,499	4,858	4,928	4,770	4,846	4,836	5,389	5,775	6,211	6,158	6,314	6,381	6,207

^aMedical/other life sciences are reported separately from S&E fields in National Science Foundation, Division of Science Resources Statistics (NSF/SRS), higher education publications.

NOTE: For detailed fields, see NSF/SRS, *Science and Engineering Doctorate Awards*, <http://www.nsf.gov/sbe/srs/nsf01325/htmstart.htm>.

SOURCES: NSF/SRS, WebCASPAR database system, <http://caspar.nsf.gov>.

Earned doctoral degrees, by field, citizenship, and race/ethnicity: Selected years, 1977–2001

Field, race/ethnicity, and citizenship	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2000	2001
All fields	31,716	31,239	31,356	31,281	31,297	32,370	34,327	37,533	39,800	41,747	42,559	41,097	41,340	40,744
S&E	18,519	18,440	18,914	19,274	19,664	20,694	22,706	25,063	26,640	27,866	28,663	27,347	27,543	27,122
Natural sciences.....	6,894	6,962	7,013	7,179	7,326	7,679	8,100	9,091	9,562	9,996	10,436	9,967	10,014	9,816
Physical sciences.....	2,721	2,674	2,627	2,814	2,934	3,238	3,261	3,626	3,699	3,841	3,769	3,579	3,408	3,389
Earth, atmospheric, and ocean sciences.....	689	642	583	624	599	602	723	815	771	780	878	805	757	749
Biological sciences.....	3,484	3,646	3,803	3,741	3,793	3,839	4,116	4,650	5,092	5,375	5,789	5,583	5,849	5,678
Mathematics/computer sciences.....	964	979	960	987	998	1,190	1,471	1,838	2,026	2,187	2,032	1,938	1,908	1,832
Mathematics.....	933	769	728	701	688	740	859	1,038	1,146	1,190	1,123	1,083	1,049	1,006
Computer sciences.....	31	210	232	286	310	450	612	800	880	997	909	855	859	826
Agricultural sciences.....	782	855	982	1,015	1,110	976	1,086	1,073	968	1,036	982	966	942	848
Social/behavioral sciences.....	6,720	6,582	6,774	6,673	6,335	6,337	6,532	6,806	7,189	7,309	7,674	7,737	7,767	7,511
Psychology.....	2,990	3,091	3,358	3,347	3,118	3,173	3,208	3,250	3,420	3,430	3,562	3,673	3,618	3,433
Social sciences.....	3,730	3,491	3,416	3,326	3,217	3,164	3,324	3,556	3,769	3,879	4,112	4,064	4,149	4,078
Engineering.....	2,648	2,494	2,528	2,710	3,166	3,712	4,543	5,214	5,698	6,008	6,118	5,332	5,320	5,502
Medical/other life sciences ^a	511	568	657	639	729	800	974	1,041	1,197	1,330	1,421	1,407	1,592	1,613
Non-S&E	13,197	12,799	12,442	12,007	11,633	11,676	11,621	12,470	13,160	13,881	13,896	13,750	13,797	13,622
U.S. citizen														
All fields.....	26,145	25,474	25,068	24,393	23,377	22,984	23,402	25,572	26,448	27,743	28,162	27,984	27,955	26,907
S&E.....	14,313	14,212	14,311	14,133	13,688	13,572	14,198	15,407	15,811	16,426	17,076	16,885	16,812	16,069
Natural sciences.....	5,541	5,702	5,725	5,767	5,635	5,486	5,620	6,026	6,005	6,109	6,338	6,169	6,265	6,164
Physical sciences.....	2,071	2,040	1,956	2,077	2,050	2,095	1,984	2,120	2,093	2,137	2,131	2,035	1,890	1,860
Earth, atmospheric, and ocean sciences.....	558	531	472	475	435	410	518	592	463	478	537	474	474	428
Biological sciences.....	2,912	3,131	3,297	3,215	3,150	2,981	3,118	3,314	3,449	3,494	3,670	3,660	3,901	3,876
Mathematics/computer sciences.....	716	715	650	592	566	588	731	850	921	1,038	960	959	904	833
Mathematics.....	691	552	482	412	377	345	393	462	496	554	530	539	517	468
Computer sciences.....	25	163	168	180	189	243	338	388	425	484	430	420	387	365
Agricultural sciences.....	489	545	594	649	683	584	606	564	457	492	467	443	447	401
Social/behavioral sciences.....	5,678	5,505	5,621	5,462	4,975	4,750	4,648	5,102	5,321	5,463	5,613	5,856	5,859	5,462
Psychology.....	2,774	2,852	3,112	3,048	2,805	2,747	2,684	2,953	3,071	3,084	3,041	3,223	3,154	2,938
Social sciences.....	2,904	2,653	2,509	2,414	2,170	2,003	1,964	2,149	2,250	2,379	2,572	2,633	2,705	2,524
Engineering.....	1,475	1,294	1,170	1,164	1,279	1,558	1,864	2,086	2,228	2,386	2,739	2,486	2,217	2,139
Medical/other life sciences ^a	414	451	551	499	550	606	729	779	879	938	959	972	1,120	1,070
Non-S&E.....	11,832	11,262	10,757	10,260	9,689	9,412	9,204	10,165	10,637	11,317	11,086	11,099	11,143	10,838
U.S. permanent resident														
All fields.....	1,368	1,320	1,281	1,274	1,324	1,578	1,626	1,857	2,259	4,318	2,931	2,306	1,957	1,822
S&E.....	1,042	995	932	934	966	1,129	1,151	1,345	1,701	3,615	2,350	1,729	1,489	1,332
Natural sciences.....	375	330	287	264	275	332	358	417	581	1,655	1,022	757	600	559
Physical sciences.....	191	165	147	120	137	147	147	180	237	704	366	242	202	183
Earth, atmospheric, and ocean sciences.....	22	33	16	30	30	25	29	26	41	116	70	51	34	36
Biological sciences.....	162	132	124	114	108	160	182	211	303	835	586	464	364	340
Mathematics/computer sciences.....	55	63	63	73	66	83	93	118	178	349	189	138	126	109
Mathematics.....	54	51	43	46	42	51	35	55	94	217	99	66	56	54
Computer sciences.....	1	12	20	27	24	32	58	63	84	132	90	72	70	55
Agricultural sciences.....	27	29	35	36	43	48	45	56	49	106	83	51	55	28

Earned doctoral degrees, by field, citizenship, and race/ethnicity: Selected years, 1977–2001

Field, race/ethnicity, and citizenship	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2000	2001
Social/behavioral sciences.....	212	210	211	211	232	271	263	306	364	443	394	304	281	271
Psychology.....	47	45	47	64	59	59	54	65	90	101	89	70	76	75
Social sciences.....	165	165	164	147	173	212	209	241	274	342	305	234	205	196
Engineering.....	326	323	301	319	315	355	365	388	469	956	593	402	352	296
Medical/other life sciences ^a	47	40	35	31	35	40	27	60	60	106	69	77	75	69
Non-S&E.....	326	325	349	340	358	449	475	512	558	703	581	577	468	490
White														
All fields.....	23,523	22,314	22,473	22,277	21,305	21,119	21,568	23,180	24,035	24,689	23,962	23,892	23,687	22,587
S&E.....	13,187	12,671	13,078	13,143	12,674	12,605	13,185	14,040	14,529	14,722	14,655	14,554	14,392	13,618
Natural sciences.....	5,109	5,093	5,220	5,376	5,246	5,108	5,230	5,567	5,510	5,503	5,528	5,400	5,427	5,281
Physical sciences.....	1,877	1,774	1,757	1,931	1,906	1,956	1,828	1,969	1,911	1,924	1,883	1,839	1,691	1,647
Earth, atmospheric, and ocean sciences.....	515	498	448	445	424	394	498	557	455	464	487	433	430	394
Biological sciences.....	2,717	2,821	3,015	3,000	2,916	2,758	2,904	3,041	3,144	3,115	3,158	3,128	3,306	3,240
Mathematics/computer sciences.....	672	657	610	570	527	548	688	773	885	985	840	861	798	746
Mathematics.....	649	505	448	396	350	319	369	418	476	535	479	505	463	427
Computer sciences.....	23	152	162	174	177	229	319	355	409	450	361	356	335	319
Agricultural sciences.....	458	502	551	614	659	554	570	545	438	473	411	398	414	371
Social/behavioral sciences.....	5,147	4,863	5,100	4,999	4,551	4,383	4,287	4,598	4,872	4,836	4,761	4,948	4,906	4,564
Psychology.....	2,529	2,541	2,849	2,788	2,590	2,516	2,453	2,651	2,803	2,723	2,525	2,702	2,603	2,438
Social sciences.....	2,618	2,322	2,251	2,211	1,961	1,867	1,834	1,947	2,069	2,113	2,236	2,246	2,303	2,126
Engineering.....	1,420	1,156	1,093	1,129	1,189	1,459	1,726	1,837	2,024	2,092	2,287	2,110	1,886	1,746
Medical/other life sciences ^a	381	400	504	455	502	553	684	720	800	833	828	837	961	910
Non-S&E.....	10,336	9,643	9,395	9,134	8,631	8,514	8,383	9,140	9,506	9,967	9,307	9,338	9,295	8,969
Asian/Pacific Islander														
All fields.....	893	1,081	1,070	1,042	1,069	1,166	1,261	1,529	2,002	4,297	3,110	2,499	2,271	2,201
S&E.....	755	899	855	817	843	959	1,003	1,222	1,644	3,752	2,617	2,023	1,804	1,742
Natural sciences.....	312	349	320	326	322	331	377	448	648	1,773	1,192	901	768	789
Physical sciences.....	157	166	149	136	152	143	156	171	260	749	400	253	203	202
Earth, atmospheric, and ocean sciences.....	20	20	14	26	19	18	22	17	22	104	71	39	27	35
Biological sciences.....	135	163	157	164	151	170	199	260	366	920	721	609	538	552
Mathematics/computer sciences.....	42	55	56	54	50	67	76	123	156	344	204	144	146	109
Mathematics.....	42	46	40	34	33	41	24	57	79	207	97	57	70	48
Computer sciences.....	0	9	16	20	17	26	52	66	77	137	107	87	76	61
Agricultural sciences.....	21	23	25	33	24	38	23	24	29	78	63	46	30	16
Social/behavioral sciences.....	109	142	141	120	132	161	145	178	240	432	364	333	322	300
Psychology.....	31	33	41	44	44	47	55	59	73	121	126	132	146	120
Social sciences.....	78	109	100	76	88	114	90	119	167	311	238	201	176	180
Engineering.....	247	301	285	247	281	327	360	405	526	1,032	707	512	439	422
Medical/other life sciences ^a	24	29	28	37	34	35	22	44	45	93	87	87	99	106
Non-S&E.....	138	182	215	225	226	207	258	307	358	545	493	476	467	459

Earned doctoral degrees, by field, citizenship, and race/ethnicity: Selected years, 1977–2001

Field, race/ethnicity, and citizenship	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2000	2001
Black														
All fields	1,187	1,102	1,109	1,008	1,043	907	963	1,165	1,278	1,461	1,474	1,760	1,749	1,721
S&E.....	365	367	367	354	397	350	396	503	527	610	670	771	786	760
Natural sciences	70	74	78	72	84	82	92	99	120	152	172	196	187	195
Physical sciences.....	32	37	24	25	27	20	31	32	41	42	52	66	62	54
Earth, atmospheric, and ocean sciences	2	3	4	1	4	2	4	3	4	3	8	14	7	5
Biological sciences	36	34	50	46	53	60	57	64	75	107	112	116	118	136
Mathematics/computer sciences.....	9	12	11	6	10	13	9	19	14	16	11	30	32	34
Mathematics.....	9	11	9	3	7	11	8	11	8	5	7	12	14	19
Computer sciences	0	1	2	3	3	2	1	8	6	11	4	18	18	15
Agricultural sciences.....	15	8	11	12	16	13	14	17	16	17	24	24	18	12
Social/behavioral sciences	233	229	226	219	230	186	219	273	268	295	310	366	393	363
Psychology	94	115	112	112	105	93	97	129	118	149	151	172	190	174
Social sciences	139	114	114	107	125	93	122	144	150	146	159	194	203	189
Engineering.....	15	19	19	29	34	25	33	55	50	70	98	98	81	92
Medical/other life sciences ^a	23	25	22	16	23	31	29	40	59	60	55	57	75	64
Non-S&E	822	735	742	654	646	557	567	662	751	851	804	989	963	961
Hispanic														
All fields	489	547	529	611	634	708	694	868	972	1,064	1,199	1,323	1,307	1,262
S&E.....	208	237	245	292	310	368	393	509	566	603	691	767	762	698
Natural sciences	72	78	77	81	95	123	139	176	206	213	231	259	269	244
Physical sciences.....	34	33	30	27	30	56	59	65	79	73	69	63	78	65
Earth, atmospheric, and ocean sciences	12	6	6	11	6	5	9	16	13	13	16	21	18	15
Biological sciences	26	39	41	43	59	62	71	95	114	127	146	175	173	164
Mathematics/computer sciences.....	12	12	5	7	18	15	15	21	23	21	36	29	29	23
Mathematics.....	12	10	5	7	12	11	11	9	16	15	20	15	15	15
Computer sciences	0	2	0	0	6	4	4	12	7	6	16	14	14	8
Agricultural sciences.....	4	6	16	6	12	15	18	15	20	21	26	15	26	19
Social/behavioral sciences	91	114	126	163	149	170	163	220	227	241	269	336	322	292
Psychology	40	50	66	95	69	95	93	122	131	146	171	215	211	174
Social sciences	51	64	60	68	80	75	70	98	96	95	98	121	111	118
Engineering.....	24	24	16	29	22	34	47	61	66	77	97	82	82	91
Medical/other life sciences ^a	5	3	5	6	14	11	11	16	24	30	32	46	34	29
Non-S&E	281	310	284	319	324	340	301	359	406	461	508	556	545	564
American Indian/Alaskan Native														
All fields	66	81	85	82	96	115	94	132	120	147	167	214	169	151
S&E.....	31	29	33	33	43	56	56	61	49	76	85	120	92	80
Natural sciences	13	6	7	12	17	18	23	23	16	22	19	35	31	27
Physical sciences.....	6	1	1	6	3	7	10	10	5	7	10	9	9	12
Earth, atmospheric, and ocean sciences	0	2	0	2	1	0	6	3	4	0	2	6	5	0
Biological sciences	7	3	6	4	13	11	7	10	7	15	7	20	17	15
Mathematics/computer sciences.....	1	1	1	1	0	3	2	1	2	2	2	2	3	3
Mathematics.....	1	0	1	0	0	0	0	0	1	2	1	1	2	2
Computer sciences	0	1	0	1	0	3	2	1	1	0	1	1	1	1

Earned doctoral degrees, by field, citizenship, and race/ethnicity: Selected years, 1977–2001

Field, race/ethnicity, and citizenship	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2000	2001
Agricultural sciences.....	1	0	1	1	4	2	2	4	1	2	5	1	4	0
Social/behavioral sciences.....	15	19	15	15	19	23	19	22	22	32	36	64	42	37
Psychology.....	9	10	9	9	10	16	11	13	15	14	18	35	22	17
Social sciences.....	6	9	6	6	9	7	8	9	7	18	18	29	20	20
Engineering.....	1	3	4	1	1	7	7	6	2	9	17	12	8	7
Medical/other life sciences ^a	0	0	5	3	2	3	3	5	6	9	6	6	4	6
Non-S&E.....	35	52	52	49	53	59	38	71	71	71	82	94	77	71
Other/unknown race/ethnicity														
All fields.....	1,355	1,669	1,083	647	554	547	448	555	300	403	1,181	602	729	807
S&E.....	809	1,004	665	428	387	363	316	417	197	278	708	379	465	503
Natural sciences.....	340	432	310	164	146	156	117	130	86	101	218	135	183	187
Physical sciences.....	156	194	142	72	69	60	47	53	34	46	83	47	49	63
Earth, atmospheric, and ocean sciences.....	31	35	16	20	11	16	8	22	6	10	23	12	21	15
Biological sciences.....	153	203	152	72	66	80	62	55	46	45	112	76	113	109
Mathematics/computer sciences.....	35	41	30	27	27	25	34	31	19	19	56	31	22	27
Mathematics.....	32	31	22	18	17	14	16	22	10	7	25	15	9	11
Computer sciences.....	3	10	8	9	10	11	18	9	9	12	31	16	13	16
Agricultural sciences.....	17	35	25	19	11	10	24	15	2	7	21	10	10	11
Social/behavioral sciences.....	295	348	224	157	126	98	78	117	56	70	267	113	155	177
Psychology.....	118	148	82	64	46	39	29	44	21	32	139	37	58	90
Social sciences.....	177	200	142	93	80	59	49	73	35	38	128	76	97	87
Engineering.....	94	114	54	48	67	61	56	110	29	62	126	74	73	77
Medical/other life sciences ^a	28	34	22	13	10	13	7	14	5	19	20	16	22	24
Non-S&E.....	546	665	418	219	167	184	132	138	103	125	473	223	264	304
Foreign citizen ^b														
All fields.....	3,480	3,617	3,984	4,540	5,253	5,668	6,686	9,382	9,973	8,829	9,193	9,059	9,649	9,780
S&E.....	2,735	2,761	3,071	3,530	4,160	4,601	5,553	7,859	8,353	7,253	7,782	7,526	7,951	8,242
Natural sciences.....	828	788	826	971	1,166	1,430	1,624	2,515	2,750	2,074	2,637	2,656	2,742	2,704
Physical sciences.....	411	420	448	543	626	808	893	1,264	1,265	931	1,084	1,127	1,154	1,213
Earth, atmospheric, and ocean sciences.....	98	69	87	103	115	124	122	186	236	173	231	242	203	252
Biological sciences.....	319	299	291	325	425	498	609	1,065	1,249	970	1,322	1,287	1,385	1,239
Mathematics/computer sciences.....	170	181	228	282	329	446	524	849	867	749	771	774	804	791
Mathematics.....	167	149	188	209	240	302	346	509	518	384	441	444	443	435
Computer sciences.....	3	32	40	73	89	144	178	340	349	365	330	330	361	356
Agricultural sciences.....	260	268	327	311	355	295	362	443	449	429	392	459	415	358
Social/behavioral sciences.....	656	651	683	699	789	792	961	1,234	1,280	1,228	1,154	1,157	1,238	1,300
Psychology.....	73	73	81	81	81	86	107	134	150	165	137	153	164	152
Social sciences.....	583	578	602	618	708	706	854	1,100	1,130	1,063	1,017	1,004	1,074	1,148
Engineering.....	780	820	951	1,180	1,422	1,540	1,948	2,646	2,792	2,527	2,555	2,194	2,446	2,772
Medical/other life sciences ^a	41	53	56	87	99	98	134	172	215	246	273	286	306	317
Non-S&E.....	745	856	913	1,010	1,093	1,067	1,133	1,523	1,620	1,576	1,411	1,533	1,698	1,538

^aMedical/other life sciences are reported separately from S&E fields in National Science Foundation, Division of Science Resources Statistics (NSF/SRS), higher education publications.

^bIncludes temporary residents only.

NOTES: Data by race/ethnicity include U.S. citizens and permanent residents. For detailed fields, see NSF/SRS, *Science and Engineering Doctorate Awards*, <http://www.nsf.gov/sbe/srs/nsf01325/htmstart.htm>.

SOURCE: NSF/SRS, WebCASPAR database system, <http://caspar.nsf.gov>.

Earned doctoral degrees, by field and citizenship: 1985–2001

Field and citizenship	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
All fields	31,297	31,902	32,370	33,500	34,327	36,067	37,533	38,890	39,800	41,037	41,747	42,438	42,559	42,654	41,097	41,340	40,744
S&E.....	19,664	20,207	20,694	21,814	22,706	23,824	25,063	25,787	26,640	27,501	27,866	28,567	28,663	28,783	27,347	27,543	27,122
Natural sciences ^a	7,326	7,486	7,679	8,156	8,100	8,590	9,091	9,374	9,562	10,004	9,996	10,356	10,436	10,485	9,967	10,014	9,816
Mathematics/computer sciences.....	998	1,128	1,190	1,264	1,471	1,597	1,838	1,927	2,026	2,021	2,187	2,042	2,032	2,104	1,938	1,908	1,832
Agricultural sciences.....	1,110	997	976	1,015	1,086	1,174	1,073	1,063	968	1,078	1,036	1,036	982	1,037	966	942	848
Social/behavioral sciences.....	6,335	6,450	6,337	6,310	6,532	6,613	6,806	6,873	7,189	7,280	7,309	7,500	7,674	7,730	7,737	7,767	7,511
Engineering.....	3,166	3,376	3,712	4,187	4,543	4,894	5,214	5,438	5,698	5,822	6,008	6,309	6,118	5,927	5,332	5,320	5,502
Medical/other life sciences ^b	729	770	800	882	974	956	1,041	1,112	1,197	1,296	1,330	1,324	1,421	1,500	1,407	1,592	1,613
Non-S&E.....	11,633	11,695	11,676	11,686	11,621	12,243	12,470	13,103	13,160	13,536	13,881	13,871	13,896	13,871	13,750	13,797	13,622
U.S. citizen																	
All degrees.....	23,377	23,088	22,984	23,290	23,402	24,905	25,572	26,010	26,448	27,150	27,743	27,777	28,162	28,459	27,984	27,955	26,907
S&E.....	13,688	13,592	13,572	14,025	14,198	14,888	15,407	15,368	15,811	16,127	16,426	16,574	17,076	17,310	16,885	16,812	16,069
Natural sciences ^a	5,635	5,560	5,486	5,742	5,620	5,876	6,026	5,991	6,005	6,127	6,109	6,086	6,338	6,397	6,169	6,265	6,164
Mathematics/computer sciences.....	566	569	588	626	731	723	850	876	921	930	1,038	912	960	1,052	959	904	833
Agricultural sciences.....	683	579	584	539	606	630	564	511	457	519	492	473	467	464	443	447	401
Social/behavioral sciences.....	4,975	4,933	4,750	4,681	4,648	4,981	5,102	5,072	5,321	5,375	5,463	5,574	5,613	5,758	5,856	5,859	5,462
Engineering.....	1,279	1,383	1,558	1,780	1,864	1,957	2,086	2,109	2,228	2,215	2,386	2,596	2,739	2,567	2,486	2,217	2,139
Medical/other life sciences ^b	550	568	606	657	729	721	779	809	879	961	938	933	959	1,072	972	1,120	1,070
Non-S&E.....	9,689	9,496	9,412	9,265	9,204	10,017	10,165	10,642	10,637	11,023	11,317	11,203	11,086	11,149	11,099	11,143	10,838
Non-U.S. citizen																	
All degrees.....	6,577	6,758	7,246	7,865	8,312	9,842	11,239	11,969	12,232	13,172	13,147	13,414	12,124	12,198	11,365	11,606	11,602
S&E.....	5,126	5,325	5,730	6,256	6,704	8,006	9,204	9,772	10,054	10,876	10,868	11,195	10,132	10,163	9,255	9,440	9,574
Natural sciences ^a	1,441	1,539	1,762	1,927	1,982	2,483	2,932	3,224	3,331	3,730	3,729	3,997	3,659	3,681	3,413	3,342	3,263
Mathematics/computer sciences.....	395	481	529	569	617	803	967	997	1,045	1,064	1,098	1,070	960	953	912	930	900
Agricultural sciences.....	398	372	343	421	407	502	499	539	498	551	535	545	475	541	510	470	386
Social/behavioral sciences.....	1,021	1,073	1,063	1,086	1,224	1,342	1,540	1,578	1,644	1,720	1,671	1,705	1,548	1,559	1,461	1,519	1,571
Engineering.....	1,737	1,725	1,895	2,097	2,313	2,675	3,034	3,161	3,261	3,492	3,483	3,527	3,148	3,061	2,596	2,798	3,068
Medical/other life sciences ^b	134	135	138	156	161	201	232	273	275	319	352	351	342	368	363	381	386
Non-S&E.....	1,451	1,433	1,516	1,609	1,608	1,836	2,035	2,197	2,178	2,296	2,279	2,219	1,992	2,035	2,110	2,166	2,028
Permanent resident																	
All degrees.....	1,324	1,433	1,578	1,622	1,626	1,698	1,857	1,980	2,259	3,747	4,318	3,765	2,931	2,702	2,306	1,957	1,822
S&E.....	966	1,029	1,129	1,165	1,151	1,232	1,345	1,429	1,701	3,110	3,615	3,092	2,350	2,101	1,729	1,489	1,332
Natural sciences ^a	275	274	332	358	358	380	417	475	581	1,363	1,655	1,407	1,022	928	757	600	559
Mathematics/computer sciences.....	66	83	83	86	93	102	118	120	178	270	349	250	189	178	138	126	109
Agricultural sciences.....	43	47	48	71	45	57	56	62	49	97	106	103	83	79	51	55	28
Social/behavioral sciences.....	232	247	271	249	263	269	306	315	364	453	443	456	394	355	304	281	271
Engineering.....	315	343	355	366	365	389	388	411	469	838	956	793	593	479	402	352	296
Medical/other life sciences ^b	35	35	40	35	27	35	60	46	60	89	106	83	69	82	77	75	69
Non-S&E.....	358	404	449	457	475	466	512	551	558	637	703	673	581	601	577	468	490

Earned doctoral degrees, by field and citizenship: 1985–2001

Field and citizenship	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Temporary resident																	
All degrees	5,253	5,325	5,668	6,243	6,686	8,144	9,382	9,989	9,973	9,425	8,829	9,649	9,193	9,496	9,059	9,649	9,780
S&E.....	4,160	4,296	4,601	5,091	5,553	6,774	7,859	8,343	8,353	7,766	7,253	8,103	7,782	8,062	7,526	7,951	8,242
Natural sciences ^a	1,166	1,265	1,430	1,569	1,624	2,103	2,515	2,749	2,750	2,367	2,074	2,590	2,637	2,753	2,656	2,742	2,704
Mathematics/computer sciences	329	398	446	483	524	701	849	877	867	794	749	820	771	775	774	804	791
Agricultural sciences.....	355	325	295	350	362	445	443	477	449	454	429	442	392	462	459	415	358
Social/behavioral sciences.....	789	826	792	837	961	1,073	1,234	1,263	1,280	1,267	1,228	1,249	1,154	1,204	1,157	1,238	1,300
Engineering	1,422	1,382	1,540	1,731	1,948	2,286	2,646	2,750	2,792	2,654	2,527	2,734	2,555	2,582	2,194	2,446	2,772
Medical/other life sciences ^b	99	100	98	121	134	166	172	227	215	230	246	268	273	286	286	306	317
Non-S&E	1,093	1,029	1,067	1,152	1,133	1,370	1,523	1,646	1,620	1,659	1,576	1,546	1,411	1,434	1,533	1,698	1,538
Citizenship unknown																	
All degrees	1,343	2,056	2,140	2,345	2,613	1,320	722	911	1,120	715	857	1,247	2,273	1,997	1,748	1,779	2,235
S&E.....	850	1,290	1,392	1,533	1,804	930	452	647	775	498	572	798	1,455	1,310	1,207	1,291	1,479
Natural sciences ^a	250	387	431	487	498	231	133	159	226	147	158	273	439	407	385	407	389
Mathematics/computer sciences.....	37	78	73	69	123	71	21	54	60	27	51	60	112	99	67	74	99
Agricultural sciences.....	29	46	49	55	73	42	10	13	13	8	9	18	40	32	13	25	61
Social/behavioral sciences.....	339	444	524	543	660	290	164	223	224	185	175	221	513	413	420	389	478
Engineering.....	150	268	259	310	366	262	94	168	209	115	139	186	231	299	250	305	295
Medical/other life sciences ^b	45	67	56	69	84	34	30	30	43	16	40	40	120	60	72	91	157
Non-S&E	493	766	748	812	809	390	270	264	345	217	285	449	818	687	541	488	756

^aNatural sciences include physical, biological, earth, atmospheric, and ocean sciences.

^bMedical/other life sciences are reported separately from S&E fields in National Science Foundation, Division of Science Resources Statistics (NSF/SRS), higher education publications.

NOTE: For detailed fields, see NSF/SRS, *Science and Engineering Doctorate Awards*, <http://www.nsf.gov/sbe/srs/nsf01325/htmstart.htm>.

SOURCE: NSF/SRS, WebCASPAR database system, <http://caspar.nsf.gov>.

Appendix table 2-29

Time from bachelor's to S&E doctoral degree, by doctoral degree field: 1973–2001

Year	Engineering	Physical sciences	Earth, atmospheric, and ocean sciences	Mathematics	Computer sciences	Agricultural sciences	Biological sciences	Psychology	Social sciences
1973	7.9	6.6	8.0	7.0	0.0	8.0	7.0	6.8	8.3
1974	7.8	6.6	8.0	7.0	0.0	8.0	7.0	6.9	8.5
1975	7.6	6.6	7.9	7.0	0.0	8.0	7.0	6.9	8.7
1976	7.5	6.5	7.9	7.0	0.0	8.4	7.0	7.0	8.8
1977	7.5	6.9	8.0	7.0	7.4	8.1	7.0	7.2	9.0
1978	7.6	6.9	8.0	7.2	7.8	8.0	7.0	7.5	9.0
1979	7.6	6.5	7.8	7.2	7.8	8.0	7.0	7.9	9.6
1980	7.8	6.6	8.2	7.0	7.3	8.1	7.0	8.0	9.7
1981	8.0	6.5	8.2	7.0	7.7	8.0	7.0	8.4	9.8
1982	8.0	6.5	8.5	7.1	7.9	8.0	7.3	8.6	10.0
1983	8.0	6.8	8.5	7.3	8.5	8.5	7.5	9.0	10.1
1984	8.0	6.8	8.9	8.0	9.0	8.4	8.0	9.3	10.4
1985	8.2	7.0	8.9	8.0	9.1	9.0	8.0	9.5	10.9
1986	8.2	7.0	9.0	7.3	9.3	9.1	8.0	9.9	10.8
1987	8.2	7.0	9.0	8.0	9.2	9.6	8.2	10.0	11.0
1988	8.1	7.0	9.5	8.1	9.5	9.9	8.3	10.2	11.2
1989	8.3	7.0	9.2	8.0	9.0	10.0	8.3	10.2	11.0
1990	8.3	7.1	9.0	8.0	9.0	10.4	8.3	10.0	11.3
1991	8.6	7.3	9.3	8.3	8.9	10.3	8.4	10.2	11.2
1992	8.9	7.4	9.8	8.9	9.3	10.3	8.7	10.3	11.3
1993	9.0	7.6	10.5	8.6	9.6	10.8	8.6	10.0	11.1
1994	9.0	7.6	10.7	8.9	9.7	10.8	8.8	9.6	11.4
1995	9.1	7.7	10.8	8.6	9.5	11.0	8.7	9.8	11.2
1996	9.0	7.6	11.0	8.3	10.0	11.4	8.7	9.6	11.0
1997	8.9	7.3	10.7	8.7	9.8	10.9	8.5	9.3	11.0
1998	8.9	7.2	10.5	8.0	10.3	11.2	8.3	9.1	10.8
1999	8.8	7.1	10.5	8.0	10.0	11.0	8.2	9.0	11.0
2000	8.7	7.3	10.1	7.7	10.0	11.0	8.2	9.0	10.8
2001	8.4	7.0	10.0	8.0	9.5	10.5	8.1	9.0	10.9
	Years enrolled from bachelor's to doctoral degree (median)								
1973	5.9	5.8	6.0	5.9	0.0	5.6	5.8	5.5	6.0
1974	5.8	5.7	6.0	5.6	0.0	5.5	5.8	5.5	6.1
1975	5.7	5.6	6.0	5.6	0.0	5.6	5.8	5.6	6.1
1976	5.8	5.7	6.0	5.8	0.0	5.5	5.9	5.7	6.2
1977	5.8	5.8	6.0	6.0	6.1	5.6	5.9	5.8	6.5
1978	5.8	5.9	6.2	5.9	5.9	5.5	5.9	5.9	6.5
1979	5.7	5.6	6.2	6.0	6.0	5.5	6.0	6.1	6.8
1980	5.8	5.8	6.3	6.0	6.0	5.8	6.0	6.3	6.9
1981	5.8	5.7	6.6	6.0	6.1	5.7	6.0	6.4	7.0
1982	5.9	5.8	6.5	6.0	6.5	6.0	6.1	6.6	7.2
1983	5.9	6.0	7.0	6.3	6.8	6.0	6.3	6.8	7.4
1984	5.9	6.0	6.9	6.2	6.8	6.0	6.5	7.0	7.5
1985	6.0	6.0	7.0	6.4	6.4	6.1	6.5	7.1	7.6
1986	6.0	6.0	7.1	6.1	6.6	6.1	6.5	7.1	7.6
1987	6.0	6.0	7.0	6.5	6.8	6.5	6.6	7.2	7.8
1988	6.0	6.0	7.3	6.4	6.9	6.4	6.8	7.3	7.9
1989	6.1	6.0	7.0	6.3	6.8	6.6	6.7	7.4	7.9
1990	6.3	6.2	7.3	6.7	6.8	6.8	7.0	7.6	8.0
1991	6.3	6.2	7.4	6.7	6.9	6.8	6.8	7.5	8.0
1992	6.4	6.4	7.5	7.0	7.0	6.6	7.0	7.5	8.0
1993	6.5	6.4	7.7	7.0	7.2	6.9	7.0	7.3	8.1
1994	6.5	6.5	7.8	6.9	7.3	6.8	7.0	7.3	8.0
1995	6.5	6.6	7.9	6.9	7.4	6.7	7.0	7.3	8.0
1996	6.5	6.5	7.8	6.8	7.2	6.9	7.0	7.3	7.9
1997	6.6	6.5	7.7	7.0	7.6	7.0	7.0	7.3	8.0
1998	6.8	6.4	7.6	6.8	7.6	7.0	7.0	7.2	8.0
1999	6.8	6.4	7.7	6.9	7.6	7.0	6.9	7.3	8.0
2000	6.8	6.5	7.8	6.8	7.5	7.1	7.0	7.2	8.1
2001	6.7	6.4	7.5	6.7	7.4	7.3	7.0	7.3	8.2

SOURCE: National Science Foundation, Division of Science Resources Statistics, WebCASPAR database system, <http://caspar.nsf.gov>.

Postdocs at U.S. universities, by field and citizenship status: 1977–2001

Citizenship	All S&E fields	Engineering	Physical sciences	Earth, atmospheric, and ocean sciences	Mathematics	Computer sciences	Agricultural sciences	Biological sciences	Medical/ other life sciences ^a	Psychology	Social sciences
All academic postdocs											
1977	19,445	1,245	4,197	375	86	59	294	6,599	5,843	399	348
1979	18,101	1,067	4,056	315	162	38	227	6,867	4,515	454	400
1980	18,399	981	4,279	312	162	43	257	7,085	4,376	475	429
1981	19,634	1,040	4,477	346	113	35	290	7,680	4,863	471	319
1982	19,363	980	4,298	340	194	47	291	7,724	4,685	520	284
1983	20,712	1,108	4,458	420	170	80	307	8,348	5,042	437	342
1984	21,535	1,203	4,408	493	203	59	374	8,693	5,353	423	326
1985	22,387	1,356	4,539	379	226	70	371	9,131	5,455	510	350
1986	23,721	1,405	4,860	420	201	75	409	9,704	5,804	521	322
1987	24,881	1,446	4,968	424	229	103	441	10,365	6,066	460	379
1988	26,123	1,690	5,201	496	284	96	462	10,667	6,409	498	320
1989	27,932	1,928	5,366	453	225	84	506	11,441	7,026	536	367
1990	29,565	1,950	5,592	594	249	71	517	11,928	7,762	464	438
1991	30,865	2,262	5,722	625	206	120	557	12,478	8,008	508	379
1992	32,747	2,369	5,792	692	201	145	621	13,177	8,864	525	361
1993	34,322	2,446	5,669	765	224	164	695	13,803	9,657	521	378
1994	36,377	2,606	5,884	824	239	185	699	14,409	10,590	551	390
1995	35,926	2,648	5,851	845	262	213	694	14,689	9,766	582	376
1996	37,107	2,677	5,828	861	326	250	674	14,915	10,538	594	444
1997	38,481	2,971	5,968	942	308	322	702	15,104	11,217	586	361
1998	40,086	2,853	6,004	902	279	374	669	15,787	12,210	617	391
1999	40,771	3,196	6,157	925	351	334	712	16,129	11,797	716	454
2000	43,137	3,313	6,270	1,155	385	366	786	16,770	12,891	730	471
2001	42,989	3,118	6,212	1,035	354	361	799	16,921	12,931	830	428
U.S. citizen/permanent resident											
1977	13,302	593	2,465	270	47	47	210	4,624	4,433	360	253
1979	12,036	414	2,026	205	82	25	146	4,975	3,444	420	299
1980	11,893	303	2,116	210	70	30	159	4,989	3,283	445	288
1981	12,340	332	2,109	219	52	18	177	5,310	3,504	417	202
1982	12,129	323	1,923	218	68	35	171	5,339	3,413	455	184
1983	13,193	414	2,064	260	80	36	224	5,791	3,716	376	232
1984	13,548	439	1,987	328	103	41	268	5,913	3,861	377	231
1985	13,528	443	2,026	253	112	45	226	5,953	3,785	456	229
1986	14,041	460	2,213	278	100	48	243	6,102	3,921	471	205
1987	14,133	497	2,178	261	119	69	273	6,256	3,801	387	292
1988	14,420	588	2,260	307	151	57	311	6,103	3,976	425	242
1989	14,863	657	2,267	271	95	47	306	6,354	4,178	434	254
1990	15,115	613	2,213	377	99	40	317	6,382	4,446	381	247
1991	15,135	655	2,202	389	92	84	317	6,413	4,328	407	248
1992	15,800	767	2,248	415	92	98	348	6,589	4,616	401	226
1993	16,727	843	2,213	460	107	89	362	6,940	5,092	386	235

Postdocs at U.S. universities, by field and citizenship status: 1977–2001

Citizenship	All S&E fields	Engineering	Physical sciences	Earth, atmospheric, and ocean sciences	Mathematics	Computer sciences	Agricultural sciences	Biological sciences	Medical/other life sciences ^a	Psychology	Social sciences
1994	17,986	1,018	2,421	514	131	96	349	7,265	5,517	426	249
1995	18,142	999	2,578	502	117	113	380	7,408	5,319	465	261
1996	18,412	1,050	2,489	504	137	121	342	7,496	5,482	483	308
1997	18,916	1,089	2,512	573	138	146	360	7,310	6,081	453	254
1998	19,710	950	2,371	530	127	188	350	7,698	6,744	487	265
1999	18,865	1,018	2,259	535	152	144	364	7,368	6,144	535	346
2000	19,474	1,069	2,271	705	149	151	321	7,088	6,825	561	334
2001	18,388	968	2,040	599	154	138	316	6,993	6,270	615	295
Foreign citizen ^b											
1977	6,143	652	1,732	105	39	12	84	1,975	1,410	39	95
1979	6,065	653	2,030	110	80	13	81	1,892	1,071	34	101
1980	6,506	678	2,163	102	92	13	98	2,096	1,093	30	141
1981	7,294	708	2,368	127	61	17	113	2,370	1,359	54	117
1982	7,234	657	2,375	122	126	12	120	2,385	1,272	65	100
1983	7,519	694	2,394	160	90	44	83	2,557	1,326	61	110
1984	7,987	764	2,421	165	100	18	106	2,780	1,492	46	95
1985	8,859	913	2,513	126	114	25	145	3,178	1,670	54	121
1986	9,680	945	2,647	142	101	27	166	3,602	1,883	50	117
1987	10,748	949	2,790	163	110	34	168	4,109	2,265	73	87
1988	11,703	1,102	2,941	189	133	39	151	4,564	2,433	73	78
1989	13,069	1,271	3,099	182	130	37	200	5,087	2,848	102	113
1990	14,450	1,337	3,379	217	150	31	200	5,546	3,316	83	191
1991	15,730	1,607	3,520	236	114	36	240	6,065	3,680	101	131
1992	16,947	1,602	3,544	277	109	47	273	6,588	4,248	124	135
1993	17,595	1,603	3,456	305	117	75	333	6,863	4,565	135	143
1994	18,391	1,588	3,463	310	108	89	350	7,144	5,073	125	141
1995	17,784	1,649	3,273	343	145	100	314	7,281	4,447	117	115
1996	18,695	1,627	3,339	357	189	129	332	7,419	5,056	111	136
1997	19,565	1,882	3,456	369	170	176	342	7,794	5,136	133	107
1998	20,376	1,903	3,633	372	152	186	319	8,089	5,466	130	126
1999	21,906	2,178	3,898	390	199	190	348	8,761	5,653	181	108
2000	23,663	2,244	3,999	450	236	215	465	9,682	6,066	169	137
2001	24,601	2,150	4,172	436	200	223	483	9,928	6,661	215	133

^aMedical/other life sciences are reported separately from S&E fields in National Science Foundation, Division of Science Resources Statistics (NSF/SRS), *Graduate Students and Postdoctorates in Science and Engineering*, available on the SRS website.

^bIncludes temporary residents only.

SOURCE: NSF/SRS, WebCASPAR database system, <http://caspar.nsf.gov>.

Appendix table 2-31

(Page 1 of 4)

Plans of foreign recipients of U.S. S&E doctorates to stay in United States, by field and place of origin: 1990–2001

Field and place of origin	Foreign S&E doctorate recipients			Plans to stay			Firm plans to stay		
	1990–93	1994–97	1998–2001	1990–93	1994–97	1998–2001	1990–93	1994–97	1998–2001
	Number			Percent					
All S&E fields									
All non-U.S. citizens.....	35,830	41,562	36,878	63.4	69.3	76.3	40.9	43.3	54.1
East/South Asia	21,181	25,867	20,751	68.6	75.4	83.2	44.1	46.2	58.5
China	7,283	10,564	9,351	93.5	96.6	96.2	58.0	57.3	67.5
Taiwan	4,588	4,716	2,829	56.0	54.3	68.8	33.8	28.9	42.2
Japan.....	536	651	655	42.7	44.0	54.9	29.6	31.6	36.8
South Korea	4,319	3,960	3,124	38.7	42.3	65.7	24.4	25.8	45.1
India.....	3,253	4,760	3,601	85.6	90.1	94.0	62.6	61.8	73.2
Other.....	1,202	1,216	1,191	48.3	46.9	45.6	31.2	27.5	31.1
West Asia	3,834	3,556	2,921	59.5	60.4	67.2	32.7	34.4	46.1
Iran	887	607	361	84.8	83.2	93.3	43.9	43.3	61.3
Israel.....	344	318	164	55.2	60.8	63.3	37.5	40.9	42.3
Turkey.....	474	619	918	56.5	56.1	61.5	33.6	37.0	43.7
Other.....	2,129	2,012	1,478	51.2	54.9	65.0	27.5	29.8	44.5
Pacifica/Australasia	833	893	683	49.2	50.6	59.7	33.1	28.7	43.1
Australia.....	167	207	178	57.2	54.7	65.5	41.9	37.9	48.6
Indonesia	275	297	211	24.5	23.8	45.7	18.6	10.1	32.8
New Zealand.....	79	94	90	46.1	64.3	62.3	36.0	49.0	49.4
Other.....	312	295	204	65.8	68.0	67.3	39.2	32.3	45.8
Africa	2,013	1,785	1,350	48.2	55.1	70.3	24.5	25.8	40.7
Egypt	460	341	299	33.0	50.2	62.0	16.1	23.8	43.7
Nigeria	286	175	111	79.8	87.1	90.1	36.1	29.9	39.5
South Africa	136	138	138	45.6	47.7	69.0	34.7	34.5	45.5
Other.....	1,131	1,131	802	46.9	52.8	70.7	23.8	24.6	39.0
Europe	3,826	4,943	6,068	61.2	67.2	76.2	44.5	47.9	57.5
Greece	616	577	377	65.1	59.5	74.3	45.8	40.8	56.5
United Kingdom.....	534	477	504	76.2	77.5	80.8	57.7	59.5	62.4
Germany	529	753	832	58.6	64.3	66.5	43.0	44.6	52.4
Italy.....	298	327	370	48.6	49.6	62.2	36.5	31.9	49.8
France.....	302	320	321	43.6	53.7	71.2	29.4	32.0	48.4
Spain	207	227	242	48.8	56.3	56.1	38.5	45.7	40.8
Other.....	1,340	2,262	3,422	63.0	73.4	81.5	45.4	53.0	61.1
North/South America	3,504	3,657	3,968	49.9	51.6	56.9	36.0	36.1	42.4
Canada	1,137	1,073	1,152	58.4	66.1	73.3	46.9	49.8	56.9
Mexico	486	560	736	41.7	38.2	39.8	27.0	24.0	29.3
Argentina	266	239	269	53.7	64.9	65.3	36.9	43.2	51.3
Brazil	500	646	576	26.3	28.4	35.3	16.7	21.0	25.6
Chile	204	145	124	47.6	36.4	54.2	34.3	23.0	44.0
Colombia.....	161	173	184	51.7	50.9	64.3	34.5	32.0	47.5
Peru	122	117	108	66.9	74.6	67.7	45.5	46.8	44.5
Other.....	628	704	819	55.0	56.5	59.3	37.1	37.9	41.1
Country unknown	639	933	1,139	76.9	60.6	55.8	50.3	40.3	35.2
Natural/agricultural sciences^a									
All non-U.S. citizens.....	13,955	17,206	15,606	69.0	75.9	81.1	47.6	49.8	58.4
East/South Asia	8,342	10,849	9,006	78.8	84.8	89.3	54.7	54.8	63.8
China	4,061	6,030	5,158	94.4	97.1	96.6	64.0	61.2	68.0
Taiwan	1,412	1,524	977	64.2	64.7	75.2	41.8	39.2	50.7
Japan	154	169	182	57.3	61.6	73.2	42.9	44.8	49.4
South Korea	1,296	1,301	1,016	57.1	60.9	81.2	43.1	44.9	63.5
India.....	955	1,378	1,225	85.7	90.6	94.0	64.7	61.4	69.6
Other	464	447	448	48.1	53.1	48.7	32.9	34.8	35.2
West Asia	1,116	1,110	899	60.0	61.3	68.8	36.1	35.7	49.8
Iran	241	198	120	84.6	81.5	91.3	50.8	41.5	64.2
Israel.....	73	88	52	64.6	73.5	71.5	46.3	53.9	45.7
Turkey.....	90	148	243	64.6	51.8	52.8	40.9	34.3	38.8
Other.....	712	676	484	51.0	56.0	71.5	29.8	32.1	52.6
Pacifica/Australasia	360	378	272	49.9	57.0	58.4	32.9	31.9	39.2
Australia	52	85	60	54.0	54.9	67.1	39.0	36.0	49.9
Indonesia	100	97	61	15.0	30.4	42.8	11.3	18.7	31.8
New Zealand.....	34	37	36	37.7	63.8	49.2	31.6	46.3	34.9
Other	174	159	115	68.9	71.9	64.8	42.5	33.1	38.6

Appendix table 2-31

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Plans of foreign recipients of U.S. S&E doctorates to stay in United States, by field and place of origin: 1990–2001

Field and place of origin	Foreign S&E doctorate recipients			Plans to stay			Firm plans to stay		
	1990–93	1994–97	1998–2001	1990–93	1994–97	1998–2001	1990–93	1994–97	1998–2001
	Number			Percent					
Africa	783	693	492	44.4	53.5	69.9	21.9	23.8	39.9
Egypt	150	58	51	33.0	45.4	65.5	16.4	19.8	52.8
Nigeria	83	59	42	88.9	95.5	92.1	37.9	38.2	40.1
South Africa	45	51	62	47.6	49.4	62.2	37.0	31.8	44.3
Other	505	525	337	40.7	50.4	69.1	19.9	22.3	37.1
Europe	1,516	2,128	2,739	60.9	68.1	78.8	45.5	49.8	59.9
Greece	177	175	122	65.8	52.3	72.4	49.4	36.8	58.1
United Kingdom	248	217	262	75.8	77.3	79.7	60.5	61.9	62.9
Germany	254	372	396	54.5	62.6	68.1	41.8	44.2	55.1
Italy	104	111	119	49.5	52.2	58.6	36.6	37.2	47.8
France	120	153	127	40.3	53.1	68.3	24.3	38.0	41.7
Spain	75	111	83	60.2	58.0	58.8	43.5	44.5	38.4
Other	538	989	1,630	61.6	75.9	84.9	44.9	55.3	64.1
North/South America	1,585	1,697	1,739	48.3	54.1	58.5	35.9	38.7	44.7
Canada	483	477	498	60.1	71.5	79.3	50.4	56.3	63.8
Mexico	257	292	343	40.0	38.5	36.5	27.1	23.4	27.5
Argentina	126	126	125	45.0	62.0	67.8	34.7	41.7	52.6
Brazil	210	290	229	21.7	27.9	32.2	12.9	24.9	23.9
Chile	87	73	56	63.1	48.4	64.2	48.0	32.5	53.0
Colombia	84	73	91	46.0	59.0	71.0	29.4	39.2	54.9
Peru	43	35	39	56.7	75.2	73.4	44.5	58.2	45.3
Other	295	331	358	50.6	60.1	58.5	32.6	38.0	40.5
Country unknown	253	373	461	76.1	65.9	64.3	50.1	50.5	39.3
Mathematics/computer sciences									
All non-U.S. citizens	3,800	4,184	3,695	67.5	70.9	78.6	45.9	46.1	57.9
East/South Asia	2,349	2,512	1,886	71.0	75.8	85.3	47.8	47.2	61.8
China	901	929	765	92.2	97.1	95.8	58.3	53.4	70.9
Taiwan	485	421	280	60.1	51.5	70.7	41.7	27.7	40.1
Japan	48	32	47	57.0	41.9	86.3	44.1	24.8	63.1
South Korea	353	357	297	25.9	37.0	69.9	11.9	20.1	41.9
India	415	630	397	86.9	89.0	94.8	69.0	68.4	79.6
Other	147	143	100	51.6	57.1	57.1	32.7	38.4	44.0
West Asia	309	321	280	61.9	61.6	64.7	36.8	41.7	45.3
Iran	67	48	26	83.8	81.7	65.4	40.4	49.4	46.2
Israel	70	63	13	65.5	77.6	38.4	53.8	61.8	30.7
Turkey	27	67	84	37.0	58.9	69.0	18.5	38.7	48.8
Other	142	143	147	53.1	48.4	55.0	29.4	31.6	37.7
Pacifica/Australasia	76	87	69	68.4	67.6	76.6	52.4	45.0	55.9
Australia	13	27	25	76.9	72.1	68.0	53.8	51.8	48.0
Indonesia	5	16	5	40.0	6.3	60.0	40.0	0.0	40.0
New Zealand	5	13	6	0.0	68.1	100.0	0.0	68.1	83.3
Other	22	17	6	90.3	52.9	100.0	66.9	35.3	50.0
Africa	124	106	93	65.8	63.4	83.8	33.5	34.7	51.7
Egypt	28	34	13	54.8	51.0	69.2	23.8	17.6	61.5
Nigeria	5	0	0	na	na	na	0.0	na	na
South Africa	6	0	7	50.0	na	100.0	50.0	na	57.1
Other	74	59	58	65.5	58.5	85.0	30.2	34.9	51.3
Europe	570	805	943	64.2	69.4	79.0	47.8	50.6	60.9
Greece	85	114	48	67.5	61.1	74.4	51.0	47.4	53.0
United Kingdom	46	37	52	76.8	82.2	81.7	65.6	54.8	69.6
Germany	82	103	107	63.6	65.4	65.8	46.0	47.5	50.9
Italy	62	67	50	45.1	39.9	71.5	37.3	29.0	60.8
France	29	21	24	60.2	66.7	54.2	47.5	25.9	25.0
Spain	20	17	23	37.2	58.8	46.4	21.1	47.0	42.1
Other	236	441	636	68.8	77.0	83.4	49.5	56.8	64.4

Appendix table 2-31

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Plans of foreign recipients of U.S. S&E doctorates to stay in United States, by field and place of origin: 1990–2001

Field and place of origin	Foreign S&E doctorate recipients			Plans to stay			Firm plans to stay		
	1990–93	1994–97	1998–2001	1990–93	1994–97	1998–2001	1990–93	1994–97	1998–2001
	Number			Percent					
North/South America	321	288	331	53.7	49.3	57.0	39.8	33.4	42.3
Canada	104	82	98	63.4	67.3	69.6	46.9	55.3	52.4
Mexico	41	49	61	41.5	33.3	40.8	26.0	17.1	30.9
Argentina	22	9	16	71.4	87.5	84.8	61.8	62.5	69.6
Brazil	54	60	58	37.4	31.6	46.1	29.1	20.4	31.4
Chile	23	5	0	33.9	40.0	na	17.0	0.0	na
Colombia	6	16	18	33.3	43.8	44.5	16.7	25.0	33.3
Peru	5	0	0	0.0	na	na	0.0	na	na
Other	48	40	62	54.5	55.6	57.4	42.8	30.6	40.8
Country unknown	51	73	93	76.2	61.2	47.2	52.3	36.2	41.9
Social/behavioral sciences									
All non-U.S. citizens	5,981	6,537	6,054	47.5	49.7	56.8	30.3	29.6	39.6
East/South Asia	2,637	3,145	2,536	42.6	49.4	56.4	26.2	27.5	37.9
China	444	721	589	85.6	88.6	86.5	46.2	48.6	61.4
Taiwan	389	474	365	33.0	25.9	37.0	18.5	9.0	19.8
Japan	240	305	330	36.5	44.0	45.3	23.5	32.0	29.3
South Korea	955	904	650	21.5	22.4	36.2	12.6	10.2	21.7
India	359	486	389	73.5	77.2	84.9	55.3	50.7	63.6
Other	250	255	213	29.5	34.1	34.0	18.9	17.9	20.9
West Asia	673	617	478	47.3	43.8	55.7	25.8	25.4	39.6
Iran	112	56	27	80.8	83.3	59.8	35.5	38.4	27.4
Israel	103	109	68	49.3	51.5	55.9	36.0	32.0	42.4
Turkey	76	98	140	55.2	33.1	52.8	33.0	27.1	43.5
Other	382	354	243	36.3	37.9	55.3	18.6	20.3	37.2
Pacifica/Australasia	236	249	190	36.4	37.4	47.6	23.7	19.5	36.6
Australia	66	60	64	50.1	45.8	57.6	39.1	30.3	44.4
Indonesia	74	86	50	8.7	6.9	19.5	4.4	2.1	9.7
New Zealand	25	29	27	44.0	58.1	50.6	26.4	43.4	46.9
Other	67	74	49	51.0	52.9	58.9	28.9	17.9	45.8
Africa	505	448	352	50.1	49.1	66.2	24.7	18.2	32.8
Egypt	49	34	13	19.6	47.1	45.6	6.4	19.1	36.7
Nigeria	123	73	43	71.7	76.8	84.0	29.9	14.7	42.6
South Africa	50	41	30	42.9	39.9	72.0	27.0	26.0	37.4
Other	283	300	261	48.6	44.4	63.8	26.3	17.8	30.8
Europe	889	983	1,189	60.6	61.3	67.1	44.8	43.4	51.9
Greece	100	92	62	62.8	57.3	71.0	38.6	39.7	52.0
United Kingdom	175	166	142	73.8	73.5	79.9	49.2	57.2	59.1
Germany	129	169	170	63.9	65.9	69.2	48.8	48.3	53.0
Italy	86	110	127	50.6	52.7	60.4	39.6	33.5	50.6
France	46	51	77	45.3	52.6	73.3	39.9	21.0	56.4
Spain	80	63	89	43.7	54.7	50.3	39.7	45.6	40.0
Other	273	332	522	60.7	59.7	66.1	46.4	42.3	51.3
North/South America	921	913	1,076	48.3	48.6	51.1	34.5	35.1	36.5
Canada	367	348	376	53.2	56.3	63.0	42.9	40.5	46.3
Mexico	98	103	156	39.8	31.9	35.2	22.1	23.9	22.4
Argentina	66	60	77	53.8	57.1	48.9	28.9	34.9	34.1
Brazil	94	91	131	28.3	36.1	35.6	19.9	24.4	27.4
Chile	57	37	35	31.6	26.5	43.9	23.1	15.0	32.5
Colombia	29	43	32	48.3	37.0	45.9	32.2	13.7	35.4
Peru	41	48	45	53.7	62.0	58.4	31.7	41.9	46.3
Other	169	183	224	51.8	50.0	53.1	35.8	43.3	35.6
Country unknown	120	194	233	65.8	36.9	29.7	36.6	17.7	19.6

Appendix table 2-31

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Plans of foreign recipients of U.S. S&E doctorates to stay in United States, by field and place of origin: 1990–2001

Field and place of origin	Foreign S&E doctorate recipients			Plans to stay			Firm plans to stay		
	1990–93	1994–97	1998–2001	1990–93	1994–97	1998–2001	1990–93	1994–97	1998–2001
	Number			Percent					
Engineering									
All non-U.S. citizens	12,094	13,635	11,523	63.6	69.9	79.2	36.7	40.7	54.7
East/South Asia	7,853	9,361	7,323	65.7	73.1	84.4	37.7	42.1	58.4
China	1,877	2,884	2,839	94.3	97.2	97.5	46.9	52.5	67.1
Taiwan	2,302	2,297	1,207	53.9	53.7	72.6	29.8	26.4	42.3
Japan	94	145	96	28.9	24.3	40.1	17.5	14.5	27.4
South Korea	1,715	1,398	1,161	36.4	38.8	67.7	19.0	19.3	42.9
India	1,524	2,266	1,590	88.0	92.7	96.0	61.2	62.6	76.7
Other	341	371	430	61.5	44.4	45.2	37.5	21.6	28.7
West Asia	1,736	1,508	1,264	63.5	66.4	70.7	32.5	35.4	46.0
Iran	467	305	184	85.8	84.5	96.3	42.5	44.1	62.7
Israel	98	58	21	46.4	42.6	52.6	20.3	20.4	15.1
Turkey	278	306	451	54.9	65.3	67.5	32.3	40.9	45.5
Other	893	839	604	57.6	62.3	66.0	29.0	31.6	42.4
Pacifica/Australasia	161	179	152	57.6	46.4	68.9	37.7	28.3	52.2
Australia	24	32	18	66.7	56.8	82.1	50.0	52.9	52.4
Indonesia	86	94	89	48.8	28.4	61.7	37.4	11.3	47.3
New Zealand	0	6	0	na	60.0	na	na	40.0	na
Other	43	41	21	66.8	74.5	76.2	25.1	47.8	61.9
Africa	601	538	413	47.9	60.5	71.3	25.6	32.9	46.0
Egypt	233	215	214	33.7	49.4	61.8	17.6	25.5	41.2
Nigeria	66	39	15	81.7	93.8	93.3	40.9	46.7	32.0
South Africa	33	37	28	43.6	50.4	68.4	34.5	38.2	52.0
Other	269	247	146	51.9	66.5	82.4	27.1	35.5	54.0
Europe	851	1,027	1,197	60.5	69.5	77.2	40.3	46.6	55.1
Greece	254	196	145	64.8	66.0	77.4	44.4	41.4	58.5
United Kingdom	65	57	48	84.3	87.4	88.8	62.5	60.5	61.4
Germany	64	109	159	57.6	68.0	59.4	32.8	40.1	45.9
Italy	46	39	74	45.3	51.3	64.7	28.5	20.5	43.7
France	103	93	93	42.1	52.7	72.7	25.4	30.8	54.5
Spain	22	33	44	35.7	56.1	65.9	30.3	42.5	45.5
Other	293	500	634	63.3	74.3	83.7	41.9	52.6	58.1
North/South America	677	759	822	54.2	51.0	61.0	36.7	32.6	45.3
Canada	183	166	180	60.9	71.1	79.9	45.7	49.8	61.5
Mexico	90	116	176	48.0	44.2	49.5	32.6	28.4	38.6
Argentina	48	36	47	66.8	87.8	80.5	40.2	66.7	70.8
Brazil	142	205	158	27.3	24.6	35.8	15.3	14.3	24.7
Chile	34	24	22	36.5	22.0	47.7	24.4	8.9	43.2
Colombia	36	29	41	69.0	49.9	70.6	50.6	36.2	43.8
Peru	28	28	18	67.9	78.6	25.4	35.7	35.7	12.7
Other	116	150	175	71.4	56.5	68.7	49.4	33.0	49.1
Country unknown	215	293	352	85.6	68.4	64.7	58.6	41.9	39.8

na not applicable

*Natural sciences include physical, biological, earth, atmospheric, and ocean sciences.

NOTES: Data include foreign doctoral recipients who are either permanent or temporary residents. Recipients who plan to stay think they will locate in the United States; those with firm plans have a postdoctoral research appointment or academic, industrial, or other firm employment in the United States.

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Earned Doctorates, special tabulations, 2003.

Appendix table 2-32

Trends in population of 20–24-year-olds, by selected countries and regions: 1980–2015

(Thousands)

Year	Western Europe	Africa	South America	United States	China	India	Japan
1980	30,440	40,984	22,762	21,584	85,211	62,229	7,904
1981	30,945	42,201	23,404	21,508	89,116	63,681	7,959
1982	31,458	43,455	24,065	21,433	93,201	65,167	8,015
1983	31,980	44,746	24,744	21,358	97,472	66,688	8,071
1984	32,510	46,075	25,442	21,283	101,940	68,244	8,127
1985	33,049	47,444	26,160	20,694	106,612	69,837	8,184
1986	32,865	48,798	26,438	20,434	110,434	71,349	8,329
1987	32,683	50,190	26,719	20,174	114,392	72,893	8,477
1988	32,501	51,622	27,003	19,654	118,493	74,470	8,628
1989	32,321	53,094	27,290	19,134	122,740	76,082	8,781
1990	32,141	54,609	27,580	18,614	128,517	77,910	8,800
1991	31,611	56,302	27,892	19,855	127,163	79,264	9,009
1992	31,089	58,048	28,208	19,512	125,824	80,642	9,224
1993	30,576	59,849	28,527	19,174	124,498	82,043	9,443
1994	30,071	61,705	28,850	18,842	123,187	83,469	9,668
1995	29,575	63,618	29,177	17,665	121,889	84,920	9,898
1996	29,073	65,587	29,820	17,508	116,730	85,748	9,623
1997	28,580	67,617	30,476	17,448	111,789	86,585	9,355
1998	28,095	69,711	31,148	18,139	107,057	87,430	9,095
1999	27,619	71,868	31,834	18,328	102,526	88,283	8,842
2000	27,150	74,093	32,535	18,516	98,186	89,144	8,596
2001	26,988	76,362	32,910	18,927	98,580	91,233	8,374
2002	26,828	78,701	33,289	19,132	98,975	93,371	8,157
2003	26,668	81,112	33,673	19,338	99,372	95,558	7,947
2004	26,510	83,596	34,061	19,748	99,770	97,797	7,741
2005	26,352	86,157	34,454	20,159	100,170	100,089	7,541
2006	26,290	88,212	34,546	20,407	103,289	101,355	7,345
2007	26,228	90,315	34,639	20,531	106,505	102,637	7,154
2008	26,167	92,469	34,732	20,656	109,821	103,935	6,968
2009	26,105	94,674	34,825	20,904	113,241	105,250	6,787
2010	26,044	96,932	34,918	21,152	116,767	106,581	6,610
2011	25,826	98,548	34,927	21,301	113,525	107,432	6,498
2012	25,609	100,191	34,937	21,375	110,373	108,289	6,388
2013	25,394	101,861	34,946	21,450	107,308	109,154	6,280
2014	25,181	103,559	34,956	21,598	104,329	110,025	6,174
2015	24,970	105,286	34,965	21,747	101,432	110,903	6,070

NOTE: For individual countries included within each region and the 20- to 24-year-old population of individual countries, see United Nation's population website, given below.

SOURCES: United Nations, Population Division, *World Population Prospects: The 2002 Revision*, Population database, <http://esa.un.org/unpp/index.asp?panel=2>; and U.S. Bureau of the Census, Population Division, 1990 Census and Projections Program, *Projections of the Resident Population by Age, Sex, Race, and Hispanic Origin: 1999 to 2100* (Washington, DC), www.census.gov/population/estimates/nation.

First university degrees and ratio of first university degrees and S&E degrees to 24-year-old population in selected locations, by region: 2000 or most recent year

Region/location	All first university degrees	All S&E	Natural sciences ^a	Mathematics/computer sciences	Agricultural sciences	Social/behavioral sciences ^b	Engineering	24-year-olds	First university degrees	NS&E degrees	Social/behavioral science degrees
											Ratio to 24-year-old population ^c
	Number								Ratio to 24-year-old population ^c		
All regions ^d	7,438,071	2,838,044	699,110	177,387	106,601	847,920	1,007,026	74,233,401	10.0	2.7	1.1
Asia ^e	2,528,607	1,176,103	275,969	23,810	42,316	356,203	477,805	46,635,694	5.4	1.8	0.8
Cambodia ^e	2,905	525	106	125	68	148	78	157,000	1.9	0.2	0.1
China (2001)	567,839	337,352	63,517	NA	19,005	35,267	219,563	19,639,000	2.9	1.5	0.2
Hong Kong (1995)	11,362	5,425	2,370	NA	NA	1,233	1,822	104,000	10.9	4.0	1.2
India (1990)	750,000	176,036	147,036	NA	NA	NA	29,000	17,700,800	4.2	1.0	NA
Indonesia (1997)	144,314	97,095	10,711	NA	NA	65,740	20,644	4,125,800	3.5	0.8	1.6
Japan (2001)	542,314	359,019	14,192	4,965	14,084	221,300	104,478	1,719,400	31.5	8.0	12.9
Kazakstan (1995)	45,536	13,252	6,779	NA	NA	952	5,521	290,600	15.7	4.2	0.3
Laos	1,762	389	63	30	100	23	173	94,000	1.9	0.4	0.0
Malaysia (1990)	10,511	4,760	1,685	NA	NA	2,198	877	406,800	2.6	0.6	0.5
Singapore (1995)	5,599	5,599	2,103	NA	NA	1,820	1,676	49,600	11.3	7.6	3.7
South Korea	209,747	96,859	13,427	9,299	5,859	11,766	56,508	783,600	26.8	10.9	1.5
Taiwan (2001)	117,430	48,624	3,684	9,391	3,200	5,762	26,587	385,894	30.4	11.1	1.5
Thailand (1995)	119,288	31,168	10,296	NA	NA	9,994	10,878	1,179,200	10.1	1.8	0.8
Middle East ^d	422,908	143,092	35,889	11,987	10,435	43,496	41,285	3,874,135	10.9	2.6	1.1
Egypt ^f (1995)	85,608	13,578	6,710	NA	NA	1,437	5,431	1,258,800	6.8	1.0	0.1
Iran	69,211	33,625	6,016	3,301	4,785	9,542	9,981	1,371,000	5.0	1.8	0.7
Israel	30,267	14,259	945	2,054	171	8,327	2,762	102,200	29.6	5.8	8.1
Jordan (1996)	12,633	3,539	1,753	NA	NA	986	800	101,800	12.4	2.5	1.0
Lebanon	11,990	3,030	674	418	28	1,433	477	63,200	19.0	2.5	2.3
Morocco (short)	24,680	7,972	3,020	960	NA	3,771	221	590,400	4.8	0.9	0.6
Morocco (long)	3,598	1,228	7	151	427	38	605	NA	NA	NA	NA
Oman	2,344	217	51	7	45	0	114	51,400	4.6	0.4	0.0
Palestine	8,807	2,615	513	758	66	746	532	55,000	16.0	3.4	1.4
Qatar	1,320	353	138	62	0	85	68	6,600	20.0	4.1	1.3
Saudi Arabia (1996)	26,641	5,879	4,201	NA	NA	828	850	389,800	6.8	1.3	0.2
Syria (1995)	16,600	4,530	1,398	NA	NA	NA	3,132	342,600	4.8	1.3	NA
Tunisia (1996)	10,327	3,198	1,719	NA	NA	760	719	191,200	5.4	1.3	0.4
Turkey (short)	118,882	49,069	8,744	4,276	4,913	15,543	15,593	1,318,000	9.0	2.5	1.2
Sub-Saharan Africa ^d	96,296	25,335	5,855	469	3,696	10,262	5,053	1,931,824	5.0	0.8	0.5
Eritrea	790	360	70	46	74	11	159	67,000	1.2	0.5	0.0
Ethiopia ^f	17,579	3,664	264	233	1,404	536	1,227	1,152,400	1.5	0.3	0.0
Ghana	7,122	2,951	916	0	362	1,177	496	376,800	1.9	0.5	0.3
Kenya ^f	15,620	3,870	1,120	71	1,494	445	740	627,000	2.5	0.5	0.1
Lesotho	425	177	54	0	16	107	0	36,600	1.2	0.2	0.3
Madagascar ^f	3,084	1,091	270	22	0	599	200	281,400	1.1	0.2	0.2
South Africa (1996)	32,957	10,920	2,937	NA	NA	6,494	1,489	861,000	3.8	0.5	0.8
Tanzania	4,208	1,071	NA	87	299	88	597	650,800	0.6	0.2	0.0
Uganda	15,301	1,591	294	56	121	816	304	426,200	3.6	0.2	0.2
Europe ^d	2,348,771	836,456	230,506	70,003	24,568	173,240	338,139	9,844,745	23.9	6.7	1.8
European Union	1,330,025	477,973	112,797	60,763	16,738	107,746	179,929	4,903,035	27.1	7.6	2.2
Austria (short)	1,662	744	0	46	0	0	698	92,400	16.4	4.5	1.1
Austria (long)	13,470	4,434	752	476	236	1,057	1,913	NA	NA	NA	NA
Belgium (long)	22,526	8,211	1,451	519	498	2,396	3,347	125,200	18.0	4.6	1.9

First university degrees and ratio of first university degrees and S&E degrees to 24-year-old population in selected locations, by region: 2000 or most recent year

Region/location	All first university degrees	All S&E	Natural sciences ^a	Mathematics/computer sciences	Agricultural sciences	Social/behavioral sciences ^b	Engineering	24-year-olds	First university degrees	NS&E degrees	Social/behavioral science degrees
											Ratio to 24-year-old population ^c
Number									Ratio to 24-year-old population ^c		
Denmark (1998).....	11,951	4,962	1,882	209	171	1,925	775	65,000	18.4	4.7	3.0
Finland (short).....	13,441	4,662	37	356	391	198	3,680	65,600	38.5	13.2	2.3
Finland (long).....	11,828	5,521	958	490	141	1,319	2,613	NA	NA	NA	NA
France (short).....	226,314	91,030	33,511	13,910	95	31,057	12,457	762,200	36.1	11.2	4.1
France (long).....	49,002	25,130	0	1,132	2,162	0	21,836	NA	NA	NA	NA
Germany (short) (2001).....	56,681	25,868	487	1,165	960	60	23,196	892,800	20.0	6.4	0.9
Germany (long) (2001).....	121,937	39,295	11,029	6,139	1,180	7,824	13,123	NA	NA	NA	NA
Greece (long).....	18,556	4,576	2,570	NA	NA	221	1,785	155,000	12.0	2.8	0.1
Iceland (short).....	1,318	354	72	58	9	122	93	4,200	31.4	5.5	2.9
Ireland.....	18,669	6,636	2,231	1,405	196	790	2,014	69,000	27.1	8.5	1.1
Italy (short).....	11,568	3,729	147	740	102	59	2,681	726,600	20.7	5.9	2.0
Italy (long).....	139,109	53,534	8,738	4,087	1,243	14,462	25,004	NA	NA	NA	NA
Netherlands (short).....	66,932	17,586	2,185	1,278	1,336	5,461	7,326	187,000	37.3	6.8	2.9
Netherlands (long).....	2,877	607	52	57	75	0	423	NA	NA	NA	NA
Portugal (short).....	2,587	425	70	NA	NA	32	323	160,200	16.3	2.8	2.3
Portugal (long).....	23,482	7,823	1,895	NA	NA	3,685	2,243	NA	NA	NA	NA
Spain (short).....	87,464	23,302	0	4,606	3,236	0	15,460	637,200	32.6	8.1	2.2
Spain (long).....	120,114	42,511	10,908	4,404	1,503	13,975	11,721	NA	NA	NA	NA
Sweden (short).....	32,573	11,475	1,256	1,263	178	1,892	6,886	102,200	33.4	9.5	2.1
Sweden (long).....	1,524	379	0	0	53	278	48	NA	NA	NA	NA
United Kingdom ^a (2001).....	274,440	95,179	32,566	18,423	2,973	20,933	20,284	696,600	39.4	10.7	3.0
European Free Trade Association.....	41,449	11,005	1,286	1,110	379	3,240	4,990	141,264	29.3	5.5	2.3
Norway (short).....	17,959	3,166	32	609	52	1,764	709	54,400	41.2	5.2	3.8
Norway (long).....	4,462	1,694	114	164	154	280	982	NA	NA	NA	NA
Switzerland (short).....	7,648	2,488	6	15	84	123	2,260	76,600	24.8	6.5	1.6
Switzerland (long).....	11,380	3,657	1,134	322	89	1,073	1,039	NA	NA	NA	NA
Central/Eastern Europe.....	977,297	347,478	116,423	8,130	7,451	62,254	153,220	4,800,446	20.4	5.9	1.3
Albania (long).....	4,350	436	37	42	50	129	178	107,600	4.0	0.3	0.1
Armenia (long).....	10,206	1,343	NA	NA	335	NA	1,008	51,600	19.8	2.6	NA
Bulgaria.....	20,166	4,798	43	409	205	3,906	235	122,400	16.5	0.7	3.2
Croatia.....	8,847	3,003	465	486	309	216	1,527	64,000	13.8	4.4	0.3
Czech Republic (short).....	10,010	3,484	258	489	129	1,828	780	174,400	14.6	4.9	1.4
Czech Republic (long).....	15,534	7,550	821	1,660	939	602	3,528	NA	NA	NA	NA
Estonia.....	2,272	289	37	21	9	87	135	20,000	11.4	1.0	0.4
Georgia.....	19,797	4,824	995	170	446	110	3,103	79,600	24.9	5.9	0.1
Hungary (short).....	30,320	4,320	0	181	1,024	0	3,115	165,200	28.4	11.9	1.2
Hungary (long).....	16,658	17,364	516	369	635	2,023	13,821	NA	NA	NA	NA
Latvia (short).....	9,051	2,374	235	347	46	1,142	604	32,600	55.7	6.4	6.1
Latvia (long).....	9,114	1,695	183	217	48	833	414	NA	NA	NA	NA
Lithuania.....	11,617	3,983	313	490	177	530	2,473	51,800	22.4	6.7	1.0
Macedonia ^a	3,180	943	147	182	94	68	452	37,800	8.4	2.3	0.2
Poland (1996).....	147,536	43,304	7,544	NA	NA	14,142	21,618	599,490	24.6	4.9	2.4
Romania (short).....	39,013	11,899	1,249	1,014	975	2,029	6,632	390,400	17.1	4.3	0.9
Romania (long).....	27,631	8,479	880	740	686	1,464	4,709	NA	NA	NA	NA
Russia (long) (1999).....	554,814	216,017	101,320	NA	NA	32,288	82,409	2,170,000	25.6	8.5	1.5

First university degrees and ratio of first university degrees and S&E degrees to 24-year-old population in selected locations, by region: 2000 or most recent year

Region/location	All first university degrees	All S&E	Natural sciences ^a	Mathematics/computer sciences	Agricultural sciences	Social/behavioral sciences ^b	Engineering	24-year-olds	First university degrees	NS&E degrees	Social/behavioral science degrees
	Number								Ratio to 24-year-old population ^c		
Serbia-Montenegro ^d	12,545	4,477	601	378	579	323	2,596	159,600	7.9	2.6	0.2
Slovak Republic (short).....	5,226	851	29	242	29	76	475	82,430	24.4	6.3	0.4
Slovak Republic (long).....	14,903	4,630	367	693	736	232	2,602	NA	NA	NA	NA
Slovenia.....	4,507	1,415	383	NA	NA	226	806	29,000	15.5	4.1	0.8
America ^d	1,907,776	622,870	140,020	64,961	24,274	259,393	134,222	11,628,603	16.4	3.1	2.2
North America.....	1,531,958	500,391	97,532	64,569	23,268	219,134	95,888	6,491,403	23.6	4.3	3.4
Canada.....	116,160	53,307	10,353	5,424	1,236	26,660	9,634	397,200	29.2	6.7	6.7
Costa Rica.....	4,393	1,074	104	214	167	264	325	70,600	6.2	1.1	0.4
Cuba.....	16,769	3,374	1,009	219	384	408	1,354	201,800	8.3	1.5	0.2
Mexico.....	135,233	42,049	1,701	9,589	3,237	3,338	24,184	2,038,406	6.6	1.9	0.2
Nicaragua (1997).....	6,282	1,965	834	NA	NA	276	855	80,397	7.8	2.1	0.3
United States.....	1,253,121	398,622	83,531	49,123	18,244	188,188	59,536	3,703,000	33.8	5.7	5.1
South America.....	375,818	122,479	42,488	392	1,006	40,259	38,334	5,137,200	7.3	1.6	0.8
Argentina (1996).....	37,878	16,106	5,369	NA	NA	7,325	3,412	672,200	5.6	1.3	1.1
Bolivia.....	15,341	5,115	563	392	1,006	997	2,157	148,000	10.4	2.8	0.7
Brazil (1996).....	245,401	78,049	32,556	NA	NA	27,421	18,072	3,300,000	7.4	1.5	0.8
Chile (1996).....	23,010	10,531	2,358	NA	NA	4,516	3,657	239,400	9.6	2.5	1.9
Colombia (1996).....	54,188	12,678	1,642	NA	NA	NA	11,036	777,600	7.0	1.6	NA
Oceania ^d	133,713	34,188	10,871	6,157	1,312	5,326	10,522	318,400	42.0	9.1	1.7
Australia (short).....	106,985	28,737	8,454	5,433	1,069	4,737	9,044	269,200	41.9	9.3	1.8
Australia (long).....	5,760	1,122	69	332	47	181	493	NA	NA	NA	NA
New Zealand (short).....	17,177	3,529	2,292	358	156	408	315	49,200	42.6	8.0	0.8
New Zealand (long).....	3,791	800	56	34	40	0	670	NA	NA	NA	NA

NA not available

NS&E natural sciences and engineering

^aIncludes physical, biological, earth, atmospheric, and ocean sciences.^bJapanese social science data also include business administration.^cNumber of degrees per 100 24-year-olds. For countries with both short and long degrees, the ratios are calculated with both short and long degrees as the numerator.^dIncludes only those locations for which relatively recent data are available.^eEngineering and agriculture degrees are long, more than 5 years.^fEngineering degrees are long.^gIncludes former colleges and polytechnics.

NOTES: NS&E degrees include natural, agricultural, and computer sciences; mathematics; and engineering. Data for first university degrees use the International Standard Classification of Education (ISCED 97), level 5A. First university degree programs in most countries are less than 5 years. However, in some countries, especially European, some level 5A degree programs are more than 5 years and noted as long. When a country has first university degrees that are less than 5 years and some more than 5 years, such as Germany, the duration is noted as short or long. An unspecified duration means less than 5 years.

SOURCES: Organisation for Economic Co-operation and Development, Center for Education Research and Innovation, *Education at a Glance 2002*; United Nations Educational, Scientific, and Cultural Organization (UNESCO), UNESCO Institute for Statistics database, <http://www.unesco.org/statistics>; Iberoamerican Network of Science and Technology Indicators (RICYT), *Principales Indicadores de Ciencia y Tecnología* (Buenos Aires, 1999); China—National Research Center for Science and Technology for Development, special tabulations, 2002; India—Department of Science and Technology, *Research and Development Statistics 1996–97* (New Delhi, 1999); Japan—Government of Japan, Ministry of Education, Culture and Science, *Monbusho Survey of Education*, special tabulations (Tokyo, 2003); Taiwan—Ministry of Education, *Educational Statistics of the Republic of China: 2002* (Taipei, 2002); Germany—Federal Statistical Office, *Prüfungen an Hochschulen 2001* (Wiesbaden, 2002); United Kingdom—Higher Education Statistics Agency special tabulations (Cheltenham, 2003); Russia—Center for Science Research and Statistics, unpublished tabulations (2001); Brazil—Ministry of Education and Culture, *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior*, unpublished tabulations, 2001; Mexico—National Association of Universities and Institutions of Higher Education, *Anuario Estadístico 2001: Población Escolar de Nivel Licenciatura en Universidades e Institutos Tecnológicos*, (Mexico, 2002); and United States—National Science Foundation, Division of Science Resources Statistics, WebCASPAR database system, <http://caspar.nsf.gov>.

Appendix table 2-34

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S&E first university degrees in selected Western and Asian countries, by field: 1975–2001

Country and field	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	
China															
All fields.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	183,241	207,405	225,312	249,337	
S&E fields.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	127,405	138,724	157,893	175,584	
Natural sciences.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9,336	9,115	8,045	8,153	
Mathematics/computer sciences.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8,604	8,974	11,115	13,079
Agricultural sciences.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13,394	13,850	14,615	14,531	
Social/behavioral sciences.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16,515	19,619	22,707	27,713	
Engineering.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79,556	87,166	101,411	112,108	
Japan															
All fields.....	313,072	326,167	339,819	356,981	374,887	378,666	386,057	382,466	369,069	372,247	373,302	376,260	382,655	382,828	
S&E fields.....	220,141	227,361	234,536	245,610	257,303	255,867	260,248	256,995	245,201	246,689	247,258	249,377	252,688	252,294	
Natural sciences.....	7,014	7,483	7,479	7,985	8,248	8,636	8,651	8,710	8,575	9,054	9,166	9,435	9,817	9,895	
Mathematics/computer sciences.....	2,490	2,529	2,755	2,703	2,829	2,918	3,152	3,045	3,148	3,180	3,532	3,379	3,572	3,493	
Agricultural sciences.....	9,480	9,965	10,455	10,937	12,794	11,182	11,555	11,016	10,658	11,189	10,928	10,991	11,266	10,584	
Social/behavioral sciences.....	134,645	139,258	143,416	151,519	158,023	158,394	160,520	159,450	151,996	151,626	151,072	151,056	150,956	150,819	
Engineering.....	66,512	68,126	70,431	72,466	75,409	74,737	76,370	74,774	70,824	71,640	72,560	74,516	77,077	77,503	
South Korea															
All fields.....	34,725	34,725	37,374	41,447	45,964	50,973	56,528	62,688	77,272	90,888	118,584	137,848	149,582	161,983	
S&E fields.....	14,633	14,486	15,412	17,070	18,931	21,022	23,744	27,037	36,327	37,973	45,079	50,517	53,093	58,057	
Natural sciences.....	3,111	2,713	2,889	3,165	3,468	3,800	4,164	4,562	5,202	6,241	8,112	6,913	7,082	7,673	
Mathematics/computer sciences.....	398	398	464	563	683	828	1,005	1,393	1,589	1,918	2,888	2,839	3,149	5,824	
Agricultural sciences.....	2,546	2,680	2,822	2,971	3,128	3,293	3,837	4,493	4,603	4,327	4,068	5,483	6,395	8,050	
Social/behavioral sciences.....	1,423	1,423	1,379	1,452	1,528	1,609	1,694	1,783	4,297	3,297	6,472	7,670	8,867	9,619	
Engineering.....	7,155	7,272	7,858	8,919	10,124	11,492	13,044	14,806	20,636	22,190	23,539	27,612	27,600	26,891	
United States															
All fields.....	928,228	929,784	931,340	939,109	946,877	963,778	980,679	985,778	990,877	997,205	1,003,532	1,016,852	1,030,171	1,069,084	
S&E fields.....	303,798	303,480	303,162	304,977	306,792	312,182	317,571	324,922	332,273	331,900	331,526	327,174	322,821	330,248	
Natural sciences.....	76,783	74,849	72,915	70,551	68,186	66,282	64,378	63,815	63,251	61,226	59,200	56,739	54,278	55,518	
Mathematics/computer sciences.....	20,729	20,700	20,670	23,538	26,406	31,875	37,344	45,927	54,510	55,476	55,422	51,360	46,277	43,236	
Agricultural sciences.....	16,396	16,801	17,205	16,541	15,876	15,202	14,528	13,218	11,907	10,716	9,524	9,053	8,582	8,507	
Social/behavioral sciences.....	148,533	143,718	138,903	135,755	132,607	130,629	128,651	126,842	125,033	128,484	131,935	139,336	146,737	158,421	
Engineering.....	41,357	47,413	53,469	58,593	63,717	68,194	72,670	75,121	77,572	75,999	74,425	70,686	66,947	64,567	
United Kingdom															
All fields.....	55,448	56,946	60,275	63,558	65,903	68,027	69,321	71,500	73,953	72,707	72,000	71,431	70,866	70,306	
S&E fields.....	32,259	31,189	33,192	35,710	36,928	38,133	37,633	38,722	40,195	41,281	40,552	39,124	39,874	40,529	
Natural sciences.....	10,900	11,136	11,247	11,618	11,884	12,088	12,410	12,895	13,327	12,923	12,502	11,417	12,209	12,048	
Mathematics/computer sciences.....	2,938	2,888	2,866	2,896	3,060	3,123	3,455	3,770	4,136	4,494	4,543	4,466	4,541	4,509	
Agricultural sciences.....	863	950	1,089	1,184	1,220	1,415	1,395	1,417	1,483	1,447	1,447	1,342	1,370	1,358	
Social/behavioral sciences.....	9,612	8,641	9,928	11,406	11,657	11,928	10,328	10,507	10,660	11,912	12,427	12,036	12,481	12,986	
Engineering.....	7,946	7,574	8,062	8,606	9,107	9,579	10,045	10,133	10,589	10,505	9,633	9,863	9,273	9,628	
Germany															
All first university degrees combined															
All fields.....	97,399	95,054	104,175	101,391	110,930	111,458	109,666	118,163	124,027	127,413	131,969	134,582	138,955	141,815	
S&E fields.....	59,225	59,743	64,035	62,643	60,951	60,885	61,030	64,790	67,161	69,100	71,542	75,166	78,233	80,757	
Natural sciences.....	7,899	8,265	8,391	8,306	8,084	8,114	8,748	9,981	10,018	10,048	10,312	10,327	10,611	11,571	
Mathematics/computer sciences.....	5,334	5,641	5,486	5,049	4,697	4,528	4,361	4,356	4,306	4,173	4,272	4,590	4,729	4,847	
Agricultural sciences.....	2,282	2,161	2,324	2,668	3,045	3,480	3,763	4,148	4,374	4,468	4,390	4,792	4,644	4,578	
Social/behavioral sciences.....	28,169	28,131	31,033	31,025	27,907	27,752	26,585	25,756	26,383	27,735	29,236	31,516	34,006	35,906	
Engineering.....	15,541	15,545	16,801	15,595	17,218	17,011	17,573	20,549	22,080	22,676	23,332	23,941	24,243	23,855	
3–5-year degree															
All fields.....	31,865	29,258	33,315	30,781	34,070	34,675	35,425	39,725	41,893	44,649	48,003	50,362	52,753	53,661	
S&E fields.....	26,530	24,193	26,615	25,174	27,072	27,449	27,529	29,133	29,799	31,929	34,074	36,830	39,080	40,137	
Natural sciences.....	304	117	106	185	328	588	535	533	464	486	549	593	599	677	
Mathematics/computer sciences.....	268	203	175	217	492	504	463	493	645	842	1,009	1,175	1,336	1,475	
Agricultural sciences.....	719	666	749	956	1,178	1,295	1,413	1,388	1,390	1,417	1,474	1,587	1,565	1,588	
Social/behavioral sciences.....	14,113	12,548	14,221	14,050	13,674	14,081	13,774	13,016	12,622	13,779	15,061	16,876	19,031	19,910	
Engineering.....	11,126	10,659	11,364	9,766	11,400	10,981	11,344	13,703	14,678	15,405	15,981	16,599	16,549	16,487	
6–7-year degree															
All fields.....	65,534	65,796	70,860	70,610	76,860	76,783	74,241	78,438	82,134	82,764	83,966	84,220	86,202	88,154	
S&E fields.....	32,695	35,550	37,420	37,469	33,879	33,436	33,501	35,657	37,362	37,171	37,468	38,336	39,153	40,620	
Natural sciences.....	7,595	8,148	8,285	8,121	7,756	7,526	8,213	9,448	9,554	9,562	9,763	9,734	10,012	10,894	
Mathematics/computer sciences.....	5,066	5,438	5,311	4,832	4,205	4,024	3,898	3,863	3,661	3,331	3,263	3,415	3,393	3,372	
Agricultural sciences.....	1,563	1,495	1,575	1,712	1,867	2,185	2,350	2,760	2,984	3,051	2,916	3,205	3,079	2,990	
Social/behavioral sciences.....	14,056	15,583	16,812	16,975	14,233	13,671	12,811	12,740	13,761	13,956	14,175	14,640	14,975	15,996	
Engineering.....	4,415	4,886	5,437	5,829	5,818	6,030	6,229	6,846	7,402	7,271	7,351	7,342	7,694	7,368	

Appendix table 2-34

(Page 2 of 2)

S&E first university degrees in selected Western and Asian countries, by field: 1975–2001

Country and field	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
China													
All fields.....	275,056	273,684	262,088	298,438	347,068	310,291	325,484	353,566	381,647	404,666	440,935	495,624	567,839
S&E fields.....	173,681	181,771	190,805	193,088	223,447	235,313	216,555	281,245	296,723	322,769	359,478	330,061	337,352
Natural sciences.....	7,802	6,598	5,580	11,087	24,206	25,509	21,027	39,113	40,213	42,351	49,214	52,934	63,517
Mathematics/computer sciences.....	13,408	13,847	14,301	12,520	12,520	12,520	12,520	NA	NA	NA	NA	NA	NA
Agricultural sciences.....	15,014	14,542	14,085	16,994	15,445	16,365	13,933	16,559	16,525	17,453	19,154	18,229	19,005
Social/behavioral sciences.....	28,728	32,163	36,009	31,656	29,622	32,075	31,641	50,134	58,095	67,611	78,205	51,439	35,267
Engineering.....	108,729	114,620	120,830	120,831	141,654	148,844	137,434	175,439	181,890	195,354	212,905	207,459	219,563
Japan													
All fields.....	376,688	400,103	428,079	437,878	445,774	461,898	493,277	512,814	524,512	529,606	532,436	538,683	545,512
S&E fields.....	247,643	263,985	284,617	292,085	295,743	307,159	330,210	341,792	348,897	352,289	350,535	353,465	359,019
Natural sciences.....	9,900	9,866	10,452	10,386	10,757	11,460	12,089	12,896	13,386	13,521	13,662	13,300	14,192
Mathematics/computer sciences.....	3,395	3,554	3,765	3,790	4,221	4,574	4,884	5,132	5,103	5,174	4,906	4,941	4,965
Agricultural sciences.....	10,252	11,733	12,282	12,284	13,021	13,361	14,970	15,157	13,838	15,698	14,150	15,562	14,084
Social/behavioral sciences.....	147,087	157,477	170,721	177,240	179,338	186,580	200,875	208,143	213,619	215,385	214,377	216,506	221,300
Engineering.....	77,009	81,355	87,397	88,385	88,406	91,184	97,392	100,464	102,951	102,511	103,440	103,156	104,478
South Korea													
All fields.....	166,845	165,916	175,586	178,632	208,834	183,372	184,214	190,390	196,566	204,390	209,444	214,498	NA
S&E fields.....	58,789	61,477	73,011	76,736	78,830	81,218	84,350	87,644	91,278	91,296	94,078	96,859	NA
Natural sciences.....	8,249	8,514	9,703	11,828	11,634	11,443	11,828	12,175	12,532	14,302	13,865	13,427	NA
Mathematics/computer sciences.....	6,274	6,676	7,547	8,229	8,502	8,784	12,351	13,220	14,151	10,394	9,847	9,299	NA
Agricultural sciences.....	8,027	8,005	6,586	6,628	7,843	9,281	7,767	7,193	6,662	4,831	5,345	5,859	NA
Social/behavioral sciences.....	8,098	10,211	18,483	18,251	17,808	17,376	16,955	16,789	16,624	16,624	14,195	11,766	NA
Engineering.....	28,141	28,071	30,692	31,800	33,043	34,334	35,449	38,267	41,309	45,145	50,827	56,508	NA
United States													
All fields.....	1,107,997	1,143,638	1,179,278	1,176,857	1,174,436	1,177,126	1,179,815	1,183,202	1,186,589	1,199,579	NA	1,253,121	NA
S&E fields.....	337,675	351,855	366,035	372,092	378,148	381,411	384,674	386,578	388,482	390,618	NA	398,622	NA
Natural sciences.....	56,757	61,219	65,680	70,973	76,265	79,100	81,934	83,402	84,869	86,706	NA	83,531	NA
Mathematics/computer sciences.....	40,194	39,814	39,433	39,027	38,620	38,121	37,621	37,869	38,116	39,768	NA	49,123	NA
Agricultural sciences.....	8,432	10,032	11,632	13,106	14,580	15,484	16,388	16,875	17,361	17,967	NA	18,244	NA
Social/behavioral sciences.....	170,105	178,345	186,585	185,949	185,312	185,465	185,617	185,701	185,784	185,263	NA	188,188	NA
Engineering.....	62,187	62,446	62,705	63,038	63,371	63,243	63,114	62,733	62,352	60,914	NA	59,536	NA
United Kingdom													
All fields.....	73,655	77,163	79,637	178,674	196,818	214,961	340,585	251,248	258,753	261,212	263,671	274,440	272,664
S&E fields.....	41,253	39,514	40,731	72,000	75,285	79,948	83,843	88,606	90,820	90,625	92,377	95,309	95,179
Natural sciences.....	11,505	12,285	12,434	18,400	21,065	24,116	27,609	28,943	31,223	31,478	32,226	33,625	32,566
Mathematics/computer sciences.....	4,528	4,607	5,223	9,800	10,583	11,429	12,343	13,280	13,000	13,930	14,630	17,118	18,423
Agricultural sciences.....	1,343	1,301	1,212	1,400	1,652	2,117	2,300	2,572	2,796	2,760	2,857	2,906	2,973
Social/behavioral sciences.....	14,057	11,580	12,123	23,600	22,149	20,786	19,508	20,493	20,784	19,883	20,652	21,168	20,933
Engineering.....	9,820	9,741	9,739	18,800	19,836	21,498	22,083	23,318	23,017	22,574	22,012	20,492	20,284
Germany													
All first university degrees combined													
All fields.....	145,087	147,607	152,919	157,911	97,399	97,399	97,399	97,399	212,970	202,635	197,151	190,076	182,427
S&E fields.....	85,961	89,257	92,324	95,297	98,304	101,464	104,789	108,290	111,923	106,652	99,079	94,535	89,990
Natural sciences.....	12,473	13,190	13,803	13,925	14,116	14,311	14,507	14,707	14,909	13,324	12,390	11,467	10,543
Mathematics/computer sciences.....	5,306	5,725	6,828	6,970	7,718	8,546	9,463	10,479	11,603	10,949	10,541	9,864	9,187
Agricultural sciences.....	4,894	4,920	4,953	4,815	4,823	4,831	4,839	4,847	4,855	4,832	4,992	4,935	4,878
Social/behavioral sciences.....	37,038	38,119	37,552	42,027	44,223	46,401	48,563	50,714	52,855	48,042	46,013	43,318	40,622
Engineering.....	26,250	27,303	29,188	27,560	27,424	27,376	27,416	27,544	27,701	29,505	25,143	24,952	24,760
3–5-year degree													
All fields.....	54,631	55,852	58,855	60,588	63,337	66,212	69,216	72,357	75,641	71,307	70,126	68,139	66,151
S&E fields.....	40,880	41,737	40,922	43,759	43,618	43,554	43,565	43,650	43,807	41,721	41,092	40,351	39,609
Natural sciences.....	689	645	678	813	777	743	710	679	649	573	615	539	463
Mathematics/computer sciences.....	1,603	1,881	2,186	2,341	2,488	2,645	2,812	2,989	3,177	2,833	2,881	2,960	3,038
Agricultural sciences.....	2,081	2,082	2,230	2,194	2,242	2,292	2,342	2,394	2,447	2,370	2,472	2,526	2,580
Social/behavioral sciences.....	20,095	20,336	19,034	21,656	22,254	22,868	23,500	24,148	24,815	22,299	21,322	19,654	17,985
Engineering.....	16,412	16,793	16,794	16,755	15,856	15,006	14,201	13,440	12,719	13,646	13,802	14,673	15,543
6–7-year degree													
All fields.....	90,456	91,755	94,064	97,323	117,636	125,706	132,451	138,673	137,329	131,328	127,025	121,937	116,276
S&E fields.....	45,081	47,520	51,402	51,538	54,686	57,910	61,223	64,640	68,116	64,931	57,987	54,184	50,381
Natural sciences.....	11,784	12,545	13,125	13,112	13,339	13,568	13,797	14,028	14,260	12,751	11,775	10,928	10,080
Mathematics/computer sciences.....	3,703	3,844	4,642	4,629	5,229	5,901	6,651	7,490	8,426	8,116	7,660	6,905	6,149
Agricultural sciences.....	2,813	2,838	2,723	2,621	2,581	2,539	2,496	2,453	2,408	2,462	2,520	2,409	2,298
Social/behavioral sciences.....	16,943	17,783	18,518	20,371	21,969	23,533	25,064	26,565	28,040	25,743	24,691	23,664	22,637
Engineering.....	9,838	10,510	12,394	10,805	11,567	12,370	13,215	14,104	14,982	15,859	11,341	10,279	9,217

SOURCES: China—National Research Center for Science and Technology for Development, unpublished tabulations; Japan—Government of Japan, Ministry of Education, Culture and Science, *Monbusho Survey of Education*, annual series (Tokyo, 2001); South Korea—Ministry of Education, *Statistical Yearbook of Education*, annual series (Seoul) various years and Organization for Economic Co-operation and Development, Center for Education Research and Innovation, *Education at a Glance 2002*; Taiwan—Ministry of Education, *Educational Statistics of the Republic of China*, annual series (Taipei, 2000); Germany—Federal Statistical Office, *Prüfungen an Hochschulen 2001*, annual series (Wiesbaden, 2002); United Kingdom—Higher Education Statistics Agency, special tabulations (Cheltenham, 2003); and United States—National Science Foundation, Division of Science Resources Statistics, WebCASPAR database system, <http://caspar.nsf.gov>.

First university degrees and ratio of first university degrees and S&E degrees to 24-year-old population, by sex, in selected locations, by region: 2000 or most recent year

Sex, region and location	All first university degrees	All S&E	Natural sciences ^a	Mathematics/ computer sciences	Agricultural sciences	Social/ behavioral sciences ^b	Engineering	24-year-olds	First university degrees	NS&E degrees	Social/ behavioral
											degrees
									Ratio to 24-year-old population ^c		
Male											
Asia											
Cambodia.....	1,817	415	67	98	64	109	77	77,800	2.3	0.39	0.14
Japan (2001).....	335,850	275,451	10,110	3,761	7,854	160,525	93,201	880,400	38.1	13.05	18.23
Kyrgyzstan	7,915	3,281	805	171	297	710	1,298	44,000	18.0	5.84	1.61
Laos.....	1,135	314	42	20	81	15	156	47,400	2.4	0.63	0.03
South Korea.....	113,573	63,881	6,843	4,289	3,805	6,729	42,215	403,200	28.2	14.17	1.67
Taiwan (2001)	59,091	35,661	2,466	6,268	1,482	2,225	23,220	197,531	29.9	16.93	1.13
Middle East											
Iran	37,530	20,103	2,529	1,736	2,787	4,776	8,275	700,600	5.4	2.19	0.68
Israel.....	11,625	6,986	413	1,344	85	3,034	2,110	52,600	22.1	7.51	5.77
Lebanon.....	4,778	1,309	348	254	10	326	371	31,800	15.0	3.09	1.03
Morocco.....	15,863	5,529	1,886	800	337	2,365	141	300,600	5.3	1.05	0.79
Oman.....	1,353	146	36	0	5	0	105	29,200	4.6	0.50	0.00
Palestine.....	4,550	1,443	195	381	49	415	403	28,400	16.0	3.62	1.46
Qatar.....	353	158	46	15	0	29	68	3,600	9.8	3.58	0.81
Turkey.....	69,775	31,118	4,397	2,469	3,046	9,262	11,944	673,600	10.4	3.24	1.38
Sub-Saharan Africa											
Eritrea.....	676	330	60	44	64	10	152	33,400	2.0	0.96	0.03
Ethiopia.....	13,122	3,254	234	202	1,240	426	1,152	574,400	2.3	0.49	0.07
Ghana.....	5,232	2,227	694	0	294	801	438	188,600	2.8	0.76	0.42
Kenya.....	9,151	2,821	861	57	1,023	226	654	312,000	2.9	0.83	0.07
Uganda.....	12,931	892	240	40	92	322	198	212,600	6.1	0.27	0.15
Tanzania.....	3,015	918	NA	73	237	64	544	323,200	0.9	0.26	0.02
Europe											
Austria.....	7,939	3,487	407	442	138	355	2,145	47,600	16.7	6.58	0.75
Belgium.....	11,273	5,052	829	391	292	859	2,681	63,600	17.7	6.59	1.35
Denmark.....	3,277	1,291	238	145	85	800	23	33,200	9.9	1.48	2.41
Finland.....	10,319	6,940	432	542	308	521	5,137	33,400	30.9	19.22	1.56
France.....	119,281	64,647	16,616	10,002	1,031	10,427	26,571	388,600	30.7	13.95	2.68
Germany (2001).....	96,418	60,037	5,536	6,584	2,218	21,839	23,860	460,200	21.0	8.30	4.75
Hungary.....	18,810	6,314	278	461	868	868	3,839	84,800	22.2	6.42	1.02
Iceland.....	469	192	30	45	9	38	70	2,200	21.3	7.00	1.73
Ireland.....	8,640	3,824	955	887	130	213	1,639	35,200	24.5	10.26	0.61
Italy.....	66,568	32,883	3,910	2,354	946	5,350	20,323	370,200	18.0	7.44	1.45
Netherlands.....	32,084	13,001	1,440	1,121	960	2,692	6,788	95,400	33.6	10.81	2.82
Norway.....	8,041	3,147	77	657	108	1,071	1,234	27,800	28.9	7.47	3.85
Spain.....	85,347	37,984	4,696	5,919	2,717	4,829	19,823	325,600	26.2	10.18	1.48
Sweden.....	13,551	7,333	513	740	121	772	5,187	52,400	25.9	12.52	1.47
Switzerland.....	11,084	4,581	775	281	134	421	2,970	39,200	28.3	10.61	1.07
United Kingdom ^d (1999).....	121,676	54,988	15,448	10,754	1,262	8,766	18,758	357,800	34.0	12.92	2.45
Central/Eastern Europe											
Czech Republic.....	12,441	7,142	510	1,899	660	945	3,128	89,000	14.0	6.96	1.06
Albania.....	1,155	192	28	28	14	86	36	55,200	2.1	0.19	0.16
Armenia.....	4,662	1,047	NA	NA	246	NA	801	26,000	17.9	4.03	NA
Bulgaria.....	6,118	1,781	43	159	122	1,330	127	62,600	9.8	0.72	2.12

First university degrees and ratio of first university degrees and S&E degrees to 24-year-old population, by sex, in selected locations, by region: 2000 or most recent year

Sex, region and location	All first university degrees	All S&E	Natural sciences ^a	Mathematics/computer sciences	Agricultural sciences	Social/behavioral sciences ^b	Engineering	24-year-olds	First university degrees	NS&E degrees	Social/behavioral science degrees
											Ratio to 24-year-old population ^c
Number									Ratio to 24-year-old population ^c		
Croatia	7,866	2,607	401	429	271	191	1,315	32,600	24.1	7.41	0.59
Estonia	800	167	10	13	8	18	118	10,200	7.8	1.46	0.18
Georgia	8,800	2,770	300	43	225	27	2,175	40,400	21.8	6.79	0.07
North America											
Canada	51,805	25,434	4,470	3,886	644	8,937	7,497	210,000	24.7	7.86	4.26
Costa Rica	1,749	702	58	149	127	107	261	36,200	4.8	1.64	0.30
Cuba	5,702	1,802	208	155	267	136	1,036	76,200	7.5	2.19	0.18
Mexico	66,488	28,961	867	5,103	2,499	2,259	18,233	972,000	6.8	2.75	0.23
United States	536,158	197,669	37,966	33,045	9,780	69,558	47,320	1,889,200	28.4	6.78	3.68
Oceania											
Australia	48,187	18,178	3,942	4,214	657	1,872	7,493	137,600	35.0	11.85	1.36
New Zealand	7,572	2,403	1,259	265	137	110	632	25,400	29.8	9.03	0.43
Female											
Asia											
Cambodia	745	110	39	27	4	39	1	79,200	0.9	0.09	0.05
Japan (2001)	209,632	83,826	4,082	1,204	6,488	60,775	11,277	839,000	25.0	2.75	7.24
Kyrgyzstan	8,839	3,229	1,231	303	65	903	727	43,600	20.3	5.33	2.07
Laos	591	75	21	10	19	8	17	46,600	1.3	0.14	0.02
South Korea	100,925	32,978	6,584	5,010	2,054	5,037	14,293	380,400	26.5	7.35	1.32
Taiwan (2001)	58,339	12,963	1,218	3,123	1,718	3,537	3,367	187,363	31.1	5.03	1.89
Middle East											
Iran	31,681	13,522	3,487	1,565	1,998	4,766	1,706	670,400	4.7	1.31	0.71
Israel	18,642	7,273	532	710	86	5,293	652	49,600	37.6	3.99	10.67
Lebanon	6,616	1,650	326	164	18	1,036	106	31,400	21.1	1.96	3.30
Morocco	12,415	3,229	1,141	311	90	1,444	243	290,000	4.3	0.62	0.50
Oman	991	71	15	7	40	0	9	22,200	4.5	0.32	0.00
Palestine	4,093	1,172	318	377	17	331	129	26,600	15.4	3.16	1.24
Qatar	967	195	92	47	0	56	0	3,000	32.2	4.63	1.87
Turkey	49,107	17,951	4,347	1,807	1,867	6,281	3,649	644,400	7.6	1.81	0.97
Sub-Saharan Africa											
Eritrea	114	30	10	2	10	1	7	33,600	0.3	0.09	0.00
Ethiopia	3,725	410	30	31	164	110	75	578,000	0.6	0.05	0.02
Ghana	1,890	724	222	0	68	376	58	188,200	1.0	0.18	0.20
Kenya	5,470	1,049	259	14	471	219	86	315,000	1.7	0.26	0.07
Uganda	2,370	699	54	16	29	494	106	213,800	1.1	0.10	0.23
Tanzania	1,079	153	NA	14	62	24	53	327,600	0.3	0.04	0.01
Europe											
Austria	7,193	1,691	345	80	98	702	466	44,800	16.1	2.21	1.57
Belgium	11,253	3,159	622	128	206	1,537	666	61,600	18.3	2.63	2.50
Denmark	3,458	1,073	221	64	86	684	18	31,800	10.9	1.22	2.15
Finland	14,950	3,243	563	304	224	996	1,156	32,200	46.4	6.98	3.09
France	156,035	51,513	16,895	5,040	1,226	20,630	7,722	373,600	41.8	8.27	5.52
Germany (2001)	86,909	29,953	5,007	2,603	2,660	16,341	3,342	432,600	20.1	3.15	3.78
Hungary	28,168	3,309	238	89	791	1,155	1,036	81,000	34.8	2.66	1.43
Iceland	971	177	57	13	0	84	23	2,000	48.6	4.65	4.20
Ireland	10,767	2,856	1,276	518	66	577	419	33,800	31.9	6.74	1.71

First university degrees and ratio of first university degrees and S&E degrees to 24-year-old population, by sex, in selected locations, by region: 2000 or most recent year

Sex, region and location	All first university degrees	All S&E	Natural sciences ^a	Mathematics/computer sciences	Agricultural sciences	Social/behavioral sciences ^b	Engineering	24-year-olds	First university degrees	NS&E degrees	Social/behavioral science degrees
Italy.....	84,109	24,380	4,975	2,473	399	9,171	7,362	356,400	23.6	4.27	2.57
Netherlands.....	37,725	5,192	797	214	451	2,769	961	91,600	41.2	2.65	3.02
Norway.....	14,380	1,707	63	116	98	973	457	26,600	54.1	2.76	3.66
Spain.....	122,231	27,829	6,212	3,091	2,022	9,146	7,358	311,600	39.2	6.00	2.94
Sweden.....	20,546	4,521	743	523	110	1,398	1,747	49,800	41.3	6.27	2.81
Switzerland.....	7,944	1,564	365	56	39	775	329	37,400	21.2	2.11	2.07
United Kingdom ^d (1999).....	141,995	37,389	16,778	3,876	1,595	11,886	3,254	338,800	41.9	7.53	3.51
Central/Eastern Europe											
Czech Republic.....	13,103	3,892	569	250	408	1,485	1,180	85,400	15.3	2.82	1.74
Albania.....	669	236	9	14	28	43	142	52,400	1.3	0.37	0.08
Armenia.....	5,544	296	0	0	89	0	207	25,600	21.7	1.16	0.00
Bulgaria.....	14,048	3,046	29	250	83	2,576	108	59,800	23.5	0.79	4.31
Croatia.....	981	396	64	57	38	25	212	31,400	3.1	1.18	0.08
Estonia.....	1,472	122	27	8	1	69	17	9,800	15.0	0.54	0.70
Georgia.....	10,997	2,054	695	127	221	83	928	39,200	28.1	5.03	0.21
North America											
Canada.....	75,326	27,916	5,883	1,538	592	17,723	2,180	200,600	37.6	5.08	8.83
Costa Rica.....	2,644	372	46	65	40	157	64	34,600	7.6	0.62	0.45
Cuba.....	11,067	958	187	64	117	272	318	73,000	15.2	0.94	0.37
Mexico.....	68,745	13,088	834	4,486	738	1,079	5,951	1,007,000	6.8	1.19	0.11
United States.....	716,963	200,953	45,565	16,078	8,464	118,630	12,216	1,822,200	39.3	4.52	6.51
Oceania											
Australia.....	64,558	11,681	4,581	1,551	459	3,046	2,044	131,600	49.1	6.56	2.31
New Zealand.....	13,396	1,926	1,089	127	59	298	353	24,000	55.8	6.78	1.24

NA not available

NS&E natural sciences and engineering

^aIncludes physical, biological, earth, atmospheric, and ocean sciences.^bJapanese social science data also include business administration.^cNumber of degrees per 100 24-year-olds.^dIncludes former colleges and polytechnics.

NOTES: NS&E degrees include natural, agricultural, and computer sciences; mathematics; and engineering. Data for first university degrees use the International Standard Classification of Education (ISCED 97), level 5A. Long (more than 5 years) and short (less than 5 years) first university degrees are combined.

SOURCES: Organisation for Economic Co-operation and Development, Center for Education Research and Innovation, *Education at a Glance 2002*; United Nations Educational, Scientific, and Cultural Organization (UNESCO), UNESCO Institute for Statistics database, <http://www.unesco.org/statistics>; Japan—Government of Japan, Ministry of Education, Culture and Science, *Monbusho Survey of Education* (Tokyo) and special tabulations 2003; Taiwan—Ministry of Education, *Educational Statistics of the Republic of China: 2002* (Taipei, 2002); Germany—Federal Statistical Office, *Prüfungen an Hochschulen 2001* (Wiesbaden, 2002); United Kingdom—Higher Education Statistics Agency (Cheltenham, 2003), special tabulations; Russia—Center for Science Research and Statistics, special tabulations (2001); Mexico—National Association of Universities and Institutions of Higher Education, *Anuario Estadístico 2001: Población Escolar de Nivel Licenciatura en Universidades e Institutos Tecnológicos, 2002*; and United States—National Science Foundation, Division of Science Resources Statistics, WebCASPAR database system, <http://caspar.nsf.gov>.

Appendix table 2-36

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Earned S&E doctoral degrees in selected regions and locations, by field: 2000 or most recent year

Region and location	All doctoral degrees	All S&E	Natural sciences ^a	Mathematics/ computer sciences	Agricultural sciences	Social/ behavioral sciences	Engineering	Non-S&E
All regions	207,383	114,337	46,715	7,389	7,761	20,054	32,418	93,046
Asia ^b	47,489	24,409	8,658	373	3,085	1,467	10,826	23,080
China (2001)	13,001	8,153	2,655	NA	536	621	4,341	4,848
India (1997).....	10,408	4,764	3,498	NA	968	NA	298	5,644
Japan ^c (2001).....	16,078	7,401	1,586	NA	1,241	610	3,964	8,677
Kyrgyzstan	396	256	161	19	8	20	48	140
South Korea.....	6,143	2,865	614	247	242	108	1,654	3,278
Taiwan (2001)	1,463	970	144	107	90	108	521	493
Middle East ^b	5,759	2,902	1,307	241	265	495	594	2,857
Iran	1,609	305	104	33	33	59	76	1,304
Israel	688	497	271	58	23	68	77	191
Morocco.....	1,338	1,039	689	89	0	152	109	299
Turkey.....	2,124	1,061	243	61	209	216	332	1,063
Sub-Saharan Africa ^b	2,064	679	253	0	142	143	141	1,385
Ghana	733	211	71	NA	29	29	82	522
Kenya.....	1,331	468	182	NA	113	114	59	863
Europe ^b	97,840	53,119	23,567	4,412	2,577	8,927	13,636	44,721
European Union.....	72,763	39,220	18,634	4,057	1,654	6,003	8,872	33,543
Austria	1,790	913	321	91	30	131	340	877
Belgium	1,147	789	479	NA	48	109	153	358
Denmark.....	913	462	207	NA	69	NA	186	451
Finland.....	1,891	974	285	61	36	218	374	917
France.....	9,903	6,577	3,959	800	22	876	920	3,326
Germany (2001).....	24,796	11,803	5,974	956	472	2,181	2,220	12,993
Greece.....	932	367	128	44	36	66	93	565
Ireland.....	501	325	214	19	16	27	49	176
Italy.....	3,557	1,731	55	704	163	92	717	1,826
Netherlands	2,483	1,309	464	0	183	242	420	1,174
Portugal	1,586	871	186	149	35	212	289	715
Spain	6,007	2,730	1,438	323	144	417	408	3,277
Sweden.....	3,049	1,848	540	149	65	253	841	1,201
United Kingdom (2001).....	14,208	8,521	4,384	761	335	1,179	1,862	5,687
European Free Trade Association	3,391	1,418	729	129	76	149	335	1,973
Norway	658	195	7	NA	36	77	75	463
Switzerland.....	2,733	1,223	722	129	40	72	260	1,510
Central/Eastern Europe.....	21,686	12,481	4,204	226	847	2,775	4,429	9,205
Bulgaria	308	158	51	17	24	8	58	150
Croatia.....	262	191	62	14	13	43	59	71
Czech Republic	895	606	183	143	45	51	184	289
Estonia.....	127	37	19	3	2	4	9	90
Georgia	467	287	91	NA	15	120	61	180
Hungary	717	412	162	32	32	83	103	305
Lithuania.....	217	208	34	8	7	45	114	9
Russia.....	18,274	10,409	3,567	NA	676	2,415	3,751	7,865
Serbia and Montenegro.....	419	173	35	9	33	6	90	246

Appendix table 2-36

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Earned S&E doctoral degrees in selected regions and locations, by field: 2000 or most recent year

Region and location	All doctoral degrees	All S&E	Natural sciences ^a	Mathematics/ computer sciences	Agricultural sciences	Social/ behavioral sciences	Engineering	Non-S&E
America ^b	50,544	31,198	12,015	2,188	1,512	8,738	6,745	19,346
North/Central America.....	46,475	28,590	10,824	2,095	1,039	8,421	6,211	17,885
Canada.....	3,978	2,249	718	184	112	656	579	1,729
Costa Rica.....	760	204	14	61	32	96	1	556
Mexico.....	993	628	276	18	47	158	129	365
United States (2001).....	40,744	25,509	9,816	1,832	848	7,511	5,502	15,235
South America.....	4,069	2,608	1,191	93	473	317	534	1,461
Argentina (1996).....	408	382	218	8	97	18	41	26
Brazil (1999).....	3,604	2,176	924	85	376	299	492	1,428
Chile (1996).....	57	50	49	NA	NA	NA	1	7
Oceania								
Australia.....	3,687	2,030	915	175	180	284	476	1,657

NA not available

^aIncludes physical, biological, earth, atmospheric, and ocean sciences.^bIncludes only those locations for which relatively recent data are available.^cIncludes thesis doctorates, called *ronbun hakase*, earned by employees in industry.

NOTES: Data for doctoral degrees use the International Standard Classification of Education (ISCED 97), level 6. S&E data do not include health fields.

SOURCES: Organisation for Economic Co-operation and Development, Center for Education Research and Innovation, *Education at a Glance 2002*; United Nations Educational, Scientific, and Cultural Organization (UNESCO), UNESCO Institute for Statistics database, <http://www.unesco.org/statistics>; Iberoamerican Network of Science and Technology Indicators (RICYT), *Principales Indicadores de Ciencia y Tecnología* (Buenos Aires, 1999); China—National Research Center for Science and Technology for Development, special tabulations (2002); India—Department of Science and Technology, *Research and Development Statistics 1996–97* (New Delhi, 1999); Japan—Government of Japan, Ministry of Education, Culture and Science, *Monbusho Survey of Education*, special tabulations (Tokyo, 2003), and Division of Higher Education, special tabulations, 2003; Taiwan—Ministry of Education, *Educational Statistics of the Republic of China: 2002* (Taipei, 2002); France—National Ministry of Education and Research, *Rapport sur les Études Doctorales* (Paris, 2001); Germany—Federal Statistical Office, *Prüfungen an Hochschulen 2001* (Wiesbaden, 2002); United Kingdom—Higher Education Statistics Agency, special tabulations (Cheltenham, 2003), Russia—Center for Science Research and Statistics, unpublished tabulations, 2001; Argentina and Chile—RICYT; Brazil—Ministry of Education and Culture, Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, unpublished tabulations, 2001; Mexico—National Association of Universities and Institutions of Higher Education, *Anuario Estadístico 2001: Población Escolar de Posgrado* (Mexico, 2002); and United States—National Science Foundation, Division of Science Resources Statistics, *Science and Engineering Doctorate Awards: 2001*, NSF 03-300 (Arlington, VA, 2002).

Appendix table 2-37

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Earned S&E doctoral degrees in selected regions and locations, by sex and field: 2000 or 2001

Sex, region, and location	All fields	All S&E	Natural sciences ^a	Mathematics/ computer sciences	Agricultural sciences	Social/ behavioral sciences	Engineering	Non-S&E
Male								
Asia.....	16,362	8,809	1,839	304	1,014	887	4,765	7,266
Japan ^b	10,177	5,397	1,149	0	730	706	2,812	4,780
Kyrgyzstan.....	151	126	81	9	6	4	26	25
South Korea.....	4,886	2,425	501	197	213	96	1,418	2,461
Taiwan.....	1,148	861	108	98	65	81	509	287
Middle East.....	4,310	2,648	798	183	179	339	428	1,662
Iran.....	1,151	368	84	26	31	45	72	783
Israel.....	385	303	157	48	12	30	56	82
Morocco.....	1,439	1,275	419	72	0	108	65	164
Turkey.....	1,335	702	138	37	136	156	235	633
Sub-Saharan Africa.....	1,804	523	219	0	114	67	123	1,281
Ghana.....	740	194	68	0	28	24	74	546
Kenya.....	1,064	329	151	0	86	43	49	735
Europe.....	58,727	35,246	14,352	3,169	1,587	5,396	10,628	23,600
European Union.....	43,283	25,812	11,263	2,887	987	3,788	6,887	17,644
Austria.....	1,142	644	206	76	21	66	275	498
Belgium.....	757	536	299	0	37	70	130	221
Denmark.....	562	318	143	0	30	0	145	417
Finland.....	1,068	635	166	45	21	114	289	433
France.....	5,833	4,152	2,327	635	10	494	686	1,681
Germany.....	17,807	9,603	4,394	883	331	1,944	2,051	8,204
Ireland.....	265	175	104	12	14	10	35	90
Italy.....	1,680	988	20	381	76	45	466	692
Netherlands.....	1,739	982	345	0	133	151	353	757
Spain.....	3,364	1,605	783	204	93	211	314	1,759
Sweden.....	1,932	1,303	331	121	42	152	657	629
United Kingdom.....	7,134	4,871	2,145	530	179	531	1,486	2,263
European Free Trade Association.....	2,315	1,062	520	116	56	78	292	1,253
Norway.....	439	140	3	0	27	46	64	299
Switzerland.....	1,876	922	517	116	29	32	228	954
Central/Eastern Europe.....	13,129	8,372	2,569	166	544	1,530	3,449	4,703
Bulgaria.....	218	133	29	8	11	6	42	85
Croatia.....	180	139	28	7	7	19	43	41
Czech Republic.....	637	462	123	131	36	29	143	175
Estonia.....	72	42	14	1	1	2	9	30
Georgia.....	270	169	27	0	9	54	52	47
Hungary.....	443	271	107	19	20	56	69	172
Russia.....	11,309	7,156	2,241		460	1,364	3,091	4,153
America.....	26,305	18,302	6,816	1,602	698	3,897	5,165	8,003
Canada.....	2,427	1,542	510	147	78	306	501	885
Costa Rica.....	476	177	8	44	26	47	0	299
Mexico.....	633	421	183	13	39	86	100	212
United States.....	22,769	16,162	6,115	1,398	555	3,458	4,564	6,607
Oceania.....								
Australia.....	2,211	1,372	573	136	120	152	391	839
Female								
Asia.....	4,536	1,599	390	77	270	394	468	2,937
Japan ^b	2,985	1,006	194	0	223	320	269	1,979
Kyrgyzstan.....	245	130	80	10	2	16	22	115
South Korea.....	991	354	80	58	20	31	165	637
Taiwan.....	315	109	36	9	25	27	12	206
Middle East.....	2,364	1,169	509	58	86	156	166	1,195
Iran.....	595	74	20	7	2	14	4	521
Israel.....	303	194	114	10	11	38	21	109
Morocco.....	677	542	270	17	0	44	44	135
Turkey.....	789	359	105	24	73	60	97	430
Sub-Saharan Africa.....	513	190	34	0	28	76	18	323
Ghana.....	64	20	3	0	1	5	8	44
Kenya.....	449	170	31	0	27	71	10	279

Appendix table 2-37

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Earned S&E doctoral degrees in selected regions and locations, by sex and field: 2000 or 2001

Sex, region, and location	All fields	All S&E	Natural sciences ^a	Mathematics/ computer sciences	Agricultural sciences	Social/ behavioral sciences	Engineering	Non-S&E
Europe.....	33,576	15,345	8,056	929	816	2,990	2,405	18,305
European Union.....	24,322	11,004	6,281	873	533	1,725	1,586	13,392
Austria.....	648	269	115	15	9	65	65	379
Belgium.....	390	253	180	0	11	39	23	137
Denmark.....	351	144	64	0	39	0	41	310
Finland.....	823	339	119	16	15	104	85	484
France.....	4,070	2,425	1,632	165	12	382	234	1,645
Germany.....	6,989	2,200	1,580	73	141	237	169	4,789
Ireland.....	236	150	110	7	2	14	13	57
Italy.....	1,877	743	35	323	87	47	251	1,134
Netherlands.....	744	327	119	0	50	91	67	417
Spain.....	2,643	1,125	655	119	51	206	94	1,518
Sweden.....	1,117	545	209	28	23	101	184	572
United Kingdom.....	4,434	2,484	1,463	127	93	439	360	1,950
European Free Trade Association.....	1,076	356	209	13	20	71	43	720
Norway.....	219	55	4	0	9	31	11	164
Switzerland.....	857	301	205	13	11	40	32	556
Central/Eastern Europe.....	8,178	3,985	1,566	43	263	1,194	776	4,193
Bulgaria.....	158	93	22	9	13	2	16	65
Croatia.....	158	128	34	7	6	24	16	30
Czech Republic.....	258	144	60	12	9	22	41	114
Estonia.....	77	17	5	2	1	2	0	60
Georgia.....	288	209	64	0	6	66	9	79
Hungary.....	274	141	55	13	12	27	34	133
Russia.....	6,965	3,253	1,326	216	1,051	660	3,712	9,902
America.....	20,171	10,319	3,874	490	336	4,515	1,033	9,902
Canada.....	1,551	707	208	37	34	350	78	844
Costa Rica.....	359	102	6	17	6	49	1	257
Mexico.....	360	207	93	5	8	72	29	153
United States.....	17,901	9,303	3,567	431	288	4,044	925	8,598
Oceania								
Australia.....	1,476	658	342	39	60	132	85	818

NA not available

^aNatural sciences include physical, biological, earth, atmospheric, and ocean sciences.^bJapanese data for male/female breakouts are for the number who have completed doctoral degree course work in S&E fields; this number is very close to conferred degrees.

NOTES: Data for doctoral degrees use the International Standard Classification of Education (ISCED 97), level 6. Data from national sources are for 2001; data from international sources are for 2000.

SOURCES: Organisation for Economic Co-operation and Development, Center for Education Research and Innovation, *Education at a Glance 2002*; United Nations Educational, Scientific, and Cultural Organization (UNESCO), the UNESCO Institute for Statistics database, <http://www.unesco.org/statistics>. Japan—Government of Japan, Ministry of Education, Culture and Science, *Monbusho Survey of Education* (Tokyo, 2002); Taiwan—Ministry of Education, *Educational Statistics of the Republic of China: 2002* (Taipei, 2002); Germany—Federal Statistical Office, *Prüfungen an Hochschulen 2001* (Wiesbaden, 2002); United Kingdom—Higher Education Statistics Agency, special tabulations (Cheltenham, 2002); Russia—Center for Science Research and Statistics, unpublished tabulations (2001); Mexico—National Association of Universities and Institutions of Higher Education, *Anuario Estadístico 2001: Población Escolar de Posgrado* (Mexico, 2002); and United States—National Science Foundation, Division of Science Resources Statistics, *Science and Engineering Doctorate Awards: 2001*, NSF 03-300 (Arlington, VA, 2002).

S&E doctoral degrees in selected Western industrialized countries, by field: 1975–2001

Country and field	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
France ^a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
All S&E	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Natural sciences ^b	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mathematics/computer sciences	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Agricultural sciences	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Social/behavioral sciences	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Engineering	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Germany ^c	11,418	11,531	11,386	11,755	11,939	12,222	12,283	12,963	13,637	14,133	14,951	15,530	16,064	17,321
All S&E	4,588	4,742	4,922	4,677	4,821	4,780	4,710	4,937	4,978	5,153	5,738	6,091	6,576	7,101
Natural sciences ^b	2,238	2,364	2,443	2,287	2,380	2,462	2,444	2,313	2,404	2,315	2,986	3,184	3,440	3,844
Mathematics/computer sciences	242	250	294	242	273	227	213	261	274	239	274	278	294	332
Agricultural sciences	338	347	323	327	281	331	317	361	361	411	414	406	468	450
Social/behavioral sciences	1,015	1,042	1,024	995	959	949	913	1,012	966	1,014	968	1,064	1,068	1,150
Engineering	755	739	838	826	928	811	823	990	973	1,174	1,096	1,159	1,306	1,325
United Kingdom	5,341	5,210	5,331	5,601	5,700	5,804	5,983	6,333	6,528	6,291	6,208	6,492	6,835	7,588
All S&E	4,023	3,981	4,115	4,235	4,222	4,287	4,463	4,738	4,759	4,567	4,608	4,759	5,016	5,663
Natural sciences ^b	2,082	2,070	2,155	2,192	2,303	2,300	2,389	2,515	2,426	2,408	2,409	2,495	2,583	2,787
Mathematics/computer sciences	242	264	282	277	273	256	311	296	289	290	282	290	321	374
Agricultural sciences	209	167	208	194	185	176	195	190	183	223	159	260	192	244
Social/behavioral sciences	431	475	513	539	495	532	541	603	663	657	687	686	732	899
Engineering	1,059	1,005	957	1,033	966	1,023	1,027	1,134	1,198	989	1,071	1,028	1,188	1,359
United States	32,952	32,946	31,716	30,875	31,239	31,020	31,356	31,111	31,282	31,337	31,297	31,902	32,370	33,500
All S&E	8,799	18,472	18,008	17,653	17,872	17,775	18,257	18,275	18,635	18,748	18,935	19,437	19,894	20,932
Natural sciences ^b	7,198	7,075	6,894	6,748	6,962	6,952	7,013	7,244	7,179	7,339	7,326	7,486	7,679	8,156
Mathematics/computer sciences	1,147	1,003	964	959	979	962	960	940	987	993	998	1,128	1,190	1,264
Agricultural sciences	905	788	782	853	855	912	982	951	1,015	997	1,110	997	976	1,015
Social/behavioral sciences	6,538	6,768	6,720	6,668	6,582	6,470	6,774	6,494	6,673	6,506	6,335	6,450	6,337	6,310
Engineering	3,011	2,838	2,648	2,425	2,494	2,479	2,528	2,646	2,781	2,913	3,166	3,376	3,712	4,187

Appendix table 2-38

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S&E doctoral degrees in selected Western industrialized countries, by field: 1975–2001

Country and field	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
France ^a	5,963	6,782	7,198	8,585	9,295	10,602	9,801	10,963	11,073	10,582	10,173	NA	NA
All S&E	4,888	5,158	5,384	6,377	6,820	7,555	7,027	8,511	8,962	8,359	7,054	NA	NA
Natural sciences ^b	2,615	2,841	2,883	3,525	3,631	3,866	3,572	4,052	4,394	3,924	2,966	NA	NA
Mathematics/computer sciences	722	795	831	976	1,065	1,203	1,129	1,241	869	845	769	NA	NA
Agricultural sciences	37	53	38	38	52	94	84	194	207	179	179	NA	NA
Social/behavioral sciences	672	488	539	663	797	1,018	815	1,285	1,629	1,559	1,390	NA	NA
Engineering	842	981	1,093	1,175	1,275	1,374	1,427	1,739	1,863	1,852	1,750	NA	NA
Germany ^c	17,901	22,372	22,462	21,438	22,000	22,000	22,387	22,849	24,174	24,890	24,545	24,671	24,796
All S&E	7,568	10,762	10,465	10,148	10,200	10,200	10,889	11,472	11,728	11,966	11,984	11,895	11,803
Natural sciences ^b	4,095	5,319	5,326	5,638	5,700	5,700	5,868	6,078	6,418	6,625	6,271	6,123	5,974
Mathematics/computer sciences	383	429	418	464	500	500	663	810	785	855	980	968	956
Agricultural sciences	518	997	709	602	500	500	507	512	521	562	522	497	472
Social/behavioral sciences	1,200	1,544	1,483	1,344	1,400	1,400	1,741	1,803	1,775	1,824	1,982	2,082	2,181
Engineering	1,372	2,473	2,529	2,100	2,100	2,100	2,110	2,269	2,229	2,100	2,229	2,225	2,220
United Kingdom	7,845	8,242	8,387	8,396	8,717	9,000	7,557	9,761	10,214	10,993	11,338	14,117	14,208
All S&E	5,816	6,207	6,302	6,112	6,098	6,325	5,134	6,526	6,765	7,268	7,386	8,622	8,521
Natural sciences ^b	2,937	3,113	3,151	3,054	3,034	3,200	2,580	3,380	3,421	3,665	3,668	4,373	4,384
Mathematics/computer sciences	415	471	535	519	528	600	454	602	586	565	680	769	761
Agricultural sciences	238	241	248	279	275	325	271	351	324	392	326	337	335
Social/behavioral sciences	878	916	914	935	739	700	502	636	679	809	907	1,135	1,179
Engineering	1,348	1,466	1,454	1,325	1,522	1,500	1,327	1,557	1,755	1,837	1,805	2,008	1,862
United States	34,327	36,067	37,534	38,890	39,801	41,034	41,743	42,414	42,555	42,683	41,140	41,340	40,744
All S&E	21,732	22,868	24,022	24,675	25,443	26,205	26,536	27,243	27,242	27,283	25,940	25,951	25,509
Natural sciences ^b	8,100	8,590	9,091	9,374	9,562	10,004	9,996	10,356	10,436	10,485	9,967	10,014	9,816
Mathematics/computer sciences	1,471	1,597	1,838	1,927	2,026	2,021	2,187	2,042	2,032	2,104	1,938	1,908	1,832
Agricultural sciences	1,086	1,174	1,073	1,063	968	1,078	1,036	1,036	982	1,037	966	942	848
Social/behavioral sciences	6,532	6,613	6,806	6,873	7,189	7,280	7,309	7,500	7,674	7,730	7,737	7,767	7,511
Engineering	4,543	4,894	5,214	5,438	5,698	5,822	6,008	6,309	6,118	5,927	5,332	5,320	5,502

NA not available

^aFrench doctoral degrees are not available in the same data series before 1989 or after 1999.^bNatural sciences include physical, biological, earth, atmospheric, and ocean sciences.^cGerman doctoral degrees include those of former East Germany from 1990 and thereafter.SOURCES: France—National Ministry of Education and Research, *Rapport sur les Études Doctorales*, annual series (Paris); Germany—Federal Statistical Office, *Prüfungen an Hochschulen*, annual series (Wiesbaden); United Kingdom—Higher Education Statistics Agency, special tabulations (Cheltenham, 2003); United States—National Science Foundation, Division of Science Resources Statistics (NSF/SRS), Survey of Earned Doctorates, annual series; and NSF/SRS, WebCASPAR database system, <http://caspar.nsf.gov>.

Science & Engineering Indicators – 2002

S&E doctoral degrees in selected Asian countries/economies, by field: 1975–2001

Country/economy and field	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
China.....	0	0	0	0	0	0	0	13	19	91	234	307	622	1,682
All S&E.....	0	0	0	0	0	0	0	NA	NA	NA	125	127	218	797
Natural sciences ^a	0	0	0	0	0	0	0	NA	NA	NA	33	27	52	165
Mathematics/computer sciences.....	0	0	0	0	0	0	0	NA	NA	NA	23	10	31	75
Agricultural sciences.....	0	0	0	0	0	0	0	NA	NA	NA	1	0	8	55
Social/behavioral sciences.....	0	0	0	0	0	0	0	NA	NA	NA	0	1	0	26
Engineering.....	0	0	0	0	0	0	0	NA	NA	NA	68	89	127	476
India.....	2,015	2,337	2,710	3,144	3,646	4,229	4,904	5,688	6,597	6,934	7,139	7,346	7,603	7,598
All S&E.....	1,909	2,143	2,408	2,600	2,917	3,061	3,356	3,600	3,886	4,162	3,976	4,052	4,123	4,208
Natural sciences ^a	1,484	1,651	1,837	2,044	2,261	2,385	2,516	2,654	2,800	2,954	2,892	2,922	2,937	3,038
Mathematics/computer sciences.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Agricultural sciences.....	289	317	348	422	480	483	558	566	575	698	575	576	583	576
Social/behavioral sciences.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Engineering.....	136	174	223	134	176	193	282	380	511	510	509	554	603	594
Japan ^b	4,592	5,138	5,322	5,648	5,812	6,269	6,599	6,810	7,233	7,477	7,978	8,533	9,157	9,602
All S&E.....	2,127	2,371	2,492	2,478	2,515	2,611	2,632	2,631	2,676	2,802	3,088	3,095	3,248	3,511
Natural sciences ^a	676	717	843	782	814	822	791	762	774	807	860	820	837	881
Mathematics/computer sciences.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Agricultural sciences.....	381	490	518	442	430	527	529	521	515	614	697	646	715	746
Social/behavioral sciences.....	84	85	88	88	76	76	76	93	97	90	127	136	149	167
Engineering.....	986	1,079	1,043	1,166	1,195	1,186	1,236	1,255	1,290	1,291	1,404	1,493	1,547	1,717
South Korea.....	557	557	566	574	583	592	601	610	845	1,109	1,400	1,645	1,906	2,125
All S&E.....	128	128	99	116	139	169	212	269	281	360	548	631	759	871
Natural sciences ^a	29	29	22	30	41	55	75	102	83	124	212	201	277	207
Mathematics/computer sciences.....	0	0	0	0	0	0	0	0	0	0	0	0	0	73
Agricultural sciences.....	48	48	40	43	45	48	52	55	60	77	89	105	110	155
Social/behavioral sciences.....	31	31	23	23	24	24	25	25	41	39	50	52	102	90
Engineering.....	20	20	14	20	29	42	60	87	97	120	197	273	270	346
Taiwan.....	37	37	45	28	43	64	64	74	86	99	115	200	225	249
All S&E.....	21	21	24	17	26	30	49	44	58	85	109	172	197	197
Natural sciences ^a	2	2	4	7	4	6	8	5	8	14	20	22	35	35
Mathematics/computer sciences.....	0	0	0	0	1	1	1	3	4	2	4	13	14	14
Agricultural sciences.....	4	4	4	5	7	5	15	8	17	15	10	28	28	28
Social/behavioral sciences.....	7	7	13	2	6	8	10	13	15	23	16	26	22	22
Engineering.....	8	8	3	3	8	10	15	15	14	31	59	83	98	98

Appendix table 2-39

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S&E doctoral degrees in selected Asian countries/economies, by field: 1975–2001

Country/economy and field	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
China.....	1,904	2,127	2,556	2,540	2,114	3,590	4,364	4,950	6,793	8,518	10,160	11,383	12,465
All S&E.....	1,024	1,069	1,198	1,357	1,895	2,741	3,417	4,428	5,328	6,358	6,778	7,304	7,617
Natural sciences ^a	141	209	252	304	528	918	1,191	1,479	1,678	2,246	2,135	2,306	2,655
Mathematics/computer sciences.....	78	89	95	101	103	139	187	264	334	350	417	NA	NA
Agricultural sciences.....	56	20	37	68	92	125	182	256	328	416	444	462	536
Social/behavioral sciences.....	23	36	47	61	102	170	198	234	325	446	513	514	621
Engineering.....	726	715	767	823	1,069	1,389	1,659	2,195	2,643	2,900	3,269	4,484	4,341
India.....	8,284	8,586	8,374	8,383	8,720	9,923	9,070	10,397	10,408	10,408 ^c	NA	NA	NA
All S&E.....	4,209	4,166	4,212	4,183	4,021	4,565	4,000	5,015	4,764	4,764	NA	NA	NA
Natural sciences ^a	3,044	2,976	2,950	3,044	2,997	3,467	2,950	3,861	3,498	3,498	NA	NA	NA
Mathematics/computer sciences.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Agricultural sciences.....	579	583	633	688	701	769	715	780	968	968	NA	NA	NA
Social/behavioral sciences.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Engineering.....	586	607	629	451	323	329	335	374	298	298	NA	NA	NA
Japan ^b	10,036	10,633	10,758	10,885	11,576	12,160	12,645	13,820	13,921	14,800	15,470	15,357	16,078
All S&E.....	3,561	3,704	3,874	4,056	4,438	4,877	5,205	6,006	6,157	6,575	7,082	7,089	7,401
Natural sciences ^a	876	835	863	892	1,009	1,132	1,182	1,243	1,315	1,481	1,542	1,579	1,586
Mathematics/computer sciences.....	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Agricultural sciences.....	734	719	791	870	824	894	956	1,108	1,043	1,094	1,100	1,147	1,241
Social/behavioral sciences.....	177	183	191	200	243	241	276	358	388	420	506	563	610
Engineering.....	1,774	1,967	2,029	2,094	2,362	2,610	2,791	3,297	3,411	3,580	3,934	3,800	3,964
South Korea.....	2,458	2,481	2,984	3,211	3,583	3,999	4,462	4,723	4,999	5,586	5,586	6,143	NA
All S&E.....	984	945	1,135	1,228	1,421	1,650	1,920	2,046	2,189	2,260	2,607	2,865	NA
Natural sciences ^a	192	170	225	202	244	296	358	391	427	433	438	614	NA
Mathematics/computer sciences.....	105	75	99	106	124	145	169	178	187	161	188	247	NA
Agricultural sciences.....	175	154	156	151	172	196	223	199	178	180	230	242	NA
Social/behavioral sciences.....	97	107	189	217	222	227	232	236	240	240	168	108	NA
Engineering.....	415	439	466	552	659	786	938	1,042	1,157	1,246	1,583	1,654	NA
Taiwan.....	314	410	410	608	701	808	848	1,053	1,187	1,282	1,337	1,400	1,463
All S&E.....	257	312	370	450	513	592	650	783	839	907	892	931	970
Natural sciences ^a	42	47	62	82	97	115	115	154	163	172	150	147	144
Mathematics/computer sciences.....	18	24	32	42	45	49	55	63	88	93	119	113	107
Agricultural sciences.....	36	33	36	39	48	60	63	65	79	78	76	83	90
Social/behavioral sciences.....	41	43	31	23	36	56	44	66	76	87	65	87	108
Engineering.....	120	165	209	264	287	312	373	435	433	477	482	502	521

NA not available

^aNatural sciences include physical, biological, earth, atmospheric, and ocean sciences.^bJapanese data include thesis doctorates, called *ronbun hakase*, earned by employees in industry. In Japanese higher education data, mathematics is included in natural sciences; computer sciences are included in engineering.^cIndian 1998 data are estimated.

SOURCES: China—National Research Center for Science and Technology for Development and *Educational Yearbook, 2002*; India—Department of Science and Technology, *Research and Development Statistics 1996–97* (New Delhi, 1999); Japan—Government of Japan, Ministry of Education, Culture and Science, *Monbusho Survey of Education* (Tokyo, annual series); and Division of Higher Education, special tabulations, 2003. South Korea—Ministry of Education, *Statistical Yearbook of Education* (Seoul, annual series), and Organisation for Economic Co-operation and Development, Center for Education Research and Innovation, *Education at a Glance 2002*, and Taiwan—Ministry of Education, *Educational Statistics of the Republic of China* (Taipei, annual series).

Appendix table 2-40

(Page 1 of 2)

Foreign S&E student enrollment in United Kingdom universities, by enrollment level, location of origin, and field: 1994, 1998, and 2001

Enrollment level and location of origin	All S&E	Natural/ agricultural sciences ^a	Mathematics/ computer sciences	Social/ behavioral sciences	Engineering
1994					
All undergraduate	393,039	131,367	69,729	79,257	112,686
All foreign	34,530	7,774	4,266	6,553	15,937
Greece	3,830	723	613	570	1,924
Malaysia	3,756	174	486	400	2,696
Irish Republic	3,114	1,297	335	222	1,260
Germany	2,662	1,006	212	640	804
France	2,639	883	273	472	1,011
Hong Kong	2,197	216	406	467	1,108
Singapore	1,986	138	197	264	1,387
United States	1,216	519	47	559	91
Canada	163	88	17	38	20
China	150	5	21	14	110
Other	12,817	2,725	1,659	2,907	5,526
Percent foreign	8.8	5.9	6.1	8.3	14.1
All graduate	99,976	35,270	15,167	22,891	26,648
All foreign	28,848	8,096	3,491	8,005	9,256
Greece	2,407	577	461	498	871
Malaysia	1,567	324	197	222	824
Irish Republic	1,043	486	109	167	281
Germany	1,286	389	196	342	359
France	950	291	77	185	397
Hong Kong	1,031	91	188	397	355
Singapore	574	79	153	88	254
United States	1,093	243	69	674	107
Canada	604	141	36	320	107
China	1,325	406	136	124	659
Other	16,968	5,069	1,869	4,988	5,042
Percent foreign	28.9	23.0	23.0	35.0	34.7
1998					
All undergraduate	419,527	149,638	85,901	84,088	99,900
All foreign	48,866	11,261	6,649	10,145	20,811
Greece	10,643	2,043	1,465	1,880	5,255
Malaysia	4,206	165	446	322	3,273
France	3,575	1,045	368	582	1,580
Irish Republic	3,489	1,717	433	351	988
Germany	2,631	838	245	832	716
United States	1,974	646	115	1,080	133
Hong Kong	1,720	276	458	285	701
Japan	718	215	76	358	69
India	470	35	68	93	274
China	332	41	149	44	98
Other	19,108	4,240	2,826	4,318	7,724
Percent foreign	11.6	7.5	7.7	12.1	20.8
All graduate	116,451	40,557	19,399	27,682	28,813
All foreign	36,631	9,952	4,753	11,102	10,824
Greece	4,284	1,085	643	823	1,733
Malaysia	1,325	239	226	181	679
France	1,729	606	136	281	706
Irish Republic	1,401	589	261	259	292
Germany	1,834	570	227	525	512
United States	1,458	380	113	808	157
Hong Kong	987	143	118	425	301
Japan	927	152	35	649	91
India	848	202	133	301	212
China	1,486	326	279	199	682
Other	20,352	5,660	2,582	6,651	5,459
Percent foreign	31.5	24.5	24.5	40.1	37.6

Appendix table 2-40

(Page 2 of 2)

Foreign S&E student enrollment in United Kingdom universities, by enrollment level, location of origin, and field: 1994, 1998, and 2001

Enrollment level and location of origin	All S&E	Natural/ agricultural sciences ^a	Mathematics/ computer sciences	Social/ behavioral sciences	Engineering
2001					
All undergraduate	430,600	143,518	108,125	83,945	95,012
All foreign.....	41,973	8,721	8,745	8,158	16,349
Greece	7,626	1,424	1,202	1,484	3,516
China	3,059	394	1,155	574	936
Irish Republic	2,138	989	277	196	676
Germany	1,803	513	279	667	344
Malaysia	2,955	116	499	216	2,124
France.....	2,209	494	326	326	1,063
United States.....	804	418	89	206	91
Hong Kong	2,195	412	619	341	823
India.....	789	79	256	95	359
Japan.....	587	170	87	252	78
Other.....	17,808	3,712	3,956	3,801	6,339
Percent foreign.....	9.7	6.1	8.1	9.7	17.2
All graduate	124,530	40,842	24,580	27,765	31,343
All foreign.....	43,981	10,289	8,640	11,322	13,730
Greece	6,047	1,234	1,057	1,086	2,670
China	3,509	437	1,401	456	1,215
Irish Republic	1,293	538	213	244	298
Germany	1,743	509	300	477	457
Malaysia	1,727	180	351	130	1,066
France.....	1,848	630	186	298	734
United States.....	1,859	471	163	1,039	186
Hong Kong	673	87	149	188	249
India.....	2,057	345	889	270	553
Japan.....	1,020	177	64	696	83
Other.....	22,205	5,681	3,867	6,438	6,219
Percent foreign.....	35.3	25.2	35.2	40.8	43.8

^aNatural sciences include physical, biological, earth, atmospheric, and ocean sciences.

SOURCE: Higher Education Statistics Agency, special tabulations (Cheltenham, 2003).

Appendix table 2-41
Foreign S&E student enrollment in French universities, by enrollment level and field: 1996 and 2002

Enrollment level	All S&E	Economics/ business	Social sciences/ humanities	Life sciences	Material/ physical sciences	Engineering science and technology
1996						
Undergraduate ^a	249,511	36,969	95,282	29,355	38,896	49,009
Foreign	17,530	4,705	5,204	1,748	2,397	3,476
Percent foreign	7.0	12.7	5.5	6.0	6.2	7.1
Graduate ^b	93,366	19,932	28,302	15,015	13,563	16,554
Foreign	18,518	3,264	5,860	2,583	2,892	3,919
Percent foreign	19.8	16.4	20.7	17.2	21.3	23.7
2002						
Undergraduate ^a	249,789	45,236	93,473	25,883	22,232	62,965
Foreign	31,336	9,703	8,220	3,008	3,220	7,185
Percent foreign	12.5	21.4	8.8	11.6	14.5	11.4
Graduate ^b	109,348	26,534	34,199	16,419	12,834	19,362
Foreign	27,250	7,279	7,425	2,775	3,422	6,349
Percent foreign	24.9	27.4	21.7	16.9	26.7	32.8

^aUndergraduate data include enrollment in all programs designated as license, maîtrise, and several as *university diploma* and *engineering formation*.

^bGraduate enrollment includes four advanced, two predoctoral, and two doctoral degree programs.

NOTE: Some of the broad fields, such as economics/business and social sciences/humanities, include some non-S&E disciplines.

SOURCE: French National Ministry of Education and Research, special tabulations, (Paris, 2003).

Appendix table 2-42

Foreign S&E student enrollment in Japanese universities, by enrollment level, location of origin, and field: 2001

Enrollment level and location of origin	All S&E	Natural sciences ^a	Agricultural sciences	Social/behavioral sciences	Engineering ^b	Other
All undergraduate ^c	1,606,727	88,711	62,450	988,554	467,012	880,406
Foreign.....	25,968	440	598	20,379	4,551	18,541
China.....	8,430	73	140	7,332	885	7,059
South Korea.....	6,602	175	144	5,124	1,159	5,833
Malaysia.....	1,151	11	28	306	806	224
Thailand.....	159	8	9	83	59	196
Vietnam.....	129	5	4	71	49	100
Indonesia.....	122	4	5	51	62	135
United States.....	42	1	1	39	1	790
Brazil.....	42	3	6	14	19	119
Bangladesh.....	39	0	1	18	20	50
Australia.....	35	0	0	34	1	235
Percent foreign.....	1.1	0.3	0.5	1.4	0.7	2.0
All graduate.....	128,896	18,855	18,798	25,076	66,167	62,229
Master's.....	105,142	12,897	7,576	23,563	61,106	45,655
Doctoral.....	29,450	6,302	4,131	6,751	12,266	36,075
Foreign.....	15,614	1,075	1,945	6,240	6,354	9,626
China.....	6,099	348	661	2,624	2,466	5,289
South Korea.....	2,160	137	224	939	860	2,249
Indonesia.....	663	60	174	88	341	179
Bangladesh.....	410	72	142	20	176	239
Thailand.....	423	12	88	97	226	209
Malaysia.....	216	6	19	90	101	74
Philippines.....	166	24	61	39	42	119
Vietnam.....	168	12	32	46	78	66
Sri Lanka.....	132	13	28	21	70	38
India.....	98	12	24	16	46	49
Percent foreign.....	9.64	4.82	9.38	17.99	7.93	16.07

^aNatural sciences include physical, biological, earth, atmospheric, and ocean sciences.

^bComputer sciences are included in engineering.

^cUndergraduate includes 4-year colleges and universities.

NOTE: Data are for students of non-Japanese citizenship, including permanent residents.

SOURCE: Government of Japan, Ministry of Education, Culture and Science, Division of Higher Education, special tabulations (Tokyo, 2003).

Appendix table 2-43

S&E student enrollment in Canadian universities, by enrollment level, top locations of origin, and field: 1985 and 1998

Enrollment level and locations of origin	All S&E	Mathematics/ physical sciences	Agricultural/ biological sciences	Social sciences related fields	Engineering/ applied sciences
1985					
Undergraduate					
All S&E	336,922	45,944	32,113	207,134	51,731
Foreign	29,243	6,632	2,149	14,584	5,878
Hong Kong	7,281	2,551	257	3,363	1,110
United States	1,969	306	278	1,120	265
Malaysia	1,871	591	113	817	350
United Kingdom	1,290	325	145	627	193
Trinidad/Tobago	833	137	91	484	121
Singapore	738	201	35	465	37
Morocco	701	197	58	327	119
Iran	497	137	94	71	195
India	465	114	60	157	134
Vietnam	459	118	21	67	253
Other	13,139	1,955	997	7,086	3,101
Percent foreign	8.7	14.4	6.7	7.0	11.4
Graduate					
All S&E	56,688	8,850	5,785	31,053	11,000
Foreign	9,423	2,124	1,020	3,493	2,786
United States	958	193	143	532	90
China	655	209	73	136	237
India	751	194	113	124	320
Hong Kong	616	149	19	226	222
United Kingdom	363	84	42	181	56
France	311	38	24	160	89
Morocco	221	69	16	87	49
Greece	205	51	9	67	78
Iran	200	48	11	40	101
Malaysia	167	36	16	46	69
Other	4,976	4,976	4,976	4,976	4,976
Percent foreign	16.6	24.0	17.6	11.2	25.3
1998					
Undergraduate					
All S&E	392,144	49,277	46,474	233,432	62,961
Foreign	37,014	7,642	3,309	18,047	8,016
Hong Kong	5,385	1,095	285	2,942	1,063
China	2,401	905	71	974	451
Taiwan	1,865	391	197	848	429
United Kingdom	1,453	277	152	636	388
United States	1,418	151	228	875	164
India	1,292	268	155	461	408
France	1,140	115	114	690	221
Sri Lanka	1,865	391	197	848	429
South Korea	896	191	115	404	186
Iran	852	255	163	171	263
Other	18,447	3,603	1,632	9,198	4,014
Percent foreign	9.4	15.5	7.1	7.7	12.7
Graduate					
All S&E	79,676	12,011	7,910	43,224	16,531
Foreign	16,716	3,626	1,605	6,234	5,251
China	3,702	1,230	281	767	1,424
France	1,120	184	106	604	226
India	826	136	82	231	377
United States	822	122	133	485	82
Iran	673	109	90	65	409
Morocco	465	115	34	196	120
Romania	465	147	19	111	188
Hong Kong	403	64	20	200	119
Tunisia	361	52	15	217	77
Germany	315	85	38	144	48
Other	7,564	1,382	787	3,214	2,181
Percent foreign	21.0	30.2	20.3	14.4	31.8

SOURCE: Statistics Canada, Center for Education Statistics, special tabulations (Ontario, 2003).

Appendix table 2-44

Doctoral degrees earned by foreign students in selected industrialized countries, by field: 2001 or most recent year

Country and field	All	Foreign	Percent foreign
France (1999)	10,241	2,157	21.1
S&E	6,703	1,394	20.8
Natural sciences ^a	2,615	432	16.5
Mathematics/computer sciences	769	221	28.7
Agricultural sciences	179	32	17.9
Social/behavioral sciences	1,390	324	23.3
Engineering	1,750	385	22.0
Non-S&E	3,538	763	21.6
Germany	24,796	1,739	7.0
S&E	11,093	1,029	9.3
Natural sciences ^a	5,502	472	8.6
Mathematics/computer sciences	956	89	9.3
Agricultural sciences	472	136	28.8
Social/behavioral sciences	1,908	91	4.8
Engineering	2,255	241	10.7
Non-S&E	13,703	710	5.2
Japan ^b	10,320	1,412	13.7
S&E	5,468	772	14.1
Natural sciences ^a	1,341	84	6.3
Mathematics/computer sciences	NA	NA	NA
Agricultural sciences	953	210	22.0
Social/behavioral sciences	383	57	14.9
Engineering	2,791	421	15.1
Non-S&E	4,852	640	13.2
United Kingdom (2002)	14,208	5,074	35.7
S&E	8,521	3,141	36.9
Natural sciences ^a	4,384	1,124	25.6
Mathematics/computer sciences	761	331	43.5
Agricultural sciences	335	154	46.0
Social/behavioral sciences	1,179	578	49.0
Engineering	1,862	954	51.2
Non-S&E	5,687	1,933	34.0
United States	40,744	11,602	28.5
S&E	26,357	9,574	36.3
Natural sciences ^a	10,664	3,649	34.2
Mathematics/computer sciences	1,832	900	49.1
Agricultural sciences	848	386	45.5
Social/behavioral sciences	7,511	1,571	20.9
Engineering	5,502	3,068	55.8
Non-S&E	14,387	2,028	14.1

NA not available

^aNatural sciences include physical, biological, earth, atmospheric, and ocean sciences.^bJapanese data are for university-based doctorates only, excluding *ronbun hakase* doctorates awarded for research within industry. Japanese data include mathematics in natural sciences and computer sciences in engineering.

NOTE: For each country, data are for doctoral degree recipients with foreign citizenship, including permanent and temporary residents.

SOURCES: France—National Ministry of Education and Research, *Rapport sur les Études Doctorales 2001* (Paris, 2002); Germany—Federal Statistical Office, *Prüfungen an Hochschulen 2001* (Wiesbaden, 2002); Japan—Government of Japan, Ministry of Education, Culture and Science, Division of Higher Education, special tabulations (Tokyo, 2003); United Kingdom—Higher Education Statistics Agency, special tabulations (Cheltenham, 2003), and United States—National Science Foundation, Division of Science Resources Statistics, *Science and Engineering Doctorate Awards: 2001*, NSF 03-300 (Arlington, VA, 2002).