

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	55,442	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	

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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>.