

理工系の博士(修士)学位授与数の分析

(出典) **Science and Engineering Indicators 2008**

Chapter 2

Higher Education in Science and Engineering

<http://www.nsf.gov/statistics/seind08/>

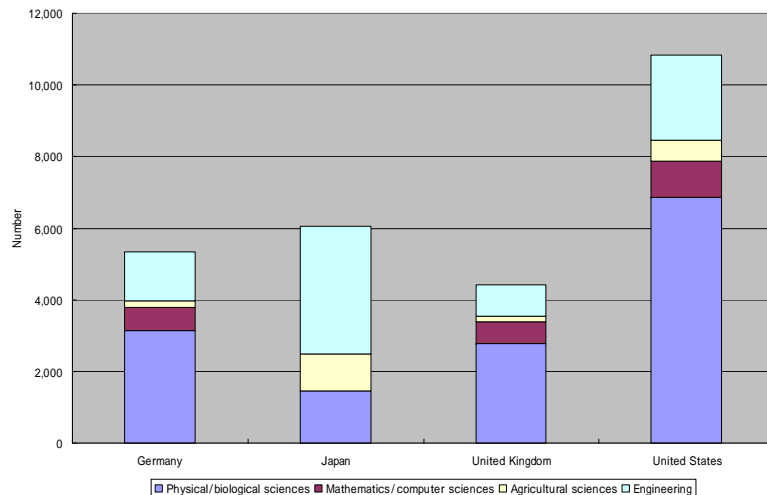
ポイント

・我が国の大学院の規模が先進国に比べて少ないとのデータがあるが、分野によって状況は大きく異なる。さらに、外国人(留学生)をどうかウントするかも、政策上重要なポイントであり、その点を明らかにすべく、NSFのデータから分析を行った。(本分析は、在学生の数ではなく、年度毎の学位取得者数を比較)

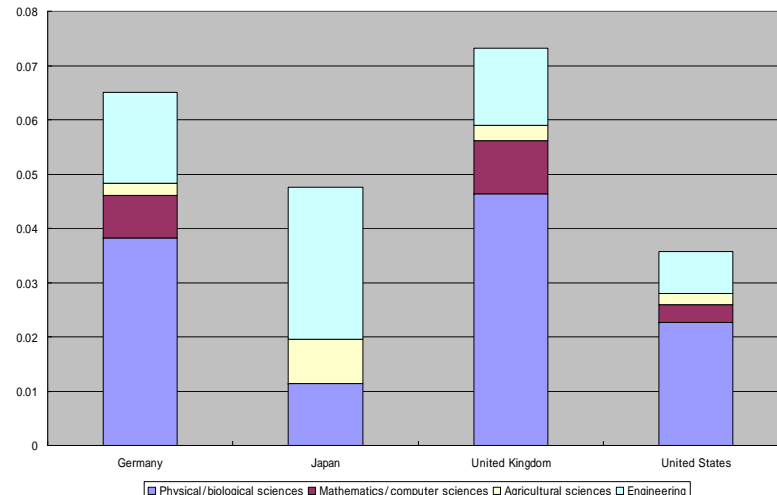
・我が国は外国人の占める割合が少ないため(P.14)、例えば工学(Engineering)についてしてみると、アメリカの博士学位取得者数は日本の約1.5倍であるが、外国人を除くと、日本が米国の約1.5倍となる。(詳しくはP.10, 15)

・外国人を除いたベースで、理工系全体の博士学位取得者数をアメリカ、イギリス、ドイツと比べると、アメリカ、日本、ドイツ、イギリスの順になる。(外国人を除かなければ、アメリカ、ドイツ、イギリス、日本の順、P.11) また、人口当たりで比べると、イギリス、ドイツ、日本、アメリカの順になる。(下記、詳しくはP16, 21)

Doctoral degrees earned by domestic students (2005 or most recent year)



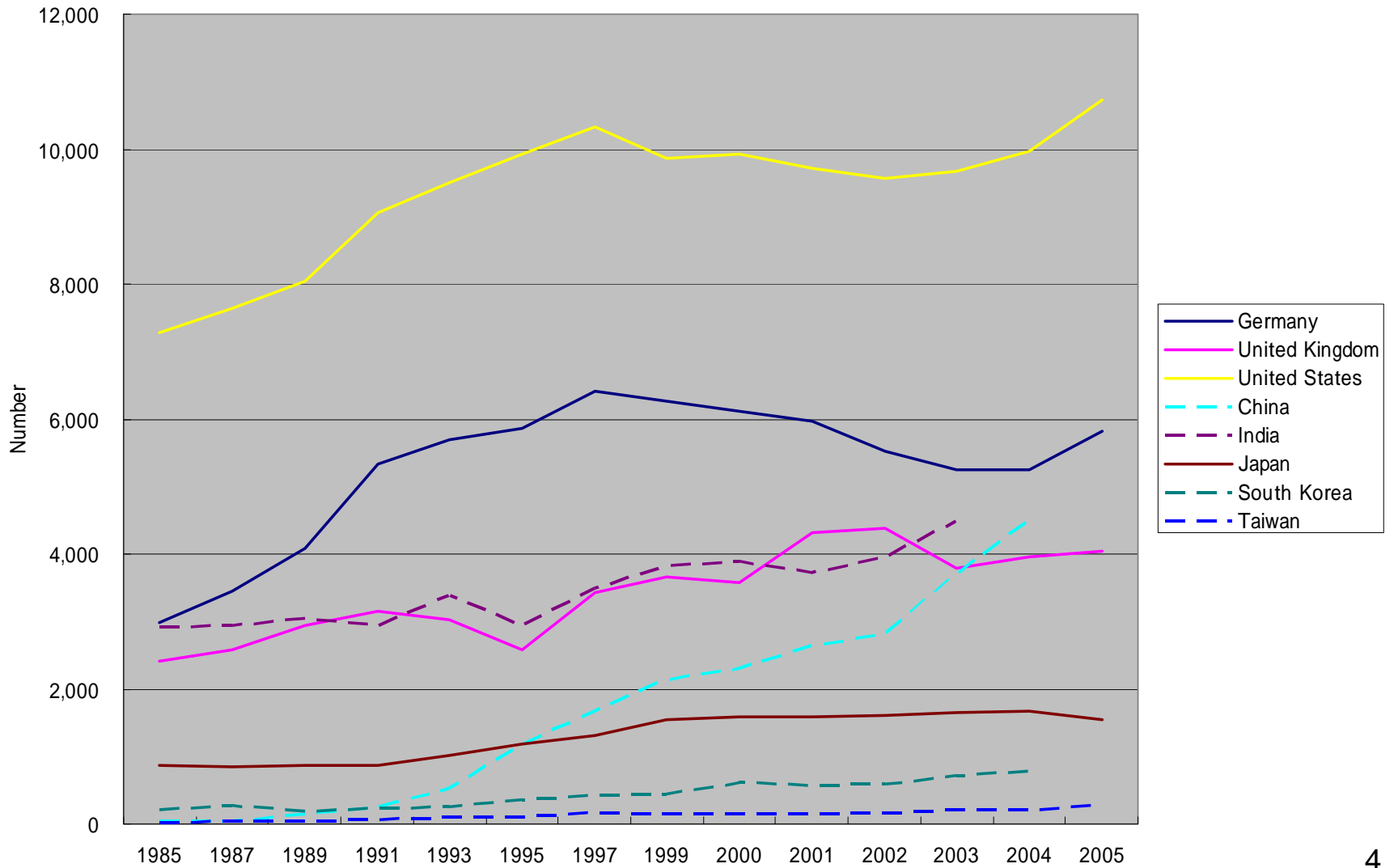
人口千人あたりの博士学位授与数(外国人除く)



国際比較

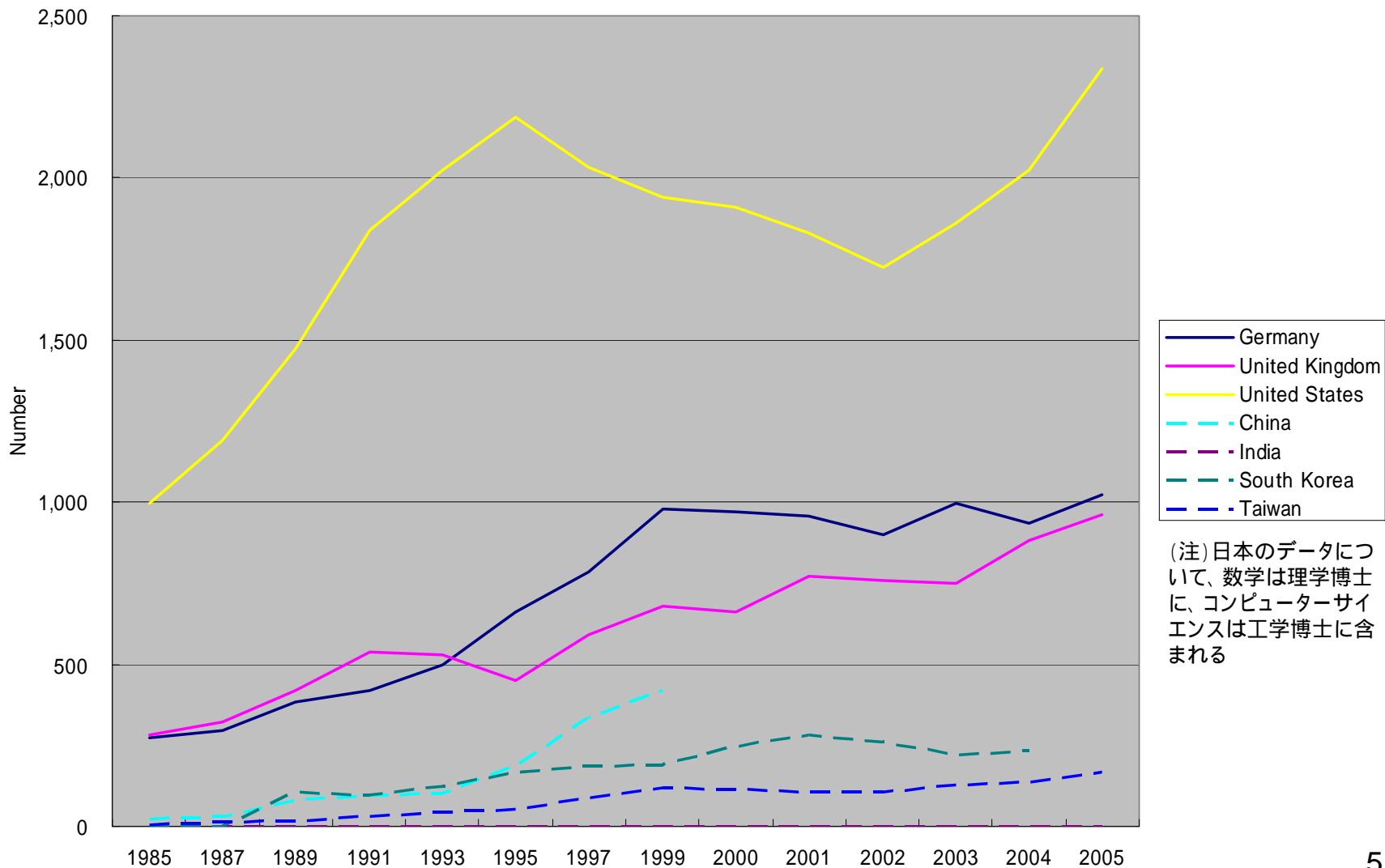
理学博士授与数の推移

Physical/biological science doctoral degrees



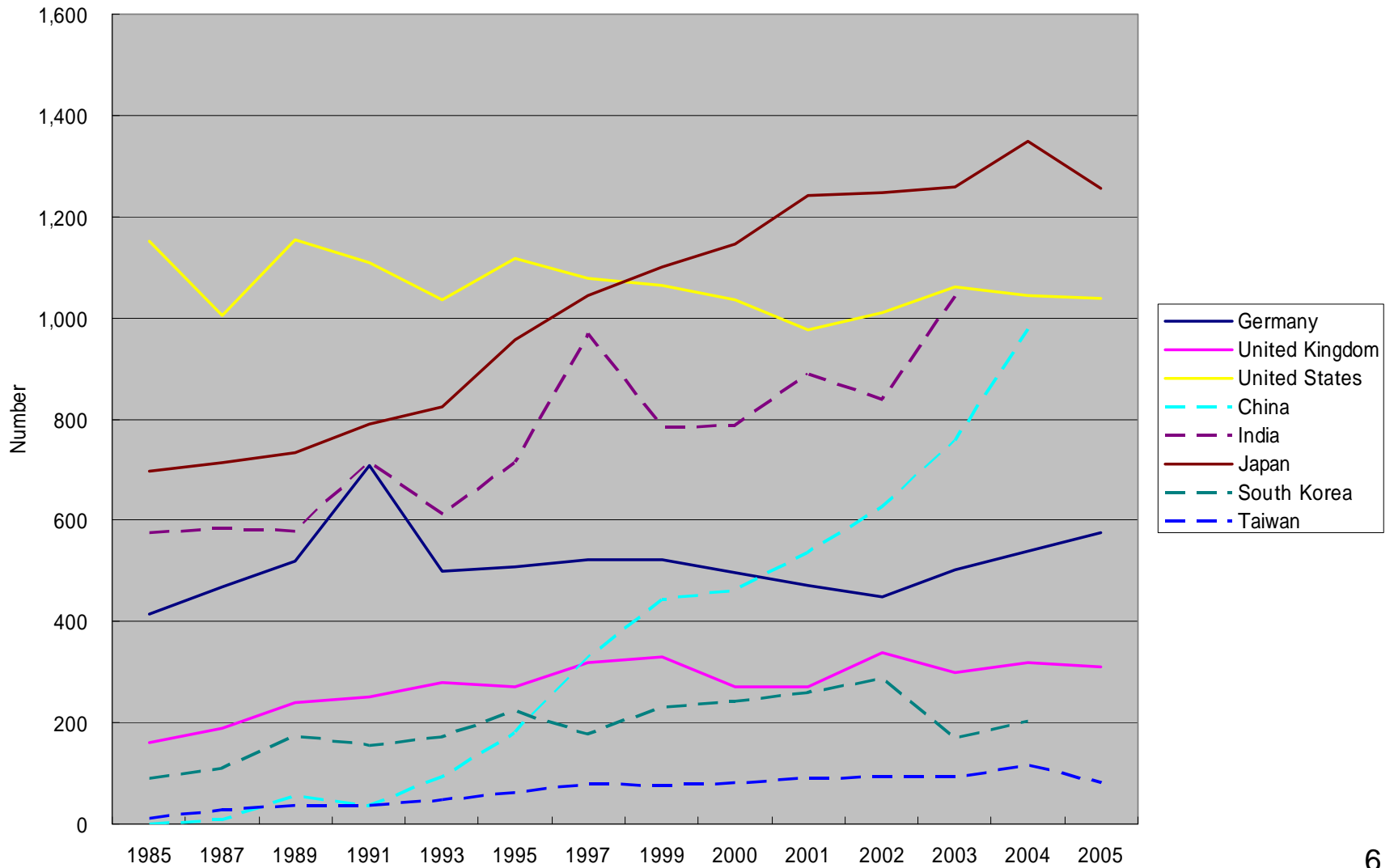
数学/コンピューターサイエンス博士授与数の推移

Mathmatics/computer science doctoral degrees



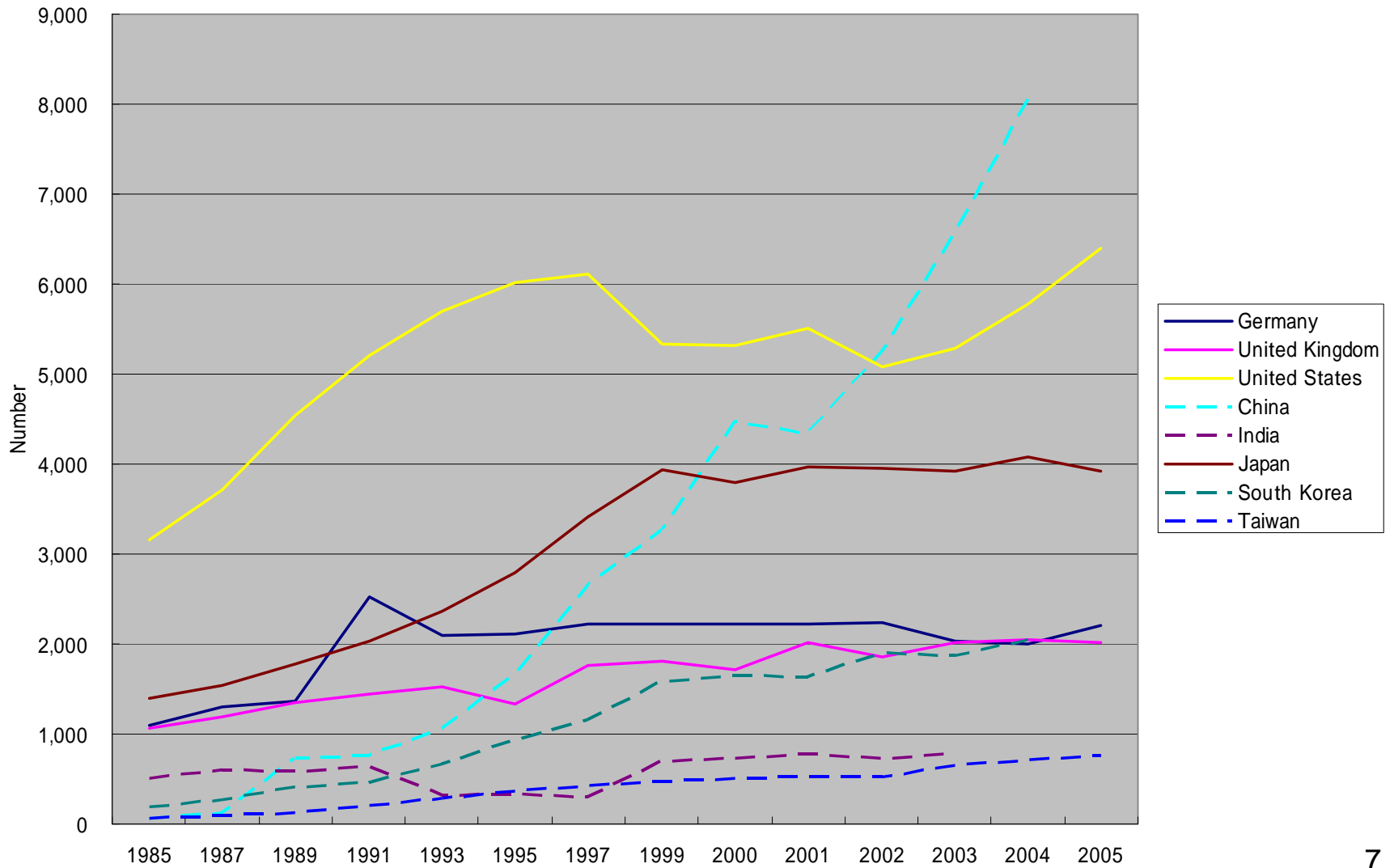
農学博士授与数の推移

Agricultural science doctoral degrees



工学博士授与数の推移

Engineering doctoral degrees



Appendix table 2-42

S&E doctoral degrees, by selected Western industrialized country and field: Selected years, 1985–2005

Country/field	1985	1987	1989	1991	1993	1995	1997	1999	2000	2001	2002	2003	2004	2005
Germany	14,951	16,064	17,901	22,462	22,000	22,387	24,174	24,545	24,671	24,796	23,838	23,043	23,138	25,952
All S&E	5,738	6,576	7,568	10,465	10,200	10,889	11,728	11,984	11,895	11,803	11,017	10,796	10,661	12,194
Physical/biological sciences	2,986	3,440	4,095	5,326	5,700	5,868	6,418	6,271	6,123	5,974	5,521	5,251	5,249	5,825
Mathematics/computer sciences	274	294	383	418	500	663	785	980	968	956	898	998	936	1,023
Agricultural sciences	414	468	518	709	500	507	521	522	497	472	448	501	538	575
Social/behavioral sciences	968	1,068	1,200	1,483	1,400	1,741	1,775	1,982	2,082	2,181	1,915	2,013	1,937	2,560
Engineering	1,096	1,306	1,372	2,529	2,100	2,110	2,229	2,229	2,225	2,220	2,235	2,033	2,001	2,211
United Kingdom	6,210	6,840	7,850	8,390	8,720	7,560	10,210	11,340	11,550	14,120	14,210	14,870	15,260	15,780
All S&E	4,610	5,020	5,820	6,300	6,100	5,130	6,770	7,390	7,180	8,520	8,520	8,810	9,150	9,390
Physical/biological sciences	2,410	2,580	2,940	3,150	3,030	2,580	3,420	3,670	3,570	4,310	4,380	3,780	3,960	4,040
Mathematics/computer sciences	280	320	420	540	530	450	590	680	660	770	760	750	880	960
Agricultural sciences	160	190	240	250	280	270	320	330	270	270	340	300	320	310
Social/behavioral sciences	690	730	880	910	740	500	680	910	970	1,170	1,180	1,970	1,950	2,070
Engineering	1,070	1,190	1,350	1,450	1,520	1,330	1,760	1,810	1,710	2,010	1,860	2,020	2,040	2,020
United States	31,295	32,365	34,325	37,530	39,800	41,747	42,535	41,092	41,361	40,651	39,953	40,740	42,117	43,354
All S&E	18,934	19,892	21,732	24,019	25,443	26,535	27,229	25,931	25,966	25,496	24,582	25,274	26,272	27,974
Physical/biological sciences	7,284	7,650	8,032	9,055	9,494	9,916	10,338	9,866	9,925	9,717	9,564	9,665	9,963	10,728
Mathematics/computer sciences	998	1,189	1,471	1,838	2,026	2,187	2,032	1,939	1,910	1,832	1,726	1,859	2,024	2,339
Agricultural sciences	1,152	1,005	1,154	1,108	1,036	1,117	1,078	1,065	1,037	975	1,009	1,060	1,045	1,038
Social/behavioral sciences	6,334	6,336	6,532	6,805	7,189	7,307	7,667	7,731	7,771	7,464	7,206	7,411	7,465	7,465
Engineering	3,166	3,712	4,543	5,213	5,698	6,008	6,114	5,330	5,323	5,508	5,077	5,279	5,775	6,404

NOTES: Physical/biological sciences include physical; biological; and earth, atmospheric, and ocean sciences. Data for doctoral degrees use International Standard Classification of Education (ISCED 97), level 6. S&E data do not include health fields. German doctoral degrees include former East Germany from 1990 and thereafter. Data for United Kingdom rounded to nearest 10.

Appendix table 2-43

S&E doctoral degrees, by selected Asian country/economy and field: Selected years, 1985–2005

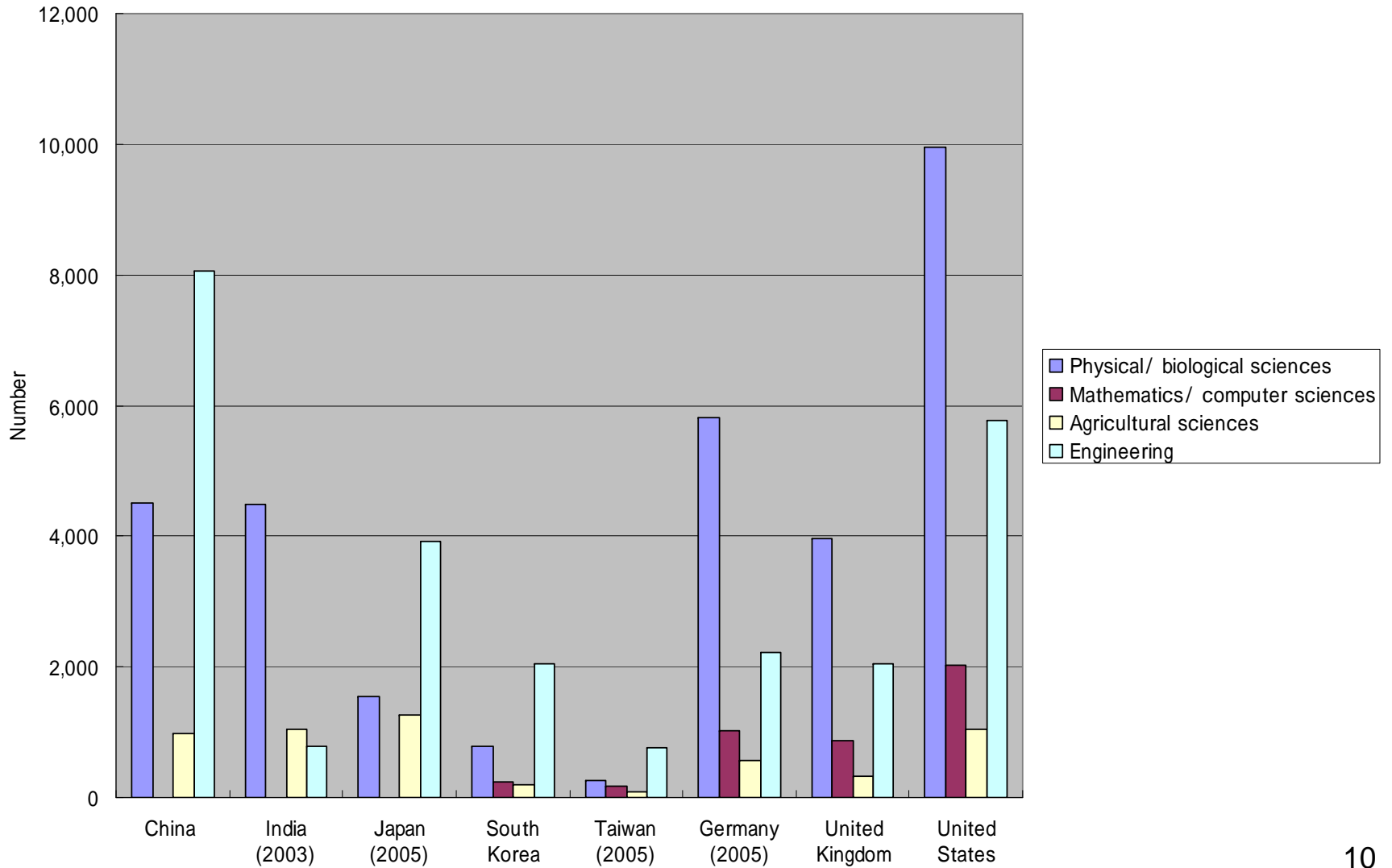
Country/economy and field	1985	1987	1989	1991	1993	1995	1997	1999	2000	2001	2002	2003	2004	2005
China	234	622	1,904	2,556	2,114	4,364	6,793	10,160	11,383	12,465	14,638	18,806	23,446	NA
All S&E	125	218	1,024	1,198	1,894	3,417	5,308	6,778	7,766	8,153	9,523	12,238	14,858	NA
Physical/biological sciences	33	52	141	252	528	1,191	1,678	2,135	2,306	2,655	2,808	3,705	4,518	NA
Mathematics/computer sciences	23	31	78	95	103	187	334	417	NA	NA	NA	NA	NA	NA
Agricultural sciences	1	8	56	37	92	182	328	444	462	536	626	756	977	NA
Social/behavioral sciences	0	0	23	47	102	198	325	513	514	621	837	1,204	1,309	NA
Engineering	68	127	726	767	1,069	1,659	2,643	3,269	4,484	4,341	5,252	6,573	8,054	NA
India	7,438	7,603	8,284	8,383	9,070	9,070	10,408	10,951	11,296	11,544	11,974	13,733	NA	NA
All S&E	4,007	4,123	4,209	4,294	4,320	4,000	4,764	5,317	5,395	5,394	5,527	6,318	NA	NA
Physical/biological sciences	2,922	2,937	3,044	2,950	3,386	2,950	3,498	3,836	3,885	3,727	3,955	4,497	NA	NA
Mathematics/computer sciences	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Agricultural sciences	576	583	579	715	611	715	968	785	787	889	838	1,042	NA	NA
Social/behavioral sciences	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Engineering	509	603	586	629	323	335	298	696	723	778	734	779	NA	NA
Japan	7,978	9,157	10,036	10,758	11,576	12,645	13,921	15,470	15,357	16,078	16,183	16,314	16,909	16,851
All S&E	3,088	3,248	3,561	3,874	4,438	5,205	6,157	7,082	7,089	7,401	7,461	7,581	7,912	7,658
Physical/biological sciences	860	837	876	863	1,009	1,182	1,315	1,542	1,579	1,586	1,602	1,651	1,679	1,543
Mathematics/computer sciences	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Agricultural sciences	697	715	734	791	824	956	1,043	1,100	1,147	1,241	1,248	1,258	1,348	1,257
Social/behavioral sciences	127	149	177	191	243	276	388	506	563	610	656	751	808	943
Engineering	1,404	1,547	1,774	2,029	2,362	2,791	3,411	3,934	3,800	3,964	3,955	3,921	4,077	3,915
South Korea	1,400	1,906	2,458	2,984	3,583	4,462	4,999	5,586	6,143	6,208	6,690	7,172	7,946	NA
All S&E	548	759	984	1,135	1,421	1,920	2,189	2,607	2,865	2,956	3,225	3,192	3,531	NA
Physical/biological sciences	212	277	192	225	244	358	427	438	614	581	590	711	788	NA
Mathematics/computer sciences	0	0	105	99	124	169	187	188	247	282	258	222	232	NA
Agricultural sciences	89	110	175	156	172	223	178	230	242	260	288	169	203	NA
Social/behavioral sciences	50	102	97	189	222	232	240	168	108	195	190	222	268	NA
Engineering	197	270	415	466	659	938	1,157	1,583	1,654	1,638	1,899	1,868	2,040	NA
Taiwan	115	225	314	410	701	848	1,187	1,337	1,400	1,463	1,501	1,759	1,964	2,165
All S&E	109	197	257	370	513	650	839	892	932	970	966	1,167	1,291	1,385
Physical/biological sciences	20	35	42	62	97	115	163	150	147	144	166	202	206	270
Mathematics/computer sciences	4	14	18	32	45	55	88	119	113	107	107	127	136	166
Agricultural sciences	10	28	36	36	48	63	79	76	83	90	93	93	116	83
Social/behavioral sciences	16	22	41	31	36	44	76	65	87	108	72	89	111	108
Engineering	59	98	120	209	287	373	433	482	502	521	528	656	722	758

NA = not available

NOTES: Physical/biological sciences include physical; biological; and earth, atmospheric, and ocean sciences. Data for doctoral degrees use International Standard Classification of Education (ISCED 97), level 6. S&E data do not include health fields. Japanese data include thesis doctorates, called *ronbun hakase*, earned by employees in industry. In Japanese higher education data, mathematics included in natural sciences; computer sciences included in engineering.

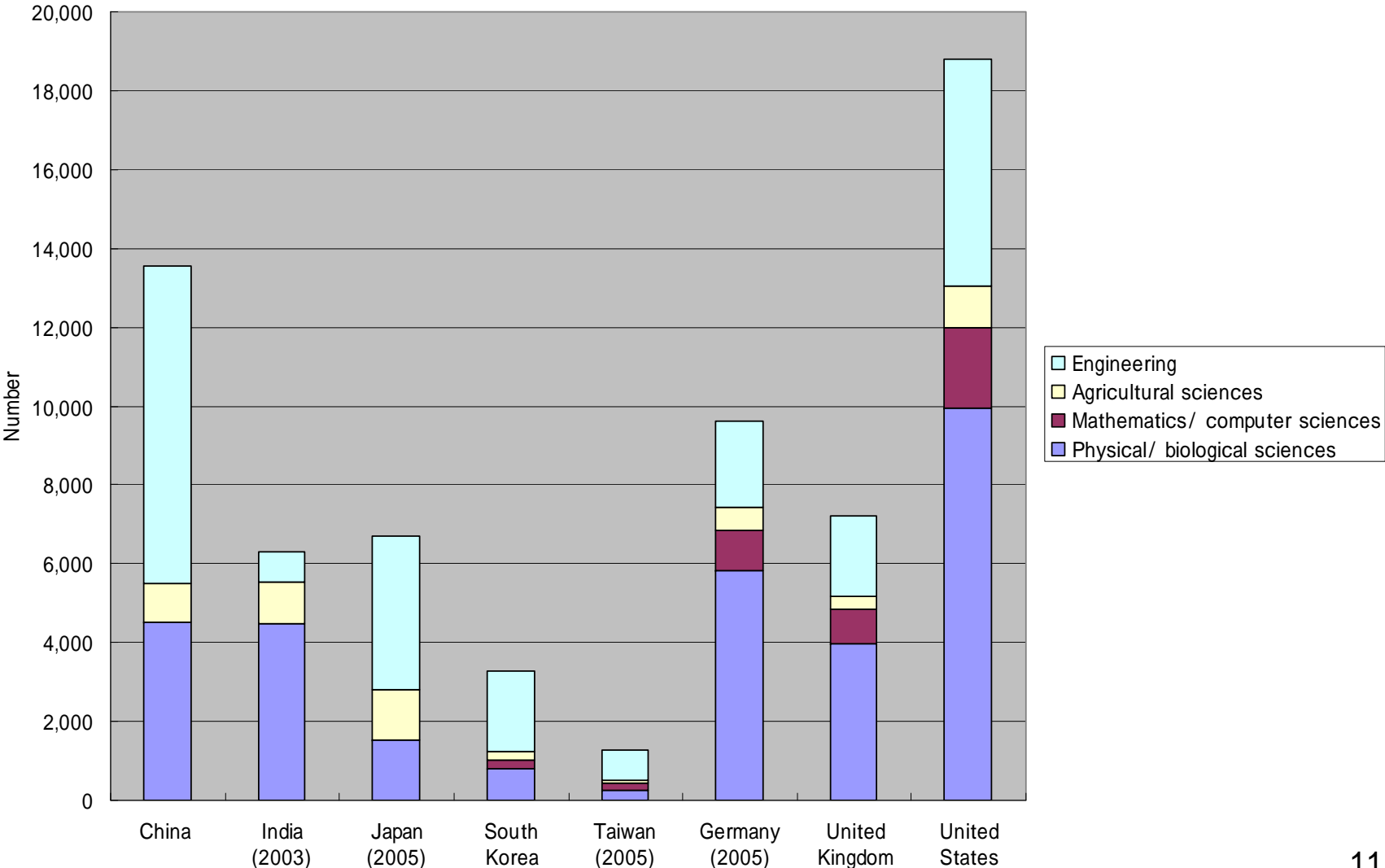
理工系博士学位授与数(1)

Earned S&E doctoral degrees (2004 or most recent year)



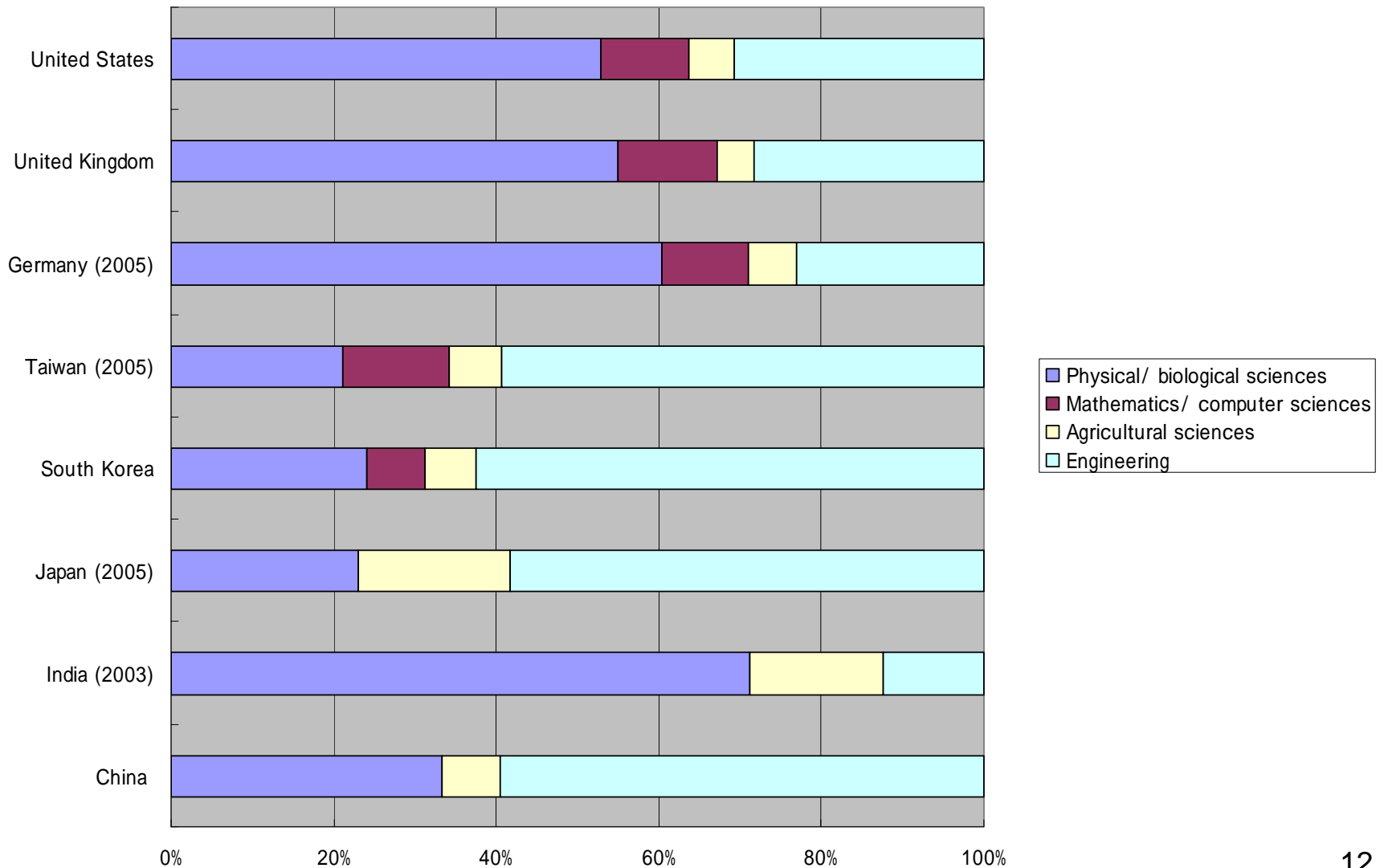
理工系博士学位授与数(2)

Earned S&E doctoral degrees (2004 or most recent year)



理工系博士学位の分野別割合

Earned S&E doctoral degrees (2004 or most recent year)



Appendix table 2-40

Earned S&E doctoral degrees, by selected region, country/economy, and field: 2004 or most recent year

Location	All fields	All S&E fields	Physical/ biological sciences	Mathematics/ computer sciences	Agricultural sciences	Social/ behavioral sciences	Engineering	Non-S&E
All regions	285,447	149,601	55,947	8,565	10,288	29,692	45,109	135,846
Asia ^a	66,750	34,322	11,744	427	3,644	2,823	15,684	32,428
China	23,446	14,858	4,518	NA	977	1,309	8,054	8,588
India (2003)	13,733	6,318	4,497	NA	1,042	NA	779	7,415
Japan ^b (2005)	16,851	7,658	1,543	NA	1,257	943	3,915	9,193
South Korea	7,946	3,531	788	232	203	268	2,040	4,415
Taiwan (2005)	2,165	1,385	270	166	83	108	758	780
Middle East ^a	16,076	4,918	1,748	367	485	774	1,544	11,158
Sub-Saharan Africa ^a	3,078	1,050	275	121	199	296	159	2,028
Europe ^a	137,072	71,273	27,452	5,101	3,348	15,876	19,496	65,799
European Union	83,188	45,398	20,433	4,514	1,864	8,166	10,421	37,790
Germany (2005)	25,952	12,194	5,825	1,023	575	2,560	2,211	13,758
United Kingdom ^c	15,260	9,150	3,960	880	320	1,950	2,040	6,110
European Free Trade Association	3,708	1,406	697	94	73	217	325	2,302
Central/Eastern Europe	50,176	24,469	6,322	493	1,411	7,493	8,750	25,707
America ^a	57,085	35,131	13,499	2,326	2,421	9,288	7,597	21,954
North/Central America	48,381	29,950	11,211	2,288	1,387	8,512	6,552	18,431
United States	42,155	26,275	9,962	2,024	1,046	7,467	5,776	15,880
South America	8,704	5,181	2,288	38	1,034	776	1,045	3,523
Oceania	5,386	2,907	1,229	223	191	635	629	2,479

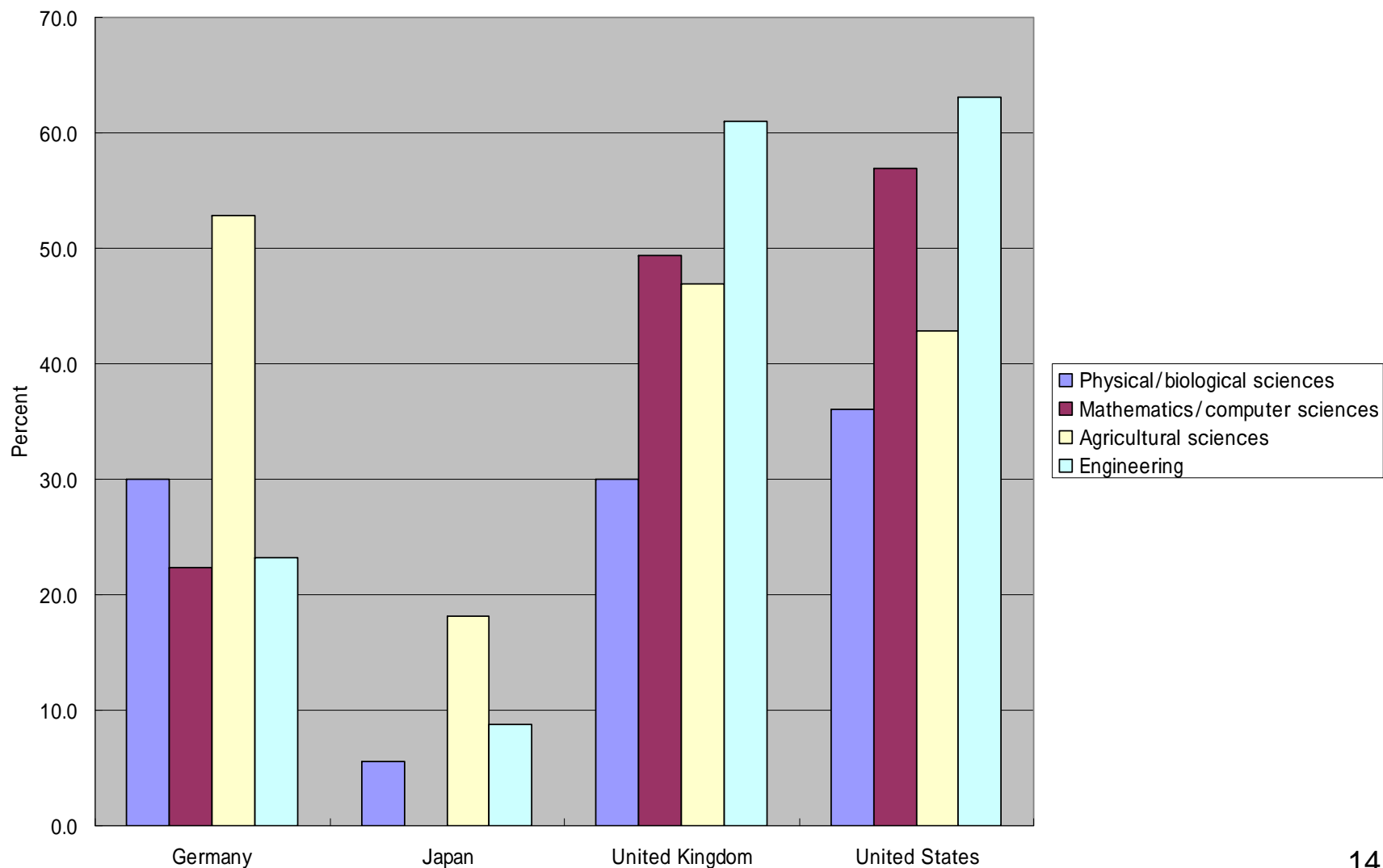
NA = not available

^aIncludes only locations for which relatively recent data available.^bIncludes thesis doctorates, called *ronbun hakase*, earned by employees in industry.^cData rounded to nearest 10. Detail may not add to total because of rounding.

NOTES: Physical/biological sciences include physical, biological, earth, atmospheric, and ocean sciences. Data for doctoral degrees use International Standard Classification of Education (ISCED 97), level 6. S&E data do not include health fields.

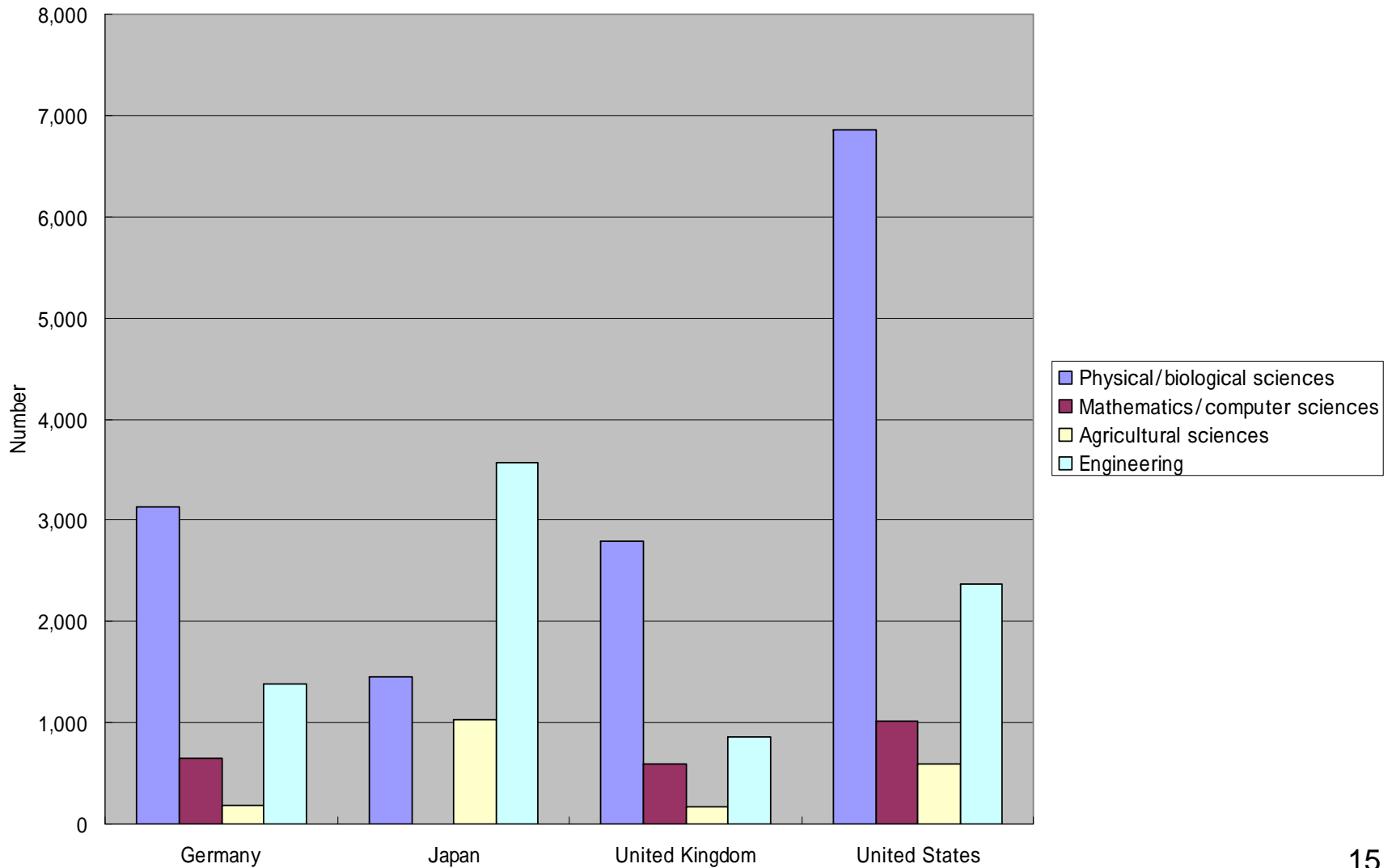
理工系博士学位授与数に占める外国人の割合

Doctoral degrees earned by foreign students (2005 or most recent year)



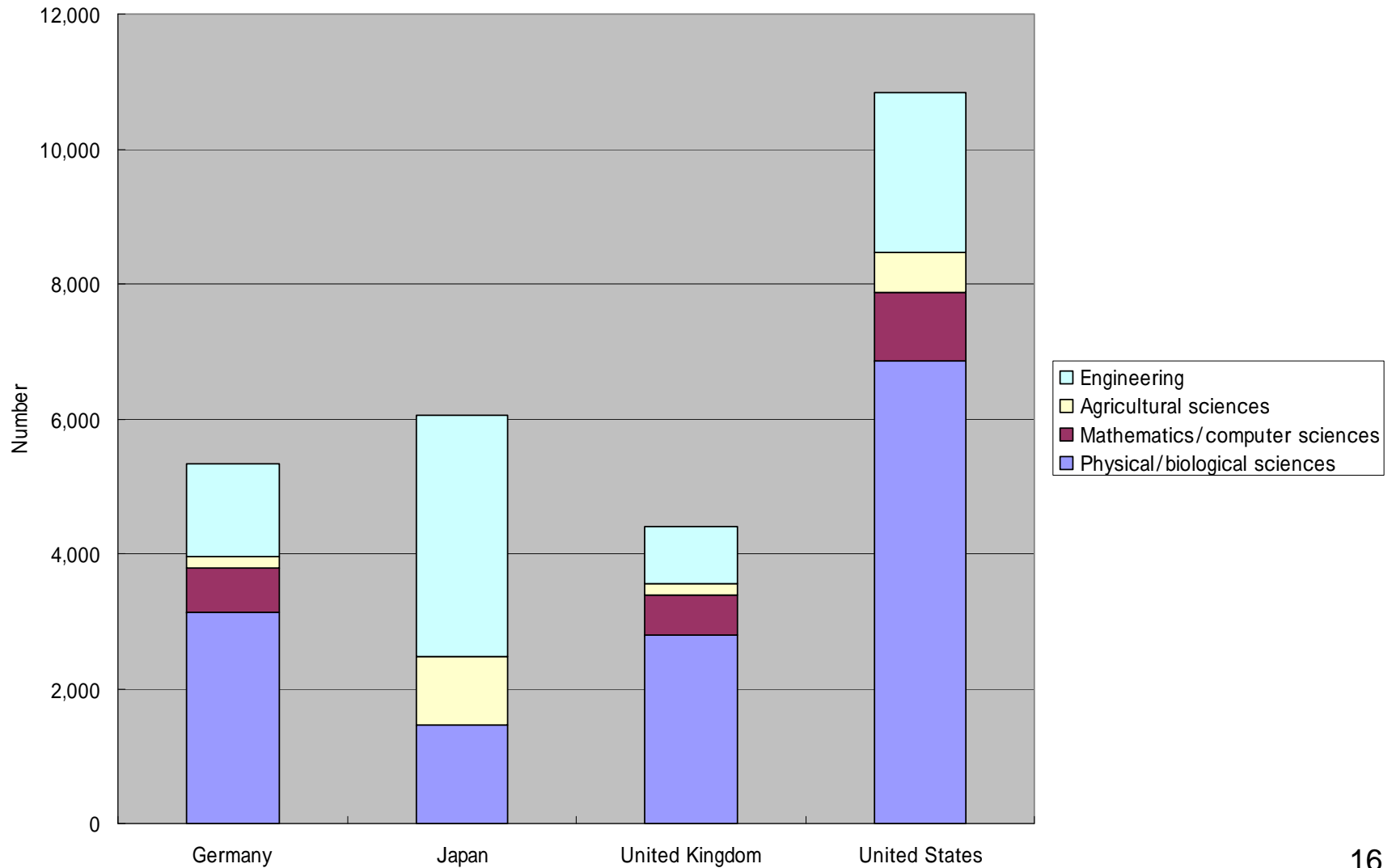
国内学生への理工系博士学位授与数(1)

Doctoral degrees earned by domestic students (2005 or most recent year)



国内学生への理工系博士学位授与数(2)

Doctoral degrees earned by domestic students (2005 or most recent year)



Doctoral degrees earned by foreign students, by selected industrialized country and field: 2005 or most recent year

Country and field	All	Foreign	
		Number	Percent
Germany	22,402	3,556	15.9
S&E	9,778	2,417	24.7
Physical/biological sciences	4,481	1,345	30.0
Mathematics/computer sciences	836	187	22.4
Agricultural sciences	376	199	52.9
Social/behavioral sciences	2,290	270	11.8
Engineering	1,795	416	23.2
Non-S&E	12,624	1,139	9.0
Japan ^a	16,851	1,478	8.8
S&E	7,658	792	10.3
Physical/biological sciences	1,543	87	5.6
Mathematics/computer sciences	NA	NA	NA
Agricultural sciences	1,257	228	18.1
Social/behavioral sciences	943	133	14.1
Engineering	3,915	344	8.8
Non-S&E	9,193	686	7.5
United Kingdom ^b	16,520	6,650	40.2
S&E	9,760	4,100	42.0
Physical/biological sciences	3,980	1,190	30.0
Mathematics/computer sciences	1,160	570	49.4
Agricultural sciences	320	150	46.9
Social/behavioral sciences	2,100	840	39.9
Engineering	2,200	1,340	61.0
Non-S&E	6,750	2,550	37.7
United States	43,354	14,424	33.3
S&E	27,974	11,516	41.2
Physical/biological sciences	10,728	3,868	36.1
Mathematics/computer sciences	2,339	1,330	56.9
Agricultural sciences	1,038	445	42.9
Social/behavioral sciences	7,465	1,834	24.6
Engineering	6,404	4,039	63.1
Non-S&E	15,380	2,908	18.9

NA = not available

^a University-based doctorates only, excluding *ronbun hakase* doctorates awarded for research within industry. Natural sciences include mathematics; engineering includes computer sciences.

^b Data rounded to nearest 10. Detail may not add to total because of rounding. Percentages based on unrounded data.

NOTES: Physical/biological sciences include physical, biological, earth, atmospheric, and ocean sciences. Data for doctoral degrees use International Standard Classification of Education (ISCED 97), level 6. S&E data do not include health fields. For each country, data for doctoral degree recipients with foreign citizenship, including permanent and temporary residents.

(参考1) 日本のデータの出所

文部科学省科学技術・学術政策局「科学技術要覧(平成20年版)」

http://www.mext.go.jp/b_menu/toukei/006/006b/mokuji20.htm

1-12 学位授与数 Number of degrees granted

(単位:人, persons)

		年度 FY				
		13('01)	14('02)	15('03)	16('04)	17('05)
学位 Degree						
修士総数	Master	66,292	68,766	69,771	72,803	74,210
うち自然科学	Natural S & E	42,120	42,417	43,655	45,877	46,960
理学	Physical sciences	6,013	5,974	6,064	6,342	6,518
工学	Engineering and technology	29,082	28,893	29,446	30,763	31,252
農学	Agricultural sciences	3,893	3,880	4,108	4,216	4,339
保健	Medical sciences	3,132	3,670	4,037	4,556	4,851
博士総数	Doctor	16,183	16,314	16,909	16,851	17,396
うち自然科学	Natural S & E	13,767	13,683	13,973	13,617	13,909
理学	Physical sciences	1,602	1,651	1,679	1,543	1,633
工学	Engineering and technology	3,955	3,921	4,077	3,915	4,195
農学	Agricultural sciences	1,248	1,258	1,348	1,257	1,321
保健	Medical sciences	6,962	6,853	6,869	6,902	6,760

(参考2) 日本のデータの出所

日本学生支援機構「外国人留学生進路等状況(平成16年度版)」

http://www.jasso.go.jp/statistics/intl_student/data05_d.html

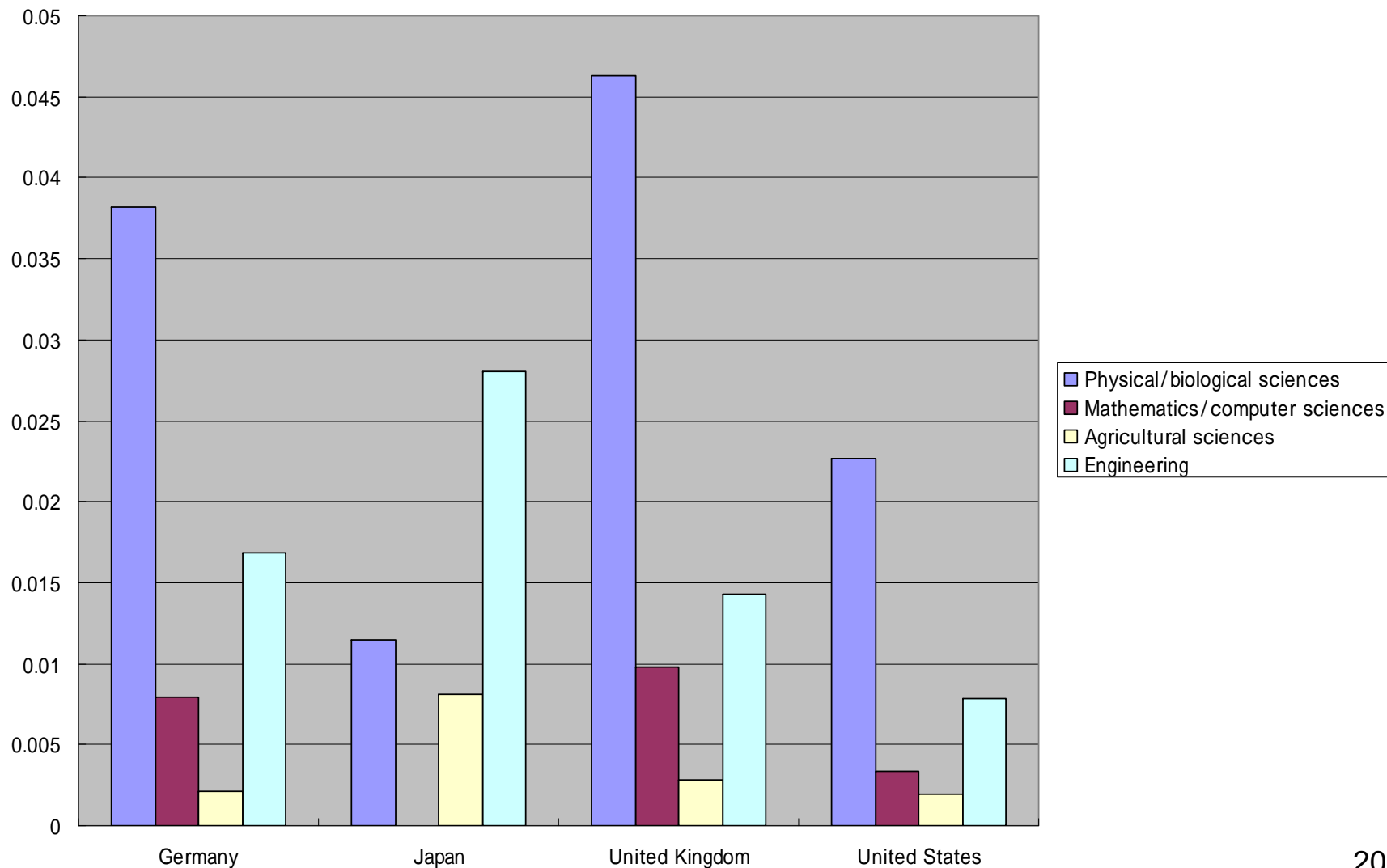
②平成16年度に卒業(修了)した外国人留学生の学位取得状況

専攻分野	修士課程			博士課程			
	入学者数(a)	学位取得者数(b)	b/a	入学者数(a)	学位取得者数(b)	論文博士取得者数(内数)	b/a
	人	人	%	人	人	人	%
人文	724	529	73.1	208	45	16	21.6
社会	2,566	1,928	75.1	411	133	29	32.4
理学	208	119	57.2	204	87	14	42.6
工学	1,108	871	78.6	741	344	40	46.4
農学	366	320	87.4	344	228	17	66.3
保健	120	97	80.8	523	417	44	79.7
教育	525	432	82.3	47	15	2	31.9
芸術	134	118	88.1	38	14	0	36.8
家政	33	32	97.0	9	3	0	33.3
その他	814	509	62.5	595	192	26	32.3
合計	6,598	4,955	75.1	3,120	1,478	188	47.4

注)入学者数・・・修士課程は平成15年度入学者数
 博士課程は平成14年度入学者数(医歯系は平成13年度)
 学位取得者数・・・平成16年4月から平成17年3月(博士課程は論文博士含む)
 「その他」には、入学時に専攻分野が確定していない者を含む

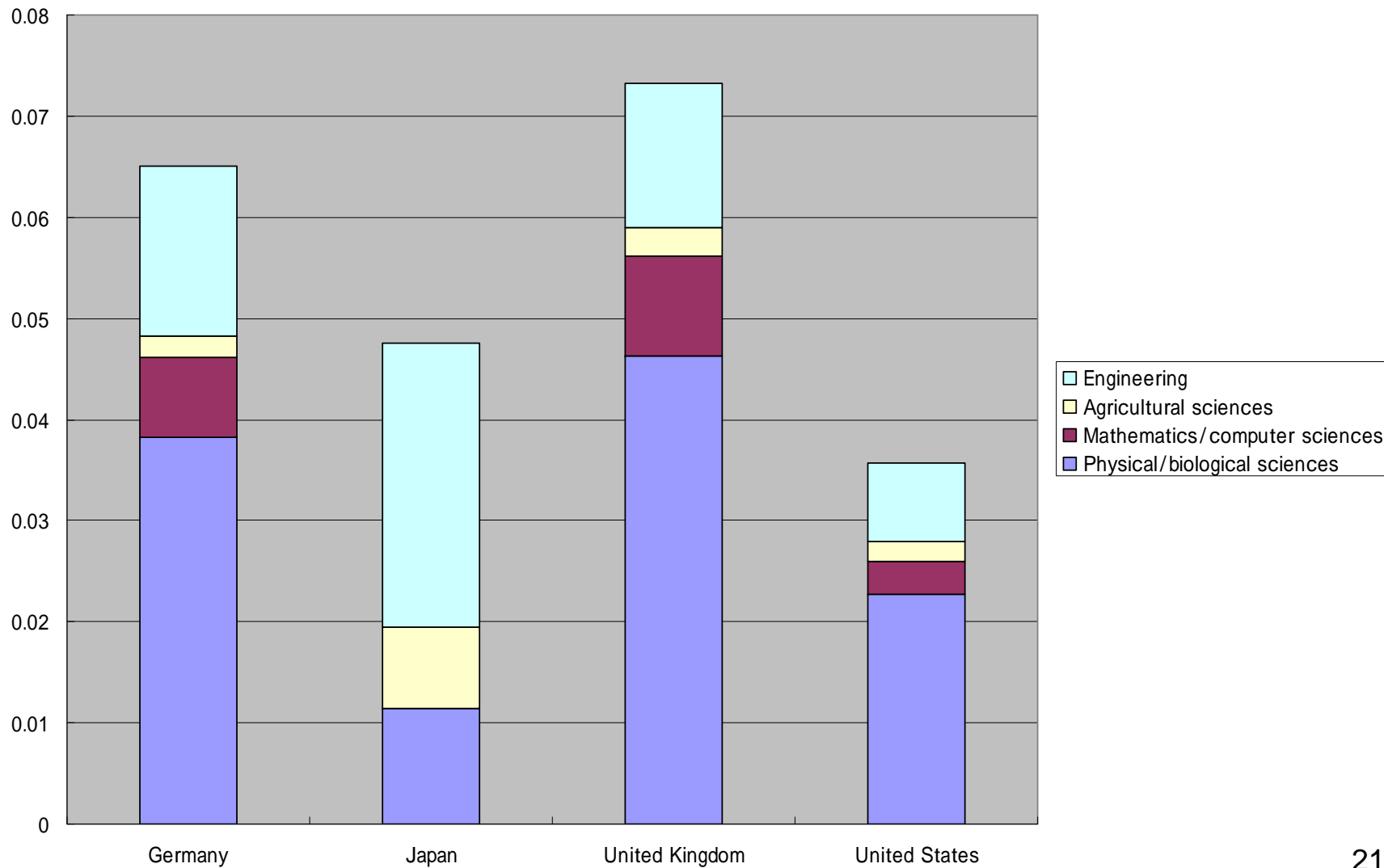
人口当たり国内学生への理工系博士学位授与数(1)

人口千人あたりの博士学位授与数(外国人除く)



人口当たり国内学生への理工系博士学位授与数(2)

人口千人あたりの博士学位授与数(外国人除く)



各国の人口

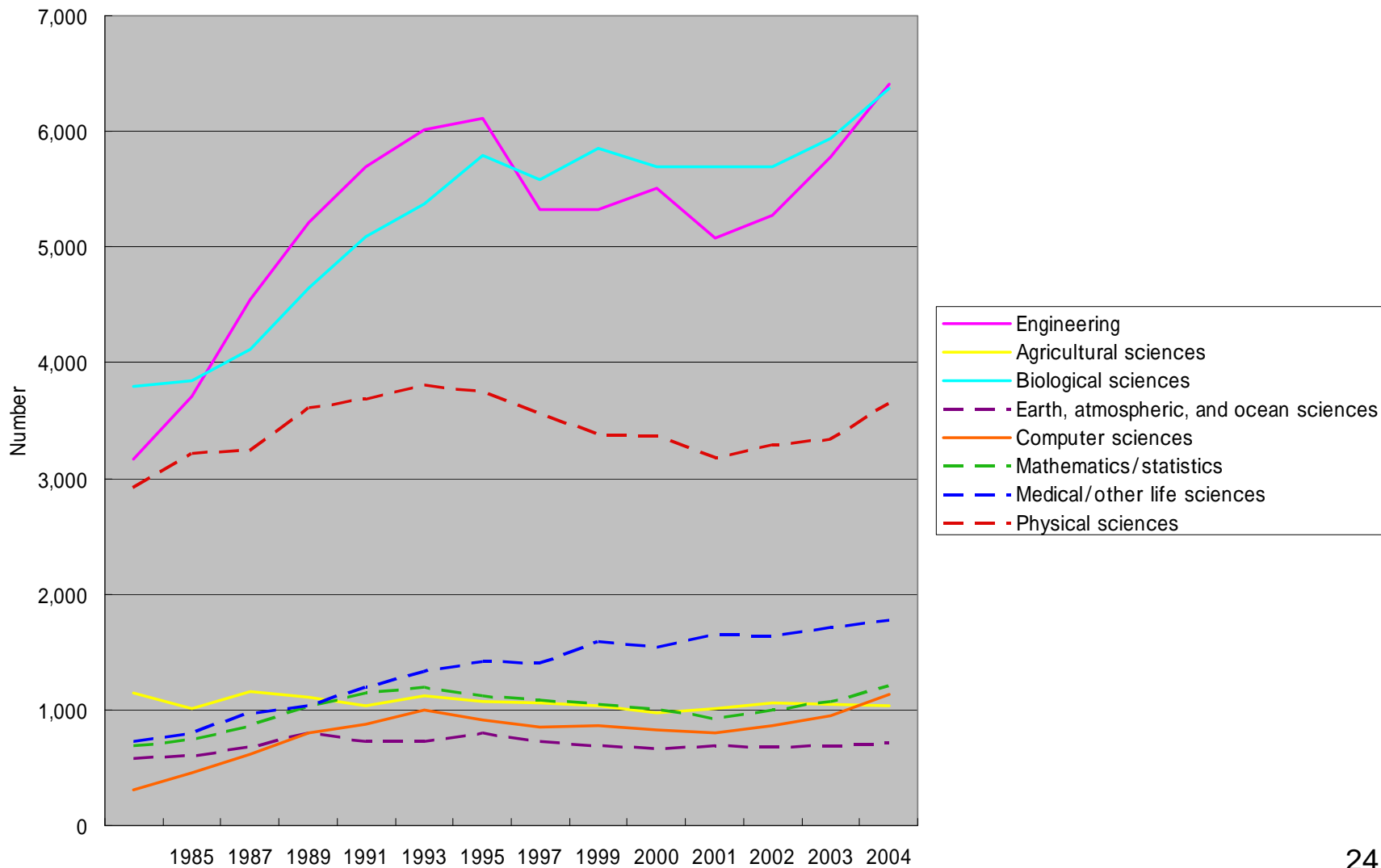
Year	Germany	Japan	United Kingdom	United States of America
1985	77,685	120,908	56,554	240,612
1990	79,433	123,191	57,237	254,865
1995	81,622	125,442	58,042	270,648
2000	82,075	126,706	58,907	287,842
2005	82,409	127,449	60,261	302,741
2010	82,057	126,995	61,899	317,641
2015	81,346	125,791	63,528	332,334
2020	80,422	123,664	65,090	346,153
2025	79,258	120,793	66,601	358,735
2030	77,854	117,424	67,956	369,981
2035	76,234	113,733	69,137	379,999
2040	74,435	109,804	70,235	388,907
2045	72,503	105,740	71,311	396,766
2050	70,504	101,659	72,365	403,932

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision, <http://esa.un.org/unpp>, Friday, June 12, 2009.

米国の詳細情報

理工系博士学位授与数の分野別推移

STEM doctoral degrees (U.S.)



Appendix table 2-31

Earned doctoral degrees, by field, sex, and citizenship: Selected years, 1985–2005

	1985	1987	1989	1991	1993	1995	1997	1999	2000	2001	2002	2003	2004	2005
Engineering	3,166	3,712	4,543	5,213	5,698	6,008	6,114	5,330	5,323	5,508	5,077	5,279	5,775	6,404
Agricultural sciences	1,152	1,005	1,154	1,108	1,036	1,117	1,078	1,065	1,037	975	1,009	1,060	1,045	1,038
Biological sciences	3,793	3,839	4,116	4,649	5,092	5,376	5,788	5,581	5,853	5,693	5,690	5,693	5,939	6,368
Earth, atmospheric, and ocean sciences	575	599	672	801	721	726	804	723	694	660	689	683	686	713
Computer sciences	310	450	612	800	880	997	909	856	860	825	807	866	948	1,136
Mathematics/statistics	688	739	859	1,038	1,146	1,190	1,123	1,083	1,050	1,007	919	993	1,076	1,203
Medical/other life sciences	729	800	974	1,041	1,197	1,329	1,421	1,407	1,591	1,541	1,653	1,633	1,719	1,777
Physical sciences	2,916	3,212	3,244	3,605	3,681	3,814	3,746	3,562	3,378	3,364	3,185	3,289	3,338	3,647

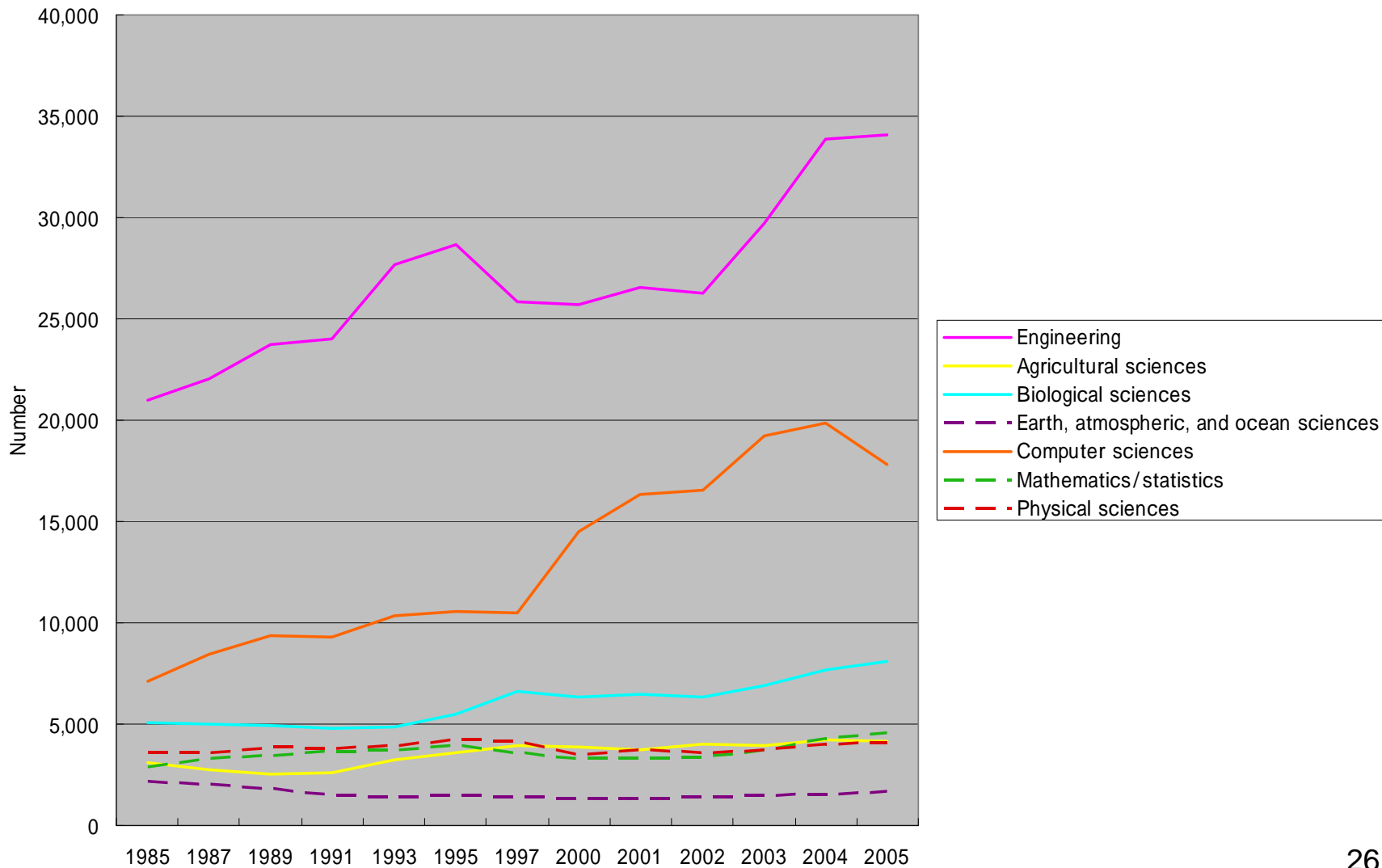
NOTES: Total includes unknown sex not shown separately. Medical/other life sciences reported separately from S&E fields in National Science Foundation, Division of Science Resources Statistics (NSF/SRS) higher education publications. For detailed fields, see NSF/SRS, Science and Engineering Doctorate Awards annual series, <http://www.nsf.gov/statistics/doctorates/>.

SOURCE: NSF/SRS, Survey of Earned Doctorates, Integrated Science and Engineering Resources Data System (WebCASPAR), <http://webcaspar.nsf.gov>.

Science and Engineering Indicators 2008

理工系修士学位授与数の分野別推移

STEM master's degrees (U.S.)



Appendix table 2-29

Earned master's degrees, by sex and field: Selected years, 1985–2005

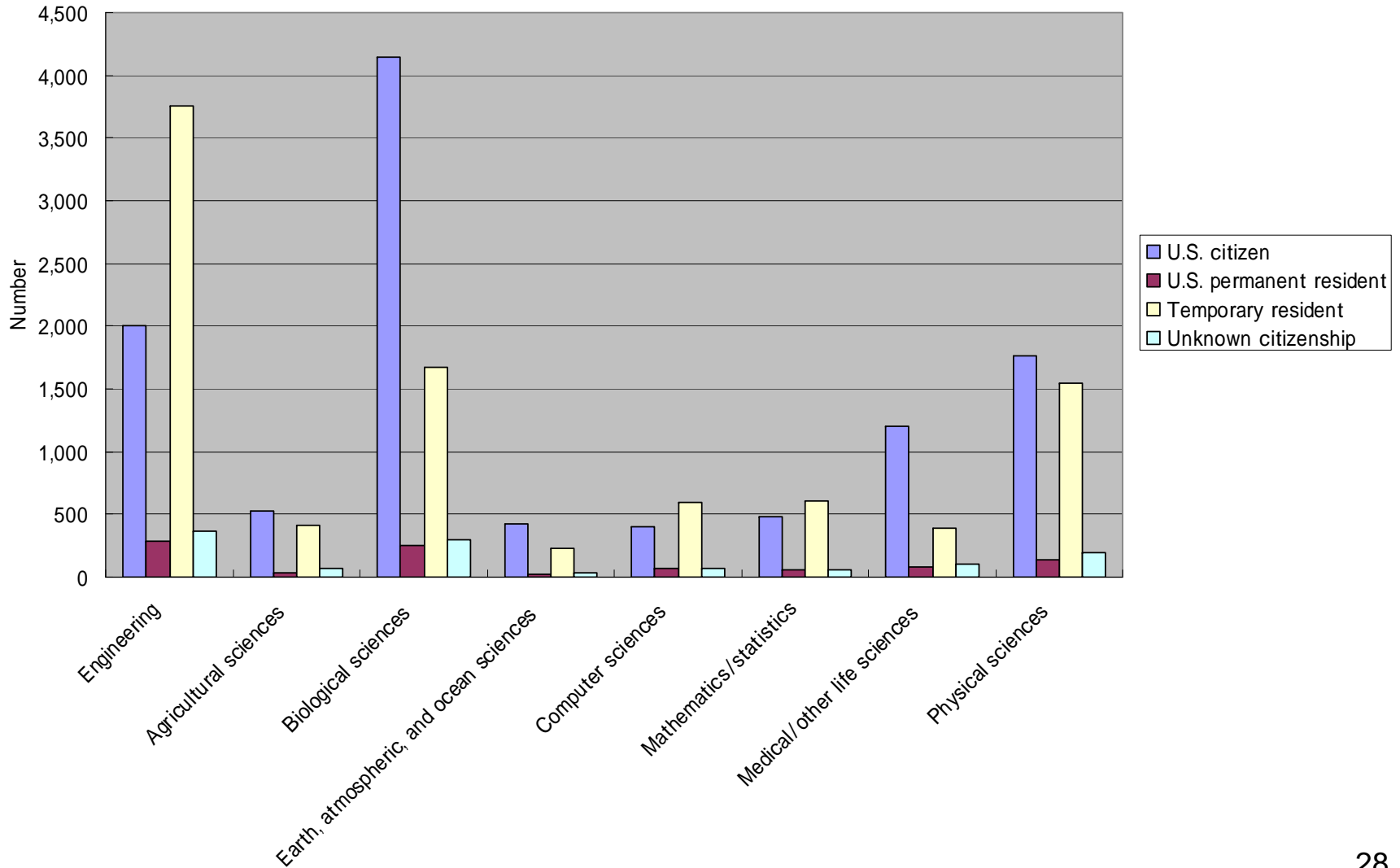
	1985	1987	1989	1991	1993	1995	1997	2000	2001	2002	2003	2004	2005
Engineering	20,972	22,070	23,743	24,013	27,664	28,630	25,874	25,736	26,523	26,266	29,704	33,872	34,099
Agricultural sciences	3,113	2,776	2,570	2,600	3,272	3,574	3,927	3,858	3,752	4,019	3,955	4,221	4,171
Biological sciences	5,095	4,999	4,953	4,806	4,840	5,495	6,594	6,325	6,487	6,334	6,877	7,647	8,099
Earth, atmospheric, and ocean science	2,160	2,051	1,819	1,499	1,397	1,483	1,435	1,345	1,363	1,406	1,491	1,570	1,685
Computer sciences	7,101	8,481	9,399	9,324	10,349	10,563	10,489	14,529	16,341	16,582	19,248	19,853	17,820
Mathematics/statistics	2,903	3,327	3,430	3,632	3,751	3,932	3,599	3,295	3,280	3,408	3,706	4,297	4,598
Physical sciences	3,605	3,574	3,876	3,777	3,965	4,241	4,141	3,512	3,737	3,624	3,702	4,030	4,116

SOURCES: National Center for Education Statistics, Integrated Postsecondary Education Data System, Completions Survey; and National Science Foundation, Division of Science Resources Statistics, Integrated Science and Engineering Resources Data System (WebCASPAR), <http://webcaspar.nsf.gov>.

Science and Engineering Indicators 2008

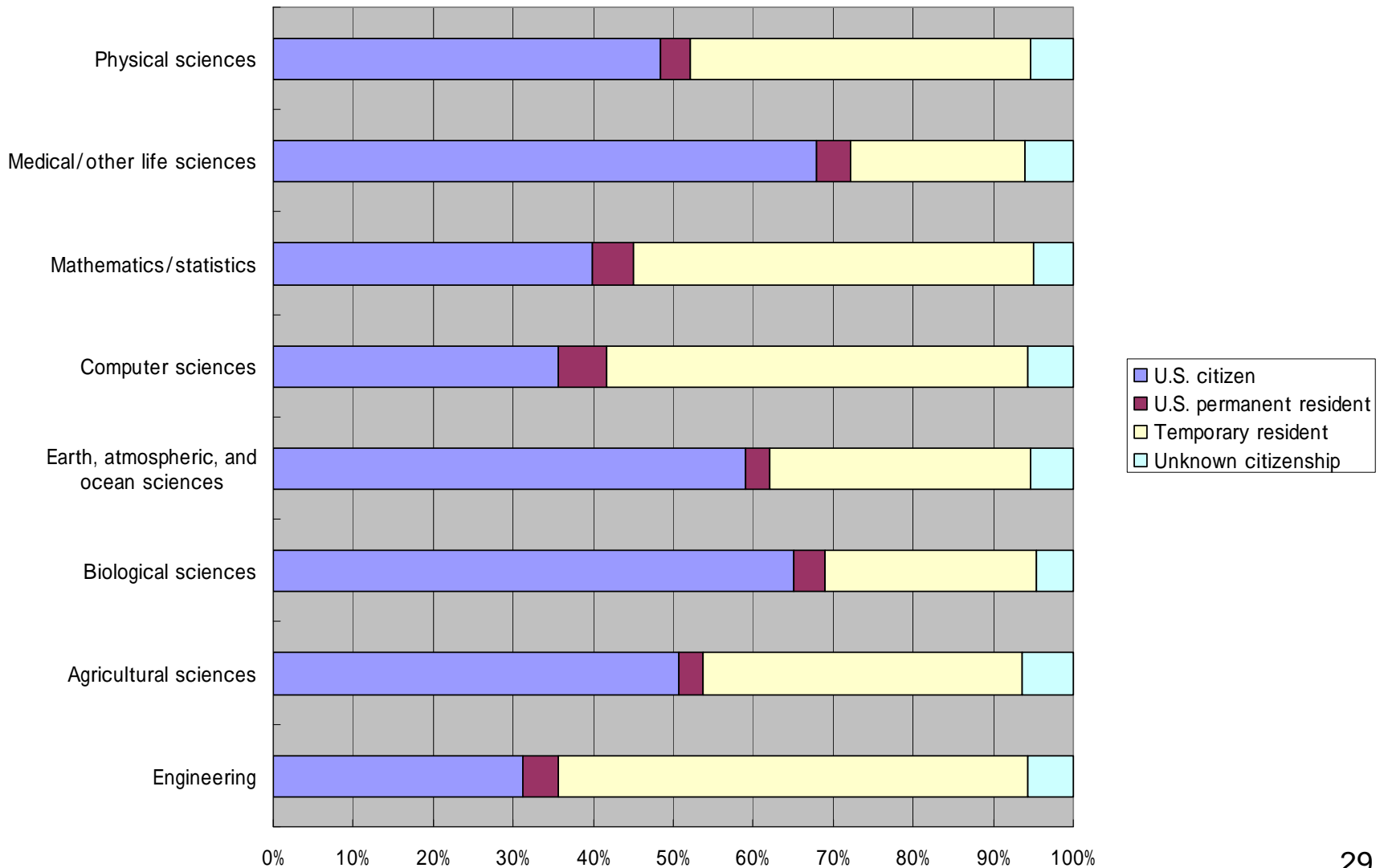
Citizenship別理工系博士学位授与数

Earned doctoral degrees by citizenship (2005)



理工系博士学位授与数のCitizenship別割合

Earned doctoral degrees by citizenship (2005)



Appendix table 2-32

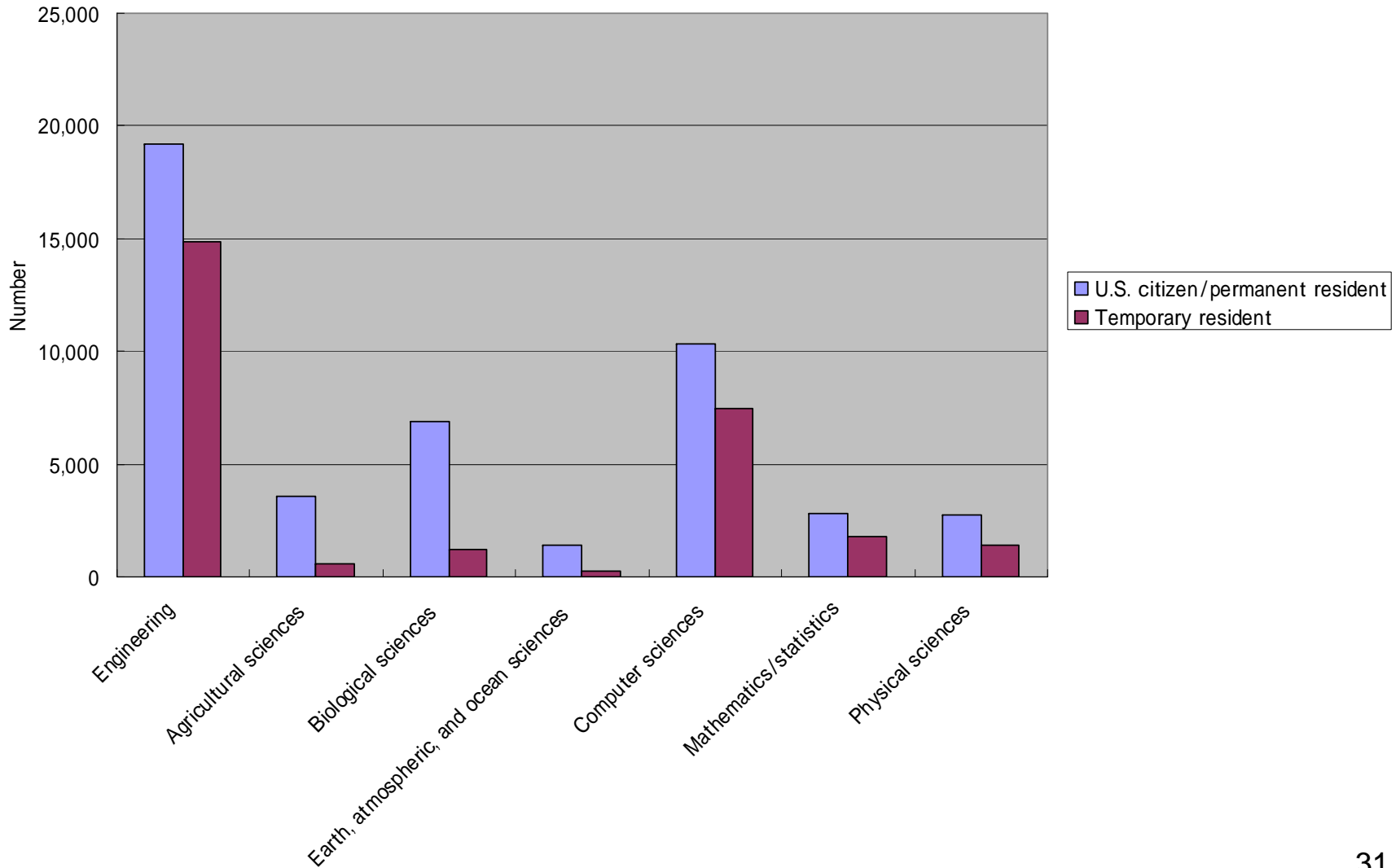
Earned doctoral degrees, by field, citizenship, and race/ethnicity: Selected years, 1985–2005

Field, race/ethnicity, and citizenship	2005
U.S. citizen	
Engineering	1,999
Agricultural sciences	527
Biological sciences	4,141
Earth, atmospheric, and ocean sciences	421
Computer sciences	405
Mathematics/statistics	480
Medical/other life sciences	1,206
Physical sciences	1,768
U.S. permanent resident	
Engineering	285
Agricultural sciences	30
Biological sciences	255
Earth, atmospheric, and ocean sciences	21
Computer sciences	68
Mathematics/statistics	61
Medical/other life sciences	77
Physical sciences	132
Temporary resident	
Engineering	3,754
Agricultural sciences	415
Biological sciences	1,677
Earth, atmospheric, and ocean sciences	233
Computer sciences	599
Mathematics/statistics	602
Medical/other life sciences	388
Physical sciences	1,550
Unknown citizenship	
Engineering	366
Agricultural sciences	66
Biological sciences	295
Earth, atmospheric, and ocean sciences	38
Computer sciences	64
Mathematics/statistics	60
Medical/other life sciences	106
Physical sciences	197

NOTES: Medical/other life sciences reported separately from S&E fields in National Science Foundation, Division of Science Resources Statistics (NSF/SRS), higher education publications. For detailed fields, see NSF/SRS, Science and Engineering Doctorate Awards annual series, <http://www.nsf.gov/statistics/doctorates/>.

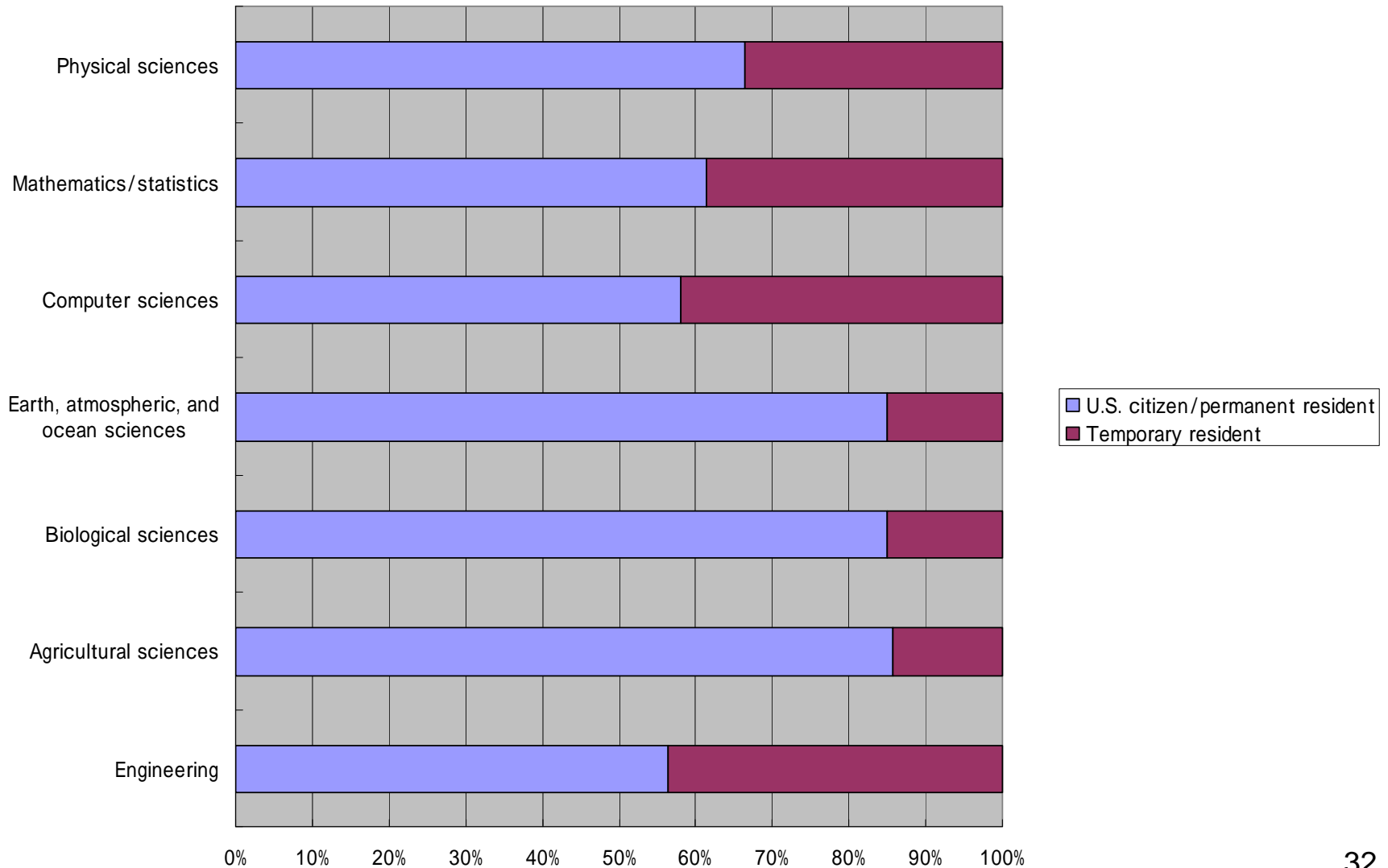
Citizenship別理工系修士学位授与数

Earned master's degrees by citizenship (2005)



理工系修士学位授与数のCitizenship別割合

Earned master's degrees by citizenship (2005)



Appendix table 2-30

Earned master's degrees, by field, race/ethnicity, and citizenship: Selected years, 1985–2005

	2005
U.S. citizen/permanent resident	
Engineering	19,219
Agricultural sciences	3,575
Biological sciences	6,886
Earth, atmospheric, and ocean sciences	1,431
Computer sciences	10,340
Mathematics/statistics	2,821
Physical sciences	2,735
Temporary resident	
Engineering	14,880
Agricultural sciences	596
Biological sciences	1,213
Earth, atmospheric, and ocean sciences	254
Computer sciences	7,480
Mathematics/statistics	1,777
Physical sciences	1,381

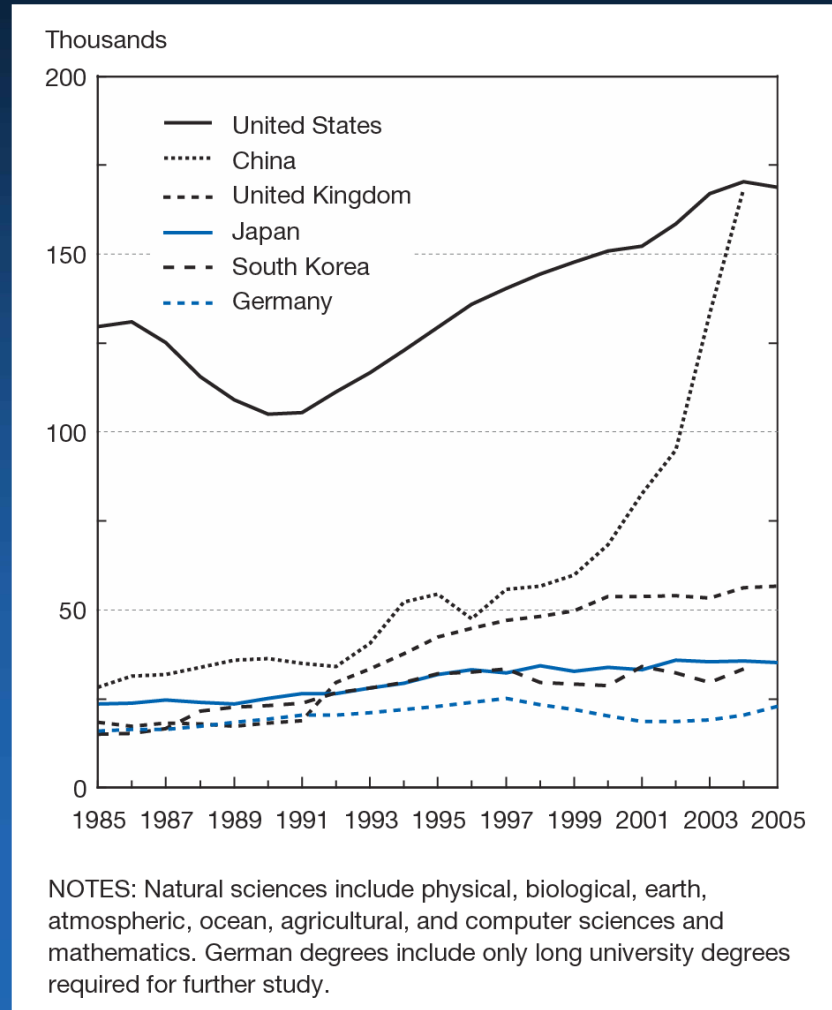
NA = not available

NOTES: Race/ethnicity data collected on broad fields of study only until 1994. Field taxonomies for data through 1994 do not exactly match field taxonomies used in tables by sex or race/ethnicity data after 1994. Primary difference between taxonomies: history included in social sciences before 1995 but in non-S&E from 1995 on. Racial/ethnic breakouts for U.S. citizens and permanent residents only; temporary resident includes all racial/ethnic groups.

(参考)

**Science and Engineering Indicators 2008 で
示されている主なグラフ**

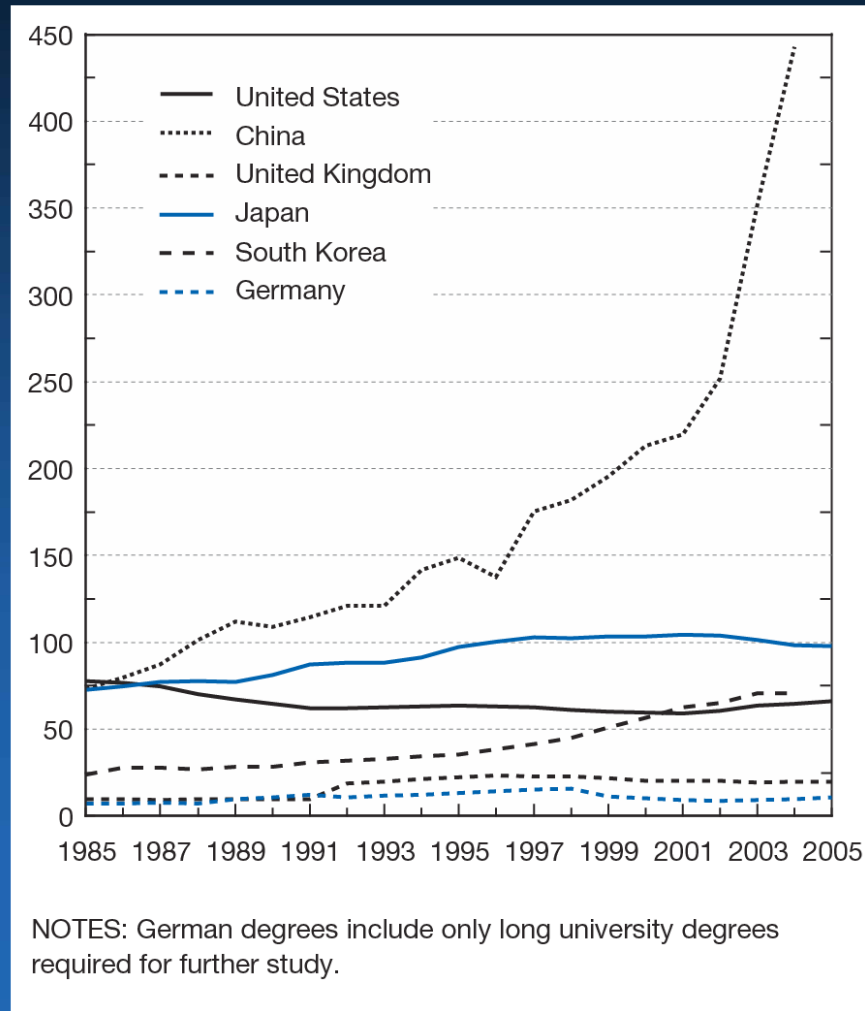
First university natural sciences degrees, by selected country: 1985–2005



SOURCE: National Science Board, *Science and Engineering Indicators 2008*



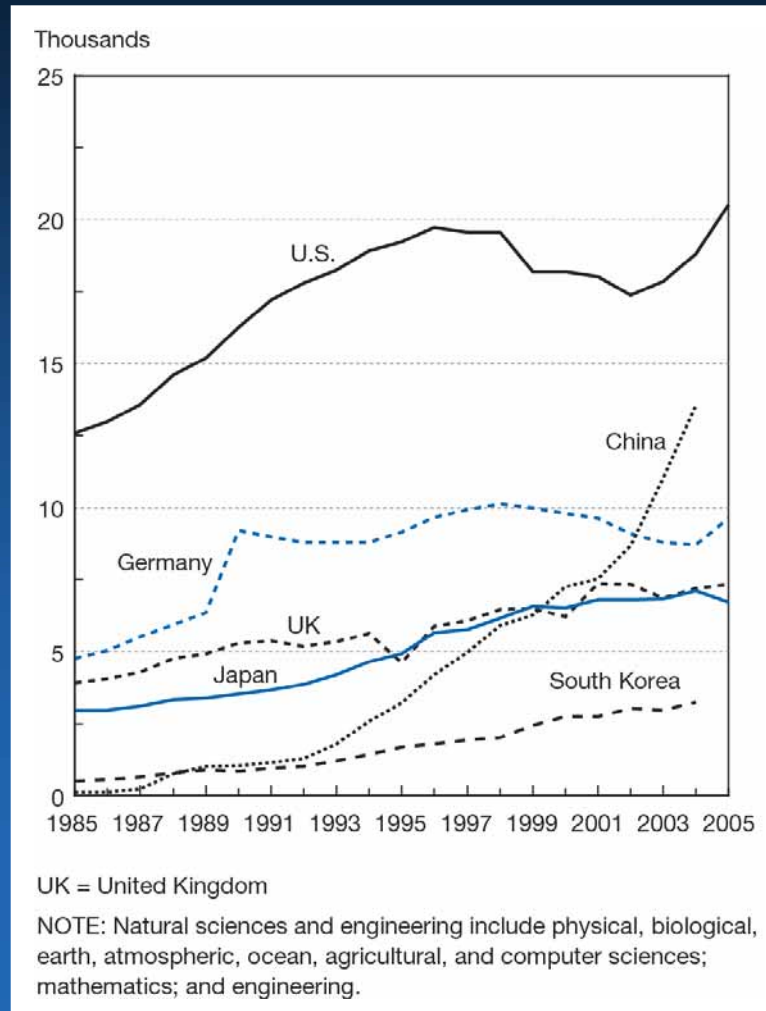
First university engineering degrees, by selected country: 1985–2005



SOURCE: National Science Board, *Science and Engineering Indicators 2008*



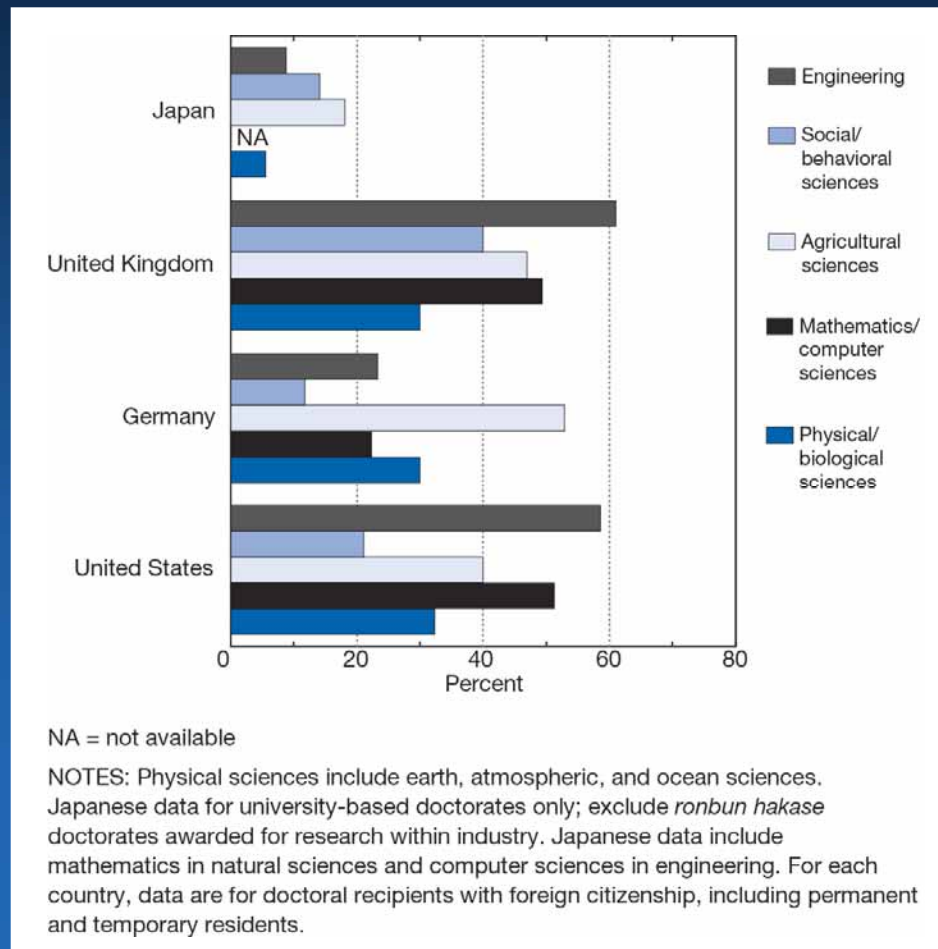
Natural sciences and engineering doctoral degrees, by selected country: 1985–2005



SOURCE: National Science Board, *Science and Engineering Indicators 2008*



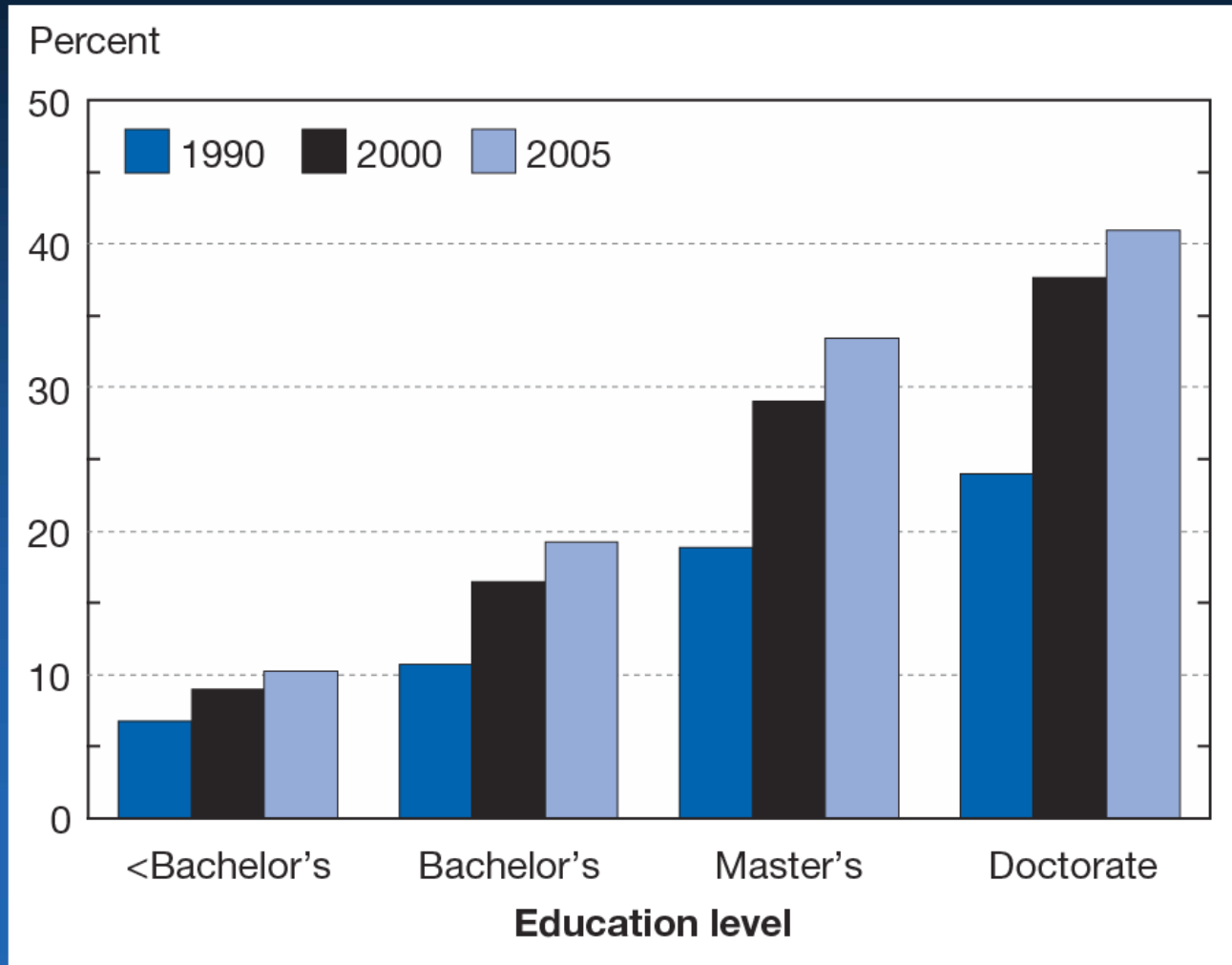
S&E doctoral degrees earned by foreign students, by selected industrialized country and field: 2005 or most recent year



SOURCE: National Science Board, *Science and Engineering Indicators 2008*



Foreign-born individuals in U.S. S&E workforce, by degree level: 1990, 2000, and 2005



SOURCE: National Science Board, *Science and Engineering Indicators 2008*

