

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					
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

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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

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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

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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.