

TABLE 2. Doctorates awarded to women, by field of study and year of doctorate: 1994–2003

Field of study	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percent women	
											1994	2003
Grand total, all fields	15,822	16,417	16,956	17,241	17,848	17,479	18,124	17,947	18,123	18,402	38.6	45.2
Science and engineering <sup>1</sup>	7,922	8,286	8,649	8,934	9,348	9,081	9,393	9,328	9,158	9,472	30.2	37.5
Engineering	635	696	777	750	774	788	837	928	888	896	10.9	17.0
Aeronautical/astronautical	11	14	24	16	15	17	21	28	24	27	4.8	13.6
Chemical engineering	113	109	143	122	140	123	151	180	176	154	15.6	24.0
Chemical	101	96	126	106	119	101	130	156	150	140	16.0	24.9
Petroleum	3	1	3	3	6	5	6	7	10	5	7.1	13.9
Polymer/plastics	9	12	14	13	15	17	15	17	16	9	17.0	20.0
Civil engineering	80	76	79	80	100	89	88	111	120	125	11.7	18.6
Civil	56	55	64	70	83	76	78	82	96	86	9.3	15.6
Environmental health	24	21	15	10	17	13	10	29	24	39	29.3	32.0
Electrical engineering	147	173	169	150	156	155	195	203	163	179	8.8	12.2
Communications	5	5	2	3	6	6	7	12	4	7	15.2	19.4
Computer	25	18	23	21	22	32	31	33	16	27	12.4	14.1
Electrical/electronics	117	150	144	126	128	117	157	158	143	145	8.1	11.7
Industrial/manufacturing engineering	33	50	51	40	40	42	35	44	67	53	14.5	25.1
Materials/metallurgical engineering	83	95	84	106	84	88	83	105	80	101	15.4	21.4
Ceramic sciences	9	5	3	8	2	9	8	3	1	1	23.1	5.6
Materials science	69	84	72	96	75	75	73	99	78	99	15.9	22.7
Metallurgical	5	6	9	2	7	4	2	3	1	1	7.5	5.6
Mechanical engineering	69	64	78	88	93	96	96	91	96	84	6.8	10.3
Engineering mechanics	9	8	10	6	13	11	7	5	8	9	6.8	14.3
Mechanical	60	56	68	82	80	85	89	86	88	75	6.8	10.0
Other engineering	99	115	149	148	146	178	168	166	162	173	13.6	21.9
Agricultural	10	7	17	12	5	12	7	8	9	6	11.2	11.1
Bioengineering/biomedical	45	48	49	54	51	63	71	69	69	78	26.0	27.9
Engineering physics	3	1	3	4	3	4	1	2	3	9	17.6	32.1
Engineering science	3	6	4	7	8	4	6	9	8	2	6.5	5.1
Mining/mineral	3	0	3	3	4	2	0	2	0	1	13.0	7.7
Nuclear	8	9	9	8	10	8	9	6	13	11	9.4	14.7
Ocean	2	3	3	5	0	1	3	3	3	1	6.9	8.3
Operations research	7	8	16	15	15	16	11	17	13	19	14.9	23.8
Systems	5	5	9	10	9	7	6	8	9	9	9.8	19.6
Engineering, general	4	9	11	3	3	4	10	4	6	4	10.3	20.0
Engineering, other	9	19	25	27	38	57	44	38	29	33	7.0	23.1
Sciences <sup>1</sup>	7,287	7,590	7,872	8,184	8,574	8,293	8,556	8,400	8,270	8,576	35.8	42.9
Biological/agricultural sciences	2,358	2,445	2,696	2,755	2,834	2,674	2,896	2,839	2,822	2,911	37.5	44.0
Agricultural science	249	228	281	260	298	280	274	290	278	313	23.1	33.9
Agronomy and crop science	17	13	17	10	18	16	14	21	19	14	11.9	25.5
Animal breeding/genetics	3	1	3	4	6	7	4	4	2	6	17.6	28.6
Animal nutrition	10	9	11	13	13	12	8	6	17	9	17.2	22.0
Dairy science	1	3	2	5	2	5	0	0	2	8	9.1	44.4
Poultry science	5	0	2	2	3	2	3	5	5	5	23.8	29.4

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Animal sciences, other	25	19	26	14	16	23	26	19	22	33	29.1	37.5
Fisheries science and management	11	9	10	5	8	7	11	9	13	12	22.9	25.5
Wildlife/range management	13	8	22	13	15	8	11	14	9	12	25.0	26.7
Food engineering	2	0	0	3	3	2	2	7	4	5	12.5	45.5
Food sciences, other	69	54	69	79	66	67	66	64	56	78	45.1	49.7
Forest biology	6	5	4	1	6	4	8	7	7	3	30.0	18.8
Forest engineering	NA	0	0	2	0	0	0	0	0	0	NA	0.0
Forest management	2	6	2	4	9	3	2	4	2	6	11.8	33.3
Wood science and pulp/paper technology	6	6	3	2	4	6	1	4	2	5	23.1	26.3
Conservation/renewable natural resources	6	5	3	7	11	9	5	18	12	13	28.6	27.7
Forestry and related sciences, other	6	13	18	15	16	16	17	16	16	15	10.2	31.9
Horticulture science	14	22	22	16	13	16	16	13	13	18	21.5	33.3
Plant breeding/genetics	13	15	13	9	14	13	23	10	12	13	16.0	26.0
Plant pathology	20	9	27	26	24	27	12	16	22	18	36.4	37.5
Plant sciences, other	9	3	3	7	14	12	10	10	11	10	37.5	34.5
Soil chemistry/microbiology	4	5	9	9	7	8	8	15	8	10	19.0	41.7
Soil sciences, other	6	18	14	8	21	11	15	15	16	13	8.7	26.0
Agricultural sciences, general	0	3	0	2	1	0	2	0	2	0	0.0	0.0
Agricultural sciences, other	1	2	1	4	8	6	10	13	6	7	9.1	46.7
Biological science	2,109	2,217	2,415	2,495	2,536	2,394	2,622	2,549	2,544	2,598	40.5	45.6
Bacteriology	11	6	8	1	4	6	6	10	7	2	61.1	33.3
Biochemistry	320	341	317	364	351	308	325	309	294	319	39.8	41.3
Biomedical sciences <sup>2</sup>	NA	42	54	63	80	72	68	81	110	88	NA	48.1
Biophysics	33	46	41	41	47	49	49	47	34	53	26.8	32.9
Biotechnology research	2	2	1	3	4	2	6	3	5	7	14.3	29.2
Plant genetics	5	12	16	11	18	9	17	15	28	17	16.7	44.7
Plant pathology	11	10	13	8	8	12	8	11	15	12	27.5	44.4
Plant physiology	21	21	29	18	28	23	15	20	19	13	30.0	40.6
Botany, other	46	34	44	31	55	25	53	33	39	37	39.3	46.3
Anatomy	29	25	20	19	8	16	17	12	8	11	43.9	33.3
Biometrics/biostatistics	34	23	34	43	39	36	41	47	46	49	47.2	58.3
Cell biology	102	117	107	113	155	134	155	148	160	145	43.0	48.2
Developmental biology/embryology	32	29	49	61	61	54	60	53	34	70	51.6	56.0
Ecology	70	64	84	108	114	121	116	128	135	143	34.8	41.1
Endocrinology	8	6	13	9	14	9	8	7	6	12	30.8	57.1
Entomology	28	27	36	42	38	37	37	31	33	30	22.8	27.0
Biological immunology	74	82	129	93	115	100	116	122	146	121	46.0	46.4
Microbiology	177	188	185	185	169	164	189	181	177	159	41.8	43.8
Molecular biology	268	265	291	331	322	299	320	323	271	289	44.8	47.1
Neuroscience	129	121	165	190	169	181	195	200	202	201	45.4	42.6
Nutritional sciences	102	92	98	92	96	68	126	99	107	102	69.4	80.3
Parasitology	9	7	12	10	6	6	8	10	6	6	40.9	40.0
Toxicology	50	50	60	80	60	53	58	62	65	64	41.7	52.0
Human/animal genetics	87	92	101	103	91	105	115	106	109	122	42.9	54.2
Human/animal pathology	45	38	52	42	35	54	45	56	63	47	35.2	46.1
Human/animal pharmacology	106	129	142	143	120	113	123	115	113	126	40.9	46.0
Human/animal physiology	106	103	107	82	100	109	99	91	84	86	36.7	40.4

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Zoology, other	32	50	31	34	43	47	55	40	46	56	27.4	44.1
Biological sciences, general	117	148	120	86	82	75	82	86	96	85	40.6	43.4
Biological sciences, other	55	47	56	89	104	107	110	103	86	126	34.4	53.2
Earth, atmospheric, and ocean sciences	183	170	172	209	219	210	230	236	242	259	22.2	33.1
Atmospheric science	26	23	22	25	30	22	33	28	31	39	20.2	28.1
Atmospheric dynamics	9	3	4	5	8	5	3	4	3	6	33.3	28.6
Atmospheric physics/chemistry	5	8	7	10	7	11	12	9	15	15	18.5	38.5
Meteorology	8	3	2	3	5	1	6	2	2	4	25.0	16.0
Atmospheric science/meteorology, general	4	7	5	5	8	2	7	10	6	5	10.8	15.2
Atmospheric science/meteorology, other	0	2	4	2	2	3	5	3	5	9	0.0	42.9
Earth science	95	91	88	119	127	112	108	115	121	104	18.7	27.9
Geochemistry	10	10	10	15	22	21	13	11	22	17	16.9	32.1
Geology	32	38	36	39	40	41	28	38	30	38	16.5	31.9
Geomorphology/glacial geology	2	4	1	4	8	9	4	3	6	3	15.4	15.0
Geophysics/seismology	24	19	14	19	21	15	16	22	24	17	22.6	22.7
Hydrology/water resources	3	4	5	8	8	5	16	14	10	4	10.0	15.4
Mineralogy/petrology	6	4	11	6	5	3	1	4	4	4	28.6	50.0
Paleontology	2	3	4	11	7	4	14	4	6	3	11.8	16.7
Stratigraphy/sedimentation	4	1	3	7	4	3	4	3	2	6	14.8	37.5
Geological and related sciences, general	1	4	2	4	5	1	5	6	3	2	5.6	25.0
Geological and related sciences, other	11	4	2	6	7	10	7	10	14	10	45.8	33.3
Oceanography	38	28	39	38	32	45	46	46	50	59	30.4	44.4
Marine sciences	11	8	5	8	3	9	17	15	17	21	32.4	58.3
Oceanography	27	20	34	30	29	36	29	31	33	38	29.7	39.2
Other environmental sciences	24	28	23	27	30	31	43	47	40	57	39.3	41.3
Mathematics/computer science	373	451	370	413	456	433	400	431	431	438	18.5	23.5
Computer science	137	186	139	150	159	156	141	155	166	175	15.2	20.2
Computer science	118	160	116	132	120	120	103	111	124	119	14.2	17.0
Information science/systems	19	26	23	18	39	36	38	27	26	24	27.1	36.9
Computer and information science, other	NA	NA	NA	NA	NA	NA	NA	17	16	32	NA	31.1
Mathematics	236	265	231	263	297	277	259	276	265	263	21.1	26.5
Algebra	24	24	18	20	18	25	21	20	15	23	30.8	33.8
Analysis/functional analysis	16	18	15	13	25	19	15	20	20	15	15.0	17.9
Applied mathematics	39	47	52	55	61	59	59	56	62	56	18.9	25.1
Computing theory	2	2	2	1	3	3	2	2	2	0	12.5	0.0
Geometry	4	8	14	13	15	16	8	7	12	10	11.4	20.8
Logic	6	7	1	5	5	5	2	6	5	5	20.7	27.8
Mathematical statistics	50	54	47	46	62	46	71	63	62	69	24.4	36.1
Number theory	5	9	7	11	7	12	5	8	5	7	13.5	15.2
Operations research	9	5	4	5	6	9	3	2	9	4	34.6	21.1
Topology	11	8	5	14	13	15	10	15	10	13	28.9	26.5
Mathematics, general	54	64	45	44	39	22	34	36	33	32	20.1	21.3
Mathematics, other	16	19	21	36	43	46	29	41	30	29	22.2	32.2
Physical sciences	828	878	842	852	926	831	835	838	861	892	20.8	26.9
Astronomy	25	30	41	37	45	33	40	41	28	41	17.4	24.6

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Astronomy	9	18	21	18	22	18	24	21	13	19	13.6	27.5
Astrophysics	16	12	20	19	23	15	16	20	15	22	20.5	22.4
Chemistry	625	661	605	613	695	632	624	628	647	647	27.7	31.8
Analytical	102	109	111	106	146	108	121	123	114	136	30.5	40.5
Inorganic	87	92	68	81	84	90	64	91	86	95	33.2	36.0
Medicinal/pharmaceutical	26	32	32	43	46	50	51	45	39	40	25.5	36.7
Nuclear	0	3	0	0	1	1	3	0	3	2	0.0	50.0
Organic	128	134	118	145	160	163	140	132	144	145	23.5	26.1
Physical	93	93	85	91	77	75	76	92	102	84	27.8	26.3
Polymer	23	28	30	25	40	31	31	33	35	25	19.7	22.7
Theoretical	17	10	14	11	10	9	12	6	17	12	32.7	24.5
Chemistry, general	126	135	119	76	88	52	81	72	61	68	28.2	36.6
Chemistry, other	23	25	28	35	43	53	45	34	46	40	41.8	38.8
Physics	175	182	193	193	177	160	163	160	177	193	11.3	17.9
Acoustics	2	3	2	4	6	1	1	1	1	5	10.0	20.0
Chemical and atomic/molecular	17	15	10	11	13	14	21	7	11	14	12.1	19.4
Elementary particle	16	7	19	21	11	17	15	9	28	15	9.1	11.2
Fluids	1	0	4	0	0	2	0	1	2	0	8.3	0.0
Nuclear	9	12	9	11	11	9	9	13	18	10	10.0	15.2
Optics	14	13	20	16	18	12	16	14	19	23	13.5	24.2
Plasma and high-temperature	8	5	2	2	2	2	0	3	3	2	10.1	6.3
Polymer	4	3	12	7	4	7	6	5	6	1	13.8	7.7
Solid state and low-temperature	53	57	54	51	37	42	42	32	48	48	13.7	17.6
Physics, general	30	41	39	36	29	22	31	23	21	25	8.7	14.5
Physics, other	21	26	22	34	46	32	22	52	20	50	12.6	26.3
Other physical sciences	3	5	3	9	9	6	8	9	9	11	10.7	30.6
Psychology	2,101	2,181	2,330	2,363	2,455	2,449	2,411	2,306	2,133	2,229	62.2	68.1
Clinical	842	870	920	894	966	1,033	992	891	852	845	65.5	71.4
Cognitive psychology and psycholinguistics	56	52	60	75	50	70	66	76	67	70	43.4	52.6
Comparative	7	1	2	3	4	7	2	1	1	2	87.5	50.0
Counseling	310	298	303	314	295	295	312	334	321	312	62.4	71.4
Developmental and child	132	121	154	170	207	149	163	159	141	144	73.7	80.9
Educational	39	53	66	45	39	44	63	31	38	42	56.5	80.8
Experimental	71	83	68	70	65	65	59	72	63	65	51.1	54.6
Family and marriage counseling <sup>d</sup>	NA	37	28	43	28	38	29	22	35	42	NA	67.7
Human/individual family development	103	118	121	101	91	112	103	97	95	111	79.8	74.0
Industrial/organizational	69	89	99	103	110	99	113	105	85	84	50.4	54.2
Personality	12	9	11	13	15	11	14	6	12	11	63.2	64.7
Physiological/psychobiology	52	35	41	42	49	49	56	46	51	42	55.9	49.4
Psychometrics	1	4	3	7	5	2	5	2	2	4	20.0	57.1
Quantitative	8	9	7	10	8	7	2	5	6	3	47.1	27.3
School	53	62	71	66	81	89	78	90	68	72	63.1	70.6
Social	100	84	111	116	117	115	135	107	104	129	65.4	63.9
Psychology, general	158	185	181	199	201	132	134	152	86	143	56.4	63.3
Psychology, other	88	71	84	92	124	132	85	110	106	108	56.4	71.5
Social sciences <sup>1</sup>	1,444	1,465	1,462	1,592	1,684	1,696	1,784	1,750	1,781	1,847	37.0	44.6

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Economics	249	279	263	266	312	291	293	306	281	302	22.6	28.7
Agricultural economics	20	42	37	34	40	39	38	46	32	40	12.3	33.6
Econometrics	4	4	8	4	4	5	3	2	2	6	15.4	26.1
Economics	225	233	218	228	268	247	252	258	247	256	24.6	28.2
Political science	282	265	305	298	364	356	365	330	394	397	30.3	38.7
International relations and affairs	24	21	32	19	32	38	26	31	34	27	21.4	27.3
Political science/government	173	166	186	197	243	216	235	214	252	250	29.4	37.9
Public administration	47	43	37	30	48	46	42	41	35	50	34.8	41.3
Public policy analysis	38	35	50	52	41	56	62	44	73	70	40.4	47.9
Sociology	283	294	276	334	317	342	376	337	345	361	51.6	59.0
Demography/population studies	12	6	2	16	13	17	10	8	12	9	52.2	60.0
Sociology	271	288	274	318	304	325	366	329	333	352	51.6	59.0
Other social sciences	630	627	618	694	691	707	750	777	761	787	47.6	54.3
American studies	48	53	67	47	52	56	63	87	56	66	54.5	70.2
Anthropology	208	219	214	241	239	263	252	244	289	288	54.2	61.0
Archaeology	17	18	11	20	23	12	24	19	15	20	50.0	60.6
Area studies	17	12	9	5	11	3	4	10	14	7	50.0	58.3
Criminology	12	23	25	25	22	20	34	29	30	30	29.3	39.5
Geography	35	43	45	54	49	49	70	66	64	65	24.0	38.7
History/philosophy of science and technology	10	17	10	13	20	18	17	8	11	23	37.0	50.0
Linguistics	134	102	113	135	123	148	135	136	114	132	60.6	58.9
Statistics	16	11	7	23	21	21	22	22	23	19	34.8	39.6
Urban affairs and studies	44	37	39	29	26	17	28	33	35	32	33.1	41.0
Social sciences, general	9	23	15	14	17	14	20	20	17	11	42.9	40.7
Social sciences, other	80	69	63	88	88	86	81	103	93	94	54.1	54.7
Non-S&E <sup>1</sup>	7,900	8,131	8,307	8,307	8,500	8,398	8,731	8,619	8,965	8,930	53.3	57.8
Education	4,090	4,093	4,187	4,120	4,130	4,195	4,172	4,095	4,290	4,363	60.9	65.8
Health	843	843	860	936	1,006	899	1,066	1,032	1,124	1,085	65.0	66.4
Humanities <sup>1</sup>	2,054	2,256	2,343	2,381	2,469	2,418	2,593	2,578	2,505	2,504	47.0	49.9
Professional/other/unknown	913	939	917	870	895	886	900	914	1,046	978	37.3	44.9

NA = not available (i.e., the subfield was not identified separately in the questionnaire for that year).

<sup>1</sup> Categories are grouped differently from the questionnaire and the summary reports in that linguistics, history of science, American studies, and archaeology are included in social science and not in humanities, and public administration is included in social science and not in professional fields.

<sup>2</sup> These subfields were introduced in 1995: "Biomedical sciences" and "Family and marriage counseling."

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Earned Doctorates.