

TABLE 16

Doctorate recipients, by subfield of study and sex: 2018

(Number and percent)

Subfield of study	Total ^a	Male	Female	% female
All fields	55,195	29,798	25,368	46.0
Life sciences	12,780	5,659	7,114	55.7
Agricultural sciences and natural resources	1,445	746	696	48.2
Agricultural sciences	875	458	416	47.5
Agricultural economics	108	65	43	39.8
Agronomy, horticulture science, plant breeding, plant pathology, plant sciences-other	349	209	140	40.1
Animal nutrition, poultry science	68	36	31	45.6
Animal sciences, other	121	48	73	60.3
Food science, food technology-other	163	67	96	58.9
Soil chemistry and microbiology, soil sciences-other	66	33	33	50.0
Natural resources and conservation	503	255	246	48.9
Environmental science	223	98	125	56.1
Fishing and fisheries sciences and management	51	31	19	37.3
Forest biology, forest management, forestry sciences-other	93	60	32	34.4
Natural resources policy and environmental economics	78	36	42	53.8
Natural resources and conservation, wildlife and range management	58	30	28	48.3
Agricultural sciences, aggregated	67	33	34	50.7
Biological and biomedical sciences	8,801	4,089	4,709	53.5
Anatomy, developmental biology	158	67	91	57.6
Bacteriology, parasitology, and virology	149	65	84	56.4
Biochemistry (biological sciences)	811	398	413	50.9
Bioinformatics	203	133	70	34.5
Biomedical sciences	421	189	232	55.1
Biometrics and biostatistics	233	110	123	52.8
Biophysics (biological sciences)	152	103	49	32.2
Botany, plant pathology, plant physiology	149	78	69	46.3
Cancer biology	355	181	174	49.0
Cell, cellular biology, and histology	218	106	112	51.4
Computational biology	146	102	44	30.1
Ecology	418	209	209	50.0
Endocrinology, human/animal pathology	73	29	44	60.3
Entomology	119	68	51	42.9
Environmental toxicology	56	23	33	58.9
Epidemiology	401	112	289	72.1
Evolutionary biology	242	126	116	47.9
Genetics and genomics, human and animal	362	144	218	60.2
Immunology	422	192	230	54.5
Microbiology	478	215	263	55.0
Molecular biology	596	255	341	57.2
Molecular medicine	62	26	36	58.1
Neurosciences, neurobiology	1,037	469	568	54.8
Nutrition sciences	201	39	162	80.6
Pharmacology, human and animal	210	97	113	53.8
Physiology, human and animal	202	104	98	48.5
Plant genetics	72	36	36	50.0
Structural biology	51	38	13	25.5
Toxicology	95	39	56	58.9
Wildlife biology	62	28	34	54.8
Zoology	29	12	17	58.6
Biological and biomedical sciences, general	468	222	245	52.4

TABLE 16

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(Number and percent)

Subfield of study	Total ^a	Male	Female	% female
Biotechnology, biology/biomedical sciences-other	150	74	76	50.7
Health sciences	2,534	824	1,709	67.4
Environmental health	83	30	53	63.9
Health and behavior	60	13	47	78.3
Health services/systems administration	160	45	115	71.9
Kinesiology, exercise science	268	161	107	39.9
Medical physics, radiological science	74	54	20	27.0
Nursing science	585	52	533	91.1
Pharmaceutical sciences	345	190	155	44.9
Public health	421	108	313	74.3
Rehabilitation, therapeutic services	125	31	93	74.4
Speech-language pathology and audiology	112	29	83	74.1
Health sciences, aggregated	301	111	190	63.1
Physical sciences and earth sciences	6,335	4,214	2,118	33.4
Chemistry	2,810	1,743	1,067	38.0
Analytical chemistry	401	199	202	50.4
Chemical biology	160	85	75	46.9
Inorganic chemistry	358	220	138	38.5
Medicinal chemistry	86	48	38	44.2
Organic chemistry	574	411	163	28.4
Physical chemistry	398	264	134	33.7
Polymer chemistry	132	79	53	40.2
Theoretical chemistry	106	81	25	23.6
Chemistry, general	430	268	162	37.7
Chemistry, other	165	88	77	46.7
Geosciences, atmospheric sciences, and ocean sciences	1,185	659	526	44.4
Atmospheric science and meteorology	265	167	98	37.0
Atmospheric physics, meteorology	67	45	22	32.8
Atmospheric chemistry, atmospheric sciences-general, atmospheric sciences-other	198	122	76	38.4
Geological sciences	591	342	249	42.1
Geochemistry, mineralogy	70	38	32	45.7
Geology	132	76	56	42.4
Geomorphology, geological sciences-general, geological sciences-other	216	123	93	43.1
Geophysics and seismology	129	83	46	35.7
Paleontology, stratigraphy	44	22	22	50.0
Ocean and marine sciences	329	150	179	54.4
Marine biology and biological oceanography	73	19	54	74.0
Oceanography, chemical and physical	81	42	39	48.1
Ocean/marine sciences, aggregated	175	89	86	49.1
Physics and astronomy	2,340	1,812	525	22.4
Astronomy and astrophysics	352	246	106	30.1
Astronomy	138	86	52	37.7
Astrophysics	204	151	53	26.0
Astronomy and astrophysics, other	10	9	1	10.0
Physics	1,988	1,566	419	21.1
Acoustics, optics/photonics	195	159	36	18.5
Applied physics	200	143	57	28.5
Atomic physics, polymer physics	150	126	24	16.0
Biophysics (physics)	146	100	46	31.5
Condensed matter, low-temperature physics	443	355	88	19.9

TABLE 16

Doctorate recipients, by subfield of study and sex: 2018

(Number and percent)

Subfield of study	Total ^a	Male	Female	% female
Elementary particle physics	232	201	31	13.4
Nuclear physics	93	72	21	22.6
Plasma, high-temperature physics	60	52	8	13.3
Physics, general	340	273	64	18.8
Physics, other	129	85	44	34.1
Mathematics and computer sciences	4,030	3,043	983	24.4
Computer and information sciences	2,004	1,568	435	21.7
Computer science	1,631	1,334	296	18.1
Information science, systems	122	73	49	40.2
Computer and information sciences, general	141	91	50	35.5
Computer and information sciences, other	110	70	40	36.4
Mathematics and statistics	2,026	1,475	548	27.0
Algebra	107	85	22	20.6
Analysis and functional analysis	100	81	19	19.0
Applied mathematics, computing theory	465	339	125	26.9
Computational mathematics	92	63	29	31.5
Geometry, geometric analysis	79	70	9	11.4
Logic, topology/foundations	77	61	16	20.8
Number theory	62	53	9	14.5
Operations research, mathematics/statistics-general, mathematics/statistics-other	631	468	162	25.7
Statistics (mathematics)	413	255	157	38.0
Psychology and social sciences	8,899	3,641	5,256	59.1
Psychology	3,837	1,097	2,740	71.4
Behavioral analysis	63	22	41	65.1
Clinical psychology	1,267	276	991	78.2
Cognitive neuroscience	199	89	110	55.3
Cognitive psychology and psycholinguistics	143	70	73	51.0
Community psychology	44	7	37	84.1
Counseling	290	82	208	71.7
Developmental and child psychology	163	24	139	85.3
Educational psychology (psychology)	116	32	84	72.4
Experimental psychology	137	62	75	54.7
Family psychology, human development and family studies	143	33	110	76.9
Health, medical psychology	80	20	60	75.0
Industrial and organizational psychology	195	69	126	64.6
Marriage and family therapy, counseling	69	19	50	72.5
Neuropsychology, physiological psychology	40	16	24	60.0
School psychology (psychology)	148	23	125	84.5
Social psychology	218	86	132	60.6
Psychology, general	251	73	178	70.9
Psychology, aggregated	271	94	177	65.3
Social sciences	5,062	2,544	2,516	49.7
Anthropology	424	126	298	70.3
Anthropology, cultural	276	92	184	66.7
Anthropology, general	53	18	35	66.0
Anthropology, physical and biological	95	16	79	83.2
Economics	1,247	850	397	31.8
Econometrics, economics	1,189	813	376	31.6
Natural resources and environmental economics (social sciences)	58	37	21	36.2
Political science and government	734	429	304	41.4

TABLE 16

Doctorate recipients, by subfield of study and sex: 2018

(Number and percent)

Subfield of study	Total ^a	Male	Female	% female
Sociology	669	250	419	62.6
Other social sciences	1,988	889	1,098	55.2
American, U.S. studies	68	34	34	50.0
Applied linguistics	70	27	43	61.4
Archaeology (social sciences)	119	47	72	60.5
Area, ethnic, and cultural studies	133	49	83	62.4
Criminal justice and corrections	87	35	52	59.8
Criminology	96	37	59	61.5
Demography, gerontology, statistics, urban affairs, social sciences- general, social sciences-other	262	102	160	61.1
Gender and women's studies	48	5	43	89.6
Geography	242	134	108	44.6
Health policy analysis	58	21	37	63.8
History, science and technology and society	55	25	30	54.5
International relations, international affairs	135	75	60	44.4
Linguistics	249	101	148	59.4
Public policy analysis	264	138	126	47.7
Urban, city, community and regional planning	102	59	43	42.2
Engineering	10,183	7,726	2,453	24.1
Aerospace, aeronautical, and astronautical engineering	383	337	46	12.0
Bioengineering and biomedical engineering	1,134	688	445	39.2
Chemical engineering	981	688	293	29.9
Civil engineering	677	507	170	25.1
Electrical, electronics, and communications engineering	1,951	1,606	345	17.7
Industrial and manufacturing engineering	272	204	68	25.0
Materials science engineering	995	720	275	27.6
Mechanical engineering	1,504	1,286	216	14.4
Other engineering	2,286	1,690	595	26.0
Computer engineering	436	351	85	19.5
Environmental, environmental health engineering	247	117	130	52.6
Nuclear engineering	178	152	26	14.6
Robotics	108	95	13	12.0
Structural engineering	95	80	15	15.8
Systems engineering	113	78	35	31.0
Other engineering, aggregated	1,109	817	291	26.2
Education	4,834	1,496	3,337	69.0
Education administration	898	323	575	64.0
Educational administration and supervision	168	61	107	63.7
Educational and human resource studies, development	47	15	32	68.1
Educational leadership	619	228	391	63.2
Urban education and leadership	64	19	45	70.3
Education research	2,507	764	1,742	69.5
Counseling education, counseling and guidance	281	60	221	78.6
Curriculum and instruction	533	147	386	72.4
Educational assessment, testing, measurement	57	22	35	61.4
Educational policy analysis	142	52	90	63.4
Educational psychology (education)	210	64	146	69.5
Educational statistics, research methods	95	31	64	67.4
Educational/instructional technology, media design	215	78	137	63.7
Higher education evaluation and research	394	156	238	60.4
International education	43	11	32	74.4

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(Number and percent)

Subfield of study	Total ^a	Male	Female	% female
Learning sciences	73	26	47	64.4
School psychology (education)	116	24	92	79.3
Social and philosophical foundations of education	81	32	48	59.3
Special education	267	61	206	77.2
Teacher education	97	18	79	81.4
Teaching fields	963	272	691	71.8
Health education	62	10	52	83.9
Literacy and reading education	119	12	107	89.9
Mathematics education	148	51	97	65.5
Music education	82	45	37	45.1
Science education	140	43	97	69.3
Teaching fields, aggregated	412	111	301	73.1
Other education	369	119	250	67.8
Workforce education and development	37	18	19	51.4
Education, general	170	57	113	66.5
Education, other	162	44	118	72.8
Humanities and arts	5,145	2,567	2,575	50.0
Foreign languages and literature	617	247	370	60.0
French	100	23	77	77.0
Germanic language and literature	62	29	33	53.2
Spanish language and literature	207	96	111	53.6
Other languages, aggregated	248	99	149	60.1
History	948	513	435	45.9
American history, United States and Canada	389	205	184	47.3
Asian history	73	39	34	46.6
European history	172	96	76	44.2
Latin American history	55	33	22	40.0
Middle, Near East history	44	26	18	40.9
History, general	107	62	45	42.1
History, aggregated	108	52	56	51.9
Letters	1,442	585	856	59.4
American literature, United States and Canada	273	139	134	49.1
Classics	94	48	46	48.9
Comparative literature	172	70	102	59.3
English language	121	47	74	61.2
English literature, British and Commonwealth	383	129	254	66.3
Rhetoric and composition	241	88	152	63.1
Speech and rhetorical studies	42	18	24	57.1
Letters, aggregated	116	46	70	60.3
Other humanities and arts	2,138	1,222	914	42.8
African American studies, literature, and history	52	21	31	59.6
Archaeology (humanities)	54	20	34	63.0
Art history, criticism, and conservation	220	51	169	76.8
Dance, drama	113	37	76	67.3
Film, cinema, video studies	90	52	38	42.2
Music	55	32	23	41.8
Musicology and ethnomusicology	131	65	66	50.4
Music performance	88	52	36	40.9
Music theory and composition	85	68	17	20.0
Philosophy, ethics	514	369	145	28.2

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Doctorate recipients, by subfield of study and sex: 2018

(Number and percent)

Subfield of study	Total ^a	Male	Female	% female
Religion/religious studies, Jewish/Judaic studies	281	176	103	36.7
Theology, religious education	196	141	55	28.1
Other humanities, aggregated	259	138	121	46.7
Other ^b	2,989	1,452	1,532	51.3
Business management and administration	1,481	869	609	41.1
Accounting	162	88	73	45.1
Business administration and management	260	162	97	37.3
Finance	193	131	61	31.6
Human resources, organizational behavior	243	107	136	56.0
Management information systems, business statistics	110	84	26	23.6
Marketing management and research	141	76	65	46.1
Other aggregated business fields	372	221	151	40.6
Communication	631	234	396	62.8
Communication research	143	56	86	60.1
Mass communication, media studies	228	94	134	58.8
Communication, general	155	40	115	74.2
Communication, aggregated	105	44	61	58.1
Non-S&E fields nec	877	349	527	60.1
Architecture and environmental design	105	58	47	44.8
Family, consumer sciences and human sciences	64	13	51	79.7
Parks, sports, recreation, leisure and fitness	53	31	22	41.5
Public administration	139	59	79	56.8
Social work	358	98	260	72.6
Fields nec, aggregated	158	90	68	43.0
Unknown field	0	0	0	0.0

nec = not elsewhere classified; S&E = science and engineering.

^a Includes respondents who did not report sex.^b Includes other non-S&E fields not shown separately.**Note(s)**

See table A-5 in the technical notes for a listing of aggregated fields and their constituent fine fields.

Source(s)

National Center for Science and Engineering Statistics, Survey of Earned Doctorates.