TABLE 12-3

U.S. residing employed doctoral scientists and engineers, by fine field of doctorate and sector of employment: 2019

(Number and SE)

Field of study	All employed		Educational institution[a]		Business or industry[b]		Government[c]	
	Number	SE	Number	SE	Number	SE	Number	SE
All fields	857,200	1,975	375,250	2,425	413,000	2,700	68,950	1,200
Science	640,300	1,900	305,700	2,150	280,650	2,325	53,950	1,100
Biological, agricultural, and environmental life sciences	220,700	1,100	104,250	1,250	95,400	1,275	21,050	650
Agricultural and food sciences	17,400	350	7,700	300	8,100	300	1,600	125
Agricultural sciences	950	50	450	50	350	50	100	50
Animal sciences	4,550	175	2,050	150	2,300	150	250	50
Food sciences and technology	3,750	175	1,250	150	2,150	150	350	100
Plant sciences	5,900	250	3,000	200	2,550	200	400	75
Soil sciences	2,200	125	950	100	750	125	500	75
Biochemistry and biophysics	29,450	425	13,100	600	14,050	550	2,300	275
Biochemistry	24,350	400	10,900	550	11,600	500	1,900	250
Biophysics	5,100	175	2,250	175	2,450	200	400	100
Cell, cellular biology, and molecular biology	31,200	450	14,350	600	14,900	625	1,950	275
Microbiological sciences and immunology	23,800	400	9,800	425	11,550	475	2,450	250
Immunology	8,950	200	3,200	225	5,100	300	700	150
Microbiological sciences	14,900	325	6,600	375	6,450	375	1,800	225
Natural resources and conservation	8,800	225	3,700	225	3,000	200	2,150	125
Fish, fisheries, wildlife and wildlands science and management	2,200	150	850	100	550	75	800	75
Forestry	2,600	150	1,100	125	950	125	550	75
Natural resource conservation, research, management, and policy	4,000	150	1,750	150	1,500	150	800	100
Zoology	7,200	225	4,200	200	1,900	200	1,100	150
Other biological sciences	102,800	675	51,450	800	41,900	750	9,500	425
Biomathematics, bioinformatics, and computational biology	5,150	100	2,050	150	2,750	150	300	75
Botany and plant biology	6,150	225	3,450	225	2,050	175	650	100
Epidemiology, ecology, and population biology	15,950	275	9,000	375	4,100	300	2,850	250
Genetics	8,750	250	4,550	225	3,600	225	600	100
Neurobiology and neuroscience	16,800	275	9,100	425	6,750	375	1,000	175
Nutrition sciences	4,150	125	2,250	150	1,600	125	300	75
Pharmacology and toxicology	12,700	300	4,400	325	6,650	375	1,700	200
Physiology, pathology, and related sciences	15,400	300	7,550	375	6,850	300	1,000	125
Biological and biomedical sciences, general	12,750	300	6,500	325	5,500	350	750	125
Biological and biomedical sciences, other	4,950	200	2,650	200	2,000	200	300	100
Computer and information sciences	31,100	400	11,150	475	18,850	550	1,100	175
Computer science	26,750	400	9,000	450	16,900	550	850	175
Information science, studies	2,600	75	1,350	100	1,100	100	150	50
Computer and information sciences, other	1,800	50	800	75	900	75	100	25
Mathematics and statistics	36,650	450	21,750	525	13,600	525	1,350	200
Applied mathematics	8,500	200	4,650	275	3,550	275	300	100
Mathematics	16,500	375	11,050	400	4,850	350	600	125
Statistics	7,450	225	3,300	225	3,850	250	300	100
Mathematics and statistics, other	4,200	125	2,700	150	1,350	125	150	50
Physical sciences, geosciences, atmospheric sciences, and ocean sciences	133,750	950	53,450	900	69,300	1,075	11,000	500
Astronomy and astrophysics	5,850	175	3,200	175	2,150	150	500	100
Chemistry, except biochemistry	65,300	700	23,500	700	37,700	775	4,150	325
Inorganic chemistry	8,750	225	3,650	275	4,550	250	500	100
Organic chemistry	17,600	375	6,300	375	10,550	425	750	150
Chemistry, other, except biochemistry	39,000	575	13,500	500	22,600	600	2,900	300
Geosciences, atmospheric sciences, and ocean sciences	22,050	300	10,900	300	7,800	275	3,350	175

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(Number and SE)

Field of study	All employed		Educational institution[a]		Business or industry[b]		Government[c]	
	Number	SE	Number	SE	Number	SE	Number	SE
Atmospheric sciences and meteorology	3,900	75	1,750	100	1,400	100	800	75
Geological and earth sciences, geosciences	13,550	275	6,850	275	5,100	250	1,600	150
Ocean sciences and marine sciences	2,150	75	1,050	75	600	75	500	50
Oceanography, chemical and physical	2,450	125	1,250	100	700	100	450	75
Physics	40,550	575	15,900	550	21,650	675	3,000	350
Psychology	115,350	825	46,300	850	57,850	975	11,200	575
Clinical psychology	41,100	525	10,200	575	25,050	700	5,850	500
Counseling and applied psychology	14,850	275	4,900	300	8,400	350	1,550	175
Educational and school psychology	14,100	275	8,050	300	5,500	325	550	125
Industrial and organizational psychology	4,850	150	1,650	150	2,900	150	300	75
Research and experimental psychology	27,800	400	16,050	425	10,100	350	1,650	175
Psychology, general	7,900	250	3,200	275	3,800	300	900	150
Psychology, other	4,750	175	2,250	175	2,100	175	350	75
Social sciences	102,700	900	68,800	950	25,650	700	8,250	450
Economics	26,900	550	14,750	525	9,350	425	2,800	275
Political science and government	22,450	425	16,250	475	4,450	350	1,750	200
Political science and government	18,350	400	14,050	450	3,100	325	1,150	175
Public policy analysis	4,100	175	2,200	150	1,350	125	550	100
Sociology, demography, and population studies	15,200	325	11,150	350	3,250	275	800	150
Other social sciences	38,150	500	26,700	500	8,600	350	2,850	200
Anthropology	11,400	300	8,150	325	2,200	225	1,050	175
Area, ethnic, cultural, gender, and group studies	3,900	125	2,900	150	850	100	150	50
Geography and cartography	4,750	175	3,350	175	950	125	450	100
International relations and national security studies	2,350	150	1,600	125	600	75	150	50
Linguistics	4,950	250	3,850	225	950	150	100	50
Urban studies, affairs	1,600	100	850	75	600	75	200	50
Social sciences, other	9,250	250	6,000	225	2,500	175	700	100
Engineering	176,700	1,175	47,150	975	117,550	1,175	12,000	500
Aerospace, aeronautical, and astronautical engineering	7,050	225	1,700	175	4,400	250	1,000	175
Chemical engineering	20,800	500	4,400	350	15,000	425	1,400	225
Civil engineering	19,250	400	7,350	375	9,350	425	2,600	250
Electrical and computer engineering	48,550	650	10,200	500	36,600	725	1,750	200
Computer engineering	7,000	175	1,850	175	4,950	200	150	50
Electrical, electronics, and communications engineering	41,550	625	8,300	500	31,650	700	1,600	200
Mechanical engineering	26,550	425	7,650	525	17,400	575	1,500	225
Metallurgical and materials engineering	16,450	350	2,900	275	12,600	375	950	150
Other engineering	38,050	450	13,000	450	22,250	475	2,750	200
Agricultural engineering	1,900	75	850	75	800	75	250	50
Bioengineering and biomedical engineering	13,200	250	4,900	325	7,750	325	600	100
Engineering mechanics, physics, and science	4,400	150	1,300	150	2,650	150	450	100
Industrial and manufacturing engineering	8,800	275	3,450	225	4,850	250	550	100
Nuclear engineering	3,100	125	600	75	2,100	125	400	75
Engineering, other	6,600	200	2,000	200	4,100	250	500	100
Health	40,200	475	22,350	550	14,800	450	3,050	250
Communication disorders sciences and services	3,100	125	2,100	125	800	100	200	50
Hospital and medical administration services	1,550	100	800	100	600	75	100	50
Pharmacy, pharmaceutical sciences, and administration	8,050	175	2,250	225	5,250	250	600	125
Public health	8,400	225	4,100	250	3,150	250	1,100	150
Registered nursing, nursing administration, nursing research	9,000	250	6,550	300	2,000	250	450	100

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U.S. residing employed doctoral scientists and engineers, by fine field of doctorate and sector of employment: 2019

(Number and SE)

Field of study	All employed		Educational institution[a]		Business or industry[b]		Government[c]	
	Number	SE	Number	SE	Number	SE	Number	SE
Health sciences, other	10,150	225	6,550	275	2,950	200	600	100

SE = standard error.

[a] Educational institution includes 4-year colleges or universities, medical schools (including university-affiliated hospitals or medical centers), university-affiliated research institutes, 2-year colleges, community colleges, technical institutes, precollege institutions, and other educational institutions.

[b] Business or industry includes private for profit, private not for profit, self-employed or business owners in incorporated or nonincorporated business, non-U.S. governments, and employers not broken out separately.

[c] Government includes U.S. federal, state, and local government.

Note(s):
Numbers are rounded to the nearest 50. Standard errors are rounded up to the nearest 25. Detail may not add to total because of rounding. Residence location is based on reported living location on 1 February 2019.

Source(s):
National Center for Science and Engineering Statistics, Survey of Doctorate Recipients: 2019.