

TABLE 5

Doctoral scientists and engineers, by fine field of doctorate, residence location, and sex: 2019

(Number and SE)

Field of study	U.S. residing						Non-U.S. residing					
	All		Male		Female		All		Male		Female	
	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE
All fields	1,008,950	1,450	644,650	1,400	364,300	1,025	139,850	1,350	102,950	1,350	36,900	925
Science	761,850	1,425	460,650	1,500	301,200	1,125	100,200	1,250	69,800	1,200	30,400	825
Biological, agricultural, and environmental life sciences	258,550	850	147,800	975	110,750	850	29,350	775	18,900	650	10,450	575
Agricultural and food sciences	21,700	300	15,400	325	6,300	225	5,750	300	4,400	275	1,400	175
Agricultural sciences	1,400	50	1,100	50	300	50	250	50	200	50	50	25
Animal sciences	5,300	150	3,650	150	1,650	125	1,450	150	1,200	150	250	75
Food sciences and technology	4,650	125	2,700	150	1,950	150	1,150	150	700	125	450	100
Plant sciences	7,550	200	5,850	200	1,700	125	2,300	200	1,750	175	500	100
Soil sciences	2,800	100	2,100	125	700	75	600	100	500	100	100	50
Biochemistry and biophysics	35,350	375	21,900	375	13,450	325	2,700	325	1,900	275	800	175
Biochemistry	29,450	325	17,750	350	11,700	300	2,150	300	1,450	250	650	175
Biophysics	5,900	150	4,150	150	1,750	125	550	125	450	125	100	50
Cell, cellular biology, and molecular biology	34,850	325	18,450	425	16,400	375	2,750	300	1,500	225	1,300	250
Microbiological sciences and immunology	27,600	300	14,800	400	12,750	375	2,400	275	1,300	225	1,100	150
Immunology	9,850	150	5,200	225	4,650	225	550	100	250	75	300	100
Microbiological sciences	17,700	250	9,600	300	8,100	275	1,850	225	1,100	200	750	125
Natural resources and conservation	10,950	200	7,550	200	3,450	150	2,400	200	1,800	175	600	75
Fish, fisheries, wildlife and wildlands science and management	2,850	100	2,200	100	650	75	600	100	450	75	150	50
Forestry	3,250	100	2,550	125	700	75	1,000	100	800	100	200	50
Natural resource conservation, research, management, and policy	4,900	125	2,800	150	2,100	100	850	125	600	125	250	75
Zoology	9,850	200	6,900	200	3,000	175	1,350	200	850	150	450	125
Other biological sciences	118,200	550	62,800	675	55,400	650	12,050	550	7,150	450	4,850	400
Biomathematics, bioinformatics, and computational biology	5,550	100	3,200	100	2,350	100	500	100	400	100	150	50
Botany and plant biology	8,150	225	5,050	175	3,150	175	2,200	225	1,500	200	700	150
Epidemiology, ecology, and population biology	18,400	225	8,950	250	9,450	225	2,500	225	1,400	200	1,100	175
Genetics	9,950	125	5,200	200	4,750	175	950	125	550	125	350	100
Neurobiology and neuroscience	17,700	250	9,500	275	8,150	250	1,550	250	700	150	850	200
Nutrition sciences	5,000	100	1,200	100	3,800	125	450	100	150	50	300	100
Pharmacology and toxicology	14,850	175	8,250	250	6,600	250	700	150	350	125	350	100
Physiology, pathology, and related sciences	17,950	250	10,400	275	7,550	250	1,500	225	1,000	225	500	100
Biological and biomedical sciences, general	14,350	250	7,400	300	7,000	275	1,250	200	750	200	500	100
Biological and biomedical sciences, other	6,250	100	3,650	150	2,650	150	500	100	350	100	150	50
Computer and information sciences	33,650	375	27,150	400	6,500	275	4,850	350	4,100	350	800	150
Computer science	28,700	375	23,950	400	4,700	250	4,250	350	3,650	350	600	150
Information science, studies	3,050	75	1,950	75	1,100	75	400	75	300	75	100	50
Computer and information sciences, other	1,900	50	1,250	50	650	50	200	50	150	50	50	25
Mathematics and statistics	43,800	375	33,100	450	10,700	325	7,650	325	6,300	350	1,350	175

TABLE 5

Doctoral scientists and engineers, by fine field of doctorate, residence location, and sex: 2019

(Number and SE)

Field of study	U.S. residing						Non-U.S. residing					
	All		Male		Female		All		Male		Female	
	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE
Applied mathematics	9,500	175	7,050	200	2,450	175	750	150	650	125	D	D
Mathematics	20,750	300	16,550	300	4,200	200	4,950	300	4,200	300	700	125
Statistics	8,700	225	5,800	225	2,950	200	800	200	550	200	250	100
Mathematics and statistics, other	4,800	125	3,700	125	1,150	75	1,150	125	850	100	300	75
Physical sciences, geosciences, atmospheric sciences, and ocean sciences	161,450	825	123,650	900	37,800	550	22,750	800	18,500	750	4,250	275
Astronomy and astrophysics	6,700	150	5,100	150	1,550	100	1,000	125	850	150	200	50
Chemistry, except biochemistry	80,650	475	58,200	625	22,450	450	7,400	450	5,300	400	2,100	200
Inorganic chemistry	10,550	200	7,600	225	2,950	175	900	175	650	150	250	75
Organic chemistry	22,850	300	17,600	350	5,250	250	1,700	275	1,350	225	400	125
Chemistry, other, except biochemistry	47,300	350	33,000	475	14,300	400	4,800	350	3,300	325	1,450	175
Geosciences, atmospheric sciences, and ocean sciences	26,250	275	18,900	275	7,300	200	4,650	250	3,650	250	1,000	100
Atmospheric sciences and meteorology	4,450	75	3,250	75	1,200	75	800	75	600	75	200	50
Geological and earth sciences, geosciences	16,450	250	12,250	250	4,200	150	2,800	225	2,250	225	550	75
Ocean sciences and marine sciences	2,400	75	1,350	75	1,000	50	400	75	300	75	150	50
Oceanography, chemical and physical	2,950	125	2,100	125	900	75	600	125	500	125	100	50
Physics	47,850	550	41,400	600	6,450	325	9,700	525	8,700	500	1,000	175
Psychology	139,450	575	56,250	650	83,200	725	6,250	375	2,400	250	3,800	300
Clinical psychology	47,500	325	18,150	475	29,350	525	1,100	200	250	100	850	175
Counseling and applied psychology	17,200	175	6,400	275	10,800	300	450	125	150	75	300	100
Educational and school psychology	18,350	225	6,650	250	11,700	250	1,000	200	400	125	600	150
Industrial and organizational psychology	5,800	150	2,800	125	2,950	125	350	125	200	125	S	S
Research and experimental psychology	34,950	275	15,050	325	19,850	325	2,650	250	1,200	175	1,450	150
Psychology, general	9,650	150	4,450	250	5,200	250	350	100	150	75	150	75
Psychology, other	6,050	100	2,700	150	3,300	175	350	75	50	50	300	75
Social sciences	124,950	800	72,700	750	52,250	600	29,350	750	19,600	600	9,750	450
Economics	32,450	525	23,650	500	8,800	250	13,400	500	10,850	475	2,550	225
Political science and government	25,800	350	16,450	425	9,350	350	3,450	325	2,250	275	1,150	200
Political science and government	21,200	300	14,150	400	7,050	325	2,650	275	1,750	250	900	175
Public policy analysis	4,600	150	2,300	125	2,300	125	800	150	550	150	250	50
Sociology, demography, and population studies	19,850	300	9,150	275	10,700	275	2,900	275	1,400	200	1,500	200
Other social sciences	46,800	450	23,400	425	23,400	350	9,650	450	5,050	375	4,550	350
Anthropology	13,950	225	6,150	250	7,800	225	2,000	200	800	150	1,200	150
Area, ethnic, cultural, gender, and group studies	4,650	125	2,050	125	2,550	125	400	75	100	50	250	75
Geography and cartography	5,750	175	3,750	150	2,000	125	1,000	150	750	150	300	75
International relations and national security studies	2,800	150	1,800	125	1,050	100	900	150	600	125	300	100
Linguistics	6,200	250	2,550	200	3,650	225	2,350	250	1,100	175	1,250	200
Urban studies, affairs	2,150	75	1,400	75	750	50	400	75	300	75	100	50

TABLE 5

Doctoral scientists and engineers, by fine field of doctorate, residence location, and sex: 2019

(Number and SE)

Field of study	U.S. residing						Non-U.S. residing					
	All		Male		Female		All		Male		Female	
	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE
Social sciences, other	11,300	225	5,700	200	5,600	200	2,550	225	1,450	175	1,100	175
Engineering	199,500	975	166,800	1,000	32,700	625	35,050	950	30,900	925	4,150	300
Aerospace, aeronautical, and aeronautical engineering	7,900	200	7,150	200	750	75	1,150	200	1,100	200	50	25
Chemical engineering	24,450	400	19,500	425	5,000	275	3,950	400	3,150	375	800	175
Civil engineering	21,400	400	17,200	400	4,200	225	5,700	425	4,950	400	750	150
Electrical and computer engineering	53,950	525	47,600	575	6,350	300	9,000	525	8,350	550	650	150
Computer engineering	7,600	175	6,650	175	950	100	1,300	175	1,100	175	150	50
Electrical, electronics, and communications engineering	46,350	525	40,900	525	5,400	300	7,700	500	7,250	525	450	150
Mechanical engineering	29,300	400	25,850	400	3,450	225	4,050	400	3,900	400	150	75
Metallurgical and materials engineering	19,100	300	15,450	300	3,650	200	3,100	250	2,450	250	650	125
Other engineering	43,400	450	34,100	475	9,300	300	8,150	425	7,000	400	1,150	175
Agricultural engineering	2,300	75	1,900	75	350	50	350	50	350	50	50	25
Bioengineering and biomedical engineering	14,200	225	9,900	275	4,300	225	1,200	225	800	200	400	100
Engineering mechanics, physics, and science	5,200	150	4,550	150	600	50	1,000	150	900	150	100	25
Industrial and manufacturing engineering	10,300	250	7,950	250	2,300	175	3,000	250	2,650	250	400	100
Nuclear engineering	3,650	125	3,350	125	350	50	600	125	550	125	50	25
Engineering, other	7,800	175	6,400	175	1,400	100	1,950	175	1,750	175	200	50
Health	47,600	400	17,200	325	30,400	400	4,600	350	2,250	250	2,350	275
Communication disorders sciences and services	4,150	100	1,150	100	3,000	100	200	75	D	D	100	50
Hospital and medical administration services	2,000	75	900	75	1,100	75	200	75	150	75	50	25
Pharmacy, pharmaceutical sciences, and administration	8,950	150	5,600	200	3,350	175	600	125	300	75	300	100
Public health	9,350	200	3,050	150	6,300	200	1,250	175	750	150	500	150
Registered nursing, nursing administration, nursing research	11,350	200	550	75	10,750	200	750	175	S	S	700	175
Health sciences, other	11,850	200	5,950	225	5,900	200	1,600	175	900	150	700	100

D = suppressed to avoid disclosure of confidential information. S = suppressed for reliability; coefficient of variation exceeds publication standards.

SE = standard error.

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.