

TABLE 5

Doctoral scientists and engineers, by fine field of doctorate, residence location, and sex: 2023

(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	1,058,950	1,925	654,750	1,675	404,200	1,200	163,450	1,875	116,550	1,700	46,900	1,125
Science	787,000	1,825	457,800	1,650	329,200	1,275	114,500	1,700	76,350	1,500	38,200	1,075
Biological, agricultural, and environmental life sciences	274,850	950	151,000	1,225	123,850	1,100	33,350	900	20,100	775	13,250	600
Agricultural and food sciences	21,150	350	14,450	300	6,700	275	6,250	325	4,400	325	1,850	175
Agricultural sciences	1,200	50	900	50	350	25	350	50	250	50	100	25
Animal sciences	5,400	175	3,600	175	1,800	125	1,400	175	1,100	150	300	75
Food sciences and technology	4,400	200	2,550	175	1,900	150	1,550	175	900	175	650	100
Plant sciences	7,550	225	5,650	225	1,900	150	2,200	200	1,600	200	600	125
Soil sciences	2,600	100	1,800	100	800	75	750	100	600	100	150	50
Biochemistry and biophysics	35,500	450	21,100	525	14,350	475	3,500	425	2,400	375	1,100	225
Biochemistry	29,150	425	16,850	500	12,250	450	3,000	400	2,050	350	950	225
Biophysics	6,350	150	4,250	175	2,100	175	500	150	350	125	150	75
Cell, cellular biology, and molecular biology	36,950	375	19,200	525	17,700	475	2,800	325	1,600	275	1,200	200
Microbiological sciences and immunology	29,700	300	15,200	450	14,500	400	2,550	300	1,150	225	1,350	225
Immunology	10,900	175	5,600	250	5,250	250	800	150	300	125	450	100
Microbiological sciences	18,800	275	9,600	350	9,250	300	1,750	250	850	175	900	175
Natural resources and conservation	11,450	225	7,250	225	4,200	175	2,700	225	2,000	175	750	125
Fish, fisheries, wildlife, and wildlands science and management	2,650	100	2,000	100	700	50	600	100	450	100	150	50
Forestry	3,300	125	2,350	125	950	100	950	125	750	100	150	50
Natural resource conservation, research, management, and policy	5,450	175	2,900	175	2,550	125	1,200	175	750	150	450	100
Zoology	8,950	175	6,050	200	2,900	150	1,200	175	850	175	400	100
Other biological sciences	131,150	675	67,700	775	63,450	800	14,300	675	7,750	500	6,600	475
Biomathematics, bioinformatics, and computational biology	7,650	150	4,200	150	3,450	150	700	125	450	125	250	75
Botany and plant biology	8,400	200	5,050	200	3,350	175	1,800	200	1,100	150	700	125
Epidemiology, ecology, and population biology	21,050	275	10,000	325	11,000	325	3,000	275	1,500	200	1,500	200
Genetics	10,700	200	5,450	225	5,200	200	1,250	200	750	175	450	125
Neurobiology and neuroscience	21,700	300	11,300	350	10,400	325	2,200	300	1,100	225	1,100	225
Nutrition sciences	5,000	150	1,200	125	3,800	150	850	125	200	50	650	125
Pharmacology and toxicology	15,300	150	8,350	275	6,950	275	750	150	300	100	450	125
Physiology, pathology, and related sciences	18,450	275	10,550	325	7,950	275	1,700	225	1,100	225	600	125
Biological and biomedical sciences, general	16,950	250	8,200	350	8,750	325	1,450	200	750	175	650	150
Biological and biomedical sciences, other	5,950	175	3,400	175	2,550	150	700	175	450	150	250	100
Computer and information sciences	40,300	450	32,050	500	8,200	375	6,200	450	4,850	400	1,350	225
Computer science	34,250	475	28,150	525	6,150	375	5,150	450	4,150	375	1,000	225

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Information science, studies	3,300	100	2,150	100	1,200	75	500	100	300	75	200	75
Computer and information sciences, other	2,700	100	1,800	75	900	75	550	75	400	75	150	50
Mathematics and statistics	44,650	475	33,300	525	11,350	400	9,800	475	7,450	400	2,350	275
Applied mathematics	10,100	225	7,350	225	2,750	175	1,650	200	1,300	175	350	125
Mathematics	20,600	400	16,000	375	4,650	275	5,500	375	4,150	325	1,350	200
Statistics	9,150	225	6,450	250	2,700	225	1,300	225	950	175	350	150
Mathematics and statistics, other	4,750	150	3,550	150	1,250	100	1,300	125	1,050	125	250	75
Physical sciences, geosciences, atmospheric sciences, and ocean sciences	167,650	1,025	123,800	1,025	43,900	775	24,650	950	19,100	925	5,550	475
Astronomy and astrophysics	7,250	175	5,400	175	1,850	100	1,300	175	1,100	175	250	50
Chemistry, except biochemistry	82,200	725	57,100	775	25,100	625	8,550	700	6,100	625	2,450	375
Inorganic chemistry	10,550	225	7,250	225	3,350	200	1,150	200	900	175	250	100
Organic chemistry	21,550	325	16,450	400	5,100	275	2,150	325	1,850	300	300	100
Chemistry, other, except biochemistry	50,100	550	33,450	575	16,650	525	5,200	525	3,350	450	1,900	350
Geosciences, atmospheric sciences, and ocean sciences	28,200	300	19,000	325	9,200	225	5,000	300	3,600	275	1,400	150
Atmospheric sciences and meteorology	5,000	100	3,550	100	1,450	75	900	100	600	100	300	50
Geological and earth sciences, geosciences	17,550	250	12,150	300	5,350	175	2,950	250	2,300	250	650	100
Ocean sciences and marine sciences	2,900	75	1,550	75	1,350	75	400	75	200	50	200	50
Oceanography, chemical and physical	2,750	100	1,700	100	1,000	75	700	100	500	100	250	75
Physics	50,050	675	42,300	675	7,750	400	9,800	650	8,300	600	1,450	300
Psychology	135,750	625	49,150	800	86,600	800	7,350	450	2,800	325	4,550	375
Clinical psychology	47,100	400	15,750	525	31,350	575	1,450	275	150	75	1,300	275
Counseling and applied psychology	17,200	175	5,850	275	11,350	250	450	100	50	50	350	100
Educational and school psychology	16,650	225	5,200	250	11,500	275	1,000	200	350	100	650	175
Industrial and organizational psychology	6,000	150	2,700	150	3,300	150	400	125	150	50	300	100
Research and experimental psychology	33,650	325	13,600	375	20,000	350	2,850	275	1,350	200	1,550	200
Psychology, general	9,200	250	3,750	250	5,450	275	750	225	500	200	250	150
Psychology, other	5,900	175	2,300	150	3,650	150	450	150	S	S	200	75
Social sciences	123,800	825	68,450	950	55,350	700	33,250	875	22,100	800	11,150	475
Economics	32,600	500	22,900	550	9,700	400	14,100	525	10,900	525	3,250	325
Political science and government	25,050	475	15,300	475	9,750	325	4,750	450	3,150	375	1,600	200
Political science and government	19,650	450	12,700	450	6,950	325	3,850	425	2,650	375	1,200	175
Public policy analysis	5,400	125	2,650	125	2,750	125	850	125	500	100	400	100
Sociology, demography, and population studies	19,200	350	8,300	275	10,900	325	2,900	325	1,600	275	1,350	175
Other social sciences	46,950	475	21,900	450	25,050	375	11,450	450	6,450	400	5,000	300

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Anthropology	13,700	250	5,550	275	8,150	250	2,350	200	1,050	175	1,300	175
Area, ethnic, cultural, gender, and group studies	5,200	125	2,000	125	3,200	125	550	100	200	75	350	75
Geography and cartography	5,850	175	3,500	175	2,350	125	1,300	175	850	150	400	100
International relations and national security studies	2,800	125	1,650	125	1,150	100	1,000	125	700	125	300	75
Linguistics	6,100	225	2,400	175	3,700	175	3,000	225	1,550	175	1,450	175
Urban studies, affairs	1,800	100	1,100	100	700	75	500	100	400	100	100	25
Social sciences, other	11,500	275	5,650	250	5,850	225	2,800	275	1,700	225	1,100	150
Engineering	219,400	1,125	179,000	1,300	40,400	725	42,600	1,150	37,250	1,175	5,350	375
Aerospace, aeronautical, and astronautical engineering	8,850	175	7,800	175	1,000	100	1,150	175	1,000	150	100	50
Chemical engineering	26,550	400	20,600	450	5,950	300	4,200	400	3,350	375	850	175
Civil engineering	23,600	475	18,350	500	5,250	275	7,000	450	5,900	450	1,100	200
Electrical and computer engineering	59,000	625	51,450	625	7,550	350	10,200	625	9,600	600	600	125
Computer engineering	8,850	175	7,750	200	1,100	125	1,550	175	1,400	175	150	50
Electrical, electronics, and communications engineering	50,150	600	43,700	600	6,450	325	8,650	600	8,200	575	450	125
Mechanical engineering	32,500	525	28,500	525	4,000	250	5,800	500	5,300	500	450	125
Metallurgical and materials engineering	20,550	425	16,150	425	4,400	250	4,300	425	3,700	400	600	125
Other engineering	48,350	475	36,150	525	12,250	400	9,950	475	8,300	450	1,650	225
Agricultural engineering	2,100	100	1,650	75	450	50	650	100	550	100	50	25
Bioengineering and biomedical engineering	17,600	275	11,800	325	5,800	250	1,900	275	1,400	250	500	125
Engineering mechanics, physics, and science	5,100	200	4,350	175	750	75	1,050	200	950	200	100	50
Industrial and manufacturing engineering	10,900	300	8,150	275	2,800	175	3,500	300	3,100	300	450	100
Nuclear engineering	3,800	125	3,350	100	450	50	650	100	550	100	100	50
Engineering, other	8,850	225	6,800	250	2,050	150	2,200	225	1,700	225	450	125
Health	52,600	475	18,000	475	34,600	500	6,350	425	2,950	325	3,400	325
Communication disorders sciences and services	3,900	125	1,000	100	2,900	125	350	100	S	S	200	50
Hospital and medical administration services	1,650	75	700	75	950	75	300	50	150	50	100	50
Pharmacy, pharmaceutical sciences, and administration	9,550	225	5,350	275	4,150	250	1,150	200	600	150	600	175
Public health	11,600	225	3,400	200	8,200	200	1,600	225	850	175	750	175
Registered nursing, nursing administration, nursing research	12,200	225	800	75	11,450	225	850	200	50	50	800	200
Health sciences, other	13,700	250	6,800	275	6,900	250	2,100	250	1,150	200	950	175

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 2023.

Source(s):

National Center for Science and Engineering Statistics, Survey of Doctorate Recipients, 2023.