

TABLE 9

U.S. residing employed doctoral scientists and engineers, by fine field of doctorate and citizenship status: 2023

(Number and SE)

Field of study	All employed		U.S. citizen						Non-U.S. citizen					
			Total		Native born		Naturalized		Total		Permanent resident		Temporary resident	
	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE
All fields	908,700	2,300	774,700	2,225	562,450	1,725	212,250	1,775	134,000	1,550	94,750	1,575	39,250	775
Science	667,950	2,050	586,650	2,200	453,150	1,825	133,550	1,700	81,300	1,350	57,500	1,375	23,750	600
Biological, agricultural, and environmental life sciences	235,050	1,175	208,600	1,275	160,150	1,275	48,450	1,125	26,450	775	19,100	675	7,400	350
Agricultural and food sciences	17,050	400	14,650	350	10,050	325	4,550	325	2,450	200	1,700	175	700	100
Agricultural sciences	900	75	800	50	550	50	250	50	150	50	100	25	50	25
Animal sciences	4,650	200	4,100	200	3,300	200	800	150	550	100	350	75	200	75
Food sciences and technology	3,600	200	3,050	200	1,350	125	1,650	200	550	75	350	75	200	50
Plant sciences	5,850	250	4,950	250	3,700	225	1,250	175	850	150	650	125	200	50
Soil sciences	2,050	100	1,750	125	1,150	100	550	100	350	75	250	75	100	25
Biochemistry and biophysics	29,700	475	25,600	600	18,950	550	6,650	500	4,100	325	3,250	350	850	150
Biochemistry	24,150	475	21,000	575	15,850	525	5,150	425	3,150	325	2,450	325	700	150
Biophysics	5,600	175	4,600	200	3,100	200	1,500	200	950	150	800	150	200	50
Cell, cellular biology, and molecular biology	32,400	525	29,750	600	21,700	600	8,050	550	2,650	300	2,050	275	650	150
Microbiological sciences and immunology	25,400	425	23,150	450	18,350	425	4,800	425	2,250	250	1,450	200	800	150
Immunology	9,800	225	8,750	250	6,650	275	2,050	225	1,050	200	750	175	300	100
Microbiological sciences	15,600	350	14,450	375	11,650	325	2,750	300	1,150	175	700	125	450	100
Natural resources and conservation	9,150	275	8,050	275	6,700	225	1,350	125	1,100	125	800	100	300	75
Fish, fisheries, wildlife, and wildlands science and management	1,950	100	1,900	100	1,700	100	200	50	50	25	50	25	D	D
Forestry	2,600	150	2,250	150	1,750	125	500	75	350	50	250	50	100	50
Natural resource conservation, research, management, and policy	4,600	200	3,900	200	3,250	175	650	100	700	100	500	100	200	75
Zoology	6,400	225	6,000	250	5,200	225	800	125	400	100	400	100	D	D
Other biological sciences	114,900	750	101,400	800	79,200	850	22,200	750	13,500	500	9,450	475	4,050	250
Biomathematics, bioinformatics, and computational biology	7,150	150	5,000	175	3,200	150	1,800	150	2,200	150	1,500	150	650	100
Botany and plant biology	6,300	225	5,600	225	4,300	225	1,300	175	650	100	400	100	250	75
Epidemiology, ecology, and population biology	18,600	325	17,250	350	15,450	350	1,800	200	1,350	200	950	200	400	100
Genetics	9,550	225	8,400	250	6,800	225	1,650	200	1,150	150	900	150	250	75
Neurobiology and neuroscience	20,300	350	18,100	375	13,950	425	4,150	375	2,200	225	1,500	200	700	125
Nutrition sciences	4,200	150	3,650	150	2,800	175	850	100	550	100	450	100	100	50
Pharmacology and toxicology	13,350	250	12,200	300	9,300	325	2,900	275	1,150	225	900	175	250	125
Physiology, pathology, and related sciences	15,600	325	14,050	375	10,350	325	3,700	375	1,550	200	1,100	175	450	100
Biological and biomedical sciences, general	14,950	325	12,900	350	9,850	375	3,050	300	2,100	225	1,350	200	750	125
Biological and biomedical sciences, other	4,900	200	4,300	225	3,200	225	1,100	175	600	100	400	100	200	50
Computer and information sciences	36,350	550	24,700	550	13,200	450	11,500	500	11,700	450	8,350	475	3,350	250
Computer science	31,050	525	20,900	550	10,850	450	10,050	500	10,150	475	7,350	475	2,800	250

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Information science, studies	2,750	125	2,250	125	1,400	125	850	100	550	75	350	75	200	75
Computer and information sciences, other	2,550	75	1,550	75	950	75	600	75	1,000	75	650	75	350	50
Mathematics and statistics	38,500	600	30,250	625	19,850	575	10,450	500	8,200	400	5,350	400	2,900	250
Applied mathematics	9,150	225	6,900	250	4,450	250	2,450	225	2,250	250	1,450	225	800	125
Mathematics	17,100	450	14,100	425	10,500	375	3,600	300	3,000	250	2,000	225	1,050	150
Statistics	8,100	275	5,900	300	2,750	225	3,150	275	2,200	200	1,350	200	850	150
Mathematics and statistics, other	4,150	150	3,350	175	2,150	125	1,250	125	750	75	600	75	200	50
Physical sciences, geosciences, atmospheric sciences, and ocean sciences	141,800	1,125	121,150	1,275	88,350	1,025	32,800	925	20,650	700	14,450	600	6,200	400
Astronomy and astrophysics	6,450	175	5,600	200	4,750	175	850	100	850	125	600	125	250	75
Chemistry, except biochemistry	69,150	850	59,550	925	43,900	825	15,600	625	9,600	500	6,450	400	3,150	325
Inorganic chemistry	8,800	250	7,800	250	6,400	225	1,400	175	1,000	150	800	125	200	75
Organic chemistry	17,950	425	15,850	450	11,200	450	4,650	350	2,100	275	1,450	225	650	175
Chemistry, other, except biochemistry	42,350	625	35,850	675	26,300	625	9,550	475	6,500	375	4,200	325	2,300	275
Geosciences, atmospheric sciences, and ocean sciences	23,150	350	20,450	375	16,650	325	3,750	200	2,750	225	2,050	225	700	100
Atmospheric sciences and meteorology	4,450	100	3,750	125	2,800	100	1,000	100	650	100	450	75	200	50
Geological and earth sciences, geosciences	13,900	300	12,200	325	10,100	300	2,100	175	1,750	225	1,350	225	400	100
Ocean sciences and marine sciences	2,550	75	2,450	75	2,200	75	250	50	100	50	100	50	50	25
Oceanography, chemical and physical	2,250	100	2,050	100	1,600	100	400	75	200	50	150	50	100	50
Physics	43,050	775	35,550	775	23,000	625	12,550	625	7,500	475	5,350	425	2,150	225
Psychology	112,100	900	109,300	875	98,300	950	11,050	525	2,800	300	2,100	275	700	150
Clinical psychology	40,450	575	40,000	575	36,100	600	3,900	375	450	150	300	125	150	75
Counseling and applied psychology	14,500	300	14,250	300	13,000	350	1,250	225	250	75	200	75	D	D
Educational and school psychology	12,400	325	12,050	325	10,850	325	1,200	200	350	150	250	125	D	D
Industrial and organizational psychology	5,150	150	5,050	150	4,700	175	350	100	100	50	100	50	D	D
Research and experimental psychology	27,200	425	25,850	450	23,050	450	2,800	225	1,350	225	1,000	200	350	125
Psychology, general	7,750	300	7,650	300	6,650	300	1,000	225	100	75	100	75	D	D
Psychology, other	4,600	175	4,450	175	3,900	175	550	125	150	50	100	50	50	50
Social sciences	104,100	875	92,650	900	73,350	875	19,300	625	11,450	500	8,250	500	3,250	300
Economics	27,950	550	22,400	575	15,100	450	7,300	450	5,550	375	3,600	350	1,950	250
Political science and government	21,700	500	19,950	525	16,750	525	3,150	325	1,800	250	1,400	225	350	100
Political science and government	17,100	500	15,650	525	13,350	500	2,300	300	1,450	250	1,150	225	300	100
Public policy analysis	4,650	150	4,250	150	3,450	150	850	125	350	75	300	75	50	25
Sociology, demography, and population studies	15,950	375	14,950	400	12,350	375	2,600	275	1,000	200	750	150	250	125
Other social sciences	38,500	525	35,400	575	29,100	475	6,250	325	3,150	225	2,450	200	650	100

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Anthropology	11,100	325	10,550	350	9,250	325	1,250	175	550	125	500	125	100	50
Area, ethnic, cultural, gender, and group studies	4,450	150	4,200	150	3,650	150	550	100	200	50	150	50	50	50
Geography and cartography	4,850	200	4,250	175	3,350	175	900	125	600	100	450	100	200	50
International relations and national security studies	2,350	150	2,000	150	1,550	125	500	75	300	75	250	75	100	50
Linguistics	5,100	225	4,400	225	3,100	200	1,300	200	700	125	550	100	100	50
Urban studies, affairs	1,350	100	1,250	100	950	100	300	75	100	50	100	50	D	D
Social sciences, other	9,350	250	8,700	250	7,300	225	1,400	150	650	100	500	100	100	50
Engineering	196,750	1,300	148,250	1,325	78,800	1,075	69,450	1,150	48,500	925	34,200	975	14,250	575
Aerospace, aeronautical, and astronautical engineering	8,150	200	6,550	225	3,950	225	2,650	225	1,550	175	1,050	150	500	100
Chemical engineering	23,700	500	18,850	550	10,950	450	7,900	575	4,850	325	3,650	350	1,250	200
Civil engineering	21,500	475	15,800	500	7,950	400	7,850	450	5,700	325	3,950	325	1,750	200
Electrical and computer engineering	54,000	675	38,100	800	15,950	550	22,200	750	15,900	550	11,600	500	4,250	275
Computer engineering	8,150	200	5,150	225	1,950	175	3,200	225	3,000	225	2,250	200	700	100
Electrical, electronics, and communications engineering	45,850	650	32,950	750	14,000	525	18,950	675	12,900	500	9,350	475	3,550	275
Mechanical engineering	28,800	625	21,450	600	11,300	475	10,100	550	7,350	525	4,650	450	2,700	275
Metallurgical and materials engineering	18,300	450	14,450	450	8,750	400	5,700	375	3,850	300	2,700	300	1,200	175
Other engineering	42,300	550	33,050	600	20,000	525	13,050	450	9,250	375	6,650	375	2,550	225
Agricultural engineering	1,650	100	1,350	100	600	50	750	100	300	50	250	50	50	25
Bioengineering and biomedical engineering	16,350	325	13,050	350	9,400	375	3,650	325	3,300	275	2,350	225	950	150
Engineering mechanics, physics, and science	4,300	200	3,500	200	1,550	150	1,900	200	800	100	600	100	250	75
Industrial and manufacturing engineering	9,150	300	6,500	275	3,300	225	3,200	250	2,600	200	1,950	200	700	100
Nuclear engineering	3,400	150	2,950	150	2,000	125	950	125	450	75	350	75	100	50
Engineering, other	7,500	225	5,750	250	3,150	225	2,600	200	1,750	150	1,250	125	500	100
Health	44,000	600	39,800	625	30,500	550	9,300	500	4,250	300	3,000	250	1,200	150
Communication disorders sciences and services	2,950	150	2,600	125	2,200	125	400	100	350	75	300	75	S	S
Hospital and medical administration services	1,300	75	1,200	75	850	75	350	75	100	50	100	50	*	*
Pharmacy, pharmaceutical sciences, and administration	8,550	250	7,200	275	3,600	250	3,600	300	1,350	150	900	150	450	100
Public health	10,400	250	9,350	250	7,650	225	1,700	200	1,050	125	800	125	250	75
Registered nursing, nursing administration, nursing research	9,100	325	8,950	325	7,750	350	1,150	200	200	75	100	50	S	S
Health sciences, other	11,650	325	10,500	325	8,400	275	2,100	250	1,150	200	850	175	300	100

* = suppressed when population estimate < 25. 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 2023.

Source(s):

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