

TABLE 1-1

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

(Number and SE)

Field of study	Total		Employed						Unemployed ^a		Retired		Not employed and not seeking work ^b	
			Total		Full time		Part time							
	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE
All fields	1,058,950	1,925	908,700	2,300	803,700	2,550	104,950	1,600	11,250	550	122,450	1,250	16,600	675
Science	787,000	1,825	667,950	2,050	582,450	2,200	85,500	1,375	7,950	450	97,650	1,225	13,450	675
Biological, agricultural, and environmental life sciences	274,850	950	235,050	1,175	212,750	1,225	22,300	850	3,100	300	31,450	675	5,250	450
Agricultural and food sciences	21,150	350	17,050	400	14,800	375	2,250	225	100	50	3,650	275	350	100
Agricultural sciences	1,200	50	900	75	750	50	150	50	*	*	250	50	*	*
Animal sciences	5,400	175	4,650	200	4,100	200	550	150	S	S	700	125	50	50
Food sciences and technology	4,400	200	3,600	200	3,100	200	500	150	D	D	750	150	100	50
Plant sciences	7,550	225	5,850	250	5,050	250	800	150	D	D	1,500	200	150	75
Soil sciences	2,600	100	2,050	100	1,850	100	250	75	D	D	450	75	50	25
Biochemistry and biophysics	35,500	450	29,700	475	26,850	475	2,850	325	700	175	4,500	350	550	150
Biochemistry	29,150	425	24,150	475	21,700	475	2,450	300	600	150	3,950	325	450	125
Biophysics	6,350	150	5,600	175	5,150	175	450	100	150	50	500	100	150	50
Cell, cellular biology, and molecular biology	36,950	375	32,400	525	29,550	575	2,850	350	400	125	3,200	350	950	225
Microbiological sciences and immunology	29,700	300	25,400	425	23,300	450	2,100	275	400	125	3,400	300	550	125
Immunology	10,900	175	9,800	225	9,000	250	800	175	D	D	850	125	150	100
Microbiological sciences	18,800	275	15,600	350	14,350	375	1,250	225	300	125	2,550	275	350	100
Natural resources and conservation	11,450	225	9,150	275	8,150	250	1,000	125	S	S	1,900	175	200	50
Fish, fisheries, wildlife, and wildlands science and management	2,650	100	1,950	100	1,750	100	200	75	D	D	650	100	50	25
Forestry	3,300	125	2,600	150	2,250	150	350	100	*	*	650	125	50	25
Natural resource conservation, research, management, and policy	5,450	175	4,600	200	4,150	200	450	100	S	S	600	100	100	50
Zoology	8,950	175	6,400	225	5,650	225	750	125	150	75	2,350	200	50	25
Other biological sciences	131,150	675	114,900	750	104,400	750	10,500	450	1,150	150	12,500	450	2,600	275
Biomathematics, bioinformatics, and computational biology	7,650	150	7,150	150	6,650	150	500	100	50	25	300	75	150	50
Botany and plant biology	8,400	200	6,300	225	5,650	225	650	100	150	75	1,750	175	150	75
Epidemiology, ecology, and population biology	21,050	275	18,600	325	16,650	375	1,950	275	100	50	1,950	225	400	100
Genetics	10,700	200	9,550	225	8,650	250	850	125	150	50	800	150	250	125
Neurobiology and neuroscience	21,700	300	20,300	350	19,300	350	1,000	150	300	100	550	125	550	150
Nutrition sciences	5,000	150	4,200	150	3,500	175	700	125	50	50	650	100	100	50
Pharmacology and toxicology	15,300	150	13,350	250	11,850	300	1,550	200	50	50	1,700	200	200	75
Physiology, pathology, and related sciences	18,450	275	15,600	325	14,100	375	1,500	200	100	50	2,350	200	400	100
Biological and biomedical sciences, general	16,950	250	14,950	325	13,700	350	1,300	200	150	50	1,450	225	350	100
Biological and biomedical sciences, other	5,950	175	4,900	200	4,400	225	500	100	S	S	950	125	50	25
Computer and information sciences	40,300	450	36,350	550	33,400	525	2,950	325	350	125	2,900	250	650	175
Computer science	34,250	475	31,050	525	28,650	500	2,400	300	250	100	2,400	225	550	175

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			Total		Full time		Part time							
	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE
Information science, studies	3,300	100	2,750	125	2,350	125	400	75	S	S	450	100	D	D
Computer and information sciences, other	2,700	100	2,550	75	2,350	75	150	50	50	25	50	25	50	25
Mathematics and statistics	44,650	475	38,500	600	34,850	600	3,650	250	650	150	4,750	275	750	150
Applied mathematics	10,100	225	9,150	225	8,100	275	1,050	150	150	75	600	125	200	75
Mathematics	20,600	400	17,100	450	15,400	450	1,700	200	400	100	2,750	225	350	100
Statistics	9,150	225	8,100	275	7,550	300	550	100	D	D	850	125	150	75
Mathematics and statistics, other	4,750	150	4,150	150	3,800	150	350	75	50	25	550	100	50	25
Physical sciences, geosciences, atmospheric sciences, and ocean sciences	167,650	1,025	141,800	1,125	128,300	1,075	13,450	550	1,750	250	21,550	750	2,550	275
Astronomy and astrophysics	7,250	175	6,450	175	5,850	175	600	100	100	50	600	100	100	50
Chemistry, except biochemistry	82,200	725	69,150	850	62,450	825	6,700	425	800	175	10,950	525	1,300	200
Inorganic chemistry	10,550	225	8,800	250	7,800	275	1,050	150	150	50	1,400	175	200	100
Organic chemistry	21,550	325	17,950	425	15,950	475	2,000	250	150	75	3,100	275	350	100
Chemistry, other, except biochemistry	50,100	550	42,350	625	38,700	625	3,650	325	500	150	6,500	375	750	175
Geosciences, atmospheric sciences, and ocean sciences	28,200	300	23,150	350	20,650	375	2,500	175	300	75	4,200	275	550	100
Atmospheric sciences and meteorology	5,000	100	4,450	100	4,000	100	400	50	S	S	450	50	50	25
Geological and earth sciences, geosciences	17,550	250	13,900	300	12,400	300	1,550	150	200	75	3,000	250	400	100
Ocean sciences and marine sciences	2,900	75	2,550	75	2,300	75	250	50	*	*	250	50	50	25
Oceanography, chemical and physical	2,750	100	2,250	100	1,950	100	300	75	D	D	450	75	D	D
Physics	50,050	675	43,050	775	39,350	700	3,700	375	550	175	5,800	450	600	125
Psychology	135,750	625	112,100	900	83,050	1,100	29,050	975	800	150	20,350	700	2,450	300
Clinical psychology	47,100	400	40,450	575	27,700	725	12,800	650	200	100	5,600	425	850	200
Counseling and applied psychology	17,200	175	14,500	300	9,850	350	4,650	350	100	50	2,300	250	300	125
Educational and school psychology	16,650	225	12,400	325	9,400	350	3,000	275	100	50	3,800	300	400	125
Industrial and organizational psychology	6,000	150	5,150	150	4,200	200	950	150	100	50	650	100	100	50
Research and experimental psychology	33,650	325	27,200	425	22,600	450	4,600	300	250	75	5,650	325	550	125
Psychology, general	9,200	250	7,750	300	5,950	325	1,800	250	D	D	1,250	225	S	S
Psychology, other	5,900	175	4,600	175	3,400	150	1,250	150	100	50	1,100	125	S	S
Social sciences	123,800	825	104,100	875	90,100	1,000	14,000	600	1,250	150	16,650	550	1,800	225
Economics	32,600	500	27,950	550	24,750	550	3,200	325	200	75	4,150	350	300	125
Political science and government	25,050	475	21,700	500	19,150	525	2,600	275	250	75	2,800	275	300	75
Political science and government	19,650	450	17,100	500	15,150	500	1,950	275	150	50	2,300	250	150	75
Public policy analysis	5,400	125	4,650	150	4,000	150	650	100	100	50	550	100	100	50
Sociology, demography, and population studies	19,200	350	15,950	375	13,600	400	2,350	250	50	50	2,950	250	250	100
Other social sciences	46,950	475	38,500	525	32,600	500	5,900	350	700	150	6,750	325	950	125

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Anthropology	13,700	250	11,100	325	9,200	350	1,900	225	250	100	2,050	200	300	100
Area, ethnic, cultural, gender, and group studies	5,200	125	4,450	150	3,750	150	700	100	150	75	450	75	150	50
Geography and cartography	5,850	175	4,850	200	4,300	200	600	100	100	50	800	100	100	50
International relations and national security studies	2,800	125	2,350	150	1,900	125	450	75	D	D	400	75	50	25
Linguistics	6,100	225	5,100	225	4,400	225	700	125	50	50	800	150	150	50
Urban studies, affairs	1,800	100	1,350	100	1,100	100	250	50	50	25	350	75	50	25
Social sciences, other	11,500	275	9,350	250	8,000	225	1,350	150	150	50	1,850	175	150	50
Engineering	219,400	1,125	196,750	1,300	183,150	1,400	13,600	650	2,650	300	17,650	675	2,400	275
Aerospace, aeronautical, and astronautical engineering	8,850	175	8,150	200	7,700	175	450	100	D	D	550	100	50	25
Chemical engineering	26,550	400	23,700	500	22,250	525	1,450	225	300	100	2,300	275	250	100
Civil engineering	23,600	475	21,500	475	19,850	475	1,650	225	350	150	1,500	225	250	75
Electrical and computer engineering	59,000	625	54,000	675	50,050	675	3,950	375	450	125	3,950	325	550	150
Computer engineering	8,850	175	8,150	200	7,700	200	450	125	100	75	500	100	100	50
Electrical, electronics, and communications engineering	50,150	600	45,850	650	42,350	625	3,500	350	350	125	3,450	325	450	150
Mechanical engineering	32,500	525	28,800	625	27,050	650	1,750	275	500	150	2,750	350	450	175
Metallurgical and materials engineering	20,550	425	18,300	450	17,300	450	1,050	175	250	75	1,800	250	150	75
Other engineering	48,350	475	42,300	550	38,950	575	3,300	300	650	125	4,750	325	650	125
Agricultural engineering	2,100	100	1,650	100	1,550	100	100	50	D	D	400	75	50	25
Bioengineering and biomedical engineering	17,600	275	16,350	325	15,400	350	950	175	300	100	600	150	350	100
Engineering mechanics, physics, and science	5,100	200	4,300	200	3,950	175	350	75	100	50	700	125	50	25
Industrial and manufacturing engineering	10,900	300	9,150	300	8,150	325	1,000	175	100	50	1,600	175	100	50
Nuclear engineering	3,800	125	3,400	150	3,150	150	200	50	50	50	350	75	D	D
Engineering, other	8,850	225	7,500	225	6,800	225	650	125	100	50	1,150	200	150	50
Health	52,600	475	44,000	600	38,150	600	5,900	400	650	150	7,150	350	750	150
Communication disorders sciences and services	3,900	125	2,950	150	2,350	150	600	100	D	D	800	100	100	50
Hospital and medical administration services	1,650	75	1,300	75	1,100	75	200	50	S	S	250	50	D	D
Pharmacy, pharmaceutical sciences, and administration	9,550	225	8,550	250	7,850	250	700	125	50	50	800	125	100	50
Public health	11,600	225	10,400	250	9,000	300	1,450	200	150	75	900	150	150	75
Registered nursing, nursing administration, nursing research	12,200	225	9,100	325	7,650	300	1,450	200	S	S	2,800	200	150	50
Health sciences, other	13,700	250	11,650	325	10,200	325	1,450	175	200	100	1,600	200	300	125

* = 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.

^a Unemployed includes individuals who were not working during the survey reference week but had been seeking work in the prior 4 weeks or who were on layoff from their job.

^b Not employed and not seeking work includes individuals who were not working during the survey reference week and had not been seeking work in the prior 4 weeks because of family responsibilities, chronic illness, or other reasons.

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. Designation of full-time and part-time employment status is based on principal job only, not on all jobs held in labor force. For example, an individual could work part time in his or her principal job but full time in the labor force. Full time is based on working 35 or more hours per week. 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.