

TABLE 12-3

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

(Number and SE)

Field of study	All employed		Educational institution <sup>a</sup>		Business or industry <sup>b</sup>		Government <sup>c</sup>	
	Number	SE	Number	SE	Number	SE	Number	SE
All fields	908,700	2,300	368,100	2,450	462,250	2,800	78,350	1,450
Science	667,950	2,050	296,250	2,200	311,400	2,375	60,250	1,300
Biological, agricultural, and environmental life sciences	235,050	1,175	100,650	1,225	110,000	1,250	24,400	700
Agricultural and food sciences	17,050	400	7,500	350	7,950	375	1,600	125
Agricultural sciences	900	75	450	50	350	50	100	25
Animal sciences	4,650	200	2,200	200	2,200	150	250	75
Food sciences and technology	3,600	200	1,250	150	2,050	200	300	75
Plant sciences	5,850	250	2,750	225	2,650	225	450	75
Soil sciences	2,050	100	900	100	700	100	500	75
Biochemistry and biophysics	29,700	475	11,850	600	15,850	550	2,050	250
Biochemistry	24,150	475	9,400	525	13,050	500	1,700	225
Biophysics	5,600	175	2,450	200	2,800	175	350	100
Cell, cellular biology, and molecular biology	32,400	525	13,100	575	16,800	600	2,500	350
Microbiological sciences and immunology	25,400	425	9,550	450	13,150	500	2,650	275
Immunology	9,800	225	3,450	250	5,850	250	500	100
Microbiological sciences	15,600	350	6,100	350	7,300	375	2,150	275
Natural resources and conservation	9,150	275	3,700	200	3,000	225	2,450	150
Fish, fisheries, wildlife, and wildlands science and management	1,950	100	600	75	500	75	900	100
Forestry	2,600	150	1,150	100	950	125	500	75
Natural resource conservation, research, management, and policy	4,600	200	1,950	175	1,550	150	1,100	125
Zoology	6,400	225	3,450	225	1,750	175	1,150	150
Other biological sciences	114,900	750	51,450	850	51,450	825	12,000	550
Biomathematics, bioinformatics, and computational biology	7,150	150	2,200	150	4,450	175	500	100
Botany and plant biology	6,300	225	3,050	200	2,550	200	650	125
Epidemiology, ecology, and population biology	18,600	325	10,100	425	4,950	325	3,550	275
Genetics	9,550	225	4,600	275	4,250	300	700	150
Neurobiology and neuroscience	20,300	350	10,050	400	8,750	400	1,500	225
Nutrition sciences	4,200	150	2,050	175	1,900	150	250	75
Pharmacology and toxicology	13,350	250	4,100	300	7,300	350	1,900	275
Physiology, pathology, and related sciences	15,600	325	6,650	350	7,700	375	1,250	200
Biological and biomedical sciences, general	14,950	325	6,100	350	7,600	350	1,300	225
Biological and biomedical sciences, other	4,900	200	2,550	200	1,950	175	400	100
Computer and information sciences	36,350	550	12,650	550	22,850	675	850	150
Computer science	31,050	525	10,050	525	20,350	650	650	150
Information science, studies	2,750	125	1,650	125	1,000	100	150	50

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Computer and information sciences, other	2,550	75	950	75	1,450	100	100	25
Mathematics and statistics	38,500	600	21,300	725	15,750	550	1,450	200
Applied mathematics	9,150	225	4,850	275	3,800	250	500	125
Mathematics	17,100	450	10,950	450	5,700	350	450	125
Statistics	8,100	275	2,950	250	4,750	300	350	100
Mathematics and statistics, other	4,150	150	2,550	150	1,450	125	150	75
Physical sciences, geosciences, atmospheric sciences, and ocean sciences	141,800	1,125	50,900	975	77,100	1,100	13,800	600
Astronomy and astrophysics	6,450	175	3,100	200	2,650	175	700	150
Chemistry, except biochemistry	69,150	850	22,500	750	41,800	850	4,800	400
Inorganic chemistry	8,800	250	2,950	225	5,300	225	550	125
Organic chemistry	17,950	425	5,750	425	11,350	425	850	175
Chemistry, other, except biochemistry	42,350	625	13,800	550	25,150	650	3,400	325
Geosciences, atmospheric sciences, and ocean sciences	23,150	350	10,800	275	8,150	325	4,200	225
Atmospheric sciences and meteorology	4,450	100	1,900	125	1,500	100	1,000	75
Geological and earth sciences, geosciences	13,900	300	6,750	275	5,150	325	2,000	175
Ocean sciences and marine sciences	2,550	75	1,150	75	750	75	650	75
Oceanography, chemical and physical	2,250	100	1,050	100	750	75	500	75
Physics	43,050	775	14,500	675	24,450	775	4,100	350
Psychology	112,100	900	44,800	900	57,200	1,125	10,100	600
Clinical psychology	40,450	575	9,950	525	25,350	750	5,150	400
Counseling and applied psychology	14,500	300	4,850	350	8,200	400	1,450	225
Educational and school psychology	12,400	325	7,350	325	4,600	300	450	125
Industrial and organizational psychology	5,150	150	1,700	150	3,200	175	250	75
Research and experimental psychology	27,200	425	15,750	475	9,950	500	1,500	200
Psychology, general	7,750	300	3,150	275	3,700	300	900	225
Psychology, other	4,600	175	2,050	175	2,250	200	300	75
Social sciences	104,100	875	65,950	1,025	28,550	750	9,650	475
Economics	27,950	550	14,400	575	10,050	475	3,500	300
Political science and government	21,700	500	14,300	550	5,500	400	1,900	225
Political science and government	17,100	500	12,150	525	3,750	350	1,150	200
Public policy analysis	4,650	150	2,200	150	1,700	175	750	100
Sociology, demography, and population studies	15,950	375	11,650	400	3,300	250	950	150
Other social sciences	38,500	525	25,550	550	9,700	375	3,300	275
Anthropology	11,100	325	7,800	350	2,450	200	850	175
Area, ethnic, cultural, gender, and group studies	4,450	150	3,200	150	1,100	100	150	50

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	Number	SE	Number	SE	Number	SE	Number	SE
Geography and cartography	4,850	200	3,100	200	1,150	125	600	100
International relations and national security studies	2,350	150	1,450	125	650	100	250	50
Linguistics	5,100	225	3,600	225	1,250	175	250	100
Urban studies, affairs	1,350	100	700	75	450	75	200	50
Social sciences, other	9,350	250	5,700	225	2,650	200	1,000	100
Engineering	196,750	1,300	48,900	1,100	133,250	1,425	14,600	650
Aerospace, aeronautical, and astronautical engineering	8,150	200	2,400	225	4,700	250	1,050	125
Chemical engineering	23,700	500	3,600	300	18,550	550	1,550	225
Civil engineering	21,500	475	7,100	450	11,250	450	3,150	325
Electrical and computer engineering	54,000	675	11,050	575	40,450	775	2,500	325
Computer engineering	8,150	200	2,000	200	5,900	250	250	75
Electrical, electronics, and communications engineering	45,850	650	9,100	550	34,550	750	2,250	325
Mechanical engineering	28,800	625	8,250	550	18,350	625	2,200	300
Metallurgical and materials engineering	18,300	450	3,000	325	14,050	475	1,250	200
Other engineering	42,300	550	13,500	550	25,900	575	2,850	250
Agricultural engineering	1,650	100	700	75	750	75	200	50
Bioengineering and biomedical engineering	16,350	325	5,200	375	10,350	375	800	150
Engineering mechanics, physics, and science	4,300	200	1,250	150	2,750	200	300	75
Industrial and manufacturing engineering	9,150	300	3,200	300	5,550	325	350	75
Nuclear engineering	3,400	150	650	100	2,250	150	500	75
Engineering, other	7,500	225	2,500	225	4,300	250	700	150
Health	44,000	600	22,950	575	17,550	600	3,500	275
Communication disorders sciences and services	2,950	150	1,900	150	850	125	150	50
Hospital and medical administration services	1,300	75	700	75	500	75	150	50
Pharmacy, pharmaceutical sciences, and administration	8,550	250	2,100	250	5,900	300	550	150
Public health	10,400	250	5,050	275	4,150	275	1,200	150
Registered nursing, nursing administration, nursing research	9,100	325	6,050	350	2,550	250	550	125
Health sciences, other	11,650	325	7,200	325	3,600	275	850	150

SE = standard error.

<sup>a</sup> 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.

<sup>b</sup> Business or industry includes private for profit, private nonprofit, self-employed or business owners in incorporated or nonincorporated business, and employers not broken out separately.

<sup>c</sup> Government includes U.S. federal, state, and local government and non-U.S. government at any level.

**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.