TABLE 15-4

Employed U.S. residing doctoral scientists and engineers, by fine field of doctorate and primary work activity: 2019

(Number and SE)

Field of study	All employed		Primary work activity[a]			
			Any R&D[b]		Other[c]	
	Number	SE	Number	SE	Number	SE
All fields	857,200	1,975	351,000	1,975	506,250	2,300
Science	640,300	1,900	243,250	1,700	397,100	2,150
Biological, agricultural, and environmental life sciences	220,700	1,100	102,300	1,300	118,450	1,350
Agricultural and food sciences	17,400	350	8,150	325	9,250	375
Agricultural sciences	950	50	350	50	600	50
Animal sciences	4,550	175	1,850	150	2,750	175
Food sciences and technology	3,750	175	1,950	150	1,800	150
Plant sciences	5,900	250	3,050	200	2,850	250
Soil sciences	2,200	125	950	100	1,250	125
Biochemistry and biophysics	29,450	425	14,850	525	14,600	500
Biochemistry	24,350	400	12,000	500	12,350	475
Biophysics	5,100	175	2,850	175	2,250	175
Cell, cellular biology, and molecular biology	31,200	450	13,400	575	17,850	650
Microbiological sciences and immunology	23,800	400	11,200	475	12,600	525
Immunology	8,950	200	4,500	300	4,450	325
Microbiological sciences	14,900	325	6,700	350	8,200	375
Natural resources and conservation	8,800	225	3,500	175	5,300	250
Fish, fisheries, wildlife and wildlands science and management	2,200	150	1,000	100	1,200	125
Forestry	2,600	150	1,050	75	1,550	150
Natural resource conservation, research, management, and policy	4,000	150	1,500	150	2,550	175
Zoology	7,200	225	2,800	200	4,400	225
Other biological sciences	102,800	675	48,400	750	54,450	850
Biomathematics, bioinformatics, and computational biology	5,150	100	3,300	150	1,850	150
Botany and plant biology	6,150	225	2,650	175	3,500	200
Epidemiology, ecology, and population biology	15,950	275	7,800	350	8,150	350
Genetics	8,750	250	4,800	250	3,950	225
Neurobiology and neuroscience	16,800	275	7,950	350	8,850	325
Nutrition sciences	4,150	125	1,750	125	2,400	150
Pharmacology and toxicology	12,700	300	6,300	275	6,450	325
Physiology, pathology, and related sciences	15,400	300	6,000	275	9,450	350
Biological and biomedical sciences, general	12,750	300	5,600	325	7,150	375
Biological and biomedical sciences, other	4,950	200	2,250	200	2,750	175
Computer and information sciences	31,100	400	11,250	450	19,900	475
Computer science	26,750	400	9,600	450	17,150	475
Information science, studies	2,600	75	950	100	1,650	100
Computer and information sciences, other	1,800	50	700	50	1,100	75
Mathematics and statistics	36,650	450	13,400	450	23,250	500
Applied mathematics	8,500	200	3,250	225	5,250	250
Mathematics	16,500	375	5,100	275	11,450	350
Statistics	7,450	225	3,700	275	3,800	275
Mathematics and statistics, other	4,200	125	1,400	125	2,800	125
Physical sciences, geosciences, atmospheric sciences, and ocean sciences	133,750	950	60,500	950	73,300	1,075
Astronomy and astrophysics	5,850	175	2,300	150	3,550	125
Chemistry, except biochemistry	65,300	700	28,800	750	36,550	850
Inorganic chemistry	8,750	225	3,100	225	5,600	250
Organic chemistry	17,600	375	8,300	400	9,300	400
Chemistry, other, except biochemistry	39,000	575	17,350	575	21,600	625
Geosciences, atmospheric sciences, and ocean sciences	22,050	300	10,150	275	11,900	300
Atmospheric sciences and meteorology	3,900	75	2,100	100	1,800	100

TABLE 15-4

Employed U.S. residing doctoral scientists and engineers, by fine field of doctorate and primary work activity: 2019

(Number and SE)

Field of study	All employed		Primary work activity[a]			
			Any R&D[b]		Other[c]	
	Number	SE	Number	SE	Number	SE
Geological and earth sciences, geosciences	13,550	275	5,950	250	7,600	250
Ocean sciences and marine sciences	2,150	75	900	75	1,250	75
Oceanography, chemical and physical	2,450	125	1,150	100	1,250	125
Physics	40,550	575	19,250	625	21,300	625
Psychology	115,350	825	23,100	625	92,250	825
Clinical psychology	41,100	525	4,650	350	36,450	575
Counseling and applied psychology	14,850	275	900	150	13,950	325
Educational and school psychology	14,100	275	2,450	250	11,650	325
Industrial and organizational psychology	4,850	150	1,250	125	3,550	175
Research and experimental psychology	27,800	400	10,400	375	17,400	425
Psychology, general	7,900	250	2,150	275	5,700	325
Psychology, other	4,750	175	1,200	150	3,550	200
Social sciences	102,700	900	32,750	700	69,950	975
Economics	26,900	550	11,400	450	15,500	550
Political science and government	22,450	425	6,700	375	15,750	475
Political science and government	18,350	400	5,350	350	13,000	450
Public policy analysis	4,100	175	1,350	125	2,750	150
Sociology, demography, and population studies	15,200	325	4,650	275	10,550	350
Other social sciences	38,150	500	10,000	350	28,200	475
Anthropology	11,400	300	3,400	250	7,950	300
Area, ethnic, cultural, gender, and group studies	3,900	125	700	100	3,200	150
Geography and cartography	4,750	175	1,450	150	3,300	175
International relations and national security studies	2,350	150	450	75	1,900	125
Linguistics	4,950	250	1,000	150	3,950	250
Urban studies, affairs	1,600	100	400	50	1,200	100
Social sciences, other	9,250	250	2,600	175	6,650	250
Engineering	176,700	1,175	92,800	1,175	83,900	1,225
Aerospace, aeronautical, and astronautical engineering	7,050	225	3,900	250	3,150	250
Chemical engineering	20,800	500	10,500	450	10,300	475
Civil engineering	19,250	400	8,600	375	10,700	450
Electrical and computer engineering	48,550	650	26,650	600	21,900	650
Computer engineering	7,000	175	2,850	175	4,150	225
Electrical, electronics, and communications engineering	41,550	625	23,800	575	17,750	625
Mechanical engineering	26,550	425	14,700	525	11,850	525
Metallurgical and materials engineering	16,450	350	9,550	450	6,900	375
Other engineering	38,050	450	18,900	450	19,150	475
Agricultural engineering	1,900	75	900	75	1,000	75
Bioengineering and biomedical engineering	13,200	250	7,350	300	5,850	300
Engineering mechanics, physics, and science	4,400	150	2,650	150	1,700	150
Industrial and manufacturing engineering	8,800	275	3,600	225	5,250	275
Nuclear engineering	3,100	125	1,650	125	1,450	100
Engineering, other	6,600	200	2,750	225	3,850	200
Health	40,200	475	14,950	500	25,250	625
Communication disorders sciences and services	3,100	125	750	125	2,350	125
Hospital and medical administration services	1,550	100	550	75	950	100
Pharmacy, pharmaceutical sciences, and administration	8,050	175	4,750	250	3,300	250
Public health	8,400	225	3,650	225	4,750	250
Registered nursing, nursing administration, nursing research	9,000	250	1,650	200	7,350	325

TABLE 15-4

Employed U.S. residing doctoral scientists and engineers, by fine field of doctorate and primary work activity: 2019

(Number and SE)

Field of study	All employed		Primary work activity[a]			
			Any R&D[b]		Other[c]	
	Number	SE	Number	SE	Number	SE
Health sciences, other	10,150	225	3,600	225	6,550	250

SE = standard error.

[a] Primary work activity on principal job.

[b] R&D is defined as basic research, applied research, design, and development.

[c] Other work activities includes all non-R&D activities.

Note(s):
Numbers are rounded to the nearest 50. Standard errors are rounded up to the nearest 25. Detail may exceed total due to multiple responses. Primary and secondary work activities were self-defined by respondent in response to the question: "On which two activities...did you work the most hours during a typical week on this job?" 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.