

TABLE 20

U.S. residing employed doctoral scientists and engineers in 4-year educational institutions, by field of doctorate, sex, and tenure status: 2019

(Number and SE)

Field of study and sex	All employed		Tenured		Not tenured				Tenure not applicable	
					On tenure track		Not on tenure track			
	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE
All fields	344,350	2,325	160,500	1,650	50,850	1,000	52,200	1,125	80,800	1,250
Male	211,850	2,075	110,100	1,600	29,300	750	29,650	925	42,800	975
Female	132,500	1,450	50,350	1,025	21,600	575	22,500	675	38,050	825
Science	277,850	1,975	129,850	1,525	38,450	900	42,600	950	67,000	1,150
Male	168,250	1,725	87,650	1,325	21,900	625	23,900	775	34,800	900
Female	109,600	1,225	42,200	925	16,550	500	18,700	600	32,200	750
Biological, agricultural, and environmental life sciences	96,250	1,175	35,800	900	12,700	500	17,850	600	29,850	825
Male	55,650	1,025	24,500	800	7,150	375	9,650	450	14,350	625
Female	40,600	775	11,300	450	5,550	325	8,200	400	15,550	575
Agricultural and food sciences	7,300	300	3,700	250	1,150	150	900	125	1,500	150
Male	5,050	275	2,950	225	750	125	500	125	900	125
Female	2,250	150	800	100	450	75	400	75	650	100
Biochemistry and biophysics	11,800	550	4,850	375	1,200	175	2,200	250	3,600	325
Male	7,500	450	3,500	350	750	150	1,300	175	1,900	250
Female	4,350	300	1,350	175	450	100	900	150	1,650	225
Cell, cellular biology, and molecular biology	13,100	575	4,100	400	1,350	225	2,350	275	5,300	450
Male	7,300	450	2,650	350	700	150	1,600	250	2,300	300
Female	5,800	400	1,400	175	650	125	750	125	2,950	300
Microbiological sciences and immunology	9,100	425	2,950	275	1,100	150	1,750	225	3,350	275
Male	4,850	350	1,750	225	500	125	950	200	1,650	225
Female	4,250	250	1,200	175	550	100	850	125	1,650	175
Natural resources and conservation	3,450	225	1,400	150	500	75	600	100	950	125
Male	2,300	200	1,100	150	300	75	350	75	600	100
Female	1,150	100	300	50	200	50	250	50	400	75
Zoology	3,900	200	2,400	200	300	75	550	125	700	125
Male	2,650	175	1,850	175	150	50	300	100	350	75
Female	1,250	125	500	100	150	50	250	75	350	75
Other biological sciences	47,550	825	16,400	525	7,150	375	9,500	450	14,500	575
Male	26,000	775	10,700	500	4,000	300	4,600	325	6,700	400
Female	21,550	525	5,750	325	3,100	225	4,900	325	7,850	400
Computer and information sciences	10,750	475	5,500	375	2,400	250	1,100	125	1,750	225
Male	8,350	450	4,450	350	1,800	225	900	125	1,200	175
Female	2,400	225	1,100	175	600	125	250	50	550	125
Mathematics and statistics	20,200	525	12,300	500	2,950	225	2,450	225	2,500	225
Male	15,050	475	9,800	450	1,950	200	1,750	200	1,600	200
Female	5,150	275	2,500	200	1,000	125	750	125	900	100
Physical sciences, geosciences, atmospheric sciences, and ocean sciences	47,350	850	21,650	650	5,800	400	7,050	400	12,850	525
Male	35,650	775	16,900	625	4,250	325	5,100	350	9,400	525
Female	11,700	375	4,750	250	1,550	150	2,000	200	3,450	250
Astronomy and astrophysics	2,900	175	1,400	150	400	100	450	100	650	100
Male	2,200	175	1,150	150	300	100	350	75	450	100
Female	700	75	250	50	150	50	100	50	200	50
Chemistry, except biochemistry	20,000	650	9,150	450	2,450	300	2,950	275	5,500	350
Male	14,300	575	6,800	425	1,800	250	2,050	250	3,650	325
Female	5,750	300	2,350	200	650	125	900	150	1,850	200

TABLE 20

U.S. residing employed doctoral scientists and engineers in 4-year educational institutions, by field of doctorate, sex, and tenure status: 2019

(Number and SE)

Field of study and sex	All employed		Tenured		Not tenured				Tenure not applicable	
					On tenure track		Not on tenure track			
	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE
Geosciences, atmospheric sciences, and ocean sciences	10,000	325	4,600	225	1,250	125	1,600	125	2,500	150
Male	6,900	275	3,400	200	800	100	1,000	125	1,650	150
Female	3,100	150	1,200	100	450	75	600	75	850	75
Physics	14,450	550	6,550	475	1,650	225	2,050	250	4,200	325
Male	12,300	550	5,550	450	1,350	175	1,650	250	3,650	325
Female	2,200	200	950	175	300	100	400	100	550	100
Psychology	39,150	775	17,650	675	5,300	350	5,750	375	10,450	550
Male	15,800	575	8,550	475	1,950	250	2,050	250	3,250	300
Female	23,300	650	9,100	450	3,350	275	3,750	275	7,150	400
Social sciences	64,150	975	36,950	800	9,300	425	8,300	450	9,600	450
Male	37,750	800	23,450	725	4,800	300	4,500	375	4,950	350
Female	26,400	625	13,450	500	4,500	250	3,800	250	4,650	275
Economics	14,400	525	8,750	450	2,400	225	1,650	250	1,600	225
Male	10,650	500	6,700	425	1,600	200	1,200	225	1,100	200
Female	3,750	250	2,050	175	750	125	450	100	500	125
Political science and government	14,950	475	9,400	400	2,100	250	1,600	225	1,900	225
Male	9,600	450	6,400	375	1,150	175	850	200	1,250	175
Female	5,350	325	3,000	300	950	150	750	125	650	150
Sociology, demography, and population studies	10,600	350	6,550	325	1,450	150	1,250	175	1,350	175
Male	4,950	250	3,400	250	450	100	500	125	600	125
Female	5,650	275	3,150	225	1,050	125	750	125	750	125
Other social sciences	24,200	525	12,250	425	3,400	250	3,750	250	4,800	250
Male	12,550	450	7,000	375	1,600	150	1,950	200	2,000	175
Female	11,650	325	5,250	250	1,800	150	1,850	175	2,750	200
Engineering	45,250	925	22,400	800	7,850	475	6,050	425	8,950	450
Male	36,750	950	19,300	775	6,050	400	4,800	425	6,550	400
Female	8,550	400	3,100	225	1,800	225	1,250	150	2,400	225
Aerospace, aeronautical, and astronautical engineering	1,650	175	800	150	250	75	150	50	450	100
Male	1,450	175	700	150	250	75	100	50	400	100
Female	200	50	100	50	S	S	*	*	50	25
Chemical engineering	3,850	350	1,950	275	500	125	550	150	850	175
Male	3,050	325	1,700	275	350	125	400	125	600	150
Female	800	150	250	75	150	50	100	75	300	100
Civil engineering	7,100	375	4,050	300	1,350	200	800	150	900	150
Male	5,700	350	3,550	300	1,000	175	600	150	550	100
Female	1,400	150	500	100	350	100	200	50	350	100
Electrical and computer engineering	9,950	500	5,650	375	1,400	225	1,200	175	1,700	200
Male	8,350	450	4,850	350	1,050	175	1,000	175	1,400	200
Female	1,600	175	800	125	350	125	200	75	250	75
Mechanical engineering	7,350	500	3,500	400	1,600	275	1,000	200	1,250	200
Male	6,400	500	3,200	400	1,350	275	900	200	950	200
Female	950	150	300	75	250	125	100	50	300	100
Metallurgical and materials engineering	2,800	275	1,150	175	500	125	500	125	700	150
Male	2,150	250	950	175	400	125	400	125	400	100
Female	650	125	150	50	100	50	100	50	300	125
Other engineering	12,550	450	5,300	325	2,250	225	1,900	200	3,100	250

TABLE 20

U.S. residing employed doctoral scientists and engineers in 4-year educational institutions, by field of doctorate, sex, and tenure status: 2019

(Number and SE)

Field of study and sex	All employed		Tenured		Not tenured				Tenure not applicable	
					On tenure track		Not on tenure track			
	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE
Male	9,600	425	4,350	325	1,650	200	1,350	200	2,200	200
Female	3,000	200	950	150	550	100	550	100	900	125
Health	21,250	550	8,250	425	4,550	300	3,550	250	4,850	350
Male	6,850	325	3,150	250	1,300	150	1,000	150	1,450	175
Female	14,350	475	5,100	350	3,250	275	2,550	225	3,450	325

* = suppressed when population estimate < 25. 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. Four-year educational institutions include 4-year colleges or universities, medical schools (including university-affiliated hospitals or medical centers), and university-affiliated research institutes. 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.