

TABLE 28-1

U.S. residing employed doctoral scientists and engineers, by selected demographic and employment-related characteristics and primary or secondary work activity: 2019

(Number and SE)

Characteristic	All employed		Research and development										Computer applications		Management, sales, or administration ^a		Professional services		Teaching		Other ^b	
			Any R&D		Applied research		Basic research		Design		Development											
	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE		
Doctorate recipient	857,200	1,975	540,350	2,375	300,950	2,225	180,500	2,150	64,450	1,275	133,400	1,625	86,100	1,425	351,450	2,375	121,550	1,600	245,900	2,050	81,800	1,475
Sex																						
Male	546,050	1,750	366,550	1,925	198,500	1,700	121,950	1,675	50,250	1,075	97,600	1,425	70,400	1,275	213,100	1,975	60,100	1,325	146,800	1,925	44,500	1,150
Female	311,200	1,200	173,750	1,350	102,500	1,250	58,500	1,000	14,200	575	35,750	900	15,700	575	138,350	1,275	61,450	1,000	99,100	1,175	37,350	825
Ethnicity																						
Hispanic or Latino ^c	37,250	550	22,950	525	13,350	400	8,200	325	2,400	200	4,550	250	2,700	200	14,450	425	6,000	250	12,250	400	3,900	200
Not Hispanic or Latino ^d																						
American Indian or Alaska Native	1,300	125	700	100	300	50	300	75	100	50	100	25	50	25	600	100	300	75	550	100	150	50
Asian	213,350	1,325	156,850	1,350	84,400	1,225	47,100	1,150	24,200	825	52,750	1,150	37,700	1,000	69,500	1,225	19,150	800	40,200	1,000	17,050	750
Black or African American	31,100	400	16,300	400	9,650	325	5,450	300	1,200	125	3,500	225	1,350	150	13,600	425	5,150	300	11,850	400	3,650	225
White	562,350	1,750	336,550	2,000	189,350	1,700	117,000	1,625	35,850	925	70,850	1,225	43,400	950	247,750	2,050	89,100	1,300	177,650	1,650	55,600	1,150
Other race ^e	11,950	400	7,050	325	3,950	225	2,450	175	750	100	1,650	200	850	125	5,600	275	1,800	200	3,400	225	1,500	175
Age																						
Under 35	99,050	1,050	75,950	975	45,150	900	26,000	750	10,450	400	21,300	725	16,150	575	31,000	725	9,350	450	18,500	625	8,550	375
35–39	128,800	1,375	92,350	1,300	52,700	975	30,700	800	11,300	625	23,950	800	17,600	625	48,100	900	14,050	625	32,400	825	11,100	525
40–44	117,500	1,325	78,950	1,350	45,300	1,100	26,200	775	8,550	425	18,950	750	13,100	650	47,600	900	13,800	525	32,300	800	10,750	500
45–49	108,400	1,450	66,700	1,175	34,800	875	23,250	775	7,550	450	15,200	625	9,400	525	49,200	1,050	14,500	725	34,000	1,025	10,450	500
50–54	100,900	1,375	58,850	1,200	30,800	900	18,200	675	7,200	475	15,500	675	9,300	575	47,400	1,050	14,650	650	30,350	900	9,500	450
55–59	101,950	1,400	59,200	1,075	32,650	975	18,500	775	7,550	475	14,350	525	8,900	550	47,400	1,075	13,450	650	30,300	875	10,700	525
60–64	88,300	1,400	51,600	1,150	28,100	775	16,850	700	5,950	400	12,400	575	6,100	425	37,000	950	14,100	600	30,200	875	9,350	550
65–75	112,350	1,625	56,750	1,250	31,450	825	20,700	800	5,950	400	11,750	550	5,600	325	43,750	1,075	27,550	950	37,850	1,025	11,450	600
Years since doctorate																						
≤ 5	142,500	625	104,750	925	63,350	1,100	35,200	800	13,800	550	27,600	800	22,700	625	42,850	825	15,750	550	32,500	775	12,500	500
6–10	154,750	1,025	105,800	1,150	61,100	850	34,000	825	12,600	600	27,400	775	17,900	650	59,800	1,125	17,300	500	43,300	900	14,400	525
11–15	127,000	1,150	81,650	1,125	44,250	925	27,450	825	9,350	500	19,250	725	12,050	525	54,200	975	16,350	675	38,050	850	12,000	575
16–20	108,700	825	64,150	1,050	34,650	850	21,200	650	6,900	450	15,600	625	9,200	525	50,450	900	15,200	700	33,800	825	11,250	525
21–25	104,250	825	60,500	875	31,000	775	18,450	725	8,400	500	15,700	650	10,000	550	48,400	975	15,950	750	30,300	750	10,100	500
> 25	220,000	1,575	123,500	1,550	66,600	1,100	44,150	1,000	13,400	675	27,850	825	14,250	575	95,700	1,475	40,950	975	67,900	1,100	21,600	800
Citizenship																						
U.S. citizen	732,750	2,000	440,950	2,575	245,450	2,000	147,100	1,775	49,950	1,075	101,900	1,600	60,900	1,125	320,750	2,250	113,850	1,500	219,950	2,000	73,400	1,375
Native-born	555,150	1,575	321,450	1,900	182,950	1,500	110,850	1,500	32,300	900	66,300	1,225	37,900	875	251,350	2,125	94,450	1,275	175,950	1,725	57,350	1,150
Naturalized	177,600	1,675	119,500	1,775	62,500	1,275	36,250	1,075	17,650	750	35,600	1,000	22,950	775	69,400	1,225	19,400	800	44,000	1,175	16,050	700
Non-U.S. citizen	124,450	1,600	99,400	1,375	55,500	1,200	33,400	1,125	14,500	650	31,500	975	25,200	925	30,700	950	7,700	450	25,950	875	8,400	500
Permanent resident	87,200	1,475	67,650	1,275	36,650	975	22,200	925	9,700	525	22,300	825	16,500	800	23,700	825	5,800	375	19,850	800	6,000	450

TABLE 28-1

U.S. residing employed doctoral scientists and engineers, by selected demographic and employment-related characteristics and primary or secondary work activity: 2019

(Number and SE)

Characteristic	All employed		Research and development										Computer applications		Management, sales, or administration ^a		Professional services		Teaching		Other ^b	
			Any R&D		Applied research		Basic research		Design		Development											
	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE
Temporary resident	37,300	900	31,750	800	18,850	675	11,200	600	4,750	375	9,200	475	8,700	450	7,000	450	1,900	250	6,100	425	2,450	275
Sector of employment																						
4-year educational institution ^f	344,350	2,325	234,300	2,225	119,750	1,750	134,700	1,750	7,250	425	11,850	550	12,500	500	110,000	1,375	20,050	775	201,700	1,950	28,500	850
Other educational institution ^g	30,900	900	6,750	400	3,000	300	2,350	225	750	150	1,400	200	800	150	10,250	500	3,900	300	23,150	825	4,300	300
Private, for profit ^h	306,300	2,500	201,550	2,075	110,550	1,575	15,800	700	44,850	1,100	98,900	1,475	58,050	1,175	146,550	1,850	46,500	1,125	8,450	500	27,950	800
Private, nonprofit	55,900	1,125	33,450	825	23,400	725	11,000	425	3,800	350	5,900	325	5,150	400	28,350	875	14,000	650	4,400	350	5,200	350
Federal government	50,150	1,025	33,950	850	25,700	725	10,900	475	2,800	250	5,800	425	4,350	325	24,600	575	7,650	475	2,050	225	7,100	425
State or local government	18,850	750	9,950	475	6,750	450	2,350	275	1,500	200	1,850	250	2,150	250	10,050	550	4,750	375	1,200	175	2,900	275
Self-employed ⁱ	40,750	1,100	13,950	625	7,850	450	2,200	250	2,500	300	5,200	400	1,800	200	17,200	800	22,950	800	4,500	375	4,450	375
Other sector ^j	10,050	550	6,450	450	4,000	325	1,200	200	1,050	200	2,500	325	1,300	200	4,400	325	1,750	250	400	125	1,400	225
Employer location																						
New England	77,100	1,375	50,150	1,100	27,800	850	17,550	625	5,000	400	13,000	575	7,550	475	32,550	975	11,500	575	20,650	675	6,500	450
Middle Atlantic	117,450	1,875	70,900	1,450	38,650	1,050	26,150	850	7,100	425	15,500	675	10,950	525	48,250	1,175	19,300	800	37,250	900	10,950	550
East North Central	100,900	1,550	62,350	1,275	34,750	950	22,800	700	6,850	425	14,200	625	8,750	525	41,150	950	13,350	600	34,100	950	9,400	475
West North Central	48,750	1,175	30,250	900	16,500	650	11,350	650	3,200	350	7,100	475	2,900	275	19,250	775	6,600	450	17,500	625	5,200	400
South Atlantic	163,650	1,900	101,800	1,625	61,450	1,200	35,500	1,050	9,800	575	20,500	725	13,600	625	69,900	1,275	23,150	725	45,250	925	17,750	650
East South Central	30,550	1,000	19,200	750	10,900	525	8,300	525	1,550	200	2,700	300	1,800	225	11,300	575	3,950	350	13,050	600	2,550	225
West South Central	68,800	1,325	42,250	1,000	22,650	775	14,750	650	5,800	400	9,400	600	5,800	425	26,550	800	10,000	475	22,600	750	6,400	450
Mountain	58,200	1,275	37,250	1,025	21,150	750	12,350	600	4,700	350	8,650	550	4,950	325	23,600	825	8,500	550	17,600	650	5,600	400
Pacific	185,950	2,075	122,750	1,775	65,450	1,300	30,650	850	20,000	850	41,500	1,075	29,400	850	76,700	1,425	24,250	850	35,400	900	16,800	650
U.S. territories and other areas	5,850	425	3,400	325	1,700	200	1,100	175	450	125	850	175	400	125	2,200	250	850	175	2,500	250	650	150

SE = standard error.

^a Administration includes accounting, finance, contracts, and human resources.^b Includes production, operations, maintenance, and other activities not broken out separately.^c Hispanic or Latino may be of any race.^d American Indian or Alaska Native, Asian, Black or African American, and White are single race.^e Other race includes Native Hawaiian or Other Pacific Islander and persons reporting more than one race who are not of Hispanic or Latino ethnicity.^f Includes 4-year colleges or universities, medical schools (including university-affiliated hospitals or medical centers), and university-affiliated research institutes.

^g Includes 2-year colleges, community colleges, or technical institutes, and other precollege institutions.

^h Includes those self-employed in an incorporated business.

ⁱ Self-employed or business owner in a nonincorporated business.

^j Includes employers not broken out separately.

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 the 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.