

TABLE 28-1

U.S. residing employed doctoral scientists and engineers, by selected demographic and employment-related characteristics and primary or secondary work activity: 2023

(Number and SE)

Characteristic	All employed		Research and development								Computer applications		Design		Management, sales, or administration ^a		Professional services		Teaching		Other ^b	
			Any R&D		Basic research		Applied research		Experimental development													
	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE	Number	SE
Doctorate recipient	908,700	2,300	546,250	2,475	180,050	1,925	329,150	2,575	153,200	1,875	103,750	1,500	76,700	1,600	388,200	2,375	117,050	1,775	235,900	2,325	82,600	1,475
Sex																						
Male	558,900	1,850	356,450	1,950	118,100	1,875	210,000	2,125	108,550	1,625	83,300	1,375	58,150	1,475	222,250	2,200	54,400	1,325	134,100	1,900	44,200	1,075
Female	349,800	1,475	189,800	1,575	61,950	1,250	119,150	1,425	44,650	1,025	20,450	550	18,550	625	165,950	1,650	62,650	1,325	101,800	1,400	38,350	825
Ethnicity and race																						
Hispanic or Latino ^c	47,400	700	28,650	550	10,500	325	17,550	525	6,700	325	3,700	200	3,650	275	20,250	575	6,600	325	14,000	475	4,650	275
Not Hispanic or Latino ^d																						
American Indian or Alaska Native	1,750	175	900	125	300	75	550	100	200	50	50	25	100	50	850	125	300	100	600	100	250	100
Asian	240,850	1,900	167,250	1,575	51,050	1,175	98,900	1,625	61,500	1,425	44,700	1,175	27,350	1,025	84,500	1,625	19,400	875	40,300	1,175	18,200	775
Black or African American	36,050	500	19,200	475	5,950	350	12,450	400	4,500	325	2,050	200	2,200	250	16,050	475	5,400	350	11,750	425	4,600	325
White	566,700	2,050	320,950	2,175	109,200	1,475	194,000	2,000	78,250	1,325	51,850	1,150	42,200	1,050	259,050	2,025	82,950	1,475	165,000	1,875	53,150	1,200
Other race ^e	15,950	525	9,300	450	3,100	250	5,700	300	2,100	250	1,450	200	1,200	150	7,450	400	2,350	225	4,250	325	1,800	175
Age																						
Under 35	101,900	1,100	75,050	925	25,700	575	48,250	925	22,300	650	19,700	525	12,100	475	32,650	825	9,500	475	15,200	525	8,100	375
35–39	139,700	1,525	93,400	1,350	29,350	800	57,900	1,100	29,150	875	22,400	725	14,350	625	55,550	1,125	13,800	600	28,550	825	11,300	500
40–44	135,200	1,425	82,750	1,275	27,450	775	50,600	1,050	21,700	750	16,350	775	11,450	600	63,050	1,175	14,500	625	34,650	825	10,800	450
45–49	119,100	1,425	70,200	1,125	23,950	850	41,300	1,025	19,100	775	11,250	575	9,150	550	55,850	1,150	14,900	625	32,550	850	10,750	525
50–54	112,200	1,400	63,850	1,250	20,250	725	35,600	1,000	18,200	725	10,250	625	8,250	525	54,550	1,025	14,450	575	32,050	800	11,150	575
55–59	100,500	1,625	53,350	1,400	16,850	700	30,700	1,050	16,100	825	8,850	500	8,200	525	47,450	1,025	13,900	700	28,450	975	10,000	550
60–64	87,550	1,500	49,000	1,200	15,150	750	29,200	1,000	14,000	750	7,000	400	6,500	450	38,400	1,050	12,050	525	27,250	825	9,100	575
65–75	112,550	1,375	58,600	1,175	21,350	900	35,650	975	12,650	600	8,000	550	6,700	450	40,700	975	23,900	800	37,250	950	11,350	550
Years since doctorate																						
≤ 5	143,600	575	102,950	725	35,550	675	67,200	875	29,050	675	26,000	575	16,000	550	44,500	750	14,700	500	26,200	650	11,450	475
6–10	169,900	925	107,300	1,250	32,450	950	66,900	1,150	32,350	975	23,800	800	16,250	675	70,950	1,075	17,300	650	41,800	975	15,250	600
11–15	146,200	925	86,450	1,225	28,400	775	51,550	1,075	23,450	750	17,200	675	11,600	600	68,200	1,050	17,350	625	39,850	900	12,250	575
16–20	117,750	800	67,450	925	21,950	800	39,350	850	18,700	775	9,650	550	9,000	500	56,300	1,025	15,150	675	33,650	850	10,800	625
21–25	105,200	1,000	59,000	950	18,550	700	33,500	950	17,600	725	9,250	600	7,250	525	50,900	1,025	14,550	625	29,250	800	10,100	550
> 25	226,050	1,575	123,100	1,550	43,150	1,000	70,700	1,425	32,050	1,125	17,950	725	16,600	800	97,350	1,375	38,000	950	65,150	1,250	22,750	750
Citizenship																						
U.S. citizen	774,700	2,225	444,700	2,375	146,000	1,850	267,350	2,300	118,200	1,675	74,250	1,325	59,600	1,425	352,100	2,450	110,100	1,650	212,500	2,075	73,950	1,425
Native born	562,450	1,725	310,200	2,050	104,600	1,450	189,500	1,850	74,050	1,175	45,650	1,000	36,750	975	264,500	1,875	89,500	1,425	164,100	1,650	55,800	1,175
Naturalized	212,250	1,775	134,500	1,650	41,400	1,225	77,850	1,450	44,150	1,175	28,650	975	22,850	950	87,550	1,600	20,600	825	48,400	1,200	18,100	750
Non-U.S. citizen	134,000	1,550	101,550	1,300	34,050	850	61,800	1,250	35,000	1,100	29,500	875	17,100	725	36,100	925	6,950	550	23,450	850	8,650	500
Permanent resident	94,750	1,575	69,650	1,200	22,500	750	41,200	1,075	24,800	950	19,550	850	11,800	650	28,050	825	5,500	525	18,500	825	6,200	400

TABLE 28-1
U.S. residing employed doctoral scientists and engineers, by selected demographic and employment-related characteristics and primary or secondary work activity: 2023

(Number and SE)

Characteristic	All employed		Research and development								Computer applications		Design		Management, sales, or administration ^a		Professional services		Teaching		Other ^b	
			Any R&D		Basic research		Applied research		Experimental 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	39,250	775	31,900	725	11,550	475	20,600	675	10,200	475	9,950	500	5,300	375	8,050	475	1,450	200	4,950	350	2,450	250
Sector of employment																						
4-year educational institution ^f	341,350	2,475	226,950	1,950	128,250	1,750	120,100	1,750	14,750	650	14,650	650	7,200	425	120,400	1,475	18,350	750	190,400	1,850	27,850	950
Other educational institution ^g	26,750	875	5,050	425	1,850	250	2,250	325	1,350	200	500	100	550	100	9,850	500	2,950	300	20,200	800	3,400	275
Private, for profit ^h	354,100	2,775	214,900	2,300	20,050	775	133,900	1,975	115,750	1,875	71,500	1,350	55,900	1,375	168,350	1,925	46,650	1,250	9,450	625	28,750	850
Private, nonprofit	64,300	1,175	37,350	950	13,150	575	25,800	725	6,500	375	6,450	400	4,300	325	32,100	850	14,950	650	7,000	475	6,650	425
Federal government	58,600	1,250	36,550	875	11,400	575	28,900	825	7,100	475	5,700	350	4,600	400	30,350	875	7,550	500	2,700	325	7,100	400
State or local government	18,700	725	9,050	450	2,200	225	7,000	425	1,900	250	2,300	275	1,350	225	10,700	500	3,700	375	1,000	200	3,000	300
Self-employed ⁱ	42,350	1,150	14,850	700	2,750	325	9,900	525	5,500	425	2,600	300	2,750	300	15,250	625	22,350	775	4,950	450	5,450	475
Other sector ^j	2,450	275	1,500	200	400	100	1,300	200	350	100	D	D	S	S	1,200	175	550	125	150	75	350	125
Employer location																						
New England	86,300	1,450	54,850	1,275	17,500	675	33,500	1,000	15,950	725	9,750	500	6,350	525	38,950	1,025	10,450	600	19,700	650	6,800	400
Middle Atlantic	122,250	1,925	71,200	1,575	26,800	925	42,300	1,175	17,100	700	13,450	625	9,400	525	50,650	1,175	18,550	725	34,450	925	11,450	600
East North Central	103,650	1,725	62,550	1,250	24,050	775	36,750	950	15,450	800	8,800	525	6,950	475	42,850	1,100	12,900	600	34,150	1,050	9,100	500
West North Central	48,650	1,000	28,950	800	11,050	525	17,150	700	6,700	425	3,250	275	3,650	375	19,650	600	6,800	400	17,300	650	4,100	350
South Atlantic	173,350	2,050	100,600	1,650	33,700	950	64,350	1,400	23,600	800	16,450	700	12,450	625	78,450	1,475	23,550	775	43,900	1,200	18,200	725
East South Central	29,150	825	17,400	575	7,200	425	10,350	450	3,400	325	1,900	225	1,800	250	10,950	525	3,950	350	11,450	525	2,700	275
West South Central	70,500	1,600	40,350	1,050	14,500	600	22,850	850	11,300	675	6,900	425	6,350	475	28,900	900	9,750	575	21,000	725	6,550	425
Mountain	60,950	1,225	36,750	925	12,300	525	22,800	750	9,250	475	6,550	450	5,300	350	26,900	875	7,400	500	15,900	650	5,850	400
Pacific	207,350	2,025	129,600	1,700	31,600	1,000	77,000	1,425	49,400	1,125	36,400	1,050	24,150	750	88,350	1,425	22,900	750	35,500	1,075	17,150	725
U.S. territories and other areas	6,500	475	4,000	375	1,400	175	2,100	275	1,050	250	350	125	250	75	2,500	275	800	175	2,500	300	750	150

D = suppressed to avoid disclosure of confidential information. S = suppressed for reliability; coefficient of variation exceeds publication standards.

SE = standard error.

^a Administration includes accounting, finance, contracts, and human resources.

^b Other work activities include 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 individuals who reported being Native Hawaiian or Other Pacific Islander, single race, and those who reported being more than one race.

^f Four-year educational institution includes 4-year colleges or universities, medical schools (including university-affiliated hospitals or medical centers), and university-affiliated research institutes.

^g Other educational institution includes 2-year colleges, community colleges, technical institutes, precollege institutions, and other educational institutions.

^h Private, for profit includes those self-employed in an incorporated business.

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

^j Other sector 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 as respondents may provide both a primary and a secondary work activity. 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 2023.

Source(s):

National Center for Science and Engineering Statistics, Survey of Doctorate Recipients, 2023.