

TABLE 28-2

U.S. residing employed doctoral scientists and engineers, by selected demographic and employment-related characteristics and primary 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	355,450	2,700	91,150	1,400	187,350	2,350	76,950	1,400	53,200	1,225	28,350	1,000	185,550	1,975	90,900	1,650	153,800	1,875	41,400	1,025
Sex																						
Male	558,900	1,850	236,100	2,450	61,250	1,450	118,900	2,000	55,950	1,275	43,950	1,150	22,200	925	109,250	1,675	41,150	1,150	84,850	1,550	21,400	775
Female	349,800	1,475	119,400	1,450	29,900	850	68,450	1,100	21,000	750	9,300	475	6,150	375	76,250	1,275	49,750	1,200	69,000	1,125	20,000	625
Ethnicity and race																						
Hispanic or Latino ^c	47,400	700	18,250	500	5,050	225	9,900	425	3,350	225	1,550	150	1,400	175	9,300	375	5,450	300	9,300	375	2,200	200
Not Hispanic or Latino ^d																						
American Indian or Alaska Native	1,750	175	550	100	150	75	250	100	100	50	D	D	50	25	400	100	250	75	400	75	100	50
Asian	240,850	1,900	117,800	1,500	30,050	925	54,000	1,425	33,750	1,025	25,450	950	10,850	725	42,000	1,200	14,450	725	21,550	850	8,750	525
Black or African American	36,050	500	11,200	425	2,050	200	7,200	325	1,950	175	850	125	850	125	8,650	375	4,100	300	7,950	350	2,400	250
White	566,700	2,050	202,050	2,050	52,450	1,075	112,700	1,700	36,900	1,100	24,650	800	14,750	600	121,700	1,600	64,750	1,375	111,700	1,600	27,100	825
Other race ^e	15,950	525	5,600	300	1,350	175	3,300	250	950	175	750	150	450	100	3,450	325	1,950	225	2,900	250	850	150
Age																						
Under 35	101,900	1,100	56,750	825	14,650	475	30,450	750	11,650	550	8,800	400	4,250	325	11,500	450	7,650	450	8,850	375	4,100	275
35–39	139,700	1,525	64,550	1,275	15,700	575	33,850	875	15,000	700	12,450	625	5,150	375	23,450	675	10,300	500	17,700	575	6,100	425
40–44	135,200	1,425	54,450	1,100	13,600	650	29,700	875	11,150	575	8,200	525	4,450	350	29,500	850	10,900	525	23,000	725	4,700	300
45–49	119,100	1,425	44,200	1,000	11,900	675	23,050	800	9,250	525	5,500	450	3,200	300	27,650	850	11,500	575	21,800	700	5,200	400
50–54	112,200	1,400	37,800	1,150	10,000	525	19,000	750	8,750	525	5,550	475	2,800	300	28,550	900	11,100	500	21,150	700	5,250	350
55–59	100,500	1,625	32,650	1,100	7,600	500	16,750	725	8,300	625	5,100	450	3,100	350	25,650	825	10,400	650	18,700	800	4,950	375
60–64	87,550	1,500	29,200	1,000	7,200	475	15,050	725	6,950	475	3,800	325	2,550	300	19,950	825	9,150	500	18,250	650	4,650	400
65–75	112,550	1,375	35,850	925	10,450	650	19,450	675	5,900	400	3,800	375	2,850	300	19,250	675	19,900	725	24,350	775	6,500	475
Years since doctorate																						
≤ 5	143,600	575	74,850	750	19,050	525	41,400	725	14,450	550	12,250	425	5,950	375	16,250	550	11,800	450	16,900	525	5,550	300
6–10	169,900	925	72,300	1,150	15,850	650	39,700	775	16,750	675	12,650	675	6,000	400	30,150	825	12,950	550	27,900	800	7,900	475
11–15	146,200	925	55,350	1,050	14,050	625	29,100	825	12,200	625	8,650	525	4,300	350	32,800	925	12,750	550	26,500	850	5,800	350
16–20	117,750	800	41,400	900	10,900	575	21,500	775	9,050	550	4,700	375	3,200	300	28,750	850	11,700	550	22,400	700	5,600	400
21–25	105,200	1,000	35,550	1,000	9,300	475	17,300	775	9,000	600	5,300	500	2,350	300	27,050	850	10,900	575	19,550	650	4,500	325
> 25	226,050	1,575	75,950	1,400	22,050	825	38,350	975	15,550	725	9,700	575	6,550	550	50,600	1,150	30,750	850	40,550	950	12,000	650
Citizenship																						
U.S. citizen	774,700	2,225	282,000	2,425	71,400	1,300	152,150	2,025	58,450	1,325	37,450	1,025	21,050	850	170,250	1,850	86,250	1,525	140,650	1,675	37,050	975
Native born	562,450	1,725	192,850	1,925	48,500	1,025	110,100	1,525	34,250	950	21,150	700	11,750	475	125,500	1,525	70,850	1,350	111,650	1,375	28,650	875
Naturalized	212,250	1,775	89,150	1,575	22,900	875	42,050	1,300	24,200	900	16,300	725	9,300	650	44,750	1,175	15,350	675	29,000	950	8,350	475
Non-U.S. citizen	134,000	1,550	73,450	1,325	19,750	775	35,200	975	18,500	775	15,750	775	7,300	475	15,300	675	4,650	475	13,200	575	4,350	375
Permanent resident	94,750	1,575	49,050	1,200	12,700	625	23,200	775	13,100	700	10,750	675	5,250	400	12,650	650	3,700	425	10,150	500	3,200	325

TABLE 28-2

U.S. residing employed doctoral scientists and engineers, by selected demographic and employment-related characteristics and primary 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	24,400	650	7,050	400	12,000	525	5,350	425	5,000	375	2,050	250	2,650	275	950	175	3,050	300	1,150	175
Sector of employment																						
4-year educational institution ^f	341,350	2,475	140,000	1,700	70,700	1,350	64,600	1,325	4,650	375	3,600	275	1,650	225	47,400	975	11,400	575	127,900	1,725	9,400	525
Other educational institution ^g	26,750	875	1,200	200	250	75	750	200	250	75	100	50	100	25	3,700	300	2,000	250	18,600	725	1,050	175
Private, for profit ^h	354,100	2,775	143,250	1,925	5,450	425	75,000	1,475	62,800	1,325	43,000	1,200	22,050	900	89,900	1,500	36,900	1,100	2,650	300	16,400	675
Private, nonprofit	64,300	1,175	27,500	825	7,750	450	17,000	675	2,750	250	2,150	250	1,650	250	16,000	625	11,750	600	1,600	225	3,650	350
Federal government	58,600	1,250	27,450	800	5,300	375	19,300	650	2,850	300	2,000	225	1,350	200	16,250	625	6,000	450	650	200	4,950	325
State or local government	18,700	725	5,850	375	850	175	4,300	325	700	150	950	175	600	200	6,550	425	2,650	350	300	75	1,850	225
Self-employed ⁱ	42,350	1,150	9,050	550	700	150	5,600	400	2,750	325	1,350	225	950	200	5,100	400	19,950	750	2,050	250	3,900	400
Other sector ^j	2,450	275	1,150	175	150	75	800	150	200	100	D	D	D	D	650	150	300	100	D	D	250	125
Employer location																						
New England	86,300	1,450	37,900	1,125	9,300	550	20,250	800	8,350	525	4,700	350	2,200	275	17,350	700	8,150	500	12,700	575	3,300	350
Middle Atlantic	122,250	1,925	46,000	1,375	14,450	725	23,300	875	8,200	575	7,050	475	3,050	325	23,650	750	14,450	675	22,800	750	5,250	375
East North Central	103,650	1,725	41,300	1,075	12,100	550	21,450	800	7,800	475	4,050	375	2,050	225	19,650	750	9,950	550	22,000	900	4,600	400
West North Central	48,650	1,000	18,300	650	5,450	375	9,400	500	3,450	325	1,550	175	1,200	225	9,000	475	5,250	375	11,650	575	1,700	200
South Atlantic	173,350	2,050	65,250	1,300	16,250	675	37,550	1,025	11,450	525	8,000	500	4,450	350	39,450	1,150	17,400	625	29,000	1,000	9,800	525
East South Central	29,150	825	10,600	475	3,400	300	5,700	350	1,450	200	700	125	750	150	4,900	325	3,150	325	7,800	425	1,250	200
West South Central	70,500	1,600	26,500	975	8,050	475	13,000	600	5,450	475	3,500	325	2,700	300	13,800	600	7,800	525	12,950	600	3,300	325
Mountain	60,950	1,225	23,300	775	5,800	350	13,300	575	4,250	375	3,350	300	2,500	275	12,450	600	6,100	475	10,000	500	3,250	325
Pacific	207,350	2,025	84,100	1,450	15,800	625	42,350	1,150	25,950	875	20,150	850	9,450	550	43,800	1,025	18,100	700	23,200	875	8,550	500
U.S. territories and other areas	6,500	475	2,250	300	550	100	1,050	175	700	225	150	50	50	50	1,400	200	550	150	1,700	225	400	100

D = suppressed to avoid disclosure of confidential information.

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 not add to total because of rounding. 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.