TABLE 28-2

U.S. residing employed doctoral scientists and engineers, by selected demographic and employment-related characteristics and primary work activity: 2021

(Number and SE)

Characteristic	All employed		Research and development								Total		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	Number	SE
Doctorate recipient	872,100	2,425	333,250	2,225	92,050	1,500	174,150	2,025	67,050	1,250	538,850	2,800	44,800	1,150	24,850	900	171,700	2,175	98,900	1,575	159,750	1,825	38,850	1,150
Sex																								
Male	543,550	2,350	224,950	1,925	63,700	1,400	111,450	1,625	49,800	1,150	318,650	2,325	37,200	1,075	19,650	825	105,100	1,725	44,800	1,200	90,350	1,425	21,500	850
Female	328,500	1,250	108,300	1,475	28,350	750	62,650	1,200	17,250	600	220,200	1,575	7,600	475	5,150	375	66,600	1,150	54,050	1,200	69,400	1,125	17,350	725
Ethnicity																								
Hispanic or Latino[c]	40,100	475	15,450	500	4,350	225	8,650	375	2,450	225	24,700	525	1,200	125	1,000	125	7,600	250	4,550	250	8,300	325	2,000	200
Not Hispanic or Latino[d]																								
American Indian or Alaska Native	1,400	125	500	100	200	75	250	50	50	25	900	100	D	D	D	D	300	50	200	75	300	75	50	25
Asian	219,800	1,600	107,350	1,450	30,100	925	47,800	1,300	29,450	875	112,450	1,575	20,550	850	10,350	650	36,400	1,025	14,100	700	23,000	700	8,100	575
Black or African American	31,800	475	9,100	325	2,150	200	5,350	250	1,600	150	22,700	450	550	75	600	100	7,300	325	4,500	325	8,150	325	1,650	175
White	562,950	2,075	194,600	1,825	53,600	1,175	108,500	1,450	32,500	925	368,350	2,125	21,950	775	12,550	625	116,700	1,725	73,400	1,400	117,650	1,625	26,100	925
Other race[e]	16,000	575	6,250	425	1,700	225	3,600	350	1,000	150	9,750	400	600	125	350	100	3,350	275	2,100	200	2,400	200	950	175
Age																								
Under 35	99,200	925	54,850	950	16,000	625	28,500	725	10,350	500	44,300	875	8,550	475	3,550	325	10,100	450	7,450	450	10,750	450	3,900	300
35–39	130,150	1,225	60,050	1,100	16,000	650	32,550	825	11,500	600	70,050	1,150	9,000	450	4,100	300	21,650	700	10,850	575	19,700	675	4,800	375
40–44	127,550	1,400	51,100	1,075	14,550	725	26,350	825	10,200	575	76,450	1,300	6,800	400	3,800	325	25,600	925	11,850	600	23,200	750	5,300	400
45–49	111,200	1,250	39,950	925	11,600	550	19,850	700	8,500	525	71,250	1,200	5,300	425	3,000	300	24,900	875	11,300	600	21,450	675	5,300	425
50–54	104,550	1,225	35,150	975	9,100	475	17,550	825	8,500	600	69,400	1,250	4,150	400	2,950	350	25,650	775	11,000	575	21,100	725	4,550	450
55–59	98,950	1,375	30,950	850	7,700	450	16,300	725	6,900	425	68,050	1,325	4,850	425	2,650	325	24,450	750	11,250	650	19,500	725	5,300	425
60–64	86,450	1,375	28,200	850	7,550	475	15,000	650	5,650	350	58,250	1,225	3,000	300	2,600	275	19,500	750	11,200	625	18,300	700	3,650	325
65–75	114,100	1,575	33,050	1,025	9,500	575	18,050	850	5,500	450	81,050	1,375	3,150	325	2,150	275	19,900	800	24,050	850	25,800	875	6,050	500
Years since doctorate																								
≤ 5	141,750	600	73,500	1,025	20,750	675	39,550	900	13,200	600	68,250	950	10,500	500	4,800	350	14,850	525	12,000	575	20,550	575	5,550	375
6–10	159,000	975	65,950	1,200	16,950	700	35,800	950	13,200	600	93,050	1,350	10,550	475	5,100	375	27,900	825	14,250	650	28,850	750	6,350	400
11–15	137,450	875	51,000	975	13,850	625	25,900	775	11,200	575	86,500	975	6,900	475	4,000	400	29,650	950	13,250	500	26,350	750	6,300	450
16–20	108,850	825	38,650	800	10,550	550	19,750	675	8,400	550	70,200	1,075	3,800	375	2,750	325	25,350	850	11,850	625	21,250	700	5,200	400
21–25	104,600	950	34,300	850	9,150	550	17,450	675	7,650	500	70,300	1,100	5,100	425	2,550	300	25,200	750	12,500	600	20,850	800	4,150	425
> 25	220,400	1,675	69,850	1,325	20,800	775	35,700	1,050	13,400	600	150,550	1,700	8,000	500	5,600	425	48,700	1,200	35,100	1,075	41,900	1,125	11,350	625
Citizenship																								
U.S. citizen	746,850	2,200	264,450	2,050	70,500	1,300	142,950	1,675	51,000	1,150	482,400	2,550	31,250	975	18,400	800	158,300	1,975	94,100	1,525	145,350	1,750	34,950	1,075
Native-born	554,050	1,850	183,450	1,825	49,050	1,000	105,050	1,425	29,400	750	370,600	2,300	18,600	675	11,100	550	118,600	1,775	78,150	1,350	117,100	1,550	27,100	950
Naturalized	192,800	1,675	81,000	1,400	21,450	850	37,900	1,175	21,600	825	111,800	1,450	12,700	625	7,350	525	39,700	1,150	15,950	700	28,250	825	7,850	525
Non-U.S. citizen	125,250	1,425	68,800	1,225	21,550	825	31,200	1,025	16,050	725	56,400	1,175	13,550	725	6,400	425	13,400	725	4,800	450	14,450	650	3,850	350
Permanent resident	84,250	1,300	42,500	975	12,250	650	19,200	825	11,050	575	41,800	1,075	9,150	550	4,050	400	11,250	675	3,550	400	11,150	600	2,600	300

TABLE 28-2

U.S. residing employed doctoral scientists and engineers, by selected demographic and employment-related characteristics and primary work activity: 2021

(Number and SE)

Characteristic	All employed		Research and development								Total		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	Number	SE
Temporary resident	40,950	825	26,300	800	9,350	550	11,950	600	5,000	400	14,650	600	4,400	425	2,350	300	2,150	250	1,200	200	3,300	300	1,250	225
Sector of employment																								
4-year educational institution[f]	340,950	2,450	136,300	1,475	71,850	1,375	60,800	1,050	3,650	350	204,650	2,050	3,250	275	1,450	200	43,700	975	13,300	625	133,900	1,725	9,050	525
Other educational institution[g]	27,800	825	1,350	225	300	100	800	150	250	125	26,450	800	150	75	100	50	3,000	300	2,500	250	19,600	700	1,150	200
Private, for profit[h]	320,850	2,625	127,700	1,800	4,950	350	67,900	1,450	54,850	1,150	193,150	2,250	35,350	1,025	19,550	825	81,650	1,575	39,100	1,225	2,600	275	14,900	700
Private, nonprofit	60,200	1,300	26,250	775	7,300	400	16,650	650	2,300	225	33,950	1,025	1,750	225	1,250	175	14,800	650	11,550	575	1,100	200	3,450	325
Federal government	52,700	1,250	23,200	800	5,550	475	15,750	600	1,900	225	29,500	925	1,550	225	950	150	15,400	625	6,050	400	550	175	5,000	375
State or local government	19,650	750	6,950	425	1,050	200	4,950	375	950	225	12,700	575	850	150	450	125	6,400	450	3,150	350	150	50	1,800	225
Self-employed[i]	42,650	1,075	8,100	500	700	175	5,250	400	2,150	250	34,500	1,050	1,400	250	700	150	5,200	425	22,400	800	1,800	250	3,050	375
Other sector[j]	7,300	425	3,350	300	400	125	1,950	250	1,000	200	3,950	325	500	150	400	100	1,600	200	900	150	S	S	500	125
Employer location																								
New England	81,350	1,750	33,650	950	9,350	525	17,650	650	6,700	475	47,700	1,275	4,200	375	1,650	225	16,600	725	9,700	650	12,550	600	3,000	325
Middle Atlantic	117,150	1,750	43,400	1,225	13,550	725	22,150	850	7,650	475	73,750	1,600	5,500	400	2,600	300	21,350	775	14,950	775	24,700	800	4,650	425
East North Central	101,700	1,550	38,200	975	12,050	600	18,750	700	7,400	500	63,500	1,200	3,850	400	2,400	300	19,500	675	11,400	550	22,950	850	3,450	325
West North Central	48,800	1,175	17,850	625	5,950	450	8,150	400	3,750	350	30,950	975	1,550	275	900	175	9,150	525	5,700	425	11,900	600	1,750	250
South Atlantic	167,250	1,950	62,150	1,225	16,300	725	36,950	925	8,850	500	105,100	1,625	6,350	450	3,850	325	35,850	975	19,200	700	29,850	950	10,050	575
East South Central	30,000	900	11,000	600	3,850	375	5,750	400	1,400	225	19,000	725	650	125	500	125	5,300	400	3,250	325	8,150	400	1,200	150
West South Central	66,900	1,325	24,850	825	7,600	450	12,850	575	4,450	400	42,050	1,025	3,300	275	2,450	375	12,350	550	7,100	450	14,100	625	2,750	300
Mountain	59,300	1,150	23,600	825	6,150	500	13,150	600	4,300	400	35,700	875	2,300	275	1,950	275	11,000	500	6,800	475	10,750	525	2,850	300
Pacific	193,000	2,200	76,100	1,400	16,400	625	37,600	975	22,100	825	116,900	1,750	17,100	775	8,300	500	39,000	1,025	20,300	850	23,400	775	8,800	625
U.S. territories and other areas	6,650	425	2,400	275	850	175	1,150	250	400	125	4,250	400	S	S	250	125	1,550	225	500	125	1,450	200	350	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] 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 2021.

Source(s):
National Center for Science and Engineering Statistics, Survey of Doctorate Recipients, 2021.