

Table 9-5

Employed scientists and engineers, by occupation, highest degree level, and sex: 2019

(Number)

| Occupation | All degrees ^a | | | Bachelor's | | | Master's | | | Doctorate | | |
|--|--------------------------|------------|------------|------------|-----------|-----------|------------|-----------|-----------|------------|---------|-----------|
| | Both sexes | Female | Male | Both sexes | Female | Male | Both sexes | Female | Male | Both sexes | Female | Male |
| All occupations | 28,627,000 | 13,720,000 | 14,907,000 | 16,042,000 | 7,460,000 | 8,581,000 | 8,624,000 | 4,537,000 | 4,087,000 | 1,761,000 | 742,000 | 1,019,000 |
| S&E occupations | 7,466,000 | 2,193,000 | 5,274,000 | 4,176,000 | 1,034,000 | 3,142,000 | 2,286,000 | 757,000 | 1,529,000 | 938,000 | 365,000 | 573,000 |
| Science occupations | 5,545,000 | 1,883,000 | 3,662,000 | 3,017,000 | 870,000 | 2,147,000 | 1,667,000 | 631,000 | 1,036,000 | 799,000 | 345,000 | 454,000 |
| Biological, agricultural, and other life scientist | 698,000 | 337,000 | 361,000 | 277,000 | 129,000 | 148,000 | 152,000 | 83,000 | 69,000 | 254,000 | 118,000 | 137,000 |
| Agricultural/ food scientist | 58,000 | 20,000 | 38,000 | 29,000 | 9,000 | 20,000 | 15,000 | 7,000 | 8,000 | 13,000 | 4,000 | 9,000 |
| Biological and medical scientist | 500,000 | 249,000 | 251,000 | 206,000 | 105,000 | 101,000 | 111,000 | 62,000 | 49,000 | 174,000 | 78,000 | 96,000 |
| Environmental life scientist | 39,000 | 13,000 | 27,000 | 28,000 | 7,000 | 21,000 | 8,000 | 5,000 | 3,000 | 3,000 | S | S |
| Postsecondary teacher | 101,000 | 55,000 | 46,000 | 15,000 | S | 6,000 | 19,000 | 10,000 | 9,000 | 64,000 | 34,000 | 30,000 |
| Computer and information scientist | 3,409,000 | 820,000 | 2,589,000 | 2,277,000 | 522,000 | 1,755,000 | 1,014,000 | 269,000 | 745,000 | 107,000 | 24,000 | 82,000 |
| Computer/ information scientist | 3,379,000 | 810,000 | 2,569,000 | 2,271,000 | 520,000 | 1,751,000 | 1,001,000 | 264,000 | 737,000 | 95,000 | 21,000 | 74,000 |
| Postsecondary teacher | 30,000 | 10,000 | 20,000 | 6,000 | 2,000 | 4,000 | 13,000 | 5,000 | 8,000 | 11,000 | 3,000 | 8,000 |
| Mathematical scientist | 365,000 | 155,000 | 210,000 | 126,000 | 46,000 | 80,000 | 154,000 | 71,000 | 84,000 | 82,000 | 36,000 | 46,000 |
| Mathematical scientist | 284,000 | 118,000 | 166,000 | 115,000 | 41,000 | 75,000 | 115,000 | 53,000 | 62,000 | 51,000 | 22,000 | 29,000 |
| Postsecondary teacher | 81,000 | 37,000 | 44,000 | 11,000 | S | 6,000 | 39,000 | 18,000 | 21,000 | 31,000 | 14,000 | 17,000 |
| Physical scientist | 409,000 | 142,000 | 267,000 | 189,000 | 78,000 | 112,000 | 97,000 | 37,000 | 60,000 | 121,000 | 28,000 | 94,000 |
| Chemist, except biochemist | 132,000 | 47,000 | 86,000 | 71,000 | 29,000 | 42,000 | 32,000 | 12,000 | S | 29,000 | 6,000 | 23,000 |
| Earth, atmospheric, and ocean scientist | 85,000 | 25,000 | 59,000 | 45,000 | 13,000 | 32,000 | 25,000 | 9,000 | 16,000 | 13,000 | 3,000 | 10,000 |
| Physicist | 45,000 | 9,000 | 36,000 | 10,000 | D | 8,000 | 11,000 | 3,000 | 9,000 | 24,000 | 4,000 | 19,000 |
| Other physical and related scientist, including astronomer | 67,000 | 30,000 | 37,000 | 41,000 | 20,000 | 22,000 | 17,000 | 9,000 | 8,000 | 9,000 | 2,000 | 7,000 |
| Postsecondary teacher | 80,000 | 31,000 | 49,000 | 21,000 | S | 7,000 | 12,000 | 5,000 | 7,000 | 46,000 | 12,000 | 34,000 |
| Psychologist | 276,000 | 220,000 | 56,000 | 50,000 | 44,000 | 6,000 | 101,000 | 85,000 | 16,000 | 100,000 | 70,000 | 29,000 |
| Psychologist | 228,000 | 184,000 | 44,000 | 39,000 | 34,000 | 5,000 | 91,000 | 76,000 | 14,000 | 75,000 | 54,000 | 21,000 |
| Postsecondary teacher | 48,000 | 36,000 | 12,000 | S | S | D | 11,000 | 8,000 | 2,000 | 25,000 | 16,000 | 9,000 |
| Social scientist | 387,000 | 208,000 | 179,000 | 97,000 | 51,000 | 46,000 | 148,000 | 86,000 | 62,000 | 135,000 | 69,000 | 66,000 |
| Economist | 56,000 | 14,000 | 43,000 | 22,000 | 3,000 | 19,000 | 18,000 | 6,000 | 12,000 | 16,000 | 5,000 | 11,000 |
| Political scientist | 22,000 | 8,000 | 15,000 | 3,000 | 1,000 | 2,000 | 15,000 | 5,000 | 10,000 | 4,000 | S | S |
| Anthropologist | 16,000 | 10,000 | 6,000 | 3,000 | 1,000 | 2,000 | 5,000 | 3,000 | 2,000 | 7,000 | 6,000 | 2,000 |
| Other social scientist, including sociologist | 142,000 | 97,000 | 45,000 | 59,000 | 43,000 | 16,000 | 60,000 | 39,000 | 21,000 | 21,000 | 14,000 | 7,000 |
| Postsecondary teacher | 151,000 | 79,000 | 72,000 | 10,000 | S | 7,000 | 50,000 | 33,000 | 17,000 | 87,000 | 43,000 | 44,000 |
| Engineering occupations | 1,921,000 | 310,000 | 1,612,000 | 1,158,000 | 163,000 | 995,000 | 619,000 | 126,000 | 493,000 | 139,000 | 20,000 | 119,000 |
| Aerospace, aeronautical, or astronautical engineer | 126,000 | 22,000 | 104,000 | 68,000 | 11,000 | 57,000 | 51,000 | 11,000 | 40,000 | 8,000 | D | 8,000 |
| Chemical engineer | 84,000 | 18,000 | 66,000 | 50,000 | 9,000 | 41,000 | 20,000 | 7,000 | 13,000 | 13,000 | 2,000 | 11,000 |
| Civil, architectural, or sanitary engineer | 294,000 | 56,000 | 238,000 | 191,000 | 30,000 | 161,000 | 94,000 | 26,000 | 69,000 | 9,000 | 1,000 | 8,000 |
| Electrical or computer hardware engineer | 412,000 | 43,000 | 369,000 | 226,000 | 20,000 | 206,000 | 153,000 | 20,000 | 133,000 | 32,000 | 2,000 | 30,000 |

Table 9-5

Employed scientists and engineers, by occupation, highest degree level, and sex: 2019

(Number)

| Occupation | All degrees ^a | | | Bachelor's | | | Master's | | | Doctorate | | |
|--|--------------------------|-----------|-----------|------------|-----------|-----------|------------|-----------|-----------|------------|---------|---------|
| | Both sexes | Female | Male | Both sexes | Female | Male | Both sexes | Female | Male | Both sexes | Female | Male |
| Industrial engineer | 95,000 | 19,000 | 76,000 | 62,000 | 11,000 | 51,000 | 32,000 | 8,000 | 24,000 | S | D | S |
| Mechanical engineer | 377,000 | 31,000 | 345,000 | 247,000 | 20,000 | 227,000 | 114,000 | 11,000 | 103,000 | 13,000 | S | 12,000 |
| Other engineer | 472,000 | 106,000 | 366,000 | 308,000 | 60,000 | 248,000 | 139,000 | 40,000 | 99,000 | 24,000 | 6,000 | 18,000 |
| Postsecondary teacher | 61,000 | 14,000 | 47,000 | 7,000 | S | 4,000 | 16,000 | 4,000 | 12,000 | 38,000 | 8,000 | 30,000 |
| S&E-related occupations | 8,893,000 | 5,109,000 | 3,785,000 | 4,794,000 | 2,845,000 | 1,949,000 | 2,332,000 | 1,469,000 | 864,000 | 387,000 | 188,000 | 199,000 |
| Health-related occupation | 5,728,000 | 3,992,000 | 1,736,000 | 2,978,000 | 2,284,000 | 694,000 | 1,213,000 | 981,000 | 232,000 | 259,000 | 146,000 | 113,000 |
| S&E manager, including health | 999,000 | 296,000 | 703,000 | 501,000 | 144,000 | 358,000 | 347,000 | 112,000 | 235,000 | 61,000 | 19,000 | 42,000 |
| S&E pre-college teacher | 925,000 | 521,000 | 404,000 | 395,000 | 205,000 | 190,000 | 493,000 | 294,000 | 199,000 | 27,000 | 18,000 | 9,000 |
| S&E technician/ technologist | 973,000 | 196,000 | 777,000 | 738,000 | 138,000 | 600,000 | 193,000 | 53,000 | 141,000 | 39,000 | 5,000 | 34,000 |
| Other S&E-related occupation | 270,000 | 104,000 | 166,000 | 182,000 | 75,000 | 107,000 | 86,000 | 29,000 | 56,000 | 1,000 | D | 1,000 |
| Non-S&E occupations ^b | 12,267,000 | 6,419,000 | 5,848,000 | 7,072,000 | 3,581,000 | 3,490,000 | 4,005,000 | 2,311,000 | 1,695,000 | 436,000 | 188,000 | 248,000 |
| Arts, humanities, and related occupation | 305,000 | 181,000 | 124,000 | 157,000 | 83,000 | 74,000 | 123,000 | 86,000 | 37,000 | 14,000 | 9,000 | 5,000 |
| Management-related occupation | 2,534,000 | 1,262,000 | 1,272,000 | 1,531,000 | 798,000 | 734,000 | 907,000 | 421,000 | 486,000 | 69,000 | 29,000 | 40,000 |
| Non-S&E manager | 2,003,000 | 623,000 | 1,380,000 | 1,026,000 | 259,000 | 766,000 | 778,000 | 292,000 | 486,000 | 137,000 | 36,000 | 101,000 |
| Non-S&E postsecondary teacher | 191,000 | 107,000 | 84,000 | 23,000 | 15,000 | 8,000 | 61,000 | 36,000 | 25,000 | 91,000 | 47,000 | 44,000 |
| Non-S&E precollege teacher | 924,000 | 773,000 | 150,000 | 371,000 | 305,000 | 66,000 | 534,000 | 453,000 | 81,000 | 10,000 | 7,000 | 3,000 |
| Sales and marketing occupation | 1,444,000 | 664,000 | 780,000 | 1,082,000 | 491,000 | 591,000 | 320,000 | 156,000 | 165,000 | 12,000 | 8,000 | 4,000 |
| Social service and related occupation | 1,057,000 | 767,000 | 290,000 | 418,000 | 294,000 | 125,000 | 582,000 | 446,000 | 136,000 | 37,000 | 17,000 | 20,000 |
| Other non-S&E occupation | 3,810,000 | 2,042,000 | 1,767,000 | 2,464,000 | 1,338,000 | 1,126,000 | 701,000 | 421,000 | 280,000 | 66,000 | 35,000 | 31,000 |

D = suppressed for data confidentiality reasons. S = suppressed for reliability; coefficient of variation exceeds publication standards.

S&E = science and engineering.

^a All degrees includes professional degrees, which are not shown separately.

^b Non-S&E occupations do not include S&E-related occupations.

Note(s):

Numbers are rounded to nearest 1,000. Detail may not add to total because of rounding and suppression. Scientists and engineers are individuals under the age of 76 who have a bachelor's or higher degree, are living in the United States, and have an S&E or S&E-related degree or occupation.

Source(s):

National Center for Science and Engineering Statistics, National Survey of College Graduates, 2019.