

TABLE 3-1

**Employed college graduates, by level of highest degree, minor occupation, and primary work activity: 2019**

(Number)

Level of highest degree and occupation	Total	Primary work activity				
		Computer applications	Management and administration <sup>a</sup>	Research and development <sup>b</sup>	Teaching	Other <sup>c</sup>
All degree levels	50,524,000	2,529,000	22,018,000	3,731,000	7,052,000	15,194,000
S&E occupations	7,466,000	1,995,000	1,653,000	1,688,000	427,000	1,703,000
Biological, agricultural, and other life scientists	698,000	9,000	104,000	408,000	70,000	108,000
Agricultural and food scientists	58,000	D	11,000	27,000	D	19,000
Biological and medical scientists	500,000	7,000	73,000	338,000	4,000	79,000
Environmental life scientists	39,000	D	15,000	18,000	1,000	6,000
Postsecondary teachers - life and related sciences	101,000	D	6,000	26,000	65,000	4,000
Computer and mathematical scientists	3,774,000	1,856,000	775,000	469,000	116,000	558,000
Computer and information scientists	3,379,000	1,800,000	688,000	357,000	24,000	510,000
Mathematical scientists	284,000	55,000	85,000	98,000	D	44,000
Postsecondary teachers - computer and math sciences	111,000	1,000	3,000	14,000	88,000	S
Physical and related scientists	409,000	11,000	77,000	194,000	54,000	74,000
Chemists, except biochemists	132,000	3,000	32,000	72,000	D	26,000
Earth, atmospheric, and ocean scientists	85,000	2,000	18,000	43,000	D	21,000
Physicists	45,000	3,000	2,000	33,000	D	7,000
Other physical and related scientists, including astronomers	67,000	2,000	21,000	26,000	D	18,000
Postsecondary teachers - physical and related sciences	80,000	D	4,000	21,000	53,000	D
Social and related scientists	663,000	7,000	79,000	199,000	149,000	229,000
Economists	56,000	3,000	10,000	35,000	D	7,000
Political scientists	22,000	D	4,000	16,000	D	3,000
Psychologists	228,000	D	20,000	22,000	3,000	183,000
Anthropologists	16,000	D	2,000	12,000	D	1,000
Other social and related scientists	142,000	2,000	35,000	76,000	S	28,000
Postsecondary teachers - social and related sciences	200,000	D	8,000	38,000	145,000	7,000
Engineers	1,921,000	112,000	618,000	418,000	38,000	735,000
Aerospace, aeronautical, and astronautical engineers	126,000	11,000	32,000	34,000	D	49,000
Chemical engineers	84,000	3,000	21,000	25,000	*	35,000
Civil, architectural, and sanitary engineers	294,000	5,000	113,000	32,000	D	145,000
Electrical and computer hardware engineers	412,000	60,000	87,000	111,000	D	153,000
Industrial engineers	95,000	4,000	49,000	8,000	D	35,000
Mechanical engineers	377,000	6,000	94,000	93,000	D	183,000
Other engineers	472,000	24,000	216,000	96,000	S	134,000
Postsecondary teachers - engineering	61,000	*	6,000	19,000	33,000	2,000
S&E-related occupations	8,893,000	228,000	1,632,000	515,000	1,146,000	5,372,000
Health-related occupations	5,728,000	20,000	554,000	234,000	292,000	4,628,000
S&E managers	999,000	43,000	714,000	41,000	S	198,000
S&E precollege teachers	925,000	D	51,000	7,000	848,000	18,000
S&E technicians and technologists	973,000	154,000	235,000	200,000	4,000	380,000
Other S&E-related occupations	270,000	11,000	78,000	33,000	D	147,000

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		Computer applications	Management and administration <sup>a</sup>	Research and development <sup>b</sup>	Teaching	Other <sup>c</sup>
Non-S&E occupations	34,165,000	305,000	18,733,000	1,528,000	5,479,000	8,119,000
Non-S&E managers	4,627,000	82,000	3,969,000	138,000	48,000	391,000
Management-related occupations	6,830,000	81,000	5,199,000	325,000	57,000	1,169,000
Non-S&E precollege teachers	4,268,000	D	184,000	29,000	3,965,000	89,000
Non-S&E postsecondary teachers	610,000	D	39,000	65,000	482,000	23,000
Social services and related occupations	2,189,000	S	544,000	105,000	236,000	1,298,000
Sales and marketing occupations	4,646,000	27,000	3,978,000	145,000	18,000	478,000
Art, humanities, and related occupations	1,576,000	23,000	490,000	204,000	72,000	787,000
Other non-S&E occupations	9,418,000	85,000	4,331,000	518,000	600,000	3,885,000
Bachelor's	31,373,000	1,651,000	15,503,000	2,050,000	3,311,000	8,859,000
S&E occupations	4,176,000	1,264,000	1,021,000	743,000	87,000	1,061,000
Biological, agricultural, and other life scientists	277,000	2,000	53,000	144,000	15,000	63,000
Agricultural and food scientists	29,000	D	S	10,000	D	S
Biological and medical scientists	206,000	2,000	34,000	119,000	S	49,000
Environmental life scientists	28,000	D	11,000	S	D	3,000
Postsecondary teachers - life and related sciences	15,000	D	D	2,000	12,000	D
Computer and mathematical scientists	2,403,000	1,194,000	498,000	264,000	32,000	415,000
Computer and information scientists	2,271,000	1,177,000	451,000	232,000	19,000	393,000
Mathematical scientists	115,000	17,000	47,000	30,000	D	19,000
Postsecondary teachers - computer and math sciences	17,000	D	D	S	11,000	D
Physical and related scientists	189,000	2,000	39,000	84,000	S	49,000
Chemists, except biochemists	71,000	D	13,000	37,000	D	20,000
Earth, atmospheric, and ocean scientists	45,000	D	11,000	20,000	D	14,000
Physicists	10,000	D	D	8,000	D	2,000
Other physical and related scientists, including astronomers	41,000	D	14,000	15,000	D	12,000
Postsecondary teachers - physical and related sciences	21,000	D	D	5,000	S	D
Social and related scientists	147,000	3,000	28,000	58,000	18,000	40,000
Economists	22,000	S	S	S	D	1,000
Political scientists	3,000	D	S	S	D	D
Psychologists	39,000	D	S	7,000	D	22,000
Anthropologists	3,000	D	*	3,000	D	*
Other social and related scientists	59,000	S	11,000	32,000	D	15,000
Postsecondary teachers - social and related sciences	21,000	D	D	S	17,000	D
Engineers	1,158,000	63,000	403,000	192,000	7,000	493,000
Aerospace, aeronautical, and astronautical engineers	68,000	6,000	14,000	14,000	D	32,000
Chemical engineers	50,000	2,000	13,000	11,000	D	24,000
Civil, architectural, and sanitary engineers	191,000	3,000	74,000	19,000	D	95,000

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Electrical and computer hardware engineers	226,000	35,000	51,000	44,000	D	96,000
Industrial engineers	62,000	4,000	33,000	4,000	D	22,000
Mechanical engineers	247,000	2,000	62,000	52,000	D	131,000
Other engineers	308,000	12,000	156,000	47,000	D	91,000
Postsecondary teachers - engineering	7,000	D	D	S	4,000	D
S&E-related occupations	4,794,000	161,000	979,000	302,000	503,000	2,850,000
Health-related occupations	2,978,000	16,000	345,000	141,000	144,000	2,332,000
S&E managers	501,000	25,000	381,000	11,000	D	82,000
S&E precollege teachers	395,000	D	27,000	S	354,000	S
S&E technicians and technologists	738,000	111,000	175,000	125,000	S	324,000
Other S&E-related occupations	182,000	9,000	51,000	23,000	D	100,000
Non-S&E occupations	22,403,000	226,000	13,504,000	1,004,000	2,721,000	4,948,000
Non-S&E managers	2,780,000	52,000	2,401,000	63,000	24,000	240,000
Management-related occupations	4,737,000	53,000	3,614,000	211,000	32,000	827,000
Non-S&E precollege teachers	2,164,000	D	73,000	D	2,020,000	48,000
Non-S&E postsecondary teachers	91,000	D	11,000	S	56,000	2,000
Social services and related occupations	1,004,000	S	321,000	69,000	105,000	504,000
Sales and marketing occupations	3,833,000	23,000	3,279,000	128,000	16,000	387,000
Art, humanities, and related occupations	1,163,000	22,000	368,000	135,000	57,000	582,000
Other non-S&E occupations	6,632,000	70,000	3,438,000	355,000	411,000	2,358,000
Master's	14,158,000	787,000	5,686,000	973,000	3,177,000	3,535,000
S&E occupations	2,286,000	658,000	532,000	474,000	141,000	481,000
Biological, agricultural, and other life scientists	152,000	5,000	31,000	78,000	16,000	23,000
Agricultural and food scientists	15,000	D	3,000	7,000	D	5,000
Biological and medical scientists	111,000	5,000	25,000	65,000	*	15,000
Environmental life scientists	8,000	D	3,000	3,000	D	2,000
Postsecondary teachers - life and related sciences	19,000	D	D	3,000	15,000	D
Computer and mathematical scientists	1,168,000	605,000	252,000	130,000	53,000	129,000
Computer and information scientists	1,001,000	577,000	221,000	91,000	5,000	108,000
Mathematical scientists	115,000	27,000	29,000	37,000	D	20,000
Postsecondary teachers - computer and math sciences	52,000	D	D	3,000	47,000	D
Physical and related scientists	97,000	3,000	24,000	41,000	10,000	18,000
Chemists, except biochemists	32,000	D	S	14,000	D	4,000
Earth, atmospheric, and ocean scientists	25,000	1,000	5,000	13,000	D	6,000
Physicists	11,000	D	D	7,000	D	S
Other physical and related scientists, including astronomers	17,000	D	5,000	6,000	D	5,000
Postsecondary teachers - physical and related sciences	12,000	D	D	1,000	10,000	D
Social and related scientists	249,000	4,000	35,000	69,000	49,000	92,000

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Economists	18,000	2,000	4,000	8,000	D	3,000
Political scientists	15,000	D	2,000	11,000	D	2,000
Psychologists	91,000	D	8,000	10,000	S	72,000
Anthropologists	5,000	D	1,000	4,000	D	1,000
Other social and related scientists	60,000	S	19,000	28,000	D	11,000
Postsecondary teachers - social and related sciences	61,000	D	D	9,000	47,000	S
Engineers	619,000	42,000	191,000	156,000	13,000	218,000
Aerospace, aeronautical, and astronautical engineers	51,000	4,000	15,000	16,000	D	15,000
Chemical engineers	20,000	D	6,000	6,000	D	8,000
Civil, architectural, and sanitary engineers	94,000	1,000	35,000	11,000	D	47,000
Electrical and computer hardware engineers	153,000	22,000	32,000	49,000	D	49,000
Industrial engineers	32,000	D	16,000	3,000	D	12,000
Mechanical engineers	114,000	3,000	29,000	33,000	D	48,000
Other engineers	139,000	11,000	55,000	34,000	D	38,000
Postsecondary teachers - engineering	16,000	D	D	2,000	11,000	D
S&E-related occupations	2,332,000	61,000	516,000	120,000	558,000	1,077,000
Health-related occupations	1,213,000	4,000	144,000	41,000	95,000	930,000
S&E managers	347,000	16,000	274,000	13,000	D	44,000
S&E precollege teachers	493,000	D	19,000	4,000	462,000	7,000
S&E technicians and technologists	193,000	39,000	53,000	52,000	D	48,000
Other S&E-related occupations	86,000	2,000	26,000	10,000	D	47,000
Non-S&E occupations	9,540,000	68,000	4,638,000	379,000	2,478,000	1,977,000
Non-S&E managers	1,554,000	26,000	1,339,000	41,000	22,000	125,000
Management-related occupations	1,936,000	27,000	1,506,000	90,000	16,000	297,000
Non-S&E precollege teachers	2,049,000	D	105,000	7,000	1,899,000	39,000
Non-S&E postsecondary teachers	288,000	D	14,000	11,000	250,000	13,000
Social services and related occupations	1,077,000	D	198,000	30,000	112,000	737,000
Sales and marketing occupations	735,000	3,000	634,000	15,000	D	81,000
Art, humanities, and related occupations	359,000	1,000	115,000	59,000	S	172,000
Other non-S&E occupations	1,542,000	10,000	728,000	126,000	165,000	514,000
Doctorate	2,090,000	81,000	428,000	638,000	481,000	461,000
S&E occupations	938,000	66,000	90,000	455,000	190,000	136,000
Biological, agricultural, and other life scientists	254,000	S	18,000	179,000	36,000	20,000
Agricultural and food scientists	13,000	D	S	9,000	D	S
Biological and medical scientists	174,000	S	11,000	147,000	S	14,000
Environmental life scientists	3,000	D	D	S	D	D
Postsecondary teachers - life and related sciences	64,000	D	5,000	21,000	34,000	3,000
Computer and mathematical scientists	189,000	51,000	22,000	73,000	31,000	13,000
Computer and information scientists	95,000	40,000	13,000	34,000	D	9,000

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Mathematical scientists	51,000	10,000	8,000	29,000	D	4,000
Postsecondary teachers - computer and math sciences	42,000	D	1,000	9,000	31,000	D
Physical and related scientists	121,000	6,000	12,000	68,000	28,000	6,000
Chemists, except biochemists	29,000	D	5,000	20,000	D	1,000
Earth, atmospheric, and ocean scientists	13,000	S	S	10,000	D	S
Physicists	24,000	S	1,000	18,000	D	2,000
Other physical and related scientists, including astronomers	9,000	S	S	5,000	D	*
Postsecondary teachers - physical and related sciences	46,000	D	2,000	15,000	28,000	D
Social and related scientists	235,000	D	15,000	68,000	77,000	73,000
Economists	16,000	D	*	13,000	D	2,000
Political scientists	4,000	D	D	S	D	D
Psychologists	75,000	D	2,000	5,000	D	67,000
Anthropologists	7,000	D	D	5,000	D	S
Other social and related scientists	21,000	D	5,000	15,000	D	S
Postsecondary teachers - social and related sciences	111,000	D	7,000	27,000	75,000	2,000
Engineers	139,000	7,000	23,000	67,000	18,000	24,000
Aerospace, aeronautical, and astronautical engineers	8,000	D	S	4,000	D	S
Chemical engineers	13,000	D	S	8,000	D	3,000
Civil, architectural, and sanitary engineers	9,000	S	S	2,000	D	3,000
Electrical and computer hardware engineers	32,000	3,000	4,000	18,000	D	7,000
Industrial engineers	S	D	D	D	D	D
Mechanical engineers	13,000	D	2,000	6,000	D	3,000
Other engineers	24,000	*	5,000	14,000	D	5,000
Postsecondary teachers - engineering	38,000	D	5,000	15,000	17,000	D
S&E-related occupations	387,000	5,000	55,000	83,000	58,000	187,000
Health-related occupations	259,000	D	13,000	42,000	33,000	170,000
S&E managers	61,000	S	32,000	17,000	D	11,000
S&E precollege teachers	27,000	D	S	D	24,000	D
S&E technicians and technologists	39,000	4,000	8,000	22,000	D	6,000
Other S&E-related occupations	1,000	D	D	D	D	D
Non-S&E occupations	765,000	10,000	283,000	100,000	233,000	139,000
Non-S&E managers	192,000	3,000	143,000	32,000	S	14,000
Management-related occupations	77,000	1,000	43,000	14,000	2,000	16,000
Non-S&E precollege teachers	42,000	D	S	D	34,000	S
Non-S&E postsecondary teachers	205,000	D	11,000	30,000	159,000	5,000
Social services and related occupations	87,000	D	24,000	D	18,000	45,000
Sales and marketing occupations	17,000	D	13,000	1,000	D	S
Art, humanities, and related occupations	31,000	D	S	7,000	D	14,000
Other non-S&E occupations	114,000	D	38,000	15,000	15,000	41,000

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Professional	2,903,000	9,000	401,000	70,000	83,000	2,339,000
S&E occupations	67,000	7,000	10,000	16,000	8,000	26,000
S&E-related occupations	1,380,000	D	82,000	10,000	28,000	1,258,000
Non-S&E occupations	1,456,000	D	309,000	44,000	47,000	1,055,000

\* = suppressed when population estimate < 500. D = suppressed to avoid disclosure of confidential information. S = suppressed for reliability; coefficient of variation exceeds publication standards.

S&E = science and engineering.

<sup>a</sup> Management and administration includes respondents who reported the following work activities: accounting, finance, or contracts; human resources; quality or productivity management; sales and marketing; or managing and supervising.

<sup>b</sup> Research and development includes basic research, applied research, and development. "Design" is no longer included in the definition of "research and development"; it is now included as part of "Other work activities."

<sup>c</sup> Other work activities includes the design of equipment, processes, structures, and models; production, operations, and maintenance; professional services; and other activities not broken out separately.

**Note(s):**

Numbers are rounded to the nearest 1,000. Detail may not add to total because of rounding.

**Source(s):**

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