

Appendix table 3-3

## Scientists and engineers, by occupation and degree field: 2010

Occupation	Highest degree in S&E								
	All employed scientists and engineers	All S&E highest degree	Computer and mathematical sciences	Biological, agricultural, and environmental life sciences	Physical and related sciences	Social and related sciences	Engineering	S&E-related fields	Non-S&E fields
All occupations	21,903,000	11,385,000	1,886,000	1,764,000	693,000	4,363,000	2,679,000	5,273,000	5,245,000
S&E occupations	5,398,000	4,000,000	1,013,000	529,000	353,000	559,000	1,546,000	325,000	1,073,000
Computer and mathematical scientists	2,394,000	1,579,000	960,000	52,000	49,000	164,000	354,000	131,000	684,000
Computer and information scientists	2,179,000	1,429,000	865,000	45,000	44,000	136,000	339,000	114,000	635,000
Computer and information scientists, research	35,000	27,000	17,000	S	1,000	3,000	5,000	2,000	6,000
Computer network architect	42,000	23,000	11,000	S	S	3,000	7,000	1,000	S
Computer support specialists	219,000	125,000	78,000	6,000	3,000	19,000	18,000	12,000	82,000
Computer system analysts	325,000	204,000	136,000	6,000	5,000	22,000	36,000	22,000	99,000
Database administrators	107,000	63,000	36,000	7,000	3,000	5,000	11,000	3,000	42,000
Information security analysts	37,000	27,000	17,000	S	S	3,000	6,000	S	9,000
Network and computer systems administrators	181,000	106,000	68,000	4,000	5,000	14,000	16,000	11,000	64,000
Software developers—applications and systems software	431,000	321,000	193,000	6,000	9,000	19,000	93,000	27,000	83,000
Web developers	130,000	65,000	39,000	4,000	2,000	13,000	6,000	7,000	58,000
Other computer information science occupations	236,000	121,000	68,000	7,000	4,000	22,000	19,000	8,000	107,000
Computer engineers—software	435,000	348,000	202,000	2,000	10,000	13,000	121,000	19,000	69,000
Mathematical scientists	121,000	79,000	37,000	7,000	3,000	25,000	7,000	5,000	38,000
Mathematicians	12,000	6,000	5,000	S	S	S	S	S	S
Operations research analysts, including modeling	53,000	32,000	14,000	2,000	1,000	10,000	5,000	2,000	19,000
Statisticians	41,000	27,000	15,000	5,000	2,000	5,000	1,000	3,000	S
Other mathematical scientists	S	S	3,000	S	S	S	1,000	S	1,000
Postsecondary teachers—computer and math sciences	94,000	71,000	58,000	1,000	2,000	2,000	8,000	12,000	11,000
Computer science	25,000	19,000	13,000	S	S	1,000	4,000	1,000	5,000
Mathematics and statistics	69,000	52,000	45,000	S	1,000	1,000	4,000	11,000	6,000
Biological, agricultural, and environmental life scientists	597,000	468,000	3,000	396,000	35,000	22,000	12,000	70,000	59,000
Agricultural and food scientists	62,000	58,000	S	51,000	2,000	3,000	S	2,000	3,000
Biological and medical scientists	426,000	316,000	2,000	261,000	29,000	13,000	11,000	61,000	49,000
Biochemists and biophysicists	58,000	56,000	S	41,000	12,000	S	2,000	2,000	S
Biological scientists (e.g., botanists, ecologists, zoologists)	129,000	114,000	S	104,000	3,000	5,000	2,000	8,000	7,000
Medical scientists (excluding practitioners)	130,000	88,000	1,000	68,000	10,000	5,000	4,000	40,000	2,000
Other biological and life scientists	109,000	58,000	S	48,000	4,000	3,000	2,000	10,000	40,000
Forestry and conservation scientists	31,000	27,000	S	25,000	1,000	1,000	S	S	3,000
Postsecondary teachers—life and related sciences	77,000	67,000	S	59,000	4,000	4,000	1,000	6,000	4,000
Agriculture	6,000	5,000	S	4,000	S	S	S	S	S
Biological sciences	62,000	54,000	S	51,000	2,000	2,000	S	5,000	2,000
Other natural sciences	9,000	8,000	S	4,000	2,000	S	S	S	S
Physical and related scientists	320,000	293,000	3,000	47,000	212,000	8,000	24,000	11,000	16,000

Appendix table 3-3

**Scientists and engineers, by occupation and degree field: 2010**

Occupation	Highest degree in S&E								
	All employed scientists and engineers	All S&E highest degree	Computer and mathematical sciences	Biological, agricultural, and environmental life sciences	Physical and related sciences	Social and related sciences	Engineering	S&E-related fields	Non-S&E fields
Chemists, except biochemists	103,000	96,000	S	17,000	72,000	S	6,000	2,000	6,000
Earth scientists, geologists, and oceanographers	69,000	64,000	S	3,000	55,000	2,000	4,000	1,000	4,000
Atmospheric and space scientists	14,000	13,000	S	S	12,000	S	1,000	S	S
Geologists, including earth scientists	50,000	47,000	S	2,000	41,000	1,000	2,000	S	3,000
Oceanographers	5,000	4,000	S	S	2,000	S	S	S	S
Physicists and astronomers	34,000	33,000	S	S	26,000	S	5,000	1,000	S
Astronomers	4,000	4,000	S	S	3,000	S	S	S	S
Physicists, except biophysicists	31,000	29,000	S	S	23,000	S	5,000	1,000	S
Other physical and related scientists	46,000	39,000	S	19,000	10,000	3,000	7,000	3,000	5,000
Postsecondary teachers—physical and related sciences	67,000	62,000	S	8,000	48,000	2,000	3,000	S	S
Chemistry	29,000	29,000	S	4,000	23,000	S	1,000	S	S
Earth, environmental, and marine science	19,000	15,000	S	4,000	9,000	2,000	1,000	S	S
Physics	19,000	18,000	S	S	16,000	S	1,000	S	S
Social and related scientists	518,000	365,000	5,000	6,000	2,000	349,000	4,000	23,000	130,000
Economists	30,000	27,000	S	S	S	24,000	S	S	3,000
Political scientists	23,000	11,000	S	S	S	11,000	S	S	S
Psychologists, including clinical	171,000	149,000	S	2,000	S	146,000	S	4,000	19,000
Sociologists and anthropologists	18,000	18,000	S	S	S	18,000	S	S	S
Anthropologists	11,000	11,000	S	S	S	10,000	S	S	S
Sociologists	8,000	7,000	S	S	S	7,000	S	S	S
Other social and related scientists	126,000	56,000	1,000	3,000	1,000	48,000	3,000	15,000	56,000
Postsecondary teachers—social and related sciences	150,000	105,000	1,000	1,000	S	103,000	S	4,000	40,000
Economics	19,000	16,000	S	S	S	16,000	S	S	2,000
Political science	18,000	15,000	S	S	S	15,000	S	S	3,000
Psychology	38,000	36,000	S	S	S	36,000	S	S	2,000
Sociology	19,000	16,000	S	S	S	15,000	S	S	2,000
Other social sciences	56,000	22,000	S	S	S	21,000	S	4,000	30,000
Engineers	1,569,000	1,294,000	42,000	28,000	55,000	17,000	1,151,000	90,000	185,000
Aerospace, aeronautical, or astronautical engineers	91,000	79,000	6,000	S	5,000	S	68,000	3,000	9,000
Chemical engineers	69,000	63,000	S	S	4,000	S	55,000	1,000	5,000
Civil, architectural, or sanitary engineers	228,000	208,000	1,000	1,000	4,000	4,000	199,000	10,000	9,000
Electrical or computer hardware engineers	385,000	314,000	17,000	1,000	13,000	1,000	283,000	17,000	54,000
Computer engineer—hardware	70,000	49,000	9,000	S	4,000	S	36,000	S	20,000
Electrical and electronics engineers	316,000	265,000	8,000	S	8,000	S	247,000	16,000	35,000
Industrial engineers	74,000	48,000	4,000	2,000	1,000	S	41,000	7,000	19,000
Mechanical engineers	299,000	250,000	3,000	S	3,000	2,000	242,000	20,000	30,000
Other engineers	380,000	293,000	10,000	20,000	25,000	9,000	229,000	30,000	57,000
Agricultural engineers	7,000	6,000	S	S	S	S	5,000	S	S

Appendix table 3-3

**Scientists and engineers, by occupation and degree field: 2010**

Occupation	Highest degree in S&E								
	All employed scientists and engineers	All S&E highest degree	Computer and mathematical sciences	Biological, agricultural, and environmental life sciences	Physical and related sciences	Social and related sciences	Engineering	S&E-related fields	Non-S&E fields
Bioengineers or biomedical engineers	22,000	19,000	S	1,000	S	S	17,000	S	1,000
Environmental engineers	64,000	57,000	S	10,000	8,000	S	39,000	3,000	4,000
Marine engineers and naval architects	10,000	8,000	S	S	S	S	8,000	S	S
Materials and metallurgical engineers	32,000	29,000	S	S	4,000	S	24,000	S	1,000
Mining and geological engineers	7,000	7,000	S	S	S	S	6,000	S	S
Nuclear engineers	21,000	18,000	S	S	1,000	S	15,000	S	3,000
Petroleum engineers	19,000	15,000	S	S	1,000	S	14,000	S	3,000
Sales engineers	63,000	42,000	3,000	2,000	3,000	3,000	30,000	10,000	11,000
Other engineers	136,000	91,000	6,000	4,000	7,000	4,000	70,000	13,000	31,000
Postsecondary teachers—engineering	43,000	39,000	1,000	1,000	2,000	S	35,000	2,000	S
S&E-related occupations	6,957,000	1,584,000	304,000	461,000	104,000	330,000	384,000	3,835,000	1,537,000
Health-related occupations	4,325,000	532,000	18,000	267,000	31,000	195,000	21,000	3,190,000	604,000
Diagnosing/treating practitioners (e.g., dentists, optometrists, physicians, psychiatrists, podiatrists, surgeons, veterinarians)	1,051,000	45,000	S	32,000	3,000	8,000	1,000	992,000	15,000
Registered nurses, pharmacists, dieticians, therapists, physician assistants, nurse practitioners	1,977,000	133,000	S	63,000	4,000	60,000	4,000	1,693,000	151,000
Health technologists and technicians (e.g., dental hygienists, health record technicians, licensed practical nurses, laboratory/radiology technicians)	504,000	155,000	9,000	86,000	11,000	44,000	S	203,000	147,000
Other health occupations	652,000	178,000	7,000	72,000	12,000	77,000	10,000	204,000	269,000
Postsecondary teachers—health and related sciences	141,000	21,000	S	14,000	1,000	6,000	S	98,000	22,000
S&E managers	861,000	417,000	97,000	48,000	22,000	46,000	204,000	232,000	212,000
Computer and information systems managers	237,000	134,000	86,000	1,000	4,000	17,000	26,000	9,000	94,000
Engineering managers	272,000	206,000	11,000	4,000	6,000	S	176,000	22,000	44,000
Medical and health services managers	309,000	42,000	S	20,000	1,000	19,000	S	195,000	72,000
Natural sciences managers	43,000	36,000	S	22,000	11,000	1,000	2,000	5,000	2,000
S&E precollege teachers	917,000	196,000	54,000	61,000	20,000	50,000	11,000	185,000	536,000
Secondary—computer, math, or sciences	618,000	165,000	54,000	60,000	20,000	21,000	11,000	155,000	298,000
Secondary—social sciences	299,000	31,000	S	S	S	29,000	S	30,000	238,000
S&E technicians and technologists	654,000	405,000	114,000	85,000	29,000	37,000	141,000	81,000	168,000
Technologists and technicians in the biological/life sciences	92,000	73,000	S	58,000	6,000	4,000	4,000	11,000	8,000
Computer programmers (business, scientific, process control)	189,000	117,000	82,000	2,000	5,000	7,000	21,000	20,000	51,000
Electrical, electronic, industrial, and mechanical technicians	165,000	97,000	12,000	5,000	5,000	7,000	68,000	22,000	46,000
Drafting occupations, including computer drafting	32,000	10,000	S	S	S	2,000	6,000	12,000	S
Surveying and mapping technicians	8,000	6,000	S	S	S	2,000	S	S	S
Other engineering technologists and technicians	118,000	72,000	16,000	10,000	5,000	7,000	35,000	12,000	34,000
Surveyors, cartographers, photogrammetrists	15,000	11,000	S	S	S	5,000	3,000	S	S

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Occupation	Highest degree in S&E								
	All employed scientists and engineers	All S&E highest degree	Computer and mathematical sciences	Biological, agricultural, and environmental life sciences	Physical and related sciences	Social and related sciences	Engineering	S&E-related fields	Non-S&E fields
Technologists and technicians in the mathematical sciences	S	S	S	S	S	S	S	S	S
Technologists and technicians in the physical sciences	31,000	17,000	S	6,000	6,000	S	3,000	S	S
Other S&E-related occupations	199,000	33,000	21,000	S	S	3,000	7,000	148,000	S
Architects	158,000	15,000	4,000	S	S	S	7,000	126,000	S
Actuaries	41,000	18,000	17,000	S	S	S	S	S	S
Non-S&E occupations	9,549,000	5,802,000	568,000	775,000	237,000	3,473,000	749,000	1,112,000	2,635,000
Non-S&E managers	1,655,000	988,000	112,000	116,000	55,000	451,000	254,000	199,000	468,000
Top-level managers, executives, administrators (e.g., chief executive officer/chief operating officer/chief financial officer, president, district/general manager/provost)	1,014,000	608,000	79,000	58,000	34,000	252,000	185,000	132,000	274,000
Education administrators (e.g., registrar, dean, principal)	116,000	39,000	S	8,000	3,000	20,000	2,000	14,000	63,000
Other mid-level managers	524,000	340,000	26,000	51,000	18,000	179,000	67,000	53,000	131,000
Management-related occupations	1,665,000	1,109,000	148,000	123,000	45,000	651,000	142,000	161,000	394,000
Accountants, auditors, and other financial specialists	587,000	406,000	71,000	29,000	12,000	269,000	25,000	32,000	149,000
Personnel, training, and labor relations specialists	217,000	153,000	7,000	10,000	3,000	122,000	11,000	20,000	44,000
Other management-related occupations	860,000	550,000	70,000	85,000	30,000	260,000	106,000	109,000	201,000
Non-S&E precollege teachers	763,000	300,000	22,000	25,000	11,000	231,000	11,000	144,000	319,000
Prekindergarten and kindergarten	78,000	42,000	4,000	S	S	34,000	S	11,000	25,000
Elementary	310,000	123,000	10,000	9,000	S	91,000	5,000	42,000	145,000
Secondary—other subjects	138,000	57,000	2,000	7,000	S	43,000	3,000	26,000	54,000
Special education—primary and secondary	162,000	56,000	2,000	3,000	S	49,000	S	37,000	69,000
Other precollegiate area	75,000	22,000	4,000	S	S	14,000	1,000	28,000	26,000
Non-S&E postsecondary teachers	159,000	58,000	6,000	3,000	2,000	43,000	4,000	18,000	84,000
Art, drama, and music	7,000	2,000	S	S	S	1,000	S	S	4,000
Business, commerce, and marketing	30,000	9,000	2,000	S	S	6,000	1,000	S	20,000
Education	28,000	9,000	1,000	S	1,000	6,000	S	5,000	14,000
English	16,000	6,000	S	S	S	5,000	S	S	10,000
Foreign language	12,000	7,000	S	S	S	6,000	S	S	5,000
History	10,000	4,000	S	S	S	4,000	S	S	6,000
Physical education	5,000	2,000	S	S	S	S	S	S	3,000
Other postsecondary fields	52,000	20,000	2,000	2,000	1,000	14,000	1,000	9,000	23,000
Social services and related occupations	747,000	400,000	4,000	10,000	2,000	378,000	6,000	69,000	278,000
Clergy and other religious workers	101,000	26,000	S	3,000	S	19,000	3,000	4,000	72,000
Counselors (e.g., educational, vocational, mental health, and substance abuse)	339,000	203,000	S	6,000	S	192,000	2,000	45,000	91,000
Social workers	307,000	171,000	S	2,000	S	166,000	S	20,000	115,000
Sales and marketing occupations	1,351,000	995,000	87,000	163,000	38,000	599,000	109,000	160,000	196,000

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Occupation	Highest degree in S&E								
	All employed scientists and engineers	All S&E highest degree	Computer and mathematical sciences	Biological, agricultural, and environmental life sciences	Physical and related sciences	Social and related sciences	Engineering	S&E-related fields	Non-S&E fields
Insurance, securities, real estate, and business services	393,000	290,000	33,000	30,000	10,000	195,000	21,000	34,000	69,000
Sales—commodities, except retail (industrial/medical/dental machinery, equipment, supplies)	216,000	160,000	11,000	37,000	10,000	76,000	26,000	36,000	20,000
Sales—retail (e.g., furnishings, clothing, motor vehicles, cosmetics)	295,000	230,000	16,000	46,000	6,000	140,000	22,000	43,000	21,000
Other marketing and sales occupations	448,000	315,000	25,000	50,000	12,000	187,000	40,000	47,000	85,000
Arts, humanities, and related occupations	296,000	194,000	26,000	23,000	7,000	130,000	9,000	53,000	49,000
Writers, editors, public relations specialists, artists, entertainers, broadcasters	291,000	193,000	26,000	23,000	7,000	128,000	9,000	51,000	47,000
Historians	6,000	1,000	S	S	S	1,000	S	S	3,000
Other non-S&E occupations	2,912,000	1,759,000	164,000	311,000	77,000	992,000	215,000	308,000	846,000
Accounting clerks and bookkeepers	113,000	88,000	16,000	14,000	3,000	50,000	5,000	19,000	6,000
Secretaries, receptionists, typists	171,000	116,000	9,000	22,000	1,000	84,000	1,000	33,000	22,000
Other administrative (e.g., record clerks, telephone operators)	373,000	282,000	34,000	29,000	17,000	181,000	21,000	45,000	46,000
Farmers, foresters, and fishermen	95,000	77,000	2,000	50,000	4,000	16,000	4,000	7,000	10,000
Lawyers, judges	614,000	40,000	S	4,000	1,000	33,000	S	S	571,000
Librarians, archivists, curators	62,000	31,000	S	4,000	S	18,000	S	4,000	28,000
Food preparation and service (e.g., cooks, waitresses, bartenders)	154,000	129,000	18,000	20,000	5,000	81,000	6,000	18,000	7,000
Protective services (e.g., firefighters, police, guards, wardens, park rangers)	148,000	129,000	9,000	19,000	3,000	79,000	20,000	5,000	14,000
Other service occupations, except health (e.g., probation officer, human services work)	366,000	275,000	19,000	37,000	11,000	188,000	20,000	48,000	43,000
Other teachers and instructors (e.g., private tutors, dance, flying, martial arts)	177,000	110,000	6,000	25,000	5,000	64,000	10,000	27,000	41,000
Construction and extraction occupations	106,000	78,000	6,000	17,000	S	18,000	34,000	16,000	11,000
Installation, maintenance, and repair occupations	107,000	79,000	12,000	17,000	S	22,000	27,000	23,000	5,000

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**Scientists and engineers, by occupation and degree field: 2010**

Occupation	Highest degree in S&E								
	All employed scientists and engineers	All S&E highest degree	Computer and mathematical sciences	Biological, agricultural, and environmental life sciences	Physical and related sciences	Social and related sciences	Engineering	S&E-related fields	Non-S&E fields
Precision/production occupations (e.g., metal/wood workers, butchers, bakers, assemblers, tailors)	110,000	83,000	10,000	22,000	8,000	23,000	20,000	18,000	10,000
Transportation and material moving occupations	162,000	123,000	11,000	20,000	6,000	54,000	32,000	27,000	12,000
Other occupations	154,000	119,000	6,000	12,000	8,000	81,000	12,000	14,000	21,000

S = suppressed for reasons of confidentiality and/or reliability.

NOTES: Scientists and engineers include those with one or more S&E or S&E-related degrees at the bachelor's level or higher or those who have only a non-S&E degree at the bachelor's level or higher and are employed in an S&E or S&E-related occupation. Detail may not add to total because of rounding. Numbers are rounded to the nearest 1,000. Percentages are based on rounded numbers.

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, Scientists and Engineers Statistical Data System (SESTAT) (2010), <http://sestat.nsf.gov/>.

*Science and Engineering Indicators 2014*