

Table E-13. Employed U.S. scientists and engineers, by highest degree attained, occupation, and geographic region of employment: 1999

Highest degree and occupation	Employed S&Es, total ¹	Geographic region of employment								
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
All degree levels²										
All occupations, total	10,981,600	832,200	1,693,100	1,569,500	764,800	2,017,800	414,400	925,200	693,100	2,048,900
S&E occupations, total	3,540,800	263,200	480,500	529,100	229,500	655,200	129,900	335,300	246,000	663,300
Scientists, total	2,170,500	173,500	308,300	291,800	145,400	432,700	73,700	187,100	149,500	403,200
Computer/math sci, total	1,167,400	93,900	161,000	151,500	71,200	246,000	31,900	105,200	80,200	223,100
Computer/information scientists	1,058,100	87,300	147,800	134,800	64,700	217,300	24,400	95,700	74,700	208,300
Mathematical scientists	36,200	2,700	5,000	3,400	1,300	13,200	2,900	1,400	1,300	5,000
Postsecondary teachers- computer math sci	73,000	4,000	8,200	13,300	5,200	15,600	4,600	8,100	4,300	9,800
Life/related scientists, total	341,900	29,500	44,700	45,700	32,900	58,400	13,800	28,600	21,200	66,600
Agricultural/food scientists	39,700	1,700	3,200	5,900	7,500	5,900	1,500	3,600	3,300	7,000
Biological scientists	206,500	19,500	31,300	27,000	14,300	37,900	5,200	13,900	11,600	45,500
Environmental life scientists	19,800	300	1,400	1,700	3,300	3,200	1,400	3,300	1,700	3,500
Postsecondary teachers- life/related sciences	75,800	8,000	8,800	11,100	7,800	11,300	5,700	7,900	4,600	10,800
Physical/related scientists, total ...	297,900	22,300	41,700	41,900	18,000	51,100	11,900	32,400	26,500	51,700
Chemistry, except biochemistry	121,700	8,100	24,000	21,700	8,500	21,900	4,700	8,900	5,700	18,200
Earth scientists/ geologists/oceanographers	72,800	4,200	4,500	6,500	4,000	10,700	2,700	16,300	9,000	14,800
Physicists/astronomers	30,400	2,100	3,900	4,400	1,000	4,400	1,300	1,200	4,900	7,400
Other physical/related scientists	22,200	2,200	2,000	2,400	1,500	4,700	400	2,500	3,800	2,900
Postsecondary teachers- physical/related sci	50,700	5,800	7,400	6,900	3,100	9,300	2,900	3,600	3,100	8,500

See explanatory information, if any, and SOURCE at end of table.

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Highest degree and occupation	Employed S&Es, total ¹	Geographic region of employment								
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
All degree levels² — continued										
Social/related scientists, total	363,400	27,700	60,900	52,700	23,300	77,200	16,100	20,800	21,500	61,800
Economists	35,400	2,800	4,300	2,100	1,800	14,700	500	600	1,900	6,600
Political/related scientists	11,600	1,300	1,300	1,000	400	4,500	600	300	1,000	900
Psychologists	197,000	14,000	36,300	29,000	13,000	36,500	7,800	12,200	10,800	36,700
Sociologists/anthropologists	17,600	900	2,700	2,100	500	4,300	900	900	2,600	2,800
Other social/related scientists	13,600	1,600	900	1,800	1,100	4,300	100	900	300	2,700
Postsecondary teachers- social/related sci	88,100	7,100	15,500	16,800	6,400	12,900	6,300	6,000	4,900	12,100
Engineers, total	1,370,300	89,700	172,200	237,300	84,100	222,500	56,200	148,200	96,500	260,100
Aerospace/related engineers	67,400	2,600	2,100	5,100	3,700	12,700	3,600	7,200	5,500	24,900
Chemical engineers	79,900	4,200	10,800	12,000	5,200	12,200	4,200	17,400	6,000	7,700
Civil/architectural engineers	223,700	15,600	29,800	29,500	17,300	40,700	8,300	17,000	15,000	49,500
Electrical/related engineers	362,300	25,900	42,300	51,800	22,200	56,500	16,000	35,400	29,500	82,200
Industrial engineers	81,200	5,600	7,700	20,100	5,000	11,300	5,500	10,900	3,400	11,200
Mechanical engineers	265,800	17,600	37,100	73,300	14,800	35,600	7,400	23,700	13,100	42,700
Other engineers	258,700	16,300	37,600	39,900	13,600	47,900	9,300	34,000	21,700	37,800
Postsecondary teachers-engineers ..	31,400	2,000	4,700	5,600	2,200	5,700	2,000	2,600	2,400	4,100
Non-S&E occupations, total	7,440,800	568,900	1,212,600	1,040,400	535,200	1,362,600	284,500	589,900	447,100	1,385,600
Managers/administrators	2,035,600	155,100	333,900	283,100	128,300	405,300	83,400	160,900	115,500	367,800
Health/related	848,100	68,400	140,900	114,400	66,100	149,600	38,600	74,500	51,500	143,100
Teachers, except S&E postsecondary	807,700	66,800	132,900	109,500	56,100	130,100	33,100	70,100	46,000	162,100
Sales/marketing	943,800	75,300	158,500	138,300	70,300	158,600	27,300	71,600	62,100	178,400
Other non-S&E occupations	2,805,600	203,400	446,300	395,000	214,400	519,000	102,100	212,800	172,000	534,100

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Table E-13. Employed U.S. scientists and engineers, by highest degree attained, occupation, and geographic region of employment: 1999

Highest degree and occupation	Employed S&Es, total ¹	Geographic region of employment								
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Bachelor's										
All occupations, total	6,350,100	449,500	910,300	912,300	477,400	1,157,000	244,700	577,700	409,400	1,197,300
S&E occupations, total	1,994,400	136,800	246,200	299,800	144,600	368,100	73,300	205,700	142,000	372,400
Scientists, total	1,087,100	82,200	142,200	137,600	84,300	219,000	32,800	100,300	76,900	208,700
Computer/math sci, total	740,500	56,900	98,700	94,900	51,000	153,500	18,500	69,800	51,000	144,200
Computer/information scientists	715,400	55,800	96,000	92,400	49,900	144,600	16,200	68,000	50,500	140,000
Mathematical scientists	12,400	800	1,600	200	S	5,600	1,400	700	S	2,200
Postsecondary teachers- computer math sci	12,700	300	1,100	2,300	1,100	3,300	1,000	1,100	500	2,000
Life/related scientists, total	135,500	10,500	16,500	15,200	18,400	21,100	5,000	11,700	9,000	27,900
Agricultural/food scientists	20,100	500	1,500	2,600	4,700	2,600	400	1,800	1,600	4,300
Biological scientists	87,900	6,900	12,700	10,000	8,800	15,200	2,300	6,300	6,000	19,500
Environmental life scientists	14,600	200	1,100	1,200	3,300	2,100	1,200	2,500	900	2,200
Postsecondary teachers- life/related sciences	12,800	2,800	1,200	1,500	1,600	1,200	1,000	1,100	500	1,800
Physical/related scientists, total ...	139,600	9,100	15,900	20,000	10,500	24,000	5,700	16,200	12,200	25,900
Chemistry, except biochemistry	70,500	3,900	11,800	12,500	6,000	13,100	2,800	5,300	3,600	11,400
Earth scientists/ geologists/oceanographers	38,000	1,800	1,800	3,800	2,500	4,800	1,100	9,000	4,700	8,400
Physicists/astronomers	7,200	800	800	1,400	400	1,000	200	100	700	1,800
Other physical/related scientists	13,100	1,100	900	1,000	1,000	3,100	100	1,500	2,700	1,800
Postsecondary teachers- physical/related sci	10,900	1,600	700	1,300	600	2,000	1,400	400	500	2,400

See explanatory information, if any, and SOURCE at end of table.

Table E-13. Employed U.S. scientists and engineers, by highest degree attained, occupation, and geographic region of employment: 1999

Highest degree and occupation	Employed S&Es, total ¹	Geographic region of employment								
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Bachelor's — continued										
Social/related scientists, total	71,400	5,700	11,100	7,400	4,400	20,500	3,700	2,700	4,600	10,700
Economists	11,800	1,200	1,600	200	600	3,600	200	200	600	3,600
Political/related scientists	5,800	300	600	800	300	2,400	300	100	700	S
Psychologists	32,100	2,200	7,000	3,000	2,100	8,300	1,700	1,500	1,600	4,200
Sociologists/anthropologists	6,900	300	800	900	200	2,400	500	300	900	700
Other social/related scientists	4,500	700	500	300	800	1,500	S	S	200	600
Postsecondary teachers-social/related sci	10,400	900	600	2,200	300	2,300	1,000	500	700	1,700
Engineers, total	907,400	54,600	104,000	162,100	60,300	149,100	40,500	105,300	65,200	163,800
Aerospace/related engineers	36,300	700	1,100	1,900	2,600	7,200	1,800	4,400	3,300	13,500
Chemical engineers	51,100	2,400	5,800	8,300	4,100	7,600	2,700	11,600	4,000	4,600
Civil/architectural engineers	160,800	10,600	21,000	22,700	12,300	29,400	6,100	12,300	11,400	33,900
Electrical/related engineers	233,500	15,100	22,500	37,100	16,300	36,500	13,500	24,000	19,700	48,700
Industrial engineers	62,700	3,600	5,300	14,700	4,500	9,200	4,000	8,900	2,800	9,500
Mechanical engineers	194,300	13,200	25,700	52,300	10,400	26,800	5,900	19,000	9,000	31,600
Other engineers	163,000	8,700	21,600	24,100	9,900	31,400	6,300	24,700	14,700	21,200
Postsecondary teachers-engineers ..	5,600	400	1,000	1,100	200	1,200	300	400	300	800
Non-S&E occupations, total	4,355,700	312,700	664,100	612,500	332,800	788,900	171,300	372,100	267,400	824,800
Managers/administrators	1,156,800	76,300	181,500	167,800	79,400	233,100	53,200	101,600	64,600	198,400
Health/related	304,300	27,900	47,100	38,100	24,600	52,300	12,200	30,000	17,800	54,300
Teachers, except S&E postsecondary ..	379,700	30,100	54,300	47,400	23,600	60,800	16,200	40,600	23,000	82,700
Sales/marketing	723,700	56,500	112,300	110,900	55,100	120,800	19,600	58,100	50,500	137,300
Other non-S&E occupations	1,791,000	121,900	268,900	248,400	150,100	321,700	70,000	141,800	111,500	352,100

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Highest degree and occupation	Employed S&Es, total ¹	Geographic region of employment								
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Master's										
All occupations, total	2,982,000	249,400	505,500	419,000	180,100	550,500	108,000	224,300	187,600	551,400
S&E occupations, total	1,032,100	81,100	149,700	157,000	54,700	194,100	36,100	89,100	70,500	197,000
Scientists, total	655,500	52,300	93,200	95,000	35,500	133,700	23,700	54,700	46,000	119,600
Computer/math sci, total	354,100	30,700	49,200	48,000	17,000	78,100	11,300	30,100	24,800	63,800
Computer/information scientists	304,800	27,600	44,100	39,400	13,800	66,000	7,700	24,700	22,400	58,100
Mathematical scientists	16,000	1,100	1,700	2,200	1,100	5,400	1,400	400	900	1,700
Postsecondary teachers- computer math sci	33,300	1,900	3,500	6,300	2,100	6,700	2,200	5,000	1,600	4,100
Life/related scientists, total	72,500	6,300	8,900	11,900	4,400	12,500	2,400	6,700	4,600	14,900
Agricultural/food scientists	10,400	900	700	2,000	1,100	1,400	600	900	1,200	1,500
Biological scientists	42,700	4,300	6,500	6,400	1,800	7,400	800	3,300	1,600	10,700
Environmental life scientists	4,000	S	200	500	S	800	100	800	700	900
Postsecondary teachers- life/related sciences	15,500	1,100	1,500	3,000	1,400	2,900	1,000	1,700	1,100	1,700
Physical/related scientists, total ...	73,000	6,000	11,700	9,400	3,800	11,400	3,400	9,100	6,600	11,400
Chemistry, except biochemistry	23,000	1,900	5,800	3,800	1,200	4,100	1,100	1,700	600	2,800
Earth scientists/ geologists/oceanographers	24,300	1,700	2,300	2,100	1,300	3,800	1,300	5,400	2,500	3,900
Physicists/astronomers	8,500	300	1,000	1,300	200	500	500	500	1,900	2,200
Other physical/related scientists	7,300	800	1,000	1,100	400	1,100	200	900	800	900
Postsecondary teachers- physical/related sci	9,800	1,200	1,500	1,100	700	1,900	400	600	800	1,600

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Highest degree and occupation	Employed S&Es, total ¹	Geographic region of employment								
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Master's — continued										
Social/related scientists, total	155,900	9,400	23,500	25,700	10,300	31,800	6,600	8,900	10,000	29,400
Economists	15,200	1,200	1,400	1,000	800	7,200	200	200	1,000	2,200
Political/related scientists	4,200	800	600	S	100	1,500	300	100	S	700
Psychologists	102,400	6,000	16,200	18,000	7,300	18,200	3,800	6,200	5,900	20,500
Sociologists/anthropologists	6,900	200	1,100	700	200	1,000	300	400	1,400	1,700
Other social/related scientists	5,700	700	200	1,300	200	1,500	S	700	S	1,100
Postsecondary teachers-social/related sci	21,500	500	4,000	4,700	1,700	2,400	2,000	1,300	1,600	3,300
Engineers, total	376,500	28,800	56,500	62,000	19,200	60,400	12,400	34,400	24,500	77,400
Aerospace/related engineers	26,300	1,400	900	2,900	1,000	4,400	1,500	2,700	1,800	9,600
Chemical engineers	20,700	1,400	3,500	2,200	700	3,400	1,200	4,500	1,400	2,200
Civil/architectural engineers	57,200	4,600	8,400	6,400	4,300	10,100	1,900	4,200	3,200	14,100
Electrical/related engineers	109,400	9,200	17,100	13,100	5,200	17,600	2,200	9,600	8,400	26,700
Industrial engineers	17,400	1,900	2,200	5,200	500	2,000	1,500	1,800	600	1,500
Mechanical engineers	62,000	3,700	10,100	18,200	4,100	7,800	1,200	4,000	3,400	9,300
Other engineers	76,900	6,500	13,000	13,300	2,800	13,800	2,300	7,100	5,200	13,000
Postsecondary teachers-engineers ..	6,600	100	1,200	900	600	1,300	600	500	500	1,100
Non-S&E occupations, total	1,949,900	168,300	355,800	262,000	125,400	356,400	71,900	135,100	117,100	354,400
Managers/administrators	726,600	64,400	125,400	94,200	40,400	143,100	25,500	50,000	44,500	137,900
Health/related	100,400	8,200	23,600	11,100	5,100	18,400	5,300	6,400	5,300	17,000
Teachers, except S&E postsecondary ..	345,700	31,400	64,000	48,100	26,200	56,400	13,100	23,500	18,800	64,100
Sales/marketing	196,000	15,700	41,200	25,400	14,000	33,100	6,000	12,300	10,300	37,200
Other non-S&E occupations	581,200	48,600	101,700	83,200	39,600	105,400	22,000	43,000	38,100	98,200

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		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Doctorate										
All occupations, total	736,700	60,600	121,700	104,300	45,800	139,900	29,000	56,100	46,200	132,200
S&E occupations, total	484,100	42,100	79,500	68,300	28,600	88,100	18,700	38,800	32,000	87,400
Scientists, total	399,900	36,100	67,900	55,400	24,700	75,400	15,400	30,700	25,200	68,700
Computer/math sci, total	67,100	6,000	11,700	8,300	3,200	12,900	1,900	4,900	4,100	13,800
Computer/information scientists	32,400	3,600	6,300	2,800	1,000	5,200	400	2,500	1,500	9,000
Mathematical scientists	7,900	700	1,800	900	200	2,200	200	300	400	1,100
Postsecondary teachers-computer math sci	26,800	1,600	3,600	4,600	1,900	5,500	1,400	2,100	2,200	3,700
Life/related scientists, total	121,100	11,300	18,000	16,700	9,400	23,500	5,400	9,400	7,000	20,300
Agricultural/food scientists	9,200	300	1,000	1,300	1,700	1,900	500	900	500	1,100
Biological scientists	70,000	7,700	11,100	9,400	3,500	14,600	1,900	4,000	3,600	14,100
Environmental life scientists	1,200	100	100	100	S	300	100	100	100	300
Postsecondary teachers-life/related sciences	40,800	3,200	5,900	5,900	4,200	6,600	2,900	4,400	2,800	4,900
Physical/related scientists, total ...	84,900	7,200	14,000	12,500	3,700	15,400	2,900	7,100	7,700	14,300
Chemistry, except biochemistry	28,100	2,300	6,300	5,500	1,200	4,700	700	1,900	1,400	4,000
Earth scientists/										
geologists/oceanographers	10,400	700	400	600	200	1,900	300	1,900	1,800	2,400
Physicists/astronomers	14,700	1,000	2,000	1,700	400	2,800	600	600	2,300	3,400
Other physical/related scientists	1,800	300	200	300	S	400	S	100	200	200
Postsecondary teachers-physical/related sci	29,800	2,900	5,200	4,500	1,800	5,500	1,200	2,600	1,800	4,400

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		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Doctorate — continued										
Social/related scientists, total	126,900	11,600	24,300	17,900	8,400	23,600	5,200	9,200	6,400	20,200
Economists	8,100	500	1,300	600	400	3,900	100	200	400	800
Political/related scientists	1,400	200	100	100	S	500	S	S	300	200
Psychologists	58,000	5,100	11,600	7,600	3,300	9,300	1,900	4,400	2,800	11,900
Sociologists/anthropologists	3,700	300	800	500	200	900	100	300	200	500
Other social/related scientists	2,400	200	200	200	100	800	100	100	100	600
Postsecondary teachers- social/related sci	53,300	5,300	10,200	8,800	4,400	8,200	3,100	4,200	2,600	6,300
Engineers, total	84,200	6,000	11,600	13,000	3,900	12,700	3,300	8,100	6,800	18,700
Aerospace/related engineers	4,600	300	100	300	200	1,100	300	100	400	1,800
Chemical engineers	8,100	400	1,500	1,500	400	1,200	300	1,200	600	900
Civil/architectural engineers	5,100	400	300	400	200	1,200	300	500	300	1,500
Electrical/related engineers	18,400	1,600	2,700	1,500	600	2,300	200	1,600	1,400	6,600
Industrial engineers	1,000	100	200	200	S	200	S	200	S	200
Mechanical engineers	9,100	500	1,100	2,800	300	800	300	700	600	1,800
Other engineers	18,800	1,200	3,000	2,600	900	2,700	700	2,100	1,900	3,700
Postsecondary teachers-engineers ..	19,200	1,500	2,600	3,700	1,400	3,200	1,200	1,700	1,600	2,300
Non-S&E occupations, total	252,600	18,500	42,200	35,900	17,300	51,800	10,300	17,400	14,200	44,800
Managers/administrators	98,400	8,200	16,300	14,100	5,500	21,000	3,000	6,000	5,300	18,900
Health/related	25,000	2,000	4,300	3,900	1,800	4,800	1,100	1,900	1,700	3,400
Teachers, except S&E postsecondary	64,500	3,900	12,900	11,300	5,500	11,200	3,500	4,400	2,500	9,200
Sales/marketing	11,800	1,200	2,500	900	700	2,600	600	600	700	2,100
Other non-S&E occupations	52,800	3,300	6,200	5,600	3,700	12,200	2,200	4,500	3,900	11,200

¹ Includes individuals employed in the U.S. who reported employer address outside the U.S., not shown separately

² Total includes professional degrees not broken out separately.

NOTES: The term "Scientists and Engineers" (S&Es) includes all persons who have ever received a bachelor's degree or higher in a science or engineering (S&E) field, plus persons holding a non-S&E bachelor's or higher degree who were employed in a S&E occupation during either the 1993, 1995, 1997, or 1999 SESTAT surveys. Figures are rounded to nearest hundred. Details may not add to total because of rounding.

KEY: S = Suppressed for reasons of confidentiality and/or data reliability

SOURCE: National Science Foundation/Science Resources Statistics Division, 1999 SESTAT (Scientists and Engineers Statistical Data System)