

Table D-13. U.S. scientists and engineers, by highest degree attained, broad occupation, and citizenship status: 1993

Highest degree and occupation	S&Es, total	U.S. citizen			Non-U.S. citizen		
		Total ¹	Native	Naturalized	Total ²	Permanent resident	Temporary resident
All degree levels³							
All occupations, total⁴	11,578,200	11,065,000	10,263,100	801,800	513,400	407,700	104,000
S&E occupations, total	3,786,100	3,551,300	3,223,700	327,500	234,900	167,000	67,000
Scientists, total	2,140,900	1,994,500	1,841,900	152,500	146,500	100,800	45,300
Computer/math sci, total	1,065,900	1,000,200	917,200	82,900	65,700	50,900	14,800
Computer/information scientists	926,000	874,300	801,400	72,800	51,800	42,400	9,400
Mathematical scientists	55,200	51,400	47,900	3,400	3,800	2,100	1,600
Postsecondary teachers- computer math sci	84,700	74,500	67,900	6,700	10,200	6,400	3,800
Life/related scientists, total	379,000	345,500	319,100	26,300	33,500	20,200	13,200
Agricultural/food scientists	52,500	50,000	47,800	2,200	2,500	1,600	900
Biological scientists	209,400	184,300	166,300	18,000	25,100	14,600	10,500
Environmental life scientists	28,200	27,900	27,700	200	200	200	100
Postsecondary teachers- life/related sciences	88,900	83,300	77,300	6,000	5,700	3,800	1,800
Physical/related scientists, total	339,500	310,400	283,100	27,300	29,100	18,500	10,600
Chemistry, except biochemistry	142,600	130,600	115,700	14,900	11,900	8,900	3,100
Earth scientists/ geologists/oceanographers	83,300	79,200	75,400	3,800	4,100	2,500	1,600
Physicists/astronomers	40,900	35,700	32,300	3,400	5,200	2,400	2,800
Other physical/related scientists	20,500	19,000	17,500	1,500	1,500	900	600
Postsecondary teachers- physical/related sci	52,200	45,800	42,100	3,700	6,400	3,900	2,500
Social/related scientists, total	356,600	338,400	322,500	15,900	18,200	11,200	6,800
Economists	37,000	32,500	30,300	2,200	4,500	1,900	2,400
Political/related scientists	10,000	9,300	8,900	400	700	300	400
Psychologists	167,500	163,700	157,100	6,600	3,800	3,100	700
Sociologists/anthropologists	19,100	18,000	17,500	500	1,000	600	400
Other social/related scientists	25,300	24,200	23,300	900	1,200	700	400
Postsecondary teachers- social/related sci	97,700	90,700	85,400	5,400	6,900	4,600	2,300
Engineers, total	1,645,100	1,556,800	1,381,800	175,000	88,400	66,300	21,700
Aerospace/related engineers	109,000	107,300	95,800	11,500	1,700	1,200	500
Chemical engineers	96,300	89,900	79,900	9,900	6,400	4,300	2,100
Civil/architectural engineers	223,500	209,900	179,400	30,500	13,500	11,100	2,300
Electrical/related engineers	422,600	397,500	345,700	51,800	25,100	19,300	5,700
Industrial engineers	83,700	80,100	74,200	5,900	3,600	2,800	800
Mechanical engineers	302,900	287,800	255,500	32,300	15,100	11,200	3,900
Other engineers	368,400	352,000	324,700	27,300	16,400	12,000	4,300
Postsecondary teachers-engineers ..	38,800	32,300	26,600	5,700	6,500	4,400	2,000
Non-S&E occupations, total	7,792,100	7,513,700	7,039,400	474,300	278,500	240,700	37,000
Managers/administrators	2,296,500	2,219,900	2,084,700	135,300	76,600	65,500	10,900
Health/related	857,600	831,200	760,300	70,900	26,400	23,900	2,400
Teachers, except S&E postsecondary ..	843,000	820,500	785,900	34,600	22,400	17,600	4,600
Sales/marketing	892,800	857,400	802,500	54,900	35,400	31,500	4,000
Other non-S&E occupations	2,902,300	2,784,700	2,606,100	178,600	117,600	102,200	15,100

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

Table D-13. U.S. scientists and engineers, by highest degree attained, broad occupation, and citizenship status: 1993

Highest degree and occupation	S&Es, total	U.S. citizen			Non-U.S. citizen		
		Total ¹	Native	Naturalized	Total ²	Permanent resident	Temporary resident
Bachelor's							
All occupations, total⁴	6,948,800	6,709,800	6,271,400	438,400	239,000	205,800	32,800
S&E occupations, total	2,293,600	2,218,600	2,051,800	166,800	75,000	60,500	14,500
Scientists, total	1,122,700	1,082,200	1,016,200	66,000	40,500	30,800	9,700
Computer/math sci, total	720,300	695,000	647,700	47,400	25,300	20,900	4,300
Computer/information scientists	674,300	651,600	606,200	45,400	22,700	19,400	3,300
Mathematical scientists	24,900	24,500	23,500	1,000	300	300	100
Postsecondary teachers- computer math sci	21,200	18,900	18,000	900	2,300	1,300	1,000
Life/related scientists, total	159,900	154,500	148,100	6,300	5,400	3,200	2,200
Agricultural/food scientists	31,200	30,600	29,800	800	500	400	200
Biological scientists	90,800	86,800	82,200	4,600	4,000	2,400	1,600
Environmental life scientists	20,200	20,000	20,000	S	200	200	S
Postsecondary teachers- life/related sciences	17,700	17,000	16,100	900	700	200	400
Physical/related scientists, total	163,200	155,900	146,400	9,500	7,300	5,200	2,100
Chemistry, except biochemistry	85,000	81,100	74,300	6,800	3,900	3,300	600
Earth scientists/ geologists/oceanographers	43,200	42,500	41,100	1,300	700	600	200
Physicists/astronomers	11,000	10,200	9,900	300	700	400	300
Other physical/related scientists	11,200	10,900	10,400	500	300	200	S
Postsecondary teachers- physical/related sci	12,900	11,200	10,600	500	1,700	700	1,000
Social/related scientists, total	79,300	76,800	74,000	2,800	2,500	1,500	1,000
Economists	13,400	12,800	12,200	600	600	300	300
Political/related scientists	5,900	5,500	5,400	100	400	200	200
Psychologists	30,000	29,500	28,500	1,000	500	400	200
Sociologists/anthropologists	7,600	7,000	7,000	S	600	500	200
Other social/related scientists	9,300	9,200	8,800	400	100	100	S
Postsecondary teachers- social/related sci	13,100	12,800	12,200	700	300	100	200
Engineers, total	1,170,900	1,136,400	1,035,500	100,800	34,500	29,600	4,800
Aerospace/related engineers	73,900	73,200	67,100	6,200	600	500	100
Chemical engineers	64,300	62,300	57,200	5,000	2,000	1,800	300
Civil/architectural engineers	165,700	159,800	142,000	17,900	5,900	5,700	200
Electrical/related engineers	298,900	288,900	257,000	31,900	10,000	8,100	1,800
Industrial engineers	65,300	63,400	59,500	3,900	1,900	1,700	200
Mechanical engineers	234,200	227,200	207,400	19,700	7,000	5,900	1,100
Other engineers	260,700	254,600	239,400	15,200	6,100	5,300	800
Postsecondary teachers-engineers ..	8,000	7,000	6,000	1,100	1,000	800	200
Non-S&E occupations, total	4,655,200	4,491,200	4,219,600	271,600	164,000	145,300	18,300
Managers/administrators	1,340,300	1,297,300	1,230,000	67,300	43,000	37,800	5,000
Health/related	293,800	284,100	258,600	25,500	9,600	9,100	500
Teachers, except S&E postsecondary ..	392,300	383,400	367,700	15,600	8,900	7,100	1,800
Sales/marketing	717,800	692,100	651,600	40,500	25,700	22,700	2,900
Other non-S&E occupations	1,911,000	1,834,300	1,711,700	122,600	76,700	68,500	8,000

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

Table D-13. U.S. scientists and engineers, by highest degree attained, broad occupation, and citizenship status: 1993

Highest degree and occupation	S&Es, total	U.S. citizen			Non-U.S. citizen		
		Total ¹	Native	Naturalized	Total ²	Permanent resident	Temporary resident
Master's							
All occupations, total⁴	3,002,400	2,826,200	2,595,300	230,900	176,200	125,800	49,700
S&E occupations, total	1,013,600	917,600	814,300	103,200	96,100	61,000	34,700
Scientists, total	615,600	558,600	513,400	45,100	57,100	35,200	21,700
Computer/math sci, total	290,100	259,000	231,000	28,000	31,000	22,900	8,100
Computer/information scientists	230,300	204,800	180,400	24,400	25,500	20,400	5,100
Mathematical scientists	22,000	20,100	18,700	1,400	1,900	700	1,100
Postsecondary teachers-computer math sci	37,700	34,100	31,900	2,100	3,700	1,900	1,800
Life/related scientists, total	85,100	76,600	71,100	5,500	8,500	3,800	4,700
Agricultural/food scientists	11,700	10,500	9,800	700	1,200	700	400
Biological scientists	44,400	38,900	35,000	3,900	5,500	2,100	3,400
Environmental life scientists	6,800	6,800	6,600	100	100	S	100
Postsecondary teachers-life/related sciences	22,100	20,300	19,600	700	1,800	1,000	800
Physical/related scientists, total	87,400	78,100	72,000	6,200	9,300	4,400	4,800
Chemistry, except biochemistry	26,700	23,600	20,100	3,500	3,100	2,000	1,100
Earth scientists/geologists/oceanographers	28,800	26,600	25,400	1,200	2,100	1,100	1,100
Physicists/astronomers	13,000	11,300	10,500	700	1,700	600	1,100
Other physical/related scientists	6,900	6,100	5,800	300	800	300	400
Postsecondary teachers-physical/related sci	12,000	10,500	10,100	400	1,600	500	1,100
Social/related scientists, total	153,100	144,900	139,400	5,500	8,200	4,000	4,200
Economists	15,900	13,400	12,500	800	2,500	800	1,600
Political/related scientists	2,400	2,100	2,000	100	300	100	200
Psychologists	85,600	83,500	80,600	2,900	2,100	1,700	500
Sociologists/anthropologists	7,500	7,200	7,000	200	300	100	200
Other social/related scientists	11,700	11,000	10,800	200	700	500	200
Postsecondary teachers-social/related sci	30,000	27,700	26,500	1,200	2,300	900	1,400
Engineers, total	398,000	359,000	300,900	58,100	39,000	25,800	13,000
Aerospace/related engineers	31,100	30,500	26,300	4,200	600	300	300
Chemical engineers	24,800	21,800	18,500	3,200	3,100	1,600	1,400
Civil/architectural engineers	53,300	46,800	35,200	11,600	6,500	4,600	1,700
Electrical/related engineers	110,200	97,900	81,400	16,500	12,300	9,200	3,100
Industrial engineers	17,700	16,200	14,400	1,800	1,500	1,000	500
Mechanical engineers	60,900	54,400	43,900	10,500	6,500	4,300	2,200
Other engineers	88,200	81,700	72,800	9,000	6,400	4,100	2,300
Postsecondary teachers-engineers ..	11,800	9,600	8,500	1,200	2,100	700	1,400
Non-S&E occupations, total	1,988,800	1,908,700	1,781,000	127,700	80,100	64,800	15,000
Managers/administrators	775,900	749,900	695,700	54,100	26,000	21,500	4,500
Health/related	98,700	95,000	88,300	6,800	3,700	2,900	800
Teachers, except S&E postsecondary	380,800	372,900	359,300	13,600	8,000	5,500	2,300
Sales/marketing	156,600	148,000	135,700	12,300	8,700	7,700	1,000
Other non-S&E occupations	576,700	542,900	502,000	40,900	33,800	27,200	6,400

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Highest degree and occupation	S&Es, total	U.S. citizen			Non-U.S. citizen		
		Total ¹	Native	Naturalized	Total ²	Permanent resident	Temporary resident
Doctorate							
All occupations, total⁴	706,100	625,300	540,000	85,200	81,000	61,300	19,200
S&E occupations, total	439,400	379,300	326,300	53,000	60,100	43,200	16,500
Scientists, total	367,100	321,600	284,300	37,200	45,500	32,600	12,600
Computer/math sci, total	52,400	43,000	35,600	7,400	9,400	7,000	2,400
Computer/information scientists	18,500	15,000	12,200	2,900	3,500	2,600	1,000
Mathematical scientists	8,200	6,600	5,600	1,000	1,600	1,200	400
Postsecondary teachers-computer math sci	25,600	21,400	17,800	3,600	4,200	3,200	1,000
Life/related scientists, total	111,400	95,000	83,700	11,300	16,400	11,100	5,200
Agricultural/food scientists	9,500	8,700	8,100	600	800	500	300
Biological scientists	63,800	50,500	42,800	7,700	13,300	8,700	4,500
Environmental life scientists	1,100	1,100	1,000	100	S	S	S
Postsecondary teachers-life/related sciences	36,900	34,600	31,700	2,900	2,300	1,900	400
Physical/related scientists, total ...	87,800	75,200	63,600	11,600	12,500	8,800	3,600
Chemistry, except biochemistry	30,200	25,300	20,600	4,600	5,000	3,600	1,300
Earth scientists/							
geologists/oceanographers	11,400	10,200	8,900	1,300	1,200	800	400
Physicists/astronomers	17,000	14,200	11,800	2,400	2,800	1,400	1,400
Other physical/related scientists	2,300	1,900	1,300	600	400	300	100
Postsecondary teachers-physical/related sci	26,900	23,800	21,000	2,700	3,100	2,700	400
Social/related scientists, total	115,600	108,400	101,400	6,900	7,200	5,600	1,400
Economists	7,100	5,800	5,100	700	1,300	800	400
Political/related scientists	1,600	1,600	1,400	200	S	S	S
Psychologists	46,700	45,600	43,500	2,100	1,100	1,000	100
Sociologists/anthropologists	3,900	3,800	3,500	300	100	100	100
Other social/related scientists	3,300	2,900	2,700	200	400	200	200
Postsecondary teachers-social/related sci	52,900	48,600	45,200	3,400	4,300	3,600	600
Engineers, total	72,300	57,700	42,000	15,700	14,600	10,600	3,900
Aerospace/related engineers	4,000	3,500	2,300	1,200	500	400	100
Chemical engineers	7,100	5,800	4,200	1,600	1,300	900	400
Civil/architectural engineers	3,600	2,500	1,500	1,100	1,100	800	300
Electrical/related engineers	12,900	10,100	6,800	3,300	2,800	2,000	800
Industrial engineers	600	400	200	200	200	100	S
Mechanical engineers	7,100	5,500	3,600	1,900	1,600	1,100	500
Other engineers	18,100	14,400	11,300	3,100	3,700	2,400	1,200
Postsecondary teachers-engineers ..	18,900	15,500	12,100	3,400	3,400	2,900	500

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Highest degree and occupation	S&Es, total	U.S. citizen			Non-U.S. citizen		
		Total ¹	Native	Naturalized	Total ²	Permanent resident	Temporary resident
Doctorate — continued							
Non-S&E occupations, total	266,700	245,900	213,700	32,200	20,800	18,100	2,700
Managers/administrators	128,500	121,900	109,400	12,500	6,600	5,400	1,200
Health/related	25,000	21,300	12,800	8,500	3,700	3,300	400
Teachers, except S&E postsecondary	54,900	49,400	44,900	4,500	5,500	4,900	600
Sales/marketing	8,300	7,400	5,700	1,600	900	800	100
Other non-S&E occupations	50,000	45,900	40,900	5,000	4,200	3,700	500

¹ Includes U.S. citizens who did not specify mode of gaining citizenship

² Includes non-citizens who did not specify visa status

³ Includes professional degrees

⁴ Total excludes 37,000 individuals who reported never having worked. For unemployed individuals, occupation is for their previous reported job.

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 are employed in an S&E occupation.
 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 Studies Division, 1993 SESTAT (Scientists and Engineers Statistical Data System)