

Table E-3. Employed U.S. scientists and engineers, by highest degree attained, broad occupation, sex, and employment sector: 1999

Highest degree, occupation, and sex	Employed S&Es, total	Business/industry				Educational institution			Government		
		Total	Profit	Self-employed	Non-profit	Total	4 yr. College/university	Other	Total	Federal	State/local
All degree levels¹											
All occupations, total	10,981,600	7,556,000	6,120,700	726,600	708,700	2,022,400	961,500	1,060,900	1,403,300	573,000	830,200
Male	7,171,500	5,273,700	4,461,600	494,100	318,000	967,900	554,400	413,500	929,800	427,600	502,200
Female	3,810,200	2,282,200	1,659,200	232,400	390,600	1,054,500	407,000	647,400	473,400	145,400	328,000
S&E occupations, total	3,540,800	2,482,400	2,263,300	105,200	114,000	608,500	496,400	112,100	449,900	241,100	208,800
Male	2,705,000	1,966,400	1,836,000	67,900	62,500	385,700	328,200	57,600	352,900	194,600	158,400
Female	835,800	516,000	427,300	37,300	51,500	222,800	168,200	54,600	97,000	46,500	50,400
Scientists, total	2,170,500	1,373,600	1,197,400	80,200	96,000	541,800	434,200	107,600	255,100	137,300	117,800
Male	1,464,800	958,900	868,400	44,000	46,500	327,000	273,400	53,600	178,900	102,400	76,600
Female	705,800	414,700	329,000	36,200	49,500	214,900	160,900	54,000	76,200	34,900	41,300
Computer/math scientists, total	1,167,400	943,800	886,800	21,500	35,600	132,200	95,000	37,300	91,300	52,600	38,600
Male	850,600	700,700	664,400	16,800	19,400	84,900	62,100	22,800	65,100	40,000	25,100
Female	316,700	243,100	222,300	4,700	16,100	47,400	32,900	14,400	26,200	12,700	13,600
Life/related scientists, total	341,900	113,400	92,600	8,000	12,800	163,300	148,900	14,400	65,300	36,700	28,500
Male	217,500	72,000	60,600	4,700	6,600	98,400	91,000	7,400	47,000	27,900	19,200
Female	124,400	41,300	32,000	3,200	6,200	64,800	57,900	6,900	18,300	8,900	9,400
Physical/related scientists, total ...	297,900	161,200	148,800	6,300	6,100	82,400	73,200	9,100	54,300	31,300	23,000
Male	229,400	123,800	113,000	5,900	4,900	63,500	56,500	7,000	42,100	24,900	17,300
Female	68,400	37,400	35,900	400	1,200	18,900	16,800	2,100	12,100	6,400	5,700
Social/related scientists, total	363,400	155,200	69,200	44,500	41,600	163,900	117,100	46,800	44,300	16,600	27,700
Male	167,300	62,400	30,300	16,500	15,500	80,200	63,800	16,300	24,700	9,700	15,000
Female	196,200	92,800	38,900	27,900	26,100	83,800	53,200	30,500	19,600	6,900	12,600
Engineers, total	1,370,300	1,108,800	1,065,900	25,000	18,000	66,700	62,100	4,500	194,800	103,800	90,900
Male	1,240,200	1,007,500	967,600	23,900	16,000	58,700	54,800	3,900	174,000	92,200	81,800
Female	130,000	101,300	98,300	1,100	1,900	7,900	7,300	600	20,800	11,600	9,100
Non-S&E occupations, total	7,440,800	5,073,500	3,857,400	621,400	594,700	1,413,900	465,100	948,800	953,400	331,900	621,400
Male	4,466,400	3,307,300	2,625,600	426,200	255,500	582,200	226,300	355,900	576,900	233,100	343,800
Female	2,974,300	1,766,200	1,231,900	195,200	339,200	831,700	238,800	592,800	376,500	98,800	277,600

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

Table E-3. Employed U.S. scientists and engineers, by highest degree attained, broad occupation, sex, and employment sector: 1999

Highest degree, occupation, and sex	Employed S&Es, total	Business/industry				Educational institution			Government		
		Total	Profit	Self-employed	Non-profit	Total	4 yr. College/university	Other	Total	Federal	State/local
All degree levels¹ — continued											
Managers/administrators	2,035,600	1,543,800	1,327,300	74,500	142,000	193,500	86,500	107,000	298,300	122,300	175,900
Male	1,429,100	1,131,400	1,009,600	48,200	73,700	97,000	40,300	56,700	200,600	89,400	111,300
Female	606,500	412,400	317,700	26,300	68,300	96,500	46,200	50,300	97,600	33,000	64,700
Other non-S&E occupations	5,405,200	3,529,700	2,530,100	546,900	452,700	1,220,400	378,600	841,800	655,100	209,600	445,500
Male	3,037,300	2,175,900	1,616,000	378,100	181,800	485,200	186,000	299,200	376,300	143,700	232,500
Female	2,367,900	1,353,800	914,100	168,900	270,800	735,200	192,600	542,600	278,800	65,900	213,000
Bachelor's											
All occupations, total	6,350,100	4,694,100	3,982,800	347,000	364,300	806,800	327,100	479,700	849,300	337,700	511,600
Male	4,084,400	3,215,300	2,846,000	231,000	138,300	312,300	149,000	163,300	556,900	249,100	307,800
Female	2,265,700	1,478,800	1,136,900	116,000	226,000	494,500	178,100	316,400	292,400	88,600	203,800
S&E occupations, total	1,994,400	1,555,000	1,465,300	37,200	52,500	171,800	142,500	29,300	267,600	130,200	137,500
Male	1,564,700	1,256,600	1,196,700	31,700	28,200	95,700	79,300	16,300	212,500	104,600	107,900
Female	429,700	298,400	268,600	5,600	24,300	76,100	63,100	13,000	55,100	25,600	29,600
Scientists, total	1,087,100	802,300	738,000	22,000	42,300	150,400	123,500	26,900	134,300	66,100	68,200
Male	744,300	572,000	536,400	16,800	18,800	77,700	63,700	14,000	94,600	48,800	45,700
Female	342,800	230,300	201,600	5,300	23,400	72,700	59,800	12,900	39,800	17,200	22,500
Computer/math scientists, total	740,500	630,000	592,300	13,300	24,400	51,000	36,100	14,900	59,500	31,900	27,600
Male	538,900	467,200	444,100	10,200	12,900	32,000	21,900	10,100	39,700	22,400	17,300
Female	201,600	162,800	148,200	3,000	11,500	19,000	14,200	4,800	19,800	9,500	10,300
Life/related scientists, total	135,500	55,600	47,500	3,800	4,300	47,300	43,000	4,300	32,500	15,900	16,700
Male	76,900	33,200	28,900	2,700	1,600	20,500	18,700	1,800	23,200	13,100	10,100
Female	58,600	22,500	18,600	1,100	2,700	26,800	24,300	2,500	9,300	2,800	6,600
Physical/related scientists, total ...	139,600	87,200	82,400	2,800	2,000	22,300	21,200	1,100	30,200	14,000	16,200
Male	101,700	61,700	57,400	2,700	1,600	15,300	14,300	1,000	24,700	11,500	13,200
Female	38,000	25,500	25,000	100	400	7,000	6,900	100	5,500	2,500	3,000

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

Table E-3. Employed U.S. scientists and engineers, by highest degree attained, broad occupation, sex, and employment sector: 1999

Highest degree, occupation, and sex	Employed S&Es, total	Business/industry				Educational institution			Government		
		Total	Profit	Self-employed	Non-profit	Total	4 yr. College/university	Other	Total	Federal	State/local
Bachelor's — continued											
Social/related scientists, total	71,400	29,600	15,800	2,200	11,600	29,800	23,100	6,700	12,100	4,300	7,800
Male	26,800	9,900	6,000	1,200	2,800	9,900	8,800	1,200	7,000	1,800	5,100
Female	44,600	19,600	9,800	1,000	8,800	19,900	14,400	5,500	5,100	2,500	2,700
Engineers, total	907,400	752,700	727,200	15,200	10,300	21,400	19,000	2,400	133,300	64,100	69,300
Male	820,400	684,500	660,300	14,900	9,400	17,900	15,700	2,300	117,900	55,700	62,200
Female	86,900	68,100	67,000	300	900	3,400	3,300	100	15,400	8,300	7,100
Non-S&E occupations, total	4,355,700	3,139,100	2,517,600	309,700	311,800	635,000	184,600	450,400	581,600	207,500	374,100
Male	2,519,700	1,958,700	1,649,300	199,300	110,100	216,600	69,700	147,000	344,300	144,500	199,800
Female	1,836,000	1,180,400	868,300	110,400	201,700	418,300	114,900	303,400	237,300	63,000	174,200
Managers/administrators	1,156,800	936,900	831,400	41,600	63,900	54,600	30,900	23,600	165,300	71,400	93,900
Male	801,400	676,000	618,000	28,300	29,800	18,200	9,400	8,700	107,200	50,600	56,600
Female	355,500	260,900	213,400	13,400	34,200	36,400	21,500	14,900	58,200	20,800	37,300
Other non-S&E occupations	3,198,800	2,202,100	1,686,200	268,100	247,900	580,400	153,700	426,700	416,300	136,100	280,200
Male	1,718,300	1,282,700	1,031,300	171,100	80,400	198,500	60,200	138,300	237,200	93,900	143,200
Female	1,480,500	919,500	654,900	97,000	167,500	381,900	93,500	288,500	179,100	42,200	136,900
Master's											
All occupations, total	2,982,000	1,851,000	1,454,500	159,700	236,700	744,000	226,000	518,000	387,000	153,400	233,600
Male	1,871,200	1,283,100	1,087,100	90,900	105,100	331,100	116,200	214,900	257,100	117,300	139,800
Female	1,110,800	567,900	367,400	68,900	131,600	412,900	109,800	303,100	130,000	36,100	93,800
S&E occupations, total	1,032,100	719,400	639,100	41,200	39,100	178,400	111,800	66,600	134,300	75,500	58,800
Male	751,200	548,600	509,600	20,200	18,700	99,300	68,000	31,300	103,300	61,500	41,800
Female	280,900	170,800	129,500	20,900	20,400	79,100	43,800	35,400	31,000	14,000	17,000
Scientists, total	655,500	415,600	348,300	33,300	34,000	159,200	94,100	65,100	80,800	42,500	38,300
Male	411,400	274,500	246,700	13,200	14,600	82,300	52,300	30,000	54,600	31,300	23,300
Female	244,200	141,100	101,600	20,100	19,400	76,900	41,800	35,100	26,200	11,200	15,000

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

Table E-3. Employed U.S. scientists and engineers, by highest degree attained, broad occupation, sex, and employment sector: 1999

Highest degree, occupation, and sex	Employed S&Es, total	Business/industry				Educational institution			Government		
		Total	Profit	Self-employed	Non-profit	Total	4 yr. College/university	Other	Total	Federal	State/local
Master's — continued											
Computer/math scientists, total	354,100	276,400	260,300	7,000	9,000	50,200	29,900	20,300	27,600	17,800	9,800
Male	253,700	203,800	193,200	5,500	5,100	28,100	16,800	11,300	21,700	15,200	6,600
Female	100,500	72,600	67,100	1,500	4,000	22,100	13,100	8,900	5,800	2,600	3,200
Life/related scientists, total	72,500	25,000	19,100	2,100	3,900	27,800	20,900	6,900	19,700	9,800	9,900
Male	44,000	14,400	12,100	600	1,700	15,100	11,700	3,400	14,500	6,900	7,600
Female	28,500	10,700	7,000	1,500	2,200	12,700	9,200	3,500	5,200	2,900	2,300
Physical/related scientists, total ...	73,000	40,100	36,200	2,300	1,600	19,400	14,200	5,200	13,500	8,200	5,300
Male	53,700	32,500	29,200	2,100	1,200	13,200	9,600	3,600	8,000	5,100	2,900
Female	19,300	7,600	6,900	200	400	6,200	4,500	1,700	5,500	3,100	2,400
Social/related scientists, total	155,900	74,100	32,700	21,900	19,400	61,800	29,100	32,700	20,000	6,700	13,300
Male	60,000	23,800	12,200	5,100	6,600	25,800	14,200	11,700	10,400	4,100	6,300
Female	95,900	50,300	20,500	16,900	12,900	35,900	15,000	21,000	9,700	2,600	7,000
Engineers, total	376,500	303,800	290,800	7,900	5,100	19,200	17,700	1,500	53,500	33,000	20,500
Male	339,800	274,100	262,900	7,000	4,100	17,000	15,800	1,300	48,700	30,200	18,500
Female	36,700	29,700	27,900	800	1,000	2,200	1,900	300	4,800	2,800	2,000
Non-S&E occupations, total	1,949,900	1,131,600	815,400	118,600	197,600	565,600	114,200	451,400	252,700	77,900	174,800
Male	1,120,000	734,500	577,500	70,600	86,400	231,700	48,100	183,600	153,800	55,800	97,900
Female	829,900	397,000	237,900	47,900	111,200	333,800	66,000	267,800	99,000	22,100	76,900
Managers/administrators	726,600	512,000	424,400	26,300	61,300	100,500	33,700	66,800	114,100	43,400	70,600
Male	514,800	380,300	333,100	15,100	32,100	55,200	16,000	39,200	79,300	33,200	46,000
Female	211,800	131,700	91,300	11,200	29,200	45,300	17,700	27,600	34,800	10,200	24,600
Other non-S&E occupations	1,223,300	619,500	391,000	92,200	136,300	465,100	80,500	384,600	138,700	34,500	104,200
Male	605,300	354,200	244,400	55,500	54,300	176,600	32,200	144,400	74,500	22,600	51,900
Female	618,000	265,300	146,600	36,700	82,000	288,500	48,300	240,200	64,200	11,900	52,300

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

Table E-3. Employed U.S. scientists and engineers, by highest degree attained, broad occupation, sex, and employment sector: 1999

Highest degree, occupation, and sex	Employed S&Es, total	Business/industry				Educational institution			Government		
		Total	Profit	Self-employed	Non-profit	Total	4 yr. College/university	Other	Total	Federal	State/local
Doctorate											
All occupations, total	736,700	322,000	234,700	44,700	42,600	349,100	309,400	39,700	65,600	43,100	22,500
Male	552,200	257,300	196,400	30,500	30,500	244,200	221,700	22,500	50,700	34,200	16,500
Female	184,500	64,700	38,300	14,300	12,100	104,900	87,600	17,300	14,900	8,900	6,000
S&E occupations, total	484,100	195,000	150,000	24,700	20,300	244,300	229,900	14,400	44,800	32,900	11,900
Male	368,900	154,200	125,100	14,900	14,200	179,700	170,800	9,000	35,000	26,500	8,400
Female	115,200	40,800	24,800	9,900	6,100	64,600	59,100	5,500	9,800	6,300	3,500
Scientists, total	399,900	144,000	103,200	23,000	17,700	218,300	204,400	13,800	37,700	26,900	10,800
Male	290,900	106,400	81,600	13,100	11,700	155,900	147,400	8,500	28,500	21,100	7,400
Female	109,100	37,600	21,600	9,900	6,100	62,300	57,000	5,300	9,200	5,800	3,400
Computer/math scientists, total	67,100	32,600	29,400	1,100	2,000	30,700	28,700	2,000	3,800	2,700	1,100
Male	54,900	27,100	24,700	1,000	1,400	24,500	23,100	1,400	3,200	2,200	1,000
Female	12,200	5,400	4,700	100	600	6,200	5,600	600	600	500	100
Life/related scientists, total	121,100	30,400	24,200	1,900	4,300	78,500	75,600	2,900	12,200	10,200	2,000
Male	86,200	23,000	18,700	1,300	3,000	54,300	52,400	2,000	8,900	7,400	1,500
Female	34,900	7,400	5,500	600	1,300	24,200	23,200	900	3,300	2,800	500
Physical/related scientists, total ...	84,900	33,800	30,200	1,100	2,500	40,600	37,800	2,800	10,400	8,800	1,600
Male	73,700	29,500	26,300	1,000	2,100	34,900	32,500	2,500	9,200	8,000	1,300
Female	11,200	4,400	4,000	100	300	5,700	5,300	400	1,100	900	300
Social/related scientists, total	126,900	47,100	19,300	18,800	8,900	68,500	62,300	6,100	11,300	5,200	6,100
Male	76,100	26,800	11,900	9,700	5,100	42,200	39,500	2,700	7,200	3,600	3,600
Female	50,800	20,300	7,500	9,100	3,800	26,300	22,900	3,400	4,200	1,600	2,500
Engineers, total	84,200	51,000	46,700	1,700	2,500	26,100	25,500	600	7,100	5,900	1,200
Male	78,000	47,800	43,500	1,700	2,500	23,800	23,300	400	6,500	5,400	1,100
Female	6,200	3,300	3,200	S	100	2,300	2,100	200	600	500	100
Non-S&E occupations, total	252,600	127,000	84,700	20,000	22,400	104,800	79,500	25,300	20,800	10,200	10,600
Male	183,400	103,200	71,200	15,600	16,300	64,500	51,000	13,500	15,700	7,600	8,100
Female	69,300	23,900	13,500	4,400	6,000	40,300	28,500	11,800	5,100	2,600	2,500

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Highest degree, occupation, and sex	Employed S&Es, total	Business/industry				Educational institution			Government		
		Total	Profit	Self-employed	Non-profit	Total	4 yr. College/university	Other	Total	Federal	State/local
Doctorate — continued											
Managers/administrators	98,400	57,900	44,400	3,400	10,100	28,600	18,400	10,200	12,000	6,200	5,800
Male	77,500	48,800	38,900	3,000	6,900	19,100	13,500	5,600	9,600	4,600	5,000
Female	20,900	9,000	5,500	400	3,200	9,500	4,900	4,600	2,400	1,500	800
Other non-S&E occupations	154,200	69,200	40,400	16,600	12,300	76,200	61,100	15,100	8,800	4,000	4,800
Male	105,800	54,300	32,300	12,600	9,400	45,400	37,500	7,900	6,100	3,000	3,100
Female	48,400	14,900	8,000	4,000	2,800	30,800	23,700	7,200	2,700	1,000	1,700

1 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)