

Table E-9. Employed U.S. scientists and engineers, by highest degree attained, broad occupation, employment sector, and primary/secondary work activity : 1997

Highest degree, occupation, and employment sector	Employed S&Es, total	Primary/secondary work activity				
		Research and development	Teaching	Management, sales, admin	Computer applications	Professional services/ other
All degree levels¹						
All occupations, total²	10,585,600	2,904,700	1,560,700	6,343,700	2,164,600	3,588,300
Educational institution	1,953,500	594,600	1,164,600	683,900	249,800	510,400
Government	1,367,300	350,000	65,700	843,700	252,700	604,300
Business/industry	7,264,900	1,960,200	330,300	4,816,100	1,662,000	2,473,600
S&E occupations, total	3,369,400	1,873,700	387,200	1,424,900	1,228,700	663,900
Educational institution	586,700	357,900	314,100	117,200	103,200	97,500
Government	439,100	216,600	11,100	227,200	137,900	122,900
Business/industry	2,343,600	1,299,200	62,000	1,080,500	987,600	443,600
Scientists, total	1,995,100	980,600	336,800	731,100	917,500	388,600
Educational institution	512,700	302,900	280,800	102,500	87,800	90,800
Government	245,500	118,900	9,100	111,200	94,800	71,100
Business/industry	1,236,900	558,800	46,800	517,400	734,900	226,800
Computer/math scientists, total	1,039,500	423,800	97,400	407,600	812,300	78,700
Educational institution	121,200	52,500	71,000	27,700	52,800	10,200
Government	89,400	35,500	2,500	42,000	67,700	8,800
Business/industry	828,900	335,700	24,000	337,900	691,800	59,700
Life/related scientists, total	321,800	227,700	79,300	112,600	32,300	61,500
Educational institution	154,500	115,900	73,500	35,100	11,200	17,600
Government	64,600	38,700	2,500	30,500	10,900	21,600
Business/industry	102,700	73,100	3,400	47,000	10,200	22,300
Physical/related scientists, total	284,900	198,100	49,700	100,700	46,700	53,500
Educational institution	80,000	56,300	47,200	12,300	11,300	6,400
Government	48,700	29,400	1,200	19,900	11,200	14,600
Business/industry	156,100	112,400	1,400	68,500	24,300	32,500
Social/related scientists, total	349,000	131,000	110,300	110,100	26,200	194,900
Educational institution	157,000	78,200	89,200	27,500	12,500	56,500
Government	42,800	15,200	3,000	18,800	5,000	26,000
Business/industry	149,200	37,600	18,100	63,900	8,600	112,400
Engineers, total	1,374,400	893,100	50,400	693,800	311,200	275,300
Educational institution	74,000	55,000	33,300	14,700	15,400	6,700
Government	193,600	97,700	2,000	116,000	43,100	51,800
Business/industry	1,106,700	740,400	15,200	563,100	252,700	216,800
Non-S&E occupations, total	7,216,200	1,031,000	1,173,500	4,918,800	935,900	2,924,400
Educational institution	1,366,800	236,700	850,500	566,700	146,700	412,900
Government	928,100	133,400	54,600	616,500	114,800	481,400
Business/industry	4,921,300	661,000	268,300	3,735,600	674,400	2,030,000
Managers/administrators	2,019,900	282,500	53,900	1,894,700	223,200	391,100
Educational institution	190,000	24,300	21,000	177,400	19,000	36,800
Government	303,000	42,700	5,500	276,200	32,400	69,700
Business/industry	1,527,000	215,500	27,400	1,441,100	171,800	284,600
Other non-S&E occupations	5,196,300	748,600	1,119,500	3,024,100	712,700	2,533,300
Educational institution	1,176,800	212,400	829,500	389,300	127,600	376,200
Government	625,200	90,700	49,000	340,300	82,400	411,700
Business/industry	3,394,300	445,500	241,000	2,294,500	502,600	1,745,400

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

Table E-9. Employed U.S. scientists and engineers, by highest degree attained, broad occupation, employment sector, and primary/secondary work activity : 1997

Highest degree, occupation, and employment sector	Employed S&Es, total	Primary/secondary work activity				
		Research and development	Teaching	Management, sales, admin	Computer applications	Professional services/ other
Bachelor's						
All occupations, total²	6,193,700	1,624,300	669,600	3,947,600	1,492,000	1,759,300
Educational institution	780,800	189,300	438,900	299,500	126,300	170,900
Government	830,700	199,800	36,400	515,100	177,800	353,000
Business/industry	4,582,200	1,235,200	194,300	3,132,900	1,187,900	1,235,400
S&E occupations, total	1,916,800	1,020,700	98,000	894,300	817,600	327,000
Educational institution	155,800	93,200	55,900	33,500	44,500	17,700
Government	263,300	121,000	5,500	144,400	93,500	66,300
Business/industry	1,497,700	806,500	36,600	716,400	679,700	242,900
Scientists, total	1,000,200	452,000	79,100	405,000	610,400	134,300
Educational institution	131,200	76,500	50,100	27,600	37,000	15,300
Government	128,900	56,400	3,900	60,300	63,500	31,100
Business/industry	740,100	319,000	25,000	317,100	509,900	87,900
Computer/math scientists, total	675,300	257,100	35,100	276,500	562,100	48,000
Educational institution	41,700	14,100	14,500	13,500	26,900	4,700
Government	61,900	23,300	2,000	28,000	48,500	5,700
Business/industry	571,700	219,700	18,600	234,900	486,700	37,600
Life/related scientists, total	125,200	78,300	17,800	50,900	15,800	30,400
Educational institution	41,200	31,300	15,100	7,600	2,900	3,500
Government	34,700	16,200	1,200	18,300	7,500	14,300
Business/industry	49,300	30,800	1,500	25,000	5,400	12,600
Physical/related scientists, total	131,700	86,600	11,800	53,000	24,400	28,200
Educational institution	21,900	15,400	10,600	2,100	3,400	1,200
Government	22,400	12,600	500	9,600	6,000	7,000
Business/industry	87,300	58,600	700	41,300	15,000	20,000
Social/related scientists, total	68,000	30,000	14,400	24,700	8,100	27,700
Educational institution	26,400	15,700	9,900	4,400	3,800	6,000
Government	9,900	4,300	200	4,300	1,600	4,000
Business/industry	31,800	10,000	4,300	15,900	2,800	17,700
Engineers, total	916,600	568,700	18,900	489,200	207,200	192,600
Educational institution	24,600	16,700	5,800	5,800	7,500	2,400
Government	134,400	64,600	1,500	84,200	29,900	35,100
Business/industry	757,700	487,500	11,600	399,300	169,800	155,100
Non-S&E occupations, total	4,276,900	603,600	571,500	3,053,300	674,500	1,432,300
Educational institution	625,000	96,100	383,000	266,100	81,900	153,200
Government	567,500	78,800	30,900	370,700	84,300	286,700
Business/industry	3,084,500	428,700	157,700	2,416,500	508,300	992,400
Managers/administrators	1,141,100	139,900	25,700	1,074,800	139,800	199,200
Educational institution	55,200	5,100	3,900	52,600	10,500	7,600
Government	157,300	17,400	3,100	142,200	17,400	36,200
Business/industry	928,600	117,400	18,700	879,900	111,900	155,400
Other non-S&E occupations	3,135,800	463,600	545,900	1,978,600	534,600	1,233,100
Educational institution	569,800	91,000	379,000	213,500	71,300	145,600
Government	410,200	61,400	27,800	228,500	66,900	250,500
Business/industry	2,155,800	311,300	139,000	1,536,600	396,400	837,000

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

Table E-9. Employed U.S. scientists and engineers, by highest degree attained, broad occupation, employment sector, and primary/secondary work activity : 1997

Highest degree, occupation, and employment sector	Employed S&Es, total	Primary/secondary work activity				
		Research and development	Teaching	Management, sales, admin	Computer applications	Professional services/ other
Master's						
All occupations, total²	2,819,800	779,500	545,300	1,656,600	572,100	877,300
Educational institution	711,400	156,500	443,600	262,400	99,200	196,300
Government	372,500	101,500	19,500	246,400	62,900	143,000
Business/industry	1,736,000	521,500	82,200	1,147,800	410,000	538,100
S&E occupations, total	967,900	506,100	116,800	402,800	348,000	229,900
Educational institution	182,500	80,800	94,400	38,000	41,800	44,000
Government	128,200	60,700	4,000	65,600	36,800	42,700
Business/industry	657,200	364,600	18,400	299,200	269,400	143,100
Scientists, total	592,000	251,200	104,600	219,300	258,900	157,100
Educational institution	158,800	64,000	85,800	33,000	35,900	41,000
Government	76,100	33,600	3,600	36,100	25,400	27,100
Business/industry	357,100	153,600	15,300	150,300	197,700	89,100
Computer/math scientists, total	301,600	125,000	36,800	117,900	222,800	25,700
Educational institution	49,500	18,000	31,800	10,800	21,700	3,000
Government	23,700	9,400	400	12,900	17,100	2,500
Business/industry	228,400	97,700	4,600	94,300	184,000	20,200
Life/related scientists, total	70,300	45,800	19,700	24,800	9,500	11,100
Educational institution	31,100	18,200	17,900	8,400	4,200	2,200
Government	16,600	11,000	800	7,300	2,300	4,900
Business/industry	22,500	16,600	1,000	9,100	2,900	4,100
Physical/related scientists, total	69,100	40,900	10,700	28,800	13,400	17,300
Educational institution	18,400	10,100	9,800	3,900	3,900	2,200
Government	15,200	7,100	500	7,100	3,200	6,200
Business/industry	35,600	23,700	400	17,800	6,400	8,900
Social/related scientists, total	151,100	39,400	37,400	47,800	13,300	103,000
Educational institution	59,800	17,800	26,300	9,900	6,100	33,600
Government	20,600	6,100	1,900	8,800	2,800	13,500
Business/industry	70,700	15,500	9,300	29,100	4,400	55,900
Engineers, total	375,900	254,900	12,200	183,500	89,000	72,800
Educational institution	23,700	16,800	8,600	5,000	5,900	3,100
Government	52,100	27,000	400	29,600	11,400	15,600
Business/industry	300,100	211,100	3,100	148,900	71,800	54,100
Non-S&E occupations, total	1,851,900	273,300	428,500	1,253,800	224,100	647,400
Educational institution	528,900	75,700	349,200	224,400	57,500	152,200
Government	244,300	40,800	15,500	180,800	26,100	100,200
Business/industry	1,078,700	156,800	63,700	848,600	140,500	394,900
Managers/administrators	724,800	105,000	19,500	678,000	75,300	153,900
Educational institution	93,700	10,600	10,400	86,700	7,400	21,500
Government	124,600	20,300	2,300	114,400	14,000	26,300
Business/industry	506,500	74,100	6,800	476,900	53,900	106,000
Other non-S&E occupations	1,127,100	168,300	408,900	575,800	148,800	493,500
Educational institution	435,200	65,000	338,800	137,700	50,000	130,700
Government	119,700	20,600	13,200	66,500	12,100	73,900
Business/industry	572,200	82,700	57,000	371,700	86,600	288,900

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Highest degree, occupation, and employment sector	Employed S&Es, total	Primary/secondary work activity				
		Research and development	Teaching	Management, sales, admin	Computer applications	Professional services/ other
Doctorate						
All occupations, total²	696,000	417,600	234,800	261,500	76,100	172,000
Educational institution	341,800	221,400	219,200	89,500	22,100	52,700
Government	65,100	39,200	2,700	31,800	8,700	20,400
Business/industry	289,100	157,000	13,000	140,200	45,200	98,800
S&E occupations, total	454,700	333,200	165,100	115,500	59,400	91,400
Educational institution	235,600	177,500	157,600	42,900	16,200	28,700
Government	44,600	33,200	1,500	15,200	7,600	12,300
Business/industry	174,500	122,400	6,000	57,400	35,700	50,500
Scientists, total	375,300	265,200	145,800	95,800	44,800	82,700
Educational institution	209,900	156,000	138,800	39,000	14,100	27,500
Government	38,100	27,700	1,500	13,300	5,900	11,400
Business/industry	127,200	81,500	5,500	43,500	24,800	43,800
Computer/math scientists, total ...	59,000	40,300	25,200	11,000	24,800	4,800
Educational institution	29,600	20,300	24,500	3,300	4,000	2,500
Government	3,800	2,800	100	1,100	2,200	600
Business/industry	25,600	17,200	600	6,600	18,600	1,700
Life/related scientists, total	111,800	95,300	36,800	31,800	6,900	12,700
Educational institution	72,500	61,000	35,900	16,300	4,000	6,600
Government	12,200	10,600	500	4,300	1,000	2,000
Business/industry	27,200	23,700	500	11,200	1,800	4,100
Physical/related scientists, total ...	83,700	70,200	27,300	18,800	8,900	8,000
Educational institution	39,700	30,800	26,800	6,300	4,000	3,100
Government	10,800	9,400	100	3,000	2,000	1,300
Business/industry	33,100	30,000	300	9,400	2,900	3,600
Social/related scientists, total	120,800	59,300	56,500	34,200	4,200	57,200
Educational institution	68,000	43,900	51,600	13,000	2,100	15,300
Government	11,400	4,800	800	4,800	700	7,500
Business/industry	41,400	10,600	4,100	16,400	1,400	34,400
Engineers, total	79,400	68,000	19,400	19,700	14,600	8,700
Educational institution	25,700	21,500	18,900	3,900	2,100	1,200
Government	6,500	5,500	S	1,900	1,600	900
Business/industry	47,200	40,900	500	13,900	10,900	6,600
Non-S&E occupations, total	241,300	84,400	69,700	146,000	16,700	80,500
Educational institution	106,200	43,900	61,500	46,700	6,000	24,000
Government	20,500	5,900	1,200	16,600	1,200	8,200
Business/industry	114,700	34,600	7,000	82,800	9,500	48,400
Managers/administrators	102,400	33,600	7,700	94,200	4,600	18,800
Educational institution	34,000	7,800	6,200	31,200	1,100	5,800
Government	13,300	4,300	100	12,700	600	3,000
Business/industry	55,200	21,500	1,300	50,300	2,900	9,900

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Highest degree, occupation, and employment sector	Employed S&Es, total	Primary/secondary work activity				
		Research and development	Teaching	Management, sales, admin	Computer applications	Professional services/ other
Doctorate — continued						
Other non-S&E occupations	138,900	50,800	62,000	51,800	12,000	61,700
Educational institution	72,200	36,000	55,300	15,500	4,900	18,100
Government	7,200	1,600	1,000	3,900	600	5,100
Business/industry	59,500	13,100	5,700	32,500	6,600	38,500

- 1 Includes professional degrees
- 2 Total excludes 18,700 individuals who reported never having worked.

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 or 1997 SESTAT surveys. Figures are rounded to nearest hundred. Details may not add to total because of rounding. Sum of primary/secondary work activity categories exceeds total because of multiple responses.

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

SOURCE: National Science Foundation/Science Resources Studies Division, 1997 SESTAT (Scientists and Engineers Statistical Data System)