

Table E-4. Employed U.S. scientists and engineers, by highest degree attained, broad occupation, age, and employment sector: 1997

Highest degree, occupation, and age	Employed S&Es, total	Sector of employment			
		Business/industry	4-yr. College/university	Other educational institution	Government
All degree levels¹					
All occupations, total²	10,585,600	7,264,900	940,600	1,012,900	1,367,300
<30	1,478,800	1,014,000	189,000	138,700	137,200
30-39	2,816,000	2,055,900	244,600	183,400	332,100
40-49	3,443,100	2,356,400	253,800	337,500	495,400
50-59	2,103,600	1,317,500	176,600	281,800	327,800
60+	744,100	521,200	76,600	71,600	74,700
S&E occupations, total	3,369,400	2,343,600	475,700	111,000	439,100
<30	472,700	325,000	102,400	7,000	38,200
30-39	1,089,400	808,200	127,200	19,900	134,100
40-49	996,900	699,900	113,700	38,200	145,100
50-59	594,500	370,900	91,600	35,900	96,200
60+	215,900	139,600	40,900	10,000	25,500
Scientists, total	1,995,100	1,236,900	409,100	103,600	245,500
<30	286,400	174,400	84,700	6,500	20,800
30-39	627,700	432,200	108,700	18,900	67,900
40-49	620,700	394,800	101,100	36,000	88,800
50-59	353,600	183,400	79,700	33,100	57,500
60+	106,700	52,100	34,900	9,100	10,500
Computer/math scientists, total	1,039,500	828,900	88,200	33,000	89,400
<30	137,200	114,300	15,500	1,400	6,100
30-39	382,800	323,000	24,300	6,700	28,800
40-49	331,000	265,300	24,400	10,900	30,400
50-59	159,800	111,400	16,800	10,800	20,800
60+	28,600	14,900	7,200	3,200	3,200
Life/related scientists, total	321,800	102,700	139,100	15,400	64,600
<30	46,700	16,200	25,100	300	5,100
30-39	88,800	30,200	39,700	2,600	16,400
40-49	103,600	34,500	37,700	6,100	25,300
50-59	59,900	13,700	25,800	4,700	15,600
60+	22,700	8,000	10,800	1,700	2,200
Physical/related scientists, total ...	284,900	156,100	71,100	8,900	48,700
<30	44,500	22,000	18,100	500	4,000
30-39	83,800	48,800	19,300	2,000	13,800
40-49	81,300	47,900	14,000	2,200	17,300
50-59	51,300	23,900	12,800	3,600	11,000
60+	23,900	13,600	6,900	700	2,700
Social/related scientists, total	349,000	149,200	110,600	46,400	42,800
<30	58,000	21,900	26,100	4,400	5,600
30-39	72,300	30,300	25,400	7,700	8,900
40-49	104,700	47,000	24,900	16,900	15,900
50-59	82,500	34,400	24,200	13,900	10,000
60+	31,400	15,600	10,000	3,500	2,400

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

Table E-4. Employed U.S. scientists and engineers, by highest degree attained, broad occupation, age, and employment sector: 1997

Highest degree, occupation, and age	Employed S&Es, total	Sector of employment			
		Business/industry	4-yr. College/university	Other educational institution	Government
All degree levels¹ — continued					
Engineers, total	1,374,400	1,106,700	66,700	7,400	193,600
<30	186,300	150,700	17,700	500	17,400
30-39	461,600	376,000	18,500	900	66,200
40-49	376,200	305,100	12,600	2,200	56,300
50-59	240,900	187,500	11,900	2,900	38,700
60+	109,300	87,400	6,000	900	15,000
Non-S&E occupations, total	7,216,200	4,921,300	464,800	901,900	928,100
<30	1,006,100	688,900	86,600	131,600	98,900
30-39	1,726,600	1,247,600	117,400	163,500	198,000
40-49	2,446,200	1,656,500	140,100	299,200	350,300
50-59	1,509,100	946,700	85,000	245,800	231,700
60+	528,200	381,600	35,800	61,700	49,200
Managers/administrators	2,019,900	1,527,000	90,300	99,700	303,000
<30	128,600	109,400	3,900	4,000	11,300
30-39	451,500	374,600	16,000	10,800	50,000
40-49	757,500	571,200	34,400	34,200	117,500
50-59	525,900	350,800	28,900	41,300	105,000
60+	156,400	121,000	7,100	9,300	19,100
Other non-S&E occupations	5,196,300	3,394,300	374,500	802,300	625,200
<30	877,500	579,500	82,700	127,700	87,600
30-39	1,275,100	873,000	101,400	152,700	148,000
40-49	1,688,700	1,085,300	105,700	265,000	232,800
50-59	983,200	595,900	56,100	204,500	126,700
60+	371,800	260,600	28,700	52,400	30,100
Bachelor's					
All occupations, total²	6,193,700	4,582,200	317,600	463,200	830,700
<30	1,233,800	866,700	136,900	113,900	116,300
30-39	1,744,700	1,346,800	75,200	105,700	217,000
40-49	1,882,400	1,379,300	69,400	138,100	295,500
50-59	974,700	699,800	26,100	82,900	165,900
60+	358,100	289,600	9,900	22,600	36,000
S&E occupations, total	1,916,800	1,497,700	130,700	25,100	263,300
<30	375,100	267,200	73,600	3,600	30,700
30-39	657,900	539,900	27,300	5,300	85,500
40-49	523,000	412,500	17,400	8,800	84,300
50-59	263,500	199,100	9,600	5,900	48,900
60+	97,300	79,000	2,900	1,500	13,900
Scientists, total	1,000,200	740,100	110,200	21,100	128,900
<30	222,600	141,900	61,900	3,100	15,700
30-39	349,100	280,800	23,400	5,100	39,700
40-49	283,000	214,400	15,200	7,700	45,600
50-59	117,900	82,100	7,000	4,200	24,600
60+	27,700	20,700	2,600	1,000	3,300

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

Table E-4. Employed U.S. scientists and engineers, by highest degree attained, broad occupation, age, and employment sector: 1997

Highest degree, occupation, and age	Employed S&Es, total	Sector of employment			
		Business/industry	4-yr. College/university	Other educational institution	Government
Bachelor's — continued					
Computer/math scientists, total	675,300	571,700	31,100	10,600	61,900
<30	110,900	94,400	10,600	1,100	4,800
30-39	261,600	229,400	7,700	2,800	21,800
40-49	207,100	173,100	8,400	4,000	21,600
50-59	84,300	67,200	2,800	2,500	11,800
60+	11,300	7,600	1,700	200	1,900
Life/related scientists, total	125,200	49,300	36,600	4,600	34,700
<30	38,300	13,300	20,200	100	4,800
30-39	33,800	15,500	8,800	700	8,900
40-49	33,700	13,100	4,700	1,800	14,200
50-59	13,800	3,100	2,900	1,400	6,500
60+	5,600	4,400	200	700	400
Physical/related scientists, total ...	131,700	87,300	20,600	1,300	22,400
<30	36,500	19,000	14,200	100	3,200
30-39	39,700	27,500	4,300	1,000	7,000
40-49	32,400	23,700	1,500	200	7,000
50-59	15,100	10,100	500	S	4,500
60+	8,000	7,100	300	S	600
Social/related scientists, total	68,000	31,800	21,700	4,600	9,900
<30	36,900	15,300	17,000	1,700	2,900
30-39	13,900	8,500	2,700	600	2,100
40-49	9,800	4,600	700	1,800	2,700
50-59	4,700	1,700	900	300	1,800
60+	2,700	1,700	500	200	300
Engineers, total	916,600	757,700	20,600	4,000	134,400
<30	152,500	125,200	11,700	500	15,000
30-39	308,900	259,100	3,900	200	45,800
40-49	240,000	198,100	2,100	1,100	38,700
50-59	145,700	117,000	2,600	1,800	24,200
60+	69,600	58,200	300	500	10,600
Non-S&E occupations, total	4,276,900	3,084,500	186,900	438,100	567,500
<30	858,700	599,500	63,300	110,300	85,600
30-39	1,086,800	806,900	48,000	100,500	131,500
40-49	1,359,400	966,800	52,100	129,300	211,200
50-59	711,200	500,600	16,600	77,000	117,000
60+	260,800	210,600	7,000	21,100	22,100
Managers/administrators	1,141,100	928,600	33,400	21,800	157,300
<30	108,800	93,100	3,400	2,800	9,400
30-39	286,700	243,300	8,100	4,200	31,100
40-49	424,600	335,700	15,600	8,900	64,500
50-59	239,100	183,700	4,300	4,600	46,600
60+	81,900	72,900	2,000	1,300	5,700

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

Table E-4. Employed U.S. scientists and engineers, by highest degree attained, broad occupation, age, and employment sector: 1997

Highest degree, occupation, and age	Employed S&Es, total	Sector of employment			
		Business/industry	4-yr. College/university	Other educational institution	Government
Bachelor's — continued					
Other non-S&E occupations	3,135,800	2,155,800	153,500	416,300	410,200
<30	749,900	506,400	59,900	107,500	76,200
30-39	800,200	563,600	39,900	96,300	100,500
40-49	934,800	631,200	36,500	120,400	146,800
50-59	472,100	317,000	12,300	72,300	70,500
60+	178,900	137,700	5,000	19,800	16,400
Master's					
All occupations, total²	2,819,800	1,736,000	219,300	492,100	372,500
<30	186,100	113,100	34,500	23,500	15,100
30-39	686,800	468,700	66,800	69,900	81,400
40-49	983,800	609,300	58,400	178,500	137,600
50-59	739,200	402,300	42,500	178,200	116,100
60+	223,900	142,600	17,000	42,000	22,300
S&E occupations, total	967,900	657,200	113,300	69,200	128,200
<30	89,100	54,600	24,200	3,200	7,100
30-39	306,700	215,000	41,400	11,300	39,100
40-49	313,900	223,300	23,400	23,200	44,000
50-59	194,700	121,100	16,200	24,800	32,500
60+	63,400	43,200	8,100	6,600	5,500
Scientists, total	592,000	357,100	92,700	66,100	76,100
<30	57,400	30,500	18,700	3,200	4,900
30-39	179,100	113,900	33,900	10,700	20,600
40-49	201,100	130,800	20,000	22,200	28,100
50-59	120,600	63,300	13,200	23,700	20,300
60+	33,900	18,600	6,800	6,300	2,100
Computer/math scientists, total	301,600	228,400	29,500	20,000	23,700
<30	25,100	19,400	4,200	300	1,200
30-39	104,200	83,200	10,700	3,700	6,500
40-49	103,700	82,900	7,100	5,800	7,900
50-59	57,000	36,900	4,900	7,600	7,600
60+	11,600	5,900	2,500	2,600	500
Life/related scientists, total	70,300	22,500	23,500	7,600	16,600
<30	6,500	2,700	3,400	100	300
30-39	21,400	6,300	8,900	1,300	4,900
40-49	25,000	9,900	6,100	3,100	5,800
50-59	14,500	2,800	3,800	2,600	5,400
60+	2,900	800	1,400	500	200
Physical/related scientists, total ...	69,100	35,600	13,200	5,200	15,200
<30	6,400	2,300	3,300	200	700
30-39	20,600	10,900	4,700	600	4,400
40-49	24,200	13,800	2,500	1,200	6,700
50-59	13,500	5,800	2,000	2,800	3,000
60+	4,400	2,900	700	400	400

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

Table E-4. Employed U.S. scientists and engineers, by highest degree attained, broad occupation, age, and employment sector: 1997

Highest degree, occupation, and age	Employed S&Es, total	Sector of employment			
		Business/industry	4-yr. College/university	Other educational institution	Government
Master's — continued					
Social/related scientists, total	151,100	70,700	26,500	33,300	20,600
<30	19,300	6,100	7,900	2,600	2,700
30-39	33,000	13,500	9,600	5,100	4,800
40-49	48,200	24,100	4,300	12,000	7,700
50-59	35,600	17,900	2,600	10,800	4,400
60+	15,000	9,000	2,200	2,900	1,000
Engineers, total	375,900	300,100	20,600	3,100	52,100
<30	31,700	24,100	5,500	S	2,200
30-39	127,700	101,100	7,400	600	18,500
40-49	112,800	92,500	3,400	1,000	15,800
50-59	74,100	57,800	3,000	1,100	12,200
60+	29,600	24,600	1,300	300	3,400
Non-S&E occupations, total	1,851,900	1,078,700	106,000	422,900	244,300
<30	97,000	58,500	10,200	20,300	8,000
30-39	380,100	253,700	25,400	58,600	42,300
40-49	669,900	386,000	35,000	155,200	93,600
50-59	544,500	281,200	26,300	153,400	83,600
60+	160,500	99,400	8,900	35,400	16,800
Managers/administrators	724,800	506,500	30,100	63,600	124,600
<30	18,700	15,100	500	1,200	1,900
30-39	148,000	118,700	5,700	5,400	18,000
40-49	274,700	199,200	10,600	20,000	45,000
50-59	227,500	135,200	12,500	30,400	49,300
60+	56,000	38,300	800	6,600	10,400
Other non-S&E occupations	1,127,100	572,200	75,800	359,300	119,700
<30	78,400	43,400	9,700	19,200	6,100
30-39	232,100	135,000	19,700	53,100	24,300
40-49	395,100	186,800	24,500	135,200	48,600
50-59	317,000	146,000	13,800	123,000	34,300
60+	104,400	61,100	8,100	28,800	6,400
Doctorate					
All occupations, total ²	696,000	289,100	302,000	39,800	65,100
<30	9,000	3,800	4,600	300	400
30-39	152,000	68,200	67,900	5,600	10,300
40-49	219,800	91,900	93,100	12,200	22,600
50-59	226,600	90,200	95,400	16,900	24,100
60+	88,700	35,100	41,000	4,800	7,700
S&E occupations, total	454,700	174,500	220,900	14,700	44,600
<30	8,000	3,200	4,200	300	400
30-39	118,500	49,900	56,900	2,700	9,000
40-49	147,000	57,500	68,700	5,200	15,600
50-59	130,000	47,600	63,300	4,900	14,200
60+	51,100	16,300	27,800	1,600	5,500

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

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Highest degree, occupation, and age	Employed S&Es, total	Sector of employment			
		Business/industry	4-yr. College/university	Other educational institution	Government
Doctorate — continued					
Scientists, total	375,300	127,200	195,400	14,500	38,100
<30	6,000	1,900	3,700	300	200
30-39	94,100	34,600	49,700	2,600	7,200
40-49	124,600	44,000	61,600	5,200	13,900
50-59	109,100	34,900	57,000	4,900	12,200
60+	41,500	11,900	23,400	1,600	4,600
Computer/math scientists, total	59,000	25,600	27,400	2,200	3,800
<30	1,100	400	700	S	100
30-39	15,100	8,500	5,800	100	600
40-49	18,800	8,100	8,900	900	900
50-59	18,300	7,200	9,000	700	1,500
60+	5,700	1,400	3,000	500	800
Life/related scientists, total	111,800	27,200	69,500	3,000	12,200
<30	1,500	200	1,200	S	S
30-39	31,400	7,900	20,300	700	2,500
40-49	39,300	10,200	23,200	1,200	4,700
50-59	28,400	6,300	17,600	700	3,800
60+	11,200	2,500	7,200	400	1,200
Physical/related scientists, total ...	83,700	33,100	37,300	2,400	10,800
<30	1,600	700	600	200	100
30-39	23,300	10,400	10,400	300	2,200
40-49	24,700	10,400	10,000	800	3,500
50-59	22,700	8,100	10,400	800	3,400
60+	11,400	3,500	5,900	300	1,600
Social/related scientists, total	120,800	41,400	61,200	6,800	11,400
<30	1,700	500	1,200	S	S
30-39	24,300	7,700	13,200	1,400	2,000
40-49	41,800	15,200	19,400	2,300	4,800
50-59	39,700	13,300	20,100	2,700	3,600
60+	13,300	4,600	7,300	400	1,000
Engineers, total	79,400	47,200	25,500	300	6,500
<30	2,000	1,300	500	S	200
30-39	24,500	15,400	7,200	100	1,800
40-49	22,400	13,600	7,100	100	1,600
50-59	20,900	12,700	6,300	S	2,000
60+	9,600	4,300	4,400	100	900
Non-S&E occupations, total	241,300	114,700	81,100	25,100	20,500
<30	1,000	600	400	S	S
30-39	33,400	18,300	11,000	2,900	1,300
40-49	72,800	34,300	24,400	7,000	7,100
50-59	96,500	42,600	32,000	12,000	9,900
60+	37,500	18,800	13,200	3,200	2,200

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

Table E-4. Employed U.S. scientists and engineers, by highest degree attained, broad occupation, age, and employment sector: 1997

Highest degree, occupation, and age	Employed S&Es, total	Sector of employment			
		Business/industry	4-yr. College/university	Other educational institution	Government
Doctorate — continued					
Managers/administrators	102,400	55,200	22,700	11,200	13,300
<30	200	200	S	S	S
30-39	9,400	6,100	1,300	1,100	900
40-49	33,200	19,500	6,100	3,100	4,500
50-59	47,100	23,500	11,500	6,000	6,100
60+	12,500	5,900	3,800	1,000	1,800
Other non-S&E occupations	138,900	59,500	58,400	13,800	7,200
<30	800	400	400	S	S
30-39	24,000	12,200	9,700	1,800	400
40-49	39,600	14,800	18,400	3,900	2,600
50-59	49,400	19,200	20,500	6,000	3,800
60+	25,000	13,000	9,400	2,200	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.

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)