

Table E-8. Employed U.S. scientists and engineers, by highest degree attained, occupation, race/ethnicity, and primary/secondary work activity : 1997

Highest degree, occupation, and race/ethnicity	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
White	8,877,500	2,385,100	1,308,200	5,415,600	1,733,800	3,059,600
Black	555,600	123,000	106,200	329,900	115,700	192,700
Hispanic	371,500	94,900	62,600	210,600	72,600	136,700
Asian	745,600	291,300	76,600	368,900	235,700	186,200
Other	35,400	10,400	7,100	18,700	6,800	13,200
S&E occupations, total	3,369,400	1,873,700	387,200	1,424,900	1,228,700	663,900
White	2,791,900	1,533,600	327,200	1,210,600	984,000	575,200
Black	113,000	57,600	14,500	46,900	47,500	21,300
Hispanic	103,500	55,200	12,900	44,900	35,100	21,700
Asian	349,800	221,400	30,600	118,000	158,600	42,700
Other	11,300	6,000	2,000	4,600	3,500	2,900
Scientists, total	1,995,100	980,600	336,800	731,100	917,500	388,600
White	1,654,600	800,600	287,500	616,600	744,400	340,200
Black	77,500	34,800	12,500	30,000	37,000	15,400
Hispanic	55,800	27,000	10,900	19,000	23,100	12,900
Asian	200,100	114,400	23,900	62,800	111,000	18,400
Other	7,100	3,800	2,000	2,700	1,900	1,800
Computer/math scientists, total	1,039,500	423,800	97,400	407,600	812,300	78,700
White	839,400	338,700	80,400	335,200	654,200	64,200
Black	44,900	17,200	3,700	18,500	33,500	4,100
Hispanic	26,200	9,600	2,800	10,200	20,800	2,200
Asian	126,600	56,600	10,000	43,200	102,300	8,200
Other	2,500	1,700	500	600	1,500	100
Life/related scientists, total	321,800	227,700	79,300	112,600	32,300	61,500
White	272,400	186,900	70,500	100,200	27,900	55,800
Black	7,700	5,900	1,600	2,400	800	700
Hispanic	8,000	5,800	2,400	2,100	400	1,400
Asian	32,300	28,200	4,700	7,200	3,000	3,200
Other	1,400	800	200	700	100	300
Physical/related scientists, total ...	284,900	198,100	49,700	100,700	46,700	53,500
White	240,200	164,600	43,600	85,200	40,100	46,500
Black	8,400	5,700	1,000	3,600	1,500	1,500
Hispanic	7,200	5,500	1,000	2,600	600	1,600
Asian	27,900	21,700	3,600	8,700	4,300	3,700
Other	1,200	600	500	600	200	200
Social/related scientists, total	349,000	131,000	110,300	110,100	26,200	194,900
White	302,600	110,400	93,100	96,000	22,300	173,600
Black	16,500	6,000	6,200	5,500	1,100	9,100
Hispanic	14,400	6,100	4,700	4,100	1,300	7,800
Asian	13,300	7,900	5,700	3,700	1,300	3,200
Other	2,100	700	800	800	100	1,200

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

Table E-8. Employed U.S. scientists and engineers, by highest degree attained, occupation, race/ethnicity, and primary/secondary work activity : 1997

Highest degree, occupation, and race/ethnicity	Employed S&Es, total	Primary/secondary work activity				
		Research and development	Teaching	Management, sales, admin	Computer applications	Professional services/ other
All degree levels¹ — continued						
Engineers, total	1,374,400	893,100	50,400	693,800	311,200	275,300
White	1,137,300	733,000	39,700	594,000	239,600	235,000
Black	35,400	22,700	2,000	16,900	10,500	6,000
Hispanic	47,700	28,200	2,000	25,800	12,000	8,800
Asian	149,700	107,000	6,700	55,200	47,500	24,300
Other	4,200	2,300	100	1,900	1,600	1,200
Non-S&E occupations, total	7,216,200	1,031,000	1,173,500	4,918,800	935,900	2,924,400
White	6,085,600	851,500	981,000	4,205,000	749,800	2,484,400
Black	442,600	65,400	91,700	283,000	68,200	171,400
Hispanic	268,000	39,800	49,600	165,700	37,400	114,900
Asian	395,800	70,000	46,000	250,900	77,100	143,500
Other	24,100	4,300	5,100	14,200	3,300	10,200
Managers/administrators	2,019,900	282,500	53,900	1,894,700	223,200	391,100
White	1,735,100	243,200	43,000	1,633,000	185,100	331,800
Black	112,900	13,700	6,200	103,400	13,700	26,800
Hispanic	64,000	7,200	2,700	58,700	8,700	15,000
Asian	102,500	17,400	1,900	94,800	15,400	16,700
Other	5,400	1,000	200	4,800	300	900
Other non-S&E occupations	5,196,300	748,600	1,119,500	3,024,100	712,700	2,533,300
White	4,350,500	608,300	938,000	2,572,000	564,800	2,152,600
Black	329,700	51,800	85,600	179,600	54,500	144,600
Hispanic	204,000	32,600	47,000	107,000	28,800	99,900
Asian	293,400	52,500	44,100	156,100	61,700	126,900
Other	18,700	3,300	4,900	9,300	3,000	9,300
Bachelor's						
All occupations, total²	6,193,700	1,624,300	669,600	3,947,600	1,492,000	1,759,300
White	5,212,700	1,368,700	552,200	3,370,600	1,222,700	1,471,400
Black	345,000	77,000	52,600	210,400	85,500	107,800
Hispanic	237,700	57,300	33,500	143,400	55,000	76,300
Asian	374,900	114,900	27,900	210,200	123,300	95,600
Other	23,400	6,400	3,400	13,000	5,400	8,100
S&E occupations, total	1,916,800	1,020,700	98,000	894,300	817,600	327,000
White	1,631,800	869,600	83,100	772,800	682,000	283,600
Black	72,600	35,800	4,900	31,500	36,000	11,600
Hispanic	62,200	32,500	3,000	29,300	25,200	10,600
Asian	143,200	78,900	6,500	57,800	71,700	19,600
Other	7,000	3,900	500	2,800	2,600	1,700
Scientists, total	1,000,200	452,000	79,100	405,000	610,400	134,300
White	846,300	382,400	67,700	345,500	514,800	115,800
Black	46,200	18,800	3,600	19,000	27,800	6,700
Hispanic	29,400	13,900	2,300	10,300	17,000	4,700
Asian	74,200	34,600	5,000	28,600	49,300	6,300
Other	4,000	2,200	500	1,600	1,400	900

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

Table E-8. Employed U.S. scientists and engineers, by highest degree attained, occupation, race/ethnicity, and primary/secondary work activity : 1997

Highest degree, occupation, and race/ethnicity	Employed S&Es, total	Primary/secondary work activity				
		Research and development	Teaching	Management, sales, admin	Computer applications	Professional services/ other
Bachelor's — continued						
Computer/math scientists, total	675,300	257,100	35,100	276,500	562,100	48,000
White	566,600	216,400	30,400	232,900	472,200	40,000
Black	33,100	12,200	1,500	13,800	26,200	2,800
Hispanic	18,100	6,100	700	6,800	15,900	1,500
Asian	55,800	21,300	2,400	22,600	46,600	3,700
Other	1,700	1,100	100	500	1,100	100
Life/related scientists, total	125,200	78,300	17,800	50,900	15,800	30,400
White	110,000	66,700	16,100	46,800	14,100	28,000
Black	3,000	2,000	S	1,100	500	400
Hispanic	3,300	2,300	600	1,000	200	600
Asian	8,000	6,800	1,000	1,500	1,000	1,300
Other	900	500	100	500	100	200
Physical/related scientists, total ...	131,700	86,600	11,800	53,000	24,400	28,200
White	114,000	74,400	10,100	45,500	21,500	25,200
Black	5,500	3,600	400	2,700	800	900
Hispanic	3,900	3,000	300	1,400	300	900
Asian	7,900	5,300	800	3,400	1,600	1,200
Other	400	300	100	100	100	100
Social/related scientists, total	68,000	30,000	14,400	24,700	8,100	27,700
White	55,800	24,900	11,000	20,300	7,100	22,700
Black	4,600	1,100	1,700	1,500	300	2,600
Hispanic	4,200	2,500	700	1,300	500	1,700
Asian	2,500	1,200	900	1,000	100	300
Other	900	300	200	500	100	500
Engineers, total	916,600	568,700	18,900	489,200	207,200	192,600
White	785,600	487,200	15,400	427,300	167,200	167,800
Black	26,300	16,900	1,300	12,500	8,200	4,900
Hispanic	32,800	18,600	700	18,900	8,200	5,900
Asian	68,900	44,400	1,500	29,300	22,300	13,200
Other	3,000	1,700	S	1,300	1,200	900
Non-S&E occupations, total	4,276,900	603,600	571,500	3,053,300	674,500	1,432,300
White	3,580,900	499,200	469,100	2,597,800	540,700	1,187,900
Black	272,400	41,200	47,700	178,800	49,500	96,300
Hispanic	175,500	24,700	30,500	114,200	29,800	65,700
Asian	231,700	36,000	21,400	152,300	51,700	76,100
Other	16,400	2,500	2,900	10,200	2,800	6,400
Managers/administrators	1,141,100	139,900	25,700	1,074,800	139,800	199,200
White	990,500	122,600	20,600	935,600	115,900	168,800
Black	58,500	6,500	2,700	53,900	9,100	12,600
Hispanic	38,900	3,200	1,600	35,900	6,100	9,100
Asian	49,800	7,200	700	46,200	8,500	8,300
Other	3,400	400	S	3,200	200	400

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

Table E-8. Employed U.S. scientists and engineers, by highest degree attained, occupation, race/ethnicity, and primary/secondary work activity : 1997

Highest degree, occupation, and race/ethnicity	Employed S&Es, total	Primary/secondary work activity				
		Research and development	Teaching	Management, sales, admin	Computer applications	Professional services/ other
Bachelor's — continued						
Other non-S&E occupations	3,135,800	463,600	545,900	1,978,600	534,600	1,233,100
White	2,590,300	376,600	448,400	1,662,300	424,800	1,019,000
Black	213,900	34,700	45,000	124,900	40,400	83,700
Hispanic	136,700	21,500	28,900	78,200	23,700	56,700
Asian	181,900	28,800	20,600	106,100	43,100	67,800
Other	13,000	2,100	2,900	7,000	2,600	6,000
Master's						
All occupations, total²	2,819,800	779,500	545,300	1,656,600	572,100	877,300
White	2,330,500	619,300	465,600	1,394,500	434,700	751,500
Black	151,300	32,500	40,900	87,500	26,800	48,200
Hispanic	88,100	23,200	18,300	50,300	15,500	30,700
Asian	242,000	101,900	18,100	120,400	93,800	44,300
Other	7,900	2,500	2,300	3,900	1,200	2,500
S&E occupations, total	967,900	506,100	116,800	402,800	348,000	229,900
White	770,200	393,900	98,900	329,600	256,300	197,500
Black	30,000	14,600	5,000	12,800	10,500	6,700
Hispanic	29,300	13,900	4,500	13,100	8,600	8,300
Asian	135,800	82,500	7,400	46,000	71,800	16,800
Other	2,700	1,300	900	1,200	700	700
Scientists, total	592,000	251,200	104,600	219,300	258,900	157,100
White	475,100	194,900	89,200	178,800	192,900	137,700
Black	21,900	9,700	4,800	8,700	8,400	5,700
Hispanic	16,000	5,700	3,800	6,600	5,200	5,600
Asian	77,400	40,100	5,900	24,600	52,100	7,700
Other	1,700	800	900	600	300	400
Computer/math scientists, total	301,600	125,000	36,800	117,900	222,800	25,700
White	226,400	91,700	30,200	92,000	162,500	20,300
Black	10,300	4,100	1,700	4,300	7,000	900
Hispanic	6,300	2,100	1,300	2,900	4,300	700
Asian	57,900	26,700	3,300	18,700	48,700	3,900
Other	600	400	300	100	300	S
Life/related scientists, total	70,300	45,800	19,700	24,800	9,500	11,100
White	59,400	37,100	17,900	21,800	8,200	10,500
Black	2,500	2,000	700	800	200	100
Hispanic	1,400	1,000	500	500	S	100
Asian	6,700	5,600	500	1,600	1,000	600
Other	200	100	100	100	S	S
Physical/related scientists, total ...	69,100	40,900	10,700	28,800	13,400	17,300
White	57,700	33,300	9,400	24,100	11,100	14,700
Black	1,500	1,000	100	700	500	500
Hispanic	1,600	1,000	100	900	100	400
Asian	7,900	5,500	700	2,800	1,700	1,500
Other	500	100	300	300	S	100

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

Table E-8. Employed U.S. scientists and engineers, by highest degree attained, occupation, race/ethnicity, and primary/secondary work activity : 1997

Highest degree, occupation, and race/ethnicity	Employed S&Es, total	Primary/secondary work activity				
		Research and development	Teaching	Management, sales, admin	Computer applications	Professional services/ other
Master's — continued						
Social/related scientists, total	151,100	39,400	37,400	47,800	13,300	103,000
White	131,600	32,900	31,700	40,900	11,100	92,200
Black	7,500	2,500	2,300	3,000	600	4,300
Hispanic	6,600	1,500	1,800	2,200	700	4,500
Asian	4,800	2,400	1,400	1,600	800	1,700
Other	400	100	200	100	S	300
Engineers, total	375,900	254,900	12,200	183,500	89,000	72,800
White	295,100	199,000	9,700	150,800	63,400	59,800
Black	8,100	4,900	200	4,100	2,100	1,000
Hispanic	13,300	8,200	800	6,500	3,400	2,700
Asian	58,400	42,300	1,500	21,300	19,700	9,100
Other	1,000	500	S	600	400	200
Non-S&E occupations, total	1,851,900	273,300	428,500	1,253,800	224,100	647,400
White	1,560,300	225,400	366,700	1,064,800	178,300	554,000
Black	121,400	17,900	35,900	74,700	16,300	41,500
Hispanic	58,900	9,400	13,700	37,100	6,900	22,400
Asian	106,200	19,400	10,700	74,500	22,000	27,600
Other	5,200	1,300	1,400	2,700	500	1,800
Managers/administrators	724,800	105,000	19,500	678,000	75,300	153,900
White	613,900	88,800	14,900	576,900	62,000	131,200
Black	44,700	6,100	3,000	40,300	4,300	10,900
Hispanic	21,600	3,300	900	19,400	2,500	5,100
Asian	43,000	6,200	500	40,200	6,300	6,400
Other	1,700	600	200	1,200	100	300
Other non-S&E occupations	1,127,100	168,300	408,900	575,800	148,800	493,500
White	946,400	136,600	351,800	487,900	116,300	422,800
Black	76,600	11,700	32,900	34,400	12,000	30,600
Hispanic	37,300	6,100	12,800	17,700	4,400	17,400
Asian	63,200	13,200	10,200	34,300	15,700	21,200
Other	3,500	700	1,200	1,400	400	1,500
Doctorate						
All occupations, total ²	696,000	417,600	234,800	261,500	76,100	172,000
White	562,200	326,800	195,900	220,700	55,800	146,100
Black	21,300	9,600	8,700	9,300	1,700	6,000
Hispanic	19,100	11,100	6,500	6,400	1,400	5,700
Asian	91,100	68,900	22,700	24,400	16,900	13,400
Other	2,200	1,100	1,000	800	200	700
S&E occupations, total	454,700	333,200	165,100	115,500	59,400	91,400
White	363,600	258,100	139,100	97,100	42,500	79,900
Black	9,600	6,600	4,500	1,900	800	3,000
Hispanic	10,700	8,300	4,800	2,400	1,100	2,100
Asian	69,200	59,400	16,100	13,600	14,800	5,900
Other	1,600	900	600	500	200	600

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Table E-8. Employed U.S. scientists and engineers, by highest degree attained, occupation, race/ethnicity, and primary/secondary work activity : 1997

Highest degree, occupation, and race/ethnicity	Employed S&Es, total	Primary/secondary work activity				
		Research and development	Teaching	Management, sales, admin	Computer applications	Professional services/ other
Doctorate — continued						
Scientists, total	375,300	265,200	145,800	95,800	44,800	82,700
White	309,100	212,600	124,600	82,500	33,900	73,400
Black	8,600	5,700	4,000	1,700	700	2,900
Hispanic	9,300	7,000	4,200	2,100	800	1,900
Asian	46,900	39,100	12,300	9,100	9,300	4,000
Other	1,400	800	600	500	200	500
Computer/math scientists, total	59,000	40,300	25,200	11,000	24,800	4,800
White	43,800	29,600	19,600	8,800	17,300	3,700
Black	1,100	700	500	100	200	400
Hispanic	1,600	1,200	800	500	500	S
Asian	12,300	8,600	4,200	1,700	6,700	700
Other	200	200	100	S	100	S
Life/related scientists, total	111,800	95,300	36,800	31,800	6,900	12,700
White	90,700	76,100	32,300	26,900	5,600	11,100
Black	1,800	1,500	800	400	100	200
Hispanic	2,600	2,300	1,000	600	100	300
Asian	16,500	15,300	2,700	3,800	1,100	1,000
Other	300	200	100	100	S	100
Physical/related scientists, total ...	83,700	70,200	27,300	18,800	8,900	8,000
White	68,200	56,600	24,100	15,500	7,400	6,500
Black	1,400	1,100	400	300	100	200
Hispanic	1,700	1,500	600	300	100	200
Asian	12,100	10,900	2,100	2,500	1,100	1,000
Other	200	200	100	100	S	S
Social/related scientists, total	120,800	59,300	56,500	34,200	4,200	57,200
White	106,400	50,300	48,700	31,300	3,600	52,000
Black	4,400	2,400	2,200	900	200	2,200
Hispanic	3,300	2,000	1,900	700	100	1,400
Asian	5,900	4,300	3,400	1,100	400	1,200
Other	700	200	300	200	S	400
Engineers, total	79,400	68,000	19,400	19,700	14,600	8,700
White	54,500	45,500	14,500	14,600	8,600	6,500
Black	1,100	900	500	200	200	100
Hispanic	1,500	1,300	600	300	300	100
Asian	22,300	20,300	3,700	4,500	5,500	2,000
Other	100	100	S	S	S	100
Non-S&E occupations, total	241,300	84,400	69,700	146,000	16,700	80,500
White	198,700	68,700	56,800	123,600	13,300	66,200
Black	11,700	3,000	4,200	7,400	900	2,900
Hispanic	8,400	2,900	1,700	4,000	300	3,700
Asian	21,900	9,500	6,600	10,800	2,100	7,500
Other	700	300	400	300	S	200

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

Table E-8. Employed U.S. scientists and engineers, by highest degree attained, occupation, race/ethnicity, and primary/secondary work activity : 1997

Highest degree, occupation, and race/ethnicity	Employed S&Es, total	Primary/secondary work activity				
		Research and development	Teaching	Management, sales, admin	Computer applications	Professional services/ other
Doctorate — continued						
Managers/administrators	102,400	33,600	7,700	94,200	4,600	18,800
White	85,700	27,900	6,500	79,200	3,800	15,600
Black	5,200	1,000	400	4,800	200	800
Hispanic	2,400	600	100	2,200	100	600
Asian	8,800	4,100	700	7,700	500	1,800
Other	200	S	S	200	S	S
Other non-S&E occupations	138,900	50,800	62,000	51,800	12,000	61,700
White	112,900	40,800	50,300	44,400	9,500	50,600
Black	6,500	2,000	3,800	2,500	700	2,100
Hispanic	6,000	2,300	1,700	1,900	300	3,100
Asian	13,100	5,500	5,900	3,000	1,700	5,700
Other	400	200	400	S	S	100

- 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)