

Table A-3. Educational attainment of employed U.S. scientists and engineers, by level and field of highest degree and broad occupation category: 1999

Level and field of highest degree	All occupations, total		Occupation					
	Number	Percent	Computer/ math scientists	Life/ related scientists	Physical/ related scientists	Social/ related scientists	Engineers	Non-S&E occupa- tions
			Percent					
All degree levels, total¹								
All degree fields, total	10,981,600	100.0%	10.6%	3.1%	2.7%	3.3%	12.5%	67.8%
S&E degree fields, total	7,980,100	100.0	11.5	3.7	3.6	3.7	15.1	62.4
Sciences, total	6,043,700	100.0	11.8	4.9	4.5	4.9	2.2	71.9
Computer/math sciences, total	1,045,800	100.0	47.5	0.1	0.4	0.2	3.1	48.6
Computer/information sciences	586,500	100.0	60.1	0.1	0.1	S	2.5	37.1
Mathematical sciences	459,300	100.0	31.4	0.2	0.8	0.5	3.8	63.3
Life/related sciences, total	1,287,700	100.0	2.8	20.1	3.2	0.3	1.6	71.9
Agricultural/food sciences	230,400	100.0	2.6	18.0	1.4	0.3	0.9	76.9
Biological sciences	955,300	100.0	2.7	21.3	3.2	0.3	1.2	71.4
Environmental life sciences	102,100	100.0	4.1	13.7	7.9	1.2	7.0	66.0
Physical/related sciences, total	621,700	100.0	7.5	3.4	34.4	0.4	9.5	44.8
Chemistry, except biochemistry	276,200	100.0	4.0	5.6	39.2	0.2	5.5	45.5
Earth science, geology and oceanography	152,800	100.0	4.9	1.4	42.0	0.3	7.2	44.1
Physics/astronomy	144,000	100.0	18.5	1.4	26.6	0.2	19.1	34.1
Other physical sciences	48,800	100.0	3.0	2.7	6.1	1.8	11.4	75.0
Social/related sciences, total	3,088,400	100.0	4.3	0.4	0.3	9.2	0.6	85.2
Economics	406,500	100.0	6.8	0.6	0.5	8.0	0.7	83.3
Political/related sciences	567,000	100.0	4.8	0.3	0.2	4.4	0.7	89.6
Psychology	1,166,100	100.0	3.8	0.5	0.1	15.4	0.6	79.6
Sociology/anthropology	592,700	100.0	2.1	0.3	0.1	6.0	0.2	91.3
Other social sciences	356,100	100.0	6.1	0.3	1.3	3.4	0.5	88.3
Engineering, total	1,936,400	100.0	10.6	0.3	0.8	0.1	55.4	32.7
Aerospace/related engineering	76,300	100.0	9.2	S	0.6	0.3	45.1	44.7
Chemical engineering	147,700	100.0	4.8	0.8	2.2	0.3	60.5	31.4
Civil/architectural engineering	330,200	100.0	2.6	S	0.5	0.1	63.1	33.6
Electrical/related engineering	587,000	100.0	22.0	0.1	0.3	0.1	51.1	26.3
Industrial engineering	106,200	100.0	11.4	0.1	S	S	37.5	51.0
Mechanical engineering	386,000	100.0	5.2	S	0.3	0.1	63.2	31.1
Other engineering	303,000	100.0	7.1	0.9	2.6	0.2	51.9	37.3
Non-S&E degrees, total	3,001,500	100.0	8.3	1.4	0.4	2.2	5.6	82.1
Business/management	728,700	100.0	17.5	0.7	0.6	1.0	10.9	69.3
Education	452,900	100.0	6.8	1.0	0.4	3.5	1.3	87.0
Health	618,100	100.0	0.8	3.5	0.4	0.7	0.5	94.1
Other non-S&E	1,201,800	100.0	7.0	1.0	0.3	3.3	6.6	81.8

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

Table A-3. Educational attainment of employed U.S. scientists and engineers, by level and field of highest degree and broad occupation category: 1999

Level and field of highest degree	All occupations, total		Occupation					
	Number	Percent	Computer/ math scientists	Life/ related scientists	Physical/ related scientists	Social/ related scientists	Engineers	Non-S&E occupa- tions
			Percent					
Bachelor's, total								
All degree fields, total	6,350,100	100.0%	11.7%	2.1%	2.2%	1.1%	14.3%	68.6%
S&E degree fields, total	5,866,100	100.0	10.4	2.1	2.3	1.2	14.2	69.8
Sciences, total	4,486,100	100.0	10.8	2.7	2.9	1.5	2.0	80.1
Computer/math sciences, total	742,700	100.0	43.2	0.1	0.4	0.2	2.7	53.5
Computer/information sciences	413,500	100.0	58.5	S	0.1	S	2.1	39.3
Mathematical sciences	329,200	100.0	23.9	0.1	0.8	0.4	3.4	71.4
Life/related sciences, total	947,000	100.0	2.9	10.9	2.9	0.2	1.7	81.4
Agricultural/food sciences	182,300	100.0	2.6	10.5	0.8	0.2	0.9	85.0
Biological sciences	686,000	100.0	2.8	11.0	3.2	0.1	1.4	81.4
Environmental life sciences	78,700	100.0	4.4	10.2	5.4	1.2	6.1	72.8
Physical/related sciences, total	380,900	100.0	7.3	2.4	24.3	0.3	10.5	55.3
Chemistry, except biochemistry	175,100	100.0	4.6	4.1	30.2	0.3	6.2	54.5
Earth science, geology and oceanography	101,800	100.0	4.6	0.9	30.8	0.2	8.4	55.2
Physics/astronomy	66,900	100.0	21.4	1.3	10.4	S	24.0	42.8
Other physical sciences	37,000	100.0	2.0	0.6	3.1	1.0	11.9	81.5
Social/related sciences, total	2,415,500	100.0	4.5	0.3	0.3	2.6	0.6	91.8
Economics	340,300	100.0	6.7	0.5	0.5	2.5	0.9	88.9
Political/related sciences	482,900	100.0	4.9	0.3	0.1	1.2	0.7	92.7
Psychology	794,500	100.0	4.2	0.4	0.1	4.1	0.7	90.5
Sociology/anthropology	525,200	100.0	2.1	0.2	0.1	2.1	0.2	95.2
Other social sciences	272,600	100.0	5.9	0.3	0.8	1.4	0.4	91.1
Engineering, total	1,380,000	100.0	9.3	0.2	0.6	0.1	53.8	36.0
Aerospace/related engineering	53,600	100.0	9.1	S	0.5	0.4	41.7	48.3
Chemical engineering	112,000	100.0	4.7	0.6	2.3	0.4	58.5	33.5
Civil/architectural engineering	247,000	100.0	2.1	S	0.2	S	62.1	35.5
Electrical/related engineering	407,400	100.0	20.7	0.1	0.2	S	50.0	28.8
Industrial engineering	79,500	100.0	8.8	S	S	0.1	33.9	57.2
Mechanical engineering	304,200	100.0	4.2	S	0.2	0.1	62.5	33.0
Other engineering	176,300	100.0	4.9	0.6	1.6	0.2	45.8	46.9
Non-S&E degrees, total	484,000	100.0	26.6	2.6	0.5	0.7	15.3	54.3
Business/management	153,200	100.0	37.4	2.8	0.1	0.5	8.2	50.9
Education	45,200	100.0	26.0	1.1	2.1	S	7.7	63.2
Health	59,100	100.0	4.5	4.9	0.8	0.4	2.6	86.7
Other non-S&E	226,500	100.0	25.2	2.1	0.4	1.1	24.8	46.4

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

Table A-3. Educational attainment of employed U.S. scientists and engineers, by level and field of highest degree and broad occupation category: 1999

Level and field of highest degree	All occupations, total		Occupation					
	Number	Percent	Computer/ math scientists	Life/ related scientists	Physical/ related scientists	Social/ related scientists	Engineers	Non-S&E occupa- tions
			Percent					
Master's, total								
All degree fields, total	2,982,000	100.0%	11.9%	2.4%	2.4%	5.2%	12.6%	65.4%
S&E degree fields, total	1,491,200	100.0	16.7	3.8	4.3	7.4	19.3	48.6
Sciences, total	1,040,400	100.0	17.5	5.4	5.6	10.4	2.6	58.5
Computer/math sciences, total	262,600	100.0	55.4	0.1	0.4	0.4	4.2	39.5
Computer/information sciences	160,900	100.0	63.5	0.1	0.1	0.1	3.5	32.7
Mathematical sciences	101,700	100.0	42.6	S	0.8	0.8	5.3	50.4
Life/related sciences, total	164,100	100.0	2.4	30.7	5.2	0.4	2.0	59.4
Agricultural/food sciences	30,100	100.0	2.4	33.1	3.5	S	1.2	59.8
Biological sciences	116,200	100.0	2.3	31.7	3.7	0.3	1.0	60.9
Environmental life sciences	17,900	100.0	3.3	20.2	17.4	1.1	9.3	48.8
Physical/related sciences, total	113,900	100.0	9.4	3.7	40.6	0.7	9.4	36.2
Chemistry, except biochemistry	37,400	100.0	3.1	6.6	47.6	S	3.7	38.9
Earth science, geology and oceanography	34,200	100.0	6.5	2.4	57.8	0.8	6.3	26.3
Physics/astronomy	32,500	100.0	20.5	0.4	23.8	S	19.8	35.6
Other physical sciences	9,800	100.0	6.9	7.7	10.1	5.2	7.6	62.4
Social/related sciences, total	499,800	100.0	4.3	0.3	0.5	21.3	0.4	73.2
Economics	43,700	100.0	9.4	1.2	0.4	18.0	0.2	70.7
Political/related sciences	67,400	100.0	4.7	S	0.6	13.3	0.6	80.7
Psychology	276,100	100.0	3.2	0.3	0.2	27.7	0.4	68.3
Sociology/anthropology	44,400	100.0	2.4	0.5	S	21.2	S	75.9
Other social sciences	68,100	100.0	6.3	0.2	2.4	5.1	0.7	85.3
Engineering, total	450,800	100.0	14.8	0.2	1.2	0.2	57.7	25.9
Aerospace/related engineering	17,800	100.0	9.6	S	0.5	0.2	47.9	41.9
Chemical engineering	22,000	100.0	5.4	0.6	1.4	S	66.1	26.6
Civil/architectural engineering	73,300	100.0	4.3	0.1	1.1	0.5	64.1	29.9
Electrical/related engineering	151,300	100.0	26.3	S	0.3	0.3	52.4	20.8
Industrial engineering	23,500	100.0	19.5	0.3	S	S	48.0	32.2
Mechanical engineering	68,300	100.0	9.5	S	0.5	S	64.0	26.0
Other engineering	94,600	100.0	10.3	0.8	3.7	0.1	59.1	26.0
Non-S&E degrees, total	1,490,800	100.0	7.1	1.0	0.6	3.1	6.0	82.2
Business/management	558,600	100.0	12.5	0.1	0.8	0.8	11.9	73.9
Education	355,000	100.0	4.0	0.8	0.1	3.2	0.7	91.2
Health	113,600	100.0	2.0	5.9	1.5	2.7	1.2	86.7
Other non-S&E	463,600	100.0	4.2	1.1	0.5	5.9	4.1	84.1

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Level and field of highest degree	All occupations, total		Occupation					
	Number	Percent	Computer/ math scientists	Life/ related scientists	Physical/ related scientists	Social/ related scientists	Engineers	Non-S&E occupa- tions
			Percent					
Doctorate, total								
All degree fields, total	736,700	100.0%	9.1%	16.4%	11.5%	17.2%	11.4%	34.3%
S&E degree fields, total	614,600	100.0	9.6	19.2	13.7	18.8	13.4	25.2
Sciences, total	509,000	100.0	9.4	22.9	16.0	22.6	2.3	26.7
Computer/math sciences, total	40,600	100.0	76.4	0.9	0.8	0.4	3.5	17.9
Computer/information sciences	12,100	100.0	72.4	0.3	0.1	0.4	4.7	22.1
Mathematical sciences	28,500	100.0	78.1	1.2	1.1	0.5	2.9	16.2
Life/related sciences, total	176,200	100.0	2.3	60.0	3.0	1.0	0.7	33.0
Agricultural/food sciences	18,100	100.0	2.1	68.8	3.9	1.8	0.7	22.6
Biological sciences	153,100	100.0	2.3	59.4	2.5	0.8	0.5	34.4
Environmental life sciences	5,000	100.0	3.0	46.6	14.3	3.3	7.1	25.7
Physical/related sciences, total	125,900	100.0	6.4	6.1	59.2	0.3	6.9	21.0
Chemistry, except biochemistry	63,600	100.0	2.9	9.3	58.7	0.2	4.6	24.3
Earth science, geology and oceanography	16,500	100.0	4.1	2.3	77.5	S	2.4	13.6
Physics/astronomy	43,800	100.0	12.6	2.4	53.9	0.5	11.4	19.1
Other physical sciences	1,900	100.0	3.6	18.4	41.3	S	21.0	15.8
Social/related sciences, total	166,400	100.0	2.8	1.7	0.6	67.9	0.4	26.5
Economics	22,500	100.0	2.8	1.6	0.2	71.1	0.1	24.1
Political/related sciences	16,700	100.0	2.3	0.1	0.5	61.5	0.3	35.4
Psychology	88,800	100.0	2.1	2.2	0.1	75.6	0.4	19.7
Sociology/anthropology	23,100	100.0	2.4	0.9	0.5	63.6	0.3	32.3
Other social sciences	15,300	100.0	8.5	2.1	4.6	32.1	1.1	51.6
Engineering, total	105,600	100.0	10.7	1.5	3.0	0.2	66.4	18.2
Aerospace/related engineering	4,900	100.0	9.4	0.2	2.7	S	72.7	14.9
Chemical engineering	13,600	100.0	4.8	2.6	2.4	S	68.5	21.7
Civil/architectural engineering	9,900	100.0	3.9	0.1	1.8	0.1	80.4	13.8
Electrical/related engineering	28,300	100.0	18.1	0.2	2.1	0.2	60.4	18.9
Industrial engineering	3,300	100.0	16.1	1.7	S	S	47.8	34.4
Mechanical engineering	13,500	100.0	7.5	0.7	1.5	S	75.2	15.1
Other engineering	32,100	100.0	9.7	3.2	5.3	0.4	63.8	17.6
Non-S&E degrees, total	122,100	100.0	6.4	2.3	0.4	9.4	1.7	79.8
Business/management	12,600	100.0	2.6	S	S	15.3	1.6	80.5
Education	45,700	100.0	10.4	2.9	1.1	10.4	S	75.2
Health	S	S	S	S	S	S	S	S
Other non-S&E	63,800	100.0	4.4	2.3	S	7.5	2.9	82.9

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)