

TABLE 40. Employed doctoral scientists and engineers, by occupation and primary or secondary work activity: 2003

Occupation	Research and development						Computer applications	Management, sales, administration	Professional services	Teaching	Other
	Total	Any R&D	Applied research	Basic research	Design	Development					
			Number								
All occupations	593,300	371,830	194,380	141,240	38,060	86,330	56,280	241,190	95,630	183,650	35,700
Science occupations	352,960	242,370	125,710	118,440	15,460	40,770	36,950	112,750	55,730	128,330	18,390
Biological, agricultural, and other life scientist	104,650	87,700	45,510	51,940	2,420	12,270	4,250	40,250	6,050	28,670	5,370
Agricultural/food scientist	8,200	7,000	5,510	1,910	260	2,240	540	3,510	520	370	800
Biochemist/biophysicist	13,920	13,380	6,500	8,500	460	2,810	750	6,200	240	240	550
Biological scientist	18,390	16,780	9,390	10,590	490	1,770	960	8,340	940	580	910
Forestry/conservation scientist	1,390	1,220	1,040	280	150	230	90	580	110	S	180
Medical scientist	28,860	26,270	15,940	14,190	830	4,180	1,340	12,800	2,830	1,040	1,630
Postsecondary teacher, agricultural/other natural sciences	4,410	3,230	2,540	740	S	60	S	920	210	3,980	120
Postsecondary teacher, biological sciences	24,280	15,390	2,240	13,000	100	260	190	5,690	560	22,380	900
Other biological/agricultural/life scientist	5,200	4,440	2,340	2,720	130	720	330	2,220	650	90	290
Computer and information scientist	34,410	21,250	9,080	4,110	4,920	7,090	20,010	8,730	580	7,450	1,530
Computer/information scientist	26,770	16,680	6,930	1,610	4,910	6,990	18,650	7,550	530	500	1,170
Postsecondary teacher, computer science	7,640	4,570	2,150	2,500	S	100	1,360	1,180	60	6,950	350
Mathematical scientist	22,460	16,090	7,600	8,040	1,260	1,630	3,500	4,640	800	13,520	840
Mathematical scientist	8,830	7,570	5,660	1,550	1,210	1,450	3,190	2,450	480	470	260
Postsecondary teacher, mathematics/statistics	13,640	8,520	1,940	6,490	S	180	310	2,190	320	13,040	580
Physical scientist	73,730	59,040	31,050	27,690	5,410	15,120	6,920	20,630	1,920	25,090	5,550
Chemist, except biochemist	23,700	20,860	15,310	4,810	1,530	9,930	1,120	9,080	520	410	2,440
Earth/atmospheric/ocean scientist	9,010	8,090	4,970	4,210	750	1,200	2,150	2,530	360	250	630
Physicist/astronomer	13,650	12,450	6,600	5,190	2,730	3,230	2,810	3,460	400	420	860
Postsecondary teacher, chemistry	11,400	6,390	1,060	5,250	90	90	200	2,630	190	10,930	690
Postsecondary teacher, physics	7,810	5,100	540	4,420	110	120	390	1,060	190	7,410	490
Postsecondary teacher, other physical sciences	6,020	4,520	1,320	3,180	S	S	210	1,070	S	5,620	130
Other physical scientist	2,130	1,630	1,250	640	190	500	S	810	210	70	320
Psychologist	67,110	21,690	12,560	8,970	630	2,120	910	25,100	42,820	20,970	2,190
Psychologist	49,600	11,300	8,390	2,760	610	1,820	770	22,120	40,740	4,440	1,630
Postsecondary teacher, psychology	17,510	10,390	4,170	6,200	S	290	140	2,980	2,070	16,530	550
Social scientist	50,590	36,600	19,920	17,690	820	2,540	1,370	13,390	3,560	32,630	2,910
Economist	7,720	6,210	5,210	1,650	490	880	640	3,140	1,350	360	430
Political scientist	1,450	980	800	290	S	60	S	700	290	180	160
Postsecondary teacher, economics	8,410	6,130	3,520	2,700	S	80	S	1,160	210	7,920	350
Postsecondary teacher, political science	8,470	5,510	1,370	3,990	S	200	90	1,470	180	8,090	540
Postsecondary teacher, sociology	7,140	4,920	1,380	3,500	S	150	S	1,200	140	6,910	300
Postsecondary teacher, other social sciences	9,010	5,950	2,100	3,690	S	200	70	1,530	250	8,700	530
Sociologist/anthropologist	4,130	3,480	2,600	1,400	90	250	180	1,990	530	360	240
Other social scientist	4,280	3,410	2,940	470	180	730	300	2,200	610	120	360
Engineering occupations	77,000	65,250	35,740	8,330	16,830	28,770	10,770	22,480	2,890	16,960	4,720

TABLE 40. Employed doctoral scientists and engineers, by occupation and primary or secondary work activity: 2003

Occupation	Total	Research and development					Computer applications	Management, sales, administration	Professional services	Teaching	Other
		Any R&D	Applied research	Basic research	Design	Development					
Aerospace/aeronautical/astronautical engineer	4,050	3,650	1,980	350	1,190	1,770	1,140	1,070	110	60	200
Chemical engineer	7,010	6,460	3,580	470	1,900	3,880	780	2,040	260	50	600
Civil/architectural/sanitary engineer	3,780	2,790	1,250	150	1,260	760	720	1,870	540	100	200
Electrical engineer	16,550	15,280	6,870	980	5,240	9,360	3,460	4,600	200	100	1,090
Materials/metallurgical engineer	1,340	930	550	S	390	300	210	660	80	S	300
Mechanical engineer	8,570	7,920	3,600	810	2,750	4,580	1,420	2,440	330	220	290
Postsecondary teacher, engineering	17,380	12,640	8,570	3,730	370	460	740	3,140	140	16,190	420
Other engineer	18,330	15,570	9,340	1,850	3,740	7,650	2,290	6,670	1,230	240	1,630
Science and engineering-related occupations	64,650	31,780	16,630	8,460	2,460	6,620	3,630	34,190	19,060	21,380	3,030
Health-related occupation, except postsecondary teacher	17,050	5,370	3,450	1,500	350	890	230	6,180	13,290	2,780	830
Postsecondary teacher, health and related sciences	17,330	10,620	5,820	5,000	70	230	300	3,660	2,930	15,140	540
S&E manager	23,060	12,850	6,280	1,380	1,270	4,240	1,040	22,480	2,580	140	1,070
S&E precollege teacher	3,240	340	100	150	S	60	90	800	50	3,200	180
S&E technician/technologist	3,560	2,370	890	400	620	1,120	1,930	880	100	120	310
Other S&E-related occupation	410	240	110	S	110	80	50	190	110	S	100
Non-science and engineering occupations	98,700	32,430	16,290	6,000	3,300	10,160	4,920	71,760	17,950	16,970	9,570
Arts/humanities-related occupation	5,210	1,710	900	380	230	640	320	1,940	2,830	250	660
Management-related occupation	15,120	4,940	1,870	400	1,340	1,980	1,720	11,620	3,530	670	1,540
Non-S&E manager	44,320	14,610	7,410	1,970	1,270	5,340	1,540	41,330	3,100	1,630	3,320
Non-S&E postsecondary teacher	11,860	7,040	4,010	2,890	S	600	200	2,750	480	10,780	680
Non-S&E precollege/other teacher	2,400	450	140	70	100	150	60	690	460	2,040	160
Sales/marketing occupation	7,810	1,840	1,070	70	110	810	620	6,870	1,060	270	490
Social service-related occupation	3,390	490	270	70	S	190	S	1,720	2,300	840	430
Other non-S&E occupation	8,130	1,220	520	110	220	440	370	4,610	4,050	440	2,120
							Percent				
All occupations	100.0	62.7	32.8	23.8	6.4	14.6	9.5	40.7	16.1	31.0	6.0
Science occupations	100.0	68.7	35.6	33.6	4.4	11.6	10.5	31.9	15.8	36.4	5.2
Biological, agricultural, and other life scientist	100.0	83.8	43.5	49.6	2.3	11.7	4.1	38.5	5.8	27.4	5.1
Agricultural/food scientist	100.0	85.3	67.1	23.3	3.2	27.3	6.6	42.8	6.4	4.5	9.7
Biochemist/biophysicist	100.0	96.1	46.7	61.1	3.3	20.2	5.4	44.5	1.7	1.7	4.0
Biological scientist	100.0	91.2	51.0	57.6	2.7	9.6	5.2	45.3	5.1	3.1	5.0
Forestry/conservation scientist	100.0	88.0	75.3	20.1	10.6	16.2	6.3	41.6	7.9	S	12.7
Medical scientist	100.0	91.0	55.2	49.2	2.9	14.5	4.7	44.4	9.8	3.6	5.6
Postsecondary teacher, agricultural/other natural sciences	100.0	73.2	57.7	16.9	S	1.4	S	20.8	4.7	90.1	2.7
Postsecondary teacher, biological sciences	100.0	63.4	9.2	53.5	0.4	1.1	0.8	23.4	2.3	92.2	3.7
Other biological/agricultural/life scientist	100.0	85.3	45.1	52.3	2.5	13.9	6.4	42.6	12.5	1.8	5.5
Computer and information scientist	100.0	61.8	26.4	11.9	14.3	20.6	58.1	25.4	1.7	21.7	4.4
Computer/information scientist	100.0	62.3	25.9	6.0	18.4	26.1	69.7	28.2	2.0	1.9	4.4
Postsecondary teacher, computer science	100.0	59.8	28.2	32.8	S	1.3	17.8	15.4	0.8	91.0	4.6

TABLE 40. Employed doctoral scientists and engineers, by occupation and primary or secondary work activity: 2003

Occupation	Total	Research and development					Computer applications	Management, sales, administration	Professional services	Teaching	Other
		Any R&D	Applied research	Basic research	Design	Development					
Mathematical scientist	100.0	71.6	33.8	35.8	5.6	7.3	15.6	20.7	3.6	60.2	3.7
Mathematical scientist	100.0	85.7	64.1	17.6	13.7	16.4	36.1	27.8	5.4	5.4	2.9
Postsecondary teacher, mathematics/statistics	100.0	62.5	14.2	47.6	S	1.3	2.3	16.1	2.4	95.7	4.3
Physical scientist	100.0	80.1	42.1	37.6	7.3	20.5	9.4	28.0	2.6	34.0	7.5
Chemist, except biochemist	100.0	88.0	64.6	20.3	6.5	41.9	4.7	38.3	2.2	1.7	10.3
Earth/atmospheric/ocean scientist	100.0	89.8	55.2	46.7	8.3	13.4	23.9	28.1	4.0	2.7	7.0
Physicist/astronomer	100.0	91.2	48.3	38.0	20.0	23.7	20.6	25.3	2.9	3.1	6.3
Postsecondary teacher, chemistry	100.0	56.1	9.3	46.0	0.8	0.8	1.7	23.0	1.6	95.8	6.0
Postsecondary teacher, physics	100.0	65.2	6.9	56.6	1.3	1.5	5.1	13.6	2.5	94.8	6.3
Postsecondary teacher, other physical sciences	100.0	75.1	21.9	52.8	S	S	3.5	17.7	S	93.3	2.1
Other physical scientist	100.0	76.5	58.6	29.8	9.0	23.4	S	37.8	9.9	3.1	14.9
Psychologist	100.0	32.3	18.7	13.4	0.9	3.2	1.4	37.4	63.8	31.2	3.3
Psychologist	100.0	22.8	16.9	5.6	1.2	3.7	1.6	44.6	82.1	8.9	3.3
Postsecondary teacher, psychology	100.0	59.3	23.8	35.4	0.0	1.7	0.8	17.0	11.8	94.4	3.2
Social scientist	100.0	72.3	39.4	35.0	1.6	5.0	2.7	26.5	7.0	64.5	5.7
Economist	100.0	80.5	67.6	21.4	6.4	11.3	8.3	40.8	17.5	4.6	5.6
Political scientist	100.0	67.3	55.1	19.8	S	3.9	S	48.4	20.2	12.7	11.0
Postsecondary teacher, economics	100.0	72.9	41.8	32.1	S	1.0	S	13.7	2.4	94.1	4.1
Postsecondary teacher, political science	100.0	65.1	16.1	47.2	S	2.4	1.1	17.3	2.1	95.6	6.4
Postsecondary teacher, sociology	100.0	68.9	19.3	49.0	S	2.2	S	16.8	2.0	96.8	4.2
Postsecondary teacher, other social sciences	100.0	66.1	23.3	41.0	S	2.2	0.8	16.9	2.7	96.6	5.9
Sociologist/anthropologist	100.0	84.3	63.1	34.0	2.2	6.1	4.4	48.2	12.9	8.7	5.8
Other social scientist	100.0	79.8	68.7	10.9	4.3	17.0	7.0	51.5	14.3	2.7	8.4
Engineering occupations	100.0	84.7	46.4	10.8	21.9	37.4	14.0	29.2	3.8	22.0	6.1
Aerospace/aeronautical/astronautical engineer	100.0	90.1	48.9	8.7	29.3	43.7	28.1	26.4	2.6	1.4	4.8
Chemical engineer	100.0	92.2	51.1	6.7	27.1	55.4	11.2	29.1	3.7	0.7	8.6
Civil/architectural/sanitary engineer	100.0	74.0	33.0	4.0	33.3	20.3	19.0	49.6	14.4	2.8	5.2
Electrical engineer	100.0	92.3	41.5	5.9	31.7	56.6	20.9	27.8	1.2	0.6	6.6
Materials/metallurgical engineer	100.0	69.3	40.7	S	29.2	22.6	15.9	49.0	6.3	S	22.4
Mechanical engineer	100.0	92.5	42.0	9.4	32.1	53.5	16.6	28.4	3.8	2.5	3.4
Postsecondary teacher, engineering	100.0	72.7	49.3	21.4	2.1	2.6	4.3	18.1	0.8	93.1	2.4
Other engineer	100.0	84.9	50.9	10.1	20.4	41.7	12.5	36.4	6.7	1.3	8.9
Science and engineering-related occupations	100.0	49.2	25.7	13.1	3.8	10.2	5.6	52.9	29.5	33.1	4.7
Health-related occupation, except postsecondary teacher	100.0	31.5	20.2	8.8	2.0	5.2	1.3	36.3	77.9	16.3	4.8
Postsecondary teacher, health and related sciences	100.0	61.2	33.6	28.9	0.4	1.4	1.7	21.1	16.9	87.4	3.1
S&E manager	100.0	55.7	27.2	6.0	5.5	18.4	4.5	97.5	11.2	0.6	4.7
S&E precollege teacher	100.0	10.5	2.9	4.6	S	1.9	2.9	24.7	1.7	99.0	5.4
S&E technician/technologist	100.0	66.5	24.9	11.3	17.5	31.5	54.1	24.6	2.7	3.4	8.8
Other S&E-related occupation	100.0	58.4	26.6	S	26.8	20.1	12.3	47.4	26.1	S	23.4

TABLE 40. Employed doctoral scientists and engineers, by occupation and primary or secondary work activity: 2003

Occupation	Total	Research and development				Computer applications	Management, sales, administration	Professional services	Teaching	Other	
		Any R&D	Applied research	Basic research	Design						Development
Non-science and engineering occupations	100.0	32.9	16.5	6.1	3.3	10.3	5.0	72.7	18.2	17.2	9.7
Arts/humanities-related occupation	100.0	32.8	17.3	7.3	4.3	12.2	6.2	37.3	54.4	4.8	12.6
Management-related occupation	100.0	32.6	12.4	2.7	8.9	13.1	11.4	76.8	23.3	4.4	10.2
Non-S&E manager	100.0	33.0	16.7	4.4	2.9	12.1	3.5	93.3	7.0	3.7	7.5
Non-S&E postsecondary teacher	100.0	59.4	33.8	24.4	S	5.0	1.7	23.2	4.1	90.9	5.7
Non-S&E precollege/other teacher	100.0	18.7	5.9	2.8	4.3	6.1	2.4	28.9	19.3	85.0	6.8
Sales/marketing occupation	100.0	23.6	13.7	1.0	1.4	10.4	7.9	87.9	13.5	3.4	6.3
Social service-related occupation	100.0	14.4	7.9	2.2	S	5.7	S	50.8	67.8	24.7	12.8
Other non-S&E occupation	100.0	15.0	6.4	1.4	2.8	5.5	4.6	56.7	49.9	5.4	26.0

S = suppressed due to too few cases (fewer than 50 weighted cases).

S&E = science and engineering.

NOTES: Numbers are rounded to nearest 10. Detail may exceed total due to multiple responses.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 2003 Survey of Doctorate Recipients.