

TABLE A-16. Standard errors for employed U.S. scientists and engineers, by highest degree attained, occupation, and employment sector: 2006

Level of highest degree and occupation	Employed scientists and engineers	Business/industry				Educational institution			Government		
		Total	Profit	Self-employed	Nonprofit	Total	4-year college/university	Other	Total	Federal	State/local
All degrees and occupations ^a	83,000	70,000	63,000	28,000	32,000	40,000	25,000	31,000	32,000	20,000	27,000
S&E occupations	43,000	36,000	34,000	8,000	8,000	14,000	12,000	8,000	16,000	9,000	12,000
Scientists	35,000	29,000	26,000	7,000	8,000	13,000	11,000	8,000	13,000	7,000	11,000
Biological/agricultural/other life scientists	12,000	8,000	7,000	2,000	3,000	6,000	6,000	2,000	6,000	4,000	4,000
Agricultural/food scientists	4,000	3,000	3,000	1,000	500	2,000	2,000	S	2,000	2,000	2,000
Biological/medical scientists	10,000	7,000	6,000	1,000	3,000	5,000	5,000	500	4,000	3,000	4,000
Environmental life scientists	4,000	2,000	1,000	1,000	1,000	1,000	1,000	S	3,000	2,000	2,000
Postsecondary teachers-life/related sciences	3,000	1,000	S	S	S	3,000	2,000	2,000	S	S	S
Computer/mathematical scientists	27,000	25,000	24,000	5,000	6,000	9,000	7,000	5,000	8,000	5,000	7,000
Computer/information scientists	27,000	25,000	23,000	5,000	6,000	7,000	6,000	4,000	8,000	5,000	6,000
Mathematical scientists	6,000	5,000	4,000	1,000	2,000	2,000	2,000	1,000	3,000	2,000	2,000
Postsecondary teachers-computer/mathematical sciences	4,000	*	S	S	S	4,000	3,000	3,000	S	S	S
Physical/related scientists	9,000	7,000	7,000	2,000	1,000	4,000	4,000	1,000	4,000	2,000	4,000
Chemists, except biochemists	5,000	5,000	5,000	500	500	1,000	1,000	S	2,000	1,000	2,000
Earth/atmospheric/ocean scientists	4,000	3,000	3,000	1,000	500	1,000	1,000	S	2,000	1,000	2,000
Physicists/astronomers	2,000	1,000	1,000	500	500	1,000	1,000	S	500	500	500
Postsecondary teachers-physical/related sciences	3,000	*	S	S	S	2,000	3,000	1,000	S	S	S
Other physical/related scientists	4,000	2,000	2,000	2,000	500	1,000	1,000	S	3,000	1,000	3,000
Social/related scientists	12,000	8,000	6,000	4,000	4,000	7,000	5,000	4,000	6,000	4,000	4,000
Economists	3,000	3,000	3,000	1,000	500	1,000	1,000	S	2,000	1,000	1,000
Political/related scientists	3,000	2,000	1,000	1,000	1,000	1,000	1,000	S	2,000	2,000	2,000
Postsecondary teachers-social/related sciences	5,000	S	S	S	S	5,000	4,000	3,000	S	S	S
Psychologists	6,000	4,000	3,000	3,000	2,000	4,000	2,000	3,000	3,000	2,000	2,000
Sociologists/anthropologists	2,000	2,000	1,000	1,000	1,000	2,000	2,000	S	1,000	1,000	500
Other social/related scientists	7,000	5,000	4,000	2,000	2,000	1,000	1,000	500	4,000	2,000	3,000
Engineers	21,000	19,000	18,000	3,000	3,000	3,000	3,000	1,000	7,000	5,000	5,000
Aerospace/aeronautical/astronautical engineers	5,000	4,000	4,000	500	500	500	500	S	2,000	2,000	*
Chemical engineers	4,000	4,000	4,000	500	500	1,000	1,000	S	1,000	1,000	500
Civil/architectural/sanitary engineers	8,000	6,000	6,000	2,000	1,000	500	500	S	5,000	2,000	4,000
Electrical/computer hardware engineers	9,000	8,000	8,000	1,000	1,000	1,000	1,000	S	2,000	2,000	1,000
Industrial engineers	6,000	6,000	6,000	500	500	500	500	S	1,000	1,000	S
Mechanical engineers	8,000	7,000	7,000	2,000	1,000	1,000	1,000	S	2,000	2,000	1,000
Postsecondary teachers-engineering	2,000	S	S	S	S	2,000	2,000	1,000	S	S	S
Other engineers	11,000	10,000	10,000	2,000	2,000	2,000	2,000	S	4,000	3,000	2,000
S&E-related occupations	45,000	37,000	32,000	15,000	22,000	26,000	16,000	21,000	16,000	9,000	14,000
Health-related occupations	35,000	32,000	27,000	14,000	22,000	16,000	15,000	9,000	14,000	8,000	12,000
S&E managers	13,000	12,000	10,000	1,000	5,000	3,000	2,000	2,000	6,000	3,000	5,000

TABLE A-16. Standard errors for employed U.S. scientists and engineers, by highest degree attained, occupation, and employment sector: 2006

Level of highest degree and occupation	Employed scientists and engineers	Business/industry				Educational institution			Government		
		Total	Profit	Self- employed	Nonprofit	Total	4-year college/ university	Other	Total	Federal	State/ local
S&E precollege teachers	19,000	2,000	1,000	S	S	19,000	S	19,000	1,000	S	1,000
S&E technicians/technologists	13,000	10,000	9,000	3,000	3,000	3,000	3,000	1,000	6,000	4,000	4,000
Other S&E-related occupations	9,000	9,000	8,000	5,000	2,000	2,000	2,000	S	3,000	2,000	2,000
Non-S&E occupations	73,000	58,000	53,000	24,000	21,000	32,000	16,000	27,000	23,000	15,000	20,000
Art/humanities/related occupations	15,000	14,000	10,000	7,000	5,000	4,000	3,000	2,000	3,000	2,000	2,000
Management-related occupations	31,000	27,000	25,000	8,000	8,000	7,000	6,000	4,000	10,000	7,000	8,000
Non-S&E managers	26,000	23,000	22,000	4,000	7,000	9,000	5,000	8,000	9,000	5,000	7,000
Non-S&E postsecondary teachers	7,000	1,000	1,000	S	S	7,000	6,000	4,000	500	S	*
Non-S&E precollege/other teachers	23,000	4,000	2,000	2,000	3,000	22,000	1,000	22,000	2,000	S	2,000
Sales/marketing occupations	32,000	31,000	29,000	12,000	5,000	3,000	3,000	1,000	3,000	2,000	3,000
Social services/related occupations	18,000	15,000	8,000	4,000	12,000	8,000	4,000	7,000	10,000	2,000	10,000
Other non-S&E occupations	45,000	37,000	30,000	16,000	13,000	13,000	8,000	9,000	20,000	12,000	16,000
Bachelor's degrees, all occupations	70,000	62,000	55,000	21,000	27,000	29,000	18,000	24,000	28,000	15,000	23,000
S&E occupations	32,000	28,000	27,000	6,000	7,000	10,000	9,000	5,000	13,000	7,000	10,000
Scientists	26,000	23,000	22,000	5,000	7,000	9,000	8,000	5,000	11,000	6,000	8,000
Biological/agricultural/other life scientists	9,000	7,000	6,000	2,000	2,000	5,000	5,000	1,000	5,000	3,000	4,000
Agricultural/food scientists	4,000	3,000	3,000	S	S	1,000	1,000	S	2,000	2,000	2,000
Biological/medical scientists	8,000	6,000	5,000	1,000	2,000	4,000	4,000	S	4,000	2,000	3,000
Environmental life scientists	3,000	2,000	1,000	S	S	S	S	S	2,000	2,000	1,000
Postsecondary teachers-life/related sciences	2,000	S	S	S	S	2,000	2,000	1,000	S	S	S
Computer/mathematical scientists	23,000	22,000	20,000	4,000	6,000	7,000	5,000	4,000	7,000	4,000	6,000
Computer/information scientists	23,000	21,000	20,000	4,000	6,000	6,000	5,000	4,000	7,000	4,000	6,000
Mathematical scientists	4,000	4,000	3,000	S	2,000	1,000	1,000	S	2,000	1,000	1,000
Postsecondary teachers-computer/mathematical sciences	3,000	S	S	S	S	2,000	2,000	2,000	S	S	S
Physical/related scientists	7,000	6,000	6,000	1,000	500	3,000	3,000	500	4,000	1,000	4,000
Chemists, except biochemists	5,000	5,000	5,000	S	S	1,000	1,000	S	2,000	1,000	2,000
Earth/atmospheric/ocean scientists	3,000	3,000	2,000	500	S	1,000	1,000	S	2,000	1,000	2,000
Physicists/astronomers	1,000	500	500	S	S	1,000	1,000	S	*	S	S
Postsecondary teachers-physical/related sciences	2,000	S	S	S	S	2,000	2,000	500	S	S	S
Other physical/related scientists	3,000	2,000	2,000	S	S	1,000	1,000	S	3,000	500	3,000
Social/related scientists	7,000	5,000	4,000	2,000	2,000	4,000	3,000	2,000	3,000	2,000	3,000
Economists	2,000	1,000	1,000	S	S	S	S	S	1,000	500	S
Political/related scientists	2,000	1,000	500	S	1,000	S	S	S	2,000	S	S
Postsecondary teachers-social/related sciences	3,000	S	S	S	S	3,000	2,000	2,000	S	S	S
Psychologists	3,000	2,000	2,000	S	1,000	2,000	2,000	1,000	1,000	S	1,000
Sociologists/anthropologists	2,000	1,000	1,000	S	S	1,000	1,000	S	1,000	S	S
Other social/related scientists	5,000	4,000	4,000	2,000	1,000	1,000	1,000	S	3,000	2,000	2,000

TABLE A-16. Standard errors for employed U.S. scientists and engineers, by highest degree attained, occupation, and employment sector: 2006

Level of highest degree and occupation	Employed scientists and engineers	Business/industry				Educational institution			Government		
		Total	Profit	Self-employed	Nonprofit	Total	4-year college/university	Other	Total	Federal	State/local
Engineers	16,000	14,000	14,000	3,000	2,000	3,000	3,000	1,000	6,000	4,000	5,000
Aerospace/aeronautical/astronautical engineers	4,000	3,000	3,000	S	*	500	500	S	2,000	2,000	S
Chemical engineers	3,000	3,000	3,000	*	S	1,000	1,000	S	1,000	1,000	S
Civil/architectural/sanitary engineers	6,000	5,000	5,000	1,000	500	500	500	S	4,000	2,000	3,000
Electrical/computer hardware engineers	7,000	6,000	6,000	1,000	1,000	1,000	1,000	S	2,000	2,000	1,000
Industrial engineers	5,000	5,000	5,000	S	500	500	500	S	500	500	S
Mechanical engineers	6,000	6,000	6,000	1,000	1,000	1,000	1,000	S	1,000	1,000	1,000
Postsecondary teachers-engineering	1,000	S	S	S	S	1,000	1,000	1,000	S	S	S
Other engineers	9,000	8,000	8,000	2,000	1,000	2,000	2,000	S	3,000	2,000	2,000
S&E-related occupations	35,000	30,000	26,000	8,000	20,000	18,000	12,000	14,000	14,000	8,000	12,000
Health-related occupations	29,000	26,000	21,000	7,000	19,000	12,000	12,000	6,000	12,000	6,000	11,000
S&E managers	10,000	10,000	8,000	S	4,000	2,000	2,000	1,000	4,000	2,000	3,000
S&E precollege teachers	12,000	1,000	S	S	S	12,000	S	12,000	S	S	S
S&E technicians/technologists	11,000	9,000	9,000	3,000	2,000	3,000	3,000	1,000	6,000	4,000	4,000
Other S&E-related occupations	8,000	8,000	7,000	4,000	2,000	2,000	2,000	S	2,000	S	2,000
Non-S&E occupations	61,000	50,000	44,000	18,000	16,000	22,000	10,000	20,000	19,000	12,000	16,000
Art/humanities/related occupations	11,000	11,000	9,000	5,000	3,000	3,000	2,000	2,000	3,000	2,000	2,000
Management-related occupations	25,000	23,000	21,000	6,000	6,000	6,000	5,000	3,000	8,000	6,000	5,000
Non-S&E managers	19,000	18,000	17,000	3,000	5,000	5,000	3,000	3,000	6,000	4,000	4,000
Non-S&E postsecondary teachers	4,000	S	S	S	S	4,000	3,000	2,000	S	S	S
Non-S&E precollege/other teachers	18,000	3,000	1,000	S	2,000	18,000	1,000	18,000	1,000	S	1,000
Sales/marketing occupations	29,000	28,000	26,000	10,000	4,000	2,000	1,000	1,000	3,000	2,000	2,000
Social services/related occupations	12,000	8,000	4,000	1,000	8,000	4,000	3,000	3,000	8,000	500	8,000
Other non-S&E occupations	36,000	29,000	24,000	12,000	11,000	10,000	6,000	7,000	17,000	10,000	14,000
Master's degrees, all occupations	46,000	37,000	30,000	13,000	16,000	26,000	12,000	23,000	17,000	11,000	14,000
S&E occupations	20,000	16,000	15,000	4,000	4,000	8,000	7,000	5,000	8,000	6,000	6,000
Scientists	17,000	13,000	12,000	4,000	4,000	8,000	6,000	5,000	7,000	4,000	5,000
Biological/agricultural/other life scientists	5,000	3,000	3,000	1,000	1,000	3,000	3,000	1,000	3,000	2,000	2,000
Agricultural/food scientists	2,000	1,000	1,000	S	S	2,000	2,000	S	1,000	1,000	S
Biological/medical scientists	4,000	3,000	3,000	1,000	1,000	2,000	2,000	S	2,000	2,000	2,000
Environmental life scientists	2,000	1,000	S	S	1,000	1,000	1,000	S	1,000	1,000	1,000
Postsecondary teachers-life/related sciences	2,000	S	S	S	S	2,000	1,000	1,000	S	S	S
Computer/mathematical scientists	13,000	12,000	11,000	2,000	3,000	5,000	4,000	3,000	4,000	3,000	3,000
Computer/information scientists	13,000	11,000	11,000	2,000	3,000	3,000	3,000	2,000	4,000	3,000	3,000
Mathematical scientists	4,000	3,000	2,000	1,000	1,000	2,000	2,000	S	2,000	1,000	1,000
Postsecondary teachers-computer/mathematical sciences	3,000	S	S	S	S	3,000	2,000	2,000	S	S	S
Physical/related scientists	4,000	4,000	3,000	1,000	500	2,000	2,000	1,000	2,000	1,000	1,000

TABLE A-16. Standard errors for employed U.S. scientists and engineers, by highest degree attained, occupation, and employment sector: 2006

Level of highest degree and occupation	Employed scientists and engineers	Business/industry				Educational institution			Government		
		Total	Profit	Self-employed	Nonprofit	Total	4-year college/university	Other	Total	Federal	State/local
Chemists, except biochemists	3,000	2,000	2,000	S	500	500	500	S	1,000	1,000	1,000
Earth/atmospheric/ocean scientists	2,000	2,000	2,000	1,000	S	1,000	1,000	S	1,000	1,000	1,000
Physicists/astronomers	1,000	1,000	1,000	S	S	500	500	S	500	500	S
Postsecondary teachers-physical/related sciences	2,000	S	S	S	S	2,000	1,000	1,000	S	S	S
Other physical/related scientists	2,000	1,000	1,000	S	S	500	500	S	1,000	1,000	1,000
Social/related scientists	9,000	6,000	4,000	3,000	2,000	5,000	3,000	4,000	4,000	3,000	3,000
Economists	3,000	2,000	2,000	S	500	500	500	S	1,000	1,000	1,000
Political/related scientists	2,000	1,000	1,000	S	1,000	500	500	S	2,000	2,000	S
Postsecondary teachers-social/related sciences	3,000	S	S	S	S	3,000	3,000	2,000	S	S	S
Psychologists	5,000	3,000	2,000	2,000	2,000	4,000	2,000	3,000	2,000	2,000	2,000
Sociologists/anthropologists	2,000	1,000	1,000	1,000	S	1,000	1,000	S	500	500	500
Other social/related scientists	4,000	4,000	3,000	2,000	1,000	1,000	1,000	S	3,000	2,000	2,000
Engineers	10,000	10,000	9,000	2,000	2,000	2,000	2,000	1,000	4,000	3,000	3,000
Aerospace/aeronautical/astronautical engineers	2,000	2,000	2,000	S	S	500	500	S	1,000	1,000	S
Chemical engineers	2,000	2,000	2,000	S	S	500	500	S	*	S	S
Civil/architectural/sanitary engineers	4,000	3,000	3,000	1,000	1,000	500	500	S	2,000	1,000	2,000
Electrical/computer hardware engineers	5,000	5,000	5,000	1,000	500	1,000	1,000	S	2,000	1,000	1,000
Industrial engineers	3,000	3,000	3,000	S	S	500	500	S	500	500	S
Mechanical engineers	4,000	4,000	4,000	1,000	1,000	1,000	1,000	S	1,000	1,000	S
Postsecondary teachers-engineering	1,000	S	S	S	S	1,000	1,000	1,000	S	S	S
Other engineers	5,000	5,000	4,000	1,000	1,000	1,000	1,000	S	2,000	1,000	2,000
S&E-related occupations	24,000	16,000	13,000	6,000	9,000	18,000	6,000	16,000	7,000	5,000	6,000
Health-related occupations	15,000	13,000	10,000	5,000	8,000	9,000	6,000	7,000	5,000	4,000	5,000
S&E managers	8,000	7,000	6,000	S	4,000	2,000	2,000	1,000	4,000	2,000	3,000
S&E precollege teachers	14,000	1,000	S	S	S	14,000	S	14,000	S	S	S
S&E technicians/technologists	5,000	4,000	4,000	1,000	1,000	1,000	1,000	S	2,000	1,000	2,000
Other S&E-related occupations	5,000	5,000	4,000	3,000	1,000	S	S	S	2,000	S	1,000
Non-S&E occupations	41,000	32,000	25,000	12,000	12,000	21,000	10,000	19,000	14,000	7,000	11,000
Art/humanities/related occupations	8,000	7,000	5,000	5,000	3,000	2,000	2,000	1,000	1,000	500	1,000
Management-related occupations	17,000	15,000	14,000	5,000	4,000	4,000	3,000	3,000	7,000	4,000	5,000
Non-S&E managers	18,000	14,000	13,000	2,000	5,000	8,000	3,000	7,000	6,000	3,000	5,000
Non-S&E postsecondary teachers	5,000	S	S	S	S	4,000	4,000	3,000	S	S	S
Non-S&E precollege/other teachers	15,000	3,000	2,000	S	1,000	15,000	S	15,000	1,000	S	1,000
Sales/marketing occupations	15,000	15,000	12,000	6,000	2,000	2,000	2,000	S	2,000	S	S
Social services/related occupations	13,000	11,000	6,000	4,000	9,000	7,000	4,000	6,000	6,000	2,000	6,000
Other non-S&E occupations	18,000	14,000	11,000	5,000	5,000	7,000	5,000	5,000	9,000	6,000	7,000
Doctorate degrees, all occupations	9,000	6,000	5,000	2,000	3,000	7,000	6,000	4,000	3,000	2,000	2,000
S&E occupations	5,000	3,000	3,000	1,000	1,000	4,000	4,000	1,000	2,000	1,000	1,000

TABLE A-16. Standard errors for employed U.S. scientists and engineers, by highest degree attained, occupation, and employment sector: 2006

Level of highest degree and occupation	Employed scientists and engineers	Business/industry				Educational institution			Government		
		Total	Profit	Self- employed	Nonprofit	Total	4-year college/ university	Other	Total	Federal	State/ local
Non-S&E occupations	7,000	5,000	4,000	2,000	2,000	5,000	4,000	3,000	2,000	1,000	2,000
Art/humanities/related occupations	1,000	1,000	500	500	500	500	500	S	500	*	S
Management-related occupations	3,000	3,000	2,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Non-S&E managers	3,000	2,000	2,000	1,000	1,000	3,000	2,000	2,000	1,000	500	1,000
Non-S&E postsecondary teachers	3,000	500	S	S	S	3,000	3,000	1,000	S	S	S
Non-S&E precollege/other teachers	2,000	*	S	S	S	2,000	S	2,000	S	S	S
Sales/marketing occupations	2,000	2,000	2,000	500	500	S	S	S	S	S	S
Social services/related occupations	2,000	2,000	1,000	1,000	2,000	1,000	*	1,000	500	S	500
Other non-S&E occupations	2,000	2,000	1,000	1,000	1,000	1,000	1,000	500	500	500	500

* = standard error is not calculated when estimate is less than 500; S = standard error is not calculated when estimate is suppressed for reliability or confidentiality.

S&E = science and engineering.

^a Total includes professional degrees not broken out separately.

NOTES: Scientists and engineers include any person who has ever received a bachelor's or higher degree in a science or engineering (S&E) or S&E-related field through 2005, plus any person holding a non-S&E bachelor's or higher degree who was employed in a S&E or S&E-related occupation in 2003. See <http://sestat.nsf.gov/docs/occ03maj.html> for a detailed description of the occupational classification. Four-year college/university includes medical schools and university-affiliated research institutes. Other educational institution includes 2-year colleges, precollege institutions, and other educational institutions. Standard errors of less than 500 are rounded up to 500, and standard errors equal to or greater than 500 are rounded up to the nearest thousand.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Scientists and Engineers Statistical Data System (SESTAT): 2006.