Table D-1. U.S. scientists and engineers, by detailed occupation and highest degree attained: 1997

Page 1 of 3

| Occupation | Level of highest degree |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | All degree levels, total | Bachelor's | Master's | Doctorate | Professional |
| All occupations, total ${ }^{1}$..... | 12,512,000 | 7,456,800 | 3,311,300 | 789,700 | 954,300 |
| S\&E occupations, total ................... | 3,899,000 | 2,252,100 | 1,100,000 | 511,900 | 35,000 |
| Scientists, total | 2,261,500 | 1,135,500 | 671,100 | 422,700 | 32,200 |
| Computer/math sci, total ............. | 1,129,700 | 731,900 | 328,500 | 64,800 | 4,500 |
| Computer/information scientists $\qquad$ | 1,003,400 | 698,700 | 272,500 | 27,900 | 4,300 |
| Computer engineers-software ... | 319,800 | 194,700 | 111,600 | 12,500 | 900 |
| systems analysts | 19,100 | 8,300 | 6,500 | 4,300 | S |
| Computer systems analysts ...... Information systems | 423,800 | 324,800 | 92,000 | 4,600 | 2,400 |
| scientists/analysts ................. | 148,700 | 103,900 | 40,100 | 3,900 | 800 |
| Other computer/information science occupations $\qquad$ | 91,900 | 66,900 | 22,200 | 2,600 | 200 |
| Mathematical scientists ............ | 42,400 | 16,400 | 18,100 | 7,800 | 100 |
| Mathematicians ................. | 4,200 | 1,700 | 1,100 | 1,400 | S |
| Operations research analysts, modelling | 12,900 | 6,100 | 5,400 | 1,400 | S |
| Statisticians .......................... | 24,100 | 7,800 | 11,400 | 4,700 | 100 |
| Other mathematical scientists ... | 1,200 | 800 | 200 | 200 | S |
| Postsecondary teacherscomputer math sci $\qquad$ | 84,000 | 16,800 | 37,800 | 29,100 | 100 |
| Computer science teachers ...... | 25,200 | 5,500 | 11,800 | 7,900 |  |
| Math science teachers ............. | 58,800 | 11,400 | 26,000 | 21,300 | 100 |
| Life/related scientists, total ......... | 387,300 | 158,100 | 83,800 | 128,400 | 17,000 |
| Agricultural/food scientists ..... | 50,500 | 25,800 | 12,300 | 12,200 | 100 |
| Biological scientists .............. | 221,000 | 94,300 | 45,400 | 73,400 | 7,900 |
| Biochemists/biophysicists ......... | 44,400 | 16,400 | 7,300 | 20,200 | 500 |
| Biological scientists .................. | 74,000 | 35,800 | 18,900 | 19,100 | 200 |
| Medical scientists, except practictioners $\qquad$ | 84,300 | 32,100 | 14,200 | 30,800 | 7,200 |
| Other biological/life scientists .... | 18,300 | 10,100 | 4,900 | 3,300 | S |
| Forestry/conservation scientists | 23,400 | 16,900 | 4,900 | 1,500 | 100 |
| Postsecondary teacherslife/related sciences $\qquad$ | 92,400 | 21,100 | 21,200 | 41,300 | 8,800 |
| Agriculture teachers ................. | 12,000 | 3,400 | 3,800 | 4,800 | S |
| Biological science teachers ....... | 48,600 | 10,600 | 12,400 | 25,200 | 400 |
| Medical science teachers .......... | 29,300 | 5,900 | 4,400 | 10,600 | 8,400 |
| Natural science teachers .......... | 2,500 | 1,200 | 600 | 700 | S |

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

Table D-1. U.S. scientists and engineers, by detailed occupation and highest degree attained: 1997

Page 2 of 3

| Occupation | Level of highest degree |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | All degree levels, total | Bachelor's | Master's | Doctorate | Professional |
| All occupations, total ${ }^{1}$ - continued |  |  |  |  |  |
| Physical/related scientists, total | 343,500 | 163,300 | 83,300 | 96,100 | 900 |
| Chemists, except biochemists | 147,100 | 88,100 | 24,600 | 34,400 | S |
| Earth scientists/geologists/ oceanographers | 82,100 | 42,100 | 28,000 | 11,900 | 200 |
| Atmospheric/space scientists .... | 13,200 | 6,000 | 3,800 | 3,300 | 200 |
| Geologists ............................. | 65,500 | 35,400 | 22,900 | 7,200 | S |
| Oceanographers ..................... | 3,400 | 700 | 1,300 | 1,400 | S |
| Physicists/astronomers ......... | 38,400 | 10,200 | 11,300 | 16,900 | S |
| Astronomer ........................... | 3,300 | 1,100 | 700 | 1,500 | S |
| Physicists ............................... | 35,100 | 9,100 | 10,600 | 15,400 | S |
| Other physical/related scientists | 18,700 | 9,000 | 7,800 | 1,700 | 200 |
| Postsecondary teachersphysical/related sci | 57,200 | 13,900 | 11,600 | 31,200 | 500 |
| Chemistry teachers ................. | 27,900 | 8,100 | 5,100 | 14,200 | 500 |
| Earth/env/marine science teachers $\qquad$ | 12,800 | 3,300 | 2,900 | 6,600 | S |
| Physics teachers .................... | 16,600 | 2,500 | 3,500 | 10,500 | 100 |
| Social/related scientists, total ..... | 401,000 | 82,200 | 175,600 | 133,300 | 9,800 |
| Economists ............................ | 50,800 | 18,500 | 23,200 | 8,700 | 400 |
| Political/related scientists ........ | 11,000 | 6,100 | 3,700 | 1,200 | S |
| Psychologists ........................ | 205,800 | 32,500 | 108,600 | 58,000 | 6,700 |
| Sociologists/anthropologists .. | 19,500 | 9,600 | 5,600 | 4,300 | S |
| Anthropologists ...................... | 9,700 | 4,200 | 3,400 | 2,000 | S |
| Sociologists ........................... | 9,800 | 5,300 | 2,200 | 2,300 | S |
| Other social/related scientists | 13,500 | 5,500 | 4,100 | 3,000 | 900 |
| Historians, science/technology | 600 | 100 | 200 | 300 | S |
| Other social scientists .............. | 12,900 | 5,400 | 3,800 | 2,700 | 900 |
| Postsecondary teacherssocial/related sci $\qquad$ | 100,300 | 10,100 | 30,400 | 58,100 | 1,700 |
| Economics teachers ................ | 17,600 | 1,600 | 5,000 | 11,100 | S |
| Political science teachers .......... | 16,600 | 1,000 | 5,000 | 9,800 | 800 |
| Psychology teachers ............... | 33,700 | 5,100 | 9,600 | 18,700 | 300 |
| Sociology teachers .................. | 15,000 | 900 | 4,800 | 9,200 | 100 |
| Other social science teachers ... | 17,400 | 1,500 | 6,100 | 9,400 | 400 |

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

Table D-1. U.S. scientists and engineers, by detailed occupation and highest degree attained: 1997

Page 3 of 3

| Occupation | Level of highest degree |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | All degree levels, total | Bachelor's | Master's | Doctorate | Professional |
| All occupations, total ${ }^{1}$ - continued |  |  |  |  |  |
| Engineers, total | 1,637,500 | 1,116,600 | 428,900 | 89,200 | 2,800 |
| Aerospace/related engineers ... | 99,400 | 61,200 | 32,900 | 5,100 | 200 |
| Chemical engineers | 93,900 | 61,000 | 24,600 | 8,300 | S |
| Civil/architectural engineers .... | 245,600 | 181,400 | 59,100 | 4,500 | 600 |
| Electrical/related engineers | 430,500 | 290,500 | 120,200 | 18,800 | 1,000 |
| Computer engineers, hardware | 51,800 | 33,600 | 16,200 | 2,100 | S |
| Electrical/electronics engineers | 378,700 | 257,000 | 104,000 | 16,700 | 1,000 |
| Industrial engineers ................ | 93,800 | 70,100 | 21,800 | 1,400 | 400 |
| Mechanical engineers | 319,500 | 238,500 | 70,800 | 9,900 | 300 |
| Other engineers ................... | 313,600 | 206,300 | 87,100 | 19,900 | 200 |
| Agricultural engineers ... | 5,500 | 3,800 | 1,000 | 700 | S |
| Bioengineers/biomedical engineers | 13,000 | 7,000 | 3,700 | 2,300 | S |
| Environmental engineers .......... | 83,500 | 50,000 | 29,700 | 3,600 | 200 |
| Marine engineer or naval architect | 10,100 | 7,000 | 2,900 | 300 | S |
| Materials/metallurgical engineers $\qquad$ | 44,700 | 23,700 | 13,400 | 7,500 | S |
| Mining/geological engineers ..... | 7,300 | 5,800 | 1,200 | 300 | S |
| Nuclear engineers ................... | 21,100 | 12,900 | 6,400 | 1,800 | S |
| Petroleum engineers ................. | 20,800 | 17,500 | 2,200 | 1,100 | S |
| Sales engineers ..................... | 60,700 | 47,500 | 13,000 | 200 | S |
| Other engineers ....................... | 46,800 | 31,200 | 13,500 | 2,100 | S |
| Engineering teachers .............. | 41,300 | 7,400 | 12,400 | 21,300 | 100 |
| Non-S\&E occupations, total ............. | 8,613,100 | 5,204,700 | 2,211,300 | 277,800 | 919,300 |
| Managers/administrators ............... | 2,321,300 | 1,319,600 | 826,600 | 115,300 | 59,800 |
| Health/related .............................. | 920,300 | 350,900 | 109,900 | 26,400 | 433,100 |
| Teachers, except S\&E postsecondary | 985,500 | 482,800 | 412,700 | 68,100 | 21,900 |
| Social service/related ....................... | 529,000 | 251,900 | 252,000 | 14,800 | 10,300 |
| Technology/technical ....................... | 418,200 | 341,600 | 68,100 | 7,500 | 900 |
| Sales/marketing .............................. | 1,085,700 | 848,600 | 215,700 | 9,600 | 11,800 |
| Art, humanities and related ................ | 198,300 | 132,100 | 56,600 | 6,100 | 3,500 |
| Other non-S\&E occupations .............. | 2,154,900 | 1,477,200 | 269,600 | 30,100 | 378,000 |

1 Total excludes 18,700 individuals who reported never having worked. For unemployed individuals, occupation is for their previous reported job.

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: $\quad \mathrm{S}=$ 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)

