# Characteristics of Recent Science and Engineering Graduates: 2003 

## Detailed Statistical Tables

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Information and data from the Division of Science Resources Statistics are available on the Web at http://www.nsf.gov/statistics/. This report is available in electronic format only. For NSF's Telephonic Device for the Deaf, dial toll-free (800) 281-8749 or (703) 292-5090.

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## General Notes

This report presents data from the National Survey of Recent College Graduates (NSRCG) on the characteristics of men and women who received a bachelor's or master's degree in a science, engineering, or health field from U.S. academic institutions during the 2000-2001 and 2001-2002 academic years. The data were collected in 2003 and 2004 and reflect the status of individuals as of October 2003. In addition to the demographic characteristics of recent college graduates with science, engineering, and health degrees, the NSRCG data may be used to understand the employment experiences of recent graduates, such as the extent to which recent graduates entered the labor force, whether they were able to find employment, and the attributes of that employment.

Results of the NSRCG survey are presented separately for bachelor's and master's degree recipients. Complementary tables for the two degree levels are numbered sequentially so that odd-numbered tables are for bachelor's degree recipients and even-numbered tables are for master's degree recipients. A complementary set of tables showing the standard errors of the estimates appear in appendix B.

This report contains four sections:

- Detailed tabulations from the survey with the tables grouped by topics, such as demographic characteristics and employment characteristics.
- The technical notes are in appendix A and contain information on survey methodology, coverage, concepts, definitions, and sampling errors.
- Standard error tables are included in appendix B.
- Data were collected using computer-assisted telephone interviewing (CATI), a web instrument, and mail questionnaires. Appendix C contains a copy of the 2003 mail questionnaire.

The Division of Science Resources Statistics also produces reports that present data on degree completions in science and engineering. The data presented in this report measure the number of individuals with recently acquired science, engineering, and health degrees and do not necessarily coincide with the data on degree completions whose source is the Integrated Postsecondary Education Data System (IPEDS). IPEDS is conducted by the U.S. Department of Education, National Center for Education Statistics. The IPEDS completions data file represents a count of degrees awarded, whereas the NSRCG represents graduates (persons). For additional information on IPEDS see "Comparison with IPEDS Data" in appendix A.

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TABLE 1. Primary education and employment status, and median salary of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Primary education and employment status |  |  |  |  | Median salary for full-time employed ${ }^{\text {C }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Not full-time student |  |  |  |  |
|  |  | Full-time student | Employed in S\&E ${ }^{\text {a }}$ occupation | Employed in S\&E-related ${ }^{\text {b }}$ occupation | Employed in non-S\&E occupation | Not employed |  |
| All fields | 937,700 | 222,000 | 157,700 | 129,500 | 358,700 | 69,800 | \$36,000 |
| Sciences | 682,200 | 185,100 | 89,700 | 25,200 | 327,400 | 54,700 | 32,000 |
| Biological, agricultural, and environmental life sciences | 150,700 | 61,400 | 21,300 | 13,900 | 44,400 | 9,800 | 29,000 |
| Agricultural/food sciences | 13,500 | 3,300 | S | S | 6,900 | S | 29,000 |
| Biological sciences | 125,000 | 56,400 | 16,500 | 11,600 | 32,900 | 7,600 | 29,000 |
| Environmental life sciences | 12,200 | 1,700 | 3,700 | S | 4,600 | S | 30,000 |
| Computer and information sciences | 84,800 | 6,400 | 38,600 | S | 33,600 | 5,700 | 45,000 |
| Mathematics and statistics | 25,600 | 6,000 | 4,100 | S | 13,700 | 1,500 | 36,000 |
| Physical and related sciences | 35,700 | 15,500 | 8,500 | 1,000 | 8,800 | 1,900 | 35,000 |
| Chemistry, except biochemistry | 19,800 | 10,000 | 4,800 | S | 3,300 | S | 35,000 |
| Earth/atmospheric/ocean sciences | 6,600 | 1,800 | 2,200 | S | 2,200 | S | 32,000 |
| Physics/astronomy | 7,000 | 3,600 | 1,300 | S | 1,800 | S | 40,000 |
| Other physical sciences | 2,300 | S | S | S | 1,500 | S | 31,000 |
| Psychology | 153,000 | 44,600 | S | S | 82,700 | 15,200 | 28,000 |
| Social and related sciences | 232,300 | 51,000 | 12,900 | 3,400 | 144,400 | 20,600 | 30,000 |
| Economics | 42,100 | 6,300 | 4,000 | S | 28,000 | 3,600 | 37,000 |
| Political and related sciences | 69,100 | 20,900 | 3,100 | S | 38,700 | 5,900 | 30,000 |
| Sociology/anthropology | 74,000 | 13,700 | S | S | 49,400 | 6,300 | 29,000 |
| Other social sciences | 47,100 | 10,100 | S | S | 28,400 | 4,800 | 30,000 |
| Engineering | 112,300 | 19,100 | 67,500 | S | 17,700 | 7,300 | 50,000 |
| Aerospace/aeronautical/astronautical engineering | 3,100 | 600 | 1,800 | S | 700 | S | 48,000 |
| Chemical engineering | 10,600 | 2,700 | 6,000 | S | 1,400 | S | 53,000 |
| Civil/architectural engineering | 16,300 | 1,100 | 12,500 | S | 1,900 | S | 44,000 |
| Electrical/computer engineering | 35,800 | 5,500 | 21,600 | S | 5,500 | 2,800 | 53,000 |
| Industrial engineering | 6,600 | 700 | 3,400 | S | 2,100 | S | 47,000 |
| Materials/metallurgical engineering | 2,300 | S | S | S | S | S | S |
| Mechanical engineering | 24,800 | 4,600 | 14,500 | S | 4,200 | 1,500 | 50,000 |
| Other engineering | 12,900 | 3,000 | 6,600 | S | 1,900 | S | 43,000 |
| Health | 143,300 | 17,700 | S | 103,700 | 13,600 | S | 43,000 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ S\&E occupations include postsecondary educators. For details, see technical notes.
${ }^{\text {b }}$ S\&E-related occupations include diagnosing/treating practitioners, registered nurses, pharmacists, dieticians, therapists, physician assistants, health technologists and technicians, health and related sciences postsecondary educators and other health occupations. For details, see technical notes.
${ }^{\text {c }}$ Salary data are for principal jobs only. Full-time employed are those working at least 35 hours per week at their principal job. Self-employed persons and full-time students are excluded from salary data.

NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2000 or 2001; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 2. Primary education and employment status, and median salary of 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Primary education and employment status |  |  |  |  | Median salary for full-time employed ${ }^{\text {C }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Not full-time student |  |  |  |  |
|  |  | Full-time student | Employed in S\&E ${ }^{\text {a }}$ occupation | Employed in S\&E-related ${ }^{\text {b }}$ occupation | Employed in non-S\&E occupation | Not employed |  |
| All fields | 246,700 | 40,900 | 75,800 | 58,900 | 51,600 | 19,400 | \$52,000 |
| Sciences | 117,000 | 27,900 | 42,000 | 2,000 | 36,200 | 9,000 | 45,000 |
| Biological, agricultural, and environmental life sciences | 16,800 | 4,500 | 7,300 | 1,300 | 2,800 | S | 40,000 |
| Agricultural/food sciences | 2,900 | S | 1,700 | S | S | S | 39,000 |
| Biological sciences | 12,100 | 3,600 | 4,800 | 1,200 | 1,900 | S | 40,000 |
| Environmental life sciences | 1,800 | S | S | S | S | S | 41,000 |
| Computer and information sciences | 27,200 | 4,800 | 13,600 | S | 4,900 | 4,000 | 60,000 |
| Mathematics and statistics | 5,900 | 1,800 | 2,700 | S | 1,000 | S | 54,000 |
| Physical and related sciences | 9,600 | 3,100 | 4,800 | S | 1,300 | S | 49,000 |
| Chemistry, except biochemistry | 3,800 | 1,000 | 2,300 | S | S | S | 53,000 |
| Earth/atmospheric/ocean sciences | 2,600 | S | 1,700 | S | S | S | 44,000 |
| Physics/astronomy | 2,700 | 1,600 | 700 | S | S | S | 58,000 |
| Other physical sciences | S | S | S | S | S | S | S |
| Psychology | 32,000 | 6,800 | 9,200 | S | 14,400 | S | 38,000 |
| Social and related sciences | 25,500 | 6,800 | 4,400 | S | 11,700 | 2,400 | 42,000 |
| Economics | 3,900 | 1,300 | 900 | S | 1,300 | S | 49,000 |
| Political and related sciences | 7,500 | S | 1,500 | S | 4,300 | S | 46,000 |
| Sociology/anthropology | 5,500 | 2,300 | S | S | 2,200 | S | 34,000 |
| Other social sciences | 8,700 | 2,200 | S | S | 3,900 | S | 40,000 |
| Engineering | 47,000 | 10,800 | 29,900 | S | 3,600 | 2,600 | 65,000 |
| Aerospace/aeronautical/astronautical engineering | 1,100 | S | 800 | S | S | S | 60,000 |
| Chemical engineering | 1,900 | 700 | 900 | S | S | S | 63,000 |
| Civil/architectural engineering | 6,000 | 900 | 4,700 | S | S | S | 54,000 |
| Electrical/computer engineering | 16,100 | 4,400 | 9,900 | S | S | S | 70,000 |
| Industrial engineering | 3,700 | S | 2,300 | S | S | S | 71,000 |
| Materials/metallurgical engineering | 1,900 | S | S | S | S | S | S |
| Mechanical engineering | 6,000 | 1,200 | 4,000 | S | S | S | 59,000 |
| Other engineering | 10,300 | 2,300 | 6,200 | S | 1,200 | S | 65,000 |
| Health | 82,700 | S | S | 56,800 | 11,800 | S | 53,000 |

$S=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ S\&E occupations include postsecondary educators. For details, see technical notes.
${ }^{\mathrm{b}}$ S\&E-related occupations include diagnosing/treating practitioners, registered nurses, pharmacists, dieticians, therapists, physician assistants, health technologists and technicians, health and related sciences postsecondary educators and other health occupations. For details, see technical notes.
${ }^{\text {c }}$ Salary data are for principal jobs only. Full-time employed are those working at least 35 hours per week at their principal job. Self-employed persons and full-time students are excluded from salary data.

NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2000 or 2001; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 3. Primary education and employment status, and median salary of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree and sex: October 2003

| Major field and sex | All recipients | Primary education and employment status |  |  |  |  | Median salary for full-time employed ${ }^{\text {C }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Not full-time student |  |  |  |  |
|  |  | Full-time student | Employed in $S \& E^{a}$ occupation | Employed in S\&E-related ${ }^{\text {b }}$ occupation | Employed in non-S\&E occupation | Not employed |  |
| All fields | 937,700 | 222,000 | 157,700 | 129,500 | 358,700 | 69,800 | \$36,000 |
| Sciences | 682,200 | 185,100 | 89,700 | 25,200 | 327,400 | 54,700 | 32,000 |
| Male | 298,600 | 79,000 | 55,400 | 6,600 | 137,600 | 20,100 | 35,000 |
| Female | 383,600 | 106,100 | 34,300 | 18,600 | 189,900 | 34,700 | 30,000 |
| Biological, agricultural, and environmental life sciences | 150,700 | 61,400 | 21,300 | 13,900 | 44,400 | 9,800 | 29,000 |
| Male | 61,600 | 27,500 | 8,900 | 4,000 | 18,000 | 3,200 | 32,000 |
| Female | 89,200 | 34,000 | 12,400 | 9,800 | 26,400 | 6,600 | 29,000 |
| Computer and information sciences | 84,800 | 6,400 | 38,600 | S | 33,600 | 5,700 | 45,000 |
| Male | 60,100 | 3,900 | 29,300 | S | 22,100 | 4,300 | 46,000 |
| Female | 24,700 | S | 9,300 | S | 11,500 | S | 44,000 |
| Mathematics and statistics | 25,600 | 6,000 | 4,100 | S | 13,700 | 1,500 | 36,000 |
| Male | 13,800 | 3,900 | 2,000 | S | 7,200 | S | 38,000 |
| Female | 11,800 | 2,100 | 2,200 | S | 6,500 | S | 35,000 |
| Physical and related sciences | 35,700 | 15,500 | 8,500 | 1,000 | 8,800 | 1,900 | 35,000 |
| Male | 18,900 | 8,400 | 4,800 | S | 4,600 | 900 | 36,000 |
| Female | 16,800 | 7,100 | 3,700 | S | 4,200 | 1,000 | 34,000 |
| Psychology | 153,000 | 44,600 | S | S | 82,700 | 15,200 | 28,000 |
| Male | 38,800 | 12,800 | S | S | 20,400 | S | 30,000 |
| Female | 114,200 | 31,800 | S | S | 62,200 | 12,700 | 28,000 |
| Social sciences | 232,300 | 51,000 | 12,900 | 3,400 | 144,400 | 20,600 | 30,000 |
| Male | 105,300 | 22,500 | 8,100 | S | 65,200 | 8,600 | 35,000 |
| Female | 126,900 | 28,600 | 4,800 | 2,500 | 79,200 | 12,000 | 29,000 |
| Engineering | 112,300 | 19,100 | 67,500 | S | 17,700 | 7,300 | 50,000 |
| Male | 88,300 | 15,000 | 54,200 | S | 13,700 | 5,100 | 50,000 |
| Female | 24,000 | 4,100 | 13,300 | S | 4,100 | 2,200 | 48,000 |
| Health | 143,300 | 17,700 | S | 103,700 | 13,600 | S | 43,000 |
| Male | 20,500 | 4,300 | S | 13,100 | 2,500 | S | 41,000 |
| Female | 122,800 | 13,500 | S | 90,500 | 11,100 | S | 43,000 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.
${ }^{\text {a }}$ S\&E occupations include postsecondary educators. For details, see technical notes.
${ }^{\mathrm{b}}$ S\&E-related occupations include diagnosing/treating practitioners, registered nurses, pharmacists, dieticians, therapists, physician assistants, health technologists and technicians, health and related sciences postsecondary educators and other health occupations. For details, see technical notes.
${ }^{\text {c }}$ Salary data are for principal jobs only. Full-time employed are those working at least 35 hours per week at their principal job. Self-employed persons and full-time students are excluded from salary data.

NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2000 or 2001; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 4. Primary education and employment status, and median salary of 2001 and 2002 S\&E master's degree recipients, by major field of degree and sex: October 2003

| Major field and sex | All recipients | Primary education and employment status |  |  |  |  | Median salary for full-time employed ${ }^{\text {c }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Not full-time student |  |  |  |  |
|  |  | Full-time student | Employed in S\&E ${ }^{\text {a }}$ occupation | Employed in S\&E-related ${ }^{\text {b }}$ occupation | Employed in non-S\&E occupation | Not employed |  |
| All fields | 246,700 | 40,900 | 75,800 | 58,900 | 51,600 | 19,400 | \$52,000 |
| Sciences | 117,000 | 27,900 | 42,000 | 2,000 | 36,200 | 9,000 | 45,000 |
| Male | 54,200 | 13,500 | 23,000 | S | 14,200 | 3,100 | 49,000 |
| Female | 62,800 | 14,400 | 18,900 | 1,600 | 22,000 | 5,900 | 40,000 |
| Biological, agricultural, and environmental life sciences | 16,800 | 4,500 | 7,300 | 1,300 | 2,800 | S | 40,000 |
| Male | 7,400 | 2,200 | 3,800 | S | 1,200 | S | 41,000 |
| Female | 9,400 | 2,400 | 3,600 | 1,200 | 1,600 | S | 38,000 |
| Computer and information sciences | 27,200 | 4,800 | 13,600 | S | 4,900 | 4,000 | 60,000 |
| Male | 17,000 | S | 9,100 | S | 3,400 | S | 66,000 |
| Female | 10,200 | S | 4,400 | S | 1,500 | S | 56,000 |
| Mathematics and statistics | 5,900 | 1,800 | 2,700 | S | 1,000 | S | 54,000 |
| Male | 3,600 | 1,300 | 1,700 | S | S | S | 56,000 |
| Female | 2,300 | 500 | 1,000 | S | 500 | S | 51,000 |
| Physical and related sciences | 9,600 | 3,100 | 4,800 | S | 1,300 | S | 49,000 |
| Male | 6,200 | 2,400 | 3,000 | S | S | S | 52,000 |
| Female | 3,400 | 700 | 1,800 | S | 600 | S | 45,000 |
| Psychology | 32,000 | 6,800 | 9,200 | S | 14,400 | S | 38,000 |
| Male | 8,400 | 2,300 | 2,700 | S | 3,200 | S | 36,000 |
| Female | 23,500 | 4,500 | 6,500 | S | 11,300 | S | 38,000 |
| Social sciences | 25,500 | 6,800 | 4,400 | S | 11,700 | 2,400 | 42,000 |
| Male | 11,600 | 2,700 | 2,700 | S | 5,200 | S | 43,000 |
| Female | 14,000 | 4,100 | 1,600 | S | 6,500 | 1,600 | 41,000 |
| Engineering | 47,000 | 10,800 | 29,900 | S | 3,600 | 2,600 | 65,000 |
| Male | 37,800 | 8,800 | 24,700 | S | 2,800 | 1,600 | 65,000 |
| Female | 9,200 | 2,000 | 5,200 | S | 900 | 1,000 | 60,000 |
| Health | 82,700 | S | S | 56,800 | 11,800 | S | 53,000 |
| Male | 18,400 | S | S | 11,300 | S | S | 55,000 |
| Female | 64,300 | S | S | 45,500 | 7,300 | S | 50,000 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.
${ }^{\text {a }}$ S\&E occupations include postsecondary educators. For details, see technical notes.
${ }^{\mathrm{b}}$ S\&E-related occupations include diagnosing/treating practitioners, registered nurses, pharmacists, dieticians, therapists, physician assistants, health technologists and technicians, health and related sciences postsecondary educators and other health occupations. For details, see technical notes.
${ }^{\text {c }}$ Salary data are for principal jobs only. Full-time employed are those working at least 35 hours per week at their principal job. Self-employed persons and full-time students are excluded from salary data.

NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2000 or 2001; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 5. Primary education and employment status, and median salary of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree and race/ethnicity: October 2003

| Major field and race/ethnicity | $\begin{gathered} \text { All } \\ \text { recipients } \\ \hline \end{gathered}$ | Primary education and employment status |  |  |  |  | Median salary for full-time employed $^{\text {c }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Not full-time student |  |  |  |  |
|  |  | Full-time student | Employed in $S \& E^{a}$ occupation | Employed in S\&E-related ${ }^{\text {b }}$ occupation | Employed in non-S\&E occupation | $\begin{gathered} \text { Not } \\ \text { employed } \end{gathered}$ |  |
| All science and engineering fields | 937,700 | 222,000 | 157,700 | 129,500 | 358,700 | 69,800 | \$36,000 |
| Sciences | 682,200 | 185,100 | 89,700 | 25,200 | 327,400 | 54,700 | 32,000 |
| Asian | 92,400 | 25,100 | 21,700 | S | 33,500 | 8,500 | 37,000 |
| Underrepresented minority | 111,400 | 25,000 | 10,200 | 4,000 | 61,800 | 10,400 | 31,000 |
| White, non-Hispanic | 457,600 | 129,900 | 55,600 | 16,500 | 221,600 | 34,000 | 31,000 |
| Other | 20,800 | 5,200 | S | S | 10,500 | S | 34,000 |
| Biological, agricultural, and environmental life sciences | 150,700 | 61,400 | 21,300 | 13,900 | 44,400 | 9,800 | 29,000 |
| Asian | 23,500 | 12,700 | S | S | S | S | S |
| Underrepresented minority | 19,400 | 6,300 | 2,700 | 2,200 | 6,100 | 2,100 | 30,000 |
| White, non-Hispanic | 102,400 | 40,100 | 14,500 | 9,100 | 32,900 | 5,800 | 29,000 |
| Other | 5,400 | S | S | S | S | S | S |
| Computer and information sciences | 84,800 | 6,400 | 38,600 | S | 33,600 | 5,700 | 45,000 |
| Asian | 27,500 | S | 13,700 | S | 9,800 | S | 47,000 |
| Underrepresented minority | 11,700 | S | 4,000 | S | 5,000 | S | 38,000 |
| White, non-Hispanic | 43,000 | 3,300 | 20,000 | S | 17,000 | S | 45,000 |
| Other | S | S | S | S | S | S | S |
| Mathematics and statistics | 25,600 | 6,000 | 4,100 | S | 13,700 | 1,500 | 36,000 |
| Asian | 4,400 | S | S | S | 2,200 | S | 40,000 |
| Underrepresented minority | 2,400 | 600 | S | S | 1,400 | S | 36,000 |
| White, non-Hispanic | 17,800 | 4,500 | 2,700 | S | 9,700 | S | 35,000 |
| Other | S | S | S | S | S | S | S |
| Physical and related sciences | 35,700 | 15,500 | 8,500 | 1,000 | 8,800 | 1,900 | 35,000 |
| Asian | 4,200 | 2,100 | S | S | S | S | S |
| Underrepresented minority | 3,900 | 1,500 | 1,000 | S | 900 | S | 33,000 |
| White, non-Hispanic | 26,500 | 11,200 | 6,700 | S | 6,800 | 1,400 | 35,000 |
| Other | 1,100 | S | S | S | S | S | S |
| Psychology | 153,000 | 44,600 | S | S | 82,700 | 15,200 | 28,000 |
| Asian | S | S | S | S | S | S | S |
| Underrepresented minority | 31,000 | 7,000 | S | S | 20,100 | S | 29,000 |
| White, non-Hispanic | 110,800 | 36,200 | S | S | 55,300 | 12,000 | 29,000 |
| Other | S | S | S | S | S | S | S |
| Social sciences | 232,300 | 51,000 | 12,900 | 3,400 | 144,400 | 20,600 | 30,000 |
| Asian | 25,000 | 6,800 | S | S | 11,900 | S | 36,000 |
| Underrepresented minority | 43,000 | 8,400 | 1,200 | S | 28,300 | 4,200 | 30,000 |
| White, non-Hispanic | 157,100 | 34,600 | 9,000 | S | 99,800 | 11,800 | 30,000 |
| Other | 7,200 | S | S | S | 4,400 | S | 30,000 |
| Engineering | 112,300 | 19,100 | 67,500 | S | 17,700 | 7,300 | 50,000 |
| Asian | 23,300 | 5,400 | 12,000 | S | 3,400 | S | 52,000 |
| Underrepresented minority | 13,500 | 2,000 | 8,000 | S | 2,600 | 900 | 47,000 |
| White, non-Hispanic | 71,400 | 11,100 | 45,300 | S | 10,800 | 4,000 | 49,000 |
| Other | 4,100 | S | 2,200 | S | S | S | 48,000 |

TABLE 5. Primary education and employment status, and median salary of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree and race/ethnicity: October 2003

| Major field and race/ethnicity | Primary education and employment status |  |  |  |  |  | Median salary for full-time employed ${ }^{\text {c }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All recipients |  | Not full-time student |  |  |  |  |
|  |  | Full-time student | Employed in S\&E ${ }^{\text {a }}$ occupation | Employed in S\&E-related ${ }^{\text {b }}$ occupation | Employed in non-S\&E occupation | $\begin{gathered} \text { Not } \\ \text { employed } \end{gathered}$ |  |
| Health | 143,300 | 17,700 | S | 103,700 | 13,600 | S | 43,000 |
| Asian | S | S | S | S | S | S | S |
| Underrepresented minority | 23,200 | S | S | 13,800 | S | S | 42,000 |
| White, non-Hispanic | 108,800 | 11,100 | S | 81,000 | 10,800 | S | 43,000 |
| Other | S | S | S | S | S | S | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ S\&E occupations include postsecondary educators. For details, see technical notes.
${ }^{\mathrm{b}}$ S\&E-related occupations include diagnosing/treating practitioners, registered nurses, pharmacists, dieticians, therapists, physician assistants, health technologists and technicians, health and related sciences postsecondary educators and other health occupations. For details, see technical notes.
${ }^{\text {c }}$ Salary data are for principal jobs only. Full-time employed are those working at least 35 hours per week at their principal job. Self-employed persons and full-time students are excluded from salary data.
NOTES: Detail may not add to total because of rounding. Underrepresented minority race/ethnicity category includes American Indian or Alaska Native, black, and Hispanic. "Other" race/ethnicity includes Native Hawaiian or other Pacific Islander and individuals reporting more than one race.
Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 6. Primary education and employment status, and median salary of 2001 and 2002 S\&E master's degree recipients, by major field of degree and race/ethnicity: October 2003

| Major field and race/ethnicity | All recipients | Primary education and employment status |  |  |  |  | Median salary for full-time employed ${ }^{\text {C }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Not full-time student |  |  |  |  |
|  |  | Full-time student | $\begin{gathered} \text { Employed in } \\ \text { S\&E }^{\text {a }} \\ \text { occupation } \\ \hline \end{gathered}$ | Employed in S\&E-related ${ }^{\text {b }}$ occupation | Employed in non-S\&E occupation | $\begin{gathered} \text { Not } \\ \text { employed } \end{gathered}$ |  |
| All science and engineering fields | 246,700 | 40,900 | 75,800 | 58,900 | 51,600 | 19,400 | \$52,000 |
| Sciences | 117,000 | 27,900 | 42,000 | 2,000 | 36,200 | 9,000 | 45,000 |
| Asian | 37,100 | 10,600 | 16,500 | S | 5,300 | 4,500 | 55,000 |
| Underrepresented minority | 12,900 | 3,100 | 3,200 | S | 5,600 | 900 | 41,000 |
| White, non-Hispanic | 64,200 | 13,100 | 21,400 | 1,700 | 24,700 | 3,300 | 41,000 |
| Other | 2,800 | S | S | S | S | S | 43,000 |
| Biological, agricultural, and environmental life sciences | 16,800 | 4,500 | 7,300 | 1,300 | 2,800 | S | 40,000 |
| Asian | 3,600 | S | S | S | S | S | S |
| Underrepresented minority | 1,300 | S | S | S | 500 | S | 40,000 |
| White, non-Hispanic | 11,300 | 2,500 | 5,200 | 1,100 | 2,100 | S | 41,000 |
| Other | S | S | S | S | S | S | S |
| Computer and information sciences | 27,200 | 4,800 | 13,600 | S | 4,900 | 4,000 | 60,000 |
| Asian | 20,600 | S | 11,200 | S | S | 3,200 | 59,000 |
| Underrepresented minority | 1,500 | S | S | S | S | S | 53,000 |
| White, non-Hispanic | 4,800 | S | 1,500 | S | 2,300 | S | 68,000 |
| Other | S | S | S | S | S | S | S |
| Mathematics and statistics | 5,900 | 1,800 | 2,700 | S | 1,000 | S | 54,000 |
| Asian | 2,900 | S | S | S | S | S | 55,000 |
| Underrepresented minority | 400 | S | S | S | S | S | 50,000 |
| White, non-Hispanic | 2,500 | 700 | 1,300 | S | S | S | 50,000 |
| Other | S | S | S | S | S | S | S |
| Physical and related sciences | 9,600 | 3,100 | 4,800 | S | 1,300 | S | 49,000 |
| Asian | 2,900 | 1,200 | S | S | S | S | 51,000 |
| Underrepresented minority | 900 | 300 | 500 | S | S | S | 48,000 |
| White, non-Hispanic | 5,400 | 1,500 | 2,800 | S | 900 | S | 49,000 |
| Other | S | S | S | S | S | S | S |
| Psychology | 32,000 | 6,800 | 9,200 | S | 14,400 | S | 38,000 |
| Asian | S | S | S | S | S | S | S |
| Underrepresented minority | 5,100 | 1,300 | 1,100 | S | 2,500 | S | 38,000 |
| White, non-Hispanic | 23,700 | 3,900 | 7,600 | S | 11,100 | S | 36,000 |
| Other | S | S | S | S | S | S | S |
| Social sciences | 25,500 | 6,800 | 4,400 | S | 11,700 | 2,400 | 42,000 |
| Asian | 4,300 | S | S | S | S | S | S |
| Underrepresented minority | 3,700 | 1,000 | S | S | 2,000 | S | 40,000 |
| White, non-Hispanic | 16,500 | 3,800 | 3,100 | S | 7,900 | 1,400 | 42,000 |
| Other | S | S | S | S | S | S | S |
| Engineering | 47,000 | 10,800 | 29,900 | S | 3,600 | 2,600 | 65,000 |
| Asian | 23,900 | 7,500 | 13,600 | S | S | S | 64,000 |
| Underrepresented minority | 2,900 | 600 | 1,900 | S | S | S | 64,000 |
| White, non-Hispanic | 18,900 | 2,200 | 13,700 | S | 2,200 | S | 65,000 |
| Other | 1,300 | S | S | S | S | S | S |

TABLE 6. Primary education and employment status, and median salary of 2001 and 2002 S\&E master's degree recipients, by major field of degree and race/ethnicity: October 2003

| Major field and race/ethnicity | All recipients | Primary education and employment status |  |  |  |  | Median salary for full-time employed ${ }^{\text {c }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Full-time student | Not full-time student |  |  |  |  |
|  |  |  | Employed in S\&E ${ }^{\text {a }}$ occupation | Employed in S\&E-related ${ }^{\text {b }}$ occupation | Employed in non-S\&E occupation | $\begin{gathered} \text { Not } \\ \text { employed } \end{gathered}$ |  |
| Health | 82,700 | S | S | 56,800 | 11,800 | S | 53,000 |
| Asian | S | S | S | S | S | S | S |
| Underrepresented minority | 8,200 | S | S | S | S | S | 43,000 |
| White, non-Hispanic | 68,100 | S | S | 49,900 | S | S | 52,000 |
| Other | S | S | S | S | S | S | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.
${ }^{\text {a }}$ S\&E occupations include postsecondary educators. For details, see technical notes.
${ }^{\text {b }}$ S\&E-related occupations include diagnosing/treating practitioners, registered nurses, pharmacists, dieticians, therapists, physician assistants, health technologists and technicians, health and related sciences postsecondary educators and other health occupations. For details, see technical notes.
${ }^{\text {c }}$ Salary data are for principal jobs only. Full-time employed are those working at least 35 hours per week at their principal job. Self-employed persons and full-time students are excluded from salary data.

NOTES: Detail may not add to total because of rounding. Underrepresented minority race/ethnicity category includes American Indian or Alaska Native, black, and Hispanic. "Other" race/ethnicity includes Native Hawaiian or other Pacific Islander and individuals reporting more than one race. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 7. Sex and race/ethnicity of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

|  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Includes Native Hawaiian or other Pacific Islander and individuals reporting more than one race.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 8. Sex and race/ethnicity of 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | $\begin{gathered} \text { All } \\ \text { recipients } \end{gathered}$ | Sex |  | Race/ethnicity |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Asian | Underrepresented minority ${ }^{\text {a }}$ | White, nonHispanic | Other ${ }^{\text {b }}$ |
|  |  | Male | Female |  |  |  |  |
| All fields | 246,700 | 110,300 | 136,300 | 65,100 | 24,000 | 151,200 | 6,400 |
| Sciences | 117,000 | 54,200 | 62,800 | 37,100 | 12,900 | 64,200 | 2,800 |
| Biological, agricultura, and environmental life sciences | 16,800 | 7,400 | 9,400 | 3,600 | 1,300 | 11,300 | S |
| Agricultural/food sciences | 2,900 | 1,700 | 1,200 | S | S | 2,200 | S |
| Biological sciences | 12,100 | 4,600 | 7,500 | 2,800 | 900 | 7,900 | S |
| Environmental life sciences | 1,800 | S | 800 | S | S | 1,200 | S |
| Computer and information sciences | 27,200 | 17,000 | 10,200 | 20,600 | 1,500 | 4,800 | S |
| Mathematics and statistics | 5,900 | 3,600 | 2,300 | 2,900 | 400 | 2,500 | S |
| Physical and related sciences | 9,600 | 6,200 | 3,400 | 2,900 | 900 | 5,400 | S |
| Chemistry, except biochemistry | 3,800 | 2,600 | 1,200 | S | 500 | 1,500 | S |
| Earth/atmospheric/ocean sciences | 2,600 | 1,400 | 1,200 | S | S | 1,900 | S |
| Physics/astronomy | 2,700 | 2,000 | 700 | 1,000 | S | 1,500 | S |
| Other physical sciences | S | S | S | S | S | S | S |
| Psychology | 32,000 | 8,400 | 23,500 | S | 5,100 | 23,700 | S |
| Social and related sciences | 25,500 | 11,600 | 14,000 | 4,300 | 3,700 | 16,500 | S |
| Economics | 3,900 | 2,200 | 1,700 | 1,300 | 600 | 1,800 | S |
| Political and related sciences | 7,500 | 4,000 | 3,400 | S | 900 | 4,900 | S |
| Sociology/anthropology | 5,500 | 2,100 | 3,400 | S | 1,100 | 3,600 | S |
| Other social sciences | 8,700 | 3,300 | 5,400 | S | 1,100 | 6,200 | S |
| Engineering | 47,000 | 37,800 | 9,200 | 23,900 | 2,900 | 18,900 | 1,300 |
| Aerospace/aeronautical/astronautical engineering | 1,100 | 900 | 200 | S | S | 700 | S |
| Chemical engineering | 1,900 | 1,400 | 500 | 1,200 | S | 600 | S |
| Civil/architectural engineering | 6,000 | 4,800 | 1,200 | 2,200 | 400 | 3,000 | S |
| Electrical/computer engineering | 16,100 | 12,900 | 3,200 | 10,800 | 500 | 4,500 | S |
| Industrial engineering | 3,700 | 3,000 | 700 | 1,800 | S | 1,600 | S |
| Materials/metallurgical engineering | 1,900 | 1,700 | S | S | S | S | S |
| Mechanical engineering | 6,000 | 5,200 | 800 | 2,700 | 500 | 2,600 | S |
| Other engineering | 10,300 | 7,900 | 2,400 | 3,500 | 800 | 5,600 | S |
| Health | 82,700 | 18,400 | 64,300 | S | 8,200 | 68,100 | S |

S = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{a}$ Includes American Indian or Alaska Native, black and Hispanic.
${ }^{\mathrm{b}}$ Includes Native Hawaiian or other Pacific Islander and individuals reporting more than one race.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 9. Race/ethnicity of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree and sex: October 2003

| Major field | $\begin{gathered} \text { All } \\ \text { recipients } \end{gathered}$ | Asian |  | Underrepresented minority ${ }^{\text {a }}$ |  | White, non-Hispanic |  | Other ${ }^{\text {b }}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Male | Female | Male | Female | Male | Female | Male | Female |
| All fields | 937,700 | 63,400 | 57,600 | 54,200 | 94,000 | 275,900 | 361,900 | 13,900 | 16,900 |
| Sciences | 682,200 | 45,000 | 47,400 | 41,700 | 69,700 | 203,100 | 254,500 | 8,800 | 12,000 |
| Biological, agricultural, and environmental life sciences | 150,700 | 9,700 | 13,800 | 7,200 | 12,200 | 42,600 | 59,800 | S | S |
| Agricultural/food sciences | 13,500 | S | S | S | S | 5,000 | 7,100 | S | S |
| Biological sciences | 125,000 | S | 13,300 | 6,700 | 11,400 | 32,100 | 48,000 | S | S |
| Environmental life sciences | 12,200 | S | S | S | S | 5,500 | 4,800 | S | S |
| Computer and information sciences | 84,800 | 17,500 | 10,000 | 7,600 | 4,100 | 33,800 | 9,100 | S | S |
| Mathematics and statistics | 25,600 | 2,500 | 1,900 | 1,300 | 1,200 | 9,400 | 8,400 | S | S |
| Physical and related sciences | 35,700 | 2,300 | 1,900 | 1,600 | 2,300 | 14,600 | 11,900 | S | S |
| Chemistry, except biochemistry | 19,800 | S | S | 900 | 1,500 | 5,900 | 7,500 | S | S |
| Earth/atmospheric/ocean sciences | 6,600 | S | S | S | S | 3,800 | 2,300 | S | S |
| Physics/astronomy | 7,000 | S | S | 400 | 200 | 4,000 | 1,400 | S | S |
| Other physical sciences | 2,300 | S | S | S | S | S | S | S | S |
| Psychology | 153,000 | S | S | 7,900 | 23,100 | 28,600 | 82,200 | S | S |
| Social and related sciences | 232,300 | 11,800 | 13,200 | 16,200 | 26,800 | 74,200 | 82,900 | 3,200 | 4,000 |
| Economics | 42,100 | 7,000 | S | 3,600 | 1,700 | 16,400 | 8,300 | S | S |
| Political and related sciences | 69,100 | S | S | 4,700 | 9,100 | 25,600 | 23,700 | S | S |
| Sociology/anthropology | 74,000 | S | S | 4,800 | 10,600 | 17,400 | 33,900 | S | S |
| Other social sciences | 47,100 | S | S | 3,100 | 5,500 | 14,900 | 17,100 | S | S |
| Engineering | 112,300 | 18,000 | 5,300 | 9,500 | 4,000 | 57,900 | 13,500 | 2,900 | 1,200 |
| Aerospace/aeronautical/astronautical engineering | 3,100 | S | S | 200 | S | 1,800 | 500 | S | S |
| Chemical engineering | 10,600 | S | S | 600 | 600 | 4,700 | 2,000 | S | S |
| Civil/architectural engineering | 16,300 | S | S | 1,100 | 700 | 8,900 | 2,500 | S | S |
| Electrical/computer engineering | 35,800 | 8,900 | S | 4,100 | 900 | 16,000 | 1,700 | S | S |
| Industrial engineering | 6,600 | S | S | 700 | 600 | 2,900 | 1,300 | S | S |
| Materials/metallurgical engineering | 2,300 | S | S | S | S | 1,100 | S | S | S |
| Mechanical engineering | 24,800 | 3,300 | S | 2,200 | 400 | 15,400 | 2,100 | S | S |
| Other engineering | 12,900 | S | S | S | 600 | 7,000 | 2,800 | S | S |
| Health | 143,300 | S | S | S | 20,200 | 14,900 | 93,900 | S | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Includes American Indian or Alaska Native, black and Hispanic.
${ }^{\mathrm{b}}$ Includes Native Hawaiian or other Pacific Islander and individuals reporting more than one race.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 10. Race/ethnicity of 2001 and 2002 S\&E master's degree recipients, by major field of degree and sex: October 2003

| Major field | $\begin{gathered} \text { All } \\ \text { recipients } \end{gathered}$ | Asian |  | Underrepresented minority ${ }^{a}$ |  | White, non-Hispanic |  | Other ${ }^{\text {b }}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Male | Female | Male | Female | Male | Female | Male | Female |
| All fields | 246,700 | 40,300 | 24,800 | 10,100 | 13,900 | 55,700 | 99,900 | 2,100 | S |
| Sciences | 117,000 | 20,600 | 16,400 | 5,100 | 7,800 | 26,800 | 39,000 | 1,200 | S |
| Biological, agricultural, and environmental life sciences | 16,800 | S | S | 500 | 800 | 5,300 | 6,100 | S | S |
| Agricultural/food sciences | 2,900 | S | S | S | S | 1,400 | S | S | S |
| Biological sciences | 12,100 | S | S | S | 400 | 3,100 | 4,900 | S | S |
| Environmental life sciences | 1,800 | S | S | S | S | S | S | S | S |
| Computer and information sciences | 27,200 | 12,400 | 8,200 | 1,000 | S | 3,300 | 1,800 | S | S |
| Mathematics and statistics | 5,900 | 2,000 | S | 200 | 200 | 1,300 | 1,200 | S | S |
| Physical and related sciences | 9,600 | 2,100 | S | 500 | 300 | 3,200 | 2,500 | S | S |
| Chemistry, except biochemistry | 3,800 | S | S | S | S | S | S | S | S |
| Earth/atmospheric/ocean sciences | 2,600 | S | S | S | S | 1,000 | 1,100 | S | S |
| Physics/astronomy | 2,700 | S | S | S | S | 1,100 | 400 | S | S |
| Other physical sciences | S | S | S | S | S | S | S | S | S |
| Psychology | 32,000 | S | S | S | 3,800 | 6,200 | 17,700 | S | S |
| Social and related sciences | 25,500 | 1,900 | 2,500 | 1,500 | 2,200 | 7,600 | 9,500 | S | S |
| Economics | 3,900 | S | S | S | S | 1,100 | 700 | S | S |
| Political and related sciences | 7,500 | S | S | S | S | 2,600 | 2,700 | S | S |
| Sociology/anthropology | 5,500 | S | S | S | 800 | 1,400 | 2,300 | S | S |
| Other social sciences | 8,700 | S | S | S | 800 | 2,500 | 3,800 | S | S |
| Engineering | 47,000 | 19,300 | 4,600 | 2,200 | 800 | 15,400 | 4,300 | S | S |
| Aerospace/aeronautical/astronautical engineering | 1,100 | S | S | S | S | 600 | S | S | S |
| Chemical engineering | 1,900 | S | S | S | S | S | S | S | S |
| Civil/architectural engineering | 6,000 | 1,800 | S | S | S | 2,400 | 900 | S | S |
| Electrical/computer engineering | 16,100 | 8,500 | 2,300 | S | S | 3,800 | S | S | S |
| Industrial engineering | 3,700 | S | S | S | S | 1,300 | S | S | S |
| Materials/metallurgical engineering | 1,900 | S | S | S | S | S | S | S | S |
| Mechanical engineering | 6,000 | 2,400 | S | S | S | 2,200 | 500 | S | S |
| Other engineering | 10,300 | 2,600 | S | S | S | 4,500 | 1,400 | S | S |
| Health | 82,700 | S | S | S | 5,400 | 13,400 | 56,600 | S | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{a}$ Includes American Indian or Alaska Native, black and Hispanic.
${ }^{\mathrm{b}}$ Includes Native Hawaiian or other Pacific Islander and individuals reporting more than one race.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 11. Age of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Less than 25 years | $\begin{aligned} & 25-29 \\ & \text { years } \\ & \hline \end{aligned}$ | 30-34 <br> years | 35 years <br> or more |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All fields | 937,700 | 467,700 | 307,500 | 70,400 | 92,100 |
| Sciences | 682,200 | 368,500 | 222,800 | 43,800 | 47,000 |
| Biological, agricultural, and environmental life sciences | 150,700 | 84,900 | 53,000 | 8,000 | 4,800 |
| Agricultural/food sciences | 13,500 | 6,700 | 6,100 | S | S |
| Biological sciences | 125,000 | 72,700 | 42,000 | 6,700 | S |
| Environmental life sciences | 12,200 | 5,400 | 4,900 | S | S |
| Computer and information sciences | 84,800 | 32,600 | 34,300 | 8,700 | 9,200 |
| Mathematics and statistics | 25,600 | 14,800 | 8,300 | 1,300 | 1,200 |
| Physical and related sciences | 35,700 | 20,200 | 10,700 | 2,300 | 2,500 |
| Chemistry, except biochemistry | 19,800 | 12,000 | 5,900 | S | 1,000 |
| Earth/atmospheric/ocean sciences | 6,600 | 2,800 | 2,200 | 900 | 600 |
| Physics/astronomy | 7,000 | 4,500 | 2,000 | S | S |
| Other physical sciences | 2,300 | S | S | S | 500 |
| Psychology | 153,000 | 88,600 | 43,800 | 8,900 | 11,800 |
| Social and related sciences | 232,300 | 127,500 | 72,700 | 14,600 | 17,500 |
| Economics | 42,100 | 28,300 | 10,800 | 1,700 | S |
| Political and related sciences | 69,100 | 43,200 | 21,800 | 1,900 | 2,100 |
| Sociology/anthropology | 74,000 | 35,500 | 25,600 | 5,600 | 7,300 |
| Other social sciences | 47,100 | 20,500 | 14,400 | 5,400 | 6,800 |
| Engineering | 112,300 | 50,600 | 48,400 | 8,100 | 5,300 |
| Aerospace/aeronautical/astronautical engineering | 3,100 | 1,800 | 1,100 | S | S |
| Chemical engineering | 10,600 | 5,900 | 4,000 | S | S |
| Civil/architectural engineering | 16,300 | 5,800 | 8,400 | 1,500 | S |
| Electrical/computer engineering | 35,800 | 16,500 | 13,700 | 3,100 | 2,400 |
| Industrial engineering | 6,600 | 2,500 | 3,500 | S | S |
| Materials/metallurgical engineering | 2,300 | 1,100 | S | S | S |
| Mechanical engineering | 24,800 | 10,300 | 11,500 | 1,500 | 1,400 |
| Other engineering | 12,900 | 6,700 | 5,200 | S | S |
| Health | 143,300 | 48,500 | 36,400 | 18,500 | 39,800 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 12. Age of 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All <br> recipients | Less than 25 <br> years | $25-29$ <br> years | $30-34$ <br> years | 35 years <br> or more |
| :--- | ---: | ---: | ---: | ---: | ---: |
| All fields | 246,700 | 6,500 | 107,100 | 63,200 | 69,800 |
| Sciences | 117,000 | 2,400 | 51,700 | 32,400 | 30,500 |
| Biological, agricultural, and environmental life sciences | 16,800 | S | 8,800 | 4,500 | 3,100 |
| Agricultural/food sciences | 2,900 | S | 1,400 | S | S |
| Biological sciences | 12,100 | S | 6,600 | 2,800 | 2,300 |
| Environmental life sciences | 1,800 | S | S | S | S |
| Computer and information sciences | 27,200 | S | 11,300 | 8,400 | 6,800 |
| Mathematics and statistics | 5,900 | S | 2,800 | 1,900 | 1,000 |
| Physical and related sciences | 9,600 | S | 4,300 | 3,000 | 2,100 |
| Chemistry, except biochemistry | 3,800 | S | 1,500 | 1,300 | S |
| Earth/atmospheric/ocean sciences | 2,600 | S | 1,100 | 800 | S |
| Physics/astronomy | 2,700 | S | 1,500 | 700 | S |
| Other physical sciences | S | S | S | S | S |
| Psychology | 32,000 | S | 14,100 | 7,200 | 10,500 |
| Social and related sciences | 25,500 | S | 10,500 | 7,500 | 7,000 |
| Economics | 3,900 | S | 2,000 | 900 | 800 |
| Political and related sciences | 7,500 | S | 3,200 | 2,200 | 1,900 |
| Sociology/anthropology | 5,500 | S | 2,500 | 1,800 | 1,100 |
| Other social sciences | 8,700 | S | 2,800 | 2,600 | 3,200 |
| Engineering | 47,000 | 2,300 | 25,900 | 11,600 | 7,200 |
| Aerospace/aeronautical/astronautical engineering | 1,100 | S | 700 | S | S |
| Chemical engineering | 1,900 | S | 1,200 | S | S |
| Civilarchitectural engineering | 6,000 | S | 3,500 | 1,600 | S |
| Electrical/computer engineering | 16,100 | S | 9,300 | 3,700 | 2,000 |
| Industrial engineering | 3,700 | S | 1,900 | 800 | 1,000 |
| Materials/metallurgical engineering | 1,900 | S | S | S | S |
| Mechanical engineering | 6,000 | S | 4,200 | 1,200 | S |
| Other engineering | 10,300 | S | 4,100 | 3,100 | 2,700 |
| Health | 82,700 | S | 29,500 | 19,200 | 32,200 |
|  |  |  |  |  |  |

$S$ = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 13. Citizenship of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All recipients | U.S. citizen |  |  | Non-U.S. citizen |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | From birth | Naturalized |  |
| All fields | 937,700 | 896,600 | 823,000 | 73,500 | 41,200 |
| Sciences | 682,200 | 654,900 | 596,800 | 58,100 | 27,300 |
| Biological, agricultural, and environmental life sciences | 150,700 | 146,100 | 131,900 | 14,200 | 4,700 |
| Agricultural/food sciences | 13,500 | 13,500 | 13,400 | S | S |
| Biological sciences | 125,000 | 120,400 | 106,900 | 13,500 | 4,600 |
| Environmental life sciences | 12,200 | 12,200 | 11,600 | S | S |
| Computer and information sciences | 84,800 | 76,000 | 58,700 | 17,300 | 8,800 |
| Mathematics and statistics | 25,600 | 24,100 | 21,600 | 2,600 | 1,500 |
| Physical and related sciences | 35,700 | 34,500 | 32,400 | 2,000 | 1,300 |
| Chemistry, except biochemistry | 19,800 | 19,000 | 17,400 | 1,600 | S |
| Earth/atmospheric/ocean sciences | 6,600 | 6,600 | 6,400 | S | S |
| Physics/astronomy | 7,000 | 6,600 | 6,400 | S | S |
| Other physical sciences | 2,300 | 2,200 | 2,200 | S | S |
| Psychology | 153,000 | 148,400 | 140,300 | 8,100 | S |
| Social and related sciences | 232,300 | 225,800 | 211,800 | 13,900 | 6,500 |
| Economics | 42,100 | 40,000 | 36,100 | 3,900 | S |
| Political and related sciences | 69,100 | 67,500 | 64,100 | 3,300 | S |
| Sociology/anthropology | 74,000 | 72,500 | 67,500 | 5,000 | S |
| Other social sciences | 47,100 | 45,800 | 44,100 | S | S |
| Engineering | 112,300 | 102,900 | 91,400 | 11,400 | 9,500 |
| Aerospace/aeronautical/astronautical engineering | 3,100 | 3,100 | 2,800 | 200 | S |
| Chemical engineering | 10,600 | 10,100 | 8,700 | 1,400 | S |
| Civil/architectural engineering | 16,300 | 15,200 | 14,300 | S | S |
| Electrical/computer engineering | 35,800 | 30,200 | 24,100 | 6,100 | 5,600 |
| Industrial engineering | 6,600 | 6,100 | 5,600 | S | S |
| Materials/metallurgical engineering | 2,300 | 1,900 | 1,700 | S | S |
| Mechanical engineering | 24,800 | 23,900 | 22,000 | 1,900 | S |
| Other engineering | 12,900 | 12,500 | 12,100 | S | S |
| Health | 143,300 | 138,800 | 134,800 | S | S |

$S$ = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 14. Citizenship of 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All recipients | U.S. citizen |  |  | Non-U.S. citizen |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | From birth | Naturalized |  |
| All fields | 246,700 | 188,100 | 170,100 | 18,000 | 58,600 |
| Sciences | 117,000 | 82,100 | 74,700 | 7,500 | 34,800 |
| Biological, agricultural, and environmental life sciences | 16,800 | 14,100 | 13,200 | S | 2,700 |
| Agricultural/food sciences | 2,900 | 2,300 | 2,300 | S | S |
| Biological sciences | 12,100 | 10,200 | 9,300 | S | 1,800 |
| Environmental life sciences | 1,800 | 1,600 | 1,600 | S | S |
| Computer and information sciences | 27,200 | 7,400 | 5,800 | 1,600 | 19,800 |
| Mathematics and statistics | 5,900 | 3,000 | 2,200 | S | 2,800 |
| Physical and related sciences | 9,600 | 6,300 | 5,800 | S | 3,200 |
| Chemistry, except biochemistry | 3,800 | 2,100 | 1,800 | S | 1,700 |
| Earth/atmospheric/ocean sciences | 2,600 | 2,400 | 2,300 | S | S |
| Physics/astronomy | 2,700 | 1,500 | 1,300 | S | 1,200 |
| Other physical sciences | S | S | S | S | S |
| Psychology | 32,000 | 30,500 | 28,700 | S | S |
| Social and related sciences | 25,500 | 20,800 | 19,000 | 1,800 | 4,800 |
| Economics | 3,900 | 1,800 | 1,600 | S | 2,100 |
| Political and related sciences | 7,500 | 6,500 | 5,700 | S | S |
| Sociology/anthropology | 5,500 | 5,100 | 4,700 | S | S |
| Other social sciences | 8,700 | 7,400 | 7,000 | S | S |
| Engineering | 47,000 | 24,700 | 20,700 | 4,000 | 22,300 |
| Aerospace/aeronautical/astronautical engineering | 1,100 | 800 | 700 | S | S |
| Chemical engineering | 1,900 | 900 | 900 | S | 1,000 |
| Civil/architectural engineering | 6,000 | 3,600 | 3,100 | S | 2,400 |
| Electrical/computer engineering | 16,100 | 6,400 | 4,500 | 1,900 | 9,700 |
| Industrial engineering | 3,700 | 2,000 | 1,700 | S | 1,800 |
| Materials/metallurgical engineering | 1,900 | S | S | S | S |
| Mechanical engineering | 6,000 | 3,100 | 2,800 | S | 2,900 |
| Other engineering | 10,300 | 7,300 | 6,600 | S | 3,000 |
| Health | 82,700 | 81,200 | 74,700 | S | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
$S \& E=$ science and engineering.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 15. Undergraduate grade point average of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Undergraduate GPA |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Below 2.75 | 2.75 to 3.24 | 3.25 or higher |
| All fields | 937,700 | 99,000 | 308,900 | 528,700 |
| Sciences | 682,200 | 76,900 | 226,000 | 378,100 |
| Biological, agricultural, and environmental life sciences | 150,700 | 15,600 | 47,800 | 86,600 |
| Agricultural/food sciences | 13,500 | 1,700 | 4,900 | 7,000 |
| Biological sciences | 125,000 | 12,800 | 37,700 | 73,800 |
| Environmental life sciences | 12,200 | S | 5,300 | 5,800 |
| Computer and information sciences | 84,800 | 8,900 | 35,500 | 40,300 |
| Mathematics and statistics | 25,600 | 2,000 | 7,800 | 15,800 |
| Physical and related sciences | 35,700 | 3,600 | 10,800 | 21,400 |
| Chemistry, except biochemistry | 19,800 | 1,700 | 5,800 | 12,300 |
| Earth/atmospheric/ocean sciences | 6,600 | 1,100 | 2,400 | 3,200 |
| Physics/astronomy | 7,000 | 500 | 2,000 | 4,600 |
| Other physical sciences | 2,300 | S | S | 1,300 |
| Psychology | 153,000 | 16,300 | 50,000 | 86,700 |
| Social and related sciences | 232,300 | 30,500 | 74,100 | 127,300 |
| Economics | 42,100 | 4,900 | 16,800 | 20,400 |
| Political and related sciences | 69,100 | 8,200 | 22,300 | 38,300 |
| Sociology/anthropology | 74,000 | 11,400 | 23,000 | 39,600 |
| Other social sciences | 47,100 | 5,900 | 12,000 | 29,000 |
| Engineering | 112,300 | 14,200 | 43,700 | 54,400 |
| Aerospace/aeronautical/astronautical engineering | 3,100 | 400 | 1,400 | 1,400 |
| Chemical engineering | 10,600 | 800 | 3,800 | 6,000 |
| Civil/architectural engineering | 16,300 | 2,600 | 6,700 | 7,000 |
| Electrical/computer engineering | 35,800 | 3,900 | 13,900 | 17,900 |
| Industrial engineering | 6,600 | 1,000 | 2,800 | 2,800 |
| Materials/metallurgical engineering | 2,300 | S | S | 1,100 |
| Mechanical engineering | 24,800 | 3,600 | 9,200 | 12,000 |
| Other engineering | 12,900 | 1,400 | 5,300 | 6,200 |
| Health | 143,300 | 7,900 | 39,200 | 96,200 |

GPA = Grade point average.
$S=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: Detail may not add to total because of rounding and because a small number of graduates reported that their undergraduate courses were ungraded and have been excluded. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 16. Undergraduate grade point average of 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | $\begin{gathered} \hline \text { All } \\ \text { recipients } \\ \hline \end{gathered}$ | Undergraduate GPA |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Below 2.75 | 2.75 to 3.24 | 3.25 or higher |
| All fields | 246,700 | 16,100 | 58,400 | 171,300 |
| Sciences | 117,000 | 7,400 | 29,400 | 79,300 |
| Biological, agricultural, and environmental life sciences | 16,800 | 1,600 | 5,800 | 9,400 |
| Agriculturalffood sciences | 2,900 | S | S | 1,500 |
| Biological sciences | 12,100 | 1,100 | 4,000 | 7,000 |
| Environmental life sciences | 1,800 | S | S | 1,000 |
| Computer and information sciences | 27,200 | S | 5,800 | 20,100 |
| Mathematics and statistics | 5,900 | S | 1,000 | 4,700 |
| Physical and related sciences | 9,600 | S | 2,500 | 6,500 |
| Chemistry, except biochemistry | 3,800 | S | S | 2,800 |
| Earth/atmospheric/ocean sciences | 2,600 | S | 1,000 | 1,400 |
| Physics/astronomy | 2,700 | S | 600 | 2,000 |
| Other physical sciences | S | S | S | S |
| Psychology | 32,000 | 2,700 | 8,800 | 20,400 |
| Social and related sciences | 25,500 | 1,500 | 5,500 | 18,200 |
| Economics | 3,900 | S | 600 | 3,000 |
| Political and related sciences | 7,500 | S | 1,500 | 5,500 |
| Sociology/anthropology | 5,500 | S | 1,400 | 3,500 |
| Other social sciences | 8,700 | S | 1,900 | 6,200 |
| Engineering | 47,000 | 2,400 | 11,900 | 32,500 |
| Aerospace/aeronautical/astronautical engineering | 1,100 | S | S | 900 |
| Chemical engineering | 1,900 | S | 500 | 1,400 |
| Civil/architectural engineering | 6,000 | S | 1,800 | 3,800 |
| Electrical/computer engineering | 16,100 | S | 3,600 | 11,900 |
| Industrial engineering | 3,700 | S | 600 | 2,700 |
| Materials/metallurgical engineering | 1,900 | S | S | S |
| Mechanical engineering | 6,000 | S | 1,400 | 4,400 |
| Other engineering | 10,300 | S | 3,400 | 6,000 |
| Health | 82,700 | S | 17,100 | 59,400 |

GPA = Grade point average.
$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: Detail may not add to total because of rounding and because a small number of graduates reported that their undergraduate courses were ungraded and have been excluded. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 17. Community college attendance and associate's degree receipt among 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Attended community college |  | Earned associate's degree |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Percent | Number | Percent |
| All fields | 937,700 | 470,100 | 50 | 160,100 | 17 |
| Sciences | 682,200 | 326,600 | 48 | 103,200 | 15 |
| Biological, agricultural, and environmental life sciences | 150,700 | 68,100 | 45 | 17,800 | 12 |
| Agricultural/food sciences | 13,500 | 6,300 | 46 | 2,700 | 20 |
| Biological sciences | 125,000 | 54,800 | 44 | 12,600 | 10 |
| Environmental life sciences | 12,200 | 7,000 | 58 | 2,500 | 21 |
| Computer and information sciences | 84,800 | 43,000 | 51 | 16,500 | 19 |
| Mathematics and statistics | 25,600 | 10,900 | 43 | 3,400 | 13 |
| Physical and related sciences | 35,700 | 15,300 | 43 | 3,600 | 10 |
| Chemistry, except biochemistry | 19,800 | 8,300 | 42 | 1,600 | 8 |
| Earth/atmospheric/ocean sciences | 6,600 | 3,600 | 54 | 1,000 | 15 |
| Physics/astronomy | 7,000 | 2,200 | 31 | S | S |
| Other physical sciences | 2,300 | 1,200 | 55 | 600 | 24 |
| Psychology | 153,000 | 78,300 | 51 | 28,200 | 18 |
| Social and related sciences | 232,300 | 111,100 | 48 | 33,800 | 15 |
| Economics | 42,100 | 17,000 | 40 | 3,000 | 7 |
| Political and related sciences | 69,100 | 27,000 | 39 | 4,600 | 7 |
| Sociology/anthropology | 74,000 | 40,400 | 55 | 14,100 | 19 |
| Other social sciences | 47,100 | 26,700 | 57 | 12,100 | 26 |
| Engineering | 112,300 | 47,400 | 42 | 10,300 | 9 |
| Aerospace/aeronautical/astronautical engineering | 3,100 | 1,100 | 36 | S | S |
| Chemical engineering | 10,600 | 4,900 | 46 | 700 | 6 |
| Civil/architectural engineering | 16,300 | 7,100 | 44 | 1,800 | 11 |
| Electrical/computer engineering | 35,800 | 15,700 | 44 | 3,800 | 11 |
| Industrial engineering | 6,600 | 2,600 | 39 | 500 | 8 |
| Materials/metallurgical engineering | 2,300 | S | S | S | S |
| Mechanical engineering | 24,800 | 10,600 | 43 | 2,100 | 9 |
| Other engineering | 12,900 | 4,900 | 38 | S | S |
| Health | 143,300 | 96,000 | 67 | 46,600 | 33 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 18. Community college attendance and associate's degree receipt among 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Attended community college |  | Earned associate's degree |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Percent | Number | Percent |
| All fields | 246,700 | 110,300 | 45 | 37,200 | 15 |
| Sciences | 117,000 | 42,900 | 37 | 13,700 | 12 |
| Biological, agricultural, and environmental life sciences | 16,800 | 6,100 | 37 | 1,400 | 8 |
| Agricultural/food sciences | 2,900 | 1,300 | 44 | S | S |
| Biological sciences | 12,100 | 4,200 | 35 | S | S |
| Environmental life sciences | 1,800 | S | S | S | S |
| Computer and information sciences | 27,200 | 7,600 | 28 | 2,500 | 9 |
| Mathematics and statistics | 5,900 | 1,400 | 24 | S | S |
| Physical and related sciences | 9,600 | 3,500 | 37 | 700 | 7 |
| Chemistry, except biochemistry | 3,800 | 1,100 | 28 | S | S |
| Earth/atmospheric/ocean sciences | 2,600 | 1,400 | 53 | S | S |
| Physics/astronomy | 2,700 | 800 | 31 | S | S |
| Other physical sciences | S | S | S | S | S |
| Psychology | 32,000 | 14,600 | 46 | 5,900 | 18 |
| Social and related sciences | 25,500 | 9,600 | 37 | 2,900 | 11 |
| Economics | 3,900 | 700 | 19 | S | S |
| Political and related sciences | 7,500 | 2,800 | 37 | S | S |
| Sociology/anthropology | 5,500 | 2,400 | 43 | 900 | 17 |
| Other social sciences | 8,700 | 3,600 | 42 | S | S |
| Engineering | 47,000 | 13,400 | 28 | 3,200 | 7 |
| Aerospace/aeronautical/astronautical engineering | 1,100 | S | S | S | S |
| Chemical engineering | 1,900 | S | S | S | S |
| Civil/architectural engineering | 6,000 | 1,800 | 30 | S | S |
| Electrical/computer engineering | 16,100 | 4,200 | 26 | S | S |
| Industrial engineering | 3,700 | 900 | 24 | S | S |
| Materials/metallurgical engineering | 1,900 | S | S | S | S |
| Mechanical engineering | 6,000 | 1,300 | 22 | S | S |
| Other engineering | 10,300 | 4,300 | 42 | S | S |
| Health | 82,700 | 54,000 | 65 | 20,300 | 25 |

S = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 19. Sources of financial support for 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Assistantships, work study | Earnings from employment | Employer assistance | Gifts from parents/ relatives | Loans from college, bank, government | Loans from parents/ relatives | Scholar- <br> ships, <br> grants, <br> fellowships | Other <br> sources |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All fields | 937,700 | 220,700 | 535,700 | 85,000 | 632,300 | 565,900 | 82,100 | 581,100 | 23,100 |
| Sciences | 682,200 | 169,900 | 385,400 | 47,200 | 468,100 | 414,200 | 60,000 | 422,000 | 14,100 |
| Biological, agricultural, and environmental life sciences | 150,700 | 39,300 | 88,900 | 7,000 | 110,200 | 89,700 | 13,800 | 106,600 | S |
| Agricultural/food sciences | 13,500 | 2,500 | 8,300 | S | 9,000 | 7,900 | 1,400 | 9,800 | S |
| Biological sciences | 125,000 | 32,900 | 73,500 | 6,000 | 93,700 | 73,500 | 11,000 | 88,500 | S |
| Environmental life sciences | 12,200 | 3,900 | 7,100 | S | 7,500 | 8,300 | S | 8,300 | S |
| Computer and information sciences | 84,800 | 16,800 | 45,000 | 12,300 | 49,400 | 49,600 | 6,700 | 45,300 | S |
| Mathematics and statistics | 25,600 | 7,200 | 14,300 | 1,300 | 16,700 | 16,000 | 2,100 | 18,600 | S |
| Physical and related sciences | 35,700 | 10,400 | 21,500 | 2,800 | 25,100 | 21,300 | 2,500 | 26,000 | S |
| Chemistry, except biochemistry | 19,800 | 5,500 | 11,500 | 1,300 | 14,300 | 11,400 | 1,200 | 15,300 | S |
| Earth/atmospheric/ocean sciences | 6,600 | 2,100 | 3,900 | 700 | 4,300 | 4,600 | S | 4,400 | S |
| Physics/astronomy | 7,000 | 2,600 | 4,300 | S | 5,300 | 3,800 | 500 | 5,000 | S |
| Other physical sciences | 2,300 | S | 1,700 | S | 1,200 | 1,500 | S | 1,300 | S |
| Psychology | 153,000 | 37,600 | 82,600 | 10,000 | 106,100 | 91,100 | 12,000 | 87,700 | S |
| Social and related sciences | 232,300 | 58,600 | 133,200 | 13,800 | 160,700 | 146,600 | 23,000 | 137,900 | 6,100 |
| Economics | 42,100 | 8,900 | 23,300 | 2,300 | 33,100 | 22,600 | 3,700 | 22,000 | S |
| Political and related sciences | 69,100 | 20,200 | 38,400 | S | 49,600 | 46,100 | 6,500 | 46,900 | S |
| Sociology/anthropology | 74,000 | 20,200 | 44,500 | 5,700 | 48,000 | 50,400 | 9,200 | 44,100 | S |
| Other social sciences | 47,100 | 9,400 | 27,000 | 4,000 | 30,100 | 27,500 | 3,600 | 24,900 | S |
| Engineering | 112,300 | 24,900 | 68,300 | 9,200 | 78,100 | 61,100 | 13,100 | 70,800 | 2,000 |
| Aerospace/aeronautical/astronautical engineering | 3,100 | 500 | 1,900 | S | 2,300 | 2,000 | 300 | 2,300 | S |
| Chemical engineering | 10,600 | 2,200 | 6,300 | S | 8,000 | 5,400 | 900 | 7,900 | S |
| Civil/architectural engineering | 16,300 | 3,000 | 10,400 | 1,300 | 11,700 | 10,100 | 1,900 | 10,200 | S |
| Electrical/computer engineering | 35,800 | 8,800 | 20,400 | 3,300 | 23,000 | 18,100 | 4,700 | 20,600 | S |
| Industrial engineering | 6,600 | 1,500 | 3,600 | S | 4,800 | 3,400 | 1,000 | 3,900 | S |
| Materials/metallurgical engineering | 2,300 | S | 1,200 | S | 1,600 | 1,200 | S | 1,200 | S |
| Mechanical engineering | 24,800 | 5,400 | 15,900 | 2,500 | 16,600 | 13,700 | 2,600 | 16,000 | S |
| Other engineering | 12,900 | 3,200 | 8,500 | S | 10,200 | 7,100 | 1,400 | 8,800 | S |
| Health | 143,300 | 25,800 | 82,000 | 28,600 | 86,100 | 90,600 | 9,000 | 88,200 | S |

S = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: Detail may not add to total because of rounding. Numbers for sources of support sum to more than the total because of multiple responses. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 20. Sources of financial support for 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Assistantships, work study | Earnings from employment | Employer assistance | Gifts from <br> parents/ <br> relatives | Loans from college, bank, government | Loans from parents/ relatives | Scholar- <br> ships, <br> grants, fellowships | Other <br> sources |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All fields | 246,700 | 88,400 | 124,900 | 59,500 | 89,700 | 102,000 | 11,700 | 121,800 | 4,200 |
| Sciences | 117,000 | 51,300 | 57,500 | 23,800 | 45,900 | 44,600 | 5,500 | 61,200 | 3,100 |
| Biological, agricultural, and environmental life sciences | 16,800 | 8,500 | 7,800 | 3,800 | 5,600 | 6,400 | S | 9,400 | S |
| Agricultural/food sciences | 2,900 | 1,800 | 1,600 | S | S | S | S | 1,800 | S |
| Biological sciences | 12,100 | 5,700 | 5,400 | 2,900 | 4,400 | 4,800 | S | 6,600 | S |
| Environmental life sciences | 1,800 | 1,000 | S | S | S | S | S | 1,000 | S |
| Computer and information sciences | 27,200 | 10,300 | 9,800 | 7,000 | 14,900 | 4,000 | S | 10,100 | S |
| Mathematics and statistics | 5,900 | 3,400 | 2,100 | 1,300 | 1,600 | 1,100 | S | 4,100 | S |
| Physical and related sciences | 9,600 | 5,900 | 3,600 | 2,200 | 2,000 | 2,100 | S | 6,900 | S |
| Chemistry, except biochemistry | 3,800 | 2,300 | 1,000 | S | S | 900 | S | 2,700 | S |
| Earth/atmospheric/ocean sciences | 2,600 | 1,400 | 1,600 | S | S | 800 | S | 1,700 | S |
| Physics/astronomy | 2,700 | 2,000 | 700 | 800 | 500 | S | S | 2,000 | S |
| Other physical sciences | S | S | S | S | S | S | S | S | S |
| Psychology | 32,000 | 11,300 | 19,300 | 4,800 | 12,300 | 19,700 | S | 14,000 | S |
| Social and related sciences | 25,500 | 11,900 | 14,900 | 4,700 | 9,600 | 11,300 | 1,400 | 16,700 | S |
| Economics | 3,900 | 2,100 | 1,900 | 900 | 1,700 | 1,100 | S | 2,600 | S |
| Political and related sciences | 7,500 | 2,600 | 4,400 | S | 2,800 | 4,000 | S | 4,900 | S |
| Sociology/anthropology | 5,500 | 3,000 | 3,100 | 1,100 | 1,900 | 3,100 | S | 3,700 | S |
| Other social sciences | 8,700 | 4,200 | 5,500 | 1,600 | 3,300 | 3,100 | S | 5,500 | S |
| Engineering | 47,000 | 22,700 | 19,200 | 15,800 | 14,200 | 8,600 | 2,900 | 25,400 | S |
| Aerospace/aeronautical/astronautical engineering | 1,100 | 600 | 400 | S | S | S | S | 800 | S |
| Chemical engineering | 1,900 | 1,000 | 400 | S | S | 300 | S | 1,600 | S |
| Civil/architectural engineering | 6,000 | 3,000 | 2,200 | 1,500 | 2,000 | 1,300 | S | 3,600 | S |
| Electrical/computer engineering | 16,100 | 7,600 | 6,900 | 6,000 | 5,700 | 2,300 | S | 8,600 | S |
| Industrial engineering | 3,700 | 2,000 | 1,300 | 1,400 | S | S | S | 1,600 | S |
| Materials/metallurgical engineering | 1,900 | S | S | S | S | S | S | S | S |
| Mechanical engineering | 6,000 | 3,500 | 2,600 | 1,600 | 1,700 | 1,200 | S | 3,300 | S |
| Other engineering | 10,300 | 4,100 | 4,900 | 4,300 | 2,400 | 2,100 | S | 4,700 | S |
| Health | 82,700 | 14,300 | 48,200 | 20,000 | 29,600 | 48,800 | S | 35,200 | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: Detail may not add to total because of rounding. Numbers for sources of support sum to more than the total because of multiple responses. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 21. Amount borrowed for undergraduate education by 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Did not borrow | \$1-\$9,999 | \$10,000-\$24,999 | \$25,000 or more |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All fields | 937,700 | 324,300 | 151,200 | 296,300 | 165,900 |
| Sciences | 682,200 | 235,500 | 119,000 | 216,300 | 111,300 |
| Biological, agricultural, and environmental life sciences | 150,700 | 54,400 | 25,700 | 48,200 | 22,400 |
| Agricultural/food sciences | 13,500 | 5,200 | 2,000 | 4,200 | 2,100 |
| Biological sciences | 125,000 | 45,700 | 22,000 | 38,800 | 18,500 |
| Environmental life sciences | 12,200 | 3,500 | 1,700 | 5,200 | 1,900 |
| Computer and information sciences | 84,800 | 31,000 | 14,200 | 23,700 | 15,800 |
| Mathematics and statistics | 25,600 | 9,000 | 4,600 | 7,700 | 4,300 |
| Physical and related sciences | 35,700 | 13,000 | 7,000 | 9,600 | 6,100 |
| Chemistry, except biochemistry | 19,800 | 7,600 | 4,400 | 4,800 | 2,900 |
| Earth/atmospheric/ocean sciences | 6,600 | 1,900 | 1,000 | 2,300 | 1,500 |
| Physics/astronomy | 7,000 | 3,100 | 1,200 | 1,800 | 900 |
| Other physical sciences | 2,300 | S | S | S | S |
| Psychology | 153,000 | 54,600 | 26,200 | 47,400 | 24,800 |
| Social and related sciences | 232,300 | 73,500 | 41,300 | 79,700 | 37,700 |
| Economics | 42,100 | 17,300 | 5,800 | 12,900 | 6,100 |
| Political and related sciences | 69,100 | 21,700 | 11,100 | 24,500 | 11,900 |
| Sociology/anthropology | 74,000 | 18,400 | 14,000 | 28,300 | 13,300 |
| Other social sciences | 47,100 | 16,200 | 10,400 | 13,900 | 6,500 |
| Engineering | 112,300 | 44,400 | 17,100 | 31,600 | 19,200 |
| Aerospace/aeronautical/astronautical engineering | 3,100 | 1,100 | 400 | 1,000 | 700 |
| Chemical engineering | 10,600 | 4,700 | 1,700 | 2,800 | 1,400 |
| Civil/architectural engineering | 16,300 | 5,400 | 2,300 | 5,400 | 3,200 |
| Electrical/computer engineering | 35,800 | 14,100 | 5,900 | 8,900 | 6,900 |
| Industrial engineering | 6,600 | 2,900 | 1,200 | 1,600 | 900 |
| Materials/metallurgical engineering | 2,300 | S | S | S | S |
| Mechanical engineering | 24,800 | 9,800 | 3,300 | 8,100 | 3,600 |
| Other engineering | 12,900 | 5,300 | 1,900 | 3,500 | 2,200 |
| Health | 143,300 | 44,400 | 15,100 | 48,400 | 35,400 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.

NOTES: Undergraduate loan amount represents entire amount borrowed during undergraduate education. Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 22. Amount borrowed for undergraduate and graduate education by 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Did not borrow | \$1-\$9,999 | \$10,000-\$24,999 | \$25,000 or more |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All fields | 246,700 | 130,300 | 29,600 | 37,800 | 48,900 |
| Sciences | 117,000 | 65,500 | 15,300 | 18,500 | 17,700 |
| Biological, agricultural, and environmental life sciences | 16,800 | 9,600 | 3,100 | 1,900 | 2,200 |
| Agricultural/food sciences | 2,900 | 1,800 | S | S | S |
| Biological sciences | 12,100 | 6,900 | 2,100 | 1,300 | 1,800 |
| Environmental life sciences | 1,800 | 1,000 | S | S | S |
| Computer and information sciences | 27,200 | 19,600 | 2,500 | 3,300 | S |
| Mathematics and statistics | 5,900 | 4,700 | S | S | S |
| Physical and related sciences | 9,600 | 7,300 | 700 | 900 | S |
| Chemistry, except biochemistry | 3,800 | 2,900 | S | S | S |
| Earth/atmospheric/ocean sciences | 2,600 | 1,700 | S | S | S |
| Physics/astronomy | 2,700 | 2,200 | S | S | S |
| Other physical sciences | S | S | S | S | S |
| Psychology | 32,000 | 10,400 | 5,600 | 7,700 | 8,200 |
| Social and related sciences | 25,500 | 14,000 | 3,100 | 4,200 | 4,300 |
| Economics | 3,900 | 2,500 | S | S | S |
| Political and related sciences | 7,500 | 3,700 | S | S | 2,100 |
| Sociology/anthropology | 5,500 | 2,300 | 1,000 | 1,000 | 1,200 |
| Other social sciences | 8,700 | 5,500 | S | 1,800 | S |
| Engineering | 47,000 | 34,000 | 5,500 | 5,400 | 2,100 |
| Aerospace/aeronautical/astronautical engineering | 1,100 | 900 | S | S | S |
| Chemical engineering | 1,900 | 1,500 | S | S | S |
| Civil/architectural engineering | 6,000 | 4,100 | 1,100 | S | S |
| Electrical/computer engineering | 16,100 | 12,000 | 1,900 | S | S |
| Industrial engineering | 3,700 | 3,000 | S | S | S |
| Materials/metallurgical engineering | 1,900 | S | S | S | S |
| Mechanical engineering | 6,000 | 4,100 | S | S | S |
| Other engineering | 10,300 | 7,300 | S | 1,500 | S |
| Health | 82,700 | 30,800 | 8,800 | 14,000 | 29,100 |

$S$ = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: Undergraduate loan amount represents entire amount borrowed during undergraduate education. Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002 ; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 23. Amount owed for undergraduate loans by 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Did not owe | \$1-\$9,999 | \$10,000-\$24,999 | \$25,000 or more |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All fields | 937,700 | 400,400 | 165,300 | 255,800 | 116,300 |
| Sciences | 682,200 | 291,700 | 122,500 | 186,900 | 81,100 |
| Biological, agricultural, and environmental life sciences | 150,700 | 64,000 | 26,200 | 40,500 | 20,100 |
| Agricultural/food sciences | 13,500 | 6,200 | 2,600 | 3,500 | S |
| Biological sciences | 125,000 | 53,200 | 21,900 | 32,400 | 17,500 |
| Environmental life sciences | 12,200 | 4,600 | 1,800 | 4,700 | S |
| Computer and information sciences | 84,800 | 39,700 | 14,600 | 21,700 | 8,800 |
| Mathematics and statistics | 25,600 | 11,400 | 4,600 | 6,500 | 3,100 |
| Physical and related sciences | 35,700 | 16,100 | 6,900 | 8,900 | 4,000 |
| Chemistry, except biochemistry | 19,800 | 9,600 | 3,900 | 4,300 | 2,100 |
| Earth/atmospheric/ocean sciences | 6,600 | 2,300 | 1,100 | 2,200 | 1,000 |
| Physics/astronomy | 7,000 | 3,400 | 1,300 | 1,600 | 600 |
| Other physical sciences | 2,300 | S | S | S | S |
| Psychology | 153,000 | 67,800 | 25,700 | 41,100 | 18,400 |
| Social and related sciences | 232,300 | 92,800 | 44,500 | 68,200 | 26,800 |
| Economics | 42,100 | 20,900 | 8,100 | 9,200 | 3,900 |
| Political and related sciences | 69,100 | 25,400 | 12,700 | 21,600 | 9,300 |
| Sociology/anthropology | 74,000 | 26,200 | 13,000 | 24,900 | 9,900 |
| Other social sciences | 47,100 | 20,300 | 10,600 | 12,500 | 3,700 |
| Engineering | 112,300 | 56,200 | 18,200 | 27,300 | 10,600 |
| Aerospace/aeronautical/astronautical engineering | 3,100 | 1,300 | 500 | 800 | 500 |
| Chemical engineering | 10,600 | 5,800 | 1,500 | 2,600 | 700 |
| Civil/architectural engineering | 16,300 | 7,300 | 2,800 | 4,400 | 1,800 |
| Electrical/computer engineering | 35,800 | 18,700 | 5,900 | 7,500 | 3,600 |
| Industrial engineering | 6,600 | 3,400 | 1,200 | 1,400 | 500 |
| Materials/metallurgical engineering | 2,300 | 1,200 | S | S | S |
| Mechanical engineering | 24,800 | 12,100 | 3,800 | 6,700 | 2,200 |
| Other engineering | 12,900 | 6,400 | 2,100 | 3,300 | 1,100 |
| Health | 143,300 | 52,400 | 24,700 | 41,600 | 24,600 |

$S$ = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: The amount owed represents amount of outstanding debt respondent reported on reference date of the survey. Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 24. Amount owed for undergraduate and graduate loans by 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Did not owe | \$1-\$9,999 | \$10,000-\$24,999 | \$25,000 or more |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All fields | 246,700 | 149,500 | 28,400 | 29,800 | 39,100 |
| Sciences | 117,000 | 74,300 | 13,300 | 14,900 | 14,400 |
| Biological, agricultural, and environmental life sciences | 16,800 | 11,100 | 2,200 | 1,700 | 1,900 |
| Agricultural/food sciences | 2,900 | 2,100 | S | S | S |
| Biological sciences | 12,100 | 7,800 | 1,600 | 1,200 | 1,500 |
| Environmental life sciences | 1,800 | 1,200 | S | S | S |
| Computer and information sciences | 27,200 | 23,400 | S | S | S |
| Mathematics and statistics | 5,900 | 5,100 | S | S | S |
| Physical and related sciences | 9,600 | 7,600 | 600 | 900 | S |
| Chemistry, except biochemistry | 3,800 | 3,000 | S | S | S |
| Earth/atmospheric/ocean sciences | 2,600 | 1,800 | S | S | S |
| Physics/astronomy | 2,700 | 2,300 | S | S | S |
| Other physical sciences | S | S | S | S | S |
| Psychology | 32,000 | 11,500 | 5,700 | 7,600 | 7,300 |
| Social and related sciences | 25,500 | 15,700 | 2,800 | 3,600 | 3,400 |
| Economics | 3,900 | 2,700 | S | S | S |
| Political and related sciences | 7,500 | 4,200 | S | S | 1,500 |
| Sociology/anthropology | 5,500 | 2,600 | 1,000 | 900 | 1,000 |
| Other social sciences | 8,700 | 6,100 | S | 1,500 | S |
| Engineering | 47,000 | 38,100 | 5,100 | 2,900 | 900 |
| Aerospace/aeronautical/astronautical engineering | 1,100 | 900 | S | S | S |
| Chemical engineering | 1,900 | 1,600 | S | S | S |
| Civil/architectural engineering | 6,000 | 4,600 | 1,000 | S | S |
| Electrical/computer engineering | 16,100 | 13,800 | 1,500 | S | S |
| Industrial engineering | 3,700 | 3,100 | S | S | S |
| Materials/metallurgical engineering | 1,900 | S | S | S | S |
| Mechanical engineering | 6,000 | 4,700 | S | S | S |
| Other engineering | 10,300 | 7,900 | S | S | S |
| Health | 82,700 | 37,100 | 10,000 | 12,000 | 23,700 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: The amount owed represents amount of outstanding debt respondent reported on reference date of the survey. Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 25. Enrollment in college courses since most recent degree and enrollment status among 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

|  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.
${ }^{\mathrm{a}}$ Most recent degree as of survey reference period, October 2003.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 26. Enrollment in college courses since most recent degree and enrollment status among 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All <br> recipients | Taken additional college courses since most recent degree ${ }^{\text {a }}$ | Enrollment status October 1, 2003 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Full-time student | Part-time student | Not student |
| All fields | 246,700 | 82,000 | 40,900 | 9,000 | 196,800 |
| Sciences | 117,000 | 49,400 | 27,900 | 6,200 | 82,900 |
| Biological, agricultural, and environmental life sciences | 16,800 | 7,800 | 4,500 | 1,000 | 11,300 |
| Agricultural/food sciences | 2,900 | 1,100 | S | S | 2,200 |
| Biological sciences | 12,100 | 6,100 | 3,600 | S | 7,700 |
| Environmental life sciences | 1,800 | S | S | S | 1,400 |
| Computer and information sciences | 27,200 | 9,500 | 4,800 | S | 21,200 |
| Mathematics and statistics | 5,900 | 2,800 | 1,800 | S | 3,700 |
| Physical and related sciences | 9,600 | 4,700 | 3,100 | S | 6,000 |
| Chemistry, except biochemistry | 3,800 | 1,700 | 1,000 | S | 2,700 |
| Earth/atmospheric/ocean sciences | 2,600 | 600 | S | S | 2,200 |
| Physics/astronomy | 2,700 | 2,200 | 1,600 | S | 900 |
| Other physical sciences | S | S | S | S | S |
| Psychology | 32,000 | 13,300 | 6,800 | 2,100 | 23,000 |
| Social and related sciences | 25,500 | 11,300 | 6,800 | S | 17,700 |
| Economics | 3,900 | 1,900 | 1,300 | S | 2,500 |
| Political and related sciences | 7,500 | 1,800 | S | S | 6,400 |
| Sociology/anthropology | 5,500 | 3,600 | 2,300 | S | 3,000 |
| Other social sciences | 8,700 | 4,000 | 2,200 | S | 5,800 |
| Engineering | 47,000 | 19,200 | 10,800 | 1,600 | 34,700 |
| Aerospace/aeronautical/astronautical engineering | 1,100 | 400 | S | S | 900 |
| Chemical engineering | 1,900 | 900 | 700 | S | 1,100 |
| Civil/architectural engineering | 6,000 | 1,900 | 900 | S | 4,900 |
| Electrical/computer engineering | 16,100 | 7,900 | 4,400 | S | 11,300 |
| Industrial engineering | 3,700 | 1,200 | S | S | 3,000 |
| Materials/metallurgical engineering | 1,900 | S | S | S | S |
| Mechanical engineering | 6,000 | 2,000 | 1,200 | S | 4,500 |
| Other engineering | 10,300 | 4,200 | 2,300 | S | 7,600 |
| Health | 82,700 | 13,400 | S | S | 79,200 |

$S=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.
${ }^{\mathrm{a}}$ Most recent degree as of survey reference period, October 2003.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 27. Likelihood of taking additional college courses among 2001 and 2002 S\&E bachelor's degree recipients who have not taken college courses since their most recent degree, by major field of degree: October 2003

| Major field | Total number not taking college courses since most recent | Likelihood will take additional college courses |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | degree $^{\text {a }}$ | Very likely | Somewhat likely | Very unlikely |
| All fields | 519,500 | 303,400 | 163,700 | 52,400 |
| Sciences | 344,600 | 209,600 | 98,700 | 36,300 |
| Biological, agricultural, and environmental life sciences | 58,200 | 36,600 | 15,000 | 6,600 |
| Agricultural/food sciences | 8,400 | 2,800 | 3,600 | 1,900 |
| Biological sciences | 41,800 | 29,200 | 9,600 | S |
| Environmental life sciences | 8,000 | 4,600 | 1,800 | S |
| Computer and information sciences | 60,300 | 30,700 | 20,600 | 9,000 |
| Mathematics and statistics | 13,000 | 7,300 | 4,500 | 1,300 |
| Physical and related sciences | 13,500 | 7,300 | 4,800 | 1,400 |
| Chemistry, except biochemistry | 6,500 | 3,400 | 2,300 | S |
| Earth/atmospheric/ocean sciences | 3,400 | 1,800 | 1,300 | S |
| Physics/astronomy | 2,000 | 1,400 | 500 | S |
| Other physical sciences | 1,600 | S | S | S |
| Psychology | 69,300 | 46,700 | 19,000 | S |
| Social and related sciences | 130,300 | 81,000 | 34,900 | 14,400 |
| Economics | 27,900 | 15,900 | 8,800 | 3,200 |
| Political and related sciences | 36,200 | 23,400 | 8,800 | 4,000 |
| Sociology/anthropology | 40,900 | 26,200 | 10,000 | 4,700 |
| Other social sciences | 25,400 | 15,500 | 7,300 | 2,600 |
| Engineering | 70,100 | 37,700 | 24,700 | 7,700 |
| Aerospace/aeronautical/astronautical engineering | 1,800 | 1,300 | 400 | S |
| Chemical engineering | 6,000 | 3,100 | 2,300 | S |
| Civil/architectural engineering | 11,800 | 4,100 | 5,500 | 2,300 |
| Electrical/computer engineering | 21,600 | 13,400 | 6,100 | 2,100 |
| Industrial engineering | 4,800 | 2,900 | 1,500 | S |
| Materials/metallurgical engineering | S | S | S | S |
| Mechanical engineering | 15,500 | 8,800 | 5,700 | S |
| Other engineering | 7,600 | 3,700 | 3,000 | S |
| Health | 104,800 | 56,100 | 40,200 | 8,400 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.
${ }^{a}$ Most recent degree as of survey reference period, October 2003.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 28. Likelihood of taking additional college courses among 2001 and 2002 S\&E master's degree recipients who have not taken college courses since their most recent degree, by major field of degree: October 2003

| Major field | Total number not taking college courses since most recent degree ${ }^{a}$ | Likelihood will take additional college courses |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Very likely | Somewhat likely | Very unlikely |
| All fields | 164,600 | 61,100 | 68,100 | 35,500 |
| Sciences | 67,600 | 26,200 | 26,900 | 14,500 |
| Biological, agricultural, and environmental life sciences | 9,000 | 3,300 | 4,100 | 1,500 |
| Agricultural/food sciences | 1,800 | S | S | S |
| Biological sciences | 5,900 | 2,200 | 2,700 | S |
| Environmental life sciences | 1,200 | S | S | S |
| Computer and information sciences | 17,700 | 6,200 | 7,000 | 4,500 |
| Mathematics and statistics | 3,100 | 700 | 1,200 | 1,100 |
| Physical and related sciences | 4,900 | 1,800 | 2,000 | 1,100 |
| Chemistry, except biochemistry | 2,100 | S | S | S |
| Earth/atmospheric/ocean sciences | 2,000 | S | 900 | S |
| Physics/astronomy | 500 | S | S | S |
| Other physical sciences | S | S | S | S |
| Psychology | 18,700 | 8,600 | 7,200 | 2,900 |
| Social and related sciences | 14,300 | 5,500 | 5,300 | 3,400 |
| Economics | 2,000 | S | S | S |
| Political and related sciences | 5,700 | 2,000 | 2,200 | 1,500 |
| Sociology/anthropology | 2,000 | 900 | S | S |
| Other social sciences | 4,600 | 2,100 | 1,500 | S |
| Engineering | 27,800 | 10,200 | 11,200 | 6,400 |
| Aerospace/aeronautical/astronautical engineering | 700 | 400 | S | S |
| Chemical engineering | 1,000 | S | 500 | S |
| Civil/architectural engineering | 4,100 | 1,300 | 2,000 | 900 |
| Electrical/computer engineering | 8,200 | 3,400 | 3,000 | 1,900 |
| Industrial engineering | 2,600 | 1,400 | 700 | S |
| Materials/metallurgical engineering | S | S | S | S |
| Mechanical engineering | 4,000 | 1,600 | 1,700 | S |
| Other engineering | 6,100 | 1,500 | 2,800 | 1,800 |
| Health | 69,300 | 24,700 | 30,000 | 14,500 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{a}$ Most recent degree as of survey reference period, October 2003.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 29. Type of degree or certificate sought by 2001 and 2002 S\&E bachelor's degree recipients who have taken college courses since most recent degree, by major field of degree: October 2003

| Major field | All recipients | Took college courses between completing most recent degree and week of October 1, 2003 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total number who took courses | Type of degree or certificate sought |  |  |  |
|  |  |  | Ph.D. or prof. degree | Master's degree | Other degree or certificate | No degree or certificate |
| All fields | 937,700 | 418,200 | 49,600 | 200,500 | 102,700 | 65,500 |
| Sciences | 682,200 | 337,600 | 42,100 | 147,500 | 93,300 | 54,700 |
| Biological, agricultural, and environmental life sciences | 150,700 | 92,600 | 17,700 | 23,200 | 38,800 | 12,900 |
| Agricultural/food sciences | 13,500 | 5,100 | S | 1,500 | 1,600 | S |
| Biological sciences | 125,000 | 83,200 | 16,600 | 19,600 | 36,000 | 11,000 |
| Environmental life sciences | 12,200 | 4,200 | S | 2,100 | S | S |
| Computer and information sciences | 84,800 | 24,500 | S | 14,800 | 2,600 | 6,200 |
| Mathematics and statistics | 25,600 | 12,600 | 1,800 | 6,500 | 2,200 | 2,100 |
| Physical and related sciences | 35,700 | 22,300 | 7,400 | 6,400 | 5,800 | 2,700 |
| Chemistry, except biochemistry | 19,800 | 13,400 | 4,900 | 2,600 | 4,600 | 1,300 |
| Earth/atmospheric/ocean sciences | 6,600 | 3,200 | S | 1,900 | S | 600 |
| Physics/astronomy | 7,000 | 5,000 | 2,300 | 1,700 | S | 500 |
| Other physical sciences | 2,300 | S | S | S | S | S |
| Psychology | 153,000 | 83,700 | 8,000 | 52,700 | 14,000 | 9,000 |
| Social and related sciences | 232,300 | 101,900 | 6,100 | 44,000 | 30,000 | 21,800 |
| Economics | 42,100 | 14,200 | S | 4,600 | 3,800 | 4,700 |
| Political and related sciences | 69,100 | 32,900 | S | 11,600 | 15,300 | 4,200 |
| Sociology/anthropology | 74,000 | 33,100 | S | 16,900 | 7,200 | 6,900 |
| Other social sciences | 47,100 | 21,800 | S | 11,000 | 3,700 | 6,000 |
| Engineering | 112,300 | 42,200 | 5,600 | 25,500 | 3,500 | 7,600 |
| Aerospace/aeronautical/astronautical engineering | 3,100 | 1,400 | S | 1,000 | S | S |
| Chemical engineering | 10,600 | 4,700 | 1,100 | 1,900 | 800 | 900 |
| Civil/architectural engineering | 16,300 | 4,400 | S | 3,100 | S | S |
| Electrical/computer engineering | 35,800 | 14,100 | S | 9,100 | S | 3,000 |
| Industrial engineering | 6,600 | 1,800 | S | 1,100 | S | S |
| Materials/metallurgical engineering | 2,300 | 1,300 | S | S | S | S |
| Mechanical engineering | 24,800 | 9,300 | 1,200 | 6,200 | S | 1,200 |
| Other engineering | 12,900 | 5,200 | S | 2,300 | S | S |
| Health | 143,300 | 38,500 | S | 27,400 | 5,900 | S |

$S=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. $S \& E=$ science and engineering.
${ }^{\mathrm{a}}$ Most recent degree as of survey reference period, October 2003.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 30. Type of degree or certificate sought by 2001 and 2002 S\&E master's degree recipients who have taken college courses since most recent degree, by major field of degree: October 2003

| Major field | $\begin{gathered} \text { All } \\ \text { recipients } \\ \hline \end{gathered}$ | Took college courses between completing most recent degree and week of October 1, 2003 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total number who took courses | Type of degree or certificate sought |  |  |  |
|  |  |  | Ph.D. or prof. degree | Master's degree | Other degree or certificate | No degree or certificate |
| All fields | 246,700 | 82,000 | 40,200 | 14,300 | 8,600 | 19,000 |
| Sciences | 117,000 | 49,400 | 26,300 | 7,400 | 6,000 | 9,700 |
| Biological, agricultural, and environmental life sciences | 16,800 | 7,800 | 3,600 | S | 1,800 | 1,500 |
| Agricultural/food sciences | 2,900 | 1,100 | S | S | S | S |
| Biological sciences | 12,100 | 6,100 | 2,600 | S | 1,600 | 1,300 |
| Environmental life sciences | 1,800 | S | S | S | S | S |
| Computer and information sciences | 27,200 | 9,500 | 3,500 | 2,800 | S | S |
| Mathematics and statistics | 5,900 | 2,800 | 1,900 | S | S | S |
| Physical and related sciences | 9,600 | 4,700 | 3,100 | 700 | S | 600 |
| Chemistry, except biochemistry | 3,800 | 1,700 | S | S | S | S |
| Earth/atmospheric/ocean sciences | 2,600 | 600 | S | S | S | S |
| Physics/astronomy | 2,700 | 2,200 | 1,700 | S | S | S |
| Other physical sciences | S | S | S | S | S | S |
| Psychology | 32,000 | 13,300 | 7,300 | S | S | 3,000 |
| Social and related sciences | 25,500 | 11,300 | 6,900 | 1,400 | S | 2,000 |
| Economics | 3,900 | 1,900 | 1,300 | S | S | S |
| Political and related sciences | 7,500 | 1,800 | S | S | S | S |
| Sociology/anthropology | 5,500 | 3,600 | 2,600 | S | S | S |
| Other social sciences | 8,700 | 4,000 | 2,000 | S | S | S |
| Engineering | 47,000 | 19,200 | 10,800 | 3,000 | 1,000 | 4,400 |
| Aerospace/aeronautical/astronautical engineering | 1,100 | 400 | S | S | S | S |
| Chemical engineering | 1,900 | 900 | 700 | S | S | S |
| Civil/architectural engineering | 6,000 | 1,900 | 900 | S | S | S |
| Electrical/computer engineering | 16,100 | 7,900 | 4,400 | S | S | 2,400 |
| Industrial engineering | 3,700 | 1,200 | S | S | S | S |
| Materials/metallurgical engineering | 1,900 | S | S | S | S | S |
| Mechanical engineering | 6,000 | 2,000 | 1,200 | S | S | S |
| Other engineering | 10,300 | 4,200 | 2,000 | S | S | S |
| Health | 82,700 | 13,400 | S | S | S | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Most recent degree as of survey reference period, October 2003.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 31. Sex and race/ethnicity of 2001 and 2002 S\&E bachelor's degree recipients who have taken college courses since most recent degree, by major field of degree: October 2003

| Major field | All recipients | Total number who took courses since most recent degree | Sex |  | Race/ethnicity |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Asian or Pacific | Underrepresented | White, non- |
|  |  |  | Male | Female | Islander | minority ${ }^{\text {a }}$ | Hispanic |
| All fields | 937,700 | 418,200 | 180,600 | 237,700 | 62,600 | 86,200 | 269,500 |
| Sciences | 682,200 | 337,600 | 140,600 | 196,900 | 48,700 | 67,400 | 221,500 |
| Biological, agricultural, and environmental life sciences | 150,700 | 92,600 | 38,200 | 54,400 | 17,900 | 16,000 | 58,700 |
| Agricultural/food sciences | 13,500 | 5,100 | 2,100 | 3,100 | S | S | 4,200 |
| Biological sciences | 125,000 | 83,200 | 34,400 | 48,800 | 17,200 | 15,100 | 50,900 |
| Environmental life sciences | 12,200 | 4,200 | S | 2,500 | S | S | 3,600 |
| Computer and information sciences | 84,800 | 24,500 | 16,800 | 7,700 | 9,800 | 4,400 | 10,400 |
| Mathematics and statistics | 25,600 | 12,600 | 7,100 | 5,400 | 2,300 | 1,700 | 8,500 |
| Physical and related sciences | 35,700 | 22,300 | 11,900 | 10,400 | 3,300 | 3,300 | 15,600 |
| Chemistry, except biochemistry | 19,800 | 13,400 | 6,200 | 7,200 | 2,500 | 2,100 | 8,700 |
| Earth/atmospheric/ocean sciences | 6,600 | 3,200 | 1,800 | 1,400 | S | S | 2,900 |
| Physics/astronomy | 7,000 | 5,000 | 3,700 | 1,300 | S | 700 | 3,700 |
| Other physical sciences | 2,300 | S | S | S | S | S | S |
| Psychology | 153,000 | 83,700 | 22,500 | 61,200 | S | 19,700 | 61,500 |
| Social and related sciences | 232,300 | 101,900 | 44,100 | 57,800 | 12,900 | 22,300 | 66,800 |
| Economics | 42,100 | 14,200 | 9,700 | 4,500 | 4,400 | 2,200 | 7,600 |
| Political and related sciences | 69,100 | 32,900 | 15,600 | 17,300 | S | 6,700 | 23,300 |
| Sociology/anthropology | 74,000 | 33,100 | 9,300 | 23,800 | S | 7,600 | 22,800 |
| Other social sciences | 47,100 | 21,800 | 9,500 | 12,300 | S | 5,700 | 13,100 |
| Engineering | 112,300 | 42,200 | 32,000 | 10,200 | 10,300 | 7,000 | 24,900 |
| Aerospace/aeronautical/astronautical engineering | 3,100 | 1,400 | 1,100 | 300 | S | 200 | 1,000 |
| Chemical engineering | 10,600 | 4,700 | 2,800 | 1,900 | S | 600 | 2,800 |
| Civil/architectural engineering | 16,300 | 4,400 | 3,000 | 1,400 | S | 700 | 2,900 |
| Electrical/computer engineering | 35,800 | 14,100 | 11,600 | 2,600 | 5,000 | 2,700 | 6,400 |
| Industrial engineering | 6,600 | 1,800 | 1,200 | 600 | S | 600 | 1,100 |
| Materials/metallurgical engineering | 2,300 | 1,300 | S | S | S | S | S |
| Mechanical engineering | 24,800 | 9,300 | 7,900 | 1,400 | S | 1,500 | 6,100 |
| Other engineering | 12,900 | 5,200 | 3,500 | 1,800 | S | S | 3,500 |
| Health | 143,300 | 38,500 | 8,000 | 30,500 | S | 11,800 | 23,200 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.
${ }^{\text {a }}$ Includes American Indian or Alaska Native, black and Hispanic.
NOTES: Most recent degree as of survey reference period, October 2003. Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 32. Sex and race/ethnicity of 2001 and 2002 S\&E master's degree recipients who have taken college courses since most recent degree, by major field of degree: October 2003

| Major field |  Total number <br> who took courses  <br> All since most <br> recipients recent degree |  | Sex |  | Race/ethnicity |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Asian or Pacific Islander | Underrepresented minority ${ }^{\text {a }}$ | White, nonHispanic |
|  |  |  | Male |  |  | Female |
| All fields | 246,700 | 82,000 |  | 42,500 | 39,600 | 30,000 | 10,600 | 41,400 |
| Sciences | 117,000 | 49,400 | 23,000 | 26,400 | 16,600 | 7,200 | 25,500 |
| Biological, agricultural, and environmental life sciences | 16,800 | 7,800 | 3,300 | 4,500 | S | 1,200 | 4,700 |
| Agricultural/food sciences | 2,900 | 1,100 | S | S | S | S | S |
| Biological sciences | 12,100 | 6,100 | 2,400 | 3,700 | S | 1,000 | 3,600 |
| Environmental life sciences | 1,800 | S | S | S | S | S | S |
| Computer and information sciences | 27,200 | 9,500 | 5,800 | 3,700 | 7,600 | S | S |
| Mathematics and statistics | 5,900 | 2,800 | 1,700 | 1,100 | S | 200 | 1,200 |
| Physical and related sciences | 9,600 | 4,700 | 3,400 | 1,300 | 1,700 | 600 | 2,400 |
| Chemistry, except biochemistry | 3,800 | 1,700 | S | S | S | S | S |
| Earth/atmospheric/ocean sciences | 2,600 | 600 | S | S | S | S | S |
| Physics/astronomy | 2,700 | 2,200 | 1,700 | 500 | 900 | S | 1,100 |
| Other physical sciences | S | S | S | S | S | S | S |
| Psychology | 32,000 | 13,300 | 3,800 | 9,500 | S | 2,800 | 9,000 |
| Social and related sciences | 25,500 | 11,300 | 5,000 | 6,300 | 2,500 | 2,000 | 6,800 |
| Economics | 3,900 | 1,900 | 1,000 | 900 | S | S | 700 |
| Political and related sciences | 7,500 | 1,800 | S | S | S | S | S |
| Sociology/anthropology | 5,500 | 3,600 | 1,400 | 2,100 | S | 700 | 2,500 |
| Other social sciences | 8,700 | 4,000 | S | 2,600 | S | S | 2,500 |
| Engineering | 47,000 | 19,200 | 15,200 | 4,000 | 12,000 | 1,700 | 5,600 |
| Aerospace/aeronautical/astronautical engineering | 1,100 | 400 | S | S | S | S | S |
| Chemical engineering | 1,900 | 900 | 700 | S | S | S | S |
| Civil/architectural engineering | 6,000 | 1,900 | 1,600 | S | S | S | 900 |
| Electrical/computer engineering | 16,100 | 7,900 | 6,200 | S | 6,100 | S | 1,500 |
| Industrial engineering | 3,700 | 1,200 | S | S | S | S | S |
| Materials/metallurgical engineering | 1,900 | S | S | S | S | S | S |
| Mechanical engineering | 6,000 | 2,000 | 1,700 | S | S | S | S |
| Other engineering | 10,300 | 4,200 | 3,100 | S | 2,000 | S | 1,500 |
| Health | 82,700 | 13,400 | S | 9,200 | S | S | 10,300 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Includes American Indian or Alaska Native, black and Hispanic.
NOTES: Most recent degree as of survey reference period, October 2003. Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 33. Educational activity since degree completion among 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | $\begin{gathered} \text { All } \\ \text { recipients } \\ \hline \end{gathered}$ | Completed additional degree | Did not complete degree but took college courses |  | Did not take college courses |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | In degree program | Not in a degree program |  |
| All fields | 937,700 | 6,100 | 350,200 | 61,900 | 519,500 |
| Sciences | 682,200 | 4,600 | 281,500 | 51,400 | 344,600 |
| Biological, agricultural, and environmental life sciences | 150,700 | S | 78,400 | 12,800 | 58,200 |
| Agricultural/food sciences | 13,500 | S | 4,100 | S | 8,400 |
| Biological sciences | 125,000 | S | 71,000 | 10,900 | 41,800 |
| Environmental life sciences | 12,200 | S | 3,300 | S | 8,000 |
| Computer and information sciences | 84,800 | S | 18,200 | 6,000 | 60,300 |
| Mathematics and statistics | 25,600 | S | 10,200 | 1,900 | 13,000 |
| Physical and related sciences | 35,700 | S | 19,200 | 2,600 | 13,500 |
| Chemistry, except biochemistry | 19,800 | S | 11,900 | 1,300 | 6,500 |
| Earth/atmospheric/ocean sciences | 6,600 | S | 2,500 | 600 | 3,400 |
| Physics/astronomy | 7,000 | S | 4,300 | 400 | 2,000 |
| Other physical sciences | 2,300 | S | S | S | 1,600 |
| Psychology | 153,000 | S | 75,100 | 7,500 | 69,300 |
| Social and related sciences | 232,300 | S | 80,400 | 20,600 | 130,300 |
| Economics | 42,100 | S | 9,400 | 4,700 | 27,900 |
| Political and related sciences | 69,100 | S | 28,700 | 4,200 | 36,200 |
| Sociology/anthropology | 74,000 | S | 26,100 | 6,300 | 40,900 |
| Other social sciences | 47,100 | S | 16,300 | 5,500 | 25,400 |
| Engineering | 112,300 | 1,000 | 33,900 | 7,300 | 70,100 |
| Aerospace/aeronautical/astronautical engineering | 3,100 | S | 1,100 | S | 1,800 |
| Chemical engineering | 10,600 | S | 3,600 | 900 | 6,000 |
| Civil/architectural engineering | 16,300 | S | 3,400 | S | 11,800 |
| Electrical/computer engineering | 35,800 | S | 11,000 | 2,900 | 21,600 |
| Industrial engineering | 6,600 | S | 1,400 | S | 4,800 |
| Materials/metallurgical engineering | 2,300 | S | S | S | S |
| Mechanical engineering | 24,800 | S | 7,900 | 1,100 | 15,500 |
| Other engineering | 12,900 | S | 4,400 | S | 7,600 |
| Health | 143,300 | S | 34,800 | S | 104,800 |

$S=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 34. Educational activity between degree completion and the survey reference week among 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | $\begin{gathered} \text { All } \\ \text { recipients } \\ \hline \end{gathered}$ | Completed additional degree | Did not complete degree but took college courses |  | Did not take collegecourses |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | In degree program | Not in a degree program |  |
| All fields | 246,700 | 2,200 | 61,900 | 18,000 | 164,600 |
| Sciences | 117,000 | S | 39,200 | 8,800 | 67,600 |
| Biological, agricultural, and environmental life sciences | 16,800 | S | 6,100 | 1,400 | 9,000 |
| Agricultural/food sciences | 2,900 | S | S | S | 1,800 |
| Biological sciences | 12,100 | S | 4,700 | 1,200 | 5,900 |
| Environmental life sciences | 1,800 | S | s | S | 1,200 |
| Computer and information sciences | 27,200 | S | 7,000 | S | 17,700 |
| Mathematics and statistics | 5,900 | S | 2,300 | S | 3,100 |
| Physical and related sciences | 9,600 | S | 4,100 | S | 4,900 |
| Chemistry, except biochemistry | 3,800 | S | 1,400 | S | 2,100 |
| Earth/atmospheric/ocean sciences | 2,600 | S | S | S | 2,000 |
| Physics/astronomy | 2,700 | S | 2,000 | S | 500 |
| Other physical sciences | S | S | S | S | S |
| Psychology | 32,000 | S | 10,500 | 2,500 | 18,700 |
| Social and related sciences | 25,500 | S | 9,200 | 1,800 | 14,300 |
| Economics | 3,900 | S | 1,400 | S | 2,000 |
| Political and related sciences | 7,500 | S | 1,400 | S | 5,700 |
| Sociology/anthropology | 5,500 | S | 2,900 | S | 2,000 |
| Other social sciences | 8,700 | S | 3,500 | S | 4,600 |
| Engineering | 47,000 | S | 14,500 | 4,300 | 27,800 |
| Aerospace/aeronautical/astronautical engineering | 1,100 | S | 300 | S | 700 |
| Chemical engineering | 1,900 | S | 800 | S | 1,000 |
| Civil/architectural engineering | 6,000 | S | 1,300 | S | 4,100 |
| Electrical/computer engineering | 16,100 | S | 5,600 | 2,200 | 8,200 |
| Industrial engineering | 3,700 | S | S | S | 2,600 |
| Materials/metallurgical engineering | 1,900 | S | S | S | S |
| Mechanical engineering | 6,000 | S | 1,700 | S | 4,000 |
| Other engineering | 10,300 | S | 3,100 | S | 6,100 |
| Health | 82,700 | S | 8,100 | S | 69,300 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 35. Selected employment characteristics of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | $\begin{gathered} \text { All } \\ \text { recipients } \end{gathered}$ | Employed |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Counting all jobs ${ }^{\text {a }}$ |  | Principal job only ${ }^{6}$ |  |
|  |  | Total | Full time | Part time | Full time | Part time |
| All fields | 937,700 | 768,900 | 644,900 | 124,000 | 622,900 | 145,900 |
| Sciences | 682,200 | 543,700 | 442,800 | 100,800 | 427,300 | 116,400 |
| Biological, agricultural, and environmental life sciences | 150,700 | 103,900 | 81,200 | 22,600 | 79,600 | 24,200 |
| Agricultural/food sciences | 13,500 | 11,500 | 10,000 | 1,500 | 9,600 | 2,000 |
| Biological sciences | 125,000 | 82,000 | 62,000 | 20,000 | 61,200 | 20,900 |
| Environmental life sciences | 12,200 | 10,300 | 9,200 | S | 8,900 | S |
| Computer and information sciences | 84,800 | 76,900 | 70,000 | 6,900 | 68,600 | 8,300 |
| Mathematics and statistics | 25,600 | 22,200 | 18,400 | 3,800 | 17,500 | 4,700 |
| Physical and related sciences | 35,700 | 28,100 | 22,400 | 5,700 | 22,100 | 6,000 |
| Chemistry, except biochemistry | 19,800 | 14,800 | 12,100 | 2,700 | 11,900 | 2,900 |
| Earth/atmospheric/ocean sciences | 6,600 | 5,600 | 4,700 | 900 | 4,700 | 900 |
| Physics/astronomy | 7,000 | 5,700 | 3,800 | 1,900 | 3,700 | 2,000 |
| Other physical sciences | 2,300 | 2,000 | 1,900 | S | 1,900 | S |
| Psychology | 153,000 | 122,800 | 96,600 | 26,200 | 90,900 | 31,800 |
| Social and related sciences | 232,300 | 189,800 | 154,200 | 35,600 | 148,400 | 41,400 |
| Economics | 42,100 | 35,400 | 32,300 | 3,100 | 31,600 | 3,900 |
| Political and related sciences | 69,100 | 53,300 | 41,000 | 12,300 | 39,600 | 13,700 |
| Sociology/anthropology | 74,000 | 63,200 | 49,600 | 13,600 | 47,400 | 15,800 |
| Other social sciences | 47,100 | 38,000 | 31,300 | 6,700 | 29,900 | 8,100 |
| Engineering | 112,300 | 98,400 | 89,000 | 9,400 | 88,200 | 10,200 |
| Aerospace/aeronautical/astronautical engineering | 3,100 | 2,900 | 2,500 | 500 | 2,400 | 500 |
| Chemical engineering | 10,600 | 8,800 | 8,200 | S | 8,200 | S |
| Civil/architectural engineering | 16,300 | 15,300 | 14,500 | S | 14,500 | S |
| Electrical/computer engineering | 35,800 | 30,800 | 27,700 | 3,100 | 27,300 | 3,500 |
| Industrial engineering | 6,600 | 6,100 | 5,500 | 600 | 5,500 | 600 |
| Materials/metallurgical engineering | 2,300 | 1,900 | 1,400 | S | 1,400 | S |
| Mechanical engineering | 24,800 | 22,300 | 19,700 | 2,600 | 19,600 | 2,700 |
| Other engineering | 12,900 | 10,200 | 9,300 | S | 9,200 | 1,000 |
| Health | 143,300 | 126,800 | 113,000 | 13,800 | 107,400 | 19,400 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Category is based on a typical work week of 35 or more hours counting all jobs held during reference week. Employed graduates who worked 35 or more hours per week, counting all jobs, are classified as full time; all other employed graduates are classified as part time.
${ }^{\mathrm{b}}$ Category is based on number of hours usually worked during a typical week on principal job. Employed graduates who worked 35 or more hours per week on principal job are classified as full time and all other employed graduates are classified as part time.

NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 36. Selected employment characteristics of 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | Allrecipients | Employed |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Counting all jobs ${ }^{\text {a }}$ |  | Principal job only ${ }^{6}$ |  |
|  |  | Total | Full time | Part time | Full time | Part time |
| All fields | 246,700 | 214,400 | 185,700 | 28,700 | 181,600 | 32,800 |
| Sciences | 117,000 | 98,500 | 82,000 | 16,500 | 79,900 | 18,600 |
| Biological, agricultural, and environmental life sciences | 16,800 | 14,200 | 12,200 | 2,000 | 11,900 | 2,300 |
| Agricultural/food sciences | 2,900 | 2,700 | 2,500 | S | 2,400 | S |
| Biological sciences | 12,100 | 10,100 | 8,500 | 1,700 | 8,300 | 1,900 |
| Environmental life sciences | 1,800 | 1,300 | 1,200 | S | 1,200 | S |
| Computer and information sciences | 27,200 | 21,000 | 18,400 | S | 18,400 | S |
| Mathematics and statistics | 5,900 | 4,700 | 3,700 | 1,000 | 3,600 | 1,100 |
| Physical and related sciences | 9,600 | 8,400 | 7,400 | 1,000 | 7,100 | 1,300 |
| Chemistry, except biochemistry | 3,800 | 3,300 | 2,900 | S | 2,900 | S |
| Earth/atmospheric/ocean sciences | 2,600 | 2,500 | 2,300 | S | 2,300 | S |
| Physics/astronomy | 2,700 | 2,300 | 1,800 | S | 1,700 | 600 |
| Other physical sciences | S | S | S | S | S | S |
| Psychology | 32,000 | 29,900 | 24,400 | 5,500 | 23,500 | 6,400 |
| Social and related sciences | 25,500 | 20,400 | 16,000 | 4,400 | 15,400 | 5,000 |
| Economics | 3,900 | 3,300 | 2,200 | 1,100 | 2,200 | 1,100 |
| Political and related sciences | 7,500 | 6,100 | 5,500 | S | 5,500 | S |
| Sociology/anthropology | 5,500 | 4,200 | 2,900 | 1,200 | 2,800 | 1,400 |
| Other social sciences | 8,700 | 6,800 | 5,300 | 1,500 | 4,900 | 1,900 |
| Engineering | 47,000 | 41,500 | 36,600 | 4,900 | 36,400 | 5,100 |
| Aerospace/aeronautical/astronautical engineering | 1,100 | 1,100 | 900 | S | 900 | S |
| Chemical engineering | 1,900 | 1,600 | 1,400 | S | 1,400 | S |
| Civil/architectural engineering | 6,000 | 5,600 | 5,200 | S | 5,200 | S |
| Electrical/computer engineering | 16,100 | 14,000 | 11,700 | 2,300 | 11,600 | 2,400 |
| Industrial engineering | 3,700 | 3,400 | 3,200 | S | 3,200 | S |
| Materials/metallurgical engineering | 1,900 | 1,600 | S | S | S | S |
| Mechanical engineering | 6,000 | 5,200 | 4,700 | S | 4,700 | S |
| Other engineering | 10,300 | 9,000 | 8,000 | S | 8,000 | S |
| Health | 82,700 | 74,400 | 67,100 | S | 65,300 | 9,100 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Category is based on a typical work week of 35 or more hours counting all jobs held during reference week. Employed graduates who worked 35 or more hours per week, counting all jobs, are classified as full time; all other employed graduates are classified as part time.
${ }^{\mathrm{b}}$ Category is based on number of hours usually worked during a typical week on principal job. Employed graduates who worked 35 or more hours per week on principal job are classified as full time and all other employed graduates are classified as part time.

NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 37. Labor force status of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All recipients | In labor force |  |  | Not in labor force |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Employed | Unemployed |  |
| All fields | 937,700 | 813,700 | 768,900 | 44,800 | 124,000 |
| Sciences | 682,200 | 579,500 | 543,700 | 35,800 | 102,700 |
| Biological, agricultural, and environmental life sciences | 150,700 | 109,900 | 103,900 | 6,000 | 40,900 |
| Computer and information sciences | 84,800 | 80,900 | 76,900 | 4,000 | S |
| Mathematics and statistics | 25,600 | 23,200 | 22,200 | S | 2,400 |
| Physical and related sciences | 35,700 | 29,800 | 28,100 | 1,700 | 6,000 |
| Psychology | 153,000 | 131,900 | 122,800 | 9,100 | 21,100 |
| Social sciences | 232,300 | 203,800 | 189,800 | 14,000 | 28,400 |
| Engineering | 112,300 | 104,600 | 98,400 | 6,200 | 7,700 |
| Health | 143,300 | 129,600 | 126,800 | S | 13,700 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ The unemployed are those who were not working on October 1 and who were seeking work or who were on layoff from a job.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 38. Labor force status of 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All recipients | In labor force |  |  | Not in labor force |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Employed | Unemployed $^{\text {a }}$ |  |
| All fields | 246,700 | 225,800 | 214,400 | 11,400 | 20,900 |
| Sciences | 117,000 | 104,300 | 98,500 | 5,800 | 12,600 |
| Biological, agricultural, and environmental life sciences | 16,800 | 14,600 | 14,200 | S | 2,200 |
| Computer and information sciences | 27,200 | 24,100 | 21,000 | 3,200 | S |
| Mathematics and statistics | 5,900 | 4,800 | 4,700 | S | 1,000 |
| Physical and related sciences | 9,600 | 8,800 | 8,400 | S | 800 |
| Psychology | 32,000 | 30,500 | 29,900 | S | S |
| Social sciences | 25,500 | 21,500 | 20,400 | 1,100 | 4,100 |
| Engineering | 47,000 | 43,800 | 41,500 | 2,300 | 3,200 |
| Health | 82,700 | 77,700 | 74,400 | S | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.
${ }^{\mathrm{a}}$ The unemployed are those who were not working on October 1 and who were seeking work or who were on layoff from a job.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 39. Labor force status of 2001 and 2002 S\&E bachelor's degree recipients not studying full time, by major field of degree: October 2003

| Major field | Not studying full time | In labor force |  |  | Not in labor force |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Employed | Unemployed ${ }^{\text {a }}$ |  |
| All fields | 869,900 | 750,900 | 708,200 | 42,700 | 119,000 |
| Sciences | 631,200 | 531,900 | 497,900 | 34,000 | 99,300 |
| Biological, agricultural, and environmental life sciences | 143,100 | 102,200 | 96,600 | 5,600 | 40,800 |
| Computer and information sciences | 77,200 | 73,900 | 70,100 | 3,700 | S |
| Mathematics and statistics | 23,200 | 21,000 | 20,000 | S | 2,200 |
| Physical and related sciences | 33,800 | 28,000 | 26,500 | 1,600 | 5,800 |
| Psychology | 137,200 | 117,800 | 109,300 | 8,400 | 19,400 |
| Social sciences | 216,700 | 189,000 | 175,400 | 13,600 | 27,700 |
| Engineering | 102,900 | 95,500 | 89,500 | 5,900 | 7,400 |
| Health | 135,800 | 123,500 | 120,700 | S | 12,400 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ The unemployed are those who were not working on October 1 and who were seeking work or who were on layoff from a job.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 40. Labor force status of 2001 and 2002 S\&E master's degree recipients not studying full time, by major field of degree: October 2003

| Major field | Not studying full time | In labor force |  |  | Not in labor force |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Employed | Unemployed $^{\text {a }}$ |  |
| All fields | 237,700 | 217,300 | 206,000 | 11,200 | 20,400 |
| Sciences | 110,800 | 98,500 | 92,800 | 5,700 | 12,200 |
| Biological, agricultural, and environmental life sciences | 15,800 | 13,700 | 13,200 | S | 2,200 |
| Computer and information sciences | 26,000 | 22,900 | 19,800 | 3,100 | S |
| Mathematics and statistics | 5,500 | 4,500 | 4,400 | S | 1,000 |
| Physical and related sciences | 9,200 | 8,400 | 8,000 | S | 800 |
| Psychology | 29,900 | 28,700 | 28,100 | S | S |
| Social sciences | 24,400 | 20,400 | 19,300 | S | 4,000 |
| Engineering | 45,500 | 42,300 | 40,000 | 2,200 | 3,200 |
| Health | 81,500 | 76,500 | 73,200 | S | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ The unemployed are those who were not working on October 1 and who were seeking work or who were on layoff from a job.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 41. Labor force status of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree and sex: October 2003

| Major field and sex | $\begin{gathered} \text { All } \\ \text { recipients } \end{gathered}$ | In labor force |  |  | Not in labor force |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Employed | Unemployed ${ }^{\text {a }}$ |  |
| All fields | 937,700 | 813,700 | 768,900 | 44,800 | 124,000 |
| Sciences | 682,200 | 579,500 | 543,700 | 35,800 | 102,700 |
| Male | 298,600 | 257,000 | 240,200 | 16,800 | 41,600 |
| Female | 383,600 | 322,500 | 303,400 | 19,100 | 61,100 |
| Biological, agricultural, and environmental life sciences | 150,700 | 109,900 | 103,900 | 6,000 | 40,900 |
| Male | 61,600 | 42,700 | 40,500 | S | 18,900 |
| Female | 89,200 | 67,200 | 63,400 | 3,800 | 21,900 |
| Computer and information sciences | 84,800 | 80,900 | 76,900 | 4,000 | S |
| Male | 60,100 | 58,500 | 55,300 | 3,300 | S |
| Female | 24,700 | 22,400 | 21,700 | S | S |
| Mathematics and statistics | 25,600 | 23,200 | 22,200 | S | 2,400 |
| Male | 13,800 | 12,400 | 11,800 | S | 1,400 |
| Female | 11,800 | 10,800 | 10,400 | S | 1,000 |
| Physical and related sciences | 35,700 | 29,800 | 28,100 | 1,700 | 6,000 |
| Male | 18,900 | 16,000 | 15,100 | S | 2,900 |
| Female | 16,800 | 13,700 | 13,100 | 700 | 3,100 |
| Psychology | 153,000 | 131,900 | 122,800 | 9,100 | 21,100 |
| Male | 38,800 | 33,300 | 30,700 | S | S |
| Female | 114,200 | 98,600 | 92,000 | 6,600 | 15,600 |
| Social sciences | 232,300 | 203,800 | 189,800 | 14,000 | 28,400 |
| Male | 105,300 | 94,100 | 87,000 | 7,100 | 11,300 |
| Female | 126,900 | 109,800 | 102,900 | 6,900 | 17,200 |
| Engineering | 112,300 | 104,600 | 98,400 | 6,200 | 7,700 |
| Male | 88,300 | 83,200 | 78,500 | 4,700 | 5,100 |
| Female | 24,000 | 21,400 | 19,900 | 1,500 | 2,600 |
| Health | 143,300 | 129,600 | 126,800 | S | 13,700 |
| Male | 20,500 | 18,700 | 18,400 | S | S |
| Female | 122,800 | 110,900 | 108,500 | S | 11,900 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ The unemployed are those who were not working on October 1 and who were seeking work or who were on layoff from a job.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 42. Labor force status of 2001 and 2002 S\&E master's degree recipients, by major field of degree and sex: October 2003

| Major field and sex | All recipients | In labor force |  |  | Not in labor force |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Employed | Unemployed ${ }^{\text {a }}$ |  |
| All fields | 246,700 | 225,800 | 214,400 | 11,400 | 20,900 |
| Sciences | 117,000 | 104,300 | 98,500 | 5,800 | 12,600 |
| Male | 54,200 | 49,200 | 46,600 | 2,500 | 5,000 |
| Female | 62,800 | 55,200 | 51,900 | 3,300 | 7,600 |
| Biological, agricultural, and environmental life sciences | 16,800 | 14,600 | 14,200 | S | 2,200 |
| Male | 7,400 | 6,300 | 6,200 | S | S |
| Female | 9,400 | 8,300 | 7,900 | S | 1,100 |
| Computer and information sciences | 27,200 | 24,100 | 21,000 | 3,200 | S |
| Male | 17,000 | 15,900 | 14,300 | S | S |
| Female | 10,200 | 8,300 | 6,600 | S | S |
| Mathematics and statistics | 5,900 | 4,800 | 4,700 | S | 1,000 |
| Male | 3,600 | 3,000 | 2,900 | S | S |
| Female | 2,300 | 1,800 | 1,800 | S | S |
| Physical and related sciences | 9,600 | 8,800 | 8,400 | S | 800 |
| Male | 6,200 | 5,700 | 5,400 | S | S |
| Female | 3,400 | 3,200 | 3,000 | S | S |
| Psychology | 32,000 | 30,500 | 29,900 | S | S |
| Male | 8,400 | 8,200 | 8,200 | S | S |
| Female | 23,500 | 22,300 | 21,700 | S | S |
| Social sciences | 25,500 | 21,500 | 20,400 | 1,100 | 4,100 |
| Male | 11,600 | 10,200 | 9,500 | S | 1,400 |
| Female | 14,000 | 11,300 | 10,900 | S | 2,600 |
| Engineering | 47,000 | 43,800 | 41,500 | 2,300 | 3,200 |
| Male | 37,800 | 35,400 | 33,700 | 1,700 | 2,400 |
| Female | 9,200 | 8,400 | 7,800 | S | 900 |
| Health | 82,700 | 77,700 | 74,400 | S | S |
| Male | 18,400 | 18,400 | 18,400 | S | S |
| Female | 64,300 | 59,300 | 56,000 | S | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ The unemployed are those who were not working on October 1 and who were seeking work or who were on layoff from a job.
NOTES: Detail may not add to total because of rounding. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 43. Labor force status of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree and race/ethnicity: October 2003

| Major field and race/ethnicity | $\begin{gathered} \hline \text { All } \\ \text { recipients } \\ \hline \end{gathered}$ | In labor force |  |  | Not in labor force |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Employed | Unemployed ${ }^{\text {a }}$ |  |
| All science and engineering fields | 937,700 | 813,700 | 768,900 | 44,800 | 124,000 |
| Sciences | 682,200 | 579,500 | 543,700 | 35,800 | 102,700 |
| Asian | 92,400 | 71,700 | 67,400 | 4,300 | 20,700 |
| Underrepresented minority | 111,400 | 98,100 | 89,900 | 8,200 | 13,400 |
| White, non-Hispanic | 457,600 | 392,000 | 370,200 | 21,800 | 65,600 |
| Other | 20,800 | 17,800 | 16,200 | S | S |
| Biological, agricultural, and environmental life sciences | 150,700 | 109,900 | 103,900 | 6,000 | 40,900 |
| Asian | 23,500 | 14,100 | 13,400 | S | 9,300 |
| Underrepresented minority | 19,400 | 14,900 | 13,500 | S | 4,500 |
| White, non-Hispanic | 102,400 | 77,500 | 74,000 | 3,600 | 24,900 |
| Other | 5,400 | S | S | S | S |
| Computer and information sciences | 84,800 | 80,900 | 76,900 | 4,000 | S |
| Asian | 27,500 | 25,300 | 24,100 | S | S |
| Underrepresented minority | 11,700 | 11,400 | 10,100 | S | S |
| White, non-Hispanic | 43,000 | 41,600 | 40,100 | S | S |
| Other | S | S | S | S | S |
| Mathematics and related sciences | 25,600 | 23,200 | 22,200 | S | 2,400 |
| Asian | 4,400 | 3,600 | 3,300 | S | S |
| Underrepresented minority | 2,400 | 2,200 | 2,100 | S | S |
| White, non-Hispanic | 17,800 | 16,500 | 16,000 | S | 1,400 |
| Other | S | S | S | S | S |
| Physical and related sciences | 35,700 | 29,800 | 28,100 | 1,700 | 6,000 |
| Asian | 4,200 | 3,200 | 2,800 | S | S |
| Underrepresented minority | 3,900 | 3,100 | 3,000 | S | 800 |
| White, non-Hispanic | 26,500 | 22,500 | 21,400 | 1,100 | 4,000 |
| Other | 1,100 | 1,000 | 900 | S | S |
| Psychology | 153,000 | 131,900 | 122,800 | 9,100 | 21,100 |
| Asian | S | S | S | S | S |
| Underrepresented minority | 31,000 | 27,600 | 25,800 | S | 3,400 |
| White, non-Hispanic | 110,800 | 93,800 | 86,400 | S | 17,000 |
| Other | S | S | S | S | S |
| Social and related sciences | 232,300 | 203,800 | 189,800 | 14,000 | 28,400 |
| Asian | 25,000 | 18,300 | 16,600 | S | 6,700 |
| Underrepresented minority | 43,000 | 38,900 | 35,300 | 3,500 | 4,100 |
| White, non-Hispanic | 157,100 | 140,000 | 132,300 | 7,700 | 17,100 |
| Other | 7,200 | 6,700 | 5,600 | S | S |
| Engineering | 112,300 | 104,600 | 98,400 | 6,200 | 7,700 |
| Asian | 23,300 | 21,000 | 18,800 | S | 2,300 |
| Underrepresented minority | 13,500 | 12,600 | 11,900 | 700 | 900 |
| White, non-Hispanic | 71,400 | 67,100 | 64,000 | 3,100 | 4,300 |
| Other | 4,100 | 3,800 | 3,600 | S | S |

TABLE 43. Labor force status of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree and race/ethnicity: October 2003

| Major field and race/ethnicity | All recipients | In labor force |  |  | Not in labor force |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Employed | Unemployed $^{\text {a }}$ |  |
| Health | 143,300 | 129,600 | 126,800 | S | 13,700 |
| Asian | S | S | S | S | S |
| Underrepresented minority | 23,200 | 21,100 | 20,200 | S | S |
| White, non-Hispanic | 108,800 | 97,500 | 95,700 | S | 11,300 |
| Other | S | S | S | S | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Those who were not working on October 1 and who were seeking work or who were on layoff from a job.
NOTES: Detail may not add to total because of rounding. Underrepresented minority race/ethnicity category includes American Indian or Alaska Native, black, and Hispanic. "Other" race/ethnicity includes Native Hawaiian or other Pacific Islander and individuals reporting more than one race. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 44. Labor force status of 2001 and 2002 S\&E master's degree recipients, by major field of degree and race/ethnicity: October 2003

| Major field and race/ethnicity | All recipients | In labor force |  |  | Not in labor force |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Employed | Unemployed ${ }^{\text {a }}$ |  |
| All science and engineering fields | 246,700 | 225,800 | 214,400 | 11,400 | 20,900 |
| Sciences | 117,000 | 104,300 | 98,500 | 5,800 | 12,600 |
| Asian | 37,100 | 31,400 | 28,000 | 3,400 | 5,700 |
| Underrepresented minority | 12,900 | 12,000 | 11,400 | S | 900 |
| White, non-Hispanic | 64,200 | 58,500 | 56,900 | 1,700 | 5,700 |
| Other | 2,800 | 2,400 | 2,300 | S | S |
| Biological, agricultural, and environmental life sciences | 16,800 | 14,600 | 14,200 | S | 2,200 |
| Asian | 3,600 | 2,900 | 2,700 | S | S |
| Underrepresented minority | 1,300 | 1,200 | 1,100 | S | S |
| White, non-Hispanic | 11,300 | 10,100 | 9,900 | S | 1,300 |
| Other | S | S | S | S | S |
| Computer and information sciences | 27,200 | 24,100 | 21,000 | 3,200 | S |
| Asian | 20,600 | 18,200 | 15,600 | S | S |
| Underrepresented minority | 1,500 | 1,400 | 1,100 | S | S |
| White, non-Hispanic | 4,800 | 4,400 | 4,200 | S | S |
| Other | S | S | S | S | S |
| Mathematics and related sciences | 5,900 | 4,800 | 4,700 | S | 1,000 |
| Asian | 2,900 | 2,200 | 2,100 | S | S |
| Underrepresented minority | 400 | 400 | 400 | S | S |
| White, non-Hispanic | 2,500 | 2,300 | 2,200 | S | S |
| Other | S | S | S | S | S |
| Physical and related sciences | 9,600 | 8,800 | 8,400 | S | 800 |
| Asian | 2,900 | 2,500 | 2,300 | S | S |
| Underrepresented minority | 900 | 800 | 800 | S | S |
| White, non-Hispanic | 5,400 | 5,100 | 5,000 | S | S |
| Other | S | S | S | S | S |
| Psychology | 32,000 | 30,500 | 29,900 | S | S |
| Asian | S | S | S | S | S |
| Underrepresented minority | 5,100 | 5,000 | 4,800 | S | S |
| White, non-Hispanic | 23,700 | 22,300 | 21,900 | S | S |
| Other | S | S | S | S | S |
| Social and related sciences | 25,500 | 21,500 | 20,400 | 1,100 | 4,100 |
| Asian | 4,300 | 2,900 | 2,500 | S | S |
| Underrepresented minority | 3,700 | 3,300 | 3,200 | S | S |
| White, non-Hispanic | 16,500 | 14,400 | 13,800 | S | 2,100 |
| Other | S | S | S | S | S |
| Engineering | 47,000 | 43,800 | 41,500 | 2,300 | 3,200 |
| Asian | 23,900 | 21,900 | 20,400 | S | 2,000 |
| Underrepresented minority | 2,900 | 2,800 | 2,700 | S | S |
| White, non-Hispanic | 18,900 | 17,900 | 17,600 | S | 1,000 |
| Other | 1,300 | 1,200 | S | S | S |

TABLE 44. Labor force status of 2001 and 2002 S\&E master's degree recipients, by major field of degree and race/ethnicity: October 2003

| Major field and race/ethnicity | All recipients | In labor force |  |  | Not in labor force |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Employed | Unemployed ${ }^{\text {a }}$ |  |
| Health | 82,700 | 77,700 | 74,400 | S | S |
| Asian | S | S | S | S | S |
| Underrepresented minority | 8,200 | 7,700 | 7,700 | S | S |
| White, non-Hispanic | 68,100 | 63,500 | 60,900 | S | S |
| Other | S | S | S | S | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\mathrm{a}}$ Those who were not working on October 1 and who were seeking work or who were on layoff from a job.
NOTES: Detail may not add to total because of rounding. Underrepresented minority race/ethnicity category includes American Indian or Alaska Native, black, and Hispanic. "Other" race/ethnicity includes Native Hawaiian or other Pacific Islander and individuals reporting more than one race. Estimates are from a sample survey of college graduates who received bachelor's or master's degrees in science or engineering fields in 2001 or 2002; estimates may differ from degree counts presented in other Science Resources Statistics publications.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 45. Relation of occupation to field of degree among 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All employed | S\&E occupation ${ }^{\text {a }}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Occupation in same broad field as degree $^{\text {a }}$ | Occupation in different broad S\&E or S\&E-related field than degree ${ }^{\text {b }}$ | Non-S\&E occupation |
| All fields | 768,900 | 273,200 | 74,800 | 420,900 |
| Sciences | 543,700 | 98,100 | 62,100 | 383,500 |
| Biological, agricultural, and environmental life sciences | 103,900 | 26,100 | 26,100 | 51,600 |
| Agricultural/food sciences | 11,500 | 1,900 | 2,200 | 7,400 |
| Biological sciences | 82,000 | 22,300 | 20,500 | 39,200 |
| Environmental life sciences | 10,300 | 1,900 | 3,400 | 5,000 |
| Computer and information sciences | 76,900 | 38,900 | S | 35,100 |
| Mathematics and statistics | 22,200 | 3,100 | 3,400 | 15,600 |
| Physical and related sciences | 28,100 | 11,800 | 6,500 | 9,800 |
| Chemistry, except biochemistry | 14,800 | 7,100 | 3,900 | 3,800 |
| Earth/atmospheric/ocean sciences | 5,600 | 2,100 | 1,000 | 2,500 |
| Physics/astronomy | 5,700 | 2,300 | 1,400 | 2,000 |
| Other physical sciences | 2,000 | S | S | 1,500 |
| Psychology | 122,800 | S | 12,600 | 105,900 |
| Social and related sciences | 189,800 | 14,000 | 10,500 | 165,400 |
| Economics | 35,400 | 2,900 | 2,200 | 30,300 |
| Political and related sciences | 53,300 | 5,400 | S | 46,600 |
| Sociology/anthropology | 63,200 | 3,600 | 3,900 | 55,700 |
| Other social sciences | 38,000 | S | 3,200 | 32,800 |
| Engineering | 98,400 | 67,200 | 11,600 | 19,600 |
| Aerospace/aeronautical/astronautical engineering | 2,900 | 2,100 | S | 700 |
| Chemical engineering | 8,800 | 6,800 | S | 1,500 |
| Civil/architectural engineering | 15,300 | 13,100 | S | 2,100 |
| Electrical/computer engineering | 30,800 | 17,000 | 7,600 | 6,200 |
| Industrial engineering | 6,100 | 3,500 | S | 2,200 |
| Materials/metallurgical engineering | 1,900 | 1,500 | S | S |
| Mechanical engineering | 22,300 | 16,900 | S | 4,600 |
| Other engineering | 10,200 | 6,300 | 1,700 | 2,200 |
| Health | 126,800 | 107,900 | S | 17,800 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ S\&E occupations include postsecondary educators. S\&E-related occupations include diagnosing/treating practitioners, registered nurses,
pharmacists, dieticians, therapists, physician assistants, health technologists and technicians, health and related sciences postsecondary educators and other health occupations. For details, see technical notes.
${ }^{\text {b }}$ Comparisons between occupation and degree field were done at broad field level only. For example, among people with chemistry bachelor's degrees working in physical science occupations, these occupations may be in chemistry or in another physical science field. Comparisons are between field of 2001 or 2002 S\&E bachelor's degree and principal job in October 2003.
NOTE: Detail may not add to total because of rounding.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 46. Relation of occupation to field of degree among 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field |  | S\&E occupation ${ }^{\text {a }}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | All employed | Occupation in same broad field as degree ${ }^{\text {a }}$ | Occupation in different broad S\&E or S\&E-related field than degree ${ }^{b}$ | Non-S\&E occupation |
| All fields | 214,400 | 131,700 | 24,800 | 57,900 |
| Sciences | 98,500 | 45,200 | 12,000 | 41,300 |
| Biological, agricultural, and environmental life sciences | 14,200 | 7,900 | 3,200 | 3,100 |
| Agricultural/food sciences | 2,700 | 1,700 | S | S |
| Biological sciences | 10,100 | 5,800 | 2,100 | 2,200 |
| Environmental life sciences | 1,300 | S | S | S |
| Computer and information sciences | 21,000 | 12,100 | 2,900 | 6,000 |
| Mathematics and statistics | 4,700 | 2,500 | S | 1,100 |
| Physical and related sciences | 8,400 | 5,300 | 1,600 | 1,500 |
| Chemistry, except biochemistry | 3,300 | 2,100 | S | S |
| Earth/atmospheric/ocean sciences | 2,500 | 1,500 | S | S |
| Physics/astronomy | 2,300 | 1,600 | S | S |
| Other physical sciences | S | S | S | S |
| Psychology | 29,900 | 12,400 | S | 16,300 |
| Social and related sciences | 20,400 | 5,000 | 2,100 | 13,300 |
| Economics | 3,300 | 1,400 | S | 1,500 |
| Political and related sciences | 6,100 | S | S | 4,500 |
| Sociology/anthropology | 4,200 | 1,400 | S | 2,400 |
| Other social sciences | 6,800 | S | S | 4,900 |
| Engineering | 41,500 | 28,200 | 8,800 | 4,500 |
| Aerospace/aeronautical/astronautical engineering | 1,100 | 900 | S | S |
| Chemical engineering | 1,600 | 1,200 | S | S |
| Civil/architectural engineering | 5,600 | 5,100 | S | S |
| Electrical/computer engineering | 14,000 | 7,800 | 4,800 | S |
| Industrial engineering | 3,400 | 2,100 | S | S |
| Materials/metallurgical engineering | 1,600 | S | S | S |
| Mechanical engineering | 5,200 | 4,300 | S | S |
| Other engineering | 9,000 | 5,500 | 2,200 | 1,300 |
| Health | 74,400 | 58,400 | S | 12,100 |

S = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. $S \& E=$ science and engineering.
${ }^{\text {a }}$ S\&E occupations include postsecondary educators. S\&E-related occupations include diagnosing/treating practitioners, registered nurses, pharmacists, dieticians, therapists, physician assistants, health technologists and technicians, health and related sciences postsecondary educators and other health occupations. For details, see technical notes.
${ }^{\mathrm{b}}$ Comparisons between occupation and degree field were done at broad field level only. For example, among people with chemistry bachelor's degrees working in physical science occupations, these occupations may be in chemistry or in another physical science field. Comparisons are between field of 2001 or 2002 S\&E master's degree and principal job in October 2003.

NOTE: Detail may not add to total because of rounding.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 47. Satisfaction with selected job factors among employed 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All employed | Very satisfied or somewhat satisfied with job factor |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Benefits | Contribution to society | Degree of independence | Intellectual challenge | $\begin{gathered} \text { Job } \\ \text { security } \end{gathered}$ | Level of responsibility | Location | Opportunities for advancement | Salary |
| All fields | 768,900 | 571,000 | 624,600 | 685,900 | 548,800 | 657,300 | 650,600 | 662,800 | 489,800 | 549,200 |
| Sciences | 543,700 | 388,500 | 419,700 | 476,900 | 363,700 | 451,600 | 448,200 | 463,300 | 329,100 | 363,700 |
| Biological, agricultural, and environmental life sciences | 103,900 | 72,600 | 87,900 | 93,700 | 74,800 | 87,700 | 90,500 | 86,900 | 64,100 | 69,400 |
| Agricultural/food sciences | 11,500 | 7,500 | 9,900 | 10,000 | 8,500 | 10,000 | 9,500 | 9,600 | 7,100 | 7,900 |
| Biological sciences | 82,000 | 57,800 | 69,700 | 75,300 | 59,100 | 69,400 | 72,600 | 68,200 | 51,000 | 55,300 |
| Environmental life sciences | 10,300 | 7,300 | 8,400 | 8,400 | 7,200 | 8,300 | 8,400 | 9,200 | 6,000 | 6,300 |
| Computer and information sciences | 76,900 | 60,100 | 56,200 | 67,900 | 55,900 | 63,500 | 64,000 | 64,800 | 50,600 | 58,000 |
| Mathematics and statistics | 22,200 | 17,400 | 16,900 | 19,500 | 15,500 | 18,700 | 18,600 | 19,500 | 16,000 | 16,400 |
| Physical and related sciences | 28,100 | 20,300 | 23,000 | 25,000 | 20,900 | 23,900 | 23,900 | 24,500 | 19,000 | 20,600 |
| Chemistry, except biochemistry | 14,800 | 10,700 | 12,400 | 13,300 | 11,400 | 13,000 | 12,800 | 13,100 | 10,100 | 11,100 |
| Earth/atmospheric/ocean sciences | 5,600 | 3,900 | 4,600 | 5,200 | 3,900 | 4,500 | 4,900 | 4,800 | 3,800 | 3,700 |
| Physics/astronomy | 5,700 | 4,100 | 4,600 | 5,000 | 4,400 | 5,100 | 4,900 | 5,000 | 4,300 | 4,400 |
| Other physical sciences | 2,000 | 1,600 | 1,400 | 1,600 | 1,100 | 1,400 | 1,400 | 1,600 | 900 | 1,300 |
| Psychology | 122,800 | 83,700 | 94,300 | 106,000 | 73,200 | 101,000 | 99,700 | 102,500 | 68,600 | 76,400 |
| Social and related sciences | 189,800 | 134,500 | 141,400 | 164,700 | 123,400 | 156,800 | 151,500 | 165,000 | 110,800 | 122,900 |
| Economics | 35,400 | 26,600 | 23,200 | 30,700 | 23,000 | 29,800 | 27,000 | 29,900 | 22,000 | 23,800 |
| Political and related sciences | 53,300 | 38,100 | 40,400 | 46,200 | 34,500 | 45,200 | 44,100 | 48,100 | 30,600 | 35,700 |
| Sociology/anthropology | 63,200 | 42,300 | 48,000 | 55,200 | 39,900 | 50,000 | 48,800 | 53,500 | 34,300 | 38,200 |
| Other social sciences | 38,000 | 27,500 | 29,700 | 32,600 | 26,000 | 31,900 | 31,700 | 33,500 | 23,900 | 25,300 |
| Engineering | 98,400 | 83,100 | 81,900 | 90,000 | 77,700 | 86,200 | 87,100 | 83,000 | 74,000 | 81,700 |
| Aerospace/aeronautical/astronautical engineering | 2,900 | 2,600 | 2,400 | 2,800 | 2,300 | 2,600 | 2,500 | 2,300 | 2,300 | 2,500 |
| Chemical engineering | 8,800 | 7,700 | 7,200 | 7,900 | 6,400 | 7,700 | 7,300 | 7,300 | 6,400 | 7,300 |
| Civil/architectural engineering | 15,300 | 13,400 | 13,900 | 14,300 | 12,600 | 14,000 | 14,000 | 13,300 | 13,000 | 13,500 |
| Electrical/computer engineering | 30,800 | 25,000 | 25,200 | 27,800 | 24,100 | 26,000 | 27,800 | 26,600 | 22,600 | 25,400 |
| Industrial engineering | 6,100 | 5,100 | 4,500 | 5,600 | 4,600 | 5,400 | 5,000 | 5,400 | 4,600 | 4,800 |
| Materials/metallurgical engineering | 1,900 | 1,400 | 1,600 | 1,500 | 1,500 | 1,600 | 1,700 | 1,700 | S | 1,400 |
| Mechanical engineering | 22,300 | 19,100 | 18,800 | 21,100 | 17,500 | 19,600 | 19,700 | 18,500 | 16,500 | 18,500 |
| Other engineering | 10,200 | 8,900 | 8,300 | 9,100 | 8,600 | 9,400 | 8,800 | 8,000 | 7,600 | 8,300 |
| Health | 126,800 | 99,400 | 123,000 | 119,000 | 107,500 | 119,600 | 115,300 | 116,500 | 86,800 | 103,800 |

$S=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: Column detail may not add to total because of rounding. Respondents were asked to rate their satisfaction with each job factor for their principal job held during week of October 1, 2003 using categories of very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied. Respondents may have reported "very satisfied" or "somewhat satisfied" for more than one job factor.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 48. Satisfaction with selected job factors among employed 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All employed | Very satisfied or somewhat satisfied with job factor |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Benefits | Contribution to society | Degree of independence | Intellectual challenge | $\begin{gathered} \text { Job } \\ \text { security } \end{gathered}$ | Level of responsibility | Location | Opportunities for advancement | Salary |
| All fields | 214,400 | 174,400 | 194,200 | 199,200 | 180,000 | 183,600 | 192,200 | 190,800 | 146,200 | 163,000 |
| Sciences | 98,500 | 75,000 | 87,600 | 91,400 | 82,000 | 82,300 | 88,000 | 86,500 | 64,800 | 72,600 |
| Biological, agricultural, and environmental life sciences | 14,200 | 11,100 | 12,400 | 13,200 | 11,300 | 11,600 | 12,600 | 12,300 | 9,200 | 10,400 |
| Agricultural/food sciences | 2,700 | 2,600 | 2,600 | 2,600 | 2,500 | 2,200 | 2,600 | 2,400 | 1,800 | 2,000 |
| Biological sciences | 10,100 | 7,400 | 8,600 | 9,300 | 7,600 | 8,100 | 8,700 | 8,700 | 6,200 | 7,200 |
| Environmental life sciences | 1,300 | 1,100 | 1,100 | 1,300 | 1,200 | 1,300 | 1,200 | 1,200 | 1,300 | 1,200 |
| Computer and information sciences | 21,000 | 16,000 | 18,400 | 19,000 | 17,700 | 17,000 | 18,300 | 18,400 | 14,300 | 16,700 |
| Mathematics and statistics | 4,700 | 3,700 | 4,000 | 4,200 | 3,900 | 3,700 | 4,100 | 3,700 | 3,000 | 3,600 |
| Physical and related sciences | 8,400 | 6,500 | 7,400 | 7,900 | 7,500 | 6,800 | 7,500 | 7,300 | 5,700 | 6,200 |
| Chemistry, except biochemistry | 3,300 | 2,200 | 2,800 | 3,000 | 2,800 | 2,400 | 2,600 | 2,700 | 1,800 | 2,200 |
| Earth/atmospheric/ocean sciences | 2,500 | 2,100 | 2,200 | 2,300 | 2,200 | 2,200 | 2,200 | 2,200 | 1,800 | 2,000 |
| Physics/astronomy | 2,300 | 1,700 | 2,000 | 2,100 | 2,100 | 1,900 | 2,200 | 2,100 | 1,800 | 1,700 |
| Other physical sciences | S | S | S | S | S | S | S | S | S | S |
| Psychology | 29,900 | 22,200 | 28,000 | 28,500 | 26,000 | 26,300 | 28,200 | 27,100 | 19,600 | 21,300 |
| Social and related sciences | 20,400 | 15,500 | 17,300 | 18,700 | 15,500 | 16,900 | 17,400 | 17,600 | 12,900 | 14,400 |
| Economics | 3,300 | 2,700 | 2,600 | 3,000 | 2,700 | 3,000 | 2,800 | 2,800 | 2,300 | 2,400 |
| Political and related sciences | 6,100 | 5,000 | 5,100 | 5,700 | 4,500 | 5,500 | 5,400 | 5,300 | 4,100 | 4,800 |
| Sociology/anthropology | 4,200 | 3,200 | 3,700 | 3,800 | 3,200 | 3,500 | 3,400 | 3,600 | 2,700 | 2,700 |
| Other social sciences | 6,800 | 4,600 | 5,900 | 6,200 | 5,100 | 4,900 | 5,800 | 5,900 | 3,900 | 4,600 |
| Engineering | 41,500 | 35,000 | 35,200 | 39,000 | 35,900 | 34,100 | 36,300 | 36,100 | 31,100 | 34,400 |
| Aerospace/aeronautical/astronautical engineering | 1,100 | 900 | 1,000 | 1,000 | 900 | 900 | 900 | 900 | 800 | 800 |
| Chemical engineering | 1,600 | 1,400 | 1,400 | 1,500 | 1,400 | 1,300 | 1,500 | 1,300 | 1,200 | 1,300 |
| Civil/architectural engineering | 5,600 | 4,700 | 4,700 | 5,100 | 4,900 | 4,800 | 5,100 | 5,200 | 4,500 | 4,600 |
| Electrical/computer engineering | 14,000 | 11,900 | 12,300 | 13,700 | 12,600 | 11,400 | 12,100 | 12,600 | 10,800 | 12,000 |
| Industrial engineering | 3,400 | 2,900 | 2,700 | 3,300 | 3,000 | 2,800 | 2,900 | 3,000 | 2,400 | 2,800 |
| Materials/metallurgical engineering | 1,600 | S | S | S | S | S | S | S | S | S |
| Mechanical engineering | 5,200 | 4,300 | 4,600 | 4,900 | 4,500 | 4,300 | 4,700 | 4,500 | 3,800 | 4,300 |
| Other engineering | 9,000 | 7,600 | 7,200 | 8,100 | 7,400 | 7,300 | 7,800 | 7,200 | 6,300 | 7,400 |
| Health | 74,400 | 64,400 | 71,400 | 68,800 | 62,100 | 67,100 | 67,800 | 68,200 | 50,300 | 56,100 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: Column detail may not add to total because of rounding. Respondents were asked to rate their satisfaction with each job factor for their principal job held during week of October 1, 2003 using categories of very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied. Respondents may have reported "very satisfied" or "somewhat satisfied" for more than one job factor.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 49. Relation of job to highest degree among employed 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | $\begin{gathered} \text { All } \\ \text { employed } \end{gathered}$ | Closely related | Somewhat related | Not related |
| :---: | :---: | :---: | :---: | :---: |
| All fields | 768,900 | 373,700 | 207,000 | 188,200 |
| Sciences | 543,700 | 212,900 | 164,000 | 166,700 |
| Biological, agricultural, and environmental life sciences | 103,900 | 53,600 | 24,100 | 26,200 |
| Agricultural/food sciences | 11,500 | 6,700 | 2,500 | 2,300 |
| Biological sciences | 82,000 | 41,900 | 18,600 | 21,600 |
| Environmental life sciences | 10,300 | 5,000 | 3,000 | 2,300 |
| Computer and information sciences | 76,900 | 37,600 | 26,100 | 13,200 |
| Mathematics and statistics | 22,200 | 11,100 | 6,600 | 4,400 |
| Physical and related sciences | 28,100 | 16,300 | 5,700 | 6,100 |
| Chemistry, except biochemistry | 14,800 | 9,000 | 3,100 | 2,700 |
| Earth/atmospheric/ocean sciences | 5,600 | 3,200 | 1,000 | 1,300 |
| Physics/astronomy | 5,700 | 3,500 | 1,200 | 1,100 |
| Other physical sciences | 2,000 | S | S | S |
| Psychology | 122,800 | 38,800 | 41,700 | 42,200 |
| Social and related sciences | 189,800 | 55,600 | 59,700 | 74,600 |
| Economics | 35,400 | 10,200 | 14,900 | 10,300 |
| Political and related sciences | 53,300 | 13,000 | 14,000 | 26,200 |
| Sociology/anthropology | 63,200 | 17,700 | 20,800 | 24,700 |
| Other social sciences | 38,000 | 14,600 | 10,000 | 13,400 |
| Engineering | 98,400 | 56,400 | 31,700 | 10,200 |
| Aerospace/aeronautical/astronautical engineering | 2,900 | 1,600 | 900 | 400 |
| Chemical engineering | 8,800 | 3,900 | 3,700 | 1,100 |
| Civil/architectural engineering | 15,300 | 11,300 | 3,300 | S |
| Electrical/computer engineering | 30,800 | 17,200 | 10,400 | 3,200 |
| Industrial engineering | 6,100 | 2,700 | 2,200 | 1,100 |
| Materials/metallurgical engineering | 1,900 | S | S | S |
| Mechanical engineering | 22,300 | 12,700 | 7,300 | 2,400 |
| Other engineering | 10,200 | 5,700 | 3,300 | 1,200 |
| Health | 126,800 | 104,400 | 11,200 | 11,200 |

$S$ = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: Detail may not add to total because of rounding. Questionnaire item is "To what extent was your work on your principal job related to your highest degree? Was it..."

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 50. Relation of job to highest degree among employed 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All employed | Closely related | Somewhat related | Not related |
| :---: | :---: | :---: | :---: | :---: |
| All fields | 214,400 | 164,500 | 36,700 | 13,200 |
| Sciences | 98,500 | 70,900 | 19,700 | 8,000 |
| Biological, agricultural, and environmental life sciences | 14,200 | 10,900 | 2,100 | 1,200 |
| Agricultural/food sciences | 2,700 | 2,200 | S | S |
| Biological sciences | 10,100 | 7,500 | 1,400 | 1,200 |
| Environmental life sciences | 1,300 | 1,100 | S | S |
| Computer and information sciences | 21,000 | 15,200 | 4,700 | S |
| Mathematics and statistics | 4,700 | 3,400 | 1,100 | S |
| Physical and related sciences | 8,400 | 6,500 | 1,400 | S |
| Chemistry, except biochemistry | 3,300 | 2,900 | S | S |
| Earth/atmospheric/ocean sciences | 2,500 | 1,500 | S | S |
| Physics/astronomy | 2,300 | 1,900 | S | S |
| Other physical sciences | S | S | S | S |
| Psychology | 29,900 | 24,100 | 4,200 | S |
| Social and related sciences | 20,400 | 10,800 | 6,300 | 3,300 |
| Economics | 3,300 | 2,000 | 1,200 | S |
| Political and related sciences | 6,100 | 2,700 | 2,100 | 1,300 |
| Sociology/anthropology | 4,200 | 2,700 | 800 | S |
| Other social sciences | 6,800 | 3,400 | 2,100 | 1,200 |
| Engineering | 41,500 | 29,800 | 9,200 | 2,500 |
| Aerospace/aeronautical/astronautical engineering | 1,100 | 800 | S | S |
| Chemical engineering | 1,600 | 1,200 | 300 | S |
| Civil/architectural engineering | 5,600 | 4,600 | 900 | S |
| Electrical/computer engineering | 14,000 | 10,700 | 2,300 | S |
| Industrial engineering | 3,400 | 2,100 | 1,100 | S |
| Materials/metallurgical engineering | 1,600 | S | S | S |
| Mechanical engineering | 5,200 | 3,300 | 1,700 | S |
| Other engineering | 9,000 | 5,900 | 2,400 | S |
| Health | 74,400 | 63,800 | 7,800 | S |

NOTES: Detail may not add to total because of rounding. Questionnaire item is "To what extent was your work on your principal job related to your highest degree? Was it..."

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 51. Occupation of employed 2001 and 2002 S\&E bachelor's degree recipients, by sex and race/ethnicity: October 2003

|  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Includes Native Hawaiian or other Pacific Islander and individuals reporting more than one race.
NOTES: Detail may not add to total because of rounding. Scientists and engineers occupations include postsecondary education. For details, see technical notes.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 52. Occupation of employed 2001 and 2002 S\&E master's degree recipients, by sex and race/ethnicity: October 2003

| Occupation | All employed | Sex |  | Race/ethnicity |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  American <br> Indian/ <br> Alaska <br> Native <br> Asian  |  | Black, non- <br> Hispanic | Hispanic | White, nonHispanic | Other ${ }^{\text {a }}$ |
|  |  | Male | Female |  |  |  |  |  |  |
| All occupations | 214,400 | 98,700 | 115,700 | 51,800 | S | 12,000 | 9,000 | 135,300 | 5,500 |
| Scientists | 69,700 | 40,000 | 29,700 | 28,600 | S | 2,700 | 2,800 | 32,700 | 2,600 |
| Biological, agricultural, and environmental life scientist | 12,100 | 5,800 | 6,300 | 3,300 | S | S | 700 | 7,400 | S |
| Computer and information scientist | 25,800 | 18,200 | 7,600 | 18,400 | S | 900 | S | 5,500 | S |
| Mathematical scientist | 4,100 | 2,600 | 1,500 | 1,600 | S | S | S | 2,000 | S |
| Physical scientist | 7,100 | 4,900 | 2,200 | 2,000 | S | S | S | 4,300 | S |
| Psychologist | 12,700 | 4,300 | 8,400 | S | S | S | S | 9,100 | S |
| Social scientist | 8,000 | 4,300 | 3,700 | S | S | S | S | 4,400 | S |
| Engineers | 30,400 | 24,900 | 5,500 | 13,800 | S | 800 | 1,600 | 13,400 | S |
| Science and engineering-related occupations | 68,800 | 16,300 | 52,500 | 5,400 | S | 3,300 | 1,600 | 58,100 | S |
| Health-related occupation | 61,700 | 12,700 | 49,000 | S | S | S | S | 53,600 | S |
| S\&E manager | 1,600 | S | S | S | S | S | S | S | S |
| S\&E precollege teacher | 2,800 | 1,200 | 1,700 | S | S | S | S | 1,700 | S |
| S\&E technician/technologist | 2,400 | S | S | S | S | S | S | S | S |
| Other S\&E-related occupation | S | S | S | S | S | S | S | S | S |
| Non-science and engineering occupations | 45,500 | 17,500 | 28,000 | 4,100 | S | 5,200 | 3,000 | 31,000 | S |
| Arts/humanities-related occupation | 1,300 | S | S | S | S | S | S | S | S |
| Management-related occupation | 7,300 | 4,000 | 3,300 | S | S | 1,000 | S | 4,700 | S |
| Non-S\&E manager | S | S | S | S | S | S | S | S | S |
| Non-S\&E postsecondary teacher | 2,100 | S | S | S | S | S | S | S | S |
| Non-S\&E precollege/other teacher | 3,600 | S | 2,300 | S | S | S | S | 1,800 | S |
| Sales/marketing occupation | 3,200 | S | 2,200 | S | S | S | S | 2,400 | S |
| Social service-related occupation | 14,300 | 2,600 | 11,700 | S | S | 1,600 | 1,000 | 10,500 | S |
| Other non-S\&E occupation | 11,900 | 5,700 | 6,200 | S | S | 1,000 | 1,000 | 8,800 | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Includes Native Hawaiian or other Pacific Islander and individuals reporting more than one race.
NOTES: Detail may not add to total because of rounding. Scientists and engineers occupations include postsecondary education. For details, see technical notes.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 53. Occupation of employed 2001 and 2002 S\&E bachelor's degree recipients, by age: October 2003

| Occupation | All employed | Less than 25 years | 25-29 years | $30-34$ <br> years | 35 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All occupations | 768,900 | 368,800 | 260,400 | 58,400 | 81,300 |
| Scientists | 146,800 | 74,000 | 52,000 | 12,100 | 8,700 |
| Biological, agricultural, and environmental life scientist | 30,900 | 17,000 | 11,400 | S | S |
| Computer and information scientist | 71,600 | 29,500 | 28,100 | 8,400 | 5,500 |
| Mathematical scientist | 5,300 | 2,700 | 2,100 | S | S |
| Physical scientist | 17,900 | 10,900 | 4,800 | 900 | 1,200 |
| Psychologist | 4,800 | S | S | S | S |
| Social scientist | 16,300 | 10,800 | 3,800 | S | S |
| Engineers | 72,900 | 29,500 | 34,300 | 5,400 | 3,800 |
| Science and engineering-related occupations | 188,900 | 72,500 | 55,900 | 20,900 | 39,600 |
| Health-related occupation | 143,400 | 52,400 | 40,200 | 15,200 | 35,500 |
| S\&E manager | 5,600 | S | S | S | S |
| S\&E precollege teacher | 19,700 | 9,200 | 7,500 | 1,400 | 1,500 |
| S\&E technician/technologist | 17,600 | 8,500 | 6,200 | S | S |
| Other S\&E-related occupation | 2,700 | 2,100 | S | S | S |
| Non-science and engineering occupations | 360,200 | 192,700 | 118,300 | 20,100 | 29,200 |
| Arts/humanities-related occupation | 9,500 | 6,200 | S | S | S |
| Management-related occupation | 41,100 | 20,800 | 15,000 | S | 3,600 |
| Non-S\&E manager | 1,800 | S | S | S | S |
| Non-S\&E postsecondary teacher | 5,100 | 3,200 | S | S | S |
| Non-S\&E precollege/other teacher | 40,900 | 23,800 | 10,300 | S | 4,700 |
| Sales/marketing occupation | 58,400 | 30,500 | 21,900 | 2,600 | 3,400 |
| Social service-related occupation | 45,300 | 21,700 | 12,900 | 3,900 | 6,800 |
| Other non-S\&E occupation | 158,100 | 85,900 | 54,300 | 8,900 | 9,000 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.

NOTES: Detail may not add to total because of rounding. Science and engineering fields include postsecondary education.
For details, see technical notes.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 54. Occupation of employed 2001 and 2002 S\&E master's degree recipients, by age: October 2003

| Occupation | All employed | Less than 25 years | $\begin{aligned} & 25-29 \\ & \text { years } \\ & \hline \end{aligned}$ | 30-34 <br> years | 35 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All occupations | 214,400 | 5,100 | 94,600 | 54,700 | 60,000 |
| Scientists | 69,700 | 1,200 | 34,200 | 19,500 | 14,700 |
| Biological, agricultural, and environmental life scientist | 12,100 | S | 4,900 | 3,300 | 3,700 |
| Computer and information scientist | 25,800 | S | 13,100 | 7,900 | 4,100 |
| Mathematical scientist | 4,100 | S | 1,800 | 1,500 | 700 |
| Physical scientist | 7,100 | S | 3,000 | 2,600 | 1,500 |
| Psychologist | 12,700 | S | 7,000 | 3,000 | 2,700 |
| Social scientist | 8,000 | S | 4,500 | 1,300 | S |
| Engineers | 30,400 | 1,200 | 17,600 | 7,300 | 4,200 |
| Science and engineering-related occupations | 68,800 | S | 26,100 | 17,600 | 23,500 |
| Health-related occupation | 61,700 | S | 22,800 | 16,100 | 21,300 |
| S\&E manager | 1,600 | S | S | S | S |
| S\&E precollege teacher | 2,800 | S | 1,100 | S | S |
| S\&E technician/technologist | 2,400 | S | 1,700 | S | S |
| Other S\&E-related occupation | S | S | S | S | S |
| Non-science and engineering occupations | 45,500 | S | 16,600 | 10,200 | 17,500 |
| Arts/humanities-related occupation | 1,300 | S | S | S | S |
| Management-related occupation | 7,300 | S | 3,000 | 1,600 | 2,600 |
| Non-S\&E manager | S | S | S | S | S |
| Non-S\&E postsecondary teacher | 2,100 | S | S | S | S |
| Non-S\&E precollege/other teacher | 3,600 | S | S | S | 1,900 |
| Sales/marketing occupation | 3,200 | S | S | S | S |
| Social service-related occupation | 14,300 | S | 5,100 | 2,800 | 5,900 |
| Other non-S\&E occupation | 11,900 | S | 4,500 | 2,900 | 4,400 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: Detail may not add to total because of rounding. Science and engineering fields include postsecondary education.
For details, see technical notes.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 55. Primary work activity of employed 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | $\begin{gathered} \text { All } \\ \text { employed } \end{gathered}$ | Computer applications | Management, sales, administration | Research and development | Teaching | Other |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All fields | 768,900 | 71,300 | 237,700 | 146,600 | 85,200 | 228,100 |
| Sciences | 543,700 | 56,200 | 195,200 | 92,500 | 71,400 | 128,300 |
| Biological, agricultural, and environmental life sciences | 103,900 | S | 29,300 | 35,000 | 12,000 | 24,800 |
| Agricultural/food sciences | 11,500 | S | 4,700 | 2,700 | S | 2,700 |
| Biological sciences | 82,000 | S | 22,100 | 28,700 | 9,600 | 19,600 |
| Environmental life sciences | 10,300 | S | 2,500 | 3,600 | S | 2,500 |
| Computer and information sciences | 76,900 | 34,500 | 21,600 | 9,700 | 4,100 | 7,200 |
| Mathematics and statistics | 22,200 | 3,400 | 5,800 | 2,800 | 7,500 | 2,800 |
| Physical and related sciences | 28,100 | 1,500 | 6,000 | 10,800 | 4,800 | 5,100 |
| Chemistry, except biochemistry | 14,800 | S | 2,600 | 6,500 | 2,300 | 2,800 |
| Earth/atmospheric/ocean sciences | 5,600 | S | 1,500 | 1,900 | 900 | 1,000 |
| Physics/astronomy | 5,700 | S | 1,100 | 2,200 | 1,300 | 600 |
| Other physical sciences | 2,000 | S | S | S | S | S |
| Psychology | 122,800 | S | 48,000 | 10,800 | 17,400 | 43,400 |
| Social and related sciences | 189,800 | 11,000 | 84,500 | 23,600 | 25,600 | 45,100 |
| Economics | 35,400 | 2,400 | 20,200 | 4,800 | 1,600 | 6,400 |
| Political and related sciences | 53,300 | 3,300 | 24,400 | 7,700 | 4,400 | 13,600 |
| Sociology/anthropology | 63,200 | S | 27,500 | 7,500 | 9,400 | 16,000 |
| Other social sciences | 38,000 | S | 12,300 | 3,600 | 10,300 | 9,200 |
| Engineering | 98,400 | 13,600 | 25,700 | 44,300 | 3,600 | 11,200 |
| Aerospace/aeronautical/astronautical engineering | 2,900 | 500 | 500 | 1,200 | S | 600 |
| Chemical engineering | 8,800 | S | 2,500 | 3,600 | S | 2,000 |
| Civil/architectural engineering | 15,300 | S | 5,400 | 7,300 | S | 1,800 |
| Electrical/computer engineering | 30,800 | 8,000 | 6,100 | 13,600 | 1,400 | 1,600 |
| Industrial engineering | 6,100 | 600 | 2,500 | 1,900 | S | 900 |
| Materials/metallurgical engineering | 1,900 | S | S | S | S | S |
| Mechanical engineering | 22,300 | 1,700 | 6,000 | 11,900 | S | 1,900 |
| Other engineering | 10,200 | 1,600 | 2,500 | 3,600 | S | 2,000 |
| Health | 126,800 | S | 16,800 | S | 10,200 | 88,600 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: Detail may not add to total because of rounding. Primary work activity is defined as activity in which respondent worked most hours on job in typical work week.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 56. Primary work activity of employed 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All employed | Computer applications | Management, sales, administration | Research and development | Teaching | Other |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All fields | 214,400 | 24,100 | 34,100 | 55,700 | 23,600 | 77,000 |
| Sciences | 98,500 | 14,500 | 16,700 | 26,700 | 14,100 | 26,500 |
| Biological, agricultural, and environmental life sciences | 14,200 | S | 2,500 | 6,800 | 2,100 | 2,400 |
| Agricultural/food sciences | 2,700 | S | S | 1,300 | S | S |
| Biological sciences | 10,100 | S | 1,400 | 5,100 | 1,700 | 1,600 |
| Environmental life sciences | 1,300 | S | S | S | S | S |
| Computer and information sciences | 21,000 | 11,500 | 2,200 | 5,500 | S | S |
| Mathematics and statistics | 4,700 | 800 | S | 1,500 | 1,500 | S |
| Physical and related sciences | 8,400 | S | S | 5,200 | 1,300 | S |
| Chemistry, except biochemistry | 3,300 | S | S | 2,200 | S | S |
| Earth/atmospheric/ocean sciences | 2,500 | S | S | 1,300 | S | S |
| Physics/astronomy | 2,300 | S | S | 1,600 | 500 | S |
| Other physical sciences | S | S | S | S | S | S |
| Psychology | 29,900 | S | 4,200 | 3,600 | 4,700 | 17,100 |
| Social and related sciences | 20,400 | 1,100 | 6,700 | 4,100 | 3,800 | 4,700 |
| Economics | 3,300 | S | 900 | 1,000 | S | S |
| Political and related sciences | 6,100 | S | 2,300 | S | S | 1,900 |
| Sociology/anthropology | 4,200 | S | 1,200 | 1,000 | S | 900 |
| Other social sciences | 6,800 | S | 2,300 | S | 1,600 | 1,400 |
| Engineering | 41,500 | 7,300 | 7,500 | 22,300 | 1,500 | 2,900 |
| Aerospace/aeronautical/astronautical engineering | 1,100 | S | S | 700 | S | S |
| Chemical engineering | 1,600 | S | S | 1,000 | S | S |
| Civil/architectural engineering | 5,600 | S | 1,400 | 3,100 | S | S |
| Electrical/computer engineering | 14,000 | 4,300 | S | 7,500 | S | S |
| Industrial engineering | 3,400 | S | 1,200 | 1,400 | S | S |
| Materials/metallurgical engineering | 1,600 | S | S | S | S | S |
| Mechanical engineering | 5,200 | S | 800 | 3,200 | S | S |
| Other engineering | 9,000 | S | 2,600 | 4,100 | S | S |
| Health | 74,400 | S | 9,900 | S | 8,000 | 47,600 |

$S=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: Detail may not add to total because of rounding. Primary work activity is defined as activity in which respondent worked most hours on job in typical work week.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 57. Work-related training taken by employed 2001 and 2002 S\&E bachelor's degree recipients, by occupation: October 2003

|  |  |  | Any <br> type of work- <br> related training | General <br> professional <br> training | Management <br> training | Training in <br> occupational |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Occupation | All employed |  |  |  |  |  | Other training

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Respondents may have taken more than one type of work-related training, therefore detail will not add to total.
${ }^{\mathrm{b}}$ Scientists and engineers occupations include postsecondary education. For details, see technical notes.
NOTES: Detail may not add to total because of rounding. Training was during the period October 1, 2002 to October 1, 2003.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 58. Work-related training taken by employed 2001 and 2002 S\&E master's degree recipients, by occupation: October 2003
$\left.\begin{array}{lrrrrrr}\hline & & & \begin{array}{c}\text { Any } \\ \text { type of work- } \\ \text { related training }\end{array} & \begin{array}{c}\text { General } \\ \text { professional } \\ \text { training }\end{array} & \begin{array}{c}\text { Management } \\ \text { training }\end{array} & \begin{array}{c}\text { Training in } \\ \text { occupational } \\ \text { field }\end{array} \\ \text { Occupation } & 214,400 & 142,600 & 43,100 & 30,500 & 132,800 & 11,700 \\ \text { Other training }\end{array}\right]$

S = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Respondents may have taken more than one type of work-related training, therefore detail will not add to total.
${ }^{\mathrm{b}}$ Scientists and engineers occupations include postsecondary education. For details, see technical notes.
NOTES: Detail may not add to total because of rounding. Training was during the period October 1, 2002 to October 1, 2003.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 59. Work-related training taken by employed 2001 and 2002 S\&E bachelor's degree recipients, by employment sector: October 2003

| Sector of employment | All employed | Any type of workrelated training ${ }^{\text {a }}$ | General professional training | Management training | Training in occupational field | Other training |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All sectors | 768,900 | 431,200 | 160,400 | 105,200 | 399,900 | 45,800 |
| Educational institution | 171,100 | 90,000 | 34,000 | 13,400 | 81,600 | 9,100 |
| 4-year college and university ${ }^{\text {b }}$ | 101,000 | 41,000 | 16,600 | 5,700 | 35,700 | 3,200 |
| Other educational ${ }^{\text {c }}$ | 70,100 | 49,000 | 17,400 | 7,700 | 45,900 | 5,800 |
| Government | 87,100 | 57,500 | 25,900 | 15,100 | 55,300 | 7,400 |
| Federal government | 35,800 | 23,900 | 11,700 | 9,500 | 22,400 | 1,500 |
| State or local government | 51,200 | 33,600 | 14,100 | 5,600 | 32,900 | 5,900 |
| Private industry and business (non-educational) | 510,700 | 283,700 | 100,500 | 76,700 | 263,000 | 29,300 |
| Private, for profit company ${ }^{\text {d }}$ | 392,800 | 207,100 | 77,400 | 56,700 | 191,400 | 21,400 |
| Nonprofit organizations | 92,200 | 66,100 | 20,300 | 18,900 | 62,200 | 6,000 |
| Self-employed ${ }^{\text {d }}$ | 25,800 | 10,600 | 2,800 | S | 9,500 | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Respondents may have taken more than one type of work-related training, therefore, detail will not add to total.
${ }^{\mathrm{b}}$ Includes university-affiliated medical schools or research organizations.
${ }^{\text {c }}$ Includes elementary, middle, secondary, and less than 4-year colleges or other educational institutions.
${ }^{d}$ Persons reporting they were self-employed but in an incorporated business are classified as "private, for-profit."
NOTES: Detail may not add to total because of rounding. Training was during the period October 1, 2002 to October 1, 2003.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 60. Work-related training taken by employed 2001 and 2002 S\&E master's degree recipients, by employment sector: October 2003

| Sector of employment | All employed | Any type of workrelated training ${ }^{a}$ | General professional training | Management training | Training in occupational field | Other training |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All sectors | 214,400 | 142,600 | 43,100 | 30,500 | 132,800 | 11,700 |
| Educational institution | 62,700 | 34,900 | 12,300 | 4,200 | 32,700 | 2,100 |
| 4 -year college and university ${ }^{\text {b }}$ | 42,500 | 18,100 | 6,900 | 2,100 | 16,200 | 1,200 |
| Other educational ${ }^{\text {c }}$ | 20,200 | 16,800 | 5,400 | 2,100 | 16,500 | S |
| Government | 28,900 | 23,500 | 8,500 | 8,600 | 21,900 | 2,200 |
| Federal government | 12,200 | 9,600 | 4,300 | 3,900 | 8,700 | 1,300 |
| State or local government | 16,700 | 13,800 | 4,100 | 4,700 | 13,200 | S |
| Private industry and business (non-educational) | 122,900 | 84,200 | 22,400 | 17,600 | 78,300 | 7,400 |
| Private, for profit company ${ }^{\text {d }}$ | 94,700 | 60,800 | 17,100 | 13,100 | 56,200 | 6,000 |
| Nonprofit organizations | 23,600 | 20,800 | 4,700 | 4,200 | 19,500 | S |
| Self-employed ${ }^{\text {d }}$ | 4,500 | 2,600 | S | S | 2,600 | S |

$S=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{a}$ Respondents may have taken more than one type of work-related training, therefore, detail will not add to total.
${ }^{\mathrm{b}}$ Includes university-affiliated medical schools or research organizations.
${ }^{c}$ Includes elementary, middle, secondary, and less than 4-year colleges or other educational institutions.
${ }^{d}$ Persons reporting they were self-employed but in an incorporated business are classified as "private, for-profit."
NOTES: Detail may not add to total because of rounding. Training was during the period October 1, 2002 to October 1, 2003.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 61. Importance of selected job factors to employed 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | $\begin{gathered} \text { All } \\ \text { employed } \\ \hline \end{gathered}$ | Considered job factor to be very important or somewhat important |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Benefits | Contribution to society | Degree of independence | Intellectual challenge | $\begin{gathered} \text { Job } \\ \text { security } \end{gathered}$ | Level of responsibility | Location | Opportunities for advancement | Salary |
| All fields | 768,900 | 745,100 | 705,900 | 741,200 | 756,500 | 749,700 | 737,900 | 721,900 | 745,700 | 749,400 |
| Sciences | 543,700 | 529,200 | 498,000 | 522,500 | 534,400 | 528,600 | 518,900 | 509,200 | 527,900 | 526,900 |
| Biological, agricultural, and environmental life sciences | 103,900 | 101,400 | 97,600 | 100,300 | 102,600 | 100,900 | 100,300 | 97,300 | 102,100 | 100,300 |
| Agricultural/food sciences | 11,500 | 11,300 | 10,500 | 11,200 | 11,400 | 11,500 | 11,500 | 10,600 | 11,300 | 11,300 |
| Biological sciences | 82,000 | 80,200 | 77,100 | 79,000 | 81,100 | 79,400 | 79,000 | 76,800 | 80,600 | 79,200 |
| Environmental life sciences | 10,300 | 10,000 | 10,000 | 10,100 | 10,100 | 10,000 | 9,800 | 9,900 | 10,200 | 9,900 |
| Computer and information sciences | 76,900 | 75,800 | 64,300 | 74,000 | 76,100 | 75,800 | 72,800 | 71,200 | 75,600 | 75,600 |
| Mathematics and statistics | 22,200 | 21,200 | 19,500 | 21,100 | 21,700 | 21,400 | 20,900 | 20,800 | 21,100 | 21,300 |
| Physical and related sciences | 28,100 | 27,400 | 25,400 | 26,500 | 27,600 | 27,200 | 26,500 | 26,500 | 27,200 | 27,100 |
| Chemistry, except biochemistry | 14,800 | 14,600 | 13,700 | 14,100 | 14,400 | 14,500 | 14,100 | 13,900 | 14,500 | 14,600 |
| Earth/atmospheric/ocean sciences | 5,600 | 5,600 | 4,800 | 5,300 | 5,600 | 5,500 | 5,200 | 5,400 | 5,600 | 5,500 |
| Physics/astronomy | 5,700 | 5,300 | 5,200 | 5,300 | 5,600 | 5,200 | 5,300 | 5,500 | 5,400 | 5,000 |
| Other physical sciences | 2,000 | 2,000 | 1,700 | 1,800 | 2,000 | 2,000 | 2,000 | 1,700 | 1,800 | 2,000 |
| Psychology | 122,800 | 120,400 | 115,300 | 119,000 | 121,400 | 120,700 | 119,400 | 116,900 | 117,700 | 120,800 |
| Social and related sciences | 189,800 | 182,900 | 175,900 | 181,600 | 185,100 | 182,600 | 179,000 | 176,500 | 184,200 | 182,000 |
| Economics | 35,400 | 34,500 | 29,700 | 34,100 | 34,500 | 34,400 | 33,900 | 33,100 | 35,000 | 34,900 |
| Political and related sciences | 53,300 | 51,100 | 49,900 | 50,800 | 52,500 | 50,300 | 50,900 | 48,900 | 51,300 | 51,900 |
| Sociology/anthropology | 63,200 | 60,700 | 60,400 | 60,400 | 61,200 | 61,200 | 59,100 | 59,200 | 61,400 | 59,100 |
| Other social sciences | 38,000 | 36,700 | 35,900 | 36,300 | 37,000 | 36,600 | 35,100 | 35,200 | 36,500 | 36,100 |
| Engineering | 98,400 | 95,100 | 84,100 | 93,500 | 96,300 | 95,600 | 93,900 | 90,900 | 95,700 | 96,300 |
| Aerospace/aeronautical/astronautical engineering | 2,900 | 2,900 | 2,400 | 2,700 | 2,900 | 2,800 | 2,800 | 2,700 | 2,900 | 2,900 |
| Chemical engineering | 8,800 | 8,300 | 7,200 | 8,400 | 8,600 | 8,600 | 8,400 | 8,300 | 8,500 | 8,700 |
| Civil/architectural engineering | 15,300 | 14,900 | 13,400 | 14,600 | 14,700 | 15,100 | 14,400 | 14,300 | 14,800 | 14,800 |
| Electrical/computer engineering | 30,800 | 30,000 | 26,300 | 29,600 | 30,300 | 29,900 | 29,400 | 28,200 | 29,900 | 30,200 |
| Industrial engineering | 6,100 | 5,800 | 5,400 | 5,700 | 6,000 | 5,900 | 5,900 | 5,700 | 6,000 | 6,000 |
| Materials/metallurgical engineering | 1,900 | 1,700 | 1,600 | 1,800 | 1,800 | 1,900 | 1,800 | 1,400 | 1,600 | 1,900 |
| Mechanical engineering | 22,300 | 21,800 | 19,100 | 21,000 | 22,100 | 21,800 | 21,500 | 20,600 | 22,100 | 21,900 |
| Other engineering | 10,200 | 9,700 | 8,600 | 9,600 | 9,900 | 9,700 | 9,500 | 9,800 | 10,000 | 9,900 |
| Health | 126,800 | 120,800 | 123,700 | 125,200 | 125,800 | 125,500 | 125,100 | 121,700 | 122,100 | 126,200 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: Detail may not add to total because of rounding. Respondents were asked the following question: "When thinking about a job, how important is each of the following factors to you?" The response categories were very important, somewhat important, somewhat unimportant, and not important at all.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 62. Importance of selected job factors to employed 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All employed | Considered job factor to be very important or somewhat important |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Benefits | Contribution to society | Degree of independence | Intellectual challenge | Job security | Level of responsibility | Location | Opportunities for advancement | Salary |
| All fields | 214,400 | 208,600 | 200,400 | 207,100 | 209,700 | 208,800 | 205,400 | 201,000 | 204,000 | 211,000 |
| Sciences | 98,500 | 95,600 | 92,000 | 94,600 | 96,700 | 94,900 | 93,100 | 92,000 | 94,000 | 96,800 |
| Biological, agricultural, and environmental life sciences | 14,200 | 13,900 | 13,400 | 13,400 | 13,900 | 13,600 | 13,100 | 13,400 | 13,500 | 13,900 |
| Agricultural/food sciences | 2,700 | 2,700 | 2,700 | 2,600 | 2,700 | 2,700 | 2,400 | 2,500 | 2,600 | 2,600 |
| Biological sciences | 10,100 | 9,800 | 9,400 | 9,500 | 9,800 | 9,500 | 9,500 | 9,600 | 9,800 | 9,900 |
| Environmental life sciences | 1,300 | 1,300 | 1,200 | 1,300 | 1,300 | 1,300 | 1,200 | 1,300 | 1,100 | 1,300 |
| Computer and information sciences | 21,000 | 20,300 | 18,600 | 19,200 | 20,400 | 19,400 | 20,300 | 18,400 | 20,000 | 20,700 |
| Mathematics and statistics | 4,700 | 4,700 | 4,100 | 4,600 | 4,600 | 4,500 | 4,200 | 4,400 | 4,400 | 4,500 |
| Physical and related sciences | 8,400 | 8,100 | 7,400 | 7,800 | 8,000 | 8,100 | 7,400 | 7,700 | 8,000 | 8,100 |
| Chemistry, except biochemistry | 3,300 | 3,100 | 2,400 | 2,900 | 2,900 | 3,100 | 2,600 | 2,800 | 3,100 | 3,100 |
| Earth/atmospheric/ocean sciences | 2,500 | 2,300 | 2,400 | 2,300 | 2,400 | 2,300 | 2,300 | 2,400 | 2,300 | 2,400 |
| Physics/astronomy | 2,300 | 2,300 | 2,100 | 2,200 | 2,200 | 2,200 | 2,100 | 2,000 | 2,100 | 2,200 |
| Other physical sciences | S | S | S | S | S | S | S | S | S | S |
| Psychology | 29,900 | 28,700 | 29,000 | 29,500 | 29,500 | 29,300 | 28,600 | 28,700 | 28,000 | 29,900 |
| Social and related sciences | 20,400 | 19,900 | 19,500 | 19,900 | 20,300 | 20,100 | 19,600 | 19,500 | 19,900 | 19,700 |
| Economics | 3,300 | 3,200 | 3,000 | 3,200 | 3,300 | 3,200 | 3,200 | 3,200 | 3,200 | 3,200 |
| Political and related sciences | 6,100 | 6,100 | 6,000 | 6,000 | 6,100 | 6,100 | 5,900 | 5,900 | 6,000 | 6,000 |
| Sociology/anthropology | 4,200 | 4,000 | 4,100 | 4,100 | 4,200 | 4,100 | 4,000 | 4,000 | 4,000 | 4,100 |
| Other social sciences | 6,800 | 6,500 | 6,400 | 6,600 | 6,800 | 6,700 | 6,400 | 6,400 | 6,600 | 6,400 |
| Engineering | 41,500 | 40,400 | 36,100 | 38,900 | 41,000 | 40,300 | 39,800 | 37,600 | 40,600 | 40,600 |
| Aerospace/aeronautical/astronautical engineering | 1,100 | 1,000 | 1,000 | 1,000 | 1,100 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Chemical engineering | 1,600 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,200 | 1,500 | 1,500 |
| Civil/architectural engineering | 5,600 | 5,400 | 5,000 | 5,200 | 5,500 | 5,500 | 5,300 | 5,000 | 5,600 | 5,400 |
| Electrical/computer engineering | 14,000 | 13,800 | 12,400 | 13,100 | 14,000 | 13,700 | 13,400 | 12,900 | 13,700 | 13,800 |
| Industrial engineering | 3,400 | 3,400 | 2,900 | 3,300 | 3,300 | 3,400 | 3,300 | 3,200 | 3,400 | 3,400 |
| Materials/metallurgical engineering | 1,600 | 1,600 | S | 1,600 | 1,600 | 1,600 | 1,600 | S | S | 1,600 |
| Mechanical engineering | 5,200 | 5,100 | 4,400 | 4,800 | 5,200 | 5,000 | 5,000 | 4,700 | 5,100 | 5,100 |
| Other engineering | 9,000 | 8,600 | 7,400 | 8,500 | 8,900 | 8,600 | 8,700 | 8,200 | 8,800 | 8,800 |
| Health | 74,400 | 72,500 | 72,300 | 73,600 | 72,000 | 73,500 | 72,500 | 71,400 | 69,400 | 73,600 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
NOTES: Detail may not add to total because of rounding. Respondents were asked the following question: "When thinking about a job, how important is each of the following factors to you?" The response categories were very important, somewhat important, somewhat unimportant, and not important at all.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 63. Employment sector of 2001 and 2002 S\&E bachelor's degree recipients, by occupation: October 2003

| Occupation | All employed | Sector |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Educational institution ${ }^{\text {a }}$ | Government ${ }^{\text {b }}$ | Private industry and business ${ }^{\text {c }}$ |
| All occupations | 768,900 | 171,100 | 87,100 | 510,700 |
| Scientists ${ }^{\text {d }}$ | 146,800 | 45,400 | 16,700 | 84,700 |
| Biological, agricultural, and environmental life scientist | 30,900 | 18,200 | 3,700 | 9,000 |
| Computer and information scientist | 71,600 | 7,600 | 6,400 | 57,600 |
| Mathematical scientist | 5,300 | 3,100 | S | S |
| Physical scientist | 17,900 | 8,600 | 1,300 | 8,000 |
| Psychologist | 4,800 | S | S | S |
| Social scientist | 16,300 | 5,100 | 3,300 | 7,800 |
| Engineers ${ }^{\text {d }}$ | 72,900 | 9,400 | 11,000 | 52,600 |
| Science and engineering-related occupations | 188,900 | 43,700 | 17,800 | 127,500 |
| Health-related occupation | 143,400 | 19,500 | 14,800 | 109,100 |
| S\&E manager | 5,600 | S | S | 5,400 |
| S\&E precollege teacher | 19,700 | 19,600 | S | S |
| S\&E technician/technologist | 17,600 | 4,500 | 2,700 | 10,400 |
| Other S\&E-related occupation | 2,700 | S | S | 2,600 |
| Non-science and engineering occupations | 360,200 | 72,600 | 41,600 | 246,000 |
| Arts/humanities-related occupation | 9,500 | S | S | 7,300 |
| Management-related occupation | 41,100 | 2,300 | 4,500 | 34,300 |
| Non-S\&E manager | 1,800 | S | S | 1,400 |
| Non-S\&E postsecondary teacher | 5,100 | 4,500 | S | S |
| Non-S\&E precollege/other teacher | 40,900 | 34,800 | S | 4,800 |
| Sales/marketing occupation | 58,400 | S | S | 57,300 |
| Social service-related occupation | 45,300 | 7,500 | 9,100 | 28,700 |
| Other non-S\&E occupation | 158,100 | 21,000 | 25,100 | 112,000 |

$S$ = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{a}$ Educational institutions include elementary and secondary schools, 2-year and 4-year colleges and universities, medical schools university-affiliated research organizations, and all other educational institutions.
${ }^{\mathrm{b}}$ Government includes local, state, and federal government, military, and commissioned corps.
${ }^{c}$ Private industry and business includes all private for-profit and private not-for-profit companies, businesses, and organizations, except those reported as educational institutions. It also includes persons reporting they were self-employed.
${ }^{d}$ Scientists and engineers occupations include S\&E postsecondary educators. For more details, see technical notes.
NOTE: Detail may not add to total because of rounding.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 64. Employment sector of 2001 and 2002 S\&E master's degree recipients, by occupation: October 2003

| Occupation | All employed | Sector |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Educational institution ${ }^{\text {a }}$ | Government ${ }^{\text {b }}$ | Private industry and business ${ }^{\text {c }}$ |
| All occupations | 214,400 | 62,700 | 28,900 | 122,900 |
| Scientists ${ }^{\text {d }}$ | 69,700 | 27,500 | 8,200 | 34,100 |
| Biological, agricultural, and environmental life scientist | 12,100 | 6,300 | 2,800 | 3,100 |
| Computer and information scientist | 25,800 | 3,900 | S | 20,400 |
| Mathematical scientist | 4,100 | 2,100 | S | 1,600 |
| Physical scientist | 7,100 | 3,200 | 900 | 3,000 |
| Psychologist | 12,700 | 8,500 | S | 3,000 |
| Social scientist | 8,000 | 3,500 | 1,400 | 3,000 |
| Engineers ${ }^{\text {d }}$ | 30,400 | 6,700 | 2,700 | 20,900 |
| Science and engineering-related occupations | 68,800 | 17,000 | 7,900 | 43,900 |
| Health-related occupation | 61,700 | 13,500 | 7,300 | 40,900 |
| S\&E manager | 1,600 | S | S | 1,500 |
| S\&E precollege teacher | 2,800 | 2,800 | S | S |
| S\&E technician/technologist | 2,400 | S | S | S |
| Other S\&E-related occupation | S | S | S | S |
| Non-science and engineering occupations | 45,500 | 11,500 | 10,100 | 23,900 |
| Arts/humanities-related occupation | 1,300 | S | S | S |
| Management-related occupation | 7,300 | S | 2,100 | 4,400 |
| Non-S\&E manager | S | S | S | S |
| Non-S\&E postsecondary teacher | 2,100 | 2,100 | S | S |
| Non-S\&E precollege/other teacher | 3,600 | 3,000 | S | S |
| Sales/marketing occupation | 3,200 | S | S | 3,100 |
| Social service-related occupation | 14,300 | 3,200 | 3,300 | 7,700 |
| Other non-S\&E occupation | 11,900 | 1,700 | 3,700 | 6,500 |

$S$ = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Educational institutions include elementary and secondary schools, 2-year and 4-year colleges and universities, medical schools university-affiliated research organizations, and all other educational institutions.
${ }^{\mathrm{b}}$ Government includes local, state, and federal government, military, and commissioned corps.
${ }^{c}$ Private industry and business includes all private for-profit and private not-for-profit companies, businesses, and organizations, except those reported as educational institutions. It also includes persons reporting they were self-employed.
${ }^{d}$ Scientists and engineers occupations include S\&E postsecondary educators. For more details, see technical notes.
NOTE: Detail may not add to total because of rounding.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 65. Employment sector of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All employed | Sector |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Educational institution ${ }^{\text {a }}$ | Government ${ }^{\text {b }}$ | Private industry and business ${ }^{\text {c }}$ |
| All fields | 768,900 | 171,100 | 87,100 | 510,700 |
| Sciences | 543,700 | 140,600 | 59,800 | 343,300 |
| Biological, agricultural, and environmental life sciences | 103,900 | 35,100 | 11,400 | 57,400 |
| Agricultural/food sciences | 11,500 | 2,500 | S | 7,800 |
| Biological sciences | 82,000 | 30,900 | 7,900 | 43,200 |
| Environmental life sciences | 10,300 | 1,700 | 2,100 | 6,400 |
| Computer and information sciences | 76,900 | 9,200 | 7,500 | 60,200 |
| Mathematics and statistics | 22,200 | 9,800 | 1,800 | 10,500 |
| Physical and related sciences | 28,100 | 11,400 | 2,400 | 14,300 |
| Chemistry, except biochemistry | 14,800 | 6,000 | S | 8,000 |
| Earth/atmospheric/ocean sciences | 5,600 | 1,900 | 700 | 2,900 |
| Physics/astronomy | 5,700 | 3,200 | 600 | 1,900 |
| Other physical sciences | 2,000 | S | S | 1,500 |
| Psychology | 122,800 | 34,100 | 13,200 | 75,400 |
| Social and related sciences | 189,800 | 40,900 | 23,600 | 125,300 |
| Economics | 35,400 | 3,600 | 2,600 | 29,200 |
| Political and related sciences | 53,300 | 8,100 | 8,900 | 36,200 |
| Sociology/anthropology | 63,200 | 16,400 | 7,400 | 39,400 |
| Other social sciences | 38,000 | 12,800 | 4,700 | 20,500 |
| Engineering | 98,400 | 12,100 | 14,500 | 71,800 |
| Aerospace/aeronautical/astronautical engineering | 2,900 | 400 | 800 | 1,700 |
| Chemical engineering | 8,800 | 1,200 | 800 | 6,800 |
| Civil/architectural engineering | 15,300 | S | 3,800 | 10,600 |
| Electrical/computer engineering | 30,800 | 3,400 | 4,700 | 22,800 |
| Industrial engineering | 6,100 | 700 | S | 5,100 |
| Materials/metallurgical engineering | 1,900 | S | S | S |
| Mechanical engineering | 22,300 | 2,700 | 2,200 | 17,400 |
| Other engineering | 10,200 | 2,200 | 1,700 | 6,400 |
| Health | 126,800 | 18,400 | 12,800 | 95,700 |

S = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Educational institutions include elementary and secondary schools, 2-year and 4-year colleges and universities, medical schools university-affiliated research organizations, and all other educational institutions.
${ }^{\mathrm{b}}$ Government includes local, state, and federal government, military, and commissioned corps.
${ }^{c}$ Private industry and business includes all private for-profit and private not-for-profit companies, businesses, and organizations, except those reported as educational institutions. It also includes persons reporting they were self-employed.

NOTE: Detail may not add to total because of rounding.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 66. Employment sector of 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All employed | Sector |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Educational institution ${ }^{\text {a }}$ | Government ${ }^{\text {b }}$ | Private industry and business ${ }^{\text {c }}$ |
| All fields | 214,400 | 62,700 | 28,900 | 122,900 |
| Sciences | 98,500 | 38,800 | 14,500 | 45,200 |
| Biological, agricultural, and environmental life sciences | 14,200 | 5,900 | 2,300 | 5,900 |
| Agricultural/food sciences | 2,700 | S | S | S |
| Biological sciences | 10,100 | 4,500 | 1,200 | 4,500 |
| Environmental life sciences | 1,300 | S | S | S |
| Computer and information sciences | 21,000 | 4,800 | S | 14,800 |
| Mathematics and statistics | 4,700 | 2,400 | S | 2,000 |
| Physical and related sciences | 8,400 | 4,000 | 1,000 | 3,400 |
| Chemistry, except biochemistry | 3,300 | 1,300 | S | 1,700 |
| Earth/atmospheric/ocean sciences | 2,500 | 700 | S | 1,200 |
| Physics/astronomy | 2,300 | 1,700 | S | 500 |
| Other physical sciences | S | S | S | S |
| Psychology | 29,900 | 14,500 | 4,800 | 10,600 |
| Social and related sciences | 20,400 | 7,200 | 4,800 | 8,400 |
| Economics | 3,300 | 1,200 | S | 1,800 |
| Political and related sciences | 6,100 | 1,200 | 1,700 | 3,300 |
| Sociology/anthropology | 4,200 | 1,800 | 1,000 | 1,400 |
| Other social sciences | 6,800 | 3,000 | 1,700 | 2,000 |
| Engineering | 41,500 | 8,700 | 3,400 | 29,300 |
| Aerospace/aeronautical/astronautical engineering | 1,100 | S | S | 500 |
| Chemical engineering | 1,600 | 700 | S | 800 |
| Civil/architectural engineering | 5,600 | S | 1,100 | 3,700 |
| Electrical/computer engineering | 14,000 | 3,400 | S | 9,800 |
| Industrial engineering | 3,400 | S | S | 2,800 |
| Materials/metallurgical engineering | 1,600 | S | S | S |
| Mechanical engineering | 5,200 | 1,000 | S | 3,900 |
| Other engineering | 9,000 | 2,000 | S | 6,300 |
| Health | 74,400 | 15,200 | 10,900 | 48,300 |

S = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Educational institutions include elementary and secondary schools, 2-year and 4-year colleges and universities, medical schools university-affiliated research organizations, and all other educational institutions.
${ }^{\mathrm{b}}$ Government includes local, state, and federal government, military, and commissioned corps.
${ }^{c}$ Private industry and business includes all private for-profit and private not-for-profit companies, businesses, and organizations, except those reported as educational institutions. It also includes persons reporting they were self-employed.

NOTE: Detail may not add to total because of rounding.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 67. Median salary of full-time employed 2001 and 2002 S\&E bachelor's degree recipients, by sex, race/ethnicity, and major field of degree: October 2003

| Major field | All <br> employed recipients | Sex |  | Race/ethnicity |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Asian | Black, nonHispanic | Hispanic | White, non Hispanic | Other ${ }^{\text {a }}$ |
|  |  | Male | Female |  |  |  |  |  |
| All fields | \$36,000 | \$40,000 | \$35,000 | \$41,000 | \$34,000 | \$35,000 | \$36,000 | \$39,000 |
| Sciences | 32,000 | 35,000 | 30,000 | 37,000 | 30,000 | 34,000 | 31,000 | 34,000 |
| Biological, agricultural, and environmental life sciences | 29,000 | 32,000 | 29,000 | S | 28,000 | 31,000 | 29,000 | S |
| Agricultural/food sciences | 29,000 | 32,000 | 26,000 | S | S | S | 29,000 | S |
| Biological sciences | 29,000 | 30,000 | 29,000 | S | 28,000 | 31,000 | 29,000 | S |
| Environmental life sciences | 30,000 | 32,000 | 29,000 | S | S | S | 31,000 | S |
| Computer and information sciences | 45,000 | 46,000 | 44,000 | 47,000 | 39,000 | 38,000 | 45,000 | S |
| Mathematics and statistics | 36,000 | 38,000 | 35,000 | 40,000 | 33,000 | 38,000 | 35,000 | S |
| Physical and related sciences | 35,000 | 36,000 | 34,000 | S | 32,000 | 34,000 | 35,000 | S |
| Chemistry, except biochemistry | 35,000 | 36,000 | 34,000 | S | 32,000 | 34,000 | 36,000 | S |
| Earth/atmospheric/ocean sciences | 32,000 | 32,000 | 31,000 | S | S | S | 31,000 | S |
| Physics/astronomy | 40,000 | 39,000 | 40,000 | S | S | S | 40,000 | S |
| Other physical sciences | 31,000 | S | S | S | S | S | S | S |
| Psychology | 28,000 | 30,000 | 28,000 | S | 26,000 | 31,000 | 29,000 | S |
| Social and related sciences | 30,000 | 35,000 | 29,000 | 36,000 | 30,000 | 35,000 | 30,000 | 30,000 |
| Economics | 37,000 | 38,000 | 35,000 | 39,000 | 39,000 | 38,000 | 35,000 | S |
| Political and related sciences | 30,000 | 35,000 | 29,000 | S | 26,000 | 36,000 | 31,000 | S |
| Sociology/anthropology | 29,000 | 29,000 | 28,000 | S | 30,000 | 30,000 | 28,000 | S |
| Other social sciences | 30,000 | 32,000 | 28,000 | S | 30,000 | 35,000 | 30,000 | S |
| Engineering | 50,000 | 50,000 | 48,000 | 52,000 | 49,000 | 45,000 | 49,000 | 49,000 |
| Aerospace/aeronautical/astronautical engineering | 48,000 | 48,000 | 51,000 | S | S | 49,000 | 48,000 | S |
| Chemical engineering | 53,000 | 53,000 | 53,000 | S | 53,000 | 50,000 | 52,000 | S |
| Civil/architectural engineering | 44,000 | 44,000 | 44,000 | S | S | 43,000 | 44,000 | S |
| Electrical/computer engineering | 53,000 | 53,000 | 54,000 | 53,000 | 51,000 | 49,000 | 53,000 | S |
| Industrial engineering | 47,000 | 47,000 | 47,000 | S | 50,000 | 40,000 | 48,000 | S |
| Materials/metallurgical engineering | S | S | S | S | S | S | S | S |
| Mechanical engineering | 50,000 | 50,000 | 52,000 | S | 46,000 | 46,000 | 50,000 | S |
| Other engineering | 43,000 | 44,000 | 42,000 | S | S | S | 44,000 | S |
| Health | 43,000 | 41,000 | 43,000 | S | 43,000 | S | 43,000 | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Includes American Indian, Alaska Native, Native Hawaiian or other Pacific Islander and individuals reporting more than one race.
NOTES: Salary data are for principal job only. Full-time employed are those working at least 35 hours per week at their principal job. Self-employed persons and full-time students are excluded from salary data.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 68. Median salary of full-time employed 2001 and 2002 S\&E master's degree recipients, by sex, race/ethnicity, and major field of degree: October 2003

| Major field | All <br> employed recipients | Sex |  | Race/ethnicity |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Asian | Black, nonHispanic | Hispanic | White, nonHispanic | Other ${ }^{\text {a }}$ |
|  |  | Male | Female |  |  |  |  |  |
| All fields | \$52,000 | \$58,000 | \$48,000 | \$60,000 | \$44,000 | \$47,000 | \$50,000 | \$65,000 |
| Sciences | 45,000 | 49,000 | 40,000 | 55,000 | 42,000 | 41,000 | 41,000 | 43,000 |
| Biological, agricultural, and environmental life sciences | 40,000 | 41,000 | 38,000 | S | S | S | 41,000 | S |
| Agricultural/food sciences | 39,000 | 40,000 | S | S | S | S | 41,000 | S |
| Biological sciences | 40,000 | 45,000 | 38,000 | S | S | S | 40,000 | S |
| Environmental life sciences | 41,000 | S | S | S | S | S | S | S |
| Computer and information sciences | 60,000 | 66,000 | 56,000 | 59,000 | S | S | 68,000 | S |
| Mathematics and statistics | 54,000 | 56,000 | 51,000 | 55,000 | S | S | 50,000 | S |
| Physical and related sciences | 49,000 | 52,000 | 45,000 | 51,000 | S | S | 49,000 | S |
| Chemistry, except biochemistry | 53,000 | 53,000 | 48,000 | S | S | S | S | S |
| Earth/atmospheric/ocean sciences | 44,000 | 46,000 | 42,000 | S | S | S | 44,000 | S |
| Physics/astronomy | 58,000 | S | S | S | S | S | 57,000 | S |
| Other physical sciences | S | S | S | S | S | S | S | S |
| Psychology | 38,000 | 36,000 | 38,000 | S | 38,000 | 40,000 | 36,000 | S |
| Social and related sciences | 42,000 | 43,000 | 41,000 | S | 40,000 | 40,000 | 42,000 | S |
| Economics | 49,000 | 44,000 | 48,000 | S | S | S | 45,000 | S |
| Political and related sciences | 46,000 | 46,000 | 45,000 | S | S | S | 49,000 | S |
| Sociology/anthropology | 34,000 | 30,000 | 36,000 | S | S | S | 32,000 | S |
| Other social sciences | 40,000 | 42,000 | 38,000 | S | S | S | 42,000 | S |
| Engineering | 65,000 | 65,000 | 60,000 | 64,000 | 65,000 | 62,000 | 65,000 | S |
| Aerospace/aeronautical/astronautical engineering | 60,000 | 61,000 | S | S | S | S | 51,000 | S |
| Chemical engineering | 63,000 | 64,000 | 54,000 | S | S | S | 63,000 | S |
| Civil/architectural engineering | 54,000 | 54,000 | 52,000 | 54,000 | S | S | 54,000 | S |
| Electrical/computer engineering | 70,000 | 70,000 | 70,000 | 69,000 | S | S | 73,000 | S |
| Industrial engineering | 71,000 | 72,000 | 65,000 | S | S | S | 76,000 | S |
| Materials/metallurgical engineering | S | S | S | S | S | S | S | S |
| Mechanical engineering | 59,000 | 58,000 | 59,000 | 54,000 | S | S | 59,000 | S |
| Other engineering | 65,000 | 67,000 | 60,000 | 61,000 | S | S | 63,000 | S |
| Health | 53,000 | 55,000 | 50,000 | S | 43,000 | S | 52,000 | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{a}$ Includes American Indian or Alaska Native, Native Hawaiian or other Pacific Islander and individuals reporting more than one race.
NOTES: Salary data are for principal job only. Full-time employed are those working at least 35 hours per week at their principal job. Self-employed persons and full-time students are excluded from salary data.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 69. Median salary of full-time employed 2001 and 2002 S\&E bachelor's degree recipients, by sex, race/ethnicity, and occupation: October 2003

| Occupation | Allemployedrecipients | Sex |  | Race/ethnicity |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Black, non- |  | White, non- |  |
|  |  | Male | Female | Asian | Hispanic | Hispanic | Hispanic | Other ${ }^{\text {a }}$ |
| All occupations | \$36,000 | \$40,000 | \$35,000 | \$41,000 | \$34,000 | \$35,000 | \$36,000 | \$39,000 |
| Scientists | 40,000 | 43,000 | 38,000 | 45,000 | 38,000 | 36,000 | 39,000 | 38,000 |
| Biological, agricultural, and environmental life scientist | 32,000 | 32,000 | 30,000 | S | S | S | 32,000 | S |
| Computer and information scientist | 48,000 | 49,000 | 45,000 | 49,000 | 42,000 | 43,000 | 49,000 | S |
| Mathematical scientist | 40,000 | 39,000 | S | S | S | S | 48,000 | S |
| Physical scientist | 36,000 | 36,000 | 35,000 | S | S | 34,000 | 35,000 | S |
| Psychologist | S | S | S | S | S | S | S | S |
| Social scientist | 34,000 | 32,000 | 37,000 | S | S | S | 33,000 | S |
| Engineers | 50,000 | 50,000 | 48,000 | 53,000 | 50,000 | 48,000 | 49,000 | 45,000 |
| Science and engineering-related occupations | 38,000 | 36,000 | 40,000 | 40,000 | 40,000 | 35,000 | 38,000 | 43,000 |
| Health-related occupation | 41,000 | 39,000 | 41,000 | S | 40,000 | 33,000 | 41,000 | 41,000 |
| S\&E manager | 66,000 | 60,000 | S | S | S | S | 70,000 | S |
| S\&E precollege teacher | 32,000 | 32,000 | 32,000 | S | 31,000 | 34,000 | 32,000 | S |
| S\&E technician/technologist | 29,000 | 31,000 | 26,000 | S | S | 38,000 | 28,000 | S |
| Other S\&E-related occupation | 46,000 | S | S | S | S | S | S | S |
| Non-science and engineering occupations | 30,000 | 32,000 | 28,000 | 30,000 | 29,000 | 32,000 | 30,000 | 30,000 |
| Arts/humanities-related occupation | 28,000 | 27,000 | 27,000 | S | S | S | 27,000 | S |
| Management-related occupation | 40,000 | 44,000 | 36,000 | 50,000 | 35,000 | 37,000 | 40,000 | S |
| Non-S\&E manager | 60,000 | S | S | S | S | S | S | S |
| Non-S\&E postsecondary teacher | S | S | S | S | S | S | S | S |
| Non-S\&E precollege/other teacher | 28,000 | 29,000 | 27,000 | S | 29,000 | 33,000 | 27,000 | S |
| Sales/marketing occupation | 31,000 | 35,000 | 29,000 | 29,000 | 30,000 | 34,000 | 32,000 | S |
| Social service-related occupation | 27,000 | 28,000 | 26,000 | S | 26,000 | 29,000 | 25,000 | S |
| Other non-S\&E occupation | 28,000 | 30,000 | 27,000 | 27,000 | 29,000 | 28,000 | 28,000 | 28,000 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Includes American Indian or Alaska Native, Native Hawaiian or other Pacific Islander and individuals reporting more than one race.
NOTES: Salary data are for principal job only. Full-time employed are those working at least 35 hours per week at their principal job. Self-employed persons and full-time students are excluded from salary data. Scientists and engineers occupations include S\&E postsecondary educators. For more details, see technical notes.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 70. Median salary of full-time employed 2001 and 2002 S\&E master's degree recipients, by sex, race/ethnicity, and occupation: October 2003

| Occupation | All employed recipients | Sex |  | Race/ethnicity |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Asian | Black, nonHispanic | Hispanic | White, nonHispanic | Other ${ }^{\text {a }}$ |
|  |  | Male | Female |  |  |  |  |  |
| All occupations | \$52,000 | \$58,000 | \$48,000 | \$60,000 | \$44,000 | \$47,000 | \$50,000 | \$65,000 |
| Scientists | 55,000 | 58,000 | 49,000 | 60,000 | 55,000 | 54,000 | 46,000 | 65,000 |
| Biological, agricultural, and environmental life scientist | 43,000 | 41,000 | 45,000 | 40,000 | S | S | 45,000 | S |
| Computer and information scientist | 65,000 | 67,000 | 58,000 | 63,000 | 58,000 | S | 70,000 | S |
| Mathematical scientist | 60,000 | 62,000 | 60,000 | S | S | S | 57,000 | S |
| Physical scientist | 48,000 | 53,000 | 41,000 | S | S | S | 50,000 | S |
| Psychologist | 39,000 | 40,000 | 39,000 | S | S | S | 39,000 | S |
| Social scientist | 54,000 | 54,000 | 53,000 | S | S | S | 42,000 | S |
| Engineers | 62,000 | 63,000 | 56,000 | 60,000 | 63,000 | 61,000 | 63,000 | S |
| Science and engineering-related occupations | 52,000 | 56,000 | 50,000 | S | 48,000 | S | 52,000 | S |
| Health-related occupation | 52,000 | 57,000 | 50,000 | S | S | S | 52,000 | S |
| S\&E manager | 74,000 | S | S | S | S | S | S | S |
| S\&E precollege teacher | 36,000 | 41,000 | 33,000 | S | S | S | 38,000 | S |
| S\&E technician/technologist | 42,000 | S | S | S | S | S | S | S |
| Other S\&E-related occupation | S | S | S | S | S | S | S | S |
| Non-science and engineering occupations | 42,000 | 45,000 | 39,000 | 45,000 | 39,000 | 40,000 | 42,000 | S |
| Arts/humanities-related occupation | S | S | S | S | S | S | S | S |
| Management-related occupation | 54,000 | 58,000 | 42,000 | S | 50,000 | S | 52,000 | S |
| Non-S\&E manager | S | S | S | S | S | S | S | S |
| Non-S\&E postsecondary teacher | S | S | S | S | S | S | S | S |
| Non-S\&E precollege/other teacher | 35,000 | S | 35,000 | S | S | S | S | S |
| Sales/marketing occupation | 54,000 | S | 53,000 | S | S | S | 54,000 | S |
| Social service-related occupation | 37,000 | S | 37,000 | S | 37,000 | S | 35,000 | S |
| Other non-S\&E occupation | 42,000 | 44,000 | 39,000 | S | 36,000 | S | 44,000 | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Includes American Indian or Alaska Native, Native Hawaiian or other Pacific Islander and individuals reporting more than one race.
NOTES: Salary data are for principal job only. Full-time employed are those working at least 35 hours per week at their principal job. Self-employed persons and full-time students are excluded from salary data. Scientists and engineers occupations include S\&E postsecondary educators. For more details, see technical notes.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 71. Median salary of full-time employed 2001 and 2002 S\&E bachelor's degree recipients, by sector of employment and major field of degree: October 2003

| Major field | All employed | Sector |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Educational institution ${ }^{\text {a }}$ | Government ${ }^{\text {b }}$ | Private industry and business ${ }^{\text {c }}$ |
| All fields | \$36,000 | \$31,000 | \$38,000 | \$37,000 |
| Sciences | 32,000 | 30,000 | 33,000 | 32,000 |
| Biological, agricultural, and environmental life sciences | 29,000 | 30,000 | 30,000 | 29,000 |
| Agricultural/food sciences | 29,000 | S | S | 28,000 |
| Biological sciences | 29,000 | 30,000 | 31,000 | 29,000 |
| Environmental life sciences | 30,000 | S | 29,000 | 32,000 |
| Computer and information sciences | 45,000 | 34,000 | 47,000 | 47,000 |
| Mathematics and statistics | 36,000 | 32,000 | 40,000 | 42,000 |
| Physical and related sciences | 35,000 | 32,000 | 38,000 | 35,000 |
| Chemistry, except biochemistry | 35,000 | 30,000 | S | 36,000 |
| Earth/atmospheric/ocean sciences | 32,000 | 32,000 | 31,000 | 31,000 |
| Physics/astronomy | 40,000 | 39,000 | S | 39,000 |
| Other physical sciences | 31,000 | S | S | S |
| Psychology | 28,000 | 30,000 | 28,000 | 28,000 |
| Social and related sciences | 30,000 | 29,000 | 32,000 | 31,000 |
| Economics | 37,000 | 30,000 | 35,000 | 38,000 |
| Political and related sciences | 30,000 | 30,000 | 35,000 | 29,000 |
| Sociology/anthropology | 29,000 | 26,000 | 30,000 | 29,000 |
| Other social sciences | 30,000 | 29,000 | 33,000 | 30,000 |
| Engineering | 50,000 | 36,000 | 46,000 | 50,000 |
| Aerospace/aeronautical/astronautical engineering | 48,000 | S | 42,000 | 52,000 |
| Chemical engineering | 53,000 | S | S | 54,000 |
| Civil/architectural engineering | 44,000 | S | 45,000 | 44,000 |
| Electrical/computer engineering | 53,000 | S | 49,000 | 55,000 |
| Industrial engineering | 47,000 | S | S | 48,000 |
| Materials/metallurgical engineering | S | S | S | S |
| Mechanical engineering | 50,000 | S | 49,000 | 50,000 |
| Other engineering | 43,000 | S | 41,000 | 45,000 |
| Health | 43,000 | 42,000 | 48,000 | 42,000 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Educational institutions include elementary and secondary schools, 2 -year and 4 -year colleges and universities, medical schools university-affiliated research organizations, and all other educational institutions.
${ }^{\mathrm{b}}$ Government includes local, state, and federal government, military, and commissioned corps.
${ }^{\text {c }}$ Private industry and business includes all private for-profit and private not-for-profit companies, businesses, and organizations, except those reported as educational institutions. It also includes persons reporting they were self-employed.

NOTES: Salary data are for principal job only. Full-time employed are those working at least 35 hours per week at their principal job. Self-employed persons and full-time students are excluded from salary data.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 72. Median salary of full-time employed 2001 and 2002 S\&E master's degree recipients, by sector of employment and major field of degree: October 2003

| Major field | All employed | Sector |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Educational institution ${ }^{\text {a }}$ | Government ${ }^{\text {b }}$ | Private industry and business ${ }^{\circ}$ |
| All fields | \$52,000 | \$40,000 | \$50,000 | \$57,000 |
| Sciences | 45,000 | 40,000 | 41,000 | 51,000 |
| Biological, agricultural, and environmental life sciences | 40,000 | 33,000 | 43,000 | 49,000 |
| Agricultural/food sciences | 39,000 | S | S | S |
| Biological sciences | 40,000 | 32,000 | 44,000 | 50,000 |
| Environmental life sciences | 41,000 | S | S | S |
| Computer and information sciences | 60,000 | 45,000 | S | 66,000 |
| Mathematics and statistics | 54,000 | 42,000 | S | 63,000 |
| Physical and related sciences | 49,000 | 40,000 | S | 54,000 |
| Chemistry, except biochemistry | 53,000 | S | S | 54,000 |
| Earth/atmospheric/ocean sciences | 44,000 | S | S | 44,000 |
| Physics/astronomy | 58,000 | S | S | S |
| Other physical sciences | S | S | S | S |
| Psychology | 38,000 | 40,000 | 35,000 | 33,000 |
| Social and related sciences | 42,000 | 38,000 | 41,000 | 44,000 |
| Economics | 49,000 | S | S | 49,000 |
| Political and related sciences | 46,000 | S | 50,000 | 43,000 |
| Sociology/anthropology | 34,000 | S | 39,000 | 30,000 |
| Other social sciences | 40,000 | 35,000 | 40,000 | S |
| Engineering | 65,000 | 36,000 | 56,000 | 65,000 |
| Aerospace/aeronautical/astronautical engineering | 60,000 | S | S | 63,000 |
| Chemical engineering | 63,000 | S | S | 65,000 |
| Civil/architectural engineering | 54,000 | S | 53,000 | 54,000 |
| Electrical/computer engineering | 70,000 | S | S | 70,000 |
| Industrial engineering | 71,000 | S | S | 68,000 |
| Materials/metallurgical engineering | S | S | S | S |
| Mechanical engineering | 59,000 | S | S | 60,000 |
| Other engineering | 65,000 | S | S | 66,000 |
| Health | 53,000 | 40,000 | 53,000 | 54,000 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Educational institutions include elementary and secondary schools, 2-year and 4-year colleges and universities, medical schools university-affiliated research organizations, and all other educational institutions.
${ }^{\text {b }}$ Government includes local, state, and federal government, military, and commissioned corps.
${ }^{c}$ Private industry and business includes all private for-profit and private not-for-profit companies, businesses, and organizations, except those reported as educational institutions. It also includes persons reporting they were self-employed.

NOTES: Salary data are for principal job only. Full-time employed are those working at least 35 hours per week at their principal job. Self-employed persons and full-time students are excluded from salary data.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 73. Median salary of full-time employed 2001 and 2002 S\&E bachelor's degree recipients, by sector of employment and occupation: October 2003

| Occupation | All employed | Sector |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Educational institution ${ }^{\text {a }}$ | Government ${ }^{\text {b }}$ | Private industry and business ${ }^{\text {c }}$ |
| All occupations | \$36,000 | \$31,000 | \$38,000 | \$37,000 |
| Scientists | 40,000 | 31,000 | 39,000 | 43,000 |
| Biological, agricultural, and environmental life scientist | 32,000 | 30,000 | 28,000 | 33,000 |
| Computer and information scientist | 48,000 | 38,000 | 49,000 | 50,000 |
| Mathematical scientist | 40,000 | S | S | S |
| Physical scientist | 36,000 | S | 39,000 | 36,000 |
| Psychologist | S | S | S | S |
| Social scientist | 34,000 | S | S | 34,000 |
| Engineers | 50,000 | 45,000 | 47,000 | 50,000 |
| Science and engineering-related occupations | 38,000 | 35,000 | 44,000 | 40,000 |
| Health-related occupation | 41,000 | 38,000 | 45,000 | 40,000 |
| S\&E manager | 66,000 | S | S | 66,000 |
| S\&E precollege teacher | 32,000 | 32,000 | S | S |
| S\&E technician/technologist | 29,000 | 25,000 | 27,000 | 30,000 |
| Other S\&E-related occupation | 46,000 | S | S | 46,000 |
| Non-science and engineering occupations | 30,000 | 28,000 | 30,000 | 30,000 |
| Arts/humanities-related occupation | 28,000 | S | S | 27,000 |
| Management-related occupation | 40,000 | S | 43,000 | 40,000 |
| Non-S\&E manager | 60,000 | S | S | S |
| Non-S\&E postsecondary teacher | S | S | S | S |
| Non-S\&E precollege/other teacher | 28,000 | 28,000 | S | S |
| Sales/marketing occupation | 31,000 | S | S | 32,000 |
| Social service-related occupation | 27,000 | 27,000 | 29,000 | 25,000 |
| Other non-S\&E occupation | 28,000 | 26,000 | 30,000 | 27,000 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Educational institutions include elementary and secondary schools, 2-year and 4-year colleges and universities, medical schools university-affiliated research organizations, and all other educational institutions.
${ }^{\mathrm{b}}$ Government includes local, state, and federal government, military, and commissioned corps.
${ }^{c}$ Private industry and business includes all private for-profit and private not-for-profit companies, businesses, and organizations, except those reported as educational institutions. It also includes persons reporting they were self-employed.

NOTES: Salary data are for principal job only. Full-time employed are those working at least 35 hours per week at their principal job. Self-employed persons and full-time students are excluded from salary data. Scientists and engineers occupations include S\&E postsecondary educators. For more details, see technical notes.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE 74. Median salary of full-time employed 2001 and 2002 S\&E master's degree recipients, by sector of employment and occupation: October 2003

| Occupation | All employed | Sector of employment |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Educational institution ${ }^{\text {a }}$ | Government ${ }^{\text {b }}$ | Private industry and business ${ }^{\text {c }}$ |
| All occupations | \$52,000 | \$40,000 | \$50,000 | \$57,000 |
| Scientists | 55,000 | 40,000 | 46,000 | 62,000 |
| Biological, agricultural, and environmental life scientist | 43,000 | 37,000 | 54,000 | 53,000 |
| Computer and information scientist | 65,000 | S | S | 66,000 |
| Mathematical scientist | 60,000 | 43,000 | S | 69,000 |
| Physical scientist | 48,000 | S | S | 56,000 |
| Psychologist | 39,000 | 40,000 | S | S |
| Social scientist | 54,000 | S | 40,000 | 61,000 |
| Engineers | 62,000 | 35,000 | 57,000 | 63,000 |
| Science and engineering-related occupations | 52,000 | 40,000 | 57,000 | 55,000 |
| Health-related occupation | 52,000 | 41,000 | 57,000 | 55,000 |
| S\&E manager | 74,000 | S | S | 71,000 |
| S\&E precollege teacher | 36,000 | 36,000 | S | S |
| S\&E technician/technologist | 42,000 | S | S | S |
| Other S\&E-related occupation | S | S | S | S |
| Non-science and engineering occupations | 42,000 | 36,000 | 42,000 | 44,000 |
| Arts/humanities-related occupation | S | S | S | S |
| Management-related occupation | 54,000 | S | 42,000 | 55,000 |
| Non-S\&E manager | S | S | S | S |
| Non-S\&E postsecondary teacher | S | S | S | S |
| Non-S\&E precollege/other teacher | 35,000 | 35,000 | S | S |
| Sales/marketing occupation | 54,000 | S | S | 54,000 |
| Social service-related occupation | 37,000 | 41,000 | 40,000 | 33,000 |
| Other non-S\&E occupation | 42,000 | S | 41,000 | 43,000 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
${ }^{\text {a }}$ Educational institutions include elementary and secondary schools, 2-year and 4-year colleges and universities, medical schools university-affiliated research organizations, and all other educational institutions.
${ }^{\mathrm{b}}$ Government includes local, state, and federal government, military, and commissioned corps.
${ }^{c}$ Private industry and business includes all private for-profit and private not-for-profit companies, businesses, and organizations, except those reported as educational institutions. It also includes persons reporting they were self-employed.

NOTES: Salary data are for principal job only. Full-time employed are those working at least 35 hours per week at their principal job. Self-employed persons and full-time students are excluded from salary data. Scientists and engineers occupations include S\&E postsecondary educators. For more details, see technical notes.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

## Appendix A. Technical Notes

These technical notes on the 2003 National Survey of Recent College Graduates (NSRCG) include information on sampling and weighting, survey methodology, sampling and nonsampling errors, as well as discussions on data comparisons to previous cycles of the NSRCG and the Integrated Postsecondary Education Data System (IPEDS) data. For a more detailed discussion of survey methodology, refer to the 2003 NSRCG Methodology Report and to the National Science Foundation's (NSF's) Division of Science Resources Statistics (SRS) website at http://www.nsf.gov/statistics/.

## Overview

NSRCG is sponsored by NSF's Division of Science Resources Statistics (SRS). NSRCG is one of three SRS data collections covering personnel and graduates in science, engineering, and health fields. The other two surveys are the National Survey of College Graduates (NSCG) and the Survey of Doctorate Recipients (SDR). Together, they constitute NSF's Scientists and Engineers Statistical Data System (SESTAT). These surveys serve as the basis for developing estimates and characteristics of the total population of scientists and engineers in the United States.

The first NSF-sponsored NSRCG (then known as the New Entrants Survey) was conducted in 1974. Subsequent surveys were conducted about every 2 years. The initial survey collected data on only bachelor's degree recipients, but all subsequent surveys included both bachelor's and master's degree recipients.

For the 2003 NSRCG, a sample of 300 colleges and universities was asked to provide lists of eligible bachelor's and master's degree recipients. From these lists, a sample of 18,000 graduates ( 13,061 bachelor's and 4,939 master's degree recipients) was selected. These graduates were interviewed between October 2003 and July 2004. Data for the survey were collected using three data collection modes: mail, Web, and computer-assisted telephone interviewing (CATI). The weighted response rates were 98.7 percent for institutions and 63.3 percent for graduates.

The NSRCG questionnaire underwent revisions for the 2003 survey. All revisions were done in coordination with revisions to the other SESTAT surveys. Following recommendations resulting from the pretest, NSF made
several modifications to the 2003 data collection instrument. Although no questions from the 2001 NSRCG survey were deleted in the 2003 version, some were added to the sections on employment and work-related experiences. Other questions were modified to promote more accurate reporting or better understanding of the question.

Data on recent graduates with bachelor's and master's degrees in health fields were collected for the first time in the 2003 NSRCG data collection effort. Users of the data on health fields are urged to use caution when reviewing these data because graduates in health fields who did not respond to the mail questionnaire were not followed up during the Web and CATI stages of the data collection. Consequently, this population has lower response rates than graduates who received degrees in other fields of study.

Following is a list of questions that were added or modified during 2001 through 2003.

## New Questions in the 2003 NSRCG:

B17 (Type of academic position(s) held in principal $\boldsymbol{j o b}$ ). This question was added to gain a better understanding of the types of positions held by employees working in the academic sector.

B18 (Faculty rank). Formerly asked only in the SDR, this question was added to NSRCG and NSCG in 2003 to account for sample members who may hold faculty rank. The presence of this question in all three surveys will promote consistency among the three surveys.

B32 (Overall satisfaction with principal job). This question was intended as a follow-up to the previous question, which asks about satisfaction with specific aspects of the principal job.

B36/B37 (Federal support through grants and contracts). These questions were added to NSRCG in order to better understand the role of federal support in the work of all scientists and engineers, and to promote consistency with the other SESTAT surveys.

B38 (2002 income). This question was added to the 2003 NSRCG to be consistent with the other SESTAT surveys.

C1, C2, C3 (Publications/patents). These questions were added to the 2003 NSRCG because they provide one of the few measures of work productivity and they are also found in the other SESTAT surveys.

Modifications to Questions that Were in the 2001 NSRCG:

A17/A18 (Degree grid/financing for degrees). Instead of asking about financing for each degree, the financial support questions were removed from the degree grid. Data were collected for undergraduate and graduate degrees, consistent with data gathered for doctorates.

Field of study verbatim and self-code was separated into two questions so that the verbatim was reported before the self-code.

Location of the degree grid in the questionnaire was changed to promote a more natural flow in the questionnaire.

A9-A16 (Enrollment during reference week) and A20-A23 (Enrollment between last degree earned and reference week). Previous versions of the questionnaire asked respondents to report on their educational activities between their most recent degree and the reference week, during the reference week, after the reference week, and in the future. In 2003, NSF dropped the questions about educational activities after the reference week and in the future. The order of the education questions was changed to promote better flow. The 2003 questionnaire first asked about educational activities during the reference week (A9-A16), then about all degrees earned as of the reference week (degree grid), and finally about educational activities between the most recent degree reported in the degree grid and October 1.

A19 (Money borrowed to finance degrees and money still owed). The question was changed from an openended response format to a "mark one answer" response format.

B1 (Working for pay or profit). Instructions were simplified and separated from the question stem.

B5, B20 (Job description verbatim). Extra lines were added to allow longer open-ended answers.

B11 (Employer's main business). Lines were added to report department/division and street address.

B12 (Employer size). The final two response categories were changed; the last was broken into two categories.

B14 (Employer type). The self-employed response category was moved to the top of the list.

B16 (Type of educational institution). The preschool, elementary, and middle school response category was combined with the secondary school system response category.

B24 (Relationship between principal job and highest degree). The wording of this question was simplified.

B27 (Primary work activities). The order of response categories was changed. Wording of response choices for employee relations, managing/supervising, and production was modified based on "other, specify" responses from previous survey cycles.

B35 (Salary). This question had been divided into two parts in previous NSRCG survey cycles to maintain consistency between the paper and CATI instruments. In 2003, the two parts were combined into one question to promote consistency with the NSCG and SDR paper questionnaires.
bD1 (Marital status). An extra response category was added for "living in a marriage-like relationship."

D8-D11 (Citizenship/residency). Permanent residents of the United States were asked to report the year they attained permanent residency status.

## SAmple Design

NSRCG used a two-stage sample design. In the first stage, a stratified nationally representative sample of 300 institutions was selected. The first-stage sample was drawn in two steps. In the first step, certainty institutions were identified from the list of all institutions ${ }^{1}$; all certainty institutions were included in the sample. In the second step, noncertainty institutions were sampled from the list that did not include the certainty institutions. For each institution, the measure of size, a composite related to cohort (two groups: 2000-2001 and 2001-2002 academic years), degree type (bachelor's and master's), major ( 21 fields of study), race/ethnicity (non-Hispanic

[^0]whites, non-Hispanic Asians and Pacific Islanders, and underrepresented minorities-blacks, Hispanics, and American Indians/Alaska Natives). Eighty-five self-representing or certainty institutions were identified and included in the sample in the first step. The remaining noncertainty institutions on the list were implicitly stratified by sorting the list by type of control (public, private), region (Northeast, Northwest, Southeast, Southwest), and the percentage of degrees awarded in science, engineering, or health fields of study. Two hundred fifteen noncertainty units were selected by systematically sampling from the ordered list with probability proportional to size in the second step.

The second stage of the sampling process selected science, engineering, and health graduates (within the sampled institutions). Each sampled institution was asked to provide lists of graduates for sampling. Within graduation year (cohort), each eligible graduate was then classified into one of 504 sampling strata based on the cross classification of the following variables:

- Two cohorts by degree year (2000-2001 and 20012002 academic years)
- Two degree types (bachelor's and master's)
- 21 major fields of study
- Three race/ethnicity groups (non-Hispanic white, nonHispanic Asian or Pacific Islander or unknown race, and Hispanic, black, or American Indian/Alaska Native)

Table A-1 lists the major fields and corresponding sampling rates. These rates are overall sampling rates for the major field, by cohort. To achieve the withininstitution sampling rate, the overall rate was divided by the institution's probability of selection. The sampling rates by stratum were applied within each eligible, responding institution, and resulted in sampling 17,952 graduates. One academic institution insisted on selecting its own sample and returned a sample of 48 graduates. The 48 graduates from that school and the 17,952 graduates selected from the 295 participating schools provided the total sample of 18,000 graduates.

## Graduate Eligibility

To be included in the sample, graduates had to meet all of the following criteria:

- They received a bachelor's or master's degree in an eligible S\&E or health-related major from the college or university from which they were sampled.
- They received their degree within the two academic years in the study. For the 2003 study, there were two academic years (July 2000 through June 2001 and July 2001 through June 2002).
- They were younger than 76 years of age and were not institutionalized during the week of October 1, 2003 (the reference week).
- They lived in the United States during the reference week.


## Data Collection and Response

Before collecting data from graduates, it was first necessary to obtain the cooperation of the sampled insti-

TABLE A-1. NSRCG sampling rates by field and level of degree: October 2003

| Major field | Bachelor's <br> rate | Master's <br> rate |
| :--- | :---: | :---: |
| Sciences |  |  |
| $\quad$ Biological sciences | 0.0065 | 0.0253 |
| Computer sciences | 0.0099 | 0.0135 |
| Environmental/agricultural/ |  |  |
| $\quad$ forestry sciences | 0.0241 | 0.0282 |
| Mathematics/statistics | 0.0263 | 0.0398 |
| Chemistry | 0.0271 | 0.0347 |
| Physics/astronomy | 0.0499 | 0.0476 |
| Other physical sciences, earth |  |  |
| sciences, geology, oceanography | 0.0419 | 0.0431 |
| Psychology | 0.0055 | 0.0134 |
| Economics | 0.0181 | 0.0301 |
| Political science | 0.0116 | 0.0268 |
| Sociology/anthropology | 0.0112 | 0.0297 |
| Other social sciences | 0.0166 | 0.0266 |
| Engineering |  |  |
| Aeronautical/astronautical |  |  |
| engineering | 0.1187 | 0.0982 |
| Chemical engineering | 0.0348 | 0.0639 |
| Civil engineering | 0.0267 | 0.0280 |
| Electrical engineering | 0.0211 | 0.0216 |
| Industrial engineering | 0.0569 | 0.0360 |
| Mechanical engineering | 0.0265 | 0.0297 |
| Other engineering | 0.0242 | 0.0256 |
| Health |  |  |
| Health related-administrative | 0.0098 | 0.0052 |
| Health related-clinical | 0.0043 | 0.0057 |

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.
tutions that provided lists of graduates. Of the 300 sampled institutions, 296 provided lists of graduates for sampling in the 2003 NSRCG and 4 did not provide graduate lists. The institutional list collection had a 98.7 percent unweighted response rate and a 97.2 percent weighted response rate.

Graduate data collection took place between October 2003 and July 2004; mail questionnaires were the initial mode of data collection, followed by CATI and an Internet-based Web instrument. Advance letters were sent to all selected graduates announcing the study and requesting phone numbers where they could be reached during the survey period. Before the data collection process could begin, extensive efforts to locate the graduates were required. Student contact information had to be obtained from educational institutions; once the information was collected, names, addresses, and telephone information were sent to an address review and updating service. Additional locating activities included use of computerized telephone number searches, national change of address searches, school alumni office contacts, school major field department contacts, Internet searches, directory assistance, military locators, post office records, personal referrals from parents or others who knew a graduate in question, and professional tracking organizations.

Table A-2 gives the response rates by cohort, degree, major, type of address, sex, and race/ethnicity. The overall unweighted graduate response rate was 68.1 percent; the weighted response rate was 67.1 percent. As can be seen from table A-2, response rates varied somewhat by graduate characteristics. Rates were lowest for graduates identified on the school sampling lists as non-U.S. residents. It is possible that many unlocated persons listed as non-U.S. residents were actually ineligible for the survey because they lived outside the United States during the survey reference week. However, a graduate was only classified as ineligible if his or her ineligibility status could be confirmed.

## Weight Calculations

To produce national estimates, the data were weighted. The weighting procedures adjusted for unequal selection probabilities, for nonresponse at the institution and graduate level, and for duplication of graduates on the sampling file (graduates in both cohorts). ${ }^{2}$ In addition, a ratio adjustment was made at the institution level, using the number of degrees awarded as reported in IPEDS for specified categories of major and degree level.

Because this adjustment was designed to reduce the variability associated with sampling institutions, it was not affected by the differences in target populations between NSRCG and IPEDS at the person level. These differences between NSRCG and IPEDS are discussed in a later section of these notes under the section "Comparisons With IPEDS Data." The final adjustment to the graduate weights adjusted for responding graduates who could have been sampled twice. For example, a person who obtained an eligible bachelor's degree in 2001 could have obtained an eligible master's degree in 2002 and could have been sampled for either degree. To make the estimates from the survey essentially unbiased, the weights of all responding graduates who could have been sampled twice were divided by 2 . The weights of the graduates who were not eligible to be sampled twice were not adjusted.

Two weights were developed for the 2003 NSRCG: full NSRCG sample weights for use in computing survey estimates, and replicate weights for variance estimation using a jackknife replication variance estimation procedure.

## Data Editing

Editing checks were included within the CATI and web systems, including range checks, skip pattern rules, and logical consistency checks. Skip patterns were controlled by the CATI and web systems so that inappropriate items were avoided and appropriate items were not missed. For logical consistency check violations, CATI and web screens appeared that explained the discrepancy and asked the respondent for corrections. All edit checks discussed previously were rerun after data collection and again when item nonresponse imputation was completed.

Post data collection editing was also conducted on the data collected in the NSRCG. Standard editing procedures were specified by NSF through the issuance of "SESTAT Editing Guidelines," which were distributed to all SESTAT contractors to ensure consistent application of editing rules across the three SESTAT surveys. The majority of editing at this stage involved correcting range, skip, and consistency errors, as well as other gen-

[^1]TABLE A-2. Response status of sampled graduates and unweighted and weighted graduate response rates, by graduate characteristics

| Graduate characteristic | Sampled graduates by status |  |  |  | Graduate response rate (\%) ${ }^{\text {b }}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Complete response | Ineligible response ${ }^{\text {a }}$ | Nonresponse |  |  |
|  |  |  |  |  | Unweighted | Weighted |
| Total | 18,000 | 10,831 | 1,015 | 6,154 | 65.8 | 63.3 |
| Graduation cohort |  |  |  |  |  |  |
| 2000-01 | 8,949 | 5,314 | 516 | 3,119 | 65.1 | 63.0 |
| 2001-02 | 9,051 | 5,517 | 499 | 3,035 | 66.5 | 63.6 |
| Sampled degree |  |  |  |  |  |  |
| Bachelor's | 13,061 | 7,978 | 597 | 4,486 | 65.7 | 63.4 |
| Master's | 4,939 | 2,853 | 418 | 1,668 | 66.2 | 63.1 |
| Sampled degree major |  |  |  |  |  |  |
| Biological sciences | 1,220 | 803 | 57 | 360 | 70.5 | 70.6 |
| Chemistry | 693 | 481 | 18 | 194 | 72.0 | 74.1 |
| Computer sciences | 1,299 | 711 | 77 | 511 | 60.7 | 63.7 |
| Economics | 971 | 532 | 85 | 354 | 63.5 | 61.8 |
| Environmenta//agricultural science | 706 | 443 | 51 | 212 | 70.0 | 71.3 |
| Mathematics/statistics | 952 | 651 | 59 | 242 | 74.6 | 71.5 |
| Physics/astronomy | 527 | 387 | 34 | 106 | 79.9 | 80.7 |
| Political sciences | 1,090 | 621 | 88 | 381 | 65.0 | 65.7 |
| Psychology | 1,347 | 808 | 45 | 494 | 63.3 | 64.3 |
| Sociology/anthropology | 1,111 | 654 | 63 | 394 | 64.5 | 64.1 |
| Other physical sciences, earth science | 499 | 331 | 43 | 125 | 74.9 | 78.3 |
| Other social sciences | 1,098 | 590 | 109 | 399 | 63.7 | 61.5 |
| Engineering, aero/astronautical | 485 | 315 | 31 | 139 | 71.3 | 73.2 |
| Engineering, chemical | 541 | 391 | 22 | 128 | 76.3 | 76.9 |
| Engineering, civil | 713 | 465 | 24 | 224 | 68.6 | 68.3 |
| Engineering, electrical | 1,185 | 732 | 58 | 395 | 66.7 | 66.1 |
| Engineering, industrial | 540 | 343 | 32 | 165 | 69.4 | 69.8 |
| Engineering, mechanical | 897 | 584 | 39 | 274 | 69.5 | 70.8 |
| Other engineering | 736 | 481 | 53 | 202 | 72.6 | 73.6 |
| Health related, administrative | 673 | 238 | 17 | 418 | 37.9 | 37.3 |
| Health related, clinical | 717 | 270 | 10 | 437 | 39.1 | 41.8 |
| Location provided by school at time of sampling ${ }^{\text {c }}$ |  |  |  |  |  |  |
| U.S. address only | 15,239 | 9,557 | 699 | 4,983 | 67.3 | 64.5 |
| Foreign address | 2,761 | 1,274 | 316 | 1,171 | 57.6 | 56.2 |
| Sex of graduate |  |  |  |  |  |  |
| Male | 9,269 | 5,523 | 572 | 3,174 | 65.8 | 65.3 |
| Female | 8,731 | 5,308 | 443 | 2,980 | 65.9 | 61.5 |
| Race/ethnicity |  |  |  |  |  |  |
| Hispanic, black, or American Indian | 5,508 | 3,219 | 263 | 2,026 | 63.2 | 59.2 |
| Non-Hispanic Asian or Pacific Islander or unknown race | 4,250 | 2,247 | 390 | 1,613 | 62.0 | 60.3 |
| Non-Hispanic white | 8,242 | 5,365 | 362 | 2,515 | 69.5 | 66.1 |

${ }^{\text {a }}$ Graduates living outside of the United States during the week of 15 April 2001; graduates who reported an ineligible major field for their sampled degree; those who did not attend the sampled school within the time frame; deceased; duplicates; those who did not receive a bachelor's or master's degree; and institutionalized.
${ }^{\mathrm{b}}$ Calculated as $(\mathrm{R}-1) /\left[(\mathrm{R}-\mathrm{I})+\left(\mathrm{N}^{*} \mathrm{p}\right)\right]$, where $\mathrm{R}=$ response (complete plus ineligible), $\mathrm{I}=$ ineligible, $\mathrm{N}=$ nonresponse, and $\mathrm{p}=$ proportion of response found in scope, calculated as ( $\mathrm{R}-\mathrm{I}) / \mathrm{R}$.
${ }^{\text {c }}$ Additional address information may have been provided by alumni office during data collection. Graduates from whom both a U.S. and a foreign address were provided are included in the foreign address category.

NOTE: Cohort, degree, major, sex, and race/ethnicity codes are as reported by institutions at time of sampling and may not match data reported by survey respondents.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.
eral violations, such as multiple responses to "Mark One" questions.

## Imputation of Missing Data

Missing data occurred if the respondent cooperated with the survey but did not answer one or more individual questions. The level of item nonresponse in this study was generally low for most questions. However, imputation for item nonresponse was performed for each survey item to make the study results simpler to present and to allow consistent totals to be obtained when analyzing different questionnaire items. "Not applicable" responses were not imputed because they represented respondents who were not eligible to answer the given item.

Imputation was performed using a hot-deck method. Hot-deck methods estimate the missing value of an item by using values of the same item from other record(s) in the same file. Using the hot-deck procedure, each missing questionnaire item was imputed separately. First, respondent records were sorted by items thought to be related to the missing item. Next, a value was imputed for each item nonresponse recipient from a respondent donor within the same subgroup. The results of the imputation procedure were reviewed to ensure that the plan had been followed correctly. In addition, all edit checks were run on the imputed file to be sure that no data inconsistencies were created in the imputation process.

## Accuracy of Estimates

The survey estimates provided in these tables are subject to two sources of error: sampling and nonsampling errors. Sampling errors occur because the estimates are based on a sample of individuals in the population rather than on the entire population and hence are subject to sampling variability. If the interviews had been conducted with a different sample, the responses would not have been identical; some figures might have been higher, while others might have been lower.

If all possible samples were surveyed under similar conditions, intervals within plus or minus 1.96 standard errors of a particular statistic would include the statistic computed from all members of the population in about 95 percent of the samples. This is the 95 percent confidence interval. For example, suppose the estimate of the total number of 2001 and 2002 bachelor's degree recipients majoring in engineering is 109,247 and the estimated standard error is 2,536 . In this case, the 95 percent confidence interval for the statistic would extend from $109,247-(2,536 \times 1.96)$ to $109,247+(2,536 \times 1.96)$
$=104,276$ to 114,218 . This means that one can be confident that intervals constructed in this way contain the true population parameter for 95 percent of all possible samples.

Estimates of standard errors were computed using a technique known as jackknife replication. As with any replication method, jackknife replication involves constructing a number of subsamples (replicates) from the full sample and computing the statistics of interest for each replicate. The mean square error of the replicate estimates around their corresponding full sample estimate provides an estimate of the sampling variance of the statistic of interest. To construct the replicates, 108 stratified subsamples of the full sample were created. One hundred and eight jackknife replicates were then formed by deleting one subsample at a time from the full sample.

## Generalized Variance Functions

Generalized variance functions (GVF), an alternative to direct estimate, provides users with a simple, fast tool for estimating variances. When users do not have access to the software required for direct variance estimation, they can predict the variance for the 2003 NSRCG estimates by using the GVF models. This method, however, is limited because it can be used only for estimates of totals and percentages of individuals with certain characteristics of interest. Several steps are involved in using GVFs to estimate the standard errors of the estimates. First, the standard errors for a large number of different estimates were computed directly by using the jackknife replication procedures described previously. Next, models were fitted to the estimates, and standard errors and the parameters of these models were estimated from the direct estimates. These models and their estimated parameters were used to approximate the standard error of an estimate from the survey. Models were fitted for the two general types of estimates of primary interest: estimated totals and estimated percentages. Domains were determined for which separate GVF models were needed. For the 2003 NSRCG, models were fitted separately for the entire graduate population and S\&E only (excluding health-related fields) by degree (for example, bachelor's and master's). Within each group, parameters were estimated by sex, major field, occupation, and race/ethnicity. Tables A-3 and A-4 show the estimates of the parameters.

## Sampling Errors for Totals

Let $\hat{Y}$ denote an estimator of the population total $Y$. GVF models usually are created for the relative variance of an estimated total $\hat{Y}$, or RelVar $(\hat{Y})=\operatorname{Var}(\hat{Y}) / Y^{2}$,

TABLE A-3. Estimated parameters for computing generalized variances for estimates from the 2003 NSRCG: All fields of study

| Domain | All recipients parameter estimates |  |  | Bachelor's recipients parameter estimates |  |  | Master's recipients parameter estimates |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | a | b | DEFF | a | $b$ | DEFF | a | $b$ | DEFF |
| All graduates | -0.000198 | 246.967 | 2.2 | -0.000268 | 257.930 | 2.0 | -0.000698 | 224.360 | 2.5 |
| Sex |  |  |  |  |  |  |  |  |  |
| Male | -0.000257 | 156.574 | 1.7 | -0.000321 | 154.276 | 1.6 | -0.001350 | 174.069 | 2.1 |
| Female | -0.000457 | 309.700 | 2.2 | -0.000628 | 329.664 | 2.1 | -0.001594 | 271.467 | 2.5 |
| Major |  |  |  |  |  |  |  |  |  |
| Science majors | -0.000187 | 176.474 | 1.5 | -0.000256 | 194.013 | 1.5 | -0.000599 | 96.228 | 1.5 |
| Engineering majors | -0.000409 | 73.489 | 1.5 | -0.000599 | 75.997 | 1.6 | -0.001208 | 72.015 | 1.4 |
| Health-related science majors | -0.002976 | 664.058 | 1.3 | -0.005577 | 767.440 | 1.4 | -0.005648 | 551.833 | 1.3 |
| Occupation |  |  |  |  |  |  |  |  |  |
| Scientists | -0.000360 | 163.188 | 1.7 | -0.000633 | 182.203 | 1.7 | -0.000964 | 135.685 | 1.8 |
| Engineers | -0.000211 | 85.996 | 1.6 | -0.000312 | 89.372 | 1.7 | -0.000761 | 77.194 | 1.4 |
| Health related | -0.001761 | 540.546 | 2.2 | -0.002604 | 557.999 | 2.1 | -0.003610 | 486.163 | 1.9 |
| Other | -0.000167 | 194.930 | 1.6 | -0.000216 | 197.348 | 1.5 | 0.007980 | 177.131 | 2.1 |
| Unemployed | -0.000379 | 233.895 | 1.7 | $-0.000346$ | 230.993 | 1.6 | -0.001958 | 208.613 | 2.2 |
| Race/ethnicity |  |  |  |  |  |  |  |  |  |
| American Indian/Alaska Native | 0.059948 | 102.868 | 1.6 | 0.066782 | 122.787 | 1.6 | 0.007152 | 96.361 | 1.2 |
| Asian | -0.000733 | 209.093 | 1.3 | -0.001420 | 230.946 | 1.0 | -0.002151 | 211.214 | 1.8 |
| Black, non-Hispanic | 0.001845 | 146.792 | 2.4 | 0.001671 | 153.851 | 2.2 | 0.019353 | 77.830 | 2.4 |
| Hispanic | 0.000618 | 114.291 | 2.1 | 0.000531 | 120.730 | 1.9 | 0.001868 | 81.650 | 2.5 |
| White, non-Hispanic | -0.000318 | 281.195 | 2.1 | -0.000415 | 289.952 | 2.0 | -0.001055 | 257.104 | 2.5 |

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE A-4. Estimated parameters for computing generalized variances for estimates from the 2003 NSRCG: S\&E majors

| Domain | All recipients parameter estimates |  |  | Bachelor's recipients parameter estimates |  |  | Master's recipients parameter estimates |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | a | b | DEFF | a | b | DEFF | a | $b$ | DEFF |
| All graduates | $-0.000135$ | 156.027 | 1.7 | -0.000193 | 174.645 | 1.7 | -0.000432 | 91.214 | 1.5 |
| Sex |  |  |  |  |  |  |  |  |  |
| Male | -0.000228 | 134.205 | 1.6 | -0.000322 | 148.807 | 1.6 | -0.000797 | 93.678 | 1.4 |
| Female | -0.000334 | 175.208 | 1.7 | -0.000459 | 196.453 | 1.7 | -0.000981 | 90.093 | 1.6 |
| Major |  |  |  |  |  |  |  |  |  |
| Science majors | -0.000187 | 176.474 | 1.5 | -0.000256 | 194.013 | 1.5 | -0.000599 | 96.228 | 1.5 |
| Engineering majors | -0.000409 | 73.489 | 1.5 | -0.000599 | 75.997 | 1.6 | -0.001208 | 72.015 | 1.4 |
| Occupation |  |  |  |  |  |  |  |  |  |
| Scientists | -0.000352 | 152.418 | 1.7 | -0.000644 | 182.910 | 1.7 | -0.000724 | 102.310 | 1.5 |
| Engineers | -0.000211 | 85.996 | 1.6 | -0.000312 | 89.372 | 1.7 | -0.000761 | 77.194 | 1.4 |
| Health related | -0.000830 | 169.392 | 1.7 | -0.000870 | 177.563 | 1.7 | -0.001482 | 77.998 | 1.5 |
| Other | -0.000193 | 173.811 | 1.4 | -0.000258 | 185.261 | 1.4 | -0.000903 | 97.531 | 1.4 |
| Unemployed | 0.000139 | 148.032 | 1.4 | 0.000115 | 160.392 | 1.4 | -0.000485 | 89.050 | 1.3 |
| Race/ethnicity |  |  |  |  |  |  |  |  |  |
| American Indian/Alaska Native | 0.023476 | 67.966 | 1.4 | 0.028876 | 70.819 | 1.4 | -0.001711 | 32.470 | 0.9 |
| Asian | -0.000770 | 178.076 | 1.1 | -0.001441 | 214.628 | 1.0 | -0.001894 | 145.270 | 1.3 |
| Black, non-Hispanic | 0.001062 | 75.254 | 1.6 | 0.001023 | 85.717 | 1.7 | -0.001164 | 43.794 | 1.4 |
| Hispanic | 0.000642 | 81.826 | 1.8 | 0.000690 | 89.286 | 1.7 | -0.001028 | 41.518 | 1.6 |
| White, non-Hispanic | -0.000224 | 167.718 | 1.6 | -0.000297 | 185.606 | 1.6 | -0.000668 | 77.746 | 1.3 |

DEFF = design effect.
$S \& E=s c i e n c e$ and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.
where $\operatorname{Var}(\hat{Y})$ is the variance of $\hat{Y}$. The modeling process typically begins with the assumption that the relative variance of the estimated total $\hat{Y}$ is a linear function of the inverse of the total $Y$, or

$$
\begin{equation*}
\operatorname{RelVar}(\hat{Y})=\gamma_{0}+\frac{\gamma_{1}}{Y} \tag{1}
\end{equation*}
$$

Many empirical works have favored the relative variance model in equation (1), for which Wolter (1985) provides some justification. To determine the most promising model, an empirical investigation of the model (2) was conducted and its equivalent form:

$$
\begin{equation*}
\operatorname{Var}(\hat{Y})=\alpha Y^{2}+\beta Y \tag{2}
\end{equation*}
$$

The fitting method that is chosen can result in different estimates for model coefficients, and thus, for differences in the resulting GVF variance predictions. After examining the residuals, outliers were excluded from the fitted model and refit the GVF model. Models (1) and (2) were evaluated and it was determined that the model in (2) was the better choice. Based on this estimated final model, the standard error of an estimated total $\hat{Y}$ can then be predicted by evaluating the model with $\hat{Y}$ and the model parameter estimates $a$ and $b$. The final model used for the 2003 NSRCG is (2) above. Thus, with $\hat{Y}, a$ and $b$, which are estimates of the model parameters $\alpha$ and $\beta$ from GVF model (2), the predicted standard error (which is the square root of the variances) can be calculated as:

$$
\begin{equation*}
\operatorname{se}(\hat{Y})=\left(a \hat{Y}^{2}+b \hat{Y}\right)^{1 / 2} \tag{3}
\end{equation*}
$$

where $s e(\hat{Y})$ is the predicted standard error of the estimated total $\hat{Y}$.

To use the NSRCG GVF, the following steps should be followed to approximate the standard error of an estimated total:

- Obtain the estimated total $\hat{Y}$ from the survey.
- Determine the most appropriate domain for the estimate from table A-3 or A-4.
- Refer to table A-3 or A-4 to get the estimates of $a$ and $b$ for this domain.
- Compute the generalized variance using equation (3) above.

For example, suppose that the number of bachelor's or master's degree recipients in engineering is 130,759 ( $\hat{Y}=130,759$ ). The most appropriate domain from table 3 is engineering majors. For this domain, the parameters are $a=-0.000409$ and $b=73.489$. Approximate the standard error using equation (3) as follows:

$$
\begin{aligned}
& \operatorname{se}(130,759)= \\
& \sqrt{-0.000409(130,759)^{2}+73.489(130,759)}= \\
& 1,616
\end{aligned}
$$

## Sampling Errors for Percentages

Two GVF methods were investigated for estimating generalized standard errors of percentage estimates. In Method 1, the parameter estimates from the GVF model for totals were used to predict the standard error of an estimated percentage. With model (2) used for totals, an approximate standard error for the estimated percentage $\hat{p}$ is:

$$
\begin{equation*}
\operatorname{se}(\hat{P})=\left[\frac{b}{\hat{Y}} \hat{P}(100-\hat{P})\right]^{1 / 2} \tag{4}
\end{equation*}
$$

Unlike Method 1, which was based on regression estimation, Method 2 produces generalized standard errors directly for percentages. Model (2) assumes the design effect (i.e., the ratio of the variance of an estimate to the variance of the same estimate from a simple random sample) is a constant within each domain. Generalized standard errors were then computed by using a do-main-specific average design effect associated with a range of statistics for each cell. Because the variance for an estimated percentage $\hat{P}$ from a simple random sample is $\hat{P}(100-\hat{P}) / n$, the standard error of an estimated percentage can be written as:

$$
\begin{equation*}
\operatorname{se}(\hat{P})=\left(\frac{\hat{P}(100-\hat{P})}{n} \times A D E F F\right)^{1 / 2} \tag{5}
\end{equation*}
$$

where $n$ is the sample size for the corresponding domain and ADEFF is the average design effect (Bieler and Williams 1990).

For the 2003 NSRCG, design effects were computed separately for each domain. The average values of the design effects from these computations are shown in table A-3 and table A-4. Although users can use both methods to predict standard errors for percentage estimates,
empirically investigating the methods suggested that Method 2 as presented in equation (5) above is the better choice.

The following steps should be followed to approximate the standard error of an estimated percentage using Method 2:

- Obtain the estimated percentage and sample size from the survey.
- Determine the most appropriate domain for the estimate from table A-3 or A-4.
- Refer to table A-3 or table A-4 to get the estimates of the DEFF for this domain.
- Compute the generalized variance using equation (5) above.

For example, suppose the percentage of unemployed was 17 percent ( $\hat{p}=17$ ) and the total number of $S \& E$ in the survey sample was $10,831(n=10,831)$. The most appropriate domain from table A-3 is all graduates, and the ADEFF for this domain is 1.7 . Approximate the standard error using equation (5) as:

$$
s e(17 \%)=\sqrt{1.7(17)(100-17) / 10831}=0.47 \%
$$

## Nonsampling Errors

In addition to sampling errors, the survey estimates are subject to nonsampling errors that can arise because of nonobservation (nonresponse or noncoverage), reporting errors, and errors made while collecting and processing data. These errors can sometimes bias the data. The 2003 NSRCG included procedures specifically designed to minimize nonsampling errors. In addition, some special studies conducted during the previous cycles of NSRCG provided some measures of nonsampling errors that are useful in understanding the data from the current survey as well.

Procedures to minimize nonsampling errors were followed throughout the survey. Extensive questionnaire design work was done by Mathematica Policy Research. This work included focus groups, expert panel reviews, and mail and CATI pretests. This design work was done in conjunction with the other two SESTAT surveys.

Comprehensive training and monitoring of interviewers and data processing staff helped to ensure the consis-
tency and accuracy of the data. Data collection was done almost entirely by telephone to help reduce the amount of item nonresponse and item inconsistency. Nonresponse was handled in ways designed to minimize the impact on data quality (through weighting adjustments and imputation). In data preparation, a special effort was made in the area of occupational coding. Respondent-chosen codes were verified by data preparation staff using a variety of information collected on the survey and applying coding rules developed by NSF for the SESTAT surveys.

Although general sampling theory can be used to estimate the sampling variability of a statistic, measuring a nonsampling error is not easy. Usually it requires conducting an experiment as part of the data collection, or using data external to the study. In the 1995 NSRCG, two quality analysis studies were conducted: (1) an analysis of occupational coding and (2) a CATI reinterview. As noted previously, these special studies can also inform analysts about the 2003 survey data.

The occupational coding report included an analysis of the 1995 CATI autocoding of occupation and the best coding operation. During CATI interviewing, each respondent's verbatim occupation description was autocoded by computer into a standard SESTAT code, whenever possible. Autocoding included both coding directly to a final category and coding to an intermediate code-selection screen. If the description could not be autocoded, the respondent was asked to select the appropriate occupation category during the interview. For the primary occupation, 22 percent of the responses were autocoded to a final category and 19 percent were autocoded to an intermediate screen. The results of the occupation autocoding were examined, and the process was found to be successful and efficient.

For the best coding operation, an occupational worksheet for each respondent was generated and reviewed by an experienced occupational coder. This review was based on the work-related information provided by the graduate. If the respondent's self-selected occupation code was inappropriate, a new or "best" code was assigned. A total of 17,894 responses was received to the three occupation questions in the 1995 survey cycle. Of these, 25 percent received updated codes during the best coding process: 16 percent were recoded from the "other" category and 9 percent were recoded from the "non-other" categories. This analysis indicated that the best coding activity was necessary to ensure that the most appropriate occupation codes were included on the final
data file. As a result of this 1995 NSRCG quality study, the best coding procedure was implemented in the 1997, 1999, 2001, and 2003 surveys as well. In the 2003 survey, a total of 10,215 occupations were assigned an occupation best code following data collection. Of these, 66.5 percent of the cases had a best code that matched the self-code, and 33.5 percent were assigned a best code that differed from the self-code.

The second quality analysis study conducted in the 1995 NSRCG involved a reinterview of a sample of 800 respondents. For this study, sampled respondents were interviewed a second time, and responses to the two interviews were compared. This analysis found that the questionnaire items in which respondents were asked to provide reasons for certain events or behaviors had a relatively large index of inconsistency values. Examples include reasons for not working during the reference week and reasons for working part time. High response variability is typical for items that ask about reasons and beliefs rather than behaviors, and the results were not unusual for these types of items. Some of the other differences between the two interviews were attributed to the time lag between the original interview and reinterview.

For the 1993 NSRCG, two data quality studies were completed: (1) an analysis of interviewer variance and (2) a behavioral coding analysis of 100 recorded interviews. The interviewer variance study was designed to measure the impact of interviewer effects on the precision of the estimates. The results showed that interviewer effects for most items were minimal and thus had a very limited effect on the standard error of the estimates. Interviewer variance was highest for open-ended questions.

The behavioral coding study was done to observe the extent to which interviewers were following the structured interview and the extent to which it became necessary for them to give unstructured additional explanation or comments to respondents. As part of the study, 100 interviews were taped and then coded on a variety of behavioral dimensions. This analysis revealed that on the whole, the interview proceeded in a very structured manner, with 85 percent of all question and answer "dyads" being "asked and answered only." Additional unstructured interaction/discussion took place most frequently for questions in which there was some ambiguity in the topic. In most cases, this interaction was judged to have facilitated obtaining the correct response.

The results from the quality studies were used to identify questionnaire items that might need additional revision for the next study cycle. Debriefing sessions concerning the survey were held with interviewers, and the information obtained from these sessions was also used to revise the survey for the next cycle.

## Comparisons of Data With Previous Years’ Results

It is important to exercise caution when making comparisons with previous NSRCG results. During the 1993 cycle, the SESTAT system underwent considerable revision in several areas, including survey eligibility, data collection procedures, questionnaire content and wording, and data coding and editing procedures. The changes made for the 1995 through 2001 cycles were less significant but might affect some data trend analysis. Although the 1993 through 2003 survey data are fairly comparable, care must be taken when comparing results from the 1990s surveys to surveys from the 1980s, due to significant changes made in 1993. For a detailed discussion of these changes, refer to the 1993 through 2001 NSRCG methodology reports.

In the 2003 survey, data were collected on graduates with bachelor's and master's degrees in health fields. This additional information has altered the structure of the tabular presentations. All tables that present data on degree fields will include, for the first time, data on graduates with health degrees.

The reporting on graduates with health degrees has also caused a structural change in the tables that present data on employment status. In previous years, data on employed graduates were presented in two categories: by employment in an S\&E occupation ${ }^{3}$ and by employment in a non-S\&E occupation. In 2003, a third category was added: S\&E related occupations. S\&E related occupations include health-related occupations, S\&E managers, S\&E precollege teachers, and $S \& E$ technicians and technologists.

Estimates from the 2003 NSRCG cannot be directly compared to the 2001 NSRCG results unless the respondents with health degrees are excluded from the 2003 data.

[^2]
## Comparisons With IPEDS Data

The National Center for Education Statistics (NCES) conducts a survey of the nation's postsecondary institutions, called the Integrated Postsecondary Education Data System (IPEDS). The IPEDS Completions Survey reports the number of degrees awarded by all major fields of study, along with estimates by sex and race/ethnicity.

Although both NSRCG and IPEDS are surveys of postsecondary education and both report on completions from those institutions, important differences in the target populations for the two surveys directly affect estimates on the number of graduates. The reason for the different target populations is that the goals of the surveys are not the same. The IPEDS estimates of degrees awarded are intended to measure the output of the educational system. The NSRCG estimates are intended to measure the supply and utilization of a portion of graduates in the years after they completed their degree. These differing goals result in definitions of the target population that are not completely consistent for the two surveys. The main differences between the two surveys that affect comparisons of estimates overall and by race/ ethnicity are as follows:

- The IPEDS Completions data file represents a count of degrees awarded, whereas NSRCG represents graduates (persons). If a person receives more than one degree, institutions are instructed to report each degree separately in IPEDS. In NSRCG, each person is counted only once.
- NSRCG includes only people who were residing in the United States during the reference week for the survey (the week of October 1). People who received degrees during the years covered by the survey but resided outside the United States during the reference week appear in IPEDS counts, but not in NSRCG counts.
- NSRCG includes only major fields of study that meet the specific SESTAT system definition of S\&E and health, whereas IPEDS includes all fields. The SESTAT field codes were designed to map directly to the six-digit Classification of Instructional Program (CIP) codes used in IPEDS. However, published reports from the two studies may group the specific field codes differently for reporting purposes. Therefore, when comparing the NSRCG estimates in this report to IPEDS, care must be taken to select and group the IPEDS estimates according to the NSRCG field definitions. For example, the NSRCG reporting category of computer and information sci-
ences does not include computer programming or data processing technology, but these fields are included in this category in the NCES Digest of Education Statistics. In addition, several NSRCG reporting categories include fields classified as multi-interdisciplinary studies in IPEDS. IPEDS and NSRCG definitions for the social and related sciences reporting category vary more than any other reporting category. The IPEDS category for social sciences also includes history, whereas the NSF category excludes history.
- The IPEDS data reflect information submitted by institutions from administrative records, whereas NSRCG represents reports of individual graduates collected in interviews. Often, estimates differ when the mode of data collection and sources of data are different.
- Whereas IPEDS is a census of postsecondary institutions, NSRCG is a sample survey. As a result, NSRCG estimates include the sampling error inherent in all sample surveys.
- The NSRCG collects data from graduates using the new OMB race/ethnicity categories while IPEDS has not yet adopted the new race/ethnicity categories.
- Changes in the codes used for collecting data on race/ ethnicity need to be taken into account when looking at estimates by race/ethnicity. Prior to the 199495 academic year, IPEDS collected race/ethnicity data only by broad two-digit CIP code fields, not by the specific six-digit CIP fields needed to identify the S\&E fields as defined on NSRCG. Therefore, it is not possible to obtain IPEDS race/ethnicity data that precisely match the $\mathrm{S} \& E$ population as defined by NSRCG for the academic years prior to 1995. For example, the two-digit CIP for social sciences and history includes history, which is not an S\&E field, but does not include some $S \& E$ fields such as agricultural economics and public policy analysis, which are included in the NSF category for social and related sciences.

Despite the above-referenced factors, NSRCG and IPEDS estimates are consistent when appropriate adjustments for these differences are made. For example, the proportional distributions of graduates by field of study are nearly identical, and the numerical estimates are similar. More information on the comparison of NSRCG and IPEDS estimates is available in A Comparison of Estimates in the NSRCG and IPEDS. This report is avail-
able on the SESTAT website at http://sestat.nsf.gov in the Research Compendium section.

## Other Explanatory Information

 DefinitionsThe following definitions are provided to facilitate the reader's use of the data in this report.

Major field of study: Derived from the survey major field category most closely related to the respondent's degree field.

Occupation: Derived from the survey job list category most closely related to the respondent's primary job.

Labor force: The labor force includes individuals working full or part time as well as those not working but seeking work or on layoff. It is a sum of the employed and the unemployed.

Unemployed: The unemployed are those who were not working on October 1 and were seeking work or on layoff from a job.

Type of employer: The sector of employment in which the respondent was working on his or her primary job held during the week of October 1, 2003. The following are definitions for each of these categories. Private industry and business includes all private for-profit and private not-for-profit companies, businesses, and organizations, except those reported as educational institutions. It also includes persons reporting they were self-employed. Educational institutions include elementary and secondary schools, 2-year and 4-year colleges and universities, medical schools, university-affiliated research organizations, and all other educational institutions. Government includes local, state, and federal government, military, and commissioned corps.

Primary work activity: Refers to the activity that occupied the most time on the respondent's job. In reporting the data, those who reported applied research, basic research, development, or design work were grouped together in "research and development (R\&D)." Those who reported accounting, finance or contracts, employee relations, quality or productivity management, sales and marketing, or managing and supervising were grouped into "management, sales, administration." Those who reported
production, operations, maintenance, professional services, or other activities were grouped into "other."

Full-time salary: The annual salary for the full-time employed, defined as those who were not self-employed (either incorporated or not incorporated), whose principal job was not less than 35 hours per week, and who were not full-time students on the reference date (October 1, 2003). Graduates who did not receive salaries were asked to report earned income, excluding business expenses. To annualize salary, reported hourly salaries were multiplied by the reported number of hours paid per week, then multiplied by 52 ; reported weekly salaries were multiplied by 52 ; reported monthly salaries were multiplied by 12 . Yearly and academic yearly salaries were left as reported.

Race/ethnicity: All graduates, both U.S. citizens and non-U.S. citizens, are included in the race/ethnicity data presented in this report. In tables with sufficient sample size, race/ethnicity data are presented by the specific categories of white, non-Hispanic; black, non-Hispanic; Hispanic; Asian; and American Indian or Alaska Native. The "other" race/ethnicity category includes Native Hawaiian and other Pacific Islanders and individuals in multirace categories. In tables where the sample size is not sufficient to present data by specific category, the groups of black, Hispanic, and American Indian or Alaskan Native are combined into the underrepresented minority category.

## Coverage of Tables

The tables in this report present information for two groups of recent graduates. The first group consists of persons who earned bachelor's degrees in science, engineering, and health fields from U.S. institutions during academic years 2001 and 2002. The second group includes those who earned science, engineering, and health master's degrees during the same two years. Standard error tables are presented as a separate set and are included in appendix B.

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## Standard Error Tables

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TABLE B-1. Standard errors for primary education and employment status, and median salary of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

|  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

$S=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. Median salary standard errors of less than $\$ 1,000$ are also suppressed for reasons of data reliability.
S\&E = science and engineering.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-2. Standard errors for primary education and employment status, and median salary of 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

|  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

$S=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. Median salary standard errors of less than \$1,000 are also suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-3. Standard errors for primary education and employment status, and median salary of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree and sex: October 2003

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. Median salary
standard errors of less than $\$ 1,000$ are also suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-4. Standard errors for primary education and employment status, and median salary of 2001 and 2002 S\&E master's degree recipients, by major field of degree and sex: October 2003

| Major field and sex | All recipients | Primary education and employment status |  |  |  |  | Median salary for full-time employed |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Full-time student | Not full-time student |  |  |  |  |
|  |  |  | Employed in S\&E occupation | Employed in S\&E-related occupation | Employed in non-S\&E occupation | $\begin{gathered} \text { Not } \\ \text { employed } \\ \hline \end{gathered}$ |  |
| All fields | 2,906 | 2,200 | 2,396 | 3,817 | 3,102 | 2,069 | \$1,600 |
| Sciences | 1,523 | 1,735 | 1,809 | 337 | 1,546 | 878 | S |
| Male | 1,110 | 1,130 | 1,258 | S | 1,006 | 542 | S |
| Female | 1,243 | 1,158 | 1,316 | 294 | 1,143 | 612 | S |
| Biological, agricultural, and environmental life sciences | 497 | 520 | 669 | 296 | 407 | S | 2,300 |
| Male | 500 | 339 | 466 | S | 279 | S | 1,300 |
| Female | 557 | 416 | 495 | 291 | 295 | S | 3,000 |
| Computer and information sciences | 1,137 | 889 | 1,080 | S | 590 | 685 | 4,300 |
| Male | 1,247 | S | 1,053 | S | 539 | S | 1,800 |
| Female | 918 | S | 605 | S | 407 | S | 6,700 |
| Mathematics and statistics | 298 | 278 | 335 | S | 192 | S | 10,100 |
| Male | 330 | 272 | 290 | S | S | S | 9,100 |
| Female | 241 | 133 | 175 | S | 99 | S | 1,900 |
| Physical and related sciences | 151 | 347 | 368 | S | 248 | S | 1,700 |
| Male | 345 | 330 | 382 | S | S | S | 4,500 |
| Female | 324 | 155 | 293 | S | 161 | S | 4,000 |
| Psychology | 412 | 885 | 1,028 | S | 1,193 | S | 2,200 |
| Male | 808 | 541 | 561 | S | 583 | S | 5,900 |
| Female | 933 | 735 | 870 | S | 1,007 | S | 2,200 |
| Social sciences | 626 | 603 | 480 | S | 708 | 380 | S |
| Male | 727 | 417 | 391 | S | 516 | S | S |
| Female | 676 | 466 | 287 | S | 567 | 300 | 2,200 |
| Engineering | 669 | 874 | 985 | S | 500 | 473 | S |
| Male | 930 | 786 | 1,057 | S | 468 | 365 | S |
| Female | 647 | 403 | 530 | S | 210 | 314 | S |
| Health | 2,282 | S | S | 3,799 | 2,556 | S | 3,900 |
| Male | 839 | S | S | 2,080 | S | S | 3,900 |
| Female | 2,162 | S | S | 2,742 | 1,629 | S | 1,000 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. Median salary
standard errors of less than $\$ 1,000$ are also suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-5. Standard errors for primary education and employment status, and median salary of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree and race/ethnicity: October 2003

| Major field and race/ethnicity | $\begin{gathered} \text { All } \\ \text { recipients } \\ \hline \end{gathered}$ | Primary education and employment status |  |  |  |  | Median salary for full-time employed |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Not full-time student |  |  |  |  |
|  |  | Full-time student | Employed in S\&E occupation | Employed in S\&E-related occupation | Employed in non-S\&E occupation | $\begin{gathered} \text { Not } \\ \text { employed } \\ \hline \end{gathered}$ |  |
| All science and engineering fields | 3,149 | 5,802 | 3,658 | 4,282 | 6,749 | 4,175 | S |
| Sciences | 2,881 | 5,005 | 3,383 | 2,049 | 6,022 | 3,458 | S |
| Asian | 2,378 | 2,338 | 2,010 | S | 2,336 | 1,202 | \$2,300 |
| Underrepresented minority | 1,525 | 1,571 | 891 | 605 | 1,779 | 1,040 | 1,200 |
| White, non-Hispanic | 2,895 | 4,293 | 2,956 | 1,814 | 4,784 | 2,693 | S |
| Other | 1,877 | 905 | S | S | 1,244 | S | 1,500 |
| Biological, agricultural, and environmental life sciences | 1,263 | 3,021 | 2,143 | 1,432 | 2,577 | 1,317 | S |
| Asian | 1,986 | 1,936 | S | S | S | S | S |
| Underrepresented minority | 1,603 | 913 | 443 | 459 | 703 | 399 | 2,300 |
| White, non-Hispanic | 2,492 | 2,706 | 1,806 | 1,327 | 2,187 | 971 | S |
| Other | 1,132 | S | S | S | S | S | S |
| Computer and information sciences | 1,246 | 1,059 | 2,382 | S | 2,221 | 1,018 | 1,200 |
| Asian | 1,938 | S | 1,737 | S | 1,308 | S | 1,100 |
| Underrepresented minority | 1,569 | S | 677 | S | 747 | S | 1,400 |
| White, non-Hispanic | 2,422 | 752 | 1,878 | S | 1,766 | S | 2,100 |
| Other | S | S | S | S | S | S | S |
| Mathematics and statistics | 411 | 526 | 488 | S | 633 | 337 | 1,400 |
| Asian | 571 | S | S | S | 496 | S | 1,000 |
| Underrepresented minority | 247 | 134 | S | S | 214 | S | 1,000 |
| White, non-Hispanic | 731 | 466 | 421 | S | 639 | S | 1,000 |
| Other | S | S | S | S | S | S | S |
| Physical and related sciences | 551 | 750 | 623 | 307 | 648 | 345 | S |
| Asian | 587 | 402 | S | S | S | S | S |
| Underrepresented minority | 378 | 205 | 184 | S | 192 | S | 1,100 |
| White, non-Hispanic | 810 | 721 | 610 | S | 607 | 253 | S |
| Other | 271 | S | S | S | S | S | S |
| Psychology | 1,415 | 2,653 | S | S | 3,541 | 2,083 | 2,400 |
| Asian | S | S | S | S | S | S | S |
| Underrepresented minority | 1,715 | 949 | S | S | 1,578 | S | 2,900 |
| White, non-Hispanic | 2,774 | 2,482 | S | S | 3,278 | 1,991 | 1,400 |
| Other | S | S | S | S | S | S | S |
| Social sciences | 2,034 | 2,269 | 1,396 | 717 | 2,963 | 1,743 | S |
| Asian | 2,103 | 1,054 | S | S | 1,528 | S | 2,700 |
| Underrepresented minority | 1,614 | 801 | 243 | S | 1,383 | 552 | 1,200 |
| White, non-Hispanic | 2,996 | 2,014 | 1,269 | S | 3,068 | 1,393 | S |
| Other | 1,218 | S | S | S | 1,020 | S | 3,100 |
| Engineering | 845 | 1,197 | 1,502 | S | 1,024 | 741 | S |
| Asian | 1,456 | 796 | 1,030 | S | 557 | S | S |
| Underrepresented minority | 908 | 249 | 554 | S | 298 | 194 | 3,200 |
| White, non-Hispanic | 1,640 | 756 | 1,448 | S | 798 | 524 | S |

TABLE B-5. Standard errors for primary education and employment status, and median salary of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree and race/ethnicity: October 2003

| Major field and race/ethnicity | Primary education and employment status |  |  |  |  |  | Median salary <br> for full-time employed |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All recipients | Full-time student | Not full-time student |  |  |  |  |
|  |  |  | Employed in S\&E <br> occupation | Employed in S\&E-related occupation | Employed in non-S\&E occupation | Not employed |  |
| Other | 602 | S | 452 | S | S | S | 6,100 |
| Health | 1,316 | 2,731 | S | 3,904 | 2,345 | S | 1,900 |
| Asian | S | S | S | S | S | S | S |
| Underrepresented minority | 2,998 | S | S | 2,522 | S | S | 2,000 |
| White, non-Hispanic | 3,905 | 2,441 | S | 4,151 | 2,302 | S | 2,700 |
| Other | S | S | S | S | S | S | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. Median salary
standard errors of less than $\$ 1,000$ are also suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-6. Standard errors for primary education and employment status, and median salary of 2001 and 2002 S\&E master's degree recipients, by major field of degree and race/ethnicity: October 2003

| Major field race/ethnicity | $\begin{gathered} \text { All } \\ \text { recipients } \end{gathered}$ | Primary education and employment status |  |  |  |  | Median salary for full-time employed |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Not full-time student |  |  |  |  |
|  |  | Full-time student | Employed in S\&E occupation | Employed in S\&E-related occupation | Employed in non-S\&E occupation | $\begin{gathered} \text { Not } \\ \text { employed } \end{gathered}$ |  |
| All science and engineering fields | 2,906 | 2,200 | 2,396 | 3,817 | 3,102 | 2,069 | \$1,600 |
| Sciences | 1,523 | 1,735 | 1,809 | 337 | 1,546 | 878 | S |
| Asian | 1,648 | 1,345 | 1,231 | S | 797 | 744 | 4,500 |
| Underrepresented minority | 457 | 332 | 351 | S | 477 | 247 | 2,300 |
| White, non-Hispanic | 1,077 | 945 | 1,302 | 312 | 1,414 | 395 | 1,700 |
| Other | 501 | S | S | S | S | S | 5,600 |
| Biological, agricultural, and environmental life sciences | 497 | 520 | 669 | 296 | 407 | S | 2,300 |
| Asian | 557 | S | S | S | S | S | S |
| Underrepresented minority | 193 | S | S | S | 141 | S | 7,400 |
| White, non-Hispanic | 566 | 362 | 507 | 275 | 373 | S | 1,900 |
| Other | S | S | S | S | S | S | S |
| Computer and information sciences | 1,137 | 889 | 1,080 | S | 590 | 685 | 4,300 |
| Asian | 1,601 | S | 1,127 | S | S | 680 | 1,200 |
| Underrepresented minority | 317 | S | S | S | S | S | 2,400 |
| White, non-Hispanic | 772 | S | 298 | S | 501 | S | 9,700 |
| Other | S | S | S | S | S | S | S |
| Mathematics and statistics | 298 | 278 | 335 | S | 192 | S | 10,100 |
| Asian | 357 | S | S | S | S | S | 14,800 |
| Underrepresented minority | 74 | S | S | S | S | S | 8,200 |
| White, non-Hispanic | 288 | 165 | 206 | S | S | S | 4,800 |
| Other | S | S | S | S | S | S | S |
| Physical and related sciences | 151 | 347 | 368 | S | 248 | S | 1,700 |
| Asian | 336 | 281 | S | S | S | S | 4,400 |
| Underrepresented minority | 151 | 70 | 129 | S | S | S | 6,900 |
| White, non-Hispanic | 339 | 255 | 292 | S | 212 | S | 2,100 |
| Other | S | S | S | S | S | S | S |
| Psychology | 412 | 885 | 1,028 | S | 1,193 | S | 2,200 |
| Asian | S | S | S | S | S | S | S |
| Underrepresented minority | 491 | 239 | 253 | S | 466 | S | 2,600 |
| White, non-Hispanic | 1,066 | 592 | 898 | S | 1,088 | S | 1,600 |
| Other | S | S | S | S | S | S | S |
| Social sciences | 626 | 603 | 480 | S | 708 | 380 | S |
| Asian | 658 | S | S | S | S | S | S |
| Underrepresented minority | 375 | 164 | S | S | 301 | S | S |
| White, non-Hispanic | 713 | 469 | 422 | S | 669 | 269 | 1,700 |
| Other | S | S | S | S | S | S | S |
| Engineering | 669 | 874 | 985 | S | 500 | 473 | S |
| Asian | 1,090 | 822 | 945 | S | S | S | 4,400 |
| Underrepresented minority | 314 | 143 | 236 | S | S | S | 5,200 |
| White, non-Hispanic | 847 | 347 | 793 | S | 384 | S | S |
| Other | 299 | S | S | S | S | S | S |

TABLE B-6. Standard errors for primary education and employment status, and median salary of 2001 and 2002 S\&E master's degree recipients, by major field of degree and race/ethnicity: October 2003

| Major field race/ethnicity | All recipients | Primary education and employment status |  |  |  |  | Median salary for full-time employed |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Full-time student | Not full-time student |  |  |  |  |
|  |  |  | Employed in S\&E occupation | Employed in S\&E-related occupation | Employed in non-S\&E occupation | Not employed |  |
| Health | 2,282 | S | S | 3,799 | 2,556 | S | 3,900 |
| Asian | S | S | S | S | S | S | S |
| Underrepresented minority | 1,790 | S | S | S | S | S | 2,000 |
| White, non-Hispanic | 3,353 | S | S | 3,334 | S | S | 3,700 |
| Other | S | S | S | S | S | S | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. Median salary standard errors of less than $\$ 1,000$ are also suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-7. Standard errors for sex and race/ethnicity of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Sex |  | Race/ethnicity |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Underrepresented minority |  |  |  | White, nonHispanic | Other |
|  |  |  |  | Asian | American Indian/ Alaska Native | Black, non- <br> Hispanic |  |  |  |
|  |  | Male | Female |  |  |  | Hispanic |  |  |
| All fields | 3,149 | 2,595 | 2,671 | 2,395 | 1,604 | 4,450 | 3,310 | 4,668 | 2,762 |
| Sciences | 2,881 | 2,435 | 2,400 | 2,378 | 755 | 2,897 | 2,582 | 2,895 | 1,877 |
| Biological, agricultural, and environmental life sciences | 1,263 | 2,528 | 2,655 | 1,986 | S | 1,195 | 1,207 | 2,492 | 1,132 |
| Agricultural/food sciences | 1,170 | 691 | 849 | S | S | S | S | 1,116 | S |
| Biological sciences | 1,144 | 2,364 | 2,448 | 2,031 | S | 1,156 | 1,179 | 2,449 | S |
| Environmental life sciences | 1,152 | 865 | 738 | S | S | S | S | 1,087 | S |
| Computer and information sciences | 1,246 | 2,022 | 1,530 | 1,938 | S | 832 | 1,445 | 2,422 | S |
| Mathematics and statistics | 411 | 644 | 610 | 571 | S | 207 | 167 | 731 | S |
| Physical and related sciences | 551 | 749 | 760 | 587 | S | 316 | 273 | 810 | 271 |
| Chemistry, except biochemistry | 360 | 554 | 611 | 540 | S | 225 | 171 | 602 | S |
| Earth/atmospheric/ocean sciences | 854 | 522 | 453 | S | S | S | S | 773 | S |
| Physics/astronomy | 294 | 257 | 229 | S | S | 84 | 64 | 323 | S |
| Other physical sciences | 866 | S | 507 | S | S | S | S | 739 | S |
| Psychology | 1,415 | 2,458 | 2,726 | S | S | 1,506 | 1,260 | 2,774 | S |
| Social and related sciences | 2,034 | 2,764 | 2,803 | 2,103 | S | 1,298 | 1,493 | 2,996 | 1,218 |
| Economics | 730 | 1,064 | 1,047 | 1,096 | S | 418 | 331 | 1,174 | S |
| Political and related sciences | 910 | 1,756 | 1,609 | S | S | 674 | 703 | 1,615 | S |
| Sociology/anthropology | 1,235 | 1,586 | 1,930 | S | S | 776 | 888 | 1,568 | S |
| Other social sciences | 815 | 1,422 | 1,435 | S | S | 460 | 711 | 1,281 | S |
| Engineering | 845 | 1,282 | 1,058 | 1,456 | S | 478 | 811 | 1,640 | 602 |
| Aerospace/aeronautical/astronautical engineering | 54 | 82 | 71 | S | S | S | 37 | 112 | S |
| Chemical engineering | 182 | 312 | 290 | 320 | S | 88 | 107 | 401 | S |
| Civil/architectural engineering | 182 | 446 | 401 | 395 | S | 105 | 169 | 524 | S |
| Electrical/computer engineering | 480 | 629 | 636 | 882 | S | 316 | 417 | 868 | S |
| Industrial engineering | 138 | 219 | 193 | S | S | 101 | 183 | 240 | S |
| Materials/metallurgical engineering | 450 | 368 | S | S | S | S | S | 330 | S |
| Mechanical engineering | 317 | 451 | 392 | 534 | S | 184 | 268 | 734 | S |
| Other engineering | 510 | 628 | 449 | S | S | S | 143 | 609 | S |
| Health | 1,316 | 781 | 1,244 | S | S | 2,698 | 1,373 | 3,905 | S |

S = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-8. Standard errors for sex and race/ethnicity of 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | $\begin{gathered} \text { All } \\ \text { recipients } \\ \hline \end{gathered}$ | Sex |  | Race/ethnicity |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Asian | Underrepresented minority | White, nonHispanic | Other |
|  |  | Male | Female |  |  |  |  |
| All fields | 2,906 | 1,381 | 2,564 | 2,376 | 1,833 | 3,378 | 1,356 |
| Sciences | 1,523 | 1,110 | 1,243 | 1,648 | 457 | 1,077 | 501 |
| Biological, agricultural, and environmental life sciences | 497 | 500 | 557 | 557 | 193 | 566 | S |
| Agriculturalfood sciences | 370 | 316 | 264 | S | S | 310 | S |
| Biological sciences | 475 | 451 | 516 | 439 | 179 | 521 | S |
| Environmental life sciences | 323 | S | 211 | S | S | 272 | S |
| Computer and information sciences | 1,137 | 1,247 | 918 | 1,601 | 317 | 772 | S |
| Mathematics and statistics | 298 | 330 | 241 | 357 | 74 | 288 | S |
| Physical and related sciences | 151 | 345 | 324 | 336 | 151 | 339 | S |
| Chemistry, except biochemistry | 51 | 251 | 248 | S | 116 | 241 | S |
| Earth/atmospheric/ocean sciences | 170 | 206 | 198 | S | S | 194 | S |
| Physics/astronomy | 110 | 154 | 121 | 177 | S | 169 | S |
| Other physical sciences | S | S | S | S | S | S | S |
| Psychology | 412 | 808 | 933 | S | 491 | 1,066 | S |
| Social and related sciences | 626 | 727 | 676 | 658 | 375 | 713 | S |
| Economics | 265 | 304 | 233 | 251 | 143 | 220 | S |
| Political and related sciences | 386 | 487 | 404 | S | 217 | 488 | S |
| Sociology/anthropology | 191 | 312 | 304 | S | 181 | 272 | S |
| Other social sciences | 292 | 398 | 358 | S | 220 | 428 | S |
| Engineering | 669 | 930 | 647 | 1,090 | 314 | 847 | 299 |
| Aerospace/aeronautical/astronautical engineering | 49 | 69 | 50 | S | S | 71 | S |
| Chemical engineering | 101 | 119 | 89 | 148 | S | 112 | S |
| Civil/architectural engineering | 172 | 243 | 194 | 287 | 99 | 304 | S |
| Electrical/computer engineering | 416 | 560 | 448 | 640 | 120 | 506 | S |
| Industrial engineering | 208 | 244 | 146 | 254 | S | 259 | S |
| Materials/metallurgical engineering | 619 | 614 | S | S | S | S | S |
| Mechanical engineering | 208 | 255 | 155 | 304 | 114 | 268 | S |
| Other engineering | 671 | 642 | 362 | 514 | 170 | 553 | S |
| Health | 2,282 | 839 | 2,162 | S | 1,790 | 3,353 | S |

S = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-9. Standard errors for race/ethnicity of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree and sex: October 2003

| Major field | $\begin{gathered} \text { All } \\ \text { recipients } \\ \hline \end{gathered}$ | Asian |  | Underrepresented minority |  | White, non-Hispanic |  | Other |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Male | Female | Male | Female | Male | Female | Male | Female |
| All fields | 3,149 | 2,570 | 2,624 | 1,968 | 3,760 | 3,368 | 4,617 | 1,677 | 1,955 |
| Sciences | 2,881 | 2,514 | 2,390 | 1,704 | 1,982 | 3,004 | 3,371 | 1,169 | 1,492 |
| Biological, agricultural, and environmental life sciences | 1,263 | 1,464 | 1,896 | 711 | 1,307 | 2,344 | 2,638 | S | S |
| Agricultural/food sciences | 1,170 | S | S | S | S | 644 | 823 | S | S |
| Biological sciences | 1,144 | S | 1,901 | 712 | 1,265 | 2,202 | 2,422 | S | S |
| Environmental life sciences | 1,152 | S | S | S | S | 875 | 603 | S | S |
| Computer and information sciences | 1,246 | 1,845 | 1,438 | 1,461 | 547 | 2,005 | 1,179 | S | S |
| Mathematics and statistics | 411 | 467 | 353 | 178 | 192 | 567 | 630 | S | S |
| Physical and related sciences | 551 | 446 | 374 | 236 | 310 | 745 | 604 | S | S |
| Chemistry, except biochemistry | 360 | S | S | 185 | 215 | 514 | 534 | S | S |
| Earth/atmospheric/ocean sciences | 854 | S | S | S | S | 505 | 389 | S | S |
| Physics/astronomy | 294 | S | S | 106 | 40 | 267 | 205 | S | S |
| Other physical sciences | 866 | S | S | S | S | S | S | S | S |
| Psychology | 1,415 | S | S | 939 | 1,359 | 2,316 | 3,236 | S | S |
| Social and related sciences | 2,034 | 1,434 | 1,573 | 1,031 | 1,445 | 2,828 | 2,774 | 832 | 932 |
| Economics | 730 | 957 | S | 415 | 289 | 989 | 809 | S | S |
| Political and related sciences | 910 | S | S | 571 | 703 | 1,572 | 1,561 | S | S |
| Sociology/anthropology | 1,235 | S | S | 461 | 975 | 1,529 | 1,868 | S | S |
| Other social sciences | 815 | S | S | 484 | 585 | 1,371 | 1,392 | S | S |
| Engineering | 845 | 1,313 | 658 | 699 | 350 | 1,623 | 721 | 496 | 324 |
| Aerospace/aeronautical/astronautical engineering | 54 | S | S | 44 | S | 106 | 63 | S | S |
| Chemical engineering | 182 | S | S | 83 | 97 | 322 | 258 | S | S |
| Civil/architectural engineering | 182 | S | S | 162 | 102 | 536 | 313 | S | S |
| Electrical/computer engineering | 480 | 800 | S | 417 | 147 | 864 | 224 | S | S |
| Industrial engineering | 138 | S | S | 112 | 104 | 231 | 135 | S | S |
| Materials/metallurgical engineering | 450 | S | S | S | S | 252 | S | S | S |
| Mechanical engineering | 317 | 530 | S | 274 | 91 | 719 | 377 | S | S |
| Other engineering | 510 | S | S | S | 115 | 561 | 399 | S | S |
| Health | 1,316 | S | S | S | 2,915 | 1,255 | 3,642 | S | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-10. Standard errors for race/ethnicity of 2001 and 2002 S\&E master's degree recipients, by major field of degree and sex: October 2003

| Major field | All recipients | Asian |  | Underrepresented minority |  | White, non-Hispanic |  | Other |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Male | Female | Male | Female | Male | Female | Male | Female |
| All fields | 2,906 | 1,610 | 2,219 | 985 | 1,473 | 2,061 | 3,000 | 521 | S |
| Sciences | 1,523 | 1,583 | 1,316 | 469 | 422 | 1,238 | 1,370 | 231 | S |
| Biological, agricultural, and environmental life sciences | 497 | S | S | 153 | 148 | 434 | 497 | S | S |
| Agricultural/food sciences | 370 | S | S | S | S | 258 | S | S | S |
| Biological sciences | 475 | S | S | S | 114 | 368 | 451 | S | S |
| Environmental life sciences | 323 | S | S | S | S | S | S | S | S |
| Computer and information sciences | 1,137 | 1,557 | 915 | 256 | S | 600 | 468 | S | S |
| Mathematics and statistics | 298 | 352 | S | 55 | 53 | 212 | 171 | S | S |
| Physical and related sciences | 151 | 323 | S | 122 | 101 | 322 | 295 | S | S |
| Chemistry, except biochemistry | 51 | S | S | S | S | S | S | S | S |
| Earth/atmospheric/ocean sciences | 170 | S | S | S | S | 203 | 189 | S | S |
| Physics/astronomy | 110 | S | S | S | S | 159 | 79 | S | S |
| Other physical sciences | S | S | S | S | S | S | S | S | S |
| Psychology | 412 | S | S | S | 398 | 789 | 1,101 | S | S |
| Social and related sciences | 626 | 420 | 464 | 230 | 302 | 638 | 674 | S | S |
| Economics | 265 | S | S | S | S | 222 | 154 | S | S |
| Political and related sciences | 386 | S | S | S | S | 459 | 352 | S | S |
| Sociology/anthropology | 191 | S | S | S | 145 | 285 | 284 | S | S |
| Other social sciences | 292 | S | S | S | 173 | 401 | 361 | S | S |
| Engineering | 669 | 1,158 | 483 | 275 | 140 | 782 | 444 | S | S |
| Aerospace/aeronautical/astronautical engineering | 49 | S | S | S | S | 74 | S | S | S |
| Chemical engineering | 101 | S | S | S | S | S | S | S | S |
| Civil/architectural engineering | 172 | 294 | S | S | S | 251 | 178 | S | S |
| Electrical/computer engineering | 416 | 720 | 435 | S | S | 450 | S | S | S |
| Industrial engineering | 208 | S | S | S | S | 253 | S | S | S |
| Materials/metallurgical engineering | 619 | S | S | S | S | S | S | S | S |
| Mechanical engineering | 208 | 312 | S | S | S | 259 | 108 | S | S |
| Other engineering | 671 | 459 | S | S | S | 505 | 289 | S | S |
| Health | 2,282 | S | S | S | 1,373 | 1,589 | 2,609 | S | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-11. Standard errors for age of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | $\begin{gathered} \text { All } \\ \text { recipients } \end{gathered}$ | Less than 25 <br> years | $\begin{aligned} & \hline 25-29 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & \hline 30-34 \\ & \text { years } \end{aligned}$ | 35 years <br> or more |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All fields | 3,149 | 11,477 | 7,518 | 4,130 | 8,132 |
| Sciences | 2,881 | 8,216 | 6,012 | 3,006 | 4,277 |
| Biological, agricultural, and environmental life sciences | 1,263 | 3,073 | 2,757 | 1,223 | 893 |
| Agricultural/food sciences | 1,170 | 891 | 774 | S | S |
| Biological sciences | 1,144 | 2,873 | 2,573 | 1,166 | S |
| Environmental life sciences | 1,152 | 761 | 808 | S | S |
| Computer and information sciences | 1,246 | 2,165 | 2,025 | 1,166 | 1,449 |
| Mathematics and statistics | 411 | 740 | 629 | 296 | 303 |
| Physical and related sciences | 551 | 891 | 675 | 506 | 496 |
| Chemistry, except biochemistry | 360 | 542 | 566 | S | 215 |
| Earth/atmospheric/ocean sciences | 854 | 407 | 374 | 238 | 144 |
| Physics/astronomy | 294 | 328 | 219 | S | S |
| Other physical sciences | 866 | S | S | S | 393 |
| Psychology | 1,415 | 3,035 | 2,557 | 1,465 | 2,191 |
| Social and related sciences | 2,034 | 3,927 | 2,982 | 1,494 | 1,743 |
| Economics | 730 | 1,256 | 975 | 389 | S |
| Political and related sciences | 910 | 1,776 | 1,632 | 542 | 457 |
| Sociology/anthropology | 1,235 | 1,995 | 1,935 | 844 | 1,161 |
| Other social sciences | 815 | 1,750 | 1,117 | 823 | 1,093 |
| Engineering | 845 | 1,602 | 1,604 | 738 | 684 |
| Aerospace/aeronautical/astronautical engineering | 54 | 132 | 129 | S | S |
| Chemical engineering | 182 | 319 | 302 | S | S |
| Civil/architectural engineering | 182 | 477 | 552 | 289 | S |
| Electrical/computer engineering | 480 | 923 | 848 | 450 | 491 |
| Industrial engineering | 138 | 220 | 237 | S | S |
| Materials/metallurgical engineering | 450 | 251 | S | S | S |
| Mechanical engineering | 317 | 607 | 651 | 378 | 281 |
| Other engineering | 510 | 586 | 582 | S | S |
| Health | 1,316 | 6,285 | 4,637 | 2,540 | 6,122 |

$S$ = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-12. Standard errors for age of 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | $\begin{gathered} \text { All } \\ \text { recipients } \end{gathered}$ | $\begin{gathered} \text { Less than } 25 \\ \text { years } \\ \hline \end{gathered}$ | $\begin{aligned} & 25-29 \\ & \text { years } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 30-34 \\ & \text { years } \\ & \hline \end{aligned}$ | 35 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All fields | 2,906 | 1,005 | 4,677 | 3,112 | 4,242 |
| Sciences | 1,523 | 373 | 1,680 | 1,588 | 1,679 |
| Biological, agricultural, and environmental life sciences | 497 | S | 573 | 458 | 439 |
| Agricultural/food sciences | 370 | S | 272 | S | S |
| Biological sciences | 475 | S | 506 | 359 | 383 |
| Environmental life sciences | 323 | S | S | S | S |
| Computer and information sciences | 1,137 | S | 815 | 1,121 | 918 |
| Mathematics and statistics | 298 | S | 302 | 296 | 218 |
| Physical and related sciences | 151 | S | 364 | 344 | 289 |
| Chemistry, except biochemistry | 51 | S | 272 | 255 | S |
| Earth/atmospheric/ocean sciences | 170 | S | 166 | 174 | S |
| Physics/astronomy | 110 | S | 195 | 141 | S |
| Other physical sciences | S | S | S | S | S |
| Psychology | 412 | S | 1,022 | 803 | 1,085 |
| Social and related sciences | 626 | S | 708 | 648 | 599 |
| Economics | 265 | S | 259 | 177 | 190 |
| Political and related sciences | 386 | S | 411 | 366 | 340 |
| Sociology/anthropology | 191 | S | 301 | 291 | 225 |
| Other social sciences | 292 | S | 390 | 369 | 374 |
| Engineering | 669 | 382 | 1,053 | 821 | 621 |
| Aerospace/aeronautical/astronautical engineering | 49 | S | 90 | S | S |
| Chemical engineering | 101 | S | 141 | S | S |
| Civil/architectural engineering | 172 | S | 288 | 253 | S |
| Electrical/computer engineering | 416 | S | 624 | 541 | 318 |
| Industrial engineering | 208 | S | 289 | 200 | 250 |
| Materials/metallurgical engineering | 619 | S | S | S | S |
| Mechanical engineering | 208 | S | 304 | 211 | S |
| Other engineering | 671 | S | 564 | 508 | 437 |
| Health | 2,282 | S | 3,948 | 2,511 | 3,659 |

$S$ = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-13. Standard errors for citizenship of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | $\begin{gathered} \hline \text { All } \\ \text { recipients } \end{gathered}$ | U.S. citizen |  |  | Non-U.S. citizen |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | From birth | Naturalized |  |
| All fields | 3,149 | 4,531 | 5,750 | 4,060 | 2,979 |
| Sciences | 2,881 | 4,008 | 4,731 | 3,394 | 2,630 |
| Biological, agricultural, and environmental life sciences | 1,263 | 1,846 | 2,464 | 1,894 | 1,173 |
| Agricultural/food sciences | 1,170 | 1,163 | 1,166 | S | S |
| Biological sciences | 1,144 | 1,761 | 2,395 | 1,810 | 1,171 |
| Environmental life sciences | 1,152 | 1,151 | 1,114 | S | S |
| Computer and information sciences | 1,246 | 1,689 | 2,373 | 2,103 | 1,333 |
| Mathematics and statistics | 411 | 589 | 630 | 505 | 371 |
| Physical and related sciences | 551 | 580 | 690 | 390 | 289 |
| Chemistry, except biochemistry | 360 | 417 | 539 | 369 | S |
| Earth/atmospheric/ocean sciences | 854 | 839 | 822 | S | S |
| Physics/astronomy | 294 | 313 | 312 | S | S |
| Other physical sciences | 866 | 862 | 860 | S | S |
| Psychology | 1,415 | 1,793 | 2,274 | 1,344 | S |
| Social and related sciences | 2,034 | 2,273 | 2,593 | 1,559 | 1,135 |
| Economics | 730 | 845 | 1,039 | 728 | S |
| Political and related sciences | 910 | 1,022 | 1,276 | 785 | S |
| Sociology/anthropology | 1,235 | 1,259 | 1,686 | 927 | S |
| Other social sciences | 815 | 854 | 998 | S | S |
| Engineering | 845 | 1,171 | 1,484 | 1,052 | 922 |
| Aerospace/aeronautical/astronautical engineering | 54 | 65 | 84 | 66 | S |
| Chemical engineering | 182 | 224 | 336 | 264 | S |
| Civil/architectural engineering | 182 | 328 | 376 | S | S |
| Electrical/computer engineering | 480 | 753 | 960 | 786 | 676 |
| Industrial engineering | 138 | 163 | 203 | S | S |
| Materials/metallurgical engineering | 450 | 337 | 344 | S | S |
| Mechanical engineering | 317 | 393 | 503 | 392 | S |
| Other engineering | 510 | 520 | 533 | S | S |
| Health | 1,316 | 1,848 | 2,568 | S | S |

$S$ = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-14. Standard errors for citizenship of 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | $\begin{gathered} \text { All } \\ \text { recipients } \end{gathered}$ | U.S. citizen |  |  | Non-U.S. citizen |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | From birth | Naturalized |  |
| All fields | 2,906 | 2,864 | 3,398 | 2,723 | 2,029 |
| Sciences | 1,523 | 1,464 | 1,465 | 893 | 1,786 |
| Biological, agricultural, and environmental life sciences | 497 | 592 | 608 | S | 499 |
| Agricultural/food sciences | 370 | 322 | 322 | S | S |
| Biological sciences | 475 | 538 | 538 | S | 392 |
| Environmental life sciences | 323 | 297 | 297 | S | S |
| Computer and information sciences | 1,137 | 1,157 | 944 | 453 | 1,764 |
| Mathematics and statistics | 298 | 270 | 242 | S | 334 |
| Physical and related sciences | 151 | 352 | 344 | S | 326 |
| Chemistry, except biochemistry | 51 | 272 | 257 | S | 272 |
| Earth/atmospheric/ocean sciences | 170 | 189 | 188 | S | S |
| Physics/astronomy | 110 | 152 | 161 | S | 148 |
| Other physical sciences | S | S | S | S | S |
| Psychology | 412 | 631 | 800 | S | S |
| Social and related sciences | 626 | 689 | 781 | 369 | 521 |
| Economics | 265 | 241 | 261 | S | 302 |
| Political and related sciences | 386 | 458 | 505 | S | S |
| Sociology/anthropology | 191 | 246 | 270 | S | S |
| Other social sciences | 292 | 378 | 396 | S | S |
| Engineering | 669 | 1,123 | 919 | 598 | 1,107 |
| Aerospace/aeronautical/astronautical engineering | 49 | 71 | 78 | S | S |
| Chemical engineering | 101 | 134 | 135 | S | 144 |
| Civil/architectural engineering | 172 | 296 | 283 | S | 305 |
| Electrical/computer engineering | 416 | 592 | 495 | 417 | 648 |
| Industrial engineering | 208 | 283 | 276 | S | 262 |
| Materials/metallurgical engineering | 619 | S | S | S | S |
| Mechanical engineering | 208 | 317 | 281 | S | 308 |
| Other engineering | 671 | 680 | 647 | S | 515 |
| Health | 2,282 | 2,438 | 3,105 | S | S |

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-15. Standard errors for undergraduate grade point average of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Undergraduate GPA |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Below 2.75 | 2.75 to 3.24 | 3.25 or higher |
| All fields | 3,149 | 4,028 | 6,540 | 7,306 |
| Sciences | 2,881 | 3,647 | 5,533 | 5,797 |
| Biological, agricultural, and environmental life sciences | 1,263 | 1,880 | 2,509 | 2,876 |
| Agricultural/food sciences | 1,170 | 399 | 715 | 856 |
| Biological sciences | 1,144 | 1,916 | 2,363 | 2,803 |
| Environmental life sciences | 1,152 | S | 746 | 704 |
| Computer and information sciences | 1,246 | 1,110 | 1,991 | 2,245 |
| Mathematics and statistics | 411 | 335 | 596 | 676 |
| Physical and related sciences | 551 | 453 | 715 | 749 |
| Chemistry, except biochemistry | 360 | 342 | 566 | 593 |
| Earth/atmospheric/ocean sciences | 854 | 281 | 465 | 420 |
| Physics/astronomy | 294 | 114 | 249 | 258 |
| Other physical sciences | 866 | S | S | 472 |
| Psychology | 1,415 | 1,865 | 2,909 | 3,312 |
| Social and related sciences | 2,034 | 2,108 | 2,759 | 3,205 |
| Economics | 730 | 670 | 1,146 | 1,210 |
| Political and related sciences | 910 | 1,149 | 1,372 | 1,688 |
| Sociology/anthropology | 1,235 | 1,436 | 1,547 | 1,999 |
| Other social sciences | 815 | 865 | 1,205 | 1,589 |
| Engineering | 845 | 983 | 1,442 | 1,605 |
| Aerospace/aeronautical/astronautical engineering | 54 | 79 | 130 | 129 |
| Chemical engineering | 182 | 189 | 354 | 386 |
| Civil/architectural engineering | 182 | 358 | 411 | 489 |
| Electrical/computer engineering | 480 | 558 | 813 | 918 |
| Industrial engineering | 138 | 171 | 205 | 226 |
| Materials/metallurgical engineering | 450 | S | S | 251 |
| Mechanical engineering | 317 | 431 | 616 | 628 |
| Other engineering | 510 | 283 | 544 | 601 |
| Health | 1,316 | 1,893 | 4,571 | 5,481 |

GPA = Grade point average.
$S=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-16. Standard errors for undergraduate grade point average of 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Undergraduate GPA |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Below 2.75 | 2.75 to 3.24 | 3.25 or higher |
| All fields | 2,906 | 1,964 | 3,207 | 4,377 |
| Sciences | 1,523 | 817 | 1,649 | 1,887 |
| Biological, agricultural, and environmental life sciences | 497 | 322 | 570 | 612 |
| Agricultural/food sciences | 370 | S | S | 308 |
| Biological sciences | 475 | 253 | 466 | 526 |
| Environmental life sciences | 323 | S | S | 257 |
| Computer and information sciences | 1,137 | S | 784 | 1,235 |
| Mathematics and statistics | 298 | S | 244 | 324 |
| Physical and related sciences | 151 | S | 346 | 378 |
| Chemistry, except biochemistry | 51 | S | S | 274 |
| Earth/atmospheric/ocean sciences | 170 | S | 204 | 209 |
| Physics/astronomy | 110 | S | 142 | 159 |
| Other physical sciences | S | S | S | S |
| Psychology | 412 | 530 | 900 | 930 |
| Social and related sciences | 626 | 334 | 520 | 692 |
| Economics | 265 | S | 186 | 231 |
| Political and related sciences | 386 | S | 331 | 373 |
| Sociology/anthropology | 191 | S | 245 | 270 |
| Other social sciences | 292 | S | 293 | 437 |
| Engineering | 669 | 436 | 903 | 1,017 |
| Aerospace/aeronautical/astronautical engineering | 49 | S | S | 77 |
| Chemical engineering | 101 | S | 140 | 152 |
| Civil/architectural engineering | 172 | S | 250 | 276 |
| Electrical/computer engineering | 416 | S | 509 | 590 |
| Industrial engineering | 208 | S | 205 | 244 |
| Materials/metallurgical engineering | 619 | S | S | S |
| Mechanical engineering | 208 | S | 236 | 295 |
| Other engineering | 671 | S | 509 | 603 |
| Health | 2,282 | S | 2,897 | 3,936 |

GPA = Grade point average.
$S=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-17. Standard errors for community college attendance and associate's degree receipt among 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Attended community college |  | Earned associate's degree |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Percent | Number | Percent |
| All fields | 3,149 | 10,961 | 1 | 10,203 | 1 |
| Sciences | 2,881 | 7,657 | 1 | 5,689 | 1 |
| Biological, agricultural, and environmental life sciences | 1,263 | 3,214 | 2 | 1,881 | 1 |
| Agricultural/food sciences | 1,170 | 753 | 4 | 586 | 4 |
| Biological sciences | 1,144 | 2,998 | 2 | 1,743 | 1 |
| Environmental life sciences | 1,152 | 902 | 5 | 577 | 4 |
| Computer and information sciences | 1,246 | 2,561 | 3 | 1,896 | 2 |
| Mathematics and statistics | 411 | 767 | 3 | 480 | 2 |
| Physical and related sciences | 551 | 916 | 2 | 592 | 2 |
| Chemistry, except biochemistry | 360 | 594 | 3 | 340 | 2 |
| Earth/atmospheric/ocean sciences | 854 | 670 | 5 | 225 | 3 |
| Physics/astronomy | 294 | 295 | 4 | S | S |
| Other physical sciences | 866 | 515 | 20 | 495 | 26 |
| Psychology | 1,415 | 3,070 | 2 | 2,289 | 1 |
| Social and related sciences | 2,034 | 3,729 | 2 | 2,668 | 1 |
| Economics | 730 | 1,253 | 3 | 593 | 1 |
| Political and related sciences | 910 | 1,636 | 2 | 697 | 1 |
| Sociology/anthropology | 1,235 | 2,005 | 2 | 1,552 | 2 |
| Other social sciences | 815 | 1,675 | 4 | 1,533 | 3 |
| Engineering | 845 | 1,780 | 2 | 973 | 1 |
| Aerospace/aeronautical/astronautical engineering | 54 | 120 | 4 | S | S |
| Chemical engineering | 182 | 381 | 3 | 140 | 1 |
| Civil/architectural engineering | 182 | 557 | 3 | 312 | 2 |
| Electrical/computer engineering | 480 | 1,032 | 3 | 593 | 2 |
| Industrial engineering | 138 | 246 | 4 | 139 | 2 |
| Materials/metallurgical engineering | 450 | S | S | S | S |
| Mechanical engineering | 317 | 712 | 3 | 387 | 2 |
| Other engineering | 510 | 488 | 4 | S | S |
| Health | 1,316 | 5,384 | 4 | 7,281 | 5 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-18. Standard errors for community college attendance and associate's degree receipt among 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Attended community college |  | Earned associate's degree |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Percent | Number | Percent |
| All fields | 2,906 | 4,682 | 2 | 2,877 | 1 |
| Sciences | 1,523 | 2,028 | 2 | 1,026 | 1 |
| Biological, agricultural, and environmental life sciences | 497 | 539 | 3 | 300 | 2 |
| Agricultural/food sciences | 370 | 281 | 8 | S | S |
| Biological sciences | 475 | 499 | 4 | S | S |
| Environmental life sciences | 323 | S | S | S | S |
| Computer and information sciences | 1,137 | 877 | 3 | 411 | 1 |
| Mathematics and statistics | 298 | 222 | 4 | S | S |
| Physical and related sciences | 151 | 318 | 3 | 186 | 2 |
| Chemistry, except biochemistry | 51 | 203 | 5 | S | S |
| Earth/atmospheric/ocean sciences | 170 | 226 | 7 | S | S |
| Physics/astronomy | 110 | 165 | 6 | S | S |
| Other physical sciences | S | S | S | S | S |
| Psychology | 412 | 1,128 | 4 | 716 | 2 |
| Social and related sciences | 626 | 676 | 3 | 388 | 1 |
| Economics | 265 | 186 | 4 | S | S |
| Political and related sciences | 386 | 397 | 5 | S | S |
| Sociology/anthropology | 191 | 307 | 5 | 194 | 3 |
| Other social sciences | 292 | 446 | 5 | S | S |
| Engineering | 669 | 897 | 2 | 387 | 1 |
| Aerospace/aeronautical/astronautical engineering | 49 | S | S | S | S |
| Chemical engineering | 101 | S | S | S | S |
| Civil/architectural engineering | 172 | 248 | 4 | S | S |
| Electrical/computer engineering | 416 | 544 | 3 | S | S |
| Industrial engineering | 208 | 170 | 4 | S | S |
| Materials/metallurgical engineering | 619 | S | S | S | S |
| Mechanical engineering | 208 | 222 | 4 | S | S |
| Other engineering | 671 | 508 | 5 | S | S |
| Health | 2,282 | 3,870 | 4 | 2,409 | 3 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-19. Standard errors for sources of financial support for 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Assistantships, work study | Earnings from employment | Employer assistance | Gifts from <br> parents/ <br> relatives | Loans from college, bank, government | Loans from parents/ relatives | Scholar- <br> ships, grants, fellowships | Other <br> sources |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All fields | 3,149 | 8,743 | 8,101 | 6,516 | 10,146 | 7,548 | 4,125 | 8,321 | 3,331 |
| Sciences | 2,881 | 6,887 | 5,752 | 3,952 | 6,752 | 6,387 | 3,186 | 6,382 | 1,706 |
| Biological, agricultural, and environmental life sciences | 1,263 | 2,740 | 2,883 | 1,085 | 2,730 | 2,813 | 1,618 | 2,849 | S |
| Agricultural/food sciences | 1,170 | 438 | 955 | S | 934 | 883 | 341 | 1,022 | S |
| Biological sciences | 1,144 | 2,537 | 2,730 | 1,060 | 2,628 | 2,752 | 1,526 | 2,771 | S |
| Environmental life sciences | 1,152 | 703 | 813 | S | 937 | 938 | S | 840 | S |
| Computer and information sciences | 1,246 | 1,500 | 1,998 | 1,611 | 2,517 | 3,585 | 1,297 | 2,323 | S |
| Mathematics and statistics | 411 | 655 | 797 | 289 | 686 | 708 | 368 | 575 | S |
| Physical and related sciences | 551 | 700 | 823 | 537 | 914 | 886 | 416 | 737 | S |
| Chemistry, except biochemistry | 360 | 477 | 568 | 308 | 629 | 661 | 301 | 496 | S |
| Earth/atmospheric/ocean sciences | 854 | 409 | 641 | 203 | 769 | 546 | S | 509 | S |
| Physics/astronomy | 294 | 243 | 296 | S | 273 | 289 | 148 | 348 | S |
| Other physical sciences | 866 | S | 789 | S | 568 | 739 | S | 509 | S |
| Psychology | 1,415 | 2,851 | 3,442 | 2,077 | 3,536 | 3,301 | 1,624 | 3,071 | S |
| Social and related sciences | 2,034 | 3,916 | 2,902 | 1,730 | 3,155 | 3,387 | 1,749 | 3,454 | 1,199 |
| Economics | 730 | 1,045 | 1,249 | 549 | 1,008 | 1,082 | 676 | 1,247 | S |
| Political and related sciences | 910 | 1,876 | 1,587 | S | 1,761 | 1,887 | 1,115 | 1,625 | S |
| Sociology/anthropology | 1,235 | 1,739 | 1,730 | 982 | 2,214 | 1,957 | 1,130 | 2,164 | S |
| Other social sciences | 815 | 1,162 | 1,425 | 940 | 1,533 | 1,350 | 605 | 1,293 | S |
| Engineering | 845 | 1,282 | 1,653 | 902 | 1,407 | 1,749 | 1,119 | 1,507 | 320 |
| Aerospace/aeronautical/astronautical engineering | 54 | 93 | 158 | S | 125 | 136 | 70 | 143 | S |
| Chemical engineering | 182 | 227 | 357 | S | 314 | 361 | 183 | 365 | S |
| Civil/architectural engineering | 182 | 369 | 524 | 285 | 434 | 499 | 325 | 441 | S |
| Electrical/computer engineering | 480 | 873 | 904 | 580 | 961 | 1,025 | 751 | 1,004 | S |
| Industrial engineering | 138 | 203 | 268 | S | 200 | 218 | 165 | 206 | S |
| Materials/metallurgical engineering | 450 | S | 357 | S | 351 | 325 | S | 280 | S |
| Mechanical engineering | 317 | 520 | 668 | 424 | 586 | 661 | 410 | 580 | S |
| Other engineering | 510 | 438 | 581 | S | 535 | 635 | 342 | 549 | S |
| Health | 1,316 | 4,634 | 5,010 | 5,099 | 6,626 | 4,269 | 2,490 | 5,403 | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-20. Standard errors for sources of financial support for 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Assistantships, work study | Earnings from employment | Employer assistance | Gifts from parents/ relatives | Loans from college, bank, government | Loans from parents/ relatives | Scholar- <br> ships, <br> grants, <br> fellowships | Other <br> sources |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All fields | 2,906 | 3,158 | 4,677 | 4,093 | 4,125 | 4,682 | 1,598 | 4,163 | 837 |
| Sciences | 1,523 | 1,963 | 2,306 | 1,444 | 1,935 | 1,563 | 681 | 2,189 | 569 |
| Biological, agricultural, and environmental life sciences | 497 | 621 | 523 | 523 | 551 | 483 | S | 685 | S |
| Agricultural/food sciences | 370 | 325 | 267 | S | S | S | S | 324 | S |
| Biological sciences | 475 | 523 | 504 | 494 | 460 | 434 | S | 581 | S |
| Environmental life sciences | 323 | 245 | S | S | S | S | S | 256 | S |
| Computer and information sciences | 1,137 | 840 | 1,389 | 825 | 1,414 | 722 | S | 1,430 | S |
| Mathematics and statistics | 298 | 325 | 294 | 250 | 236 | 175 | S | 289 | S |
| Physical and related sciences | 151 | 377 | 339 | 268 | 264 | 306 | S | 396 | S |
| Chemistry, except biochemistry | 51 | 275 | 200 | S | S | 192 | S | 253 | S |
| Earth/atmospheric/ocean sciences | 170 | 206 | 212 | S | S | 170 | S | 224 | S |
| Physics/astronomy | 110 | 157 | 119 | 146 | 129 | S | S | 162 | S |
| Other physical sciences | S | S | S | S | S | S | S | S | S |
| Psychology | 412 | 1,012 | 1,077 | 665 | 1,023 | 1,008 | S | 1,016 | S |
| Social and related sciences | 626 | 806 | 767 | 491 | 744 | 718 | 279 | 745 | S |
| Economics | 265 | 355 | 223 | 227 | 258 | 200 | S | 298 | S |
| Political and related sciences | 386 | 390 | 466 | S | 452 | 399 | S | 436 | S |
| Sociology/anthropology | 191 | 307 | 303 | 181 | 324 | 321 | S | 288 | S |
| Other social sciences | 292 | 456 | 424 | 337 | 425 | 402 | S | 443 | S |
| Engineering | 669 | 1,191 | 891 | 1,031 | 931 | 681 | 699 | 1,181 | S |
| Aerospace/aeronautical/astronautical engineering | 49 | 84 | 75 | S | S | S | S | 78 | S |
| Chemical engineering | 101 | 144 | 108 | S | S | 88 | S | 125 | S |
| Civil/architectural engineering | 172 | 360 | 259 | 229 | 276 | 211 | S | 322 | S |
| Electrical/computer engineering | 416 | 715 | 571 | 647 | 651 | 419 | S | 689 | S |
| Industrial engineering | 208 | 285 | 209 | 281 | S | S | S | 278 | S |
| Materials/metallurgical engineering | 619 | S | S | S | S | S | S | S | S |
| Mechanical engineering | 208 | 383 | 280 | 338 | 267 | 243 | S | 343 | S |
| Other engineering | 671 | 523 | 526 | 559 | 325 | 366 | S | 639 | S |
| Health | 2,282 | 1,961 | 3,608 | 3,699 | 3,354 | 4,399 | S | 3,408 | S |

$S=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. $S \& E=$ science and engineering.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-21. Standard errors for amount borrowed for undergraduate education by 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Did not borrow | \$1-\$9,999 | \$10,000-\$24,999 | \$25,000 or more |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All fields | 3,149 | 7,645 | 4,998 | 7,522 | 7,057 |
| Sciences | 2,881 | 5,738 | 4,154 | 5,309 | 5,281 |
| Biological, agricultural, and environmental life sciences | 1,263 | 2,569 | 1,910 | 2,672 | 2,153 |
| Agricultural/food sciences | 1,170 | 638 | 441 | 620 | 547 |
| Biological sciences | 1,144 | 2,504 | 1,876 | 2,459 | 2,078 |
| Environmental life sciences | 1,152 | 573 | 292 | 774 | 435 |
| Computer and information sciences | 1,246 | 2,542 | 1,912 | 1,577 | 3,148 |
| Mathematics and statistics | 411 | 606 | 458 | 602 | 477 |
| Physical and related sciences | 551 | 808 | 743 | 544 | 735 |
| Chemistry, except biochemistry | 360 | 606 | 576 | 460 | 461 |
| Earth/atmospheric/ocean sciences | 854 | 357 | 280 | 281 | 291 |
| Physics/astronomy | 294 | 281 | 199 | 256 | 163 |
| Other physical sciences | 866 | S | S | S | S |
| Psychology | 1,415 | 3,135 | 2,333 | 3,418 | 2,242 |
| Social and related sciences | 2,034 | 3,008 | 2,053 | 2,791 | 2,575 |
| Economics | 730 | 1,158 | 807 | 1,110 | 843 |
| Political and related sciences | 910 | 1,616 | 1,122 | 1,772 | 1,429 |
| Sociology/anthropology | 1,235 | 1,643 | 1,377 | 1,771 | 1,389 |
| Other social sciences | 815 | 1,232 | 1,006 | 1,373 | 941 |
| Engineering | 845 | 1,617 | 966 | 1,355 | 1,293 |
| Aerospace/aeronautical/astronautical engineering | 54 | 121 | 86 | 109 | 105 |
| Chemical engineering | 182 | 368 | 223 | 330 | 220 |
| Civil/architectural engineering | 182 | 450 | 257 | 459 | 385 |
| Electrical/computer engineering | 480 | 1,063 | 688 | 839 | 849 |
| Industrial engineering | 138 | 206 | 171 | 183 | 140 |
| Materials/metallurgical engineering | 450 | S | S | S | S |
| Mechanical engineering | 317 | 651 | 433 | 665 | 448 |
| Other engineering | 510 | 566 | 401 | 518 | 446 |
| Health | 1,316 | 4,130 | 2,233 | 4,810 | 4,352 |

$S=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-22. Standard errors for amount borrowed for undergraduate and graduate education by 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Did not borrow | \$1-\$9,999 | \$10,000-\$24,999 | \$25,000 or more |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All fields | 2,906 | 4,582 | 2,417 | 2,921 | 3,969 |
| Sciences | 1,523 | 1,676 | 1,049 | 1,400 | 1,241 |
| Biological, agricultural, and environmental life sciences | 497 | 653 | 399 | 328 | 354 |
| Agricultural/food sciences | 370 | 318 | S | S | S |
| Biological sciences | 475 | 589 | 303 | 268 | 333 |
| Environmental life sciences | 323 | 234 | S | S | S |
| Computer and information sciences | 1,137 | 1,076 | 527 | 675 | S |
| Mathematics and statistics | 298 | 352 | S | S | S |
| Physical and related sciences | 151 | 290 | 175 | 191 | S |
| Chemistry, except biochemistry | 51 | 199 | S | S | S |
| Earth/atmospheric/ocean sciences | 170 | 195 | S | S | S |
| Physics/astronomy | 110 | 159 | S | S | S |
| Other physical sciences | S | S | S | S | S |
| Psychology | 412 | 930 | 672 | 910 | 874 |
| Social and related sciences | 626 | 756 | 407 | 512 | 480 |
| Economics | 265 | 311 | S | S | S |
| Political and related sciences | 386 | 437 | S | S | 339 |
| Sociology/anthropology | 191 | 313 | 210 | 220 | 235 |
| Other social sciences | 292 | 439 | S | 348 | S |
| Engineering | 669 | 1,015 | 658 | 602 | 426 |
| Aerospace/aeronautical/astronautical engineering | 49 | 71 | S | S | S |
| Chemical engineering | 101 | 154 | S | S | S |
| Civil/architectural engineering | 172 | 287 | 232 | S | S |
| Electrical/computer engineering | 416 | 661 | 473 | S | S |
| Industrial engineering | 208 | 250 | S | S | S |
| Materials/metallurgical engineering | 619 | S | S | S | S |
| Mechanical engineering | 208 | 319 | S | S | S |
| Other engineering | 671 | 672 | S | 342 | S |
| Health | 2,282 | 3,972 | 2,058 | 2,608 | 3,784 |

$S$ = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-23. Standard errors for amount owed for undergraduate loans by 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Did not owe | \$1-\$9,999 | \$10,000-\$24,999 | \$25,000 or more |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All fields | 3,149 | 7,747 | 5,652 | 7,404 | 6,273 |
| Sciences | 2,881 | 5,745 | 4,317 | 5,265 | 4,650 |
| Biological, agricultural, and environmental life sciences | 1,263 | 2,842 | 2,145 | 2,384 | 2,122 |
| Agricultural/food sciences | 1,170 | 735 | 464 | 524 | S |
| Biological sciences | 1,144 | 2,648 | 2,100 | 2,165 | 2,055 |
| Environmental life sciences | 1,152 | 674 | 311 | 693 | S |
| Computer and information sciences | 1,246 | 2,562 | 1,870 | 1,667 | 2,411 |
| Mathematics and statistics | 411 | 655 | 527 | 585 | 428 |
| Physical and related sciences | 551 | 821 | 675 | 749 | 479 |
| Chemistry, except biochemistry | 360 | 598 | 475 | 463 | 381 |
| Earth/atmospheric/ocean sciences | 854 | 416 | 274 | 302 | 229 |
| Physics/astronomy | 294 | 313 | 196 | 250 | 138 |
| Other physical sciences | 866 | S | S | S | S |
| Psychology | 1,415 | 3,050 | 2,188 | 3,015 | 2,000 |
| Social and related sciences | 2,034 | 3,146 | 2,658 | 2,771 | 1,909 |
| Economics | 730 | 1,228 | 996 | 830 | 657 |
| Political and related sciences | 910 | 1,632 | 1,329 | 1,574 | 1,220 |
| Sociology/anthropology | 1,235 | 1,904 | 1,390 | 1,761 | 1,203 |
| Other social sciences | 815 | 1,352 | 1,095 | 1,009 | 719 |
| Engineering | 845 | 1,627 | 958 | 1,264 | 854 |
| Aerospace/aeronautical/astronautical engineering | 54 | 136 | 94 | 109 | 83 |
| Chemical engineering | 182 | 349 | 212 | 271 | 154 |
| Civil/architectural engineering | 182 | 497 | 311 | 427 | 269 |
| Electrical/computer engineering | 480 | 1,041 | 603 | 764 | 605 |
| Industrial engineering | 138 | 216 | 160 | 210 | 108 |
| Materials/metallurgical engineering | 450 | 295 | S | S | S |
| Mechanical engineering | 317 | 639 | 456 | 565 | 385 |
| Other engineering | 510 | 595 | 373 | 431 | 303 |
| Health | 1,316 | 4,273 | 3,106 | 4,819 | 4,216 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-24. Standard errors for amount owed for undergraduate and graduate loans by 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Did not owe | \$1-\$9,999 | \$10,000-\$24,999 | \$25,000 or more |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All fields | 2,906 | 4,783 | 2,535 | 2,706 | 3,608 |
| Sciences | 1,523 | 1,851 | 1,111 | 1,087 | 1,141 |
| Biological, agricultural, and environmental life sciences | 497 | 667 | 362 | 319 | 322 |
| Agricultural/food sciences | 370 | 350 | S | S | S |
| Biological sciences | 475 | 577 | 258 | 265 | 294 |
| Environmental life sciences | 323 | 268 | S | S | S |
| Computer and information sciences | 1,137 | 1,456 | S | S | S |
| Mathematics and statistics | 298 | 325 | S | S | S |
| Physical and related sciences | 151 | 285 | 170 | 192 | S |
| Chemistry, except biochemistry | 51 | 184 | S | S | S |
| Earth/atmospheric/ocean sciences | 170 | 196 | S | S | S |
| Physics/astronomy | 110 | 143 | S | S | S |
| Other physical sciences | S | S | S | S | S |
| Psychology | 412 | 943 | 688 | 740 | 815 |
| Social and related sciences | 626 | 739 | 386 | 455 | 449 |
| Economics | 265 | 319 | S | S | S |
| Political and related sciences | 386 | 429 | S | S | 297 |
| Sociology/anthropology | 191 | 297 | 212 | 186 | 217 |
| Other social sciences | 292 | 424 | S | 352 | S |
| Engineering | 669 | 874 | 580 | 376 | 206 |
| Aerospace/aeronautical/astronautical engineering | 49 | 72 | S | S | S |
| Chemical engineering | 101 | 146 | S | S | S |
| Civil/architectural engineering | 172 | 288 | 255 | S | S |
| Electrical/computer engineering | 416 | 524 | 404 | S | S |
| Industrial engineering | 208 | 255 | S | S | S |
| Materials/metallurgical engineering | 619 | S | S | S | S |
| Mechanical engineering | 208 | 292 | S | S | S |
| Other engineering | 671 | 692 | S | S | S |
| Health | 2,282 | 4,235 | 2,068 | 2,515 | 3,386 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-25. Standard errors for enrollment in college courses since most recent degree and enrollment status among 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | $\begin{gathered} \text { All } \\ \text { recipients } \\ \hline \end{gathered}$ | Taken additional college courses since most recent degree | Enrollment status October 1, 2003 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Full-time student | Part-time student | Not student |
| All fields | 3,149 | 6,799 | 5,802 | 3,979 | 6,502 |
| Sciences | 2,881 | 5,424 | 5,005 | 3,031 | 5,562 |
| Biological, agricultural, and environmental life sciences | 1,263 | 2,957 | 3,021 | 1,231 | 3,029 |
| Agricultural/food sciences | 1,170 | 667 | 619 | S | 985 |
| Biological sciences | 1,144 | 2,842 | 2,889 | 1,175 | 2,890 |
| Environmental life sciences | 1,152 | 466 | 355 | S | 1,060 |
| Computer and information sciences | 1,246 | 1,992 | 1,059 | 1,297 | 2,038 |
| Mathematics and statistics | 411 | 750 | 526 | 385 | 687 |
| Physical and related sciences | 551 | 750 | 750 | 330 | 729 |
| Chemistry, except biochemistry | 360 | 616 | 651 | S | 589 |
| Earth/atmospheric/ocean sciences | 854 | 426 | 239 | S | 696 |
| Physics/astronomy | 294 | 285 | 285 | S | 276 |
| Other physical sciences | 866 | S | S | S | 826 |
| Psychology | 1,415 | 3,057 | 2,653 | 1,717 | 2,738 |
| Social and related sciences | 2,034 | 2,608 | 2,269 | 1,461 | 2,869 |
| Economics | 730 | 1,058 | 799 | S | 1,070 |
| Political and related sciences | 910 | 1,621 | 1,606 | 857 | 1,675 |
| Sociology/anthropology | 1,235 | 1,708 | 1,243 | 992 | 1,869 |
| Other social sciences | 815 | 1,364 | 918 | 539 | 1,146 |
| Engineering | 845 | 1,632 | 1,197 | 804 | 1,597 |
| Aerospace/aeronautical/astronautical engineering | 54 | 167 | 133 | 74 | 140 |
| Chemical engineering | 182 | 345 | 306 | S | 337 |
| Civil/architectural engineering | 182 | 427 | 223 | 277 | 381 |
| Electrical/computer engineering | 480 | 1,091 | 742 | 610 | 1,018 |
| Industrial engineering | 138 | 219 | 169 | 98 | 208 |
| Materials/metallurgical engineering | 450 | 334 | S | S | 361 |
| Mechanical engineering | 317 | 666 | 580 | 365 | 749 |
| Other engineering | 510 | 564 | 465 | S | 532 |
| Health | 1,316 | 4,364 | 2,731 | S | 3,798 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-26. Standard errors for enrollment in college courses since most recent degree and enrollment status among 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Taken additional college courses since most recent degree | Enrollment status October 1, 2003 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Full-time student | Part-time student | Not student |
| All fields | 2,906 | 3,093 | 2,200 | 1,047 | 3,517 |
| Sciences | 1,523 | 1,804 | 1,735 | 762 | 2,279 |
| Biological, agricultural, and environmental life sciences | 497 | 588 | 520 | 253 | 617 |
| Agricultural/food sciences | 370 | 224 | S | S | 347 |
| Biological sciences | 475 | 492 | 451 | S | 547 |
| Environmental life sciences | 323 | S | S | S | 294 |
| Computer and information sciences | 1,137 | 1,020 | 889 | S | 1,626 |
| Mathematics and statistics | 298 | 322 | 278 | S | 329 |
| Physical and related sciences | 151 | 362 | 347 | S | 350 |
| Chemistry, except biochemistry | 51 | 273 | 254 | S | 260 |
| Earth/atmospheric/ocean sciences | 170 | 147 | S | S | 186 |
| Physics/astronomy | 110 | 145 | 162 | S | 159 |
| Other physical sciences | S | S | S | S | S |
| Psychology | 412 | 971 | 885 | 358 | 1,183 |
| Social and related sciences | 626 | 738 | 603 | S | 671 |
| Economics | 265 | 338 | 297 | S | 252 |
| Political and related sciences | 386 | 338 | S | S | 411 |
| Sociology/anthropology | 191 | 315 | 306 | S | 317 |
| Other social sciences | 292 | 458 | 369 | S | 447 |
| Engineering | 669 | 911 | 874 | 292 | 1,010 |
| Aerospace/aeronautical/astronautical engineering | 49 | 80 | S | S | 68 |
| Chemical engineering | 101 | 130 | 130 | S | 145 |
| Civil/architectural engineering | 172 | 278 | 216 | S | 282 |
| Electrical/computer engineering | 416 | 623 | 607 | S | 645 |
| Industrial engineering | 208 | 234 | S | S | 276 |
| Materials/metallurgical engineering | 619 | S | S | S | S |
| Mechanical engineering | 208 | 296 | 250 | S | 263 |
| Other engineering | 671 | 451 | 402 | S | 722 |
| Health | 2,282 | 2,062 | S | S | 2,509 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-27. Standard errors for likelihood of taking additional college courses among 2001 and 2002 S\&E bachelor's degree recipients who have not taken college courses since their most recent degree, by major field of degree: October 2003

| Major field | Total number not taking college courses since most recent | Likelihood will take additional college courses |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | degree | Very likely | Somewhat likely | Very unlikely |
| All fields | 6,985 | 7,560 | 6,402 | 3,257 |
| Sciences | 5,894 | 4,990 | 3,902 | 2,209 |
| Biological, agricultural, and environmental life sciences | 3,032 | 2,405 | 1,914 | 987 |
| Agricultural/food sciences | 925 | 450 | 531 | 571 |
| Biological sciences | 2,821 | 2,235 | 1,741 | S |
| Environmental life sciences | 953 | 684 | 451 | S |
| Computer and information sciences | 2,182 | 1,927 | 2,026 | 1,090 |
| Mathematics and statistics | 741 | 580 | 499 | 281 |
| Physical and related sciences | 690 | 518 | 479 | 263 |
| Chemistry, except biochemistry | 528 | 384 | 354 | S |
| Earth/atmospheric/ocean sciences | 584 | 368 | 257 | S |
| Physics/astronomy | 219 | 186 | 107 | S |
| Other physical sciences | 791 | S | S | S |
| Psychology | 2,938 | 2,771 | 2,109 | S |
| Social and related sciences | 3,016 | 2,918 | 2,168 | 1,389 |
| Economics | 1,243 | 993 | 788 | 509 |
| Political and related sciences | 1,624 | 1,663 | 1,120 | 750 |
| Sociology/anthropology | 1,980 | 1,792 | 1,316 | 976 |
| Other social sciences | 1,306 | 1,239 | 954 | 562 |
| Engineering | 1,710 | 1,540 | 1,149 | 750 |
| Aerospace/aeronautical/astronautical engineering | 149 | 159 | 75 | S |
| Chemical engineering | 363 | 337 | 256 | S |
| Civil/architectural engineering | 466 | 436 | 467 | 344 |
| Electrical/computer engineering | 1,106 | 1,034 | 654 | 439 |
| Industrial engineering | 222 | 254 | 193 | S |
| Materials/metallurgical engineering | S | S | S | S |
| Mechanical engineering | 731 | 564 | 593 | S |
| Other engineering | 566 | 476 | 462 | S |
| Health | 4,505 | 5,397 | 4,814 | 1,973 |

$S$ = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-28. Standard errors for likelihood of taking additional college courses among 2001 and 2002 S\&E master's degree recipients who have not taken college courses since their most recent degree, by major field of degree: October 2003

| Major field | Total number not taking college courses since most recent | Likelihood will take additional college courses |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | degree | Very likely | Somewhat likely | Very unlikely |
| All fields | 3,701 | 3,164 | 3,532 | 2,369 |
| Sciences | 2,031 | 1,400 | 1,654 | 1,065 |
| Biological, agricultural, and environmental life sciences | 545 | 426 | 438 | 338 |
| Agricultural/food sciences | 316 | S | S | S |
| Biological sciences | 477 | 329 | 360 | S |
| Environmental life sciences | 262 | S | S | S |
| Computer and information sciences | 1,475 | 758 | 1,167 | 659 |
| Mathematics and statistics | 339 | 166 | 246 | 233 |
| Physical and related sciences | 343 | 260 | 302 | 282 |
| Chemistry, except biochemistry | 272 | S | S | S |
| Earth/atmospheric/ocean sciences | 196 | S | 186 | S |
| Physics/astronomy | 118 | S | S | S |
| Other physical sciences | S | S | S | S |
| Psychology | 1,126 | 936 | 770 | 507 |
| Social and related sciences | 691 | 538 | 585 | 487 |
| Economics | 236 | S | S | S |
| Political and related sciences | 391 | 317 | 336 | 311 |
| Sociology/anthropology | 288 | 193 | S | S |
| Other social sciences | 478 | 340 | 374 | S |
| Engineering | 931 | 786 | 718 | 657 |
| Aerospace/aeronautical/astronautical engineering | 87 | 74 | S | S |
| Chemical engineering | 142 | S | 117 | S |
| Civil/architectural engineering | 312 | 254 | 272 | 189 |
| Electrical/computer engineering | 545 | 475 | 423 | 365 |
| Industrial engineering | 314 | 252 | 162 | S |
| Materials/metallurgical engineering | S | S | S | S |
| Mechanical engineering | 302 | 230 | 294 | S |
| Other engineering | 643 | 256 | 405 | 385 |
| Health | 2,898 | 2,796 | 3,070 | 2,239 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-29. Standard errors for type of degree or certificate sought by 2001 and 2002 S\&E bachelor's degree recipients who have taken college courses since most recent degree, by major field of degree: October 2003

| Major field | $\begin{gathered} \text { All } \\ \text { recipients } \\ \hline \end{gathered}$ | Took college courses between completing most recent degree and week of October 1, 2003 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total number who took courses | Type of degree or certificate sought |  |  |  |
|  |  |  | $\begin{gathered} \hline \text { Ph.D. or prof. } \\ \text { degree } \end{gathered}$ | Master's degree | Other degree or certificate | No degree or certificate |
| All fields | 3,149 | 6,799 | 3,171 | 6,506 | 3,910 | 3,180 |
| Sciences | 2,881 | 5,424 | 3,137 | 5,031 | 3,376 | 2,764 |
| Biological, agricultural, and environmental life sciences | 1,263 | 2,957 | 2,082 | 2,153 | 2,302 | 1,678 |
| Agricultural/food sciences | 1,170 | 667 | S | 308 | 400 | S |
| Biological sciences | 1,144 | 2,842 | 2,034 | 2,092 | 2,329 | 1,607 |
| Environmental life sciences | 1,152 | 466 | S | 303 | S | S |
| Computer and information sciences | 1,246 | 1,992 | S | 1,851 | 737 | 927 |
| Mathematics and statistics | 411 | 750 | 294 | 645 | 381 | 370 |
| Physical and related sciences | 551 | 750 | 564 | 473 | 592 | 419 |
| Chemistry, except biochemistry | 360 | 616 | 482 | 325 | 535 | 275 |
| Earth/atmospheric/ocean sciences | 854 | 426 | S | 269 | S | 180 |
| Physics/astronomy | 294 | 285 | 253 | 203 | S | 150 |
| Other physical sciences | 866 | S | S | S | S | S |
| Psychology | 1,415 | 3,057 | 1,413 | 3,065 | 1,658 | 1,389 |
| Social and related sciences | 2,034 | 2,608 | 978 | 2,029 | 2,004 | 1,676 |
| Economics | 730 | 1,058 | S | 661 | 652 | 755 |
| Political and related sciences | 910 | 1,621 | S | 1,192 | 1,535 | 728 |
| Sociology/anthropology | 1,235 | 1,708 | S | 1,474 | 1,103 | 1,070 |
| Other social sciences | 815 | 1,364 | S | 929 | 694 | 860 |
| Engineering | 845 | 1,632 | 618 | 1,288 | 478 | 613 |
| Aerospace/aeronautical/astronautical engineering | 54 | 167 | S | 138 | S | S |
| Chemical engineering | 182 | 345 | 190 | 247 | 195 | 181 |
| Civil/architectural engineering | 182 | 427 | S | 374 | S | S |
| Electrical/computer engineering | 480 | 1,091 | S | 941 | S | 447 |
| Industrial engineering | 138 | 219 | S | 195 | S | S |
| Materials/metallurgical engineering | 450 | 334 | S | S | S | S |
| Mechanical engineering | 317 | 666 | 299 | 556 | S | 262 |
| Other engineering | 510 | 564 | S | 390 | S | S |
| Health | 1,316 | 4,364 | S | 4,126 | 1,698 | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-30. Standard errors for type of degree or certificate sought by 2001 and 2002 S\&E master's degree recipients who have taken college courses since most recent degree, by major field of degree: October 2003

| Major field | All recipients | Took college courses between completing most recent degree and week of October 1, 2003 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total number who took courses | Type of degree or certificate sought |  |  |  |
|  |  |  | $\begin{gathered} \text { Ph.D. or prof. } \\ \text { degree } \\ \hline \end{gathered}$ | Master's degree | Other degree or certificate | No degree or certificate |
| All fields | 2,906 | 3,093 | 2,172 | 1,452 | 1,171 | 1,841 |
| Sciences | 1,523 | 1,804 | 1,623 | 856 | 746 | 897 |
| Biological, agricultural, and environmental life sciences | 497 | 588 | 388 | S | 359 | 308 |
| Agricultural/food sciences | 370 | 224 | S | S | S | S |
| Biological sciences | 475 | 492 | 357 | S | 349 | 287 |
| Environmental life sciences | 323 | S | S | S | S | S |
| Computer and information sciences | 1,137 | 1,020 | 648 | 615 | S | S |
| Mathematics and statistics | 298 | 322 | 292 | S | S | S |
| Physical and related sciences | 151 | 362 | 350 | 181 | S | 199 |
| Chemistry, except biochemistry | 51 | 273 | S | S | S | S |
| Earth/atmospheric/ocean sciences | 170 | 147 | S | S | S | S |
| Physics/astronomy | 110 | 145 | 157 | S | S | S |
| Other physical sciences | S | S | S | S | S | S |
| Psychology | 412 | 971 | 937 | S | S | 472 |
| Social and related sciences | 626 | 738 | 599 | 352 | S | 320 |
| Economics | 265 | 338 | 264 | S | S | S |
| Political and related sciences | 386 | 338 | S | S | S | S |
| Sociology/anthropology | 191 | 315 | 358 | S | S | S |
| Other social sciences | 292 | 458 | 367 | S | S | S |
| Engineering | 669 | 911 | 869 | 500 | 250 | 661 |
| Aerospace/aeronautical/astronautical engineering | 49 | 80 | S | S | S | S |
| Chemical engineering | 101 | 130 | 134 | S | S | S |
| Civil/architectural engineering | 172 | 278 | 215 | S | S | S |
| Electrical/computer engineering | 416 | 623 | 528 | S | S | 532 |
| Industrial engineering | 208 | 234 | S | S | S | S |
| Materials/metallurgical engineering | 619 | S | S | S | S | S |
| Mechanical engineering | 208 | 296 | 257 | S | S | S |
| Other engineering | 671 | 451 | 388 | S | S | S |
| Health | 2,282 | 2,062 | S | S | S | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-31. Standard errors for sex and race/ethnicity of 2001 and 2002 S\&E bachelor's degree recipients who have taken college courses since most recent degree, by major field of degree: October 2003

|  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-32. Standard errors for sex and race/ethnicity of 2001 and 2002 S\&E master's degree recipients who have taken college courses since most recent degree, by major field of degree: October 2003

| Major field |  Total number <br> who took courses  <br> All since most <br> recipients recent degree |  | Sex |  | Race/ethnicity |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Asian or Pacific Islander | Underrepresented minority | White, nonHispanic |
|  |  |  | Male |  |  | Female |
| All fields | 2,906 | 3,093 |  | 2,046 | 2,293 | 1,941 | 862 | 2,388 |
| Sciences | 1,523 | 1,804 | 1,209 | 1,298 | 1,497 | 488 | 1,197 |
| Biological, agricultural, and environmental life sciences | 497 | 588 | 412 | 468 | S | 228 | 475 |
| Agricultural/food sciences | 370 | 224 | S | S | S | S | S |
| Biological sciences | 475 | 492 | 332 | 402 | S | 218 | 406 |
| Environmental life sciences | 323 | S | S | S | S | S | S |
| Computer and information sciences | 1,137 | 1,020 | 647 | 756 | 941 | S | S |
| Mathematics and statistics | 298 | 322 | 292 | 173 | S | 54 | 209 |
| Physical and related sciences | 151 | 362 | 345 | 227 | 292 | 143 | 315 |
| Chemistry, except biochemistry | 51 | 273 | S | S | S | S | S |
| Earth/atmospheric/ocean sciences | 170 | 147 | S | S | S | S | S |
| Physics/astronomy | 110 | 145 | 169 | 113 | 162 | S | 175 |
| Other physical sciences | S | S | S | S | S | S | S |
| Psychology | 412 | 971 | 650 | 934 | S | 322 | 855 |
| Social and related sciences | 626 | 738 | 567 | 540 | 503 | 277 | 544 |
| Economics | 265 | 338 | 237 | 231 | S | S | 158 |
| Political and related sciences | 386 | 338 | S | S | S | S | S |
| Sociology/anthropology | 191 | 315 | 290 | 277 | S | 166 | 294 |
| Other social sciences | 292 | 458 | S | 326 | S | S | 400 |
| Engineering | 669 | 911 | 833 | 503 | 864 | 271 | 500 |
| Aerospace/aeronautical/astronautical engineering | 49 | 80 | S | S | S | S | S |
| Chemical engineering | 101 | 130 | 134 | S | S | S | S |
| Civil/architectural engineering | 172 | 278 | 271 | S | S | S | 195 |
| Electrical/computer engineering | 416 | 623 | 547 | S | 609 | S | 255 |
| Industrial engineering | 208 | 234 | S | S | S | S | S |
| Materials/metallurgical engineering | 619 | S | S | S | S | S | S |
| Mechanical engineering | 208 | 296 | 284 | S | S | S | S |
| Other engineering | 671 | 451 | 396 | S | 383 | S | 284 |
| Health | 2,282 | 2,062 | S | 1,835 | S | S | 2,133 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-33. Standard errors for educational activity since degree completion among 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All recipients |  | Did not complete degree but took college courses |  | Did not take college courses |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Completed additional degree | In degree program | Not in a degree program |  |
| All fields | 3,149 | 1,006 | 7,142 | 2,949 | 6,985 |
| Sciences | 2,881 | 895 | 5,666 | 2,664 | 5,894 |
| Biological, agricultural, and environmental life sciences | 1,263 | S | 2,991 | 1,661 | 3,032 |
| Agricultural/food sciences | 1,170 | S | 649 | S | 925 |
| Biological sciences | 1,144 | S | 2,872 | 1,589 | 2,821 |
| Environmental life sciences | 1,152 | S | 391 | S | 953 |
| Computer and information sciences | 1,246 | S | 1,920 | 913 | 2,182 |
| Mathematics and statistics | 411 | S | 689 | 361 | 741 |
| Physical and related sciences | 551 | S | 690 | 409 | 690 |
| Chemistry, except biochemistry | 360 | S | 586 | 275 | 528 |
| Earth/atmospheric/ocean sciences | 854 | S | 351 | 180 | 584 |
| Physics/astronomy | 294 | S | 265 | 129 | 219 |
| Other physical sciences | 866 | S | S | S | 791 |
| Psychology | 1,415 | S | 3,209 | 1,328 | 2,938 |
| Social and related sciences | 2,034 | S | 2,437 | 1,582 | 3,016 |
| Economics | 730 | S | 916 | 755 | 1,243 |
| Political and related sciences | 910 | S | 1,625 | 717 | 1,624 |
| Sociology/anthropology | 1,235 | S | 1,453 | 994 | 1,980 |
| Other social sciences | 815 | S | 1,187 | 806 | 1,306 |
| Engineering | 845 | 237 | 1,532 | 637 | 1,710 |
| Aerospace/aeronautical/astronautical engineering | 54 | S | 150 | S | 149 |
| Chemical engineering | 182 | S | 326 | 178 | 363 |
| Civil/architectural engineering | 182 | S | 405 | S | 466 |
| Electrical/computer engineering | 480 | S | 1,012 | 461 | 1,106 |
| Industrial engineering | 138 | S | 207 | S | 222 |
| Materials/metallurgical engineering | 450 | S | S | S | S |
| Mechanical engineering | 317 | S | 670 | 258 | 731 |
| Other engineering | 510 | S | 554 | S | 566 |
| Health | 1,316 | S | 4,207 | S | 4,505 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-34. Standard errors for educational activity between degree completion and the survey reference week among 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | $\begin{gathered} \text { All } \\ \text { recipients } \end{gathered}$ | Completed additional degree | Did not complete degree but took college courses |  | Did not take collegecourses |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | In degree program | Not in a degree program |  |
| All fields | 2,906 | 422 | 2,748 | 1,822 | 3,701 |
| Sciences | 1,523 | S | 1,758 | 871 | 2,031 |
| Biological, agricultural, and environmental life sciences | 497 | S | 556 | 289 | 545 |
| Agriculturalfood sciences | 370 | S | S | S | 316 |
| Biological sciences | 475 | S | 484 | 267 | 477 |
| Environmental life sciences | 323 | S | S | S | 262 |
| Computer and information sciences | 1,137 | S | 842 | S | 1,475 |
| Mathematics and statistics | 298 | S | 310 | S | 339 |
| Physical and related sciences | 151 | S | 353 | S | 343 |
| Chemistry, except biochemistry | 51 | S | 253 | S | 272 |
| Earth/atmospheric/ocean sciences | 170 | S | S | S | 196 |
| Physics/astronomy | 110 | S | 157 | S | 118 |
| Other physical sciences | S | S | S | S | S |
| Psychology | 412 | S | 1,026 | 474 | 1,126 |
| Social and related sciences | 626 | S | 724 | 291 | 691 |
| Economics | 265 | S | 311 | S | 236 |
| Political and related sciences | 386 | S | 278 | S | 391 |
| Sociology/anthropology | 191 | S | 371 | S | 288 |
| Other social sciences | 292 | S | 438 | S | 478 |
| Engineering | 669 | S | 920 | 646 | 931 |
| Aerospace/aeronautical/astronautical engineering | 49 | S | 73 | S | 87 |
| Chemical engineering | 101 | S | 137 | S | 142 |
| Civil/architectural engineering | 172 | S | 258 | S | 312 |
| Electrical/computer engineering | 416 | S | 586 | 510 | 545 |
| Industrial engineering | 208 | S | S | S | 314 |
| Materials/metallurgical engineering | 619 | S | S | S | S |
| Mechanical engineering | 208 | S | 287 | S | 302 |
| Other engineering | 671 | S | 398 | S | 643 |
| Health | 2,282 | S | 1,653 | S | 2,898 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-35. Standard errors for selected employment characteristics of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Employed |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Counting all jobs |  | Principal job only |  |
|  |  | Total | Full time | Part time | Full time | Part time |
| All fields | 3,149 | 5,948 | 6,739 | 4,175 | 7,356 | 4,953 |
| Sciences | 2,881 | 5,627 | 6,366 | 3,532 | 6,490 | 3,689 |
| Biological, agricultural, and environmental life sciences | 1,263 | 2,622 | 2,945 | 1,827 | 2,924 | 1,880 |
| Agricultural/food sciences | 1,170 | 1,106 | 1,041 | 372 | 997 | 439 |
| Biological sciences | 1,144 | 2,592 | 2,865 | 1,800 | 2,837 | 1,835 |
| Environmental life sciences | 1,152 | 968 | 958 | S | 949 | S |
| Computer and information sciences | 1,246 | 1,516 | 1,882 | 1,066 | 1,990 | 1,201 |
| Mathematics and statistics | 411 | 537 | 649 | 450 | 659 | 473 |
| Physical and related sciences | 551 | 809 | 786 | 564 | 790 | 564 |
| Chemistry, except biochemistry | 360 | 592 | 605 | 410 | 609 | 416 |
| Earth/atmospheric/ocean sciences | 854 | 919 | 778 | 223 | 778 | 223 |
| Physics/astronomy | 294 | 317 | 269 | 231 | 269 | 224 |
| Other physical sciences | 866 | 846 | 849 | S | 847 | S |
| Psychology | 1,415 | 2,321 | 3,151 | 2,137 | 3,233 | 2,250 |
| Social and related sciences | 2,034 | 2,955 | 3,132 | 2,210 | 3,328 | 2,428 |
| Economics | 730 | 1,087 | 1,119 | 539 | 1,053 | 602 |
| Political and related sciences | 910 | 1,478 | 1,656 | 1,381 | 1,683 | 1,438 |
| Sociology/anthropology | 1,235 | 1,525 | 1,902 | 1,481 | 1,857 | 1,503 |
| Other social sciences | 815 | 1,220 | 1,443 | 871 | 1,531 | 958 |
| Engineering | 845 | 1,294 | 1,505 | 794 | 1,566 | 823 |
| Aerospace/aeronautical/astronautical engineering | 54 | 78 | 133 | 108 | 130 | 107 |
| Chemical engineering | 182 | 314 | 328 | S | 329 | S |
| Civil/architectural engineering | 182 | 341 | 406 | S | 406 | S |
| Electrical/computer engineering | 480 | 749 | 854 | 470 | 897 | 509 |
| Industrial engineering | 138 | 177 | 199 | 126 | 203 | 130 |
| Materials/metallurgical engineering | 450 | 466 | 391 | S | 391 | S |
| Mechanical engineering | 317 | 449 | 623 | 429 | 635 | 435 |
| Other engineering | 510 | 560 | 551 | S | 559 | 209 |
| Health | 1,316 | 3,171 | 3,981 | 2,621 | 4,138 | 2,855 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-36. Standard errors for selected employment characteristics of 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All recipients | Employed |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Counting all jobs |  | Principal job only |  |
|  |  | Total | Full time | Part time | Full time | Part time |
| All fields | 2,906 | 3,491 | 3,951 | 2,797 | 4,202 | 3,197 |
| Sciences | 1,523 | 1,668 | 1,794 | 1,394 | 1,773 | 1,431 |
| Biological, agricultural, and environmental life sciences | 497 | 601 | 542 | 316 | 536 | 355 |
| Agricultural/food sciences | 370 | 361 | 333 | S | 333 | S |
| Biological sciences | 475 | 516 | 470 | 323 | 463 | 338 |
| Environmental life sciences | 323 | 271 | 251 | S | 251 | S |
| Computer and information sciences | 1,137 | 1,151 | 1,206 | S | 1,207 | S |
| Mathematics and statistics | 298 | 355 | 356 | 182 | 360 | 186 |
| Physical and related sciences | 151 | 297 | 337 | 217 | 347 | 244 |
| Chemistry, except biochemistry | 51 | 225 | 248 | S | 248 | S |
| Earth/atmospheric/ocean sciences | 170 | 175 | 179 | S | 181 | S |
| Physics/astronomy | 110 | 129 | 164 | S | 181 | 134 |
| Other physical sciences | S | S | S | S | S | S |
| Psychology | 412 | 591 | 1,205 | 945 | 1,205 | 936 |
| Social and related sciences | 626 | 667 | 693 | 528 | 727 | 542 |
| Economics | 265 | 254 | 242 | 252 | 242 | 252 |
| Political and related sciences | 386 | 462 | 469 | S | 469 | S |
| Sociology/anthropology | 191 | 291 | 330 | 262 | 321 | 264 |
| Other social sciences | 292 | 392 | 362 | 284 | 375 | 322 |
| Engineering | 669 | 837 | 874 | 629 | 880 | 625 |
| Aerospace/aeronautical/astronautical engineering | 49 | 58 | 73 | S | 73 | S |
| Chemical engineering | 101 | 125 | 141 | S | 141 | S |
| Civil/architectural engineering | 172 | 227 | 259 | S | 259 | S |
| Electrical/computer engineering | 416 | 539 | 626 | 444 | 631 | 444 |
| Industrial engineering | 208 | 230 | 237 | S | 237 | S |
| Materials/metallurgical engineering | 619 | 616 | S | S | S | S |
| Mechanical engineering | 208 | 311 | 317 | S | 321 | S |
| Other engineering | 671 | 656 | 668 | S | 668 | S |
| Health | 2,282 | 2,816 | 3,370 | S | 3,642 | 2,578 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-37. Standard errors for labor force status of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All recipients | In labor force |  |  | Not in labor force |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Employed | Unemployed ${ }^{\text {a }}$ |  |
| All fields | 3,149 | 5,464 | 5,948 | 2,840 | 4,708 |
| Sciences | 2,881 | 5,051 | 5,627 | 2,396 | 3,888 |
| Biological, agricultural, and environmental life sciences | 1,263 | 2,554 | 2,622 | 1,086 | 2,454 |
| Computer and information sciences | 1,246 | 1,580 | 1,516 | 771 | S |
| Mathematics and statistics | 411 | 513 | 537 | S | 357 |
| Physical and related sciences | 551 | 724 | 809 | 356 | 550 |
| Psychology | 1,415 | 1,927 | 2,321 | 1,493 | 1,741 |
| Social sciences | 2,034 | 2,754 | 2,955 | 1,479 | 1,938 |
| Engineering | 845 | 1,121 | 1,294 | 694 | 832 |
| Health | 1,316 | 3,000 | 3,171 | S | 2,871 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
$S \& E=$ science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-38. Standard errors for labor force status of 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All recipients | In labor force |  |  | Not in labor force |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Employed | Unemployed |  |
| All fields | 2,906 | 3,069 | 3,491 | 1,557 | 1,944 |
| Sciences | 1,523 | 1,458 | 1,668 | 800 | 1,016 |
| Biological, agricultural, and environmental life sciences | 497 | 597 | 601 | S | 327 |
| Computer and information sciences | 1,137 | 977 | 1,151 | 700 | S |
| Mathematics and statistics | 298 | 357 | 355 | S | 263 |
| Physical and related sciences | 151 | 243 | 297 | S | 214 |
| Psychology | 412 | 607 | 591 | S | S |
| Social sciences | 626 | 661 | 667 | 229 | 477 |
| Engineering | 669 | 725 | 837 | 455 | 522 |
| Health | 2,282 | 2,483 | 2,816 | S | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
$S \& E=$ science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-39. Standard errors for labor force status of 2001 and 2002 S\&E bachelor's degree recipients not studying full time, by major field of degree: October 2003

| Major field | Not studying | In labor force |  |  | Not in labor force |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | full time | Total | Employed | Unemployed |  |
| All fields | 4,511 | 6,252 | 6,432 | 2,837 | 4,733 |
| Sciences | 4,077 | 5,483 | 5,749 | 2,407 | 3,746 |
| Biological, agricultural, and environmental life sciences | 1,846 | 2,686 | 2,724 | 1,057 | 2,454 |
| Computer and information sciences | 1,655 | 1,821 | 1,635 | 759 | S |
| Mathematics and statistics | 553 | 597 | 630 | S | 358 |
| Physical and related sciences | 661 | 759 | 833 | 351 | 532 |
| Psychology | 2,110 | 2,227 | 2,430 | 1,414 | 1,636 |
| Social sciences | 2,371 | 2,989 | 3,174 | 1,450 | 1,912 |
| Engineering | 1,076 | 1,302 | 1,447 | 657 | 810 |
| Health | 2,816 | 3,522 | 3,660 | S | 2,593 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-40. Standard errors for labor force status of 2001 and 2002 S\&E master's degree recipients not studying full time, by major field of degree: October 2003

| Major field | Not studying full time | In labor force |  |  | Not in labor force |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Employed | Unemployed |  |
| All fields | 2,965 | 2,973 | 3,438 | 1,549 | 1,946 |
| Sciences | 1,715 | 1,541 | 1,727 | 784 | 1,025 |
| Biological, agricultural, and environmental life sciences | 494 | 580 | 575 | S | 329 |
| Computer and information sciences | 1,290 | 1,043 | 1,220 | 694 | S |
| Mathematics and statistics | 323 | 370 | 368 | S | 263 |
| Physical and related sciences | 200 | 273 | 313 | S | 214 |
| Psychology | 596 | 657 | 631 | S | S |
| Social sciences | 701 | 732 | 749 | S | 477 |
| Engineering | 720 | 770 | 861 | 454 | 520 |
| Health | 2,320 | 2,449 | 2,787 | S | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-41. Standard errors for labor force status of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree and sex: October 2003

| Major field and sex | $\begin{gathered} \text { All } \\ \text { recipients } \end{gathered}$ | In labor force |  |  | Not in labor force |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Employed | Unemployed |  |
| All fields | 3,149 | 5,464 | 5,948 | 2,840 | 4,708 |
| Sciences | 2,881 | 5,051 | 5,627 | 2,396 | 3,888 |
| Male | 2,435 | 3,370 | 3,646 | 1,697 | 2,610 |
| Female | 2,400 | 3,885 | 4,304 | 1,776 | 3,022 |
| Biological, agricultura, and environmental life sciences | 1,263 | 2,554 | 2,622 | 1,086 | 2,454 |
| Male | 2,528 | 2,113 | 2,145 | S | 1,988 |
| Female | 2,655 | 2,735 | 2,771 | 856 | 1,864 |
| Computer and information sciences | 1,246 | 1,580 | 1,516 | 771 | S |
| Male | 2,022 | 2,112 | 2,002 | 709 | S |
| Female | 1,530 | 1,418 | 1,367 | S | S |
| Mathematics and statistics | 411 | 513 | 537 | S | 357 |
| Male | 644 | 635 | 607 | S | 269 |
| Female | 610 | 598 | 586 | S | 230 |
| Physical and related sciences | 551 | 724 | 809 | 356 | 550 |
| Male | 749 | 727 | 763 | S | 379 |
| Female | 760 | 771 | 789 | 200 | 405 |
| Psychology | 1,415 | 1,927 | 2,321 | 1,493 | 1,741 |
| Male | 2,458 | 2,309 | 2,135 | S | S |
| Female | 2,726 | 2,785 | 2,896 | 1,221 | 1,643 |
| Social sciences | 2,034 | 2,754 | 2,955 | 1,479 | 1,938 |
| Male | 2,764 | 2,664 | 2,452 | 1,104 | 1,339 |
| Female | 2,803 | 2,967 | 3,020 | 854 | 1,497 |
| Engineering | 845 | 1,121 | 1,294 | 694 | 832 |
| Male | 1,282 | 1,289 | 1,326 | 624 | 802 |
| Female | 1,058 | 1,041 | 1,030 | 306 | 343 |
| Health | 1,316 | 3,000 | 3,171 | S | 2,871 |
| Male | 781 | 917 | 933 | S | S |
| Female | 1,244 | 3,124 | 3,279 | S | 2,924 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-42. Standard errors for labor force status of 2001 and 2002 S\&E master's degree recipients, by major field of degree and sex: October 2003

| Major field and sex | $\begin{gathered} \hline \text { All } \\ \text { recipients } \\ \hline \end{gathered}$ | In labor force |  |  | Not in labor force |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Employed | Unemployed |  |
| All fields | 2,906 | 3,069 | 3,491 | 1,557 | 1,944 |
| Sciences | 1,523 | 1,458 | 1,668 | 800 | 1,016 |
| Male | 1,110 | 1,105 | 1,202 | 513 | 689 |
| Female | 1,243 | 1,250 | 1,314 | 470 | 718 |
| Biological, agricultural, and environmental life sciences | 497 | 597 | 601 | S | 327 |
| Male | 500 | 480 | 480 | S | S |
| Female | 557 | 572 | 555 | S | 241 |
| Computer and information sciences | 1,137 | 977 | 1,151 | 700 | S |
| Male | 1,247 | 961 | 1,109 | S | S |
| Female | 918 | 836 | 807 | S | S |
| Mathematics and statistics | 298 | 357 | 355 | S | 263 |
| Male | 330 | 335 | 329 | S | S |
| Female | 241 | 224 | 220 | S | S |
| Physical and related sciences | 151 | 243 | 297 | S | 214 |
| Male | 345 | 363 | 381 | S | S |
| Female | 324 | 317 | 308 | S | S |
| Psychology | 412 | 607 | 591 | S | S |
| Male | 808 | 786 | 786 | S | S |
| Female | 933 | 987 | 961 | S | S |
| Social sciences | 626 | 661 | 667 | 229 | 477 |
| Male | 727 | 707 | 690 | S | 316 |
| Female | 676 | 609 | 627 | S | 423 |
| Engineering | 669 | 725 | 837 | 455 | 522 |
| Male | 930 | 904 | 950 | 372 | 477 |
| Female | 647 | 620 | 636 | S | 208 |
| Health | 2,282 | 2,483 | 2,816 | S | S |
| Male | 839 | 839 | 839 | S | S |
| Female | 2,162 | 2,452 | 2,581 | S | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-43. Standard errors for labor force status of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree and race/ethnicity: October 2003

| Major field and race/ethnicity | $\begin{gathered} \text { All } \\ \text { recipients } \end{gathered}$ | In labor force |  |  | Not in labor force |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Employed | Unemployed |  |
| All science and engineering fields | 3,149 | 5,464 | 5,948 | 2,840 | 4,708 |
| Sciences | 2,881 | 5,051 | 5,627 | 2,396 | 3,888 |
| Asian | 2,378 | 2,467 | 2,409 | 628 | 1,883 |
| Underrepresented minority | 1,525 | 1,698 | 1,609 | 926 | 1,090 |
| White, non-Hispanic | 2,895 | 4,429 | 4,750 | 2,049 | 3,461 |
| Other | 1,877 | 1,624 | 1,549 | S | S |
| Biological, agricultural, and environmental life sciences | 1,263 | 2,554 | 2,622 | 1,086 | 2,454 |
| Asian | 1,986 | 1,873 | 1,704 | S | 1,502 |
| Underrepresented minority | 1,603 | 1,378 | 1,289 | S | 764 |
| White, non-Hispanic | 2,492 | 2,403 | 2,520 | 974 | 2,062 |
| Other | 1,132 | S | S | S | S |
| Computer and information sciences | 1,246 | 1,580 | 1,516 | 771 | S |
| Asian | 1,938 | 1,933 | 1,821 | S | S |
| Underrepresented minority | 1,569 | 1,565 | 1,313 | S | S |
| White, non-Hispanic | 2,422 | 2,555 | 2,500 | S | S |
| Other | S | S | S | S | S |
| Mathematics and related sciences | 411 | 513 | 537 | S | 357 |
| Asian | 571 | 546 | 554 | S | S |
| Underrepresented minority | 247 | 252 | 247 | S | S |
| White, non-Hispanic | 731 | 746 | 752 | S | 251 |
| Other | S | S | S | S | S |
| Physical and related sciences | 551 | 724 | 809 | 356 | 550 |
| Asian | 587 | 473 | 436 | S | S |
| Underrepresented minority | 378 | 360 | 354 | S | 164 |
| White, non-Hispanic | 810 | 760 | 794 | 278 | 433 |
| Other | 271 | 255 | 249 | S | S |
| Psychology | 1,415 | 1,927 | 2,321 | 1,493 | 1,741 |
| Asian | S | S | S | S | S |
| Underrepresented minority | 1,715 | 1,682 | 1,535 | S | 577 |
| White, non-Hispanic | 2,774 | 2,625 | 2,575 | S | 1,767 |
| Other | S | S | S | S | S |
| Social and related sciences | 2,034 | 2,754 | 2,955 | 1,479 | 1,938 |
| Asian | 2,103 | 1,726 | 1,593 | S | 1,124 |
| Underrepresented minority | 1,614 | 1,550 | 1,465 | 459 | 583 |
| White, non-Hispanic | 2,996 | 3,086 | 3,066 | 1,295 | 1,676 |
| Other | 1,218 | 1,172 | 1,070 | S | S |
| Engineering | 845 | 1,121 | 1,294 | 694 | 832 |
| Asian | 1,456 | 1,432 | 1,438 | S | 604 |
| Underrepresented minority | 908 | 824 | 760 | 170 | 202 |
| White, non-Hispanic | 1,640 | 1,715 | 1,717 | 509 | 496 |
| Other | 602 | 613 | 601 | S | S |

TABLE B-43. Standard errors for labor force status of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree and race/ethnicity: October 2003

| Major field and race/ethnicity | All recipients | In labor force |  |  | Not in labor force |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Employed | Unemployed |  |
| Health | 1,316 | 3,000 | 3,171 | S | 2,871 |
| Asian | S | S | S | S | S |
| Underrepresented minority | 2,998 | 2,938 | 2,906 | S | S |
| White, non-Hispanic | 3,905 | 3,940 | 3,858 | S | 2,735 |
| Other | S | S | S | S | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-44. Standard errors for labor force status of 2001 and 2002 S\&E master's degree recipients, by major field of degree and race/ethnicity: October 2003

| Major field and race/ethnicity | All recipients | In labor force |  |  | Not in labor force |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Employed | Unemployed |  |
| All science and engineering fields | 2,906 | 3,069 | 3,491 | 1,557 | 1,944 |
| Sciences | 1,523 | 1,458 | 1,668 | 800 | 1,016 |
| Asian | 1,648 | 1,326 | 1,490 | 709 | 864 |
| Underrepresented minority | 457 | 476 | 471 | S | 205 |
| White, non-Hispanic | 1,077 | 1,200 | 1,210 | 295 | 523 |
| Other | 501 | 454 | 442 | S | S |
| Biological, agricultural, and environmental life sciences | 497 | 597 | 601 | S | 327 |
| Asian | 557 | 489 | 482 | S | S |
| Underrepresented minority | 193 | 190 | 184 | S | S |
| White, non-Hispanic | 566 | 561 | 560 | S | 247 |
| Other | S | S | S | S | S |
| Computer and information sciences | 1,137 | 977 | 1,151 | 700 | S |
| Asian | 1,601 | 1,186 | 1,365 | S | S |
| Underrepresented minority | 317 | 305 | 256 | S | S |
| White, non-Hispanic | 772 | 741 | 696 | S | S |
| Other | S | S | S | S | S |
| Mathematics and related sciences | 298 | 357 | 355 | S | 263 |
| Asian | 357 | 321 | 326 | S | S |
| Underrepresented minority | 74 | 72 | 71 | S | S |
| White, non-Hispanic | 288 | 266 | 257 | S | S |
| Other | S | S | S | S | S |
| Physical and related sciences | 151 | 243 | 297 | S | 214 |
| Asian | 336 | 337 | 347 | S | S |
| Underrepresented minority | 151 | 150 | 150 | S | S |
| White, non-Hispanic | 339 | 323 | 326 | S | S |
| Other | S | S | S | S | S |
| Psychology | 412 | 607 | 591 | S | S |
| Asian | S | S | S | S | S |
| Underrepresented minority | 491 | 491 | 492 | S | S |
| White, non-Hispanic | 1,066 | 1,167 | 1,186 | S | S |
| Other | S | S | S | S | S |
| Social and related sciences | 626 | 661 | 667 | 229 | 477 |
| Asian | 658 | 567 | 522 | S | S |
| Underrepresented minority | 375 | 364 | 342 | S | S |
| White, non-Hispanic | 713 | 749 | 730 | S | 320 |
| Other | S | S | S | S | S |
| Engineering | 669 | 725 | 837 | 455 | 522 |
| Asian | 1,090 | 1,063 | 1,149 | S | 449 |
| Underrepresented minority | 314 | 301 | 282 | S | S |
| White, non-Hispanic | 847 | 812 | 810 | S | 241 |
| Other | 299 | 296 | S | S | S |

TABLE B-44. Standard errors for labor force status of 2001 and 2002 S\&E master's degree recipients, by major field of degree and race/ethnicity: October 2003

| Major field and race/ethnicity | All recipients | In labor force |  |  | Not in labor force |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Employed | Unemployed |  |
| Health | 2,282 | 2,483 | 2,816 | S | S |
| Asian | S | S | S | S | S |
| Underrepresented minority | 1,790 | 1,601 | 1,601 | S | S |
| White, non-Hispanic | 3,353 | 3,476 | 3,577 | S | S |
| Other | S | S | S | S | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-45. Standard errors for relation of occupation to field of degree among 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All employed | S\&E occupation |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Occupation in same broad field as degree | Occupation in different broad S\&E or S\&E-related field than degree | Non-S\&E occupation |
| All fields | 5,948 | 5,479 | 3,021 | 6,720 |
| Sciences | 5,627 | 3,655 | 3,024 | 5,952 |
| Biological, agricultural, and environmental life sciences | 2,622 | 1,984 | 2,055 | 2,648 |
| Agricultural/food sciences | 1,106 | 417 | 490 | 882 |
| Biological sciences | 2,592 | 1,948 | 2,012 | 2,603 |
| Environmental life sciences | 968 | 461 | 495 | 711 |
| Computer and information sciences | 1,516 | 2,398 | S | 2,074 |
| Mathematics and statistics | 537 | 388 | 432 | 632 |
| Physical and related sciences | 809 | 679 | 633 | 643 |
| Chemistry, except biochemistry | 592 | 510 | 485 | 445 |
| Earth/atmospheric/ocean sciences | 919 | 448 | 297 | 429 |
| Physics/astronomy | 317 | 257 | 198 | 221 |
| Other physical sciences | 846 | S | S | 745 |
| Psychology | 2,321 | S | 2,016 | 3,163 |
| Social and related sciences | 2,955 | 1,312 | 1,170 | 3,099 |
| Economics | 1,087 | 542 | 461 | 1,253 |
| Political and related sciences | 1,478 | 848 | S | 1,552 |
| Sociology/anthropology | 1,525 | 824 | 712 | 1,688 |
| Other social sciences | 1,220 | S | 656 | 1,308 |
| Engineering | 1,294 | 1,458 | 833 | 1,096 |
| Aerospace/aeronautical/astronautical engineering | 78 | 163 | S | 157 |
| Chemical engineering | 314 | 332 | S | 211 |
| Civil/architectural engineering | 341 | 453 | S | 358 |
| Electrical/computer engineering | 749 | 905 | 613 | 733 |
| Industrial engineering | 177 | 236 | S | 217 |
| Materials/metallurgical engineering | 466 | 398 | S | S |
| Mechanical engineering | 449 | 541 | S | 493 |
| Other engineering | 560 | 572 | 361 | 368 |
| Health | 3,171 | 3,789 | S | 2,558 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-46. Standard errors for relation of occupation to field of degree among 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All employed | S\&E occupation |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Occupation in same broad field as degree | Occupation in different broad S\&E or S\&E-related field than degree | Non-S\&E occupation |
| All fields | 3,491 | 4,273 | 1,716 | 3,239 |
| Sciences | 1,668 | 1,784 | 1,006 | 1,650 |
| Biological, agricultural, and environmental life sciences | 601 | 638 | 405 | 414 |
| Agricultural/food sciences | 361 | 330 | S | S |
| Biological sciences | 516 | 539 | 354 | 334 |
| Environmental life sciences | 271 | S | S | S |
| Computer and information sciences | 1,151 | 1,061 | 737 | 637 |
| Mathematics and statistics | 355 | 335 | S | 193 |
| Physical and related sciences | 297 | 351 | 307 | 256 |
| Chemistry, except biochemistry | 225 | 271 | S | S |
| Earth/atmospheric/ocean sciences | 175 | 200 | S | S |
| Physics/astronomy | 129 | 170 | S | S |
| Other physical sciences | S | S | S | S |
| Psychology | 591 | 1,099 | S | 1,218 |
| Social and related sciences | 667 | 490 | 411 | 741 |
| Economics | 254 | 255 | S | 240 |
| Political and related sciences | 462 | S | S | 462 |
| Sociology/anthropology | 291 | 245 | S | 302 |
| Other social sciences | 392 | S | S | 463 |
| Engineering | 837 | 981 | 693 | 539 |
| Aerospace/aeronautical/astronautical engineering | 58 | 75 | S | S |
| Chemical engineering | 125 | 144 | S | S |
| Civil/architectural engineering | 227 | 261 | S | S |
| Electrical/computer engineering | 539 | 649 | 538 | S |
| Industrial engineering | 230 | 265 | S | S |
| Materials/metallurgical engineering | 616 | S | S | S |
| Mechanical engineering | 311 | 331 | S | S |
| Other engineering | 656 | 601 | 345 | 279 |
| Health | 2,816 | 3,584 | S | 2,571 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-47. Standard errors for satisfaction with selected job factors among employed 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All employed | Very satisfied or somewhat satisfied with job factor |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Benefits | Contribution to society | Degree of independence | Intellectual challenge | $\begin{gathered} \text { Job } \\ \text { security } \end{gathered}$ | Level of responsibility | Location | Opportunities for advancement | Salary |
| All fields | 5,948 | 9,170 | 6,732 | 6,255 | 7,445 | 7,138 | 6,530 | 7,019 | 8,172 | 7,471 |
| Sciences | 5,627 | 6,740 | 5,945 | 5,598 | 6,233 | 5,776 | 5,810 | 5,778 | 5,769 | 5,828 |
| Biological, agricultural, and environmental life sciences | 2,622 | 3,036 | 2,835 | 2,766 | 2,830 | 2,881 | 2,723 | 2,787 | 3,025 | 2,606 |
| Agricultural/food sciences | 1,106 | 887 | 1,083 | 1,117 | 1,032 | 990 | 1,090 | 998 | 974 | 989 |
| Biological sciences | 2,592 | 3,027 | 2,789 | 2,668 | 2,720 | 2,824 | 2,609 | 2,795 | 2,919 | 2,601 |
| Environmental life sciences | 968 | 796 | 897 | 919 | 821 | 786 | 947 | 945 | 693 | 768 |
| Computer and information sciences | 1,516 | 1,984 | 2,006 | 1,745 | 1,882 | 1,625 | 1,801 | 1,946 | 1,881 | 1,702 |
| Mathematics and statistics | 537 | 691 | 625 | 631 | 635 | 748 | 622 | 617 | 681 | 672 |
| Physical and related sciences | 809 | 775 | 888 | 888 | 783 | 971 | 825 | 948 | 1,044 | 814 |
| Chemistry, except biochemistry | 592 | 568 | 637 | 615 | 621 | 664 | 597 | 684 | 655 | 600 |
| Earth/atmospheric/ocean sciences | 919 | 632 | 757 | 832 | 697 | 750 | 831 | 827 | 678 | 649 |
| Physics/astronomy | 317 | 254 | 329 | 354 | 322 | 325 | 334 | 304 | 311 | 277 |
| Other physical sciences | 846 | 615 | 557 | 674 | 577 | 508 | 628 | 632 | 447 | 521 |
| Psychology | 2,321 | 3,003 | 2,730 | 2,537 | 3,084 | 2,605 | 2,737 | 2,404 | 2,543 | 2,693 |
| Social and related sciences | 2,955 | 3,557 | 3,339 | 3,209 | 3,369 | 3,163 | 3,157 | 3,263 | 2,979 | 3,284 |
| Economics | 1,087 | 1,245 | 1,100 | 1,244 | 1,068 | 1,161 | 1,082 | 1,329 | 1,071 | 1,183 |
| Political and related sciences | 1,478 | 1,712 | 1,537 | 1,640 | 1,500 | 1,620 | 1,534 | 1,633 | 1,559 | 1,450 |
| Sociology/anthropology | 1,525 | 1,813 | 1,675 | 1,765 | 1,896 | 1,847 | 1,652 | 1,747 | 1,940 | 1,897 |
| Other social sciences | 1,220 | 1,580 | 1,497 | 1,319 | 1,529 | 1,393 | 1,353 | 1,351 | 1,258 | 1,303 |
| Engineering | 1,294 | 1,456 | 1,457 | 1,423 | 1,429 | 1,491 | 1,346 | 1,427 | 1,500 | 1,487 |
| Aerospace/aeronautical/astronautical engineering | 78 | 102 | 124 | 84 | 128 | 90 | 105 | 110 | 119 | 118 |
| Chemical engineering | 314 | 320 | 337 | 316 | 328 | 347 | 361 | 369 | 336 | 330 |
| Civil/architectural engineering | 341 | 413 | 452 | 367 | 438 | 393 | 378 | 380 | 485 | 402 |
| Electrical/computer engineering | 749 | 910 | 868 | 878 | 858 | 891 | 816 | 838 | 976 | 882 |
| Industrial engineering | 177 | 213 | 224 | 199 | 225 | 190 | 196 | 210 | 242 | 214 |
| Materials/metallurgical engineering | 466 | 374 | 436 | 403 | 418 | 428 | 453 | 414 | S | 366 |
| Mechanical engineering | 449 | 517 | 466 | 508 | 562 | 507 | 477 | 597 | 518 | 515 |
| Other engineering | 560 | 607 | 603 | 506 | 509 | 613 | 532 | 531 | 592 | 545 |
| Health | 3,171 | 4,613 | 3,330 | 3,502 | 3,453 | 3,702 | 3,708 | 4,146 | 4,980 | 4,168 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
$S \& E=$ science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-48. Standard errors for satisfaction with selected job factors among employed 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All employed | Very satisfied or somewhat satisfied with job factor |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Benefits | Contribution to society | Degree of independence | Intellectual challenge | Job security | Level of responsibility | Location | Opportunities for advancement | Salary |
| All fields | 3,491 | 3,945 | 3,662 | 3,550 | 3,745 | 3,979 | 3,794 | 3,507 | 3,772 | 3,619 |
| Sciences | 1,668 | 1,674 | 1,936 | 1,684 | 1,867 | 1,825 | 1,769 | 1,678 | 1,621 | 1,714 |
| Biological, agricultural, and environmental life sciences | 601 | 593 | 641 | 619 | 632 | 647 | 545 | 628 | 583 | 551 |
| Agricultural/food sciences | 361 | 364 | 366 | 363 | 362 | 352 | 359 | 361 | 338 | 348 |
| Biological sciences | 516 | 498 | 532 | 546 | 541 | 531 | 491 | 540 | 475 | 463 |
| Environmental life sciences | 271 | 265 | 267 | 271 | 269 | 271 | 268 | 261 | 270 | 267 |
| Computer and information sciences | 1,151 | 1,122 | 1,179 | 1,089 | 1,102 | 1,172 | 1,130 | 1,076 | 1,051 | 1,142 |
| Mathematics and statistics | 355 | 358 | 350 | 362 | 386 | 330 | 369 | 366 | 358 | 398 |
| Physical and related sciences | 297 | 359 | 354 | 324 | 334 | 351 | 331 | 347 | 368 | 359 |
| Chemistry, except biochemistry | 225 | 294 | 257 | 251 | 237 | 254 | 279 | 264 | 255 | 277 |
| Earth/atmospheric/ocean sciences | 175 | 196 | 194 | 197 | 196 | 183 | 206 | 190 | 226 | 205 |
| Physics/astronomy | 129 | 141 | 140 | 145 | 143 | 139 | 131 | 139 | 161 | 161 |
| Other physical sciences | S | S | S | S | S | S | S | S | S | S |
| Psychology | 591 | 1,033 | 736 | 651 | 825 | 736 | 667 | 725 | 873 | 989 |
| Social and related sciences | 667 | 716 | 745 | 737 | 774 | 752 | 793 | 749 | 745 | 689 |
| Economics | 254 | 267 | 294 | 288 | 300 | 289 | 284 | 269 | 287 | 305 |
| Political and related sciences | 462 | 480 | 467 | 482 | 502 | 480 | 520 | 506 | 505 | 472 |
| Sociology/anthropology | 291 | 298 | 319 | 305 | 307 | 313 | 321 | 323 | 279 | 246 |
| Other social sciences | 392 | 413 | 477 | 447 | 525 | 405 | 457 | 397 | 393 | 430 |
| Engineering | 837 | 944 | 916 | 940 | 920 | 979 | 863 | 891 | 888 | 922 |
| Aerospace/aeronautical/astronautical engineering | 58 | 78 | 63 | 67 | 80 | 73 | 71 | 72 | 77 | 92 |
| Chemical engineering | 125 | 132 | 131 | 130 | 131 | 130 | 133 | 140 | 125 | 138 |
| Civil/architectural engineering | 227 | 292 | 276 | 250 | 263 | 308 | 259 | 266 | 324 | 290 |
| Electrical/computer engineering | 539 | 597 | 603 | 562 | 607 | 571 | 546 | 595 | 588 | 634 |
| Industrial engineering | 230 | 251 | 284 | 218 | 259 | 294 | 265 | 275 | 302 | 247 |
| Materials/metallurgical engineering | 616 | S | S | S | S | S | S | S | S | S |
| Mechanical engineering | 311 | 329 | 300 | 313 | 332 | 332 | 320 | 334 | 324 | 336 |
| Other engineering | 656 | 631 | 636 | 639 | 588 | 653 | 599 | 629 | 522 | 639 |
| Health | 2,816 | 3,539 | 2,821 | 2,849 | 3,088 | 3,404 | 3,104 | 3,040 | 3,262 | 2,876 |

$S=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-49. Standard errors for relation of job to highest degree among employed 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All employed | Closely related | Somewhat related | Not related |
| :---: | :---: | :---: | :---: | :---: |
| All fields | 5,948 | 6,155 | 5,798 | 4,210 |
| Sciences | 5,627 | 5,305 | 5,278 | 4,162 |
| Biological, agricultural, and environmental life sciences | 2,622 | 2,786 | 2,019 | 2,140 |
| Agricultural/food sciences | 1,106 | 853 | 447 | 413 |
| Biological sciences | 2,592 | 2,763 | 2,027 | 2,107 |
| Environmental life sciences | 968 | 577 | 570 | 466 |
| Computer and information sciences | 1,516 | 2,158 | 1,682 | 1,316 |
| Mathematics and statistics | 537 | 650 | 610 | 499 |
| Physical and related sciences | 809 | 819 | 511 | 664 |
| Chemistry, except biochemistry | 592 | 596 | 440 | 486 |
| Earth/atmospheric/ocean sciences | 919 | 581 | 253 | 277 |
| Physics/astronomy | 317 | 307 | 196 | 192 |
| Other physical sciences | 846 | S | S | S |
| Psychology | 2,321 | 2,725 | 3,123 | 2,573 |
| Social and related sciences | 2,955 | 2,609 | 2,749 | 2,559 |
| Economics | 1,087 | 950 | 1,367 | 1,076 |
| Political and related sciences | 1,478 | 1,188 | 1,243 | 1,542 |
| Sociology/anthropology | 1,525 | 1,531 | 1,630 | 1,724 |
| Other social sciences | 1,220 | 1,267 | 1,017 | 1,091 |
| Engineering | 1,294 | 1,430 | 1,417 | 835 |
| Aerospace/aeronautical/astronautical engineering | 78 | 138 | 112 | 92 |
| Chemical engineering | 314 | 323 | 318 | 187 |
| Civil/architectural engineering | 341 | 437 | 415 | S |
| Electrical/computer engineering | 749 | 805 | 873 | 578 |
| Industrial engineering | 177 | 232 | 237 | 166 |
| Materials/metallurgical engineering | 466 | S | S | S |
| Mechanical engineering | 449 | 598 | 597 | 397 |
| Other engineering | 560 | 547 | 405 | 237 |
| Health | 3,171 | 3,821 | 2,077 | 2,257 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-50. Standard errors for relation of job to highest degree among employed 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All employed | Closely related | Somewhat related | Not related |
| :---: | :---: | :---: | :---: | :---: |
| All fields | 3,491 | 3,763 | 2,136 | 1,622 |
| Sciences | 1,668 | 1,796 | 1,290 | 835 |
| Biological, agricultural, and environmental life sciences | 601 | 624 | 337 | 289 |
| Agricultural/food sciences | 361 | 337 | S | S |
| Biological sciences | 516 | 539 | 255 | 286 |
| Environmental life sciences | 271 | 250 | S | S |
| Computer and information sciences | 1,151 | 1,195 | 718 | S |
| Mathematics and statistics | 355 | 356 | 219 | S |
| Physical and related sciences | 297 | 367 | 248 | S |
| Chemistry, except biochemistry | 225 | 246 | S | S |
| Earth/atmospheric/ocean sciences | 175 | 203 | S | S |
| Physics/astronomy | 129 | 169 | S | S |
| Other physical sciences | S | S | S | S |
| Psychology | 591 | 805 | 661 | S |
| Social and related sciences | 667 | 609 | 534 | 496 |
| Economics | 254 | 256 | 194 | S |
| Political and related sciences | 462 | 382 | 358 | 323 |
| Sociology/anthropology | 291 | 281 | 186 | S |
| Other social sciences | 392 | 430 | 347 | 297 |
| Engineering | 837 | 982 | 637 | 355 |
| Aerospace/aeronautical/astronautical engineering | 58 | 86 | S | S |
| Chemical engineering | 125 | 110 | 89 | S |
| Civil/architectural engineering | 227 | 262 | 197 | S |
| Electrical/computer engineering | 539 | 648 | 388 | S |
| Industrial engineering | 230 | 296 | 245 | S |
| Materials/metallurgical engineering | 616 | S | S | S |
| Mechanical engineering | 311 | 334 | 262 | S |
| Other engineering | 656 | 525 | 403 | S |
| Health | 2,816 | 2,962 | 1,710 | S |

$S$ = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-51. Standard errors for occupation of employed 2001 and 2002 S\&E bachelor's degree recipients, by sex and race/ethnicity: October 2003

| Occupation | All employed | Sex |  | Race/ethnicity |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Asian | American <br> Indian/ <br> Alaska <br> Native | Black, nonHispanic | Hispanic | White, nonHispanic | Other |
|  |  | Male | Female |  |  |  |  |  |  |
| All occupations | 5,948 | 3,771 | 5,079 | 2,568 | 1,281 | 3,937 | 2,886 | 6,176 | 2,541 |
| Scientists | 4,177 | 3,570 | 2,747 | 2,174 | S | 723 | 1,085 | 3,531 | 858 |
| Biological, agricultural, and environmental life scientist | 2,131 | 1,506 | 1,868 | S | S | S | 270 | 1,884 | S |
| Computer and information scientist | 2,994 | 2,610 | 1,503 | 1,801 | S | 500 | 801 | 2,607 | S |
| Mathematical scientist | 704 | 583 | 396 | S | S | S | S | 561 | S |
| Physical scientist | 1,233 | 698 | 979 | S | S | 223 | 241 | 1,065 | S |
| Psychologist | 1,041 | S | S | S | S | S | S | S | S |
| Social scientist | 1,541 | 1,363 | 1,163 | S | S | S | 274 | 1,340 | S |
| Engineers | 1,619 | 1,505 | 1,061 | 1,174 | S | 364 | 448 | 1,546 | 652 |
| Science and engineering-related occupations | 4,454 | 2,225 | 4,095 | 1,749 | S | 2,596 | 1,421 | 4,688 | 1,878 |
| Health-related occupation | 4,331 | 1,735 | 3,814 | S | S | 2,508 | 1,302 | 4,851 | 1,769 |
| S\&E manager | 1,605 | 276 | S | S | S | S | S | 1,494 | S |
| S\&E precollege teacher | 1,584 | 855 | 1,396 | S | S | 340 | 295 | 1,355 | S |
| S\&E technician/technologist | 1,808 | 1,210 | 1,209 | S | S | S | 223 | 1,354 | S |
| Other S\&E-related occupation | 551 | S | S | S | S | S | S | S | S |
| Non-science and engineering occupations | 6,522 | 3,971 | 5,064 | 2,469 | 654 | 2,377 | 1,788 | 5,825 | 1,140 |
| Arts/humanities-related occupation | 1,193 | 706 | 945 | S | S | S | S | 1,160 | S |
| Management-related occupation | 2,677 | 1,898 | 1,776 | 902 | S | 571 | 445 | 2,167 | S |
| Non-S\&E manager | 331 | S | S | S | S | S | S | S | S |
| Non-S\&E postsecondary teacher | 848 | S | 725 | S | S | S | S | 747 | S |
| Non-S\&E precollege/other teacher | 2,800 | 1,033 | 2,567 | S | S | 940 | 698 | 2,290 | S |
| Sales/marketing occupation | 3,199 | 2,120 | 2,402 | 1,112 | S | 580 | 822 | 2,578 | S |
| Social service-related occupation | 3,122 | 1,103 | 2,929 | S | S | 1,084 | 814 | 2,793 | S |
| Other non-S\&E occupation | 5,186 | 3,200 | 3,675 | 2,040 | S | 1,162 | 1,095 | 4,756 | 801 |

S = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-52. Standard errors for occupation of employed 2001 and 2002 S\&E master's degree recipients, by sex and race/ethnicity: October 2003

| Occupation | $\begin{gathered} \text { All } \\ \text { employed } \\ \hline \end{gathered}$ |  |  | Race/ethnicity |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Sex |  |  American <br> Indian/  <br> Alaska  <br> Asian $\quad$ Native  |  | Black, nonHispanic | Hispanic | White, nonHispanic | Other |
|  |  | Male | Female |  |  |  |  |  |  |
| All occupations | 3,491 | 1,536 | 2,982 | 2,186 | S | 1,760 | 882 | 3,656 | 1,326 |
| Scientists | 2,299 | 1,686 | 1,678 | 1,472 | S | 413 | 513 | 1,513 | 983 |
| Biological, agricultural, and environmental life scientist | 1,195 | 603 | 1,025 | 613 | S | S | 285 | 946 | S |
| Computer and information scientist | 1,340 | 1,269 | 907 | 1,377 | S | 200 | S | 615 | S |
| Mathematical scientist | 491 | 448 | 240 | 378 | S | S | S | 282 | S |
| Physical scientist | 502 | 465 | 313 | 403 | S | S | S | 395 | S |
| Psychologist | 1,090 | 666 | 957 | S | S | S | S | 976 | S |
| Social scientist | 1,166 | 1,027 | 648 | S | S | S | S | 675 | S |
| Engineers | 1,054 | 1,114 | 656 | 1,087 | S | 153 | 233 | 802 | S |
| Science and engineering-related occupations | 3,780 | 1,976 | 2,932 | 1,573 | S | 1,064 | 602 | 3,515 | S |
| Health-related occupation | 3,649 | 1,884 | 2,793 | S | S | S | S | 3,349 | S |
| S\&E manager | 497 | S | S | S | S | S | S | S | S |
| S\&E precollege teacher | 483 | 269 | 395 | S | S | S | S | 345 | S |
| S\&E technician/technologist | 687 | S | S | S | S | S | S | S | S |
| Other S\&E-related occupation | S | S | S | S | S | S | S | S | S |
| Non-science and engineering occupations | 2,884 | 2,211 | 1,777 | 723 | S | 955 | 506 | 2,721 | S |
| Arts/humanities-related occupation | 303 | S | S | S | S | S | S | S | S |
| Management-related occupation | 1,073 | 711 | 656 | S | S | 541 | S | 817 | S |
| Non-S\&E manager | S | S | S | S | S | S | S | S | S |
| Non-S\&E postsecondary teacher | 458 | S | S | S | S | S | S | S | S |
| Non-S\&E precollege/other teacher | 691 | S | 491 | S | S | S | S | 460 | S |
| Sales/marketing occupation | 670 | S | 584 | S | S | S | S | 598 | S |
| Social service-related occupation | 1,687 | 616 | 1,459 | S | S | 387 | 240 | 1,575 | S |
| Other non-S\&E occupation | 1,834 | 1,454 | 865 | S | S | 232 | 394 | 1,768 | S |

S = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-53. Standard errors for occupation of employed 2001 and 2002 S\&E bachelor's degree recipients, by age: October 2003

| Occupation | $\begin{gathered} \hline \text { All } \\ \text { employed } \end{gathered}$ | Less than 25 years | $\begin{aligned} & 25-29 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 30-34 \\ & \text { years } \end{aligned}$ | 35 years <br> or more |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All occupations | 5,948 | 10,599 | 6,845 | 3,630 | 7,488 |
| Scientists | 4,177 | 3,254 | 3,160 | 1,323 | 1,154 |
| Biological, agricultural, and environmental life scientist | 2,131 | 1,881 | 1,536 | S | S |
| Computer and information scientist | 2,994 | 2,243 | 2,009 | 1,119 | 995 |
| Mathematical scientist | 704 | 404 | 563 | S | S |
| Physical scientist | 1,233 | 1,239 | 489 | 224 | 275 |
| Psychologist | 1,041 | S | S | S | S |
| Social scientist | 1,541 | 1,302 | 835 | S | S |
| Engineers | 1,619 | 1,283 | 1,561 | 593 | 554 |
| Science and engineering-related occupations | 4,454 | 6,332 | 5,177 | 2,523 | 6,017 |
| Health-related occupation | 4,331 | 6,562 | 4,849 | 3,024 | 5,727 |
| S\&E manager | 1,605 | S | S | S | S |
| S\&E precollege teacher | 1,584 | 1,081 | 996 | 464 | 551 |
| S\&E technician/technologist | 1,808 | 1,252 | 1,105 | S | S |
| Other S\&E-related occupation | 551 | 514 | S | S | S |
| Non-science and engineering occupation | 6,522 | 6,009 | 4,384 | 1,967 | 3,347 |
| Arts/humanities-related occupation | 1,193 | 877 | S | S | S |
| Management-related occupation | 2,677 | 1,885 | 1,625 | S | 1,146 |
| Non-S\&E manager | 331 | S | S | S | S |
| Non-S\&E postsecondary teacher | 848 | 709 | S | S | S |
| Non-S\&E precollege/other teacher | 2,800 | 2,197 | 1,112 | S | 933 |
| Sales/marketing occupation | 3,199 | 2,492 | 1,763 | 593 | 789 |
| Social service-related occupation | 3,122 | 2,136 | 1,235 | 849 | 1,408 |
| Other non-S\&E occupation | 5,186 | 4,034 | 3,291 | 1,400 | 1,515 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003

TABLE B-54. Standard errors for occupation of employed 2001 and 2002 S\&E master's degree recipients, by age: October 2003

| Occupation | $\begin{gathered} \hline \text { All } \\ \text { employed } \end{gathered}$ | Less than 25 years | $\begin{aligned} & \hline 25-29 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 30-34 \\ & \text { years } \end{aligned}$ | 35 years <br> or more |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All occupations | 3,491 | 993 | 4,504 | 3,062 | 4,145 |
| Scientists | 2,299 | 335 | 1,583 | 1,295 | 1,515 |
| Biological, agricultural, and environmental life scientist | 1,195 | S | 636 | 469 | 898 |
| Computer and information scientist | 1,340 | S | 925 | 955 | 568 |
| Mathematical scientist | 491 | S | 294 | 312 | 208 |
| Physical scientist | 502 | S | 343 | 387 | 259 |
| Psychologist | 1,090 | S | 859 | 655 | 487 |
| Social scientist | 1,166 | S | 721 | 377 | S |
| Engineers | 1,054 | 234 | 1,007 | 634 | 498 |
| Science and engineering-related occupations | 3,780 | S | 3,480 | 2,380 | 3,400 |
| Health-related occupation | 3,649 | S | 3,418 | 2,376 | 3,368 |
| S\&E manager | 497 | S | S | S | S |
| S\&E precollege teacher | 483 | S | 328 | S | S |
| S\&E technician/technologist | 687 | S | 648 | S | S |
| Other S\&E-related occupation | S | S | S | S | S |
| Non-science and engineering occupations | 2,884 | S | 1,535 | 865 | 2,099 |
| Arts/humanities-related occupation | 303 | S | S | S | S |
| Management-related occupation | 1,073 | S | 676 | 331 | 652 |
| Non-S\&E manager | S | S | S | S | S |
| Non-S\&E postsecondary teacher | 458 | S | S | S | S |
| Non-S\&E precollege/other teacher | 691 | S | S | S | 532 |
| Sales/marketing occupation | 670 | S | S | S | S |
| Social service-related occupation | 1,687 | S | 929 | 518 | 1,075 |
| Other non-S\&E occupation | 1,834 | S | 640 | 719 | 1,463 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-55. Standard errors for primary work activity of employed 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | $\begin{gathered} \text { All } \\ \text { employed } \end{gathered}$ | Computer applications | Management, sales, administration | Research and development | Teaching | Other |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All fields | 5,948 | 3,152 | 6,197 | 4,679 | 4,568 | 6,720 |
| Sciences | 5,627 | 2,844 | 5,296 | 4,076 | 3,247 | 5,186 |
| Biological, agricultural, and environmental life sciences | 2,622 | S | 2,431 | 2,393 | 1,373 | 2,072 |
| Agriculturalffood sciences | 1,106 | S | 705 | 562 | S | 501 |
| Biological sciences | 2,592 | S | 2,259 | 2,281 | 1,269 | 1,964 |
| Environmental life sciences | 968 | S | 390 | 593 | S | 493 |
| Computer and information sciences | 1,516 | 2,369 | 2,103 | 1,550 | 801 | 924 |
| Mathematics and statistics | 537 | 457 | 487 | 415 | 638 | 459 |
| Physical and related sciences | 809 | 282 | 466 | 778 | 475 | 656 |
| Chemistry, except biochemistry | 592 | S | 381 | 528 | 396 | 516 |
| Earth/atmospheric/ocean sciences | 919 | S | 332 | 453 | 211 | 233 |
| Physics/astronomy | 317 | S | 164 | 235 | 186 | 117 |
| Other physical sciences | 846 | S | S | S | S | S |
| Psychology | 2,321 | S | 3,007 | 1,579 | 1,925 | 2,886 |
| Social and related sciences | 2,955 | 1,273 | 2,969 | 1,858 | 2,071 | 2,609 |
| Economics | 1,087 | 574 | 1,309 | 641 | 392 | 831 |
| Political and related sciences | 1,478 | 615 | 1,512 | 1,074 | 733 | 1,347 |
| Sociology/anthropology | 1,525 | S | 2,005 | 1,093 | 1,355 | 1,548 |
| Other social sciences | 1,220 | S | 1,001 | 602 | 1,322 | 1,102 |
| Engineering | 1,294 | 915 | 1,152 | 1,505 | 475 | 807 |
| Aerospace/aeronautical/astronautical engineering | 78 | 110 | 81 | 116 | S | 108 |
| Chemical engineering | 314 | S | 278 | 284 | S | 296 |
| Civil/architectural engineering | 341 | S | 453 | 451 | S | 261 |
| Electrical/computer engineering | 749 | 705 | 684 | 997 | 343 | 384 |
| Industrial engineering | 177 | 114 | 219 | 186 | S | 159 |
| Materials/metallurgical engineering | 466 | S | S | S | S | S |
| Mechanical engineering | 449 | 328 | 580 | 677 | S | 315 |
| Other engineering | 560 | 418 | 444 | 445 | S | 346 |
| Health | 3,171 | S | 3,540 | S | 2,600 | 4,876 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-56. Standard errors for primary work activity of employed 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | $\begin{gathered} \text { All } \\ \text { employed } \end{gathered}$ | Computer applications | Management, sales, administration | Research and development | Teaching | Other |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All fields | 3,491 | 1,604 | 2,537 | 2,440 | 2,351 | 4,374 |
| Sciences | 1,668 | 1,229 | 1,114 | 1,516 | 1,008 | 1,382 |
| Biological, agricultural, and environmental life sciences | 601 | S | 408 | 590 | 336 | 408 |
| Agricultural/food sciences | 361 | S | S | 296 | S | S |
| Biological sciences | 516 | S | 313 | 486 | 276 | 292 |
| Environmental life sciences | 271 | S | S | S | S | S |
| Computer and information sciences | 1,151 | 1,144 | 474 | 910 | S | S |
| Mathematics and statistics | 355 | 211 | S | 265 | 225 | S |
| Physical and related sciences | 297 | S | S | 432 | 241 | S |
| Chemistry, except biochemistry | 225 | S | S | 307 | S | S |
| Earth/atmospheric/ocean sciences | 175 | S | S | 202 | S | S |
| Physics/astronomy | 129 | S | S | 185 | 119 | S |
| Other physical sciences | S | S | S | S | S | S |
| Psychology | 591 | S | 623 | 655 | 736 | 1,006 |
| Social and related sciences | 667 | 276 | 583 | 480 | 488 | 488 |
| Economics | 254 | S | 167 | 202 | S | S |
| Political and related sciences | 462 | S | 333 | S | S | 318 |
| Sociology/anthropology | 291 | S | 227 | 205 | S | 247 |
| Other social sciences | 392 | S | 417 | S | 309 | 301 |
| Engineering | 837 | 717 | 678 | 1,008 | 343 | 410 |
| Aerospace/aeronautical/astronautical engineering | 58 | S | S | 81 | S | S |
| Chemical engineering | 125 | S | S | 139 | S | S |
| Civillarchitectural engineering | 227 | S | 229 | 283 | S | S |
| Electrical/computer engineering | 539 | 526 | S | 574 | S | S |
| Industrial engineering | 230 | S | 247 | 270 | S | S |
| Materials/metallurgical engineering | 616 | S | S | S | S | S |
| Mechanical engineering | 311 | S | 204 | 338 | S | S |
| Other engineering | 656 | S | 416 | 463 | S | S |
| Health | 2,816 | S | 2,211 | S | 2,050 | 3,784 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-57. Standard errors for work-related training taken by employed 2001 and 2002 S\&E bachelor's degree recipients, by occupation: October 2003

|  |  | Any <br> type of work- <br> related training | General <br> professional <br> training | Management <br> training <br> Occupation | Training in <br> occupational <br> field | Other training |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-58. Standard errors for work-related training taken by employed 2001 and 2002 S\&E master's degree recipients, by occupation: October 2003

|  |  | Any <br> type of work- <br> related training | General <br> professional <br> training | Management <br> training <br> Occupation | Training in <br> occupational <br> field | Other training |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-59. Standard errors for work-related training taken by employed 2001 and 2002 S\&E bachelor's degree recipients, by employment sector: October 2003

| Sector of employment | All employed | Any type of workrelated training | General professional training | Management training | Training in occupational field | Other training |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All sectors | 5,948 | 6,888 | 5,687 | 6,130 | 6,529 | 3,040 |
| Educational institution | 6,556 | 4,445 | 2,764 | 1,531 | 4,210 | 1,602 |
| 4 -year college and university | 5,572 | 3,170 | 1,961 | 1,136 | 3,161 | 1,058 |
| Other educational | 3,586 | 2,953 | 1,845 | 1,030 | 2,786 | 1,265 |
| Government | 5,382 | 3,993 | 2,575 | 2,049 | 3,768 | 1,555 |
| Federal government | 3,670 | 2,564 | 1,750 | 1,809 | 2,334 | 416 |
| State or local government | 3,961 | 3,136 | 1,709 | 762 | 3,065 | 1,476 |
| Private industry and business (non-educational) | 7,784 | 7,152 | 4,762 | 4,836 | 6,720 | 2,572 |
| Private, for profit company | 7,948 | 6,201 | 4,183 | 3,014 | 6,015 | 2,368 |
| Nonprofit organizations | 5,262 | 5,026 | 2,882 | 3,637 | 4,880 | 895 |
| Self-employed | 2,190 | 1,317 | 554 | S | 1,252 | S |

S = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-60. Standard errors for work-related training taken by employed 2001 and 2002 S\&E master's degree recipients, by employment sector: October 2003

| Sector of employment | All employed | Any type of workrelated training | General professional training | Management training | Training in occupational field | Other training |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All sectors | 3,491 | 3,873 | 2,967 | 2,877 | 3,819 | 1,585 |
| Educational institution | 3,242 | 2,394 | 1,424 | 838 | 2,430 | 491 |
| 4 -year college and university | 2,702 | 1,648 | 1,022 | 640 | 1,646 | 352 |
| Other educational | 2,050 | 1,927 | 1,068 | 572 | 1,910 | S |
| Government | 3,188 | 3,038 | 1,314 | 1,602 | 2,972 | 555 |
| Federal government | 1,696 | 1,516 | 950 | 1,014 | 1,428 | 505 |
| State or local government | 2,338 | 2,257 | 944 | 1,287 | 2,255 | S |
| Private industry and business (non-educational) | 4,786 | 4,450 | 2,321 | 2,126 | 4,365 | 1,392 |
| Private, for profit company | 4,363 | 3,923 | 1,884 | 1,851 | 3,809 | 1,331 |
| Nonprofit organizations | 2,593 | 2,552 | 1,049 | 774 | 2,525 | S |
| Self-employed | 1,209 | 790 | S | S | 790 | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-61. Standard errors for importance of selected job factors to employed 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | $\begin{gathered} \text { All } \\ \text { employed } \end{gathered}$ | Considered job factor to be very important or somewhat important |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Benefits | Contribution to society | Degree of independence | Intellectual challenge | $\begin{gathered} \text { Job } \\ \text { security } \end{gathered}$ | Level of responsibility | Location | Opportunities for advancement | Salary |
| All fields | 5,948 | 6,286 | 6,543 | 6,203 | 5,935 | 5,934 | 5,849 | 6,303 | 6,706 | 5,660 |
| Sciences | 5,627 | 5,644 | 5,571 | 5,668 | 5,597 | 5,741 | 5,599 | 5,773 | 6,050 | 5,559 |
| Biological, agricultural, and environmental life sciences | 2,622 | 2,677 | 2,600 | 2,745 | 2,681 | 2,494 | 2,597 | 2,568 | 2,638 | 2,593 |
| Agriculturalffood sciences | 1,106 | 1,085 | 1,047 | 1,105 | 1,101 | 1,106 | 1,113 | 1,034 | 1,095 | 1,064 |
| Biological sciences | 2,592 | 2,664 | 2,571 | 2,685 | 2,643 | 2,463 | 2,598 | 2,593 | 2,642 | 2,607 |
| Environmental life sciences | 968 | 961 | 936 | 930 | 927 | 942 | 909 | 958 | 970 | 959 |
| Computer and information sciences | 1,516 | 1,638 | 1,805 | 1,393 | 1,500 | 1,710 | 1,532 | 1,638 | 1,561 | 1,571 |
| Mathematics and statistics | 537 | 550 | 570 | 594 | 509 | 553 | 587 | 563 | 543 | 550 |
| Physical and related sciences | 809 | 814 | 849 | 845 | 811 | 789 | 858 | 764 | 805 | 791 |
| Chemistry, except biochemistry | 592 | 604 | 606 | 610 | 614 | 589 | 621 | 584 | 609 | 583 |
| Earth/atmospheric/ocean sciences | 919 | 919 | 785 | 890 | 911 | 904 | 881 | 889 | 918 | 898 |
| Physics/astronomy | 317 | 303 | 304 | 307 | 313 | 323 | 318 | 314 | 309 | 305 |
| Other physical sciences | 846 | 842 | 677 | 800 | 846 | 846 | 846 | 819 | 843 | 846 |
| Psychology | 2,321 | 2,274 | 2,448 | 2,426 | 2,374 | 2,396 | 2,635 | 2,584 | 2,374 | 2,446 |
| Social and related sciences | 2,955 | 3,046 | 3,079 | 3,103 | 3,043 | 3,257 | 3,053 | 3,009 | 3,065 | 2,891 |
| Economics | 1,087 | 1,061 | 1,287 | 1,102 | 1,140 | 1,068 | 1,096 | 1,117 | 1,082 | 1,075 |
| Political and related sciences | 1,478 | 1,525 | 1,558 | 1,576 | 1,460 | 1,632 | 1,551 | 1,515 | 1,454 | 1,494 |
| Sociology/anthropology | 1,525 | 1,560 | 1,706 | 1,557 | 1,627 | 1,658 | 1,700 | 1,729 | 1,640 | 1,647 |
| Other social sciences | 1,220 | 1,229 | 1,360 | 1,271 | 1,263 | 1,264 | 1,217 | 1,326 | 1,258 | 1,217 |
| Engineering | 1,294 | 1,339 | 1,402 | 1,311 | 1,294 | 1,364 | 1,340 | 1,300 | 1,324 | 1,354 |
| Aerospace/aeronautical/astronautical engineering | 78 | 90 | 107 | 81 | 82 | 88 | 87 | 86 | 79 | 82 |
| Chemical engineering | 314 | 349 | 339 | 312 | 297 | 324 | 317 | 328 | 325 | 328 |
| Civil/architectural engineering | 341 | 384 | 351 | 366 | 358 | 356 | 342 | 404 | 354 | 367 |
| Electrical/computer engineering | 749 | 763 | 865 | 728 | 735 | 776 | 778 | 747 | 736 | 775 |
| Industrial engineering | 177 | 206 | 203 | 193 | 167 | 192 | 171 | 216 | 182 | 178 |
| Materials/metallurgical engineering | 466 | 434 | 440 | 456 | 456 | 466 | 461 | 344 | 389 | 466 |
| Mechanical engineering | 449 | 500 | 607 | 558 | 458 | 456 | 480 | 527 | 468 | 483 |
| Other engineering | 560 | 574 | 505 | 610 | 527 | 615 | 529 | 541 | 544 | 564 |
| Health | 3,171 | 3,646 | 3,333 | 3,286 | 3,222 | 3,207 | 3,203 | 3,655 | 3,784 | 3,077 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-62. Standard errors for importance of selected job factors to employed 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All employed | Considered job factor to be very important or somewhat important |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Benefits | Contribution to society | Degree of independence | Intellectual challenge | Job security | Level of responsibility | Location | Opportunities for advancement | Salary |
| All fields | 3,491 | 3,503 | 3,502 | 3,495 | 3,509 | 3,516 | 3,419 | 3,531 | 3,739 | 3,474 |
| Sciences | 1,668 | 1,692 | 1,712 | 1,750 | 1,611 | 1,629 | 1,642 | 1,557 | 1,722 | 1,693 |
| Biological, agricultural, and environmental life sciences | 601 | 551 | 594 | 581 | 552 | 527 | 598 | 567 | 617 | 609 |
| Agricultural/food sciences | 361 | 361 | 361 | 351 | 361 | 361 | 351 | 357 | 361 | 361 |
| Biological sciences | 516 | 471 | 525 | 509 | 476 | 447 | 537 | 520 | 505 | 518 |
| Environmental life sciences | 271 | 271 | 257 | 272 | 271 | 271 | 268 | 271 | 247 | 271 |
| Computer and information sciences | 1,151 | 1,183 | 1,132 | 1,272 | 1,126 | 1,221 | 1,125 | 1,075 | 1,175 | 1,149 |
| Mathematics and statistics | 355 | 356 | 350 | 357 | 352 | 358 | 353 | 349 | 344 | 372 |
| Physical and related sciences | 297 | 312 | 361 | 335 | 311 | 300 | 333 | 323 | 296 | 302 |
| Chemistry, except biochemistry | 225 | 245 | 299 | 263 | 243 | 231 | 268 | 262 | 232 | 235 |
| Earth/atmospheric/ocean sciences | 175 | 183 | 177 | 176 | 174 | 184 | 175 | 175 | 179 | 181 |
| Physics/astronomy | 129 | 129 | 135 | 140 | 131 | 131 | 133 | 152 | 133 | 131 |
| Other physical sciences | S | S | S | S | S | S | S | S | S | S |
| Psychology | 591 | 622 | 643 | 573 | 593 | 636 | 694 | 659 | 686 | 591 |
| Social and related sciences | 667 | 688 | 645 | 685 | 665 | 683 | 708 | 675 | 646 | 693 |
| Economics | 254 | 255 | 240 | 247 | 256 | 252 | 244 | 257 | 256 | 254 |
| Political and related sciences | 462 | 462 | 432 | 460 | 470 | 453 | 446 | 460 | 463 | 446 |
| Sociology/anthropology | 291 | 294 | 294 | 313 | 291 | 300 | 311 | 291 | 295 | 288 |
| Other social sciences | 392 | 370 | 428 | 396 | 392 | 368 | 406 | 426 | 398 | 381 |
| Engineering | 837 | 812 | 924 | 799 | 814 | 835 | 876 | 914 | 798 | 807 |
| Aerospace/aeronautical/astronautical engineering | 58 | 56 | 66 | 65 | 58 | 59 | 62 | 55 | 56 | 61 |
| Chemical engineering | 125 | 151 | 122 | 155 | 155 | 133 | 151 | 142 | 151 | 151 |
| Civil/architectural engineering | 227 | 243 | 325 | 285 | 239 | 236 | 262 | 288 | 227 | 245 |
| Electrical/computer engineering | 539 | 521 | 575 | 588 | 549 | 562 | 558 | 639 | 551 | 521 |
| Industrial engineering | 230 | 215 | 241 | 227 | 225 | 230 | 225 | 220 | 230 | 230 |
| Materials/metallurgical engineering | 616 | 616 | S | 616 | 616 | 616 | 616 | S | S | 616 |
| Mechanical engineering | 311 | 312 | 337 | 335 | 306 | 328 | 333 | 335 | 323 | 311 |
| Other engineering | 656 | 641 | 665 | 641 | 658 | 654 | 647 | 624 | 656 | 646 |
| Health | 2,816 | 2,860 | 2,923 | 2,834 | 2,978 | 2,882 | 2,985 | 2,854 | 3,225 | 2,932 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. S\&E = science and engineering.

SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-63. Standard errors for employment sector of 2001 and 2002 S\&E bachelor's degree recipients, by occupation: October 2003

| Occupation | All employed | Sector |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Educational institution | Government | Private industry and business |
| All occupations | 5,948 | 6,556 | 5,382 | 7,784 |
| Scientists | 4,177 | 3,113 | 1,731 | 3,397 |
| Biological, agricultural, and environmental life scientist | 2,131 | 1,919 | 975 | 1,439 |
| Computer and information scientist | 2,994 | 1,129 | 1,082 | 2,636 |
| Mathematical scientist | 704 | 529 | S | S |
| Physical scientist | 1,233 | 948 | 350 | 906 |
| Psychologist | 1,041 | S | S | S |
| Social scientist | 1,541 | 928 | 794 | 1,290 |
| Engineers | 1,619 | 948 | 907 | 1,426 |
| Science and engineering-related occupations | 4,454 | 3,588 | 2,737 | 5,084 |
| Health-related occupation | 4,331 | 3,050 | 2,723 | 4,870 |
| S\&E manager | 1,605 | S | S | 1,604 |
| S\&E precollege teacher | 1,584 | 1,584 | S | S |
| S\&E technician/technologist | 1,808 | 1,201 | 683 | 1,228 |
| Other S\&E-related occupation | 551 | S | S | 548 |
| Non-science and engineering occupations | 6,522 | 3,482 | 3,672 | 5,889 |
| Arts/humanities-related occupation | 1,193 | S | S | 1,023 |
| Management-related occupation | 2,677 | 653 | 1,130 | 2,453 |
| Non-S\&E manager | 331 | S | S | 280 |
| Non-S\&E postsecondary teacher | 848 | 738 | S | S |
| Non-S\&E precollege/other teacher | 2,800 | 2,479 | S | 1,094 |
| Sales/marketing occupation | 3,199 | S | S | 3,196 |
| Social service-related occupation | 3,122 | 1,252 | 1,523 | 2,483 |
| Other non-S\&E occupation | 5,186 | 1,881 | 2,446 | 4,103 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-64. Standard errors for employment sector of 2001 and 2002 S\&E master's degree recipients, by occupation: October 2003

| Occupation | All employed | Sector |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Educational institution | Government | Private industry and business |
| All occupations | 3,491 | 3,242 | 3,188 | 4,786 |
| Scientists | 2,299 | 1,516 | 1,089 | 2,004 |
| Biological, agricultural, and environmental life scientist | 1,195 | 738 | 855 | 561 |
| Computer and information scientist | 1,340 | 758 | S | 1,599 |
| Mathematical scientist | 491 | 290 | S | 352 |
| Physical scientist | 502 | 317 | 229 | 395 |
| Psychologist | 1,090 | 1,012 | S | 500 |
| Social scientist | 1,166 | 470 | 373 | 940 |
| Engineers | 1,054 | 676 | 397 | 1,116 |
| Science and engineering-related occupations | 3,780 | 2,382 | 2,276 | 3,960 |
| Health-related occupation | 3,649 | 2,347 | 2,283 | 3,827 |
| S\&E manager | 497 | S | S | 486 |
| S\&E precollege teacher | 483 | 483 | S | S |
| S\&E technician/technologist | 687 | S | S | S |
| Other S\&E-related occupation | S | S | S | S |
| Non-science and engineering occupations | 2,884 | 972 | 1,369 | 2,476 |
| Arts/humanities-related occupation | 303 | S | S | S |
| Management-related occupation | 1,073 | S | 778 | 616 |
| Non-S\&E manager | S | S | S | S |
| Non-S\&E postsecondary teacher | 458 | 457 | S | S |
| Non-S\&E precollege/other teacher | 691 | 613 | S | S |
| Sales/marketing occupation | 670 | S | S | 669 |
| Social service-related occupation | 1,687 | 596 | 890 | 1,274 |
| Other non-S\&E occupation | 1,834 | 427 | 897 | 1,477 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-65. Standard errors for employment sector of 2001 and 2002 S\&E bachelor's degree recipients, by major field of degree: October 2003

| Major field | All employed | Sector |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Educational institution | Government | Private industry and business |
| All fields | 5,948 | 6,556 | 5,382 | 7,784 |
| Sciences | 5,627 | 5,035 | 4,101 | 6,084 |
| Biological, agricultural, and environmental life sciences | 2,622 | 2,685 | 1,391 | 2,911 |
| Agricultural/food sciences | 1,106 | 496 | S | 809 |
| Biological sciences | 2,592 | 2,569 | 1,253 | 2,784 |
| Environmental life sciences | 968 | 368 | 400 | 877 |
| Computer and information sciences | 1,516 | 1,358 | 1,208 | 2,006 |
| Mathematics and statistics | 537 | 690 | 325 | 728 |
| Physical and related sciences | 809 | 754 | 382 | 832 |
| Chemistry, except biochemistry | 592 | 504 | S | 628 |
| Earth/atmospheric/ocean sciences | 919 | 413 | 193 | 544 |
| Physics/astronomy | 317 | 288 | 122 | 208 |
| Other physical sciences | 846 | S | S | 791 |
| Psychology | 2,321 | 2,353 | 2,031 | 3,142 |
| Social and related sciences | 2,955 | 2,195 | 1,938 | 2,908 |
| Economics | 1,087 | 629 | 533 | 1,141 |
| Political and related sciences | 1,478 | 1,042 | 1,206 | 1,768 |
| Sociology/anthropology | 1,525 | 1,431 | 1,038 | 1,708 |
| Other social sciences | 1,220 | 1,231 | 1,241 | 1,213 |
| Engineering | 1,294 | 873 | 1,179 | 1,713 |
| Aerospace/aeronautical/astronautical engineering | 78 | 107 | 184 | 158 |
| Chemical engineering | 314 | 198 | 190 | 349 |
| Civil/architectural engineering | 341 | S | 455 | 488 |
| Electrical/computer engineering | 749 | 509 | 697 | 961 |
| Industrial engineering | 177 | 156 | S | 211 |
| Materials/metallurgical engineering | 466 | S | S | S |
| Mechanical engineering | 449 | 447 | 357 | 751 |
| Other engineering | 560 | 349 | 487 | 616 |
| Health | 3,171 | 3,203 | 2,708 | 4,789 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-66. Standard errors for employment sector of 2001 and 2002 S\&E master's degree recipients, by major field of degree: October 2003

| Major field | All employed | Sector |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Educational institution | Government | Private industry and business |
| All fields | 3,491 | 3,242 | 3,188 | 4,786 |
| Sciences | 1,668 | 1,540 | 1,379 | 2,137 |
| Biological, agricultural, and environmental life sciences | 601 | 507 | 356 | 605 |
| Agricultural/food sciences | 361 | S | S | S |
| Biological sciences | 516 | 441 | 240 | 511 |
| Environmental life sciences | 271 | S | S | S |
| Computer and information sciences | 1,151 | 931 | S | 1,403 |
| Mathematics and statistics | 355 | 271 | S | 323 |
| Physical and related sciences | 297 | 380 | 209 | 375 |
| Chemistry, except biochemistry | 225 | 225 | S | 253 |
| Earth/atmospheric/ocean sciences | 175 | 169 | S | 192 |
| Physics/astronomy | 129 | 150 | S | 127 |
| Other physical sciences | S | S | S | S |
| Psychology | 591 | 1,025 | 807 | 933 |
| Social and related sciences | 667 | 574 | 587 | 576 |
| Economics | 254 | 255 | S | 225 |
| Political and related sciences | 462 | 272 | 318 | 362 |
| Sociology/anthropology | 291 | 256 | 235 | 221 |
| Other social sciences | 392 | 375 | 345 | 337 |
| Engineering | 837 | 714 | 416 | 1,025 |
| Aerospace/aeronautical/astronautical engineering | 58 | S | S | 84 |
| Chemical engineering | 125 | 112 | S | 138 |
| Civil/architectural engineering | 227 | S | 211 | 285 |
| Electrical/computer engineering | 539 | 504 | S | 606 |
| Industrial engineering | 230 | S | S | 234 |
| Materials/metallurgical engineering | 616 | S | S | S |
| Mechanical engineering | 311 | 220 | S | 323 |
| Other engineering | 656 | 418 | S | 691 |
| Health | 2,816 | 2,512 | 2,842 | 3,891 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-67. Standard errors for median salary of full-time employed 2001 and 2002 S\&E bachelor's degree recipients, by sex, race/ethnicity, and major field of degree: October 2003

| Major field |  | Sex |  | Race/ethnicity |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Asian | Black, nonHispanic | White, non- |  |  |
|  |  | Male | Female |  |  | Hispanic | Hispanic | Other |
| All fields | S | S | \$1,600 | \$2,700 | \$1,500 | S | S | \$3,500 |
| Sciences | S | S | S | 2,300 | S | S | S | 1,100 |
| Biological, agricultural, and environmental life sciences | S | S | S | S | 1,200 | 2,200 | S | S |
| Agricultural/food sciences | S | 2,900 | 3,400 | S | S | S | S | S |
| Biological sciences | S | 2,900 | S | S | 1,700 | 2,300 | S | S |
| Environmental life sciences | 2,100 | S | S | S | S | S | 2,400 | S |
| Computer and information sciences | 1,200 | 3,600 | 2,000 | 1,100 | 1,900 | 1,500 | 2,100 | S |
| Mathematics and statistics | 1,400 | 1,100 | S | 1,000 | 1,600 | S | 1,000 | S |
| Physical and related sciences | S | S | 1,900 | S | S | S | S | S |
| Chemistry, except biochemistry | 1,400 | S | 1,400 | S | S | 2,300 | 1,100 | S |
| Earth/atmospheric/ocean sciences | S | 3,100 | 1,300 | S | S | S | S | S |
| Physics/astronomy | 1,200 | 3,600 | 2,700 | S | S | S | 2,200 | S |
| Other physical sciences | 1,800 | S | S | S | S | S | S | S |
| Psychology | 2,400 | S | S | S | 3,200 | 1,500 | 1,400 | S |
| Social and related sciences | S | 3,500 | S | 2,700 | S | S | S | 2,800 |
| Economics | 1,300 | 1,500 | S | 4,400 | 1,300 | 1,400 | S | S |
| Political and related sciences | S | S | S | S | 4,700 | 1,400 | S | S |
| Sociology/anthropology | S | S | 1,600 | S | S | S | 1,600 | S |
| Other social sciences | S | 1,400 | 1,100 | S | S | 1,800 | S | S |
| Engineering | S | S | 1,500 | S | S | 1,300 | S | 5,500 |
| Aerospace/aeronautical/astronautical engineering | 2,400 | 1,700 | S | S | S | 3,800 | 1,900 | S |
| Chemical engineering | S | 1,900 | S | S | 3,400 | 2,100 | S | S |
| Civillarchitectural engineering | S | S | 2,400 | S | S | S | S | S |
| Electrical/computer engineering | S | S | 1,400 | 1,100 | 3,500 | 2,200 | S | S |
| Industrial engineering | 2,900 | 1,300 | 1,500 | S | 1,800 | S | S | S |
| Materials/metallurgical engineering | S | S | S | S | S | S | S | S |
| Mechanical engineering | S | S | S | S | 4,900 | 2,900 | S | S |
| Other engineering | S | 1,300 | 1,800 | S | S | S | 1,000 | S |
| Health | 1,900 | 3,100 | 2,200 | S | 5,600 | S | 2,700 | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. Median salary standard errors of less than $\$ 1,000$ are also suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-68. Standard errors for median salary of full-time employed 2001 and 2002 S\&E master's degree recipients, by sex, race/ethnicity, and major field of degree: October 2003

|  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. Median salary standard errors of less than $\$ 1,000$ are also suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-69. Standard errors for median salary of full-time employed 2001 and 2002 S\&E bachelor's degree recipients, by sex, race/ethnicity, and occupation: October 2003

|  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

S = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. Median salary standard errors of less than $\$ 1,000$ are also suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-70. Standard errors for median salary of full-time employed 2001 and 2002 S\&E master's degree recipients, by sex, race/ethnicity, and occupation: October 2003

|  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

S = data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. Median salary standard errors of less than $\$ 1,000$ are also suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-71. Standard errors for median salary of full-time employed 2001 and 2002 S\&E bachelor's degree recipients, by sector of employment and major field of degree: October 2003

| Major field | All employed | Sector |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Educational institution | Government | Private industry and business |
| All fields | S | \$3,200 | S | S |
| Sciences | S | S | 1,100 | S |
| Biological, agricultural, and environmental life sciences | S | S | 1,900 | S |
| Agricultural/food sciences | S | S | S | 2,100 |
| Biological sciences | S | S | 3,400 | 1,200 |
| Environmental life sciences | 2,100 | S | 1,400 | S |
| Computer and information sciences | 1,200 | 1,100 | 2,500 | S |
| Mathematics and statistics | 1,400 | 1,600 | S | 3,400 |
| Physical and related sciences | S | 1,200 | 3,800 | S |
| Chemistry, except biochemistry | 1,400 | S | S | 2,800 |
| Earth/atmospheric/ocean sciences | S | S | 2,300 | 2,000 |
| Physics/astronomy | 1,200 | 2,600 | S | 4,500 |
| Other physical sciences | 1,800 | S | S | S |
| Psychology | 2,400 | S | 1,800 | S |
| Social and related sciences | S | S | 2,000 | 2,600 |
| Economics | 1,300 | 2,200 | 2,300 | 1,500 |
| Political and related sciences | S | 1,000 | 3,000 | S |
| Sociology/anthropology | S | 1,100 | S | 2,700 |
| Other social sciences | S | S | 3,900 | S |
| Engineering | S | S | 1,500 | S |
| Aerospace/aeronautical/astronautical engineering | 2,400 | S | 4,000 | S |
| Chemical engineering | S | S | S | S |
| Civil/architectural engineering | S | S | S | S |
| Electrical/computer engineering | S | S | 1,300 | S |
| Industrial engineering | 2,900 | S | S | S |
| Materials/metallurgical engineering | S | S | S | S |
| Mechanical engineering | S | S | 1,600 | S |
| Other engineering | S | S | 4,200 | 1,300 |
| Health | 1,900 | 3,700 | 4,500 | 1,100 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. Median salary standard errors of less than $\$ 1,000$ are also suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-72. Standard errors for median salary of full-time employed 2001 and 2002 S\&E master's degree recipients, by sector of employment and major field of degree: October 2003

| Major field | All employed | Sector |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Educational institution | Government | Private industry and business |
| All fields | \$1,600 | S | \$5,100 | \$3,300 |
| Sciences | S | S | S | 3,300 |
| Biological, agricultural, and environmental life sciences | 2,300 | 3,300 | 4,400 | 2,400 |
| Agricultural/food sciences | 2,300 | S | S | S |
| Biological sciences | 4,900 | 2,300 | 5,600 | 4,200 |
| Environmental life sciences | S | S | S | S |
| Computer and information sciences | 4,300 | 11,400 | S | 3,000 |
| Mathematics and statistics | 10,100 | 2,700 | S | 5,500 |
| Physical and related sciences | 1,700 | 1,300 | S | S |
| Chemistry, except biochemistry | 2,400 | S | S | 1,000 |
| Earth/atmospheric/ocean sciences | S | S | S | 4,000 |
| Physics/astronomy | 1,100 | S | S | S |
| Other physical sciences | S | S | S | S |
| Psychology | 2,200 | S | S | 3,500 |
| Social and related sciences | S | 5,000 | 1,500 | 1,800 |
| Economics | 1,900 | S | S | 3,000 |
| Political and related sciences | 2,800 | S | 3,200 | 1,200 |
| Sociology/anthropology | 3,500 | S | 1,700 | 2,600 |
| Other social sciences | 1,900 | 1,700 | 2,500 | S |
| Engineering | S | 6,900 | 2,800 | S |
| Aerospace/aeronautical/astronautical engineering | 5,700 | S | S | 2,100 |
| Chemical engineering | 5,500 | S | S | 5,700 |
| Civil/architectural engineering | S | S | 3,400 | S |
| Electrical/computer engineering | S | S | S | 1,300 |
| Industrial engineering | 9,900 | S | S | 8,300 |
| Materials/metallurgical engineering | S | S | S | S |
| Mechanical engineering | 4,400 | S | S | 1,800 |
| Other engineering | 4,100 | S | S | 1,100 |
| Health | 3,900 | 1,300 | 6,300 | 1,400 |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. Median salary standard errors of less than $\$ 1,000$ are also suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-73. Standard errors for median salary of full-time employed 2001 and 2002 S\&E bachelor's degree recipients, by sector of employment and occupation: October 2003

| Occupation | All employed | Sector |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Educational institution | Government | Private industry and business |
| All occupations | S | \$3,200 | S | S |
| Scientists | S | S | S | S |
| Biological, agricultural, and environmental life scientist | S | S | 3,100 | 1,100 |
| Computer and information scientist | 2,600 | 3,200 | 3,700 | S |
| Mathematical scientist | 5,000 | S | S | S |
| Physical scientist | 1,800 | S | 1,600 | 1,700 |
| Psychologist | S | S | S | S |
| Social scientist | 2,000 | S | S | 2,700 |
| Engineers | S | 1,800 | 3,100 | S |
| Science and engineering-related occupations | S | 2,500 | 1,300 | S |
| Healh-related occupation | 6,000 | 6,300 | 2,400 | S |
| S\&E manager | 6,200 | S | S | 9,800 |
| S\&E precollege teacher | S | S | S | S |
| S\&E technician/technologist | S | S | 8,300 | 2,100 |
| Other S\&E-related occupation | 1,700 | S | S | 1,800 |
| Non-science and engineering occupations | S | S | 1,300 | S |
| Arts/humanities-related occupation | 2,500 | S | S | 1,500 |
| Management-related occupation | S | S | 7,000 | S |
| Non-S\&E manager | 5,100 | S | S | S |
| Non-S\&E postsecondary teacher | S | S | S | S |
| Non-S\&E precollege/other teacher | S | 2,000 | S | S |
| Sales/marketing occupation | 1,400 | S | S | 2,900 |
| Social service-related occupation | 1,900 | 4,000 | S | S |
| Other non-S\&E occupation | S | S | 1,900 | S |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. Median salary standard errors of less than $\$ 1,000$ are also suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

TABLE B-74. Standard errors for median salary of full-time employed 2001 and 2002 S\&E master's degree recipients, by sector of employment and occupation: October 2003

|  |  |  | Sector of employment |
| :--- | ---: | ---: | ---: | ---: |
|  |  | Educational <br> institution | Covernment |

$\mathrm{S}=$ data with weighted values less than 100 or unweighted sample sizes less than 20 are suppressed for reasons of data reliability. Median salary standard errors of less than \$1,000 are also suppressed for reasons of data reliability.
S\&E = science and engineering.
SOURCE: National Science Foundation/Division of Science Resources Statistics, National Survey of Recent College Graduates, 2003.

## Appendix C. SURVEY InStrument2003 MAIL QUESTIONNAIRE



This information is solicited under the authority of the National Science Foundation Act of 1950, as amended, and the Confidential Information Protection and Statistical Efficiency Act of 2002. These laws require that the survey sponsor (the National Science Foundation) treat all information you provide as confidential. The information you provide will be used only for research and statistical purposes by the survey sponsor, their contractors, and collaborating researchers for the purpose of analyzing data and preparing scientific reports and articles. Any information publicly released (such as statistical summaries) will be in a form that does not personally identify you. Your response is voluntary and failure to provide some or all of the requested information will not in any way adversely affect you. Actual time to complete the questionnaire may vary depending on your circumstances but on average, it will take about 25 minutes. If you have any comments on the time required for this survey, please send them to the National Science Foundation, 4201 Wilson Boulevard, Suite 295, Arlington, VA 22230, Attention: NSF Reports Clearance Officer.

Please make any name/address changes below:

First Name
M.I.

## Last Name

Number and Street

City/Town

State
ZIP Code

OMB No.: 3145-0077
Approval Expires: 09/30/2005 $\square$

* Thank you for taking the time to complete this questionnaire.
* If you have any questions, please call us toll free at 1-888-633-8329 or e-mail us at questions@gradsurvey.org. Our mailing address is: 2003 National Survey of Recent College Graduates, Mathematica Policy Research, Inc., 7161 Columbia Gateway Drive, Columbia, MD 21046.
* Results of the National Survey of Recent College Graduates can be found on the National Science Foundation's Web site at http://www.nsf.gov/sbe/srs/nsrcg.
* An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control number for this survey is $\mathbf{3 1 4 5 - 0 0 7 7}$.
* Follow all appropriate skip instructions after marking a box. If no skip instruction is provided, you should continue to the next question.


## Part A - Education Background

A1. In what year did you receive your high school diploma or high school equivalency certificate?
DID NOT FINISH HIGH SCHOOL

A2. In what U.S. state, U.S. territory, or foreign country did you last attend high school?

STATE/TERRITORY

FOREIGN COUNTRY

A3. Have you ever taken courses at a community college?

Use an $X$ to mark your answer.YesNo

A4. Do you have a 2-year associate's degree?YesNo

A5. When you first entered college to begin working on a bachelor's degree, what was your intended major field of study?

○ $\square$
$\leftarrow$ Mark (X) this box if you were undecided and then go to question A7

FIRST INTENDED MAJOR
$\qquad$
$\qquad$

A6. Using the FIELD OF STUDY list on pages 18-19, choose the code that best describes your first intended major.


NOTE: Education codes range from 601 to 995

A7. Using a 4-point scale, what was your overall undergraduate grade point average (GPA)?

If you have more than one bachelor's degree, give your overall grade point average for your first bachelor's degree.

Mark ( $X$ ) one answer.3.75-4.00 GPA (Mostly A's)3.25-3.74 GPA (About half A's/half B's)2.75-3.24 GPA
(Mostly B's)2.25-2.74 GPA
(About half B's/half C's)1.75-2.24 GPA (Mostly C's)
${ }_{6} \square$ 1.25-1.74 GPA (About half C's/half D's)Less than 1.25 (Mostly D's or below)Have not taken courses for which grades were given

A8. How many college or university degrees do you have at the bachelor's level or higher?

NUMBER $\qquad$

Page 2
A9. During the week of October 1, 2003, were you enrolled in or taking courses at a college or university?
${ }_{1} \square \mathrm{Yes}$
${ }_{2} \square \mathrm{No} \rightarrow$ Go to question A16

A10. (If Yes) Were you taking courses or enrolled as...

Mark ( $X$ ) one answer.
$1 \square$A full-time student in a degree programA part-time student in a degree program
${ }_{3} \square$ Not enrolled in a degree program, but taking courses

A11. Toward what degree were you working? If you were working toward more than one degree, mark the level for the highest degree.
Mark ( $X$ ) one answer.No specific degree $\rightarrow$ Go to question A14Bachelor's degree (e.g., BS, BA, AB)
$2 \square$Master's degree (e.g., MS, MA, MBA)Doctorate (e.g., PhD, DSc, EdD, etc.)
${ }_{4} \square$ Other professional degree (e.g., JD, LLB, MD, DDS, etc.) - Specify ${ }_{\text {Z }}$

5Other - Specify $\bar{Z}$
$\qquad$
A12. What was the primary field of study for this degree?

PRIMARY FIELD OF STUDY
$\qquad$
$\qquad$
A13. Using the FIELD OF STUDY list on pages 18-19, choose the code that best describes the field of study for this degree.

CODE


NOTE: Education codes range from 601 to 995

A14. For which of the following reasons were you taking courses or enrolled?

Mark (X) Yes or No for each item.

1 To gain further education before beginning a career $\qquad$
$\qquad$

2 To prepare for graduate school or further education $\qquad$ $\square$
3 To change your academic or occupational field $\qquad$ $1 \square$
4 To gain further skills or knowledge in your academic or occupational field $\qquad$ $\square$ ${ }_{2} \square$
5 For licensure or certification $\qquad$ $1 \square$
6 To increase opportunities for promotion, advancement or higher salary $\qquad$ $1 \square$ $2 \square$
7 Required or expected by employer$\square 2$ $\square$
$\square$
$\square$
9 Other - Specify.z. $\qquad$ ${ }_{1} \square$ $\square$

A15. Were any of your school-related costs for taking courses paid for by an employer?YesNo

A16. How likely is it that you will one day take additional college or university courses?Very likelySomewhat likelyVery unlikely

A17. The next few questions ask about the degrees you received before October 1, 2003. Starting with your most recent college or university degree, please provide the following information for each degree you have at the bachelor's level or higher. If you have more than three degrees, report your two most recent degrees and your first bachelor's degree.

\begin{tabular}{|c|c|c|}
\hline MOST RECENT DEGREE \& SECOND MOST RECENT DEGREE \& FIRST BACHELOR'S DEGREE \\
\hline a. From which school did you receive your most recent degree? \& a. From which school did you receive your second most recent degree? \& a. From which school did you receive your first bachelor's degree, if not previously reported on this page? \\
\hline College or University Name \& College or University Name \& College or University Name \\
\hline Department \& Department \& Department \\
\hline City/Town \& City/Town \& City/Town \\
\hline State/Foreign Country \& State/Foreign Country \& State/Foreign Country \\
\hline \begin{tabular}{l}
b. In what month and year was this degree awarded? \\
Month \\
Year
\end{tabular} \& \begin{tabular}{l}
b. In what month and year was this degree awarded? \\
Month \\
Year
\end{tabular} \& \begin{tabular}{l}
b. In what month and year was this degree awarded? \\
Month \\
Year
\end{tabular} \\
\hline \begin{tabular}{l}
c. What type of degree did you receive? \\
Mark ( \(X\) ) one answer.
Bachelor's degree (e.g., BS, BA, AB)
Master's degree (e.g., MS, MA, MBA)
Doctorate (e.g., PhD, DSc, EdD, etc.)
Other professional degree (e.g., JD, LLB, MD, DDS, etc.) - Specify Z
\end{tabular} \& \begin{tabular}{l}
c. What type of degree did you receive? \\
Mark ( \(X\) ) one answer. \\
1 \(\square\) Bachelor's degree (e.g., BS, BA, AB) \\
2 Master's degree (e.g., MS, MA, MBA) \\
3 Doctorate (e.g., PhD, DSc, EdD, etc.) \\
4 \(\square\) Other professional degree (e.g., JD, LLB, MD, DDS, etc.) - Specify \(\boldsymbol{Z}\)
\end{tabular} \& \begin{tabular}{l}
c. What type of degree did you receive? \\
Mark ( \(X\) ) one answer. \\
\(1 \square\) Bachelor's degree (e.g., BS, BA, AB)

Master's degree (e.g., MS, MA, MBA)

Doctorate (e.g., PhD, DSc, EdD, etc.) <br>
4 $\square$ Other professional degree (e.g., JD, LLB, MD, DDS, etc.) - Specify $\mathcal{Z}$
\end{tabular} <br>

\hline ${ }_{5} \square$ Other - Specify $V$ \& ${ }_{5} \square$ Other - Specify $\downarrow$ \& ${ }_{5} \square$ Other - Specify $\downarrow$ <br>

\hline | d. What is the primary field of study and second major (if applicable) for this degree? |
| :--- |
| PRIMARY FIELD OF STUDY | \& | d. What is the primary field of study and second major (if applicable) for this degree? |
| :--- |
| PRIMARY FIELD OF STUDY | \& | d. What is the primary field of study and second major (if applicable) for this degree? |
| :--- |
| PRIMARY FIELD OF STUDY | <br>

\hline SECOND MAJOR \& SECOND MAJOR \& SECOND MAJOR <br>

\hline | e. Using the FIELD OF STUDY list on pages 18-19, choose the code that best describes the primary field of study and second major (if applicable) for this degree. |
| :--- |
| Code for Primary Field of Study | \& | e. Using the FIELD OF STUDY list on pages 18-19, choose the code that best describes the primary field of study and second major (if applicable) for this degree. |
| :--- |
| Code for Primary Field of Study | \& | e. Using the FIELD OF STUDY list on pages 18-19, choose the code that best describes the primary field of study and second major (if applicable) for this degree. |
| :--- |
| Code for Primary Field of Study | <br>

\hline Code for Second Major \& Code for Second Major \& Code for Second Major <br>
\hline NOTE: Education codes range from 601-995 \& NOTE: Education codes range from 601-995 \& NOTE: Education codes range from 601-995 <br>
\hline
\end{tabular}

## Page 4

A18. The next question asks about the types of financial support you may have received to finance any undergraduate or graduate degrees you completed before October 1, 2003.

Mark (X) all that apply for each undergraduate and graduate column.

1 Did not earn a degree at this level $\qquad$


2 Financial support from parents, spouse, other relatives, not to be repaid $\qquad$
3 Loans from the school you attended, banks, federal or state government $\qquad$
$\qquad$
$\qquad$ yer $\qquad$
5 Financial assistance from your employer
6 Tuition waivers, fellowships, grants, scholarships
7 Assistantships or work study $\qquad$
8 Earnings from employment. $\qquad$
9 Other - Specify 区. $\qquad$


$\qquad$

A19. The next question asks about the TOTAL amount you have borrowed to finance undergraduate and graduate degrees you completed before October 1, 2003, and how much you still owed as of October 1, 2003.

Mark ( $X$ ) one answer in each undergraduate and graduate column.

|  |  | UNDERGRADUATE |  | GRADUATE |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total Amount Borrowed $\downarrow$ | Amount Still Owed as of October 1, 2003 | Total Amount Borrowed $\downarrow$ | Amount Still Owed as of October 1, 2003 |
| 1 | Did not earn a degree at this level........ | $1 \square$ | $1 \square$ | $1 \square$ | $1 \square$ |
| 2 | None | $2 \square$ | ${ }_{2} \square$ | $2 \square$ | $2 \square$ |
| 3 | \$1- \$5,000....................................... | ${ }_{3} \square$ | ${ }_{3} \square$ | ${ }_{3} \square$ | ${ }_{3} \square$ |
| 4 | \$5,001-\$10,000............................... | ${ }_{4} \square$ | $4 \square$ | $4 \square$ | ${ }_{4} \square$ |
| 5 | \$10,001-\$15,000 ............................. | ${ }_{5} \square$ | $5 \square$ | $5 \square$ | $5 \square$ |
| 6 | \$15,001 - \$20,000 ............................ | ${ }_{6} \square$ | ${ }_{6} \square$ | $6 \square$ | ${ }_{6} \square$ |
| 7 | \$20,001-\$25,000 ............................ | $7 \square$ | $7 \square$ | $7 \square$ | $7 \square$ |
| 8 | \$25,001 - \$30,000 ............................. | $8 \square$ | $8 \square$ | $8 \square$ | $8 \square$ |
| 9 | \$30,001-\$35,000 ............................. | $9 \square$ | ${ }_{9} \square$ | $9 \square$ | $9 \square$ |
| 10 | \$35,001 or more ................................ | ${ }_{10} \square$ | ${ }_{10} \square$ | ${ }_{10} \square$ | ${ }_{10} \square$ |

A20. Between the most recent degree you earned prior to October 1, 2003 and October 1, 2003, did you enroll in or take any courses at a college or university?
$\square 1$YesNo $\rightarrow$ Go to question B1 on this page

A21. Toward what degree were you working?
If you were working toward more than one degree, mark the level for the highest degree.No specific degree $\rightarrow$ Go to question B1 on this pageBachelor's degree (e.g., BS, BA, AB)Master's degree (e.g., MS, MA, MBA)Doctorate (e.g., PhD, DSc, EdD, etc.)Other professional degree (e.g., JD, LLB,
MD, DDS, etc.) - Specify ${ }_{\text {Z }}$
${ }_{5} \square$
Other - Specify ${ }_{\text {Z }}$
$\qquad$

A22. What was your primary field of study for this degree?

PRIMARY FIELD OF STUDY

A23. Using the FIELD OF STUDY list on pages 18-19, choose the code that best describes the field of study for this degree.

CODE


NOTE: Education codes range from 601 to 995

## Part B - Employment Situation

B1. Were you working for pay or profit during the week of October 1, 2003?

This includes being a student on paid work-study, self-employed, or on any type of paid or unpaid temporary leave.

Use an $X$ to mark your answer.
${ }_{1} \square$ Yes $\rightarrow$ Go to page 6, question B7No

B2. (If No) Did you look for work during the four weeks preceding October 1, 2003? This would be between September $3^{\text {rd }}$ and October $1^{\text {st }}$.Yes
$2 \square$
No

B3. What were your reasons for not working during the week of October 1?

Mark ( $X$ ) all that apply.
On layoff from a jobStudentFamily responsibilitiesChronic illness or permanent disabilitySuitable job not availableDid not need or want to workOther - Specify Z

B4. Prior to the week of October 1, 2003, when did you last work for pay or profit?$\leftarrow$ Mark (X) this box if you never worked for pay or profit and then go to page 13, question D1
LAST WORKED


B5. What kind of work were you doing on this last job - that is, what was your occupation? Please be as specific as possible, including any area of specialization.

Example: High school teacher - Math
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

B6. Using the JOB CATEGORY list on pages 20-21, choose the code that best describes the work you were doing on this last job.


NOTE: Job codes range from 010 to 500

B7. (If you worked during week of October $1^{\text {st }}$ ) Counting all jobs held during the week of October 1, 2003, did you usually work...A total of 35 or more hours per week $\rightarrow$ Go to page 7, question B10
$\qquad$ Fewer than 35 hours per week

B8. (If you worked fewer than 35 hours) During the week of October 1, did you want to work a full-time work week of 35 or more hours?YesNo

B9. For which of the following reasons were you working for less than 35 hours during the week of October 1?

Mark (X) all that apply.


## Principal Employer

B10. Who was your principal employer during the week of October 1, 2003?

If you had more than one job, report the one for which you worked the most hours that week.

If your employer had more than one location, report the location where you usually worked.
Employer Name

Department/Division

Street

City/Town
$\qquad$
State

ZIP Code

B11. What was that employer's main business or industry; that is, what did that employer make or do?

If your principal employer had more than one type of business, report the type of business primarily performed at the location where you work.

Example: Production of microprocessor chips
EMPLOYER'S MAIN BUSINESS

B12. Counting all locations where this employer operates, how many people work for your principal employer? Your best estimate is fine.

Mark ( $X$ ) one answer.10 or fewer employees
$2 \square$
11-24 employees
${ }_{3} \square$ 25-99 employees100-499 employees500-999 employees1,000-4,999 employees
${ }_{7} \square$ 5,000-24,999 employees
${ }_{8} \square$ 25,000+ employees

B13. Did your principal employer come into being as a new business within the past 5 years?


Yes
${ }_{2} \square$ No

B14. Which one of the following best describes your principal employer during the week of October 1?

Mark ( $X$ ) one answer.SELF-EMPLOYED in own NOT INCORPORATED business, professional practice or farmSELF-EMPLOYED in own INCORPORATED business, professional practice or farm
${ }_{3} \square$ A PRIVATE FOR-PROFIT organization or individual working for wages, salary or commissionsA PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organizationLocal GOVERNMENT (e.g., city, county)State GOVERNMENTU.S. military service, active duty or Commissioned Corps (e.g., USPHS, NOAA)U.S. GOVERNMENT (e.g., civilian employee)
${ }_{9} \square$ Other - Specify Z

## Page 8

B15. Was your principal employer an educational institution?YesNo $\rightarrow$ Go to page 9, question B2O

B16. (If Yes) Was the educational institution where you worked a...

Mark ( $X$ ) one answer.Preschool, elementary, middle, or secondary school or system Go to page 9, question B20Two-year college, community college, or technical instituteFour-year college or university, other than a medical schoolMedical school (including university-affiliated hospital or medical center)
$5 \square$University-affiliated research instituteOther - Specify $\boldsymbol{Z}$
$\qquad$

B17. During the week of October 1, 2003, what type of academic position(s) did you hold at this institution?

Mark (X) all that apply.President, Provost or Chancellor (any level)Dean (any level), department head or chairResearch faculty, scientist, associate or fellowTeaching facultyAdjunct facultyPostdoc (e.g., postdoctoral fellow or associate)Research assistantTeaching assistant
$\square \square$ Other - Specify Z

B18. What was your faculty rank?
Mark ( $X$ ) one answer.Not applicable: no ranks designated at this institutionNot applicable: no ranks designated for my positionProfessorAssociate ProfessorAssistant ProfessorInstructor
${ }_{7} \square$ LecturerOther - Specify Z

B19. What was your tenure status?
Mark ( $X$ ) one answer.Not applicable: no tenure system at this institutionNot applicable: no tenure system for my positionTenuredOn tenure track but not tenuredNot on tenure track

## Principal Job

B20. What kind of work were you doing on your principal job held during the week of October 1, 2003 - that is, what was your occupation? Please be as specific as possible, including any area of specialization.

Example: High school teacher - Math
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

B21. Using the JOB CATEGORY list on pages 20-21, choose the code that best describes the work you were doing on your principal job during the week of October 1.

CODE $\qquad$
NOTE: Job codes range from 010 to 500

B22. Did your duties on this job require the technical expertise of a bachelor's degree or higher in...

Mark (X) Yes or No for each item.

1 Engineering, computer science, math, or the natural sciences


2 The social sciences $\qquad$
3 Some other field (e.g., health, business, or education) - Specify $\overline{\bar{k}}$ ${ }^{1} \square$

B23. During what month and year did you start this job (that is, your principal job held during the week of October 1, 2003)?


B24. To what extent was your work on your principal job related to your highest degree? Was it ...

Mark ( $X$ ) one answer.

$\square$ ${ }^{3} \square$ Not related

B25. (If Not related) Did these factors influence your decision to work in an area outside the field of your highest degree?

Mark (X) Yes or No for each item.

1 Pay, promotion opportunities $\qquad$
$\qquad$${ }_{2} \square$

2 Working conditions (e.g., hours, equipment, working environment)

3 Job location $\qquad$ ... 1
4 Change in career or professional interests $\qquad$${ }_{2} \square$

5 Family-related reasons (e.g., children, spouse's job moved) $\qquad$ $\square$ ${ }_{2} \square$

6 Job in highest degree field not available $\qquad$ .$\square$ ${ }_{2} \square$

7 Some other reason - Specifyㅍ....... 1


B26. Which two factors in question B25 were your most important reasons for working in an area outside the field of your highest degree?

Enter number of appropriate reason from question B25 above.

1 Most important reason

2 $\qquad$ Second most important reason (Enter " 0 " if no second reason)

## B27. The next question is about your work activities

 on your principal job. Which of the following work activities occupied at least 10 percent of your time during a typical work week on this job?Mark (X) Yes or No for each item.

1 Accounting, finance, contracts


2 Basic research - study directed toward gaining scientific knowledge primarily for its own sake $\qquad$ $1 \square$


3 Applied research - study directed toward gaining scientific knowledge to meet a recognized need $\qquad$ $\square$


4 Development - using knowledge gained from research for the production of materials, devices $\qquad$ $\square$


5 Design of equipment, processes, structures, models. $\qquad$ $\square$ ${ }_{2} \square$
6 Computer applications, programming, systems development $\qquad$ $1 \square$


7 Employee relations - including recruiting, personnel development, internal training $\qquad$ .$\square$
8 Managing or supervising people or projects. $\qquad$

9 Production, operations, maintenance (e.g., chip production, operating lab equipment). $\qquad$
$\square$${ }_{2} \square$

10 Professional services (e.g., health care, counseling, financial services, legal services) $\qquad$
$\square$ ${ }_{2} \square$
11 Sales, purchasing, marketing, customer service, public relations.
12 Quality or productivity management .. $\square$ $\square$ ${ }_{2} \square$
${ }_{2} \square$
$2 \square$
$2 \square$

```
13 Teaching
``` \(\qquad\)
```

14 Other - Specify?

``` \(\qquad\)


B28. On which two activities in question B27 did you work the most hours during a typical week on this job?

Enter number of appropriate activity from question B27 above.

1 __ Activity most hours

2 \(\qquad\) Activity second most hours (Enter "0" if no second most)

B29. Did you supervise the work of others as part of your principal job held during the week of October 1?

Mark "Yes" if you assigned duties to workers and recommended or initiated personnel actions such as hiring, firing or promoting.

Teachers should not count students.YesNo \(\rightarrow\) Go to question B31

B30. (If Yes) How many people did you typically...
Number
Supervised

1 Supervise directly?
(If none, enter " 0 ")
2 Supervise through subordinate supervisors?
(If none, enter " 0 ")

B31. Thinking about your principal job held during the week of October 1, please rate your satisfaction with that job's..

Mark ( \(X\) ) one answer for each item.


B32. How would you rate your overall satisfaction with your principal job held during the week of October 1?

Mark ( \(X\) ) one answer.Very satisfiedSomewhat satisfiedSomewhat dissatisfiedVery dissatisfied

B33. Before deductions, what was your basic annual salary on this job as of the week of October 1, 2003?

Do not include bonuses, overtime or additional compensation for summertime teaching or research.

If you are not salaried, please estimate your earned income, excluding business expenses.


B34. During a typical week on this job, how many hours did you usually work?

NUMBER OF HOURS PER WEEK \(\qquad\)

B35. Upon how many weeks was your salary based?
Include paid vacation and sick leave.

B36. Thinking back now to 2002, was any of your work during 2002 supported by contracts or grants from the U.S. government?\(\leftarrow\) Mark (X) this box if you did not work in 2002 and then go to page 12, question C1

FEDERAL EMPLOYEES: Please answer "No."
Mark ( \(X\) ) one answer.
\({ }_{1}\) Yes
\(2 \square\)NoDon't know Go to question B38

B37. (If Yes) Which Federal agencies or departments were supporting your work?

Mark (X) all that apply.Agriculture Department (USDA)Defense Department (DOD)Department of Education (including NCES, OERI, FIPSE, FIRST)Energy Department (DOE)Environmental Protection Agency (EPA)Health and Human Services Department (excluding NIH)National Aeronautics and Space Administration (NASA)

8National Institutes of Health (NIH)

9National Science Foundation (NSF)Transportation Department (DOT)
\({ }_{11} \square\)Other - Specify ZDON'T KNOW SOURCE AGENCY

B38. Counting all jobs held in 2002, what was your total earned income for 2002, before deductions?

Include all wages, salaries, bonuses, overtime, commissions, consulting fees, net income from businesses, summertime teaching or research, or other work associated with scholarships.


\section*{Part C - Other Work-Related Experiences}

C1. Since October 1998, how many ...

Number
1 Papers have you (co)authored for presentation at regional, national or international conferences? (Do not count presentations of the same work more than once) \(\qquad\) (If none, enter "0")

2 Articles, (co)authored by you, have been accepted for publication in a refereed professional journal? \(\qquad\)
(If none, enter " 0 ")
3 Books or monographs, (co)authored by you, have been published or accepted for publication?
(If none, enter "0")

C2. Since October 1998, have you been named as an inventor on any application for a U.S. patent?YesNo \(\rightarrow\) Go to question C4

C3. (If Yes) Since October 1998 ...

> Number

1 How many applications for U.S. patents have named you as an inventor? \(\qquad\)

2 How many U.S. patents have been granted to you as an inventor? \(\qquad\)
(If none, enter " 0 ")
3 How many of the patents recorded as granted (in category 2 above) have resulted in commercialized products or processes or have been licensed?
(If none, enter " 0 ")

C4. During the past year, did you attend any professional society or association meetings or professional conferences?

Include regional, national, or international meetings.
\(1 \square\)
Yes
\({ }_{2} \square\)
No

C5. To how many regional, national or international professional societies or associations do you currently belong?

NUMBER
(If none, enter " 0 ")

C6. During the past year, did you take any work-related training, such as workshops or seminars?

Do not include professional meetings unless you attended a special training session conducted at the meeting/conference.

Do not include college coursework for which you were enrolled as a student.
\({ }^{1}\) YesNo \(\rightarrow\) Go to page 13, question C10

C7. (If Yes) During the past year, in which of the following areas did you receive training?

Mark ( \(X\) ) Yes or No for each item.

1 Management or supervisor training


2 Training in your occupational field


3 General professional training (e.g., public speaking, business writing, word processing, spreadsheet use, etc.)
4 Other work-related training - Specify. \(\qquad\) \(1 \square\)

C8. For which of the following reasons did you take training during the past year?

Mark (X) Yes or No for each item.

1 To facilitate a change in your occupational field \(\qquad\)


2 To gain further skills or knowledge in your occupational field \(\qquad\) \(1 \square\) \(\square \quad \square\)
3 For licensure or certification. \(\qquad\)
\(\square\)
4 To increase opportunities for promotion, advancement, or higher salary. \(\qquad\)\({ }_{2} \square\)

5 To learn skills or knowledge needed for a recently acquired position \(\qquad\) .1
6 Required or expected by employer.. \(1 \square\)
7 Other - Specify z \(\qquad\) .1 \(2 \square\)

C9. What was your most important reason from question C8 for taking training?

Enter number of appropriate reason from question C8 above.

MOST IMPORTANT REASON \(\qquad\)

C10. When thinking about a job, how important is each of the following factors to you . . .

Mark (X) one answer for each item.


\section*{Part D - Demographic Information}

D1. On October 1, 2003, were you ...
Mark (X) one answer.Married
\(2 \square\) Living in a marriage-like relationship
\({ }_{3} \square\) WidowedSeparated\(\square\) Divorced Go to page 14, question D4Never Married \(\qquad\)

D2. (If Married or Living in a marriage-like relationship) During the week of October 1, was your spouse or partner working for pay or profit at a full-time or part-time job?

Yes, full-time
Yes, part-timeNo \(\rightarrow\) Go to page 14, question D4

D3. (If Yes) Did your spouse's or partner's duties on this job require the technical expertise of a bachelor's degree or higher in...

Mark (X) Yes or No for each item.

1 Engineering, computer science, math, or the natural sciences \(\qquad\)


2 The social sciences \(\qquad\)
3 Some other field (e.g., health, business, or education)
- Specify .z. \(\qquad\) 1 .
\(\square\)

D4. On October 1, 2003, did you have any children living with you as part of your family?

Only count children who lived with you at least 50 percent of the time.
\(\square 1\)YesNo \(\rightarrow\) Go to question D6

D5. (If Yes) How many of these children living with you as part of your family were...

If no children in a category, enter "0."
Number of Children

1 Under age 2 \(\qquad\)

2 Aged 2-5 \(\qquad\)
3 Aged 6-11 \(\qquad\)

4 Aged 12-18 \(\qquad\)

5 Aged 19 or older \(\qquad\)

D6. What is the highest level of education completed by your parents or guardians?

Mark ( \(X\) ) one for each parent or guardian.


D7. On October 1, 2003, were you living in the United States, Puerto Rico, or other U.S. territories, or were you living in another country?United States, Puerto Rico, or other U.S. territories \(\rightarrow\) Go to question D9
\({ }_{2} \square\) Another country

D8. In the next five years, how likely is it that you will return to the United States to live or work? Mark ( \(X\) ) one answer.
\({ }^{\circ} \square\)
«Mark (X) this box if you returned to the United States to live or work since October 1, 2003Very likelySomewhat likelyNot very likelyNot likely at allDon't know

D9. On October 1, 2003, were you a ...U.S. citizen
\({ }_{2} \square\) Non-U.S. citizen \(\rightarrow\) Go to page 15, question D11

D10. (If U.S. citizen) Were you a U.S. citizen ...

Mark ( \(X\) ) one answer.Born in the United States,
Puerto Rico, or other U.S. territories

Go to page 16, question D18Born abroad of American parent(s) \(\qquad\)By naturalization \(\rightarrow\) Go to page 15, question D14

D11. (If Non-U.S. citizen) Were you a non-U.S. citizen...With a Permanent U.S. Resident Visa (Green Card)
With a Temporary
U.S. Resident Visa

D12. (If a Temporary U.S. Resident Visa Holder) On October 1, 2003, did you hold a visa issued...

Mark ( \(X\) ) one answer.For temporary work (e.g., H-1B, L-1A, L-1B, etc.)For study or training (e.g., F-1, J-1, H-3, etc.)To you as the dependent of another person (e.g., F-2, H-4, J-2, K-2, L-2, etc.)For any other reason - Specify visa type \(\bar{Z}\)
\(\qquad\)

D13. (If Non-U.S. citizen) Of which country are you a citizen?

\section*{COUNTRY}

D14. In what year did you first come to the United States for six months or longer?

YEAR


D15. What kind of visa did you hold when you first came to the United States for six months or longer?

Mark ( \(X\) ) one answer.
\({ }_{1} \square\) Permanent U.S. Resident Visa (Green Card)Temporary U.S. Resident Visa for temporary work (e.g., H-1B, L-1A, L-1B, etc.)Temporary U.S. Resident Visa for study or training (e.g., \(\mathrm{F}-1, \mathrm{~J}-1, \mathrm{H}-3\), etc.)
\({ }_{4} \square\) Temporary U.S. Resident Visa as the dependent of another person (e.g., F-2, H-4, \(\mathrm{J}-2, \mathrm{~K}-2, \mathrm{~L}-2\), etc.)
\({ }_{5} \square\) Other Temporary U.S. Resident Visa Specify visa typer

D16. Which factors were important in your decision to first come to the United States for six months or longer?

Mark (X) Yes or No for each item.

1 Family-related reasons \(\qquad\)


2 Educational opportunities in the United States \(\qquad\) \(1 \square\)
3 Job or economic opportunities \(\qquad\) \(\square\)
\(\qquad\)

D17. Which two factors in question D16 were the most important reasons in your decision to come to the United States?

Enter number of appropriate reason from question D16 above.
\(\qquad\) Most important reason

2 \(\qquad\) Second most important reason
(Enter " 0 " if no second reason)

Page 16

D18. Are you a citizen of more than one country?YesNo

D19. In what U.S. state, U.S. territory, or foreign country were you born?

STATE/TERRITORY

FOREIGN COUNTRY

D20. Are you ...MaleFemale品

\section*{D21. Are you Hispanic or Latino?}
\(1 \square\) YesNo \(\rightarrow\) Go to question D23

D22. (If Yes) Which of the following best describes your Hispanic origin or descent?

Mark ( \(X\) ) one answer.Mexican or ChicanoPuerto RicanCubanOther Hispanic - Specify \({ }_{\text {Z }}\)

D23. What is your racial background?
Mark \((X)\) one or more.American Indian or Alaska Native Specify tribal affiliation(s) ZNative Hawaiian or other Pacific IslanderAsianBlack or African-AmericanWhite

D24. What is your birthdate?


The next several questions are designed to help us better understand the career paths of individuals with different physical abilities.

D25. What is the USUAL degree of difficulty you have with ...
Mark ( \(X\) ) one answer for each item.

1 SEEING words or letters in ordinary newsprint (with glasses/contact lenses if you usually wear them) \(\qquad\)


D26.
 <Mark (X) this box if you answered "None" to all the activities in question D25, and go to question D28.
D27. What is the earliest age at which you first began experiencing any difficulties in any of these areas?

AGE \(\qquad\) OR \(\quad \square\) \(\qquad\) \(\leftarrow\) SINCE BIRTH

D28. In case we need to clarify some of the information you have provided, please list a phone number (and an e-mail address if applicable) where you can be reached.


E-mail Address \(\qquad\)
D29. Since we are interested in how education and employment change over time, we may be recontacting you in 2005. To help us contact you, please provide the name and contact information for two people who are likely to know where you can be reached.
As with all the information provided in this questionnaire, complete confidentiality will be provided. These people will only be contacted if we have trouble contacting you in 2005.


D30. PLEASE TURN TO THE BACK COVER FOR THE LAST QUESTION (D31).

\section*{FIELD OF STUDY}

If you cannot find the code that best describes your field of study, use the "OTHER" code under the most appropriate broad category. If none of the codes fit your field of study, use Code 995.
```

    Agriculture Business and Production
    601 Agricultural economics (Also see 655 and 923)
602 OTHER agricultural business and production

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\section*{Agricultural Sciences}
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605 Animal sciences
606 Food sciences and technology (Also see 638)
607 Plant sciences (Also see 633)
608 OTHER agricultural sciences
610 Architecture/Environmental Design (For architectural engineering, see 723)

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\section*{Biological/Life Sciences}
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631 Biochemistry and biophysics
632 Biology, general
633 Botany (Also see 607)
634 Cell and molecular biology
635 Ecology
636 Genetics, animal and plant
637 Microbiological sciences and immunology
638 Nutritional sciences (Also see 606)
639 Pharmacology, human and animal (Also see 788)
640 Physiology and pathology, human and animal
641 Zoology, general
642 OTHER biological sciences

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\section*{Business Management/Administrative Services}

651 Accounting
652 Actuarial science
653 Business administration and management
654 Business, general
655 Business and managerial economics (Also see 601 and 923)

656 Business marketing/marketing management
657 Financial management
658 Marketing research
843 Operations research
659 OTHER business management/administrative services

\section*{Communications}

661 Communications, general
662 Journalism
663 OTHER communications

\section*{Computer and Information Sciences}

671 Computer and information sciences, general
672 Computer programming
673 Computer science (Also see 727)
674 Computer systems analysis
675 Data processing
676 Information services and systems
677 OTHER computer and information sciences

\section*{Conservation and Natural Resources}

680 Environmental science or studies
681 Forestry sciences
682 OTHER natural resources and conservation

\section*{690 Criminal Justice/Protective Services}
(Also see 922)

\section*{Education}

701 Education administration
702 Computer teacher education
703 Counselor education and guidance
704 Educational psychology
705 Elementary teacher education
706 Mathematics teacher education
707 Physical education and coaching
708 Pre-school/kindergarten/early childhood teacher education
709 Science teacher education
710 Secondary teacher education
711 Special education
712 Social science teacher education
713 OTHER education

\section*{Engineering}

721 Aerospace, aeronautical and astronautical engineering
722 Agricultural engineering
723 Architectural engineering
724 Bioengineering and biomedical engineering
725 Chemical engineering
726 Civil engineering

728 Electrical, electronics and communications engineering

737 Mining and minerals engineering
738 Naval architecture and marine engineering
739 Nuclear engineering
740 Petroleum engineering
741 OTHER engineering

\section*{Engineering-Related Technologies}

Computer and systems engineering

Engineering sciences, mechanics and physics
Environmental engineering
Engineering, general
Geophysical and geological engineering
Industrial and manufacturing engineering (Also see 752)
Materials engineering, including ceramics and textiles
Mechanical engineering
Metallurgical engineering
etroleum engineering

Electrical and electronics technologies
Industrial production technologies
Mechanical engineering-related technologies
OTHER engineering-related technologies

\section*{FIELD OF STUDY (Continued)}

\section*{Languages, Linguistics, Literature/Letters}

760 English language, literature and letters
771 Linguistics
772 OTHER foreign languages and literature

\section*{Health and Related Sciences}

781 Audiology and speech pathology
782 Health services administration
783 Health/medical assistants
784 Health/medical technologies
785 Medical preparatory programs (e.g., pre-dentistry, premedical, pre-veterinary)
786 Medicine (e.g., dentistry, optometry, osteopathic, podiatry, veterinary)
787 Nursing (4 years or longer program)
788 Pharmacy (Also see 639)
789 Physical therapy and other rehabilitation/therapeutic services
790 Public health (including environmental health and epidemiology)
791 OTHER health/medical sciences
800 Home Economics
810 Law/Prelaw/Legal Studies
820 Liberal Arts/General Studies
830 Library Science
Mathematics and Statistics
841 Applied mathematics (Also see 843 and 652)
842 Mathematics, general
843 Operations research
844 Statistics
845 OTHER mathematics
850 Parks, Recreation, Leisure, and Fitness Studies
Philosophy, Religion, and Theology
861 Philosophy of science
862 OTHER philosophy, religion, theology
Physical Sciences
871 Astronomy and astrophysics
872 Atmospheric sciences and meteorology
631 Biochemistry and biophysics
873 Chemistry, except biochemistry
874 Earth sciences
875 Geology
876 Geological sciences, other
877 Oceanography
878 Physics
879 OTHER physical sciences

\section*{Psychology}

891 Clinical
892 Counseling
704 Educational
893 Experimental
894 General
895 Industrial/Organizational
896 Social
897 OTHER psychology
Public Affairs

\section*{910 Social Work}

\section*{Social Sciences and History}

921 Anthropology and archaeology
922 Criminology (Also see 690)
923 Economics (Also see 601 and 655)
Geography
History of science
History, other
International relations
Political science and government
Sociology
Area and ethnic studies
Social work
OTHER social sciences
Visual and Performing Arts
941 Dramatic arts
942 Fine arts, all fields
943 Music, all fields
944

995

OTHER visual and performing arts
OTHER FIELDS (Not Listed)

\section*{JOB CATEGORY}

If you cannot find the code that best describes your job, use the "OTHER" code under the most appropriate broad category. If none of the codes fit your job, use Code 500.
\begin{tabular}{|ll}
010 & Artists, Broadcasters, Editors, Entertainers, \\
& Public Relations Specialists, Writers \\
& Biological/Life Scientists \\
021 & Agricultural and food scientists \\
022 & Biochemists and biophysicists \\
023 & Biological scientists (e.g., botanists, ecologists, \\
& zoologists) \\
024 & Forestry and conservation scientists \\
025 & Medical scientists (excluding practitioners) \\
026 & Technologists and technicians in the biological/life \\
& sciences \\
027 & OTHER biological and life scientists
\end{tabular}

Clerical/Administrative Support Occupations
031 Accounting clerks and bookkeepers
032 Secretaries, receptionists, typists
033 OTHER administrative (e.g., record clerks, telephone operators)

040 Clergy and Other Religious Workers
Computer Occupations (Also see 173)
*** Computer engineers (See 087, 088 under Engineers)
051 Computer and information scientists, research
052 Computer programmers (business, scientific, process control)
053 Computer support specialists
054 Computer system analysts
055 Database administrators
056 Network and computer systems administrators
057 Network systems and data communications analysts
058 OTHER computer and information science occupations
*** Consultants (Select the code that comes closest to your usual area of consulting)

070 Counselors (Educational, vocational, mental health, and substance abuse) (Also see 236)

\section*{Engineers and Architects}

081 Architects
*** Engineers (Also see 100-104)
082 Aeronautical, aerospace, and astronautical engineers
083 Agricultural engineers
084 Bioengineers and biomedical engineers
085 Chemical engineers
086 Civil, including architectural and sanitary engineers
087 Computer engineers - hardware
088 Computer engineers - software
089 Electrical and electronics engineers
090 Environmental engineers
091 Industrial engineers

Engineers (Continued) (Also see 100-104)
092 Marine engineers and naval architects
093 Materials and metallurgical engineers
094 Mechanical engineers
095 Mining and geological engineers
096 Nuclear engineers
097 Petroleum engineers
098 Sales engineers
099 OTHER engineers

\section*{Engineering Technologists, Technicians, and Surveyors}

100 Electrical, electronic, industrial, and mechanical technicians
101 Drafting occupations, including computer drafting
102 Surveying and mapping technicians
103 OTHER engineering technologists and technicians
104 Surveyors, cartographers, photogrammetrists

\section*{110 Farmers, Foresters and Fishermen}

\section*{Health Occupations}

111 Diagnosing/treating practitioners (e.g., dentists, optometrists, physicians, psychiatrists, podiatrists, surgeons, veterinarians)
112 Registered nurses, pharmacists, dieticians, therapists, physician assistants
236 Psychologists, including clinical (Also see 070)
113 Health technologists and technicians (e.g., dental hygienists, health record technologist/technicians, licensed practical nurses, medical or laboratory technicians, radiological technicians)
114 OTHER health occupations
120 Lawyers, Judges
130 Librarians, Archivists, Curators
*** Managers/Supervisors, First Line (Select the code that comes closest to the field you manage)

\section*{Managers, Top-Level Executives, Administrators}
(People who manage other managers)
141 Top-level managers, executives, administrators (e.g., CEO/COO/CFO, president, district manager, general manager, legislator, chancellor, provost)

Managers, Other (Also see 151-153)

Computer and information systems managers
Engineering managers
Medical and health services managers
Natural sciences managers
Education administrators (e.g., registrar, dean, principal)
OTHER mid-level managers

\section*{JOB CATEGORY (Continued)}

\section*{Management-Related Occupations}

\section*{(Also see 141-147)}

151 Accountants, auditors, and other financial specialists
152 Personnel, training, and labor relations specialists
153 OTHER management related occupations

\section*{Mathematical Scientists}

171 Actuaries
172 Mathematicians
173 Operations research analysts, including modeling
174 Statisticians
175 Technologists/technicians in the mathematical sciences
176 OTHER mathematical scientists

\section*{Physical Scientists}

191 Astronomers
192 Atmospheric and space scientists
193 Chemists, except biochemists
194 Geologists, including earth scientists
195 Oceanographers
196 Physicists
197 Technologists and technicians in the physical sciences
198 OTHER physical scientists
*** Research Associates/Assistants (Select the code that comes closest to your field)

\section*{Sales and Marketing Occupations}

200 Insurance, securities, real estate, and business services
201 Sales occupations - commodities except retail (e.g., industrial machinery/equipment/supplies, medical and dental equipment/supplies)
202 Sales occupations - retail (e.g., furnishings, clothing, motor vehicles, cosmetics)
203 OTHER marketing and sales occupations

\section*{Service Occupations, Except Health}
(Also see 111-114)
221 Food preparation and services (e.g., cooks, waitresses, bartenders)
222 Protective services (e.g., fire fighters, police, guards, wardens, park rangers)
223 OTHER service occupations, except health (e.g., probation officers, human services workers)

\section*{Social Scientists}

231 Anthropologists
232 Economists
233 Historians
235 Political scientists
236 Psychologists, including clinical (Also see 070)
237 Sociologists
238 OTHER social scientists

\section*{Teachers and Professors}

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\section*{Social Workers}

Precollegiate Teachers
Pre-Kindergarten and kindergarten
Elementary
Secondary - computer, math, or sciences
Secondary - social sciences
Secondary - other subjects
Special education - primary and secondary
OTHER precollegiate area
Postsecondary Professors
Agriculture
Art, Drama, and Music
Biological Sciences
Business, Commerce and Marketing
Chemistry
Computer Science
Earth, Environmental, and Marine Sciences
Economics
Education
Engineering
English
Foreign Languages
History
Mathematics and Statistics
Health and Related Sciences
Physical Education
Physics
Political Science
Psychology
Sociology
OTHER Natural Sciences
OTHER Social Sciences
OTHER Postsecondary fields

\section*{Other Professions}

Construction and extraction occupations occupations, tailors, shoemakers, photographic process)
Transportation and material moving occupations

OTHER teachers and instructors (e.g., private tutors, dance or flying instructors, martial arts instructors)

Installation, maintenance, and repair occupations
Precision/production occupations (e.g., metal workers, woodworkers, butchers, bakers, assemblers, printing

OTHER OCCUPATIONS (Not Listed)

D31. How would you like to complete future rounds of this survey?
Mark ( \(X\) ) one answer.
\(1 \square\)A questionnaire sent in the mail
\(2 \square\)A questionnaire that you can fill out on the World Wide Web
\(3 \square\)A telephone interview
\({ }_{4} \square\)No preference

\section*{THANK YOU FOR COMPLETING THE QUESTIONNAIRE.}

Please return the completed form in the envelope provided.
If you cannot find the envelope and want another, call 1-888-633-8329.
Our mailing address is:
2003 National Survey of Recent College Graduates
Mathematica Policy Research, Inc.
7161 Columbia Gateway Drive
Columbia, MD 21046```


[^0]:    ${ }^{1}$ Certainty institutions were selected by identifying the institutions with the largest number of graduates with science, engineering, and health bachelor's and master's degrees in the 2000-2001 and 2001-2002 academic years.

[^1]:    ${ }^{2}$ Prior to graduate sampling, the sampling frames (sampling lists received from the institutions) were unduplicated. These cases were generally due to double majors. For example, if a graduate received two eligible bachelor's degrees during the 2001 academic year, only one record was kept on the frame, recording one major as the first major and the other as the second major (according to a set protocol).

[^2]:    ${ }^{3}$ S\&E occupations include the following broad groups: biological, agricultural, and environmental life scientists; computer and information scientists; mathematicians and statisticians; psychologists; social and related scientists; engineers; and postsecondary teachers in science and engineering fields.

